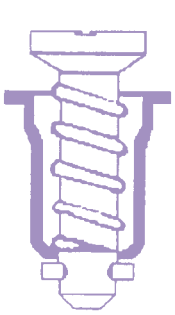
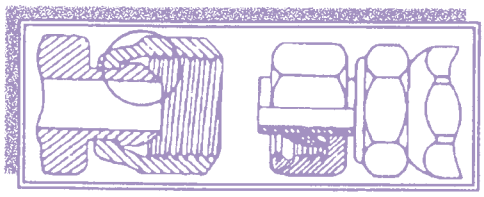
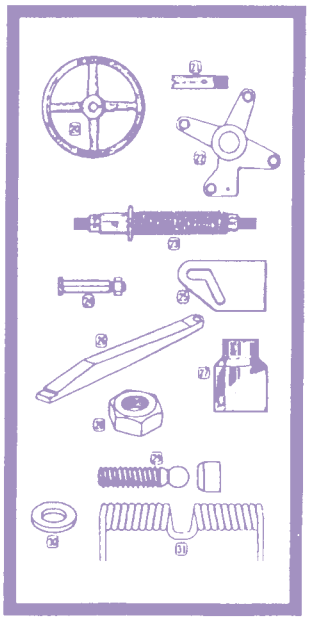
MAR 2001

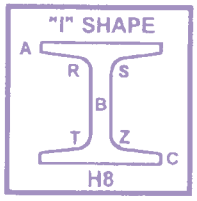
Section 1
FSG 20 thru 51

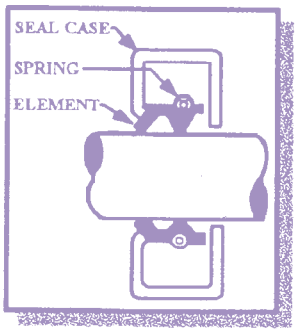
AFLOAT SHOPPING GUIDE

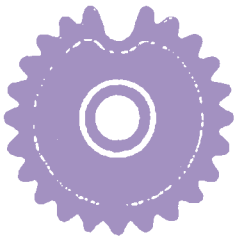












FOREWORD

PURPOSE

The purpose of this publication is to assist fleet personnel in identifying common items of supply.

SCOPE

The selection of types and quantities of items in the ASG publication is limited to items demanded by the afloat units. As a result, the ASG publication does not include all valid items in the Supply System.

REMINDERS

ILLUSTRATIONS

In this publication, illustrations are representative and typical of the item(s) described rather than exact representations, since the products of various manufacturers may vary some what in appearance.

REFERENCE NUMBERS

Manufacturer reference numbers appearing in the Afloat Shopping Guide are provided only where items descriptions were developed from manufacturer drawings.

CARGO USE

To determine if an item is available from the Combat Logistics Force Ship, refer to the latest edition of NAVSUP PUB 4998, Consolidated Afloat Requisitioning Guide-Overseas (CARGO). If listed, we recommend the selection and use of the items in the CARGO, because of the availability to deployed units.

SUPPLY MANAGEMENT DATA

Refer to the current Supply Management Data found in your Requisitioning data file for up-to-date information on unit price, unit of issue, and other supply management data.

Table of Contents

Index of Federal Supply Groups and Classes III
How to Use This Section VII
Buy Our Spare's Smart Program (BOSS) VIII
Publication Distribution IX
Plastic Removal in the Marine Environment (PRIME) X
Level 1 Fasteners XIII
Technical Assistance Phone Numbers XIV
Shipboard Approved Habitability Statement XV
Alphabetic Index of Approved Item Names XVII
Item Descriptive Data 1-1
NIIN Index 1-233

Index of Federal Supply Groups and Classes

GROUP 20

SHIP and MARINE EQUIPMENT

FSC 2040 — MARINE HARDWARE and HULL ITEMS 1-1

FSC 2090 — MISCELLANEOUS SHIP and MARINE EQUIPMENT 1-15

GROUP 26

TIRES AND TUBES

FSC 2640 — TIRE REBUILDING AND TIRE AND TUBE REPAIR MATERIALS 1-21

GROUP 30

MECHANICAL POWER TRANSMISSION EQUIPMENT

FSC 3030 — BELTING, DRIVE BELTS, FAN BELTS, and ACCESSORIES 1-23

GROUP 34

METALWORKING MACHINERY

FSC 3433 — GAS WELDING, HEAT CUTTING, AND METALIZING EQUIPMENT 1-29

FSC 3439 — MISCELLANEOUS WELDING, SOLDERING, and BRAZING SUPPLIES, AND ACCESSORIES 1-31

FSC 3441 — BENDING and FORMING MACHINES 1-37

FSC 3455 — CUTTING TOOLS for MACHINE TOOLS 1-39

FSC 3456 — CUTTING and FORMING TOOLS for SECONDARY METALWORKING MACHINERY 1-43

FSC 3460 — MACHINE TOOL ACCESSORIES 1-45

GROUP 39

MATERIAL HANDLING EQUIPMENT

FSC 3940 — BLOCKS, TACKLE, RIGGING AND SLINGS 1-49

GROUP 40

ROPE, CABLE, CHAIN, AND FITTINGS

FSC 4010 — CHAIN and WIRE ROPE 1-55

FSC 4020 — FIBER ROPE, CORDAGE, and TWINE 1-61

FSC 4030 — FITTINGS for ROPE, CABLE and CHAINS 1-63

Index of Federal Supply Groups and Classes

GROUP 41

REFRIGERATION, AIR CONDITIONING, and AIR CIRCULATION EQUIPMENT

FSC 4110 — REFRIGERATION EQUIPMENT 1-69

GROUP 42

FIRE FIGHTING, RESCUE, and SAFETY EQUIPMENT

FSC 4210 — PORTABLE FIRE FIGHTING EQUIPMENT 1-71

FSC 4220 — MARINE LIFESAVING and DIVING EQUIPMENT 1-77

FSC 4240 — SAFETY AND RESCUE EQUIPMENT 1-81

GROUP 45

PLUMBING, HEATING, and SANITATION EQUIPMENT

FSC 4510 — PLUMBING FIXTURES and ACCESSORIES 1-89

GROUP 47

PIPE, TUBING, HOSE AND FITTINGS

FSC 4710 — PIPE and TUBE 1-97

FSC 4720 — HOSE and TUBING, FLEXIBLE 1-101

FSC 4730 — FITTINGS and SPECIALTIES; HOSE, PIPE, and TUBE 1-111

GROUP 48

VALVES

FSC 4820 — VALVES, NONPOWERED 1-143

GROUP 49

MAINTENANCE AND REPAIR EQUIPMENT

FSC 4930 — LUBRICATION AND FUEL DISPENSING EQUIPMENT 1-157

FSC 4940 — MISCELLANEOUS MAINTENANCE and REPAIR SHOP SPECIALIZED EQUIPMENT 1-161

GROUP 51

HAND TOOLS

FSC 5110 — HAND TOOLS, EDGED, NONPOWERED 1-163

FSC 5120 — HAND TOOLS, NONEDGED, NONPOWERED 1-181

Index of Federal Supply Groups and Classes

FSC 5133 — DRILL BITS, COUNTERBORES, and COUNTERSINKS; HAND and MACHINE 1-213

FSC 5136 — TAPS, DIES, and COLLETS; HAND and MACHINE 1-217

FSC 5140 — TOOL and HARDWARE BOXES 1-223

FSC 5180 — SETS, KITS and OUTFITS of HAND TOOLS 1-227

How to use the ASG Catalog.

Each ASG Section has a complete Federal Supply Group/Class Index and an Alphabetical Index.

Each Section is in numeric order beginning with Page 1. Page Numbers are prefixed with the corresponding Section Number, for example: 1-25 is page 25 of Section 1. Accordingly, 3-30 is page 30 of Section 3.

WOULD YOU PAY $500.00 FOR A HAMMER?

Of course not, and Uncle Sam won't either. We've all heard horror stories about excessive prices being paid by the Government for supplies. Since its establishment, the Price Challenge Hotline has saved the Government millions of dollars. The Navy is committed to continuing the program's success in the future.

The person, best able, to identify instances of over-pricing is you, the customer. You are encouraged to take the time to consider if the price you are being charged is fair and reasonable. If you think you've found a case of over-pricing , please notify the Fitting Out and Supply Support Assistance Center (FOSSAC) by calling any of the numbers listed below. FOSSAC is the central point within the Navy for all pricing inquiries. Your challenge may also result in a cash award.

The Price Challenge Hotline voice mail, is available 24 hours per day, 7 days per week.

Toll Free: 1-(800) 628-2425
DSN: 646-2006
Commercial: (757) 443-2006
Fax DSN: 646-2019 Commercial: 757-443-2019
Web site: www.norfolk.navy.mil/price_fighters/pricehl.html

✯ Publication Distribution

For Automatic Distribution submit your request to NAVICP by mail, email or phone. A CD-ROM of the ASG will be included with your Catalog.

Commanding Officer
Naval Inventory Control Point - P
Code P333343.10
700 Robbins Avenue
Philadelphia Pa 19111-5098
Email: Harry_E_Laquintano@icpphil.navy.mil

Include your Unit Identification Code (UIC), point of contact, phone number and complete mailing address. For optimum response to your needs, also include your activity SNDL number.

✯ Problem Reporting

Suspected data errors should be addressed using the DLIS Publication Feedback Card provided in the back of the catalog.

Technical problems that cannot be resolved or for special assistance refer to the military service/agency shown in the Management Lists (ML-N and ML-C) microfiche under column header S/A.

Comments, questions, suggestions may be directed to:

Defense Logistics Information Service
74 N Washington Avenue
ATTN: DLIS-KNAB
Suite 7
Battle Creek, Mi 49017-3084
For Inquires contact Defense Logistics Information Service
Customer Support Center
DSN 932-4725 / 1-888-352-9333
Email: dlis-support@dlis.dla.mil
Fax: DSN 932-5305 / (616) 961-5305

PRIME

PLASTIC REMOVAL IN THE MARINE ENVIRONMENT

Dumping plastic at sea is harmful to the marine environment.

Each year about 100,000 marine mammals and 1 million birds die from ingestion or entanglement in plastic debris.

Plastic washes up near shores and on beaches, posing a litter problem.

Floating plastic can be a navigation hazard.

In accordance with the Marine Plastic Pollution Research and Control Act of 1987, U.S. Navy ships may no longer dispose of plastic at sea.

What is being done about the problem from a supply standpoint?

The PRIME Action Team at the Navy Inventory Control Point-Mech. is working to identify non-plastic substitutes for plastic consumables and packaging materials loaded on board ships.

As non-plastic alternatives to plastic items currently in use are identified , information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more ″wisely″, items recommended for shipboard use will be annotated with ″NP″ by the National Item Identification Number.

What can you do?

Make every effort to cut down on the amount of plastic coming aboard your ship by ordering those items annotated with ″NP″ or specified as non-plastics in the ASG in its item description.

If you know of an item packaged in or made of materials other than plastics that could replace plastic or plastic-packaged items at your duty station, then please notify the PRIME Program Manager by calling, Commercial (717) 605-5623 or DSN 430-5623, or by completing and faxing (717) 605-7686 or mailing the attached form. You may also email to vickie_m_edgar@icpmech.navy.mil

Together, we can make a difference in saving our marine environment.

PRIME

RECOMMENDATION FOR NON-PLASTIC ITEM

Recommend that the following non-plastic item be adopted for Navy shipboard use:

Item Name _____

Description _____

_____

NSN or Part Number _____

Manufacturer (or CAGE Code) _____

Unit of issue _____

Price _____

Other information _____

_____

Can the above item be substituded for a plastic item currently being used? If so what is it?

Item Name _____

Description _____

_____

NSN or Part Number _____

Manufacturer (or CAGE Code) _____

Unit of issue _____

Price _____

Other information _____

Fill in what you can and mail to the address on the reverse side. Please sign and give us your address and phone number should we need to contact you.

Rank/Rate Name _____

Address _____

Phone Number(s) _____

PRIME phone number at NAVICP-Mech is (717) 605-5623 or DSN 430-5623. Fax - (717) 605-7686 email address vickie_m_edgar@icpmech.navy.mil

DEPARTMENT OF THE NAVY

OFFICIAL BUSINESS

COMMANDING OFFICER
NAVAL INVENTORY CONTROL POINT-MECH
PRIME PM (CODE M077.A)
ATTN: VICKI EDGAR
5450 CARLISLE PIKE
PO BOX 2020
MECHANICSBURG PA 17055-0788

DO NOT STAPLE!
Note: fold on the dotted lines and tape close.

THIS CATALOG IS
NOT TO BE USED
FOR OBTAINING
FASTENERS FOR

LEVEL 1 / SUBSAFE SYSTEMS

CAUTION:

USE ONLY LEVEL 1/SUBSAFE STOCK PROGRAM FOR YOUR SYSTEM FASTENERS.

Main and auxiliary steam and catapult steam systems with a design temperature above 775 degess require Level 1 support. Use **NAVSEA Level 1 Catalog** 0948-LP-103-6010 to identify Level 1 fasteners, valves and piece parts. For other steam system fastener requirements, consult **Military Standard 777.**

Naval Ship's Technical Manual 0901-LP-075-0000 (S9086-CJ-STM-002), Chapter 075, provides additional information on the proper identification and use of threaded fasteners.

TECHNICAL ASSISTANCE

NOTE: Ask to speak to the Item Manager of your class

Defense Supply Center Columbus (DSCC)	**Phone**	**(614)**	**692-2271**
CLASSES: 2040, 2090, 3441, 4710, 4720, 4730, 4820, 4940, 5935, 5965, 5990, 6145	**DSN**		**850-2271**
Defense Supply Center Richmond (DSCR)	**Phone**	**(804)**	**279-4865**
CLASSES: 3433, 3439, 3455, 3456, 3460, 3940, 4010, 4030, 4240, 5940, 5970, 5975, 6135, 6140, 6160, 6645, 6670, 6685, 6810, 6830, 6840, 6850, 8120, 9150, 9320, 9330, 9340, 9350, 9390	**DSN**		**695-4865**
Defense Supply Center Philadelphia(DSCP)	**Phone**	**(215)**	**737-2336**
CLASSES: 3030, 4020, 4110, 4210, 4220, 4510, 4930, 5305, 5306, 5307, 5310, 5315, 5320, 5325, 5330, 5340, 5355, 5360, 5365, 5510, 5530, 6210, 6230, 6240, 6250, 6260, 6675, 7310, 7320, 7360, 8110, 8125, 9160, 9505, 9510, 9515, 9520, 9525, 9530, 9535, 9540	**DSN**		**444-2336**
Defense Personnel Support Center (DPSC)	**Phone**	**(800)**	**413-6789**
CLASSES: 7210, 8305, 8310, 8315, 8340, 8345, 8405, 8410, 8415, 8420, 8430, 8440, 8455, 8460, 8465, 8470			
General Products Commodity Center	**Phone**	**(817)**	**978-2051**
CLASSES: 5345, 5350, 5610, 5640, 5680, 7240, 7290, 7330, 7340, 7350, 7910, 7920, 7930, 9905, 9920	**DSN**		**874-3697/3698**
USA Tank Automotive (TACOM)	**Phone**	**(810)**	**574-6245**
CLASS: 2640	**DSN**		**786-6245**
National Furniture Center	**Phone**	**(703)**	**305-7003**
CLASSES: 7220, 7230	**DSN**		**664-0504**
Office and Supply and Paper Products	**Phone**	**(212)**	**264-0479**
CLASSES: 7510, 7520, 7530, 8105, 8115, 8135, 9310			
Tools and Appliances Acquisition Center (GSA)	**Phone**	**(816)**	**926-7315**
CLASSES: 5110, 5120, 5133, 5136, 5140, 5180, 5210, 8010, 8020, 8030, 8040	**DSN**		**465-7315**
GSA National Customer Service Center	**Phone**	**(800)**	**488-3111**
	DSN		**465-1416**

SHIPBOARD APPROVED **HABITABILITY** STATEMENT

CAUTION: THIS SECTION IS NOT TO BE USED FOR OBTAINING SHIPBOARD APPROVED HABITABILITY EQUIPMENT

This Afloat Shopping Guide section **does not** contain any shipboard approved habitability equipment/items. Shipboard approved equipment/items **are** available on-line at:

http://www.dt.navy.mil/code97/9780/9783/9783hp.html

All habitability equipment/items not identified in the above catalogs must be approved, in writing, prior to shipboard installation. NAVSURFWARCEN SHIPSYSENGSTA Philadelphia PA message, 171945Z Oct 97, provides specific instructions for their approval. Questions may be directed to:

Naval Surface Warfare Center (NSWCCD-SSES)
Ship Systems Engineering Station, Carderock Division
5001 S. Broad St.
Philadelphia Naval Business Center
Philadelphia, PA 19112-1403
Attn: Code 9783
Telephone (215) 897-7317 (DSN 443-7317)
Fax at (215) 897-7343 (DSN 443-7343).

A

ADAPTER,
- BUSHING 1-111
- GREASE GUN COUPLING 1-157
- QUICK CHANGE CHUCK 1-45
- SOCKET WRENCH 1-181
- STRAIGHT, FLANGE TO BOSS 1-111
- STRAIGHT, FLANGE TO HOSE 1-111
- STRAIGHT, HOSE TO BOSS 1-111
- STRAIGHT, PIPE TO BOSS 1-112
- STRAIGHT, PIPE TO GAS FITTING 1-112
- STRAIGHT, PIPE TO HOSE 1-112
- STRAIGHT, PIPE TO TUBE 1-112
- STRAIGHT, SWIVEL FLANGE TO HOSE 1-111
- STRAIGHT, TUBE TO BOSS 1-114
- STRAIGHT, TUBE TO HOSE 1-116
- TORQUE WRENCH 1-181

ADZ 1-163

AGITATOR, PAINT, SHAKER 1-161

ALIGNMENT TOOL,
- ELECTRONIC EQUIPMENT 1-181
- PLUNGER 1-181

ANCHOR, MARINE, FLUKED 1-1

ANVIL, JEWELER'S 1-181

APPLICATOR, NOZZLE 1-71

ARBOR, HOLE SAW 1-45

ARM ASSEMBLY, HEATED 1-15

ARM HINGE ASSEMBLY 1-81

ARM, WINDSHIELD WIPER 1-15

AUGER MACHINE, PIPE AND SEWER, POWER OPERATED 1-161

AUGER,
- PIPE AND SEWER, HAND 1-181
- WATER CLOSET, HAND 1-182

AURAL PROTECTOR,
- EAR SEALS 1-81
- SOUND 1-81

AWL, SCRATCH 1-182

AX,
- DOUBLE BIT 1-163
- PICK HEAD 1-71
- SINGLE BIT 1-163

B

BAFFLE,
- DECK DRAIN 1-89
- SOLDER EXTRACTOR 1-31

BAG,
- BREATHING, OXYGEN 1-81
- DIVING EQUIPMENT 1-79
- DOCUMENT SINKING 1-15
- LINEMAN'S TOOL, ROUND 1-223
- SHIP TO SHIP TRANSFER 1-15
- TOOL, ENVELOPE TYPE 1-223
- TOOL, SATCHEL 1-223
- WATERPROOF 1-85

BAIL, SHOCK ABSORBER 1-81

BALL END, WIRE ROPE, SWAGING 1-63

BAND, ELASTIC 1-85

BAR,
- CHISEL 1-163
- COMBINATION PRY AND SCRAPE 1-182
- PINCH 1-182
- PRY 1-182
- RESCUE TOOL 1-182
- WRECKING 1-182

BELT,
- DIVER'S 1-79
- FLAT 1-23
- POSITIVE DRIVE 1-23
- QUICK RELEASE 1-71
- TOOL, REPAIRMAN'S 1-223
- V 1-24

BELTING,
- FLAT 1-23
- V, ADJUSTABLE LINK 1-27

BELTS, V, MATCHED SET 1-26

BENDER SET, TUBE, HAND 1-182

BENDER, TUBE, HAND 1-182

BIT SET,
- AUGER 1-213
- CENTER 1-213

BIT,
- AUGER 1-213
- CENTER 1-213
- EXPANSIVE 1-213
- FORSTNER 1-213
- SCREWDRIVER 1-182
- WIRE WRAPPING, HAND 1-183

BLADDER, LIFE PRESERVER 1-77

BLADE,
- BAND SAW 1-39
- CARTON OPENER 1-163
- CIRCULAR SAW, METAL CUTTING 1-39
- COPING SAW 1-163
- HAND HACKSAW 1-164
- HOLE SAW 1-39
- JEWELER'S SAW 1-164

KEYHOLE SAW 1-164
KNIFE 1-163
KNIFE, CRASH RESCUE 1-164
LOWER, SHEAR CUTTER 1-43
POWER HACKSAW 1-39
SHEARING MACHINE 1-43
SOLDERING UNIT 1-31
THERMAL STRIPPER 1-40
UPPER, SHEAR CUTTER 1-43
WINDSHIELD WIPER 1-15
WIRE STRIPPER 1-164

BLANKET, FIRE 1-71

BLOCK,
LAPPING 1-45
TACKLE 1-49

BLOWER, WATCHMAKER'S 1-183

BOARD, ABSENTEE, OFFICER'S 1-15

BOLT, FLUID PASSAGE 1-118

BOOTS, DIVERS' 1-79

BOTTLE, FUEL SAMPLE 1-157

BOWL,
SEDIMENT 1-118
WATER CLOSET 1-89

BRACE, BIT RATCHET 1-164

BRACKET, FIRE EXTINGUISHER 1-71

BRAZING ALLOY,
COPPER 1-31
SILVER 1-31

BRAZING AND SOLDERING SET 1-29

BREATHING APPARATUS, OXYGEN GENERATING 1-81

BRUSH, WIRE, BATTERY 1-183

BUBBLER, DRINKING FOUNTAIN 1-89

BURNISHER, CONTACT, HAND 1-183

BUSHING,
DIESEL GENERATOR 1-118
PIPE 1-118

C

CABINET,
KEY 1-15
TOOL, MOBILE 1-223

CANISTER,
CHEMICAL-BIOLOGICAL MASK 1-81
GAS MASK, MK-5 1-81
OXYGEN GENERATING, BREATHING APPARATUS 1-81

CAP 1-79

CAP,
CANISTER 1-81
HOSE 1-119
LUBRICATION FITTING, PROTECTIVE 1-119
PIPE 1-119
QUICK DISCONNECT 1-119

CARRIER, TOOL 1-223

CARTRIDGE ASS'Y DISPOSABLE 1-183

CARTRIDGE,
AIR FILTER 1-81
CARBON DIOXIDE 1-77
FILTER, AIR BREATHING PUMP 1-81
GAS PRESSURE 1-71
RESPIRATOR, AIR FILTERING 1-81
RETAINER 1-82

CASE,
EMERGENCY EQUIPMENT, LIFE RAFT 1-77
TWIST DRILL 1-224

CATCH,
LEFT 1-82
RIGHT 1-82

CAULKING IRON, WOOD 1-183

CHAIN ASSEMBLY, SINGLE LEG 1-55

CHAIN,
BEAD 1-55
WELDED 1-55
WELDLESS 1-55

CHAIR,
AVIATOR'S READY ROOM 1-15
BARBER 1-15
BOATSWAINS 1-15
PEDESTAL SHIPBOARD BRIDGE WING 1-15
PEDESTAL WATCHSTANDER'S 1-16
STRAIGHT 1-16
TRANSFER AT SEA 1-77

CHEST, TOOL KIT 1-224

CHISEL AND PUNCH KIT, METALWORKING 1-227

CHISEL SET,
BUTT, WOOD-WORKING 1-165
COLD HAND 1-165
FIRMER 1-165

CHISEL,
BLACKSMITH'S 1-164
BRICK 1-164
BUTT, WOOD-WORKING 1-164
CAPE, HAND 1-164
COLD, HAND 1-165
DIAMOND POINT, HAND 1-165
FIRMER 1-165

FLOOR 1-165
HALF ROUND NOSE, HAND 1-165
PARING 1-165
RIVET BUSTER, HAND 1-165
SIDE CUTTING, HAND 1-165

CHUCK,
AIR INFLATING 1-120
DRILL 1-45
ELECTRODE, IONIZER 1-45

CLAMP,
C 1-183
HOSE 1-120
MATERIAL LIFTING 1-53
PLIER 1-183
SCREW, QUICK ADJUSTING 1-183
WIRE ROPE, BOLTED 1-63
WIRE ROPE, SADDLED 1-63
WIRE ROPE, THREADED 1-63

CLAMPING TOOL OUTFIT, STRAP BAND, HOSE 1-227

CLAMPING TOOL, STRAP BAND, HOSE 1-184

CLEANER SET, WELDING AND CUTTING TIPS .. 1-31

CLEAT, ROPE 1-1

COCK,
DRAIN 1-143
PLUG 1-144
POPPET DRAIN 1-144
SHUTOFF, SCREW STEM 1-144

COLLET, WELDING TORCH 1-29

CONNECTOR, MULTIPLE, FLUID PRESSURE 1-121

CONTACT POSITIONER TERMINAL CRIMPING TOOL 1-184

CONTAINER, GROMMET and PAINTER LINE ASSEMBLY 1-77

CONTROL VALVE, SHOWER 1-89

CONTROLLER, WINDOW HEATER 1-16

COOLING ASSEMBLY, AIRLINE RESPIRATOR 1-82

CORD ASSEMBLY, ELASTIC 1-61

CORD, FIBROUS 1-61

COT, FOLDING 1-16

COUNTERSINK 1-213

COUNTERSINK AND DRILL SET 1-213

COUNTERSINK SET 1-214

COUPLING ASSEMBLY,
EXHALATION 1-82
INHALATION 1-82
QUICK DISCONNECT 1-122

COUPLING HALF, QUICK DISCONNECT 1-123

COUPLING PIPE 1-121

COUPLING,
BEAD CHAIN 1-63
GREASE GUN 1-157
HOSE 1-71
TUBE 1-122

COVER,
LIFE PRESERVER 1-77
VALVE 1-82
VENTILATORY 1-1

CRIMPING TOOL, TERMINAL HAND 1-184

CROW BAR 1-184

CROWFOOT ATTACHMENT SOCKET WRENCH.. 1-184

CUP,
GREASE 1-125
PAINT, SPRAY GUN 1-161

CUTTER AND FLARING TOOL KIT, TUBE, HAND 1-227

CUTTER BIT, TOOL HOLDER 1-40

CUTTER,
BOLT 1-165
CABLE, HAND OPERATED 1-166
CIRCLE 1-166
GLASS 1-166
HOLE FORMING, DRIVE SHANK BOLT 1-214
INSERT 1-40
MILLING, END 1-40
PIPE 1-166
RIVET 1-167
STEEL STRAPPING 1-167
TILE, ASPHALT 1-167
TUBE 1-167
WIRE ROPE, HAND OPERATED 1-167

CUTTING ATTACHMENT, WELDING TORCH 1-29

CUTTING WHEEL,
PIPE CUTTER 1-167
TUBE CUTTER 1-167

CYLINDER,
CARBON DIOXIDE 1-77
COMPRESSED GAS 1-72

D

DEFLECTOR, VALVE, MASK 1-82

DEMAGNETIZER 1-161

DESK,
FLAT TOP 1-16
LOG 1-16

DESOLDERING TOOL 1-31

DESOLDERING TOOL, ELECTRIC 1-31

DESOLDERING WICK 1-31
DIE AND TAP SET, THREAD CUTTING 1-218
DIE SET, METAL STAMPING, HAND 1-167
DIE,
RETHREADING 1-217
THREAD CUTTING 1-217
DIESTOCK 1-218
DISK,
MASK, CHEMICAL 1-82
MASK, CHEMICAL-BIOLOGICAL 1-82
MASK, INLET VALVE 1-82
VALVE 1-82
DISPENSER,
DRINKING WATER, MECHANICALLY COOLED 1-69
FLUX SOLDER 1-31
GRAPHITE 1-157
PAPER TOWEL 1-89
SEALANT 1-184
SOAP 1-89
TOILET PAPER 1-89
DISPENSING PUMP, HAND DRIVEN 1-157
DOOR, METAL, MARINE STRUCTURAL 1-4
DRAIN,
FLOOR 1-90
LAVATORY 1-90
MULTIPLE WASTE 1-90
SINK 1-90
DRESSER, ABRASIVE WHEEL, HAND 1-184
DRIER, HAND, ELECTRIC 1-90
DRIFT, DRILL 1-185
DRILL BLANK SET 1-214
DRILL SET,
MASONRY, HAND 1-168
TWIST 1-215
DRILL,
BREAST 1-168
HAND 1-168
MASONRY, HAND 1-168
PUSH 1-168
TWIST 1-214
DRY CHEMICAL, FIRE EXTINGUISHER 1-72

E

EAR SEALS, AURAL PROTECTOR 1-82
EDUCTOR, AIR 1-125
ELBOW,
HOSE 1-126
TUBE TO BOSS 1-129
TUBE TO HOSE 1-129
ELECTRODE 1-31
ELECTRODE,
CUTTING, SOLID 1-31
RESISTANCE HEATING, SOLDERING AND BRAZING 1-31
WELDING 1-32
ELEMENT, SOLDER REFLOW 1-32
ESCAPE APPLIANCE ASSEMBLY 1-77
EXPANDER,
HOSE EXPANSION RING 1-161
TUBE 1-43
EXTENSION, SOCKET WRENCH 1-185
EXTINGUISHER,
FIRE, CARBON DIOXIDE 1-72
FIRE, DRY CHEMICAL 1-72
FIRE, FOAM 1-72
FIRE, WATER 1-72
EXTRACTOR SET, SCREW 1-186
EXTRACTOR,
CIRCUIT 1-185
ELECTRON TUBE 1-185
LAMP 1-185
SCREW 1-185
SCREW THREAD INSERT 1-186
STUFFING BOX AND PUMP PACKING 1-186
TAP 1-186
EYE-WASH STATION, LABORATORY 1-82
EYEGUARD 1-1

F

FACE PIECE, OXYGEN BREATHING 1-82
FACE, HAMMER, INSERTED 1-186
FASTENER, BEAD CHAIN 1-63
FAUCET,
DOUBLE 1-90
SINGLE 1-91
FENDER,
BOAT 1-1
MARINE 1-1
FERRULE, WIRE ROPE 1-64
FIBER ROPE ASSEMBLY, SINGLE LEG 1-61
FID 1-186
FILE HOLDER 1-170
FILE SET, HAND 1-170

FILE,
HAND 1-168
ROTARY 1-41
THREAD RESTORER 1-170
FILING CABINET 1-16
FILLER AND GAUGE ATTACHMENT 1-79
FILTER - LUBRICATOR ASSEMBLY, AIRLINE 1-158
FILTER AND OILER, AIRLINE 1-157
FILTER,
PARTICULATE 1-82
RESPIRATOR, AIR FILTERING 1-82
FINGER, MECHANICAL 1-186
FIRE STARTING TOOL, MAGNESIUM 1-83
FISHING KIT, EMERGENCY 1-77
FITTING, LUBRICATION 1-129
FLANGE, PIPE 1-130
FLARING TOOL, TUBE HAND 1-186
FLINT TIP, FRICTION IGNITER 1-187
FLUSH CONNECTION, URINAL-WATER CLOSET BOWL 1-92
FLUX,
BRAZING 1-32
SOLDERING 1-32
FOAM LIQUID, FIRE EXTINGUISHING 1-72
FORCE CUP, PLUMBER'S 1-187
FORCEPS, SHEET HOLDER 1-187
FOUNTAIN, EYE AND FACE WASH 1-83
FRAME,
COPING SAW 1-170
HAND HACKSAW 1-170
JEWELER'S SAW 1-171

G

GAGE SET, DIVER'S 1-79
GAGE, DEPTH, DIVER'S 1-79
GAUGE, SEA DIVER'S 1-79
GLOVE,
PROTECTIVE, CLEANER 1-161
SAND BLASTER 1-161
GLOVES, DIVERS 1-79
GOGGLES, INDUSTRIAL 1-83
GOUGE, FIRMER 1-171
GRAPNEL, MARINE 1-2
GREASE GUN, PNEUMATIC 1-158
GUARD, HOSE-TUBING 1-101
GUN,
AIR BLOW 1-161
FLUID DIRECT DELIVERY 1-158
SEALANT, HAND 1-187

H

HAMMER, HAND 1-187
HAMMER-BRUSH, WELDER'S 1-188
HAND SCREW 1-188
HANDLE,
CHISEL and GOUGE 1-171
DOUBLE BIT AX 1-171
ELECTRIC SOLDERING IRON 1-32
FILE 1-171
HAMMER 1-188
NOZZLE 1-73
SCREWDRIVER 1-188
SINGLE BIT AX 1-171
SOCKET WRENCH 1-188
SOLDER REFLOW 1-32
TORCH 1-32
HARNESS,
SAFETY, DIVER'S 1-79
SAFETY, INDUSTRIAL 1-83
HATCH, MARINE 1-9
HATCHET,
BROAD 1-171
CLAW 1-171
HALF 1-171
LATHING 1-171
HEAD HARNESS 1-84
HEAD,
SPRINKLER, FIRE PROTECTION 1-73
SPRINKLER, FIRE PROTECTION, FOAM WATER 1-73
HEAT GUN 1-32
HEAT SHIELD ASSEMBLY 1-17
HEATER ASSEMBLY 1-32
HEATER, GUN TYPE, ELECTRIC 1-161
HEATING ELEMENT, WIRE STRIPPER 1-32
HEATING UNIT, ELECTRIC SOLDERING IRON 1-33
HELMET, WELDER'S 1-84
HOLDER,
CUTTING TOOL 1-45
ELECTRODE, WELDING 1-33
INSERTED HAMMER FACE 1-189

SCREWDRIVER BIT, FEMALE SQUARE DRIVE 1-189
SHEET METAL, EDGE GRIP 1-189
SHEET METAL, HOLE 1-189
SOAP 1-92
SOLDERING IRON 1-33
WATER TUMBLER AND TOOTHBRUSH 1-92

HOOD AND FACE SEAL, DIVER'S MASK 1-79

HOOD, PAINT SPRAYER'S 1-84

HOOK 1-189

HOOK,
BOAT 1-2
CHAIN, S 1-64
GRAB 1-64
HELICAL SPRING PULLER, HAND 1-189
HOIST 1-64
PELICAN 1-64

HORN AND VALVE ASSEMBLY 1-73

HOSE AND SPRAY ASSEMBLY 1-92

HOSE ASSEMBLY,
AIR BREATHING 1-101
AIR DUCT 1-101
AIR DUCT, AIR BREATHING 1-84
METALLIC 1-102
NONMETALLIC 1-102

HOSE,
AIR DUCT 1-101
AIR DUCT, AIR BREATHING 1-84
NONMETALLIC 1-106
PREFORMED 1-108

I

ICEMAKER-DISPENSER 1-69

IGNITER, FRICTION 1-190

INFLATION ASSEMBLY, LIFE JACKET 1-78

INSERT SET, SOUND ISOLATION 1-131

INSERT,
CUTTING TOOL 1-42
SPECTACLES, MASK 1-84
TUBE FITTING 1-132

INSERTER AND REMOVER, STUD 1-190

INSERTER, ELECTRICAL CONTACT 1-190

INSTALLING AND REMOVAL TOOL,
CONNECTOR ELECTRICAL CONTACT 1-190
ELECTRICAL CONTACT 1-190

INSTALLING TOOL,
PLASTIC STRAP 1-190
TUBE PACKING RING 1-190

INTRENCHING TOOL, HAND 1-190

J

JACK KIT, HYDRAULIC, HAND 1-190

JACK, HYDRAULIC, HAND 1-190

JACKET, BUOYANCY AID 1-78

K

KEY SET, SOCKET HEAD SCREW 1-191

KEY,
DRILL CHUCK 1-45
SOCKET HEAD SCREW 1-191

KIT, REPLACEMENT AIRLINE FILTER 1-84

KNIFE SET, CRAFTSMAN'S 1-172

KNIFE,
CRAFTSMAN'S 1-171
DIVER'S 1-80
DRAW 1-172
ELECTRIC HEATING 1-172
POCKET 1-172
PUTTY 1-192
RESCUE 1-172
SCRAPING 1-172

L

LADDER, JACOB'S 1-17

LANYARD,
SAFETY BELT 1-84
SAFETY HARNESS 1-84

LAVATORY 1-92

LENS RING KIT ASSEMBLY 1-85

LENS,
COVER 1-84
FACE PIECE, OXYGEN BREATHING 1-84
GOGGLE, INDUSTRIAL 1-84
HELMET, WELDER'S 1-84

LEVER, MANUAL CONTROL 1-158

LIFE BOAT INFLATING ASSEMBLY 1-78

LIFE PRESERVER,
VEST 1-78
YOKE 1-78

LIFE RAFT, INFLATABLE 1-79

LINK,
CHAIN, CONNECTING 1-56
CHAIN, DETACHABLE 1-56
CHAIN, END 1-56

FUSIBLE, FIRE 1-74
LOCK ARM ASSEMBLY 1-2
LOCKER,
CLOTHING 1-17
MEDICAL 1-17
SAFE 1-18
STOWAGE 1-18
LOCKNUT, TUBE FITTING 1-132
LUBRICATING GUN, HAND 1-158
LUBRICATING UNIT, POWER OPERATED 1-158
LUBRICATION FITTING TOOL 1-192
LUBRICATOR 1-158

M

MACHETE, RIGID HANDLE 1-172
MALLET,
RAWHIDE 1-192
RUBBER 1-192
MANDREL,
MACHINE, SOLID 1-46
ROLLER TUBE EXPANDER 1-43
MANDREL-FLANGE 1-46
MANIFOLD, AIR LINE 1-80
MARLINE 1-61
MARLINESPIKE 1-192
MASK,
AIR FILTERING 1-85
AIRLINE 1-85
CHEMICAL-BIOLOGICAL MCU-2/P 1-85
DIVER'S 1-80
MINI-GUN, HOTAIR 1-161
MIRROR,
INSPECTION 1-192
REPLACEMENT, INSPECTION 1-193
MITER BOX 1-172
MOUTHPIECE, REGULATOR 1-80
MULTIPLIER, TORQUE WRENCH 1-193

N

NAIL SET ASSORTMENT 1-193
NIB, DIAMOND, WHEEL DRESSING 1-46
NIBBLING TOOL, SHEET METAL 1-173
NIPPERS, END CUTTING 1-173
NIPPLE,
HOSE 1-74
PIPE 1-132
TUBE 1-132
NOSECUP ASSEMBLY 1-85
NOZZLE APPLIANCE 1-74
NOZZLE,
CAULKING GUN 1-193
FIRE HOSE 1-74
FUEL AND OIL SERVICING 1-158
GARDEN HOSE 1-133
SPRAY, FLUID-EMULSION 1-133
NUT AND SCREWDRIVER 1-193
NUT,
SLIP JOINT 1-133
TUBE COUPLING 1-134

O

OAR 1-2
OIL GUN, PNEUMATIC 1-159
OILER,
AIRLINE 1-159
HAND 1-159
SELF FEEDING 1-159
OPENER, CARTON 1-173
OUTSERT ASSEMBLY 1-85

P

PACKING NUT 1-134
PAD ASSEMBLY, LIFTING BRACE 1-2
PAD EYE 1-2
PAD, WIPE, RESPIRATOR 1-85
PADDLE, BOAT 1-2
PALM, SEWING 1-193
PARTS KIT,
FAUCET 1-92
FAUCET, WASHER 1-93
FLUSH VALVE 1-93
FUEL AND OIL SERVICING NOZZLE 1-159
LIFE PRESERVER 1-79
NOZZLE APPLICATOR 1-74
SHOWER HEAD 1-93
SPRAY GUN 1-161
THROTTLE CONTROL 1-74
URINAL 1-93
WATER CLOSET 1-93
WATER MIXING VALVE 1-93
PIN ASSEMBLY, SAFETY 1-74
PINCH-OFF TOOL, TUBING 1-193

PIPE,
METALLIC 1-97
PLASTIC 1-98
PLANE,
BLOCK 1-173
JACK 1-173
RABBET 1-173
SMOOTH 1-173
PLATE,
FRONT 1-69
PROBE ASSEMBLY 1-2
PLIERS 1-193
PLIERS,
BRAKE REPAIR 1-194
DIAGONAL CUTTING 1-173
RETAINING RING 1-194
SLIP JOINT 1-195
PLUG AND FLANGE 1-18
PLUG,
HOSE 1-74
LOCKING, DETACHABLE CHAIN LINK 1-64
PIPE 1-134
TUBE FITTING, THREADED 1-135
TUBE REPAIR 1-135
PLUNGER,
FUEL RECEIVER 1-2
PACKING 1-2
PORTLIGHT 1-2
POUCH ASSEMBLY,
DYE MARKER 1-79
FLARE 1-80
POUCH,
LIFE PRESERVER 1-79
MECHANIC'S TOOLS 1-224
PRERINSE SPRAY UNIT 1-93
PRESS, LEAD SEAL, HAND 1-195
PRESSURIZING KIT, RADIO 1-161
PROPORTIONER, FOAM LIQUID INJECTION PUMP TYPE 1-74
PULLER KIT, UNIVERSAL 1-227
PULLER,
BATTERY TERMINAL 1-196
FUSE 1-196
MECHANICAL 1-196
PUMP LUBRICANT TRANSFER 1-159
PUMP, BUCKET, LUBRICATING HAND 1-159
PUNCH AND DIE SET,
KNOCKOUT 1-174
METAL CUTTING, HAND 1-174
PUNCH AND DIE,
GROMMET INSERTING 1-197
KNOCKOUT 1-174
PUNCH SET,
ALIGNING 1-197
CENTER SOLID 1-197
CUTTING, DOUBLE BOW 1-174
DRIVE PIN 1-197
PUNCH,
ALIGNING 1-196
CENTER, AUTOMATIC 1-196
CENTER, SOLID 1-197
CUTTING, DOUBLE BOW 1-174
CUTTING, REVOLVING HEAD 1-174
CUTTING, SINGLE BOW 1-174
DRIFT 1-197
DRIVE PIN 1-197
PRICK 1-197
TUBE BELLING, HAND 1-197

R

RACK,
BOOK 1-18
FIRE HOSE 1-74
MAGAZINE 1-18
TOWEL 1-93
RASP, HAND 1-174
RATGUARD, SHIP 1-3
RATLINE 1-61
REAMER SET, HAND 1-175
REAMER,
CYLINDER RIDGE 1-175
HAND 1-175
RECONDITIONING TOOL, PISTON RING GROOVE 1-175
REDUCER,
BOSS 1-136
HOSE 1-74
PIPE 1-135
REEL,
ASSEMBLY, HOSE 1-159
STATIC, DISCHARGE 1-159
REFRIGERATOR-FREEZER, MECHANICAL, FOOD 1-69
REMOVAL TOOL KIT, CONNECTOR ELECTRICAL CONTACT 1-198
REMOVAL TOOL, SPECIAL 1-198
REMOVER PIN 1-198
REMOVER, ELECTRICAL CONTACT 1-198

REPAIR KIT,
DIVING EQUIPMENT 1-79
INFLATABLE CRAFT 1-18
METALLIC PIPE AND GENERAL PURPOSE, DAMAGE CONTROL 1-137
PUNCTURE, PNEUMATIC TIRE 1-21
REPAIR TOOL, PNEUMATIC TIRE VALVE 1-198
RESPIRATOR, AIR FILTERING KIT 1-85
RESTORER, THREAD 1-218
RESTRICTOR UNIT, FLUID FLOW 1-137
RESTRICTOR, FLUID FLOW 1-137
RETRIEVING TOOL, MAGNETIC 1-198
RING BUOY, LIFESAVING 1-79
RING, WELDING, PIPE JOINT 1-137
RIVETER, BLIND HAND 1-198
ROD, WELDING 1-33
ROLL, TOOLS AND ACCESSORIES 1-224
ROPE,
FIBROUS 1-61
WIRE 1-56

S

SAW,
BACK 1-175
BOW 1-176
HAND, CROSSCUT 1-176
HAND, FINGER GRIP 1-176
HAND, METAL CUTTING 1-176
HAND, RIP 1-176
KEYHOLE 1-176
MITER BOX 1-176
SAWS, NESTED 1-176
SCISSORS,
ELECTRICIANS' 1-176
LADIES' 1-176
POCKET 1-176
SCRAPER SET, BEARING 1-177
SCRAPER,
BEARING 1-176
CARBON, FLEXIBLE 1-177
GLASS, RAZOR BLADE 1-177
SHIP 1-177
WOOD 1-177
SCREW GUIDE 1-216
SCREW STARTER, HAND 1-198
SCREWDRIVER BIT SET AND HANDLE 1-200
SCREWDRIVER SET 1-201
SCREWDRIVER SET,
CROSS TIP 1-200
CROSS TIP, STRAIGHT AND OFFSET 1-200
FLAT TIP 1-200
FLAT TIP AND CROSS TIP 1-200
JEWELER'S SWIVEL KNOB 1-201
OFFSET 1-201
SCREWDRIVER,
CROSS TIP 1-198
FLAT TIP 1-199
FLAT TIP-CROSS TIP 1-199
JEWELERS, SWIVEL KNOB 1-200
OFFSET 1-200
RATCHET 1-200
SCRIBER,
DIAMOND POINT 1-201
MACHINIST'S 1-201
SCUTTLE, MARINE 1-12
SEA ANCHOR 1-3
SEAL NUT, PIPE 1-137
SEAL RING, CLOSET BOWL FLANGE 1-93
SEAL,
CONICAL, FLARED TUBE FITTING 1-137
DOME 1-86
SEAT AND GASKET 1-137
SEAT,
BALL 1-137
VALVE 1-144
WATER CLOSET 1-93
SEIZER, SOLDERING 1-201
SEPARATOR, OIL AND WATER, SPRAY GUN 1-161
SERVER, DINING ROOM 1-18
SET BLOCK AND TACKLE 1-53
SHACKLE 1-64
SHACKLE,
SIDE 1-53
TOP 1-53
SHANK, ADAPTER 1-46
SHEARS,
BENT TRIMMERS 1-177
METAL CUTTING, HAND 1-177
PINKING 1-178
STRAIGHT TRIMMERS 1-178
TAILOR'S 1-178
SHIELD, SAFETY, PIPE FLANGE 1-137
SHORE, DAMAGE CONTROL ADJUSTABLE 1-18
SHOVEL, HAND 1-201
SHOWER BATH FIXTURE 1-93

SHOWER HEAD 1-93
SIAMESE CONNECTION, FIRE HOSE 1-75
SLEEVE,
BULKHEAD and DECK 1-3
CLINCH, TUBE FITTING 1-137
COMPRESSION, TUBE-HOSE FITTING 1-138
FLARED, TUBE FITTING 1-138
REINFORCING, HOSE 1-108
SAFETY, CLIMBING 1-86
SLING,
CARGO, NET 1-53
ENDLESS 1-54
MULTIPLE LEG 1-54
PALLET 1-54
SLOTTER AND SCRAPER, COMMUTATOR, HAND 1-178
SLOTTING TOOL, COMMUTATOR, HAND 1-178
SNORKEL 1-80
SOCKET SET, SOCKET WRENCH 1-202
SOCKET WRENCH ATTACHMENT, SCREWDRIVER 1-203
SOCKET,
SOCKET WRENCH 1-202
TAPER SHANK TOOL 1-46
WIRE ROPE 1-65
SOLDER EXTRACTOR, TIP 1-33
SOLDER,
LEAD ALLOY 1-33
LEAD-TIN ALLOY 1-34
TIN ALLOY 1-34
SOLDERING AID TOOL 1-34
SOLDERING AND BRAZING OUTFIT, RESISTANCE HEATING 1-34
SOLDERING GUN 1-34
SOLDERING IRON,
CORDLESS, ELECTRIC 1-34
ELECTRIC 1-34
SOLDERING PENCIL, ELECTRIC 1-34
SOLDERING STATION 1-35
SPATULA SET 1-203
SPECTACLES, INDUSTRIAL 1-86
SPLIT MANDREL 1-46
SPLITTING TOOL, NUT 1-178
SPOKESHAVE 1-178
SPONGE AND TRAY, TIP CLEANER 1-35
SPRAY GUN, PAINT 1-162
SPRAY KIT, SELF PRESSURIZED 1-162
SPRING, REINFORCING, HOSE 1-108
SPRINKLER TYPE 1-73
SPUD, WATER CLOSET 1-138
SPUDGER 1-203
STOOL, REVOLVING 1-18
STOPPER, WASTE DRAIN 1-94
STRAINER ELEMENT, SEDIMENT 1-138
STRAINER,
HULL INTAKE 1-3
PRESSURE, FIRE HOSE 1-75
SEDIMENT 1-138
SUCTION 1-75
STRAND, WIRE 1-57
STRAP,
HOSE REEL 1-159
SAFETY, INDUSTRIAL 1-87
WRIST GROUNDING 1-87
STRIPPER,
CABLE, HAND 1-178
WIRE, HAND 1-178
SUPPORT, FACE PIECE 1-87
SWAGING SLEEVE, WIRE ROPE 1-66
SWEATBAND, WELDERS HELMET 1-87
SWIM FINS 1-80
SWING JOINT, TUBE 1-139
SWIVEL, LINK AND JAW 1-66

T

TAB, PULL, BREATHING 1-87
TABLE,
CHART 1-18
DINING 1-19
TACKER 1-203
TAILPIECE, WASTE DRAIN 1-94
TANK, PRESSURE-FEED, FINISHING-MATERIAL 1-162
TAP SET, THREAD CUTTING 1-220
TAP, THREAD CUTTING 1-218
TAPE,
DIVER'S MASK 1-80
LACING AND TYING 1-62
TEE,
BOSS 1-139
PIPE 1-139
PIPE TO TUBE 1-140
TUBE 1-140

TUBE TO BOSS 1-140

TERMINAL,
WIRE ROPE, STUD 1-66
WIRE ROPE, SWAGING 1-67

THIMBLE, ROPE 1-67

THREAD CUTTER, DIE HEAD, HAND 1-220

THREADING SET,
PIPE 1-227
SCREW 1-227

TIP,
CUTTING TORCH 1-29
DESOLDERING, SUCTION DEVICE 1-35
ELECTRIC SOLDERING GUN 1-35
ELECTRIC SOLDERING IRON 1-35
NOZZLE, FIRE HOSE 1-75
RESISTANCE SOLDERING 1-35
SOLDER EXTRACTOR 1-35

TOOL BOX, PORTABLE 1-224

TOOL KIT,
AIR TUBING 1-228
AUTOMOTIVE ELECTRICAL 1-228
BLIND RIVET 1-229
ELECTRICAL CONTACT 1-229
ELECTRICAL REPAIR 1-229
ELECTRICIAN'S 1-229
ELECTRONIC SYSTEM 1-229
GENERAL MECHANIC'S 1-229
GENERAL OFFICE REPAIR 1-230
MODULE REPAIR 1-230
MULTI PLIER 1-179
SCREW THREAD INSERT 1-230
TEST SET 1-231
TUNE UP 1-231

TOOL RETAINER 1-226

TOOL SET, AIR COMPRESSOR 1-231

TOOL,
ANTIWICKING 1-203
WIRE UNWRAPPING, HAND 1-204

TORCH BODY, WELDING 1-29

TORCH OUTFIT, CUTTING AND WELDING 1-30

TORCH SET, CUTTING AND WELDING 1-30

TORCH,
CUTTING 1-29
WELDING 1-29

TORQUE SCREWDRIVER KIT 1-231

TRAP, DRAIN, PLUMBING FIXTURE 1-94

TRAVELER ASSEMBLY, FIXED 1-87

TREAD, METALLIC, NONSKID 1-19

TRIPLE VALVE WATER THIEF 1-75

TROWEL 1-204

TUBE AND FLUE CLEANER, BOILER, INTERNAL 1-162

TUBE ASSEMBLY,
METAL 1-100
TEST 1-75

TUBE,
BREATHING 1-87
BREATHING BAG 1-87
DRINKING 1-85
METALLIC 1-98

TUBING ASSEMBLY, NONMETALLIC 1-108

TUBING, NONMETALLIC 1-108

TUNING WAND, ELECTRONIC EQUIPMENT 1-204

TURRET HEAD ASSEMBLY, CONTACT POSITIONER, CRIMPING TOOL 1-204

TWEEZER, RESISTANCE SOLDERING 1-35

TWEEZERS, CRAFTSMAN'S 1-204

TWINE, FIBROUS 1-62

U

ULTRASONIC DEGREASER 1-162

UNION, PIPE 1-141

UNIVERSAL JOINT, SOCKET WRENCH ATTACHMENT 1-204

URINAL, STATIONARY 1-94

V

V-BLOCK SET, MATCHED 1-46

VALVE ASSEMBLY,
COMBINATION 1-87
EXHALATION 1-87
INHALATION 1-87

VALVE CORE 1-21

VALVE EXTENSION, TIRE 1-21

VALVE,
ANGLE 1-144
BALL 1-146
BUTTERFLY 1-146
CARTRIDGE 1-146
CHECK 1-146
CONTROL, AUTOMATIC SPRINKLER 1-75
EXHAUST, ORAL-NASAL 1-80
EXPANSION 1-148
FIRE EXTINGUISHER 1-75
FLOAT 1-148
FLUSH 1-94

FOOT 1-148
GATE..... 1-148
GLOBE..... 1-149
LIFT CHECK..... 1-151
PLUG 1-151
PNEUMATIC INFLATOR 1-79
PNEUMATIC TANK..... 1-152
PNEUMATIC TIRE..... 1-21
REGULATING, FLUID PRESSURE 1-152
REGULATING, TEMPERATURE..... 1-154
RELIEF, PRESSURE AND TEMPERATURE ... 1-154
SAFETY RELIEF..... 1-154
STOP CHECK..... 1-155
WATER MIXING 1-94

VISE PIN 1-205

VISE,
BENCH AND PIPE 1-205
BENCH, CLAMP BASE 1-204
MACHINE TABLE 1-46
MACHINIST'S 1-205
MULTIPOSITION..... 1-205

VOICEMITTER, ASSEMBLY 1-85

W

WARDROBE..... 1-19

WEDGE,
JOINT BREAKING 1-205
TOOL HANDLE..... 1-205

WEIGHT,
CANVAS BAG 1-19
DIVER'S 1-80

WHEEL,
ABRASIVE..... 1-46
BUFFING..... 1-47
FLAP ABRASIVE 1-47

WINDOW, HEATED, ELECTRICAL..... 1-19

WINDSHIELD WIPER, MARINE..... 1-19

WIPER, WINDOW, PENDULUM..... 1-19

WIRE ROPE ASSEMBLY, SINGLE LEG..... 1-58

WORK STATION KIT, ELECTROSTATIC
CONTROL 1-162

WRENCH SET,
BOX 1-210
COMBINATION BOX AND OPEN END 1-210
COMBINATION BOX AND OPEN END BOX ... 1-210
CROWFOOT, RATCHETING 1-210
OPEN END, FIXED 1-211
RATCHET 1-211
SOCKET..... 1-211
SOCKET HEAD SCREW SOCKET WRENCH
ATTACHMENT 1-212

WRENCH,
ADJUSTABLE 1-205
BOX 1-205
BOX AND OPEN END COMBINATION 1-206
DRAIN PLUG 1-206
IMPACT, MANUAL 1-206
OPEN END 1-206
OPEN END BOX 1-207
PIPE..... 1-207
PLIER..... 1-207
RATCHET 1-208
SOCKET..... 1-208
SPANNER..... 1-208
SPUD CLOSET, INTERNAL, ADJUSTABLE.... 1-209
TAP AND REAMER 1-209
TORCH AND REGULATOR 1-209
TORQUE 1-209

WRIST STRAP WITH CORD 1-162

WYE, QUICK DISCONNECT 1-141

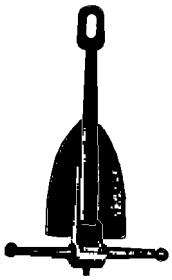
GROUP 20
SHIP AND MARINE EQUIPMENT

CLASS 2040
MARINE HARDWARE AND HULL ITEMS

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ANCHOR, MARINE, FLUKED

NONFOULING TYPE 30 pound, 30-1/4 inch shank. Two sharp double-swinging 17-1/2 inch flukes with stock located at crown end. With shackle ready for use. Galvanized.



00-287-9702	Bronze and Steel per Spec Mil-A-16210 or Mil-A-17254.
00-377-8597	Cast Steel per Spec Mil-A-15707, Model A or pressed and Forged Steel per Spec Mil-A-15708.

CLEAT, ROPE

SINGLE BASE

Bronze or Gunmetal.

Steel, Cast, Galvanized.

Base is: 5 inch length by 3-3/4 inch width by 2-3/8 inch height. Closed design form. For size 1-1/4 inch to 1-1/2 inch rope size. NAVSEA Drawing number S1201-860099PC1.

	O/A horn Lg
00-244-1335	8 In.

Base is: 10 inch length by 7-7/8 inch width by 4-3/4 inch height. Closed design form. Used for 3-1/4 to 3-1/2 inch. Rope size.

	O/A horn Lg
00-244-1331	16 In.

COVER, VENTILATORY

Round access covers for non-watertight ducts. Quick opening type. Aluminum. NAVSEA Drawings 805-1363775 and 805-1363776.

	Dia	NAVSEA Dwg Piece No.
00-616-5407	6	2, 4
00-616-5410	6	15, 16, 19
00-616-5409	8	2, 4
00-616-5426	8	13, 1
00-616-5408	12	1, 3
00-616-5412	12	13, 1

EYEGUARD

Rubber, 40 durometer. 2.80 inch by 2.74 inch with varying radii on outside surfaces.

01-158-5089

FENDER, BOAT

Air filled Plastic fenders to protect boats and harbor craft, from being damaged when alongside other boats or pier.

	Dia/In.	Lg/In.
00-815-4792	5	24
00-815-4791	8	30

FENDER, MARINE

Synthetic Rubber and Nylon cord fenders for ships. Cylindrical shaped. Plastic, unicellular foam filling. NAVSEA Drawing 805-1340571.

	Dia/In.	Lg/In.
00-821-0808	16	36
00-807-4197	24	36
00-128-7982*	32	50

* Synthetic Rubber and Nylon tire cord shell.

CLASS 2040

GRAPNEL, MARINE

Steel, Zinc Coated. Five prong. Six feet of 1/4 inch chain attached to grapnel by means of a pear-shaped connecting link. A second pear-shaped connecting link attached to other end. A round thimble capable of accommodating a 1-1/2 inch circular rope is fitted to second pear-shaped link. Mil Spec Mil-G-613.

4 POUND GRAPNEL

	Shank	Spread
00-287-9644	12 In.	7 In.

15 POUND GRAPNEL

	Shank	Spread
00-238-9060	19 In.	12 In.

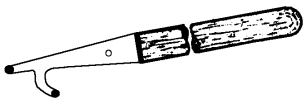
Nonmagnetic material, Zinc coated. Five pronged.

4 POUND GRAPNEL

	Shank	Spread
00-287-9643	2 In.	7 In.

HOOK, BOAT

Bronze boat hook, 7 inch length, furnished with wood handle. Blunt ball point.



	Handle Lg/Ft
00-268-9251	8
00-268-9252	12

LOCK ARM ASSEMBLY

Steel, AMS 5528. With 2.940 inch width by 3.408 inch length by 4 mounting holes. .196 inch diameter, T-shaped, with .875 inch width. Stem, .125 inch thickness.

00-895-7076

OAR

Three-section metal oar. Aluminum construction with hollow handle. Completely buoyant. For use with inflatable life rafts carried in aircraft and with 7-person inflatable lifeboats. Mil Spec Mil-O-8626.

	Lg/Ft	
00-485-3010	6	Painted Green

One piece wood oar made of Ash, hard Maple or Red Elm. Coated with water resisting spar varnish or a varnish type sealer. Mil Spec Mil-0-39.

	Lg/Ft
00-262-4426	8

PAD ASSEMBLY, LIFTING BRACE

Consists of (10) Steel disks 2.156 inch diameter, .062 inch thickness, bonded to, (9) natural color Urethane pads. 1.625 inch diameter by .250 inch thickness. 2.875 inch overall length assembly. Adhesive bond to withstand 8000 pounds of axial compression load.

01-029-4157

PADDLE, BOAT

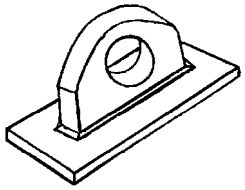
Single laminated wood blade. Painted finish. Without blade tip. Overall dimensions, 6 foot length, 6.812 inch width blade. For use with LCR-L and 26 foot motorized whaleboats. Mil Spec Mil-P-15737.

00-272-2227

PAD EYE

FORGED STEEL

Pad eye forging seams and pins are to be ground flush with body of pad eye. Bottom side of each foot to be ground flat. For capacity of 4,000 to 24,000 pound pad eyes, use Mil Spec Mil-C-20166. For 32,000 to 40,000 pound capacity, use Spec Mil-S-16974. GRADE 1023 pad eyes are to be welded in place with a 3/8 inch fillet completely around both feet. Capacity marked on foot. Eye stock diameter 1/2 inch. 4-1/4 inches long by 2-5/8 inches high by 1-3/4 inches wide.



	Capacity
00-813-5709	4000 Lb's

PLATE, PROBE ASSEMBLY

Consists of a Steel plate 9.70 inch overall diameter, 6.375 inch inside diameter and .500 inch thickness. 6 inserts included.

00-246-5192

PLUNGER, FUEL RECEIVER

Steel 18-8 Mil Spec Mil-S-7720, passivated. Fed Spec QQ-P-35. 4.437 inches overall length with .300 inch diameter. Stem is 4.187 inches long. Piston head .535 inch diameter, 160 inch thickness. NAVSEA Drawing 810-2255761PC-17. (For refueling at sea).

00-894-1033

PLUNGER, PACKING

Used in handle of W.T.Q.A. doors. Phosphor Bronze rod .312 inch diameter and 2.250 inch length. NAVSEA Drawing 805-1400053-6.

01-033-6240

PORTLIGHT

4.750 inch diameter. Round, plain, Steel frame. Frame opening diameter 4 inches. Frame outside diameter, 5 inches with frosted glass in Steel holder.

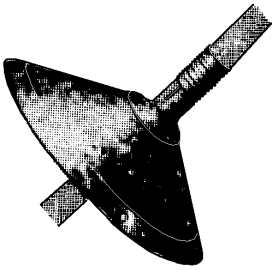
01-386-1441

12 inch diameter. Round, flanged, Aluminum frame. Frame opening diameter, 12.812 inches. Frame outside diameter 17.375 inches with removable hinge pin and .750 inch thick plate glass in holder. Aluminum holder and cover. Glass frame hinged on both sides.

00-753-3977

RATGUARD, SHIP

A conical shaped disk with a cylindrical sleeve. Made in two halves for ready installation and removal without disturbing mooring lines. Attached to line by lashing. Diameter of lines accommodated given below. Mil Spec Mil-G-2767.



Aluminum

	Dia Lines
00-277-4266	5 In.

Steel, Zinc Coated

	Dia Lines
00-272-2353	3 In.
00-272-2355	8 In.

SEA ANCHOR

Hemispherical shaped Nylon body. 15 inch length body, furnished with Nylon bridle and 50 feet of 1/4 inch thick Nylon cord. Used with inflatable boats. NAVSEA Drawing S8225-1298540.

00-368-2880

Nylon body and cord bridle with 12 inch length anchor body. 4 inch diameter opening at apex and 2 inch diameter mouth opening. Provided with 25 foot long mooring line. Intended for use with inflatable life rafts carried by air crewman or stowed in aircraft. Mil Spec Mil-A-3339.

00-273-9147

SLEEVE, BULKHEAD AND DECK

Used to run wires and pipes through decks and bulkheads on ships. Nominal pipe size listed.

	Size/In.
00-273-0684	3/8
00-273-0685	1/2
00-273-0686	3/4
00-273-0687	1
00-273-0688	1-1/4
00-273-0690	2
00-277-5784	2-1/2
00-277-5785	3
00-277-5787	4

STRAINER, HULL INTAKE

Brass. Size 5-1/4 inch by 8-1/4 inch. Scoop design and wood screw hole included. Weight, 2 pounds.

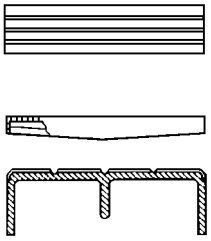
00-045-3575

TREAD, METALLIC, NONSKID

For use on inclined ladders, weather decks, or leading to weather decks. NAVSEA Drawing 860041.

NOTE: Aluminum treads shall not be used on Steel stringers above weather decks.

GROOVED TREAD



Aluminum Alloy basic material with Aluminum Oxide abrasive additive. Nonmagnetic.

Aluminum or Steel.

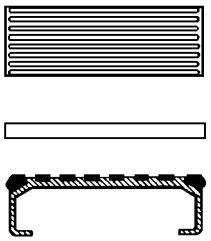
Drilled holes.

	Lg/In.	W/In.	H/In.
01-238-0934	20	6	1.750

End Bolt Holes

	Lg/In.	W/In.
01-247-7532	20	9
01-247-9618	24	4
01-247-9616	24	9

RIB-STUBBED TREAD



Aluminum or Steel, nonmagnetic.

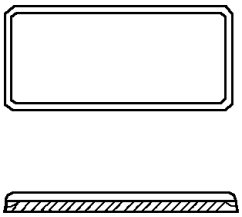
End Bolt Holes.

	Lg/In.	W/In.	H/In.
01-237-7089*	20	6	—
01-238-0934†	20	6	1.750
01-238-0937	20	9	1.750
00-269-0847	21	6	1.750
01-237-4056†	24	4	1.750
00-269-0848	24	6	1.750

	Lg/In.	W/In.	H/In.
01-238-0933†	24	6	1.750
01-237-3208‡	24	9	—

* Top drilled countersunk holes
† 2 coats Silicone Sealer after fabrication, Aluminum Oxide binder colored Black
‡ Drilled hole

OVERLAP THREAD

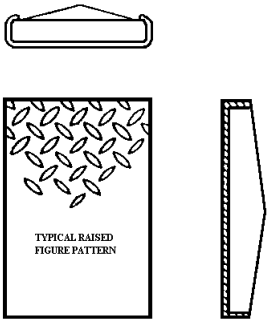


Galvanized Steel.

Epoxy Resin Abrasive Coated End Bolt Holes.

	Lg/In.	W/In.	H/In.
00-753-2863	20	4	1.875
00-753-2865	20	6	1.875
00-753-2867	20	9	1.875

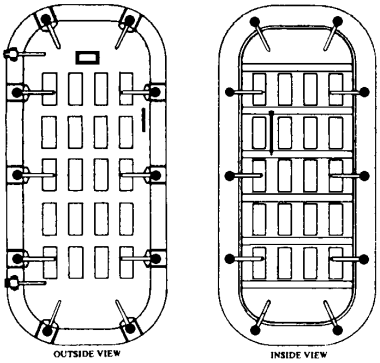
RAISED PATTERN



WATERTIGHT CLOSURES and ASSOCIATED REPAIR PARTS

DOOR, METAL, MARINE STRUCTURAL

Standard Individually Dogged Watertight Doors



Galvanized Steel. Without hasp assembly.

18 inch by 36 inch Door Opening. NAVSEA Dwg 805-1400073.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-554-6191	6	RH	4	.075	413
00-554-6190	6	LH	4	.075	414
00-554-3519	19	LH	6	.075	422

26 inch by 45 inch Door Opening. NAVSEA Dwg 805-1400071 and 805-1400072.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-880-6448	10	RH	6	.075	429
00-542-0206	10	LH	6	.075	382
00-542-0203*	13	LH	10	.120	310
00-542-0207	21	RH	8	.075	389
00-542-0208	21	LH	8	.075	390
00-554-6193	32	LH	10	.120	398

* 5/13 Gun Blast PSI.

26 inch by 54 inch Door Opening. NAVSEA Drawing 805-1400070 and 805-1623053.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-554-6205	16	LH	8	.075	358
00-554-6932	22	RH	10	.075	365
00-554-6931	22	LH	10	.075	366

26 inch by 66 inch Door Opening. NAVSEA Drawing 805-1400066.

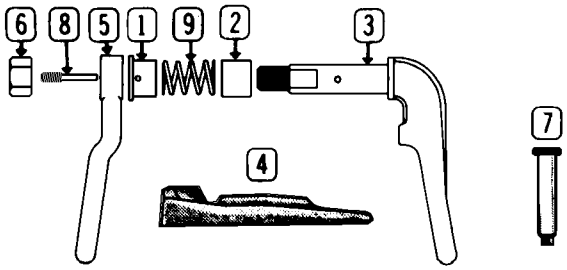
	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-542-0202*	10	RH	8	.075	317
00-542-0249	10	LH	8	.075	318
00-542-0195*	13	RH	10	.120	309
00-554-3525	15	RH	10	.075	301
00-554-3524	15	LH	10	.075	302

* 5/13 Gun Blast PSI.

30 inch by 66 inch Door Opening. NAVSEA Drawing 805-1626357.

	PSI	Door Swing	Dog Qty	Panel Thk In.	NAVSEA Assy No.
00-555-6383	5	RH	8	.075	477
00-555-6384	5	LH	8	.075	478
00-555-6378	13	RH	10	.120	469
00-555-6379	13	LH	10	.120	470

Repair Parts for Standard Individually Dogged Watertight Doors.



1 2 BUSHING DIMENSIONS

Dwg Pc. No.	Flange		I.D.	O.D.	Lgth.
	Dia.	Thk.			
3	—	—	1.127	1.377	1.125
4	1.750	.125	1.127	1.377	1.062

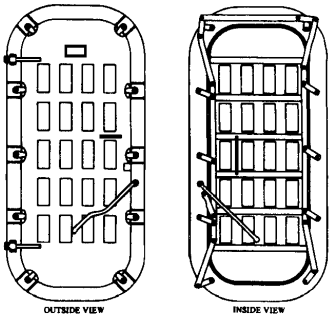
NAVSEA Drawing 805-1400067.

		Repair Parts Piece No.
01-104-1108*	Bushing, Flanged (Bearing, Sleeve)	PC 1
00-999-3106*	Bushing Plain	PC 2
00-770-8387	Dog, Watertight Door	PC 3
00-929-1191	Dog Assembly	—
00-770-8388	Dog Wedge, RH	PC 4
00-770-8389	Dog Wedge, LH	PC 4
00-735-4565	Handle, Door	PC 5
00-891-3461†	Nut, Plain, Hex	PC 6
00-841-1390‡	Pin Shoulder, Headed	PC 7
01-104-1052	Plunger Packing (Setscrew)	PC 8
00-690-5395	Spring, Helical Compression	PC 9

* FSC 3120.
† FSC 5310 and FSC 5360.
‡ FSC 5315, FSC 5305, NAVSEA Drawing 805-1400054.

NOTE: Wedges are to be welded to panels with Aluminum-Bronze electrodes, conforming to Mil Spec Mil-E-278.

Standard Quick Acting Watertight Doors, Lever Operates All Dogs at Once.



GALVANIZED STEEL, UNLESS NOTED, WITHOUT HASP ASSEMBLY.

18 inch by 36 inch Door Opening. NAVSEA Drawing 805-1400064.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-554-3533	15	RH	6	.075	253
00-554-3531	30	RH	6	.120	261

26 inch by 45 inch Door Opening. NAVSEA Drawing 805-1400061 and 805-1400062.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-554-3523	10	LH	6	.075	230
00-554-3526	20	RH	8	.090	237

26 inch by 54 inch Door Opening. NAVSEA Drawing 805-1400059 and 805-1400060.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-554-6211	15	RH	8	.090	197
00-554-6203	15	LH	8	.090	198
00-554-6202	30	RH	10	.120	213
00-554-6210	30	LH	10	.120	214

26 inch by 57 inch Door Opening. NAVSEA Drawing 805-1400057 and 805-1400058.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-542-0205	5	RH	8	.075	149
00-554-6214	12.5	RH	10	.075	165

26 inch by 66 inch Door Opening. NAVSEA Drawing 805-1400050, 805-1400056, and 805-1400065.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-914-3690*	2	RH	3	.075	—
00-914-3691*	2	LH	3	.075	—
00-912-5778*	10	LH	8	.075	—
00-542-0200	10	RH	8	.075	133
00-542-0201	10	LH	8	.075	134
00-554-3528	10	RH	8	.075	181
00-554-3527	10	LH	8	.075	182
00-542-0209†	13	RH	10	.120	117
00-542-0198†	13	LH	10	.120	118
00-912-6748*	15	LH	10	.075	—
00-554-6216	15	RH	10	.075	101
00-554-6215	15	LH	10	.075	102

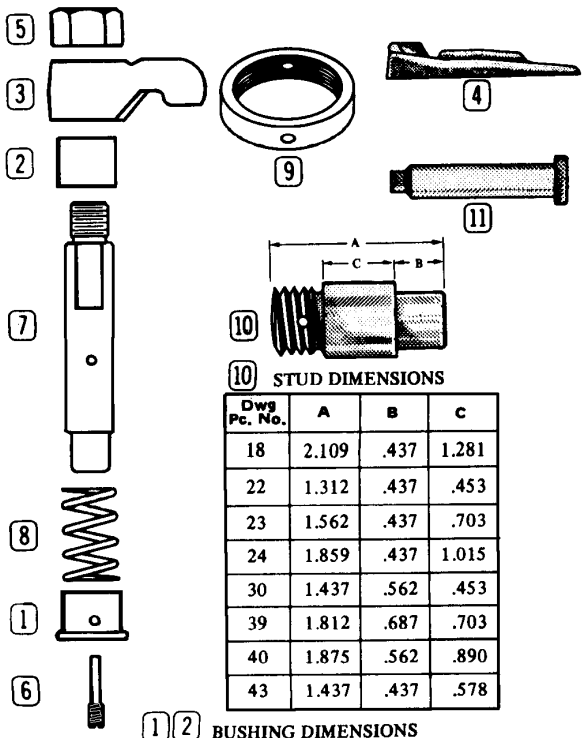
Corrosion Resisting Steel.
* Painted Steel
† 5/13 Gun Blast PSI.

30 inch by 66 inch Door Opening. NAVSEA Drawing 805-1626433 and 805-1626510.

	PSI	Door Swing	Qty Dogs	Panel Thk	Dwg No.
00-555-6382	5	RH	8	.075	517
00-555-6381	5	LH	8	.075	518
00-912-6172*	13	LH	10	.120	—
00-555-6386	13	RH	10	.120	501
00-555-6385	13	LH	10	.120	502

* Painted Steel.

Repair Parts for Standard Quick Acting Watertight and Airtight Doors.



10 STUD DIMENSIONS

Dwg Pc. No.	A	B	C
18	2.109	.437	1.281
22	1.312	.437	.453
23	1.562	.437	.703
24	1.859	.437	1.015
30	1.437	.562	.453
39	1.812	.687	.703
40	1.875	.562	.890
43	1.437	.437	.578

1 2 BUSHING DIMENSIONS

Dwg Pc. No.	Flange		I.D.	O.D.	Lgth.
	Dia.	Thk.			
4	1.625	0.125	1.002	1.252	1.062
5*	1.625	0.125	1.002	1.252	1.125
5**	——	——	1.002	1.252	1.125
15	——	——	0.752	0.935	0.375
16	——	——	0.752	0.938	0.500
17	——	——	0.752	0.938	0.625
19	——	——	1.002	1.252	1.812

*NAVSHIPS DWG 805-1400053
**NAVSHIPS DWG 805-1400051

Repair Parts for Standard Quick Acting Watertight Doors.

NAVSEA Drawing 805-1400051.

		Repair Parts Piece No.
01-134-8784*	Bushing, Flanged (Bearing Sleeve)	PC 1
01-109-5518*	Bushing, Plain (Bearing Sleeve)	PC 2
01-108-4530*	Bushing, Plain (Bearing Sleeve)	PC 2
00-770-8374	Dog, Watertight Door	PC 3
00-770-8388	Dog Wedge, RH	PC 4
00-770-8389	Dog Wedge, LH	PC 4
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
01-097-7966†	Nut, Plain, Hex, CRES	PC 5
01-045-9724	Plunger, Packing (Pin, Shoulder)	PC 6
01-103-8804	Setscrew, Dog Point	PC 6
00-770-8373	Spindle, Dog, 5-29/32 in. L	PC 7
00-735-4549	Spindle, Dog, 6-19/32 in. L	PC 7
00-802-1859	Spring, Helical, Comp.	PC 8

* FSC 3120, FSC 5360, FSC 5315, FSC 5305.
† FSC 5310.

NOTE: Wedges are to be welded to panels with Aluminum-Bronze electrodes, conforming to Mil-E-278.

NAVSEA Drawing 805-1400052.

		Repair Parts Piece No.
01-106-6754*	Bushing, Plain	PC 2
01-104-4965*	Bushing, Plain (Bearing Sleeve)	PC 2
01-104-4966*	Bushing, Plain (Bearing Sleeve)	PC 2
00-735-4548†	Collar (Nut)	PC 9

* FSC 5310.
† FSC 3120.

PIN, SHOULDER, HEADLESS

NAVSEA Drawing 805-1400052.

		Repair Parts Piece No.
00-735-4573*	Stud, Connecting Rod	PC 10
00-735-4567*	Stud, Conn Rod/Side Dog Lever	PC 10
00-735-4575*	Stud, Side Dog Lever	PC 10
00-735-4571*	Stud, Side Dog Lever	PC 10
00-735-4569*	Stud, Toggle/Hand Lever	PC 10
00-735-4578*	Stud, Toggle Link/Hand Lever	PC 10
00-735-4568*	Stud, Toggle to Dog	PC 10
00-735-4572*	Stud, Top/Bottom, Dog Lever	PC 10

* FSC 5315.

NAVSEA Drawing 805-1400053.

		Repair Parts Piece No.
01-103-8882*	Bushing, Hand, Lever (Bearing Sleeve)	PC 2
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
LL-HDF-M969‡	Nut, Plain, Hex, CRES	PC 5
01-033-6240	Plunger, Packing	PC 6
00-770-8385	Spindle, Dog 7 in. Lg	PC 7

* FSC 3120.
† FSC 5310.
‡ FSC 0099.

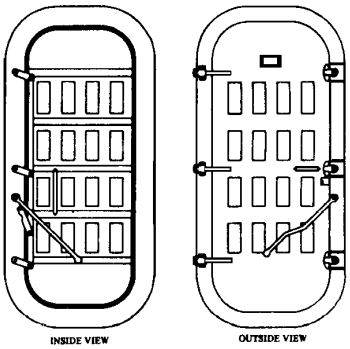
NAVSEA Drawing 805-1400054.

		Repair Parts Piece No.
00-841-1390*	Pin, Hinge (Pin, Shoulder, Headed)	PC 11

* FSC 5315.

Standard Quick Acting Airtight Doors

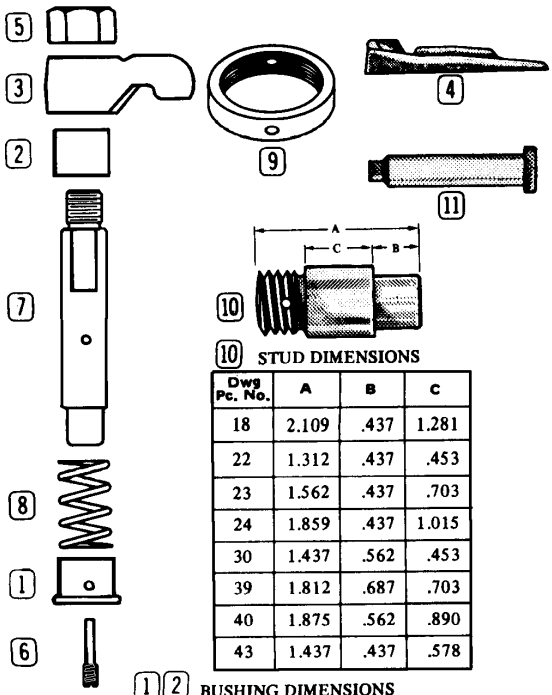
GALVANIZED STEEL, WITHOUT HASP ASSEMBLY. NAVSEA Drawing 805-1400074.



26 inch by 66 inch Door Opening.

	PSI	Door Swing	Thickness In.(s)	Assy Number
00-542-0192	2	RH	.075	445
00-542-0193	2	LH	.075	446

Repair Parts for Standard Quick Acting Watertight and Airtight Doors



10 STUD DIMENSIONS

Dwg Pc. No.	A	B	C
18	2.109	.437	1.281
22	1.312	.437	.453
23	1.562	.437	.703
24	1.859	.437	1.015
30	1.437	.562	.453
39	1.812	.687	.703
40	1.875	.562	.890
43	1.437	.437	.578

1 2 BUSHING DIMENSIONS

Dwg Pc. No.	Flange		I.D.	O.D.	Lgth.
	Dia.	Thk.			
4	1.625	0.125	1.002	1.252	1.062
5*	1.625	0.125	1.002	1.252	1.125
5**	—	—	1.002	1.252	1.125
15	—	—	0.752	0.935	0.375
16	—	—	0.752	0.938	0.500
17	—	—	0.752	0.938	0.625
19	—	—	1.002	1.252	1.812

*NAVSHIPS DWG 805-1400053
**NAVSHIPS DWG 805-1400051

NAVSEA Drawing 805-1400051.

		Repair Parts Piece No.
01-134-8784*	Bushing, Flanged (Bearing Sleeve)	PC 1
01-109-5518*	Bushing, Plain (Bearing Sleeve)	PC 2
01-108-4530*	Bushing, Plain (Bearing Sleeve)	PC 2
00-770-8374	Dog, Watertight Door	PC 3
00-770-8388	Dog Wedge, RH	PC 4
00-770-8389	Dog Wedge, LH	PC 4
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
01-097-7966†	Nut, Plain, Hex, CRES	PC 5
01-045-9724	Plunger, Packing (Pin, Shoulder)	PC 6
01-103-8804	Setscrew, Dog Point	PC 6
00-770-8373	Spindle, Dog, 5-29/32 in. Lg	PC 7
00-735-4549	Spindle, Dog, 6-19/32 in. Lg	PC 7
00-802-1859	Spring, Helical, Comp.	PC 8

* FSC 3120, FSC 5360, FSC 5315, FSC 5305.
† FSC 5310.

NOTE: Wedges are to be welded to panels with Aluminum-Bronze electrodes, conforming to Mil Spec Mil-E-278.

NAVSEA Drawing 805-1400052.

		Repair Parts Piece No.
01-104-4965	Bushing, Plain (Bearing Sleeve)	PC 2
01-104-4966	Bushing, Plain (Bearing Sleeve)	PC 2
00-735-4548*	Collar (Nut, Plain, Round)	PC 9

* FSC 5310, 3120

PIN, SHOULDER, HEADLESS

		Repair Parts Piece No.
00-735-4575*	Stud, Side Dog Lever	PC 10
00-735-4578*	Stud, Toggle Link/Hand Lever	PC 10

* FSC 5315.

NAVSEA Drawing 805-1400053.

		Repair Parts Piece No.
01-103-8882*	Bushing, Hand Lever	PC 1
00-764-6610†	Nut, Plain, Hex, Steel	PC 5
LL-HDF-M969‡	Nut, Plain, Hex, CRES	PC 5
01-033-6240	Plunger, Packing	PC 6
00-770-8385	Spindle, Dog	PC 7

* FSC 3120.
† FSC 5310.
‡ FSC 0099.

NAVSEA Drawing 805-1400054.

		Repair Parts Piece No.
00-841-1390*	Pin, Hinge	PC 11

* FSC 5315.

Standard Non-Tight Doors

GALVANIZED STEEL, WITHOUT HASP ASSEMBLY. NAVSEA Drawing 805-140007.

CLASS 2040

26 inch by 66 inch Door Opening.

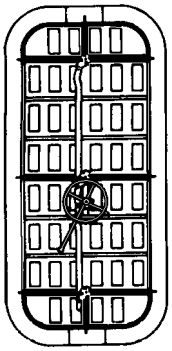
	Door Swing	Panel Thickness	NAVSHIP Dwg No.
00-542-0191	RH	.075	437
00-542-0219	LH	.075	438

NAVSEA Drawing 805-1400054.

		NAVSEA Piece No.
00-841-1390	Pin, Hinge	PC 6

Standard, Quick Acting, Sliding Dog, Airtight and Watertight Doors.

NAVSEA Drawing S1602-H-3199767.

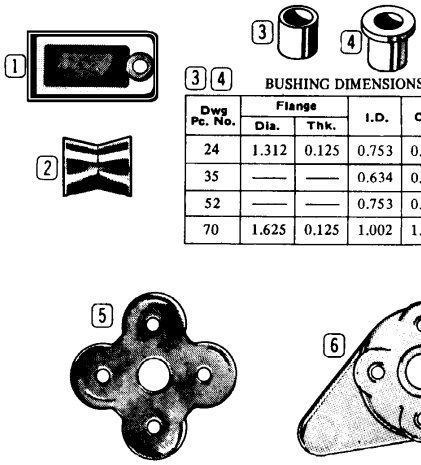


Repair Parts for Standard Quick Acting Sliding Dog Airtight and Watertight Doors

NAVSEA Dwg S1602-H-3175554.

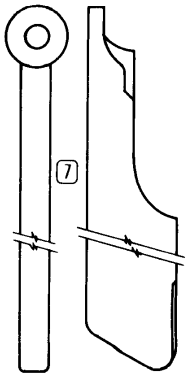
		Repair Parts Piece No.
01-084-7948	Bracket (Dog, Door Closer)	PC 1
00-735-4562	Bracket, Slide Plate	PC 2
01-089-2601	Bushing, Conn Rod (Sleeve)	PC 3
01-089-3772	Bushing, Conn Rod (Sleeve)	PC 3
01-089-2603	Bushing, Spindle (Sleeve)	PC 4
01-089-3773	Bushing, Spindle (Sleeve)	PC 4
01-117-0624*	Cap, Operating Crank, RH	PC 5
00-770-8382	Cap, Operating Crank, LH	PC 5
01-093-1552*	Dog, Slider Bar-Side, 18″ Door	PC 7
01-084-7926*	Dog, Slider Bar-Side, 24″ Door	PC 7
01-084-7927*	Dog, Slider Bar-Side, 26″ Door	PC 7
01-084-7936*	Dog, Slider Bar-Side, 26″ Door (Sp)	PC 7
01-084-7928*	Dog, Slider Bar-Side, 30″ Door	PC 7
01-084-7929*	Dog, Slider Bar-Side, 36″ Door	PC 7
01-085-8963*	Dog, Slider Bar-Side, 42″ Door	PC 7
01-084-7930*	Dog, Slider Bar-Side, 42″ Door (Sp)	PC 7
01-084-7923*	Dog, Slider Bar-Side, 54″ Door	PC 7
01-084-7924*	Dog, Slider Bar-Side, 54″ Door (Sp)	PC 7
01-084-7931*	Dog, Slider Bar-Side, RH 6″	PC 8
01-084-7932*	Dog, Slider Bar-End, LH 6″	PC 8
01-085-8964*	Dog, Slider Bar-End, RH 8″	PC 8
01-084-7933*	Dog, Slider Bar-End, LH 8″	PC 8
01-084-7935*	Dog, Slider Bar-End, 10″	PC 8
01-084-7934*	Dog, Slider Bar-End, 15″	PC 8
01-086-4724	Interlock Bracket Assy	PC 9
01-123-3007†	Pin, Shouldered, Headless	PC 10
01-123-8675†	Bolt, Shouldered	PC 11
00-690-5373	Spring, Compression	PC 12
01-083-6480‡	Washer, Conn. Rod	PC 13
01-130-9846‡	Washer, Conn. Rod	PC 13

* FSC 5340
† FSC 5315 FSC 5360
‡ FSC 5310



3 4 BUSHING DIMENSIONS

Dwg Pc. No.	Flange Dia.	Flange Thk.	I.D.	O.D.	Lgth.
24	1.312	0.125	0.753	0.938	1.500
35	—	—	0.634	0.752	0.375
52	—	—	0.753	0.938	0.875
70	1.625	0.125	1.002	1.252	1.500

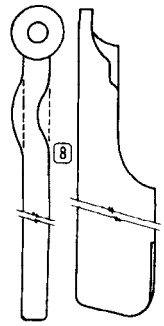


7 DOG, SLIDER BAR-SIDE

* Dwg Pc. No.	Door Width Inches	Dog Slider Bar-Side Lgth Inches
1	18	7.875
2	54	23.937
3	54 Special	25.562
4	22	9.875
5	24	10.875
6	26	12.000
7	30	13.937
8	36	16.937
9	42	19.937
10	42 Special	19.562
33	26 Special	11.625

*All Pc Nos. included Dog End Pc 17 Assembled to Dog, Slider Bar-Side.

NOTE: Illustrations 8 through 13 are on following page.



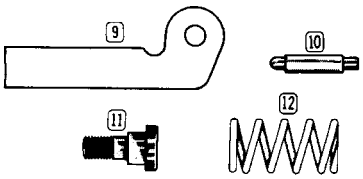
8 DOG, SLIDER BAR-END
Curved End

* Dwg Pc. No.	Type	℄ Spindle To Open	E
11	RH	6	5.125
12	LH	6	5.125
13	RH	8	7.125
14	LH	8	7.125

8 DOG, SLIDER BAR-END
Straight End

* Dwg Pc. No.	End Dog Span	E
15	15	14.062
16	10	9.000

*All Pc Nos. included Dog End Pc 17 Assembled to Dog Slider Bar-Side.



13 WASHER DIMENSIONS

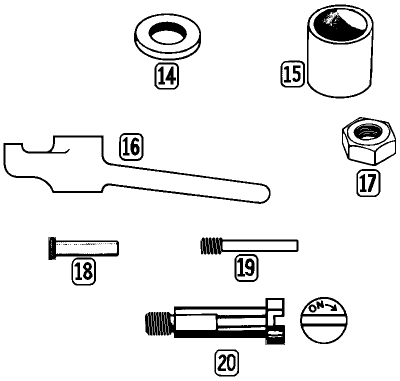
Dwg Pc. No.	I.D.	O.D.	Thk
36	0.656	1.000	0.062
111	0.656	1.750	0.062
112	0.656	1.500	0.125

HATCH, MARINE

Standard Individually Dogged Flush Hatches. Watertight.

FLUSH DESIGN. Operated from below. Without Scuttle.

Repair Parts for Standard Individually Dogged Flush Watertight Hatches



NAVSEA Drawing 805-1624105

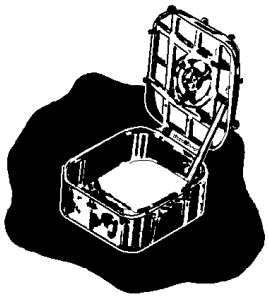
		Repair Parts Piece No.
01-108-4534*	Bearing, Plain	PC 14
01-108-4531*	Bushing, Plain (Bearing Sleeve)	PC15
01-093-1551	Dog, Angle	PC 16
00-735-4559	Dog, Straight	—
00-764-6610	Nut, Plain, Hexagon	PC 17
00-189-7383†	Pin, Hinge (Metal Bar)	PC 18
01-094-2863	Plunger, Packing (Screw)	PC 19
00-735-4558	Spindle, Dog	PC 20

* FSC 3120, FSC 5310, FSC 5340, FSC 5305.
† NAVSEA Drawing 805-1624106, FSC 9510, Mfg from metal bar.

Standard Individually Dogged Raised Watertight Hatches

RAISED DESIGN. Operated from above. With hasp assembly., 3/16 inch thickness 12 inch height coaming, except as noted.

WITH SCUTTLE



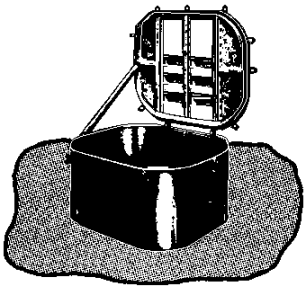
30 inch by 30 inch Hatch Opening. NAVSEA Drawing 805-1624092.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6923	30	—	1

30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624087.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-4059	30	Short Side	2

WITHOUT SCUTTLE



24 inch by 24 inch Hatch Opening. NAVSEA Drawing 805-1624090.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6194	15	—	1

24 inch by 30 inch Hatch Opening. NAVSEA Drawing 805-1624144.

	PSI	Hinge Location	NAVSEA Assy No.
00-540-5005	15	Long Side	5
00-540-5004	15	Short Side	6

30 inch 30 inch Hatch Opening. NAVSEA Drawing 805-1624093.

	PSI	Hinge Location	NAVSEA Assy No.
00-542-0211*	5	—	1
00-554-6941	5	—	1
00-554-6942	15	—	3

* NAVSEA Drawing 805-1624091

30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624070.

.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6938*	5	Short Side	10
00-554-6903	30	Long Side	1

* 7 inch High Coaming

30 inch by 48 inch Hatch Opening. NAVSEA Drawing 805-1624073.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-4060	5	Short Side	2
00-542-0213	15	Short Side	6

30 inch by 60 inch Hatch Opening. NAVSEA Drawing 805-1624075.

	PSI	Hinge Location	NAVSEA Assy No.
00-542-0214	5	Short Side	2
00-554-4067	15	Short Side	6

36 inch by 42 inch Hatch Opening. NAVSEA Drawing 805-1624077.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-4039*	15	Short Side	6

* 7 inch High Coaming

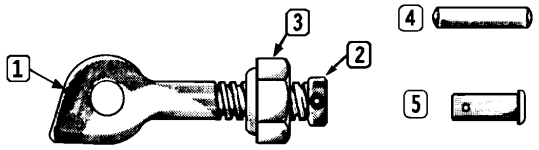
42 inch by 48 inch Hatch Opening. NAVSEA Drawing 805-1624081.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6196	15	Long Side	6

48 inch by 48 inch Hatch Opening. NAVSEA Drawing 805-1624082.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6198	15	—	3

Repair Parts for Standard Individually Dogged, Raised Watertight Hatches



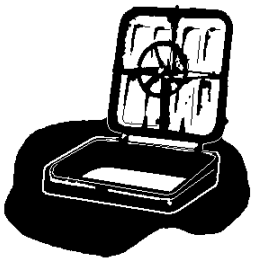
NAVSEA Drawing 805-1624071.

		Repair Parts Piece No.
00-770-8390	Bolt, Dog	PC 1
00-701-2800*	Collar, Shaft	PC 2
00-772-9259	Nut, Dog	PC 3
00-802-2938†	Pin, Dog, Pad	PC 4
00-753-3875†	Pin, Hinge	PC 5

* FSC 3040.
† FSC 5315.

Standard Quick Acting Hatches, Watertight

FLUSH DESIGN. Operated from below. Steel. Withought hasp assembly.

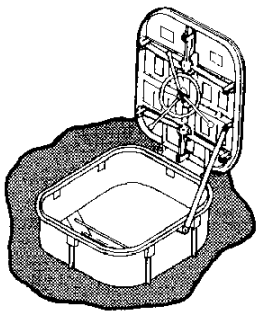


30 inch by 36 inch Hatch Opening. NAVSEA Drawing 805-1624135.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6887*	15	Long Side	3

* NAVSEA Drawing 805-1624136

RAISED DESIGN. Operated from above and below. Steel. With coaming 3/16 inch thick by 12 inch high With hasp assembly.



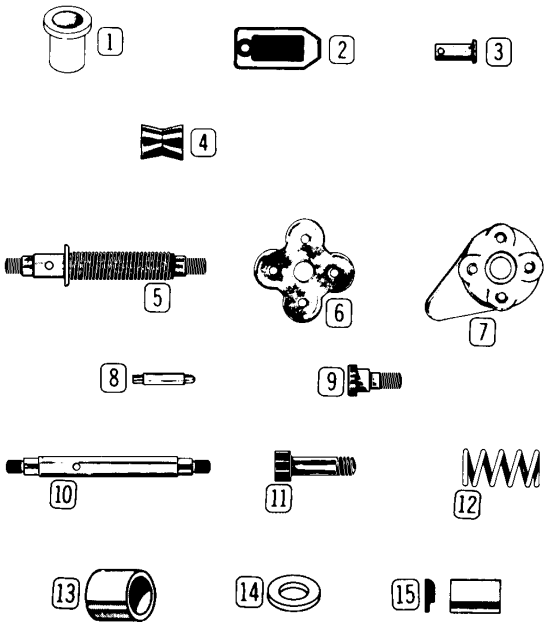
24 inch by 30 inch Hatch Opening. NAVSEA Drawing 805-1645097.

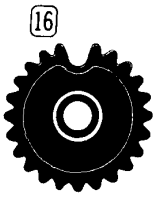
	PSI	Hinge Location	NAVSEA Assy No.
01-306-7834	5	Long Side	1

30 inch by 36 inch Hatch Opening. NAVSEA Drawng 805-1624120.

	PSI	Hinge Location	NAVSEA Assy No.
00-554-6925	5	Long Side	3
00-554-6924	5	Short Side	1
00-554-6904	15	Short Side	1

Repair Parts for Standard Quick Acting Watertight Hatches





1 13 BUSHING DIMENSIONS

Dwg Pc. No.	Flange Dia.	Flange Thk.	I.D.	O.D.	Lgth.
16	1.312	0.125	0.752	1.002	1.000
49	——	——	0.634	0.752	0.375
50	——	——	0.753	0.938	0.875
51	1.625	0.125	1.002	1.252	0.750
52	1.750	0.093	1.252	1.503	1.000
53	1.312	0.125	0.753	0.938	1.500
54	1.625	0.125	1.002	1.252	1.500

NAVSEA Drawing 805-1624129.

		Repair Parts Piece No.
01-097-8113*	Bushing, Dog (Bearing Sleeve)	PC 1
00-735-4563	Rest, Dog	PC 2
00-823-8634†	Pin, Clevis	PC 3
00-735-4562	Slide Plate, Dog	PC 4
01-093-1080	Spindle	PC 5

* FSC 3120.
† FSC 5315.

NAVSEA Drawing 805-1624130.

		Repair Parts Piece No.
00-770-8382	Cap, Operating Crank	PC 6
00-770-8383	Crank, Operating	PC 7
01-123-3007	Pin, Shouldered, Headless	PC 8
01-123-8675	Bolt, Shouldered	PC 9
00-770-8384	Shaft, Handwheel	PC 10
00-753-4219*	Spindle	PC 11
00-690-5373	Spring, Dog Rest	PC 12

* FSC 5306, FSC 5360, FSC 5315.

NAVSEA Drawing 805-1624131.

		Repair Parts Piece No.
00-957-7910*	Bushing, Flanged	PC 1
01-089-2602*	Bushing, Flanged	PC 1
01-089-2603*	Bushing, Flanged	PC 1
01-089-3773*	Bushing, Flanged	PC 1
01-089-2601*	Bushing, Plain	PC 13
01-089-3772†	Bushing, Plain	PC 13
01-083-6480†	Washer, Flat	PC 14
00-735-4556	Wedge, Dog	PC 15

* FSC 3120
† FSC 5310

NAVSEA Drawing 805-1624133.

		Repair Parts Piece No.
00-735-4534*	Gear, Worm Wheel	PC 16

* FSC 3020.

NAVSEA Drawing 805-1624134.

		Repair Parts Piece No.
00-753-3875*	Pin, Hinge	PC 3

* FSC 5315

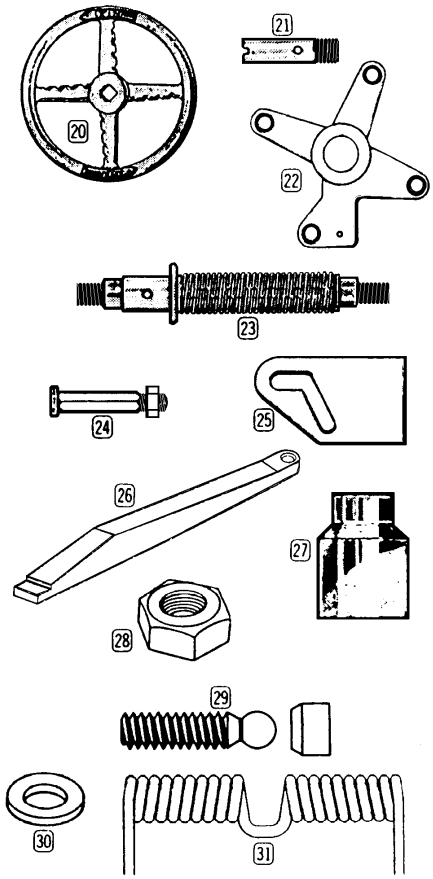
Standard Quick Acting Spring Balanced Hatches, Watertight.

RAISED DESIGN. Operated from above and below. Steel. Oval or rectangular shaped, with coaming 3/16 inch thickness by 12 inch height.

24 inch by 30 inch Oval Hatch Opening.

	PSI	Hinge Location	NAVSEA DWG 805-
00-542-0248	5	—	1626021

Repair Parts for Standard Quick Acting Spring Balanced Watertight Hatches.



NAVSEA Drawing 805-1626022.

		Repair Parts Piece No.
00-802-1838	Handwheel, Lower	PC 20
00-803-2326	Handwheel, Upper	PC 20
00-802-1858*	Pin, Spider	PC 21
00-770-8396	Spider	PC 22
00-770-8395	Spindle	PC 23

* FSC 5315.

NAVSEA Drawing 805-1626023.

		Repair Parts Piece No.
00-753-4217*	Bolt, Dog	PC 24
00-735-4550	Cam	PC 25
00-770-8391	Dog	PC 26
00-735-4551	Housing	PC 27
LL-HDF-M628†	Nut, Plain, Hex	PC 28
01-106-2805	Screw Assy. Adjusting	PC 29
01-168-8226	Washer, Flat	PC 30

* FSC 5306 and FSC 5310.

		Repair Parts Piece No.
00-770-8378*	Spring, Helical, Torsion Type A4	PC 31

† FSC 0099.

NAVSEA Drawing 805-1625831.

* FSC 5360

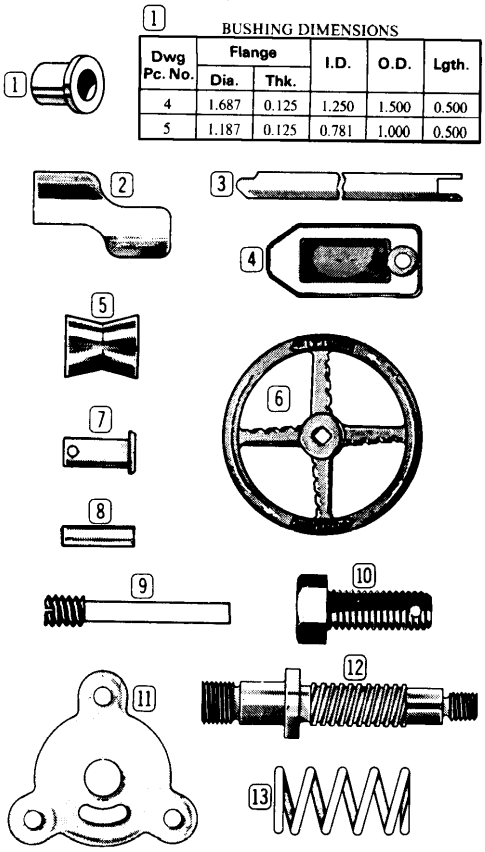
SCUTTLE, MARINE

Standard Quick Acting Scuttles, Watertight

FLUSH DESIGN. Operated by wrench from above and by handwheel from below. With Steel cover plate.

	PSI	OD	Dogs	NAVSEA Dwg 805-
00-554-6911	17	21 in.	3	1623056
00-554-6910	25	25 in.	4	1623057
00-725-4515	40	18 in.	3	1623055

Repair Parts for Standard Quick Acting, Flush Watertight Scuttles.



BUSHING DIMENSIONS

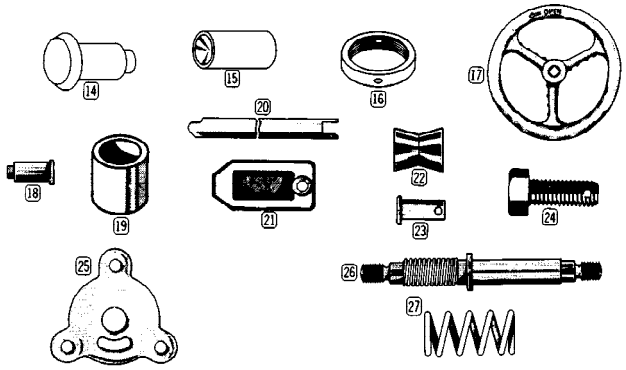
Dwg Pc. No.	Flange Dia.	Flange Thk.	I.D.	O.D.	Lgth.
4	1.687	0.125	1.250	1.500	0.500
5	1.187	0.125	0.781	1.000	0.500

NAVSEA Drawing 805-1623055.

		Repair Parts Piece No.
00-122-7037	Bushing, Flanged (Bearing, Sleeve)	PC 1
01-106-6753	Bushing, Flanged (Bearing, Sleeve)	PC 1
00-735-4564	Cam, Dog	PC 2
00-770-8394	Dog, 8-7/8 in. Lg	PC 3
00-771-2302	Dog, 10-7/16 in. Lg	PC 3
00-735-4563	Dog Rest	PC 4
00-735-4562	Dog Rest Slide Plate	PC 5
00-802-1835	Handwheel, 10 in. Dia	PC 6
00-802-1833	Handwheel, 13 in. Dia	PC 6
00-823-8634*	Pin, Clevis	PC 7
01-176-5990*	Pin, Hinge	PC 8
01-094-2568	Plunger, Packing	PC 9
01-131-6720	Screw, Adjusting	PC 10
00-770-8393	Spider, 3 Hole	PC 11
00-770-8392	Spindle	PC 12
00-690-5373†	Spring, Dog Rest	PC 13

* FSC 5315.
† FSC 5360, FSC 5306, FSC 3120.

Repair Parts for Standard Quick Acting Raised Watertight Scuttles



Standard Quick Acting, Raised Watertight Scuttles.

Operated by handwheel from above and below. With Steel cover plate and coaming 3/16 inch thick. NAVSEA Drawing 805-1623944, Rev D.

Coaming Height 1-1/2 inch to 2 inch.

	PSI	OD	Assembly
00-725-4519	27	25	A
00-725-4513	30	21	A
00-801-1048	30	21	A
00-727-5458	35	18	A

Coaming Height 6 inch.

	PSI	OD	Assembly
00-554-6909	16	21	B
00-753-3751	30	21	B
00-725-4514	35	18	B

NAVSEA Drawing 805-1623943.

		Repair Parts Piece No.
01-140-9950*	Brace Pin, Headed	PC 14
01-142-3595*	Brace Pin, Headless	PC 15
01-093-1079	Collar, Brace Pin 11/16	PC 16
01-082-2171*	Collar, Brace Pin 9/16	PC 16
00-802-1835	Handwheel, Lower, 10	PC 17
00-802-1833	Handwheel, Lower, 13	PC 17
00-802-1836	Handwheel, Upper, 10	PC 17
00-802-1834	Handwheel, Upper, 13	PC 17
00-802-1837*	Pin, Hinge	PC 18

* FSC 5315.

NAVSEA Drawing 805-1623944.

		Repair Parts Piece No.
01-097-8113	Bushing	PC 19
00-770-8394	Dog, 8-7/8	PC 20
00-771-2302	Dog, 10-7/16	PC 20
00-770-8379	Dog, 12-1/2	PC 20
00-735-4563	Dog Rest	PC 21
00-735-4562	Dog Rest Slide Plate	PC 22
00-823-8634*	Pin, Clevis	PC 23
01-103-7896†	Screw, Adjusting	PC 24
00-770-8393	Spider, 3 Hole	PC 25
00-770-8380	Spindle (Shaft, Shouldered)	PC 26
00-690-5373‡	Spring, Dog Rest	PC 27

* FSC 5315.
† FSC 5305 and FSC 3120.
‡ FSC 5360.

GASKETS

FOR WATERTIGHT CLOSURES REFER TO FSC 5330, RUBBER STRIP. SELECT APPROPRIATE SIZE AS REQUIRED.

CLASS 2090
MISCELLANEOUS SHIP AND MARINE EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ARM ASSEMBLY, HEATED

Reference Number 685 or KS-8372. Component of "Landing Craft, Utility"; part number LCU1671; end item 1905-01-009-1056.

01-064-2627

ARM, WINDSHIELD WIPER

BLACK COLOR PAINT. Non-adjustable, 20 inch length arm. Universal mounting position with collar type drive end mounting.

01-120-7303

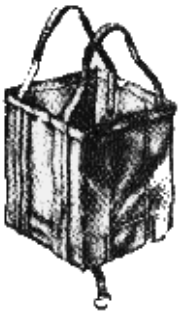
BAG, DOCUMENT SINKING

Cylindrical, White cotton, canvas bag with drawstring closure and slide lock at top. 44 inch height. Reinforced bottom with sewn in 18 inch diameter concrete weight. NAVSEA Drawing 805-1641047 PC 1T06.

00-059-6377

BAG, SHIP TO SHIP TRANSFER

Natural color cotton, canvas bag reinforced with cotton webbing. Cotton webbing slings and becket. 26 inch length by 39 inch height by 26 inch width. NAVSEA Drawing S1802-607397.



00-351-2299

BLADE, WINDSHIELD WIPER

STAINLESS STEEL holder with rubber insert, mounted with cotter pin. Insert is non-replaceable. Wiper arm not included.

NAVSEA Drawing 1203-1022034.

	Lg/In.
00-262-4417	8

RIGID HOLDER with rubber insert is non-replaceable. Wiper arm adapter not included. Overall length given in inches, mounting method (Mtg M) and Reference Number listed.

	Lg	Mtg M	Ref No.
01-139-4961	13	Unk	1618-13IN
00-809-4063	12	Hole	KS6091-56-12
01-168-6218	16	Screw	Unk
00-701-4378	16	Unk	N56-16
00-540-6460	18	Saddle	KS5069-56-18
00-549-5679	18	Hole	CC5047-47-18
00-540-6654	20	Saddle	56-20
01-168-4430	22	Screw	Unk

BOARD, ABSENTEE, OFFICER'S

Use colored tabs to Show the Aboard or Ashore status of officers. NAVSEA Drawing S3209-964111.

20 name capacity.

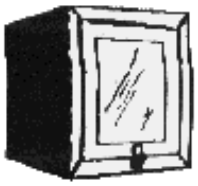
	H/In.	W/In.
00-269-1100	10.250	7.375

40 name capacity.

	H/In.	W/In.
00-269-1098	17.750	7.375

CABINET, KEY

GLASS DOOR. Steel key cabinet. Red color, wall mounted. Glass door with camlock. Used for shipboard damage control party emergency key source. Approximate dimensions 6.625 inch height by 5.750 inch width by 2 inch depth.



	Key Cap.
00-904-6699	1

CHAIR, AVIATOR'S READY ROOM

Steel and Aluminum; Gray enamel finish. Covered with Cordovan upholstery. Single seat, adjustable back, and locker under seat. Accessories include 1 plotting board and 1 ash receptacle. 40.25 inch height by 27 inch width. NAVSEA Drawing 805-1646563.

00-368-4787

CHAIR, BARBER

Integral footrest with tilting adjustment. Upholstered. For shipboard use. Height adjusts from 44 inches to 51.5 inches. 25.875 inch width by 49.75 inch depth. NAVSEA Drawing 804-4661744.

00-822-2304

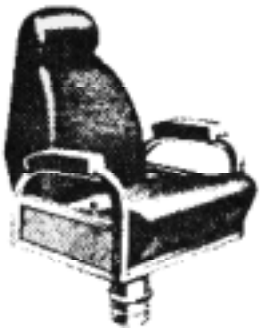
CHAIR, BOATSWAINS

Seat is 24 inch length by 8 inch width by 1.5 inch thick. Link is 5 inch length by 3.750 inch width by .625 inch diameter. Manila rope 2.5 inch circumference. Overall 28.25 inches high. SPCC Reference Number 2090-287-3613.

00-287-3613

CHAIR, PEDESTAL SHIPBOARD BRIDGE WING

Nonmagnetic frame covered in light gray enamel. Foam rubber upholstery filler with a Cordovan artificial leather covering. Enameled light gray steel pedestal. Includes chair cover. Seat is 21 inch width by 18 inch depth by 17 inch height from floor. Overall dimensions, 39 inch height by 24.5 inch width by 29.5 inch depth. For shipboard bridge C.O. or flag officers use. NAVSEA Drawing S3306-532423.



00-368-4788

Artificial leather upholstered seat, back rest, and arms, Orange color. Aluminum alloy pedestal, Orange color. Stationary seat, pivoting arms fold flat. 4 inch horizontal adjustment range. Seat height minimum 19.375 and maximum 25.75 inch from floor. 15.75 inch width by 17 inch depth. Equipped with safety belt.

00-814-1101

CHAIR, PEDESTAL WATCHSTANDER'S

For use by watchstanders. Material in accordance with SPCC HX quality control. Reference Number 525-604A.

01-173-8665

CHAIR, STRAIGHT

OFFICE USE. Anodized Aluminum alloy natural color frame. Cellulose back padding, rubber arm padding, sponge rubber seat padding. Fire resistant artificial leather upholstery. Four legs and glides. For use in office areas. Fed Spec AA-C-275.

33 inch height by 19 inch width by 17 inch depth. With arms.

	Upholstery Color
00-290-8392	Blue

Without arms. 33 inch height by 17 inch width by 16 inch depth.

LOUNGE AREA. Natural frame with arms. Artificial leather over foam rubber upholstery padding. Four legs and glides, reversible back and seat. Overall 38 inch height, seat 24.5 inch depth by 23 inch width. Intended for use in shipboard lounge areas. NAVSEA Drawing 805-921937.

	Upholstery
00-559-4659	Blue

CONTROLLER, WINDOW HEATER

Hi-Shock resistant. 440 VAC 10 AMPS. For 1/2 inch glass and thicker. Controller monitors the window temperature, by detecting the change in resistance of the sensor controller. Opens circuit when the temperature at the sensor reaches 85 to 95 degrees Farenheit and closes the circuit at a minimum of 70 degrees Farenheit. Spare sensor is included. Designed to meet requirements of Spec Mil-W-18445D, "Ships Windows, Non-Icing". Mounting type and Reference Number as listed below.

	Mtg.Type	Ref No.
00-475-0142	Remote	KS12000
00-612-1071	Surface	KS13440

COT, FOLDING

Aluminum frame; canvas cover. 77.5 inch length by 27 inch width. NAVSEA Drawing S3306-553320.

00-369-4567

DESK, FLAT TOP

Aluminum alloy, Gray enamel semi-gloss finish. Single pedestal with two drawers. Drawer with lock over knee space. Composition top and adjustable legs. 30.5 inch height by 39.75 inch width by 30 inch depth. NAVSEA Drawing S3209-631136.

	Pedestal
00-267-1994	LH
00-267-1995	RH

Aluminum alloy, Gray enamel finish. Right and left sliding shelves. Four left side drawers. Two right side drawers. One top center drawer. Composition top and adjustable legs. 30.5 inch height by 54 inch width by 30 inch depth. NAVSEA Drawing S3209-633117.

00-355-4843

DESK, LOG

Aluminum alloy, light Gray semi-gloss enamel finish. Bulkhead mounted. For use in shipboard working areas. Writing surface dimensions given below.

DROP LEAF TYPE. Linoleum top. 24.25 inch width by 18 inch depth. NAVSEA Drawing S3209-866181.

00-355-4844

DRAWER TYPE. High pressure plastic top. 30.25 inch width by 27.75 inch depth. NAVSEA Drawing S3209-633953.

00-355-4845

FILING CABINET

LETTER SIZE; FIVE DRAWERS.

Gray enamel finish. One piece construction.

Flush type base. Casters and bulkhead clip are not included. Approximately 60 inch height by 28 inch depth. Spec Mil-F-902.

STEEL CONSTRUCTION. Includes integral combination lock with dial on top. Combination

changed by key. Intended for use in storing classified documents.

	W/In.
00-782-3038	18.5

ALUMINUM CONSTRUCTION. Combination lock not included. Intended for shipboard use in office spaces.

	W/In.
00-782-3040	15
00-782-3042	18

COMBINATION; SIX DRAWERS.

Gray enamel finish. One piece construction. Flush type base. Casters and bulkhead clip are not included. Approximately 60 inch height by 28 inch depth. Width given in inches. Spec Mil-F-902.

ALUMINUM CONSTRUCTION. Designed to accommodate card size conversion adapter (not included) for storing 3 by 5 inch cards. Card compartment quantity (Cd Qty) is as indicated below.

	W/In.	Card Qty
00-782-3039	15	6
00-782-3041	18	3

HEAT SHIELD ASSEMBLY

Stainless Steel. For use on Cornell-Carr models 53620, 53619, 53618, and 53617.

00-549-5678

LADDER, JACOB'S

WOODEN RUNGS. Fabric side material. Rung spacing 14 inch Lanyard not included. Spec. Mil-L-221.

	Lg/Ft	W/In.
00-242-2511	15	15
00-242-2512	20	15
01-071-4961	30	19

PLASTIC RUNGS. Fabric side material. Rung spacing 13 inch. Bottom lanyard 10 feet long. NAVSEA Drawing 804-5000900.

	Lg/Ft	W/In.
00-753-3911	10	18.5
00-753-3912	15	18.5
00-753-3913	20	18.5
00-753-3914	25	18.5

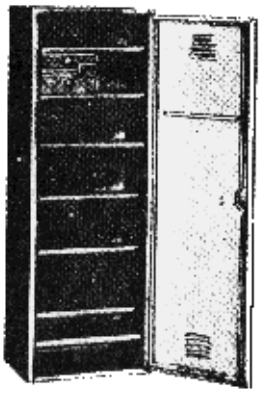
LOCKER, CLOTHING

ALUMINUM AND STEEL ALLOYS. Type D, two lockers wide. Storage space in each 2.333 cubic feet. Right-hand door 9 inch width. Can be ordered with left-hand doors. Secured with padlock. 25 inch height by 22 inch width by 15 inch depth. NAVSEA Drawing S3308-1626365.

00-543-3597

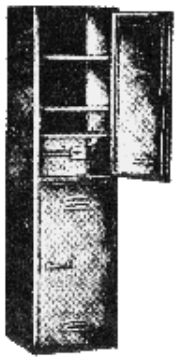
ALUMINUM ALLOYS ONLY. Natural finish. Includes semi-louvered doors, lever handle, and padlock locking device. Legs or feet not included.

ONE TIER, One wide. Single locker, with eight compartments. Includes: one general drawer, one capacity drawer, one towel rack, and eyelet. Approximately 72 inch height by 22 inch width by 15 inch depth. Intended for use in shipboard Chief Petty Officers berthing spaces. NAVSEA Drawing S3308-1626365.



00-543-3596

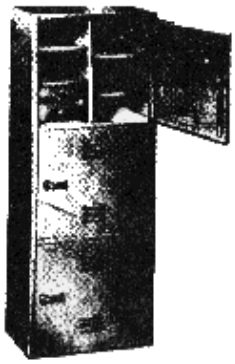
TWO TIERS, One wide. Each locker will contain five general purpose compartments. Includes: one general drawer, one towel rack, and one toothbrush rack. 75 inch height by 17 inch width by 17 inch depth. NAVSEA Drawing 805-1626432.



	Door
00-543-3592*	RH
00-543-3593	LH

* As shown in illustration.

THREE TIERS, One wide. Each locker contains five general purpose compartments. Includes one general drawer, one towel rack, and one toothbrush rack. 75 inch height by 26 inch width by 17 inch depth. For use in shipboard crew berthing spaces where underberth stowage is not available. NAVSEA Drawing 805-1626432.



	Door
00-543-3594	RH

ALUMINUM PRIMER with light Gray enamel finish. One Tier, One Wide. Contains hanger bar and padlock locking device. NAVSEA Drawing 803-1749239.

	H/In.	W/In.	Dia/In.
00-148-9942*	37	10	22
00-357-0983	37	8	22

* NAVSEA Dwg 805-1749239.

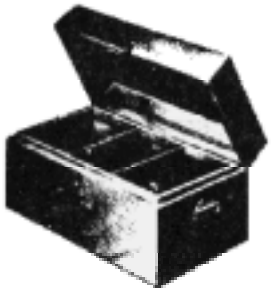
LOCKER, MEDICAL

Aluminum, Gray enamel finish. Watertight. Catch and keeper locking device and clips for

Bulkhead mounting. For shipboard medical material dispersal. 20 inch width by 16.5 inch height by 8.5 inch depth. NAVSEA Drawing S3702-921917.

00-368-4792

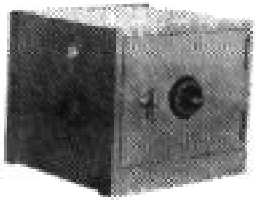
Aluminum, three compartments. Hasp and staple padlock locking device. Ortable, handles on each end. Plate worded “Medical Locker“. Approximately 30 inch width by 17 inch height by 17 inch depth. NAVSEA Drawing S3702-921575.



00-368-4795

LOCKER, SAFE

STATEROOM. Steel, light Gray enamel finish. One storage compartment, with side swinging door and combination lock. For shipboard use in office spaces or staterooms. Approximately 12 inch height by 13.5 inch width by 12.5 inch depth. NAVSEA Drawing S3209-860212. Spec Mil-F-243.



00-243-2362

LOCKER, STOWAGE

Aluminum construction. Four fixed shelves and removable bottom for deck maintenance and inspection. For shipboard use as a cleaning gear locker or battle dressing station. Approximately 24 inch width by 70 inch height by 18 inch depth. NAVSEA Drawing 805-1648663.

00-115-5148

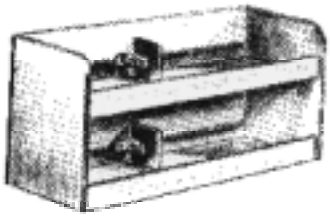
PLUG AND FLANGE

Cast Bronze. Approximately 0.750 inches. NPT thread; 375 inch diameter flange; 1.250 inch length threaded neck; 75 inch hull thickness.

00-805-8336

RACK, BOOK

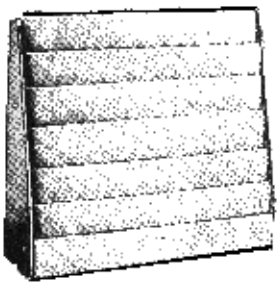
Aluminum construction, Gray enamel finish. Two shelves, 15.5 inch between shelves. Internal guard rails to prevent books from falling out. Two book compressors on slide track, and four clips for bulkhead mounting. 18.75 inch rack support mounting centers. Approximately 36 inch length by 25.5 inch height by 12.8 inch depth. NAVSEA Drawing 805-1749061.



00-264-4859

RACK, MAGAZINE

Aluminum, with Gray color. Six compartments with closed ends. Approximately 34.6 inch height by 30 inch length by 9.8 inch width. Intended for use in shipboard lounge areas. NAVSEA Drawing S3304-860200.



00-369-4571

REPAIR KIT, INFLATABLE CRAFT

Inflatable craft repair kit designed for non-bladder type boats. 14 components. Spec Mil-L-17561.

00-287-6232

SERVER, DINING ROOM

ALUMINUM, with Gray enamel finish. Overall approximately 38 inch height by 24 inch length by 19 inch depth including drawers as indicated. NAVSEA Drawing 805-1625029.

OPEN TYPE, with two top drawers and four bottom drawers. Unit 2.

00-638-1168

CLOSED TYPE. With one top drawer, two bottom drawers, and two swinging doors. Unit 1.

00-638-0049

SHORE, DAMAGE CONTROL ADJUSTABLE

Steel material overall. Spec Mil-S-23965.

Overall weight approximately 43 pounds. Adjust from 3 to 5 foot in length.

00-058-3737

Overall weight approximately 60 pounds. Adjust from 6 to 11 foot in length.

00-052-1581

STOOL, REVOLVING

Aluminum frame with Gray enamel finish. Nonreversible 14 inch diameter seat. Rubber tips on all four leg ends. Height adjust 26 to 32 inches from floor. NAVSEA Drawing 805-1627547.

00-266-7463

TABLE, CHART

Comes in four basic modules (Types A thru D), plus the table top make up the 5 groups. Aluminum overall with plastic laminated tops. NAVSEA Drawing 805-921996.

TYPE A MODULE

Consists of cabinet and single drawer assembly. Cabinet has two doors. Approximate overall dimensions: 36.75 inch height by 28 inch width by 36 inch depth.

00-103-2497

TYPE B MODULE

Consists of three drawers; top drawer has center lock. Overall dimensions: 25.438 inch height by 28 inch width by 36 inch depth.

00-103-2498

TYPE C MODULE

Consists of single drawer with storage for three chronometers, used with top opening door. Overall dimensions: 11.312 inch height by 14 inch width by 36 inch depth.

00-103-2500

TYPE D MODULE

Consists of single drawer with lock. Overall dimensions: 11.312 inch height by 14 inch width by 36 inch depth.

00-103-2499

TABLE, DINING

Aluminum, with light Gray enamel finish. High pressure plastic laminate top with four folding type legs. 30 inch height by 27 inch width. Length as listed below. Intended for use in areas requiring portable tables.

6 FOOT LONG. Six person table. NAVSEA Drawing 805-1623866.

00-351-2322

8 FOOT LONG. Eight person table. NAVSEA Drawing 805-1624536.

00-351-2323

TREAD, METALLIC, NONSKID

Aluminum alloy. 3 rib stubbed. 24 inch length by 9 inch width. Drilled hole mounting feature included. Mil-T-24634.

01-237-3208

WARDROBE

Aluminum with gray enamel finish. Unlined, with two swinging doors and one bottom drawer. Features: two shoe racks, one tie rack, and one clothes compressor. 72 inch height by 24 inch width by 22.125 inch depth. Knockdown construction. For shipboard use in staterooms. NAVSEA Drawing 805-1622993.

00-802-8314

WEIGHT, CANVAS BAG

A heavy metallic disk. Approximtely 7 inch diameter and 0.75 inch thickness. Used in weighing garbage and trash bags for disposal at sea. Especially suited for submarine use in garbage and trash ejector systems.

00-845-9150

WINDOW, HEATED, ELECTRICAL

Electrically heated window. Intended for shipboard use in applications, where there is a requirement for resistance to condensation or icing. Reference number KS5200A.

00-802-8383

WINDSHIELD WIPER, MARINE

Painted finish. 24 volt DC, single speed. 2 inch oscillating, approximately .032 inch by .25 inch blade. 6.74 inch maximum length.

00-937-6012

WIPER, WINDOW, PENDULUM

With heated arm. Component of “Landing Craft, Utility”; part number LCU1671. End item number 1905-01-003-1056.

01-064-2626

GROUP 26
TIRES AND TUBES

CLASS 2640
TIRE REBUILDING AND TIRE AND TUBE REPAIR MATERIALS

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

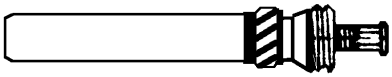
REPAIR KIT, PUNCTURE, PNEUMATIC TIRE

Supply items: 2640-00-922–6918 Applicator liquid leak detector(1); 2640-00-922-6917, bonding compound (2); 2640-00-922–6916, Box metal (1); 2640-00-922-6922, injector tool, tubeless tire(1); 5120-00-242-7410, key, socket headscrew(1); 5110-00-595-8402, knife, craftsman's(1); 2640-00-292-6919, leak detector(1); 2640-00-922-6920, needle injector, tool(2); 2640-00-922-6915 repair material(4).

00-922-6921

VALVE CORE

Stainless steel material. Used with a standard valve stem on pneumatic tires. Special Features: Copper plate on cup and pin(slot in head of pin for identification). High spring tension type, packaged 5 per box. Mil Std MS51377-1.

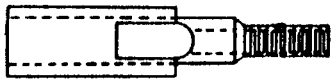


	Lg/In.
00-810-5861	1.312
00-240-2061*	1.312

* Mil Std AN 809.

VALVE EXTENSION, TIRE

Rigid metal type tire extension. Standard bore size, straight shape. .302-32 external thread size. Valve core not included.



	O/A Lg/In.
00-242-7619	3.375
00-242-7618	4.375
00-338-2705	4.719
00-250-2474	7.000

VALVE, PNEUMATIC TIRE

Straight, rigid valve. Universal type for tubeless tires. Inserted from outside the rim. Tire and rim association number listed where applicable.

	No.
00-555-2840	TRR-414
00-555-2842	TRR-416
00-116-6208	MS27436-3
00-554-0694	TTR-705-03
00-511-3544	TRR-718-03
00-869-7945	TRR-725-02
00-726-7896	TRR-752-03
00-021-8295	TRR-753-03
00-182-4848	TTR-760-03
00-813-7478	TRR-762-03

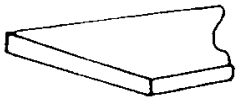
GROUP 30
MECHANICAL POWER TRANSMISSION EQUIPMENT

CLASS 3030
BELTING, DRIVE BELTS, FAN BELTS, AND ACCESSORIES

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BELT, FLAT

Single or multiple ply materials with smooth pulley surface.



LEATHER

	Thk/In.	W/In.	Ins/Circ
00-920-5391	.100	2.000	76.375

PLASTIC

	Thk/In.	W/In.	Ins/Circ
01-025-4005	.002	.160	4.690
01-168-1967	.002	.250	9.045
00-427-0534	.003	.250	9.150
01-194-0176	.005	.250	7.880
01-192-9670	.005	.250	10.780
00-125-8571	.008	.500	26.639
01-352-2309	.018	.375	12.500
01-062-4535	.037	.500	28.000
00-073-6356	.055	6.000	49.875
00-181-2852	.070	5.000	17.375

RUBBER

	Thk/In.	W/In.	Ins/Circ
01-293-1959	.016	.500	18.360
01-348-3833	.022	.500	23.000
01-144-1824	.022	.500	21.600
01-131-5999	.035	.500	31.000

RUBBER/NEOPRENE

	Thk/In.	W/In.	Ins/Circ
01-337-7289*	.020	.500	16.680
01-433-9039†	.320	.062	71.000
01-433-9039	.320	.062	71.000

* Oil and abrasion resistant.
† 9 ply.

RUBBERIZED FABRIC

	Thk/In.	W/In.	Ins/Circ
00-020-9078	.019	.250	18.966
00-528-0898	.027	.250	11.500
00-237-6063	.040	.625	44.000
00-181-2852	.050	5.000	15.375
00-181-2856	.070	5.000	21.500

CRES. Features 3 protruding trip arms spaced equally distant, comprised of 270 holes. .065 inch diameter centered and spaced equal distant.

Submarine use.

Special test features, noise free environment for submarine use. Smooth, flat.

	Thk/In.	W/In.	Ins/Circ
00-431-7880	.035	1.000	55.250

BELTING, FLAT

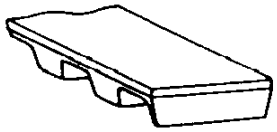
Leather belting, medium duty, single ply, vegetable tanned. Issued by the foot except as noted.

	W/In.	Thk/In.
00-242-6666$_{NP}$	1.000	.172
00-726-3831$_{NP}$*	4.000	.172

* Mildew resistant.

BELT, POSITIVE DRIVE

A flat belt with internal teeth designed to engage pulleys having corresponding teeth. Reinforced Rubber construction. Pitch length (P/Lg), and width (W) in inches, and number of teeth (T) as listed.



.080 inch TOOTH PITCH.

Glass or Nylon cord.

	P/Lg	W/In.	T/In.
01-149-7838	7.500	.250	94
01-162-4372*	8.400	.250	105
01-089-3858	9.600	.250	120
01-162-4373*	10.000	.250	125
01-067-8254	11.200	.250	140
01-275-0583	18.320	.375	229
01-319-0749	24.800	.500	310

* Polyurethane material.

.081 inch TOOTH PITCH.

Polyester cords.

	P/Lg	W/In.	T/In.
01-345-8917	5.630	.188	69
01-288-1952	6.120	.188	75
01-302-3516	11.424	.250	140
01-375-7280	11.424	.312	140
01-097-0758*	11.669	.125	143
01-346-7918	11.924	.250	140
01-114-4580	13.219	.437	162

* Polyurethane material.

.082 inch TOOTH PITCH

Glass cords.

	P/Lg	W/In.	T/In.
01-051-1960	10.037	.250	123
01-074-0793	18.605	.250	228

Polyester cords. Plastic construction. Oil, abrasion and ozone resistant.

	P/Lg	W?in.	T/In.
01-070-9109*	10.037	.250	123
01-263-3116	10.608	.406	130
01-070-9110*	15.759	.312	193

* Plastic construction.

Synthetic cords

	P/Lg	W/In.	T/In.
01-128-2506*	7.997	.250	—

* Plastic material.

Unknown cord.

	P/Lg	W/In.	T/In.
01-377-3155	34.517	.250	423

.083 inch TOOTH PITCH

Polyurethane material.

	P/Lg	W/In.	T/In.
01-162-4371	10.944	.120	132

.086 inch TOOTH PITCH

Fiber cords.

	P/Lg	W/In.	T/In.
01-048-4454	6.283	.125	77

.098 inch TOOTH PITCH

Steel cords.

	P/Lg	W/In.	T/In.
00-113-8007*	7.854	.203	80
01-098-5322†	14.137	.203	144

* Plastic material.
† Rubber material.

.200 inch TOOTH PITCH

Fiber cords. Extra light duty.

	P/Lg	W/In.	T/In.
00-756-9687	9.000	.250	45
00-933-5356*	11.000	.375	55
00-902-6689	13.000	.375	65
00-385-8855	13.000	.125	65
01-147-1359	34.200	.375	171

* Cleated pulley surface.

Glass cords

	P/Lg	W/In.	Thk/In.
00-295-1637	10.000	.250	50
00-964-1006	14.000	.250	70
00-385-8828	16.000	.500	80
00-201-3351	21.000	.250	105
00-970-3952	18.000	.375	90
00-993-0579	20.000	.250	100
00-385-8831	21.000	.250	105
00-947-2735	24.000	.250	120

.234 inch TOOTH PITCH

Glass cords.

	P/Lg	W/In.	Thk/In.
00-788-4700	11.232	.125	48

.315 inch TOOTH PITCH

Synthetic cords.

	P/Lg	W/In.	Thk/In.
01-172-6706	25.200	1.180	80
01-377-6999	78.740	.790	250
01-265-3993	80.000	2.000	25

.375 inch TOOTH PITCH

Fiber cords.

	P/Lg	W/In.	Thk/In.
00-420-5626	34.500	.750	92
00-869-6418	36.750	1	98
00-705-4877	51.000	.500	136

Glass cords

	P/Lg	W?in.	Thk/In.
00-203-1586	21	.500	56
00-814-6929	24	.500	64
00-122-6474*	33.500	.500	90
00-451-6380†	33.407	.843	90
00-528-0357	39	.500	104

* 2 metal and plastic attachments, spaced 45 teeth apart on outside periphery.
† Has two metal trips 180 degrees apart inside. .375 inch width by .750 inch thick.

Steel cords

	P/Lg	W/In.	Thk/In.
00-944-4485	12.375	.500	33
00-057-8802	34.500	.500	92
00-993-3967	36.700	.500	98
00-618-5625	48.000	.500	128

Synthetic cord

	P/Lg	W/In	Thk/In.
01-232-2902	32.250	1.000	86

.500 inch TOOTH PITCH.

Glass cords

	P/Lg	W/In.	Thk/In.
01-049-9419	51.000	1.500	102

Steel cords

	P/Lg	W/In.	Thk/In.
00-814-6920	27.000	.750	54
00-580-0626	36.000	1.000	72
00-814-6919	39.000	1.000	78
00-989-6263	39.000	1.500	78
00-812-2431	42.000	1.000	84
01-188-1871	42.000	2.000	84
00-805-1061	48.000	1.000	96
00-814-6921	54.000	1.500	108
00-528-1945	60.000	1.000	120
00-966-9839	60.000	3.000	120
01-122-3686	125.000	.750	250

Synthetic cords

	P/Lg	W/In.	Thk/In.
01-345-2630*	30.000	.750	60
01-345-2629*	42.000	.750	84
01-341-4284*	42.000	1.500	84

* Rubber material.

.875 inch TOOTH PITCH.

Fiber cords

	P/Lg	W/In.	Thk/In.
00-403-3291	70.000	4.000	80

Glass cords

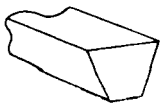
	P/Lg	W/In.	Thk/In.
00-518-4431	77.000	4.000	88

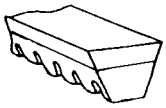
Steel cords

	P/Lg	W/In.	Thk/In.
00-728-0996	63.000	2.000	72

BELT, V

FRACTIONAL HORSEPOWER DRIVE BELTS. Rubberized fabric reinforced with fiber cords. Effective Outside Length in inches. Industry Number, and Belt Style listed.





"3L" Cross Section. 3/8 inch width by 7/32 inch thick. Mil Std MS39241.

	Osd/Lg	No.	B/Styl
00-528-4458	23.0	3L230	plain
00-528-4457	24.0	3L240	cog
00-528-4452	27.0	3L270	cog
00-528-4451	28.0	3L280	plain
00-528-4450	29.0	3L290	cog
00-528-4441	36.0	3L360	cog/plain
00-528-4461	37.0	3L370	cog
00-528-4592	40.0	3L400	plain
00-528-4228	41.0	3L410	cog
00-528-4230	42.0	3L420	plain
00-528-4234	45.0	3L450	cog
00-419-9323	53.0	3L530	plain

"4L" Cross Section. 1/2 inch width by 5/16 inch thick. Mil Std MS39242.

	Osd/Lg	No.	B/Styl
00-528-4255	20.0	4L200	plain
00-528-4256	21.0	4L210	plain
00-528-4258	22.0	4L220	plain
00-528-4260	24.0	4L240	plain
00-528-4261	25.0	4L250	cog
00-528-4219	26.0	4L260	plain
00-528-4279	27.0	4L270	plain
00-528-4281	28.0	4L280	cog/plain
00-528-4283	29.0	4L290	cog/plain
00-528-4286	30.0	4L300	plain
00-528-4287	31.0	4L310	cog/plain
00-528-4264	32.0	4L320	plain
00-528-4267	33.0	4L330	plain
00-528-4269	34.0	4L340	plain
00-528-4271	35.0	4L350	cog
00-528-4273	36.0	4L360	plain
00-528-4751	37.0	4L370	cog/plain
00-528-4634	38.0	4L380	plain
00-528-4635	39.0	4L390	plain
00-528-4636	40.0	4L400	cog/plain
00-528-4756	41.0	4L410	plain
00-528-4752	42.0	4L420	plain
00-528-4753	43.0	4L430	cog/plain
00-528-4754	44.0	4L440	plain
00-528-3763	46.0	4L460	plain
00-528-3765	47.0	4L470	plain
00-528-3767	48.0.	4L480	plain
00-528-3768	49.0	4L490	cog
00-528-3770	50.0	4L500	plain
00-528-3771	51.0	4L510	cog
00-528-3788	52.0	4L520	cog
00-528-3787	54.0	4L540	plain
00-528-3796	57.0	4L570	plain
00-528-3797	58.0	4L580	cog
00-528-3799	60.0	4L600	cog
00-528-3805	62.0	4L620	plain
00-528-3825	67.0	4L670	plain
00-883-0888	95.0	4L950	plain

"5L" Cross Section. 21/32 inch width by 3/8 inch thick. Mil Std MS39243.

	Osd/Lg	No.	B/Styl
00-528-4529	30.0	5L300	cog
00-528-4522	34.0	5L340	plain
00-919-9096	38.0	5L380	plain
00-528-4615	40.0	5L400	plain
00-528-4612	43.0	5L430	plain
00-528-4607	48.0	5L480	cog
00-528-4626	49.0	5L490	cog
00-528-4625	50.0	5L500	cog
00-528-4624	51.0	5L510	plain
00-528-4623	52.0	5L520	plain

	Osd/Lg	No.	B/Styl
00-232-5975	58.0	5L580	plain
00-528-4641	62.0	5L620	cog/plain
00-528-4734	65.0	5L650	cog
00-528-4737	68.0	5L680	cog
00-528-4627	72.0	5L720	cog
00-528-4628	73.0	5L730	cog/plain
00-528-4631	76.0	5L760	cog

INDUSTRIAL (MULTI-DRIVE) BELTS. Pitch length is the measure used by industry to designate V-belt length. Rubberized fabric reinforced with fiber cords. Pitch Length in inches and Belt Style listed. ″A″ CROSS SECTION. 1/2 inch width by 5/16 inch thick. Mil Std MS39255.

Standard Capacity

	P/Lg	B/Styl
00-160-8282	24.3	plain
00-160-8283	25.3	plain
00-529-0344	27.3	cog/plain
00-160-8285*	28.3	plain
00-127-4616	29.3	plain
01-127-7210	30.3	cog/plain
01-216-6812	31.3	cog/plain
00-529-0345	32.3	cog/plain
00-561-1960	33.3	cog
00-529-0346	34.3	cog/plain
00-809-7702	35.3	plain
00-232-5959	36.3	cog/plain
00-811-7028	38.3	plain
00-529-0349	43.3	plain
01-061-2587	45.3	plain
00-529-0350	47.3	cog/plain
00-127-4633	50.3	plain
00-529-0354	56.3	cog/plain
00-436-3067	62.0	cog
00-808-7703	65.3	plain
00-529-0487	76.3	plain
00-132-1724	87.3	plain

* Capacity not rated.

High Capacity

	P/Lg	B/Styl
00-289-8523	37.3	cog/plain
01-061-4977	38.3	plain
01-026-3302	39.3	plain
00-062-8381	43.3	cog
00-350-9160	46.3	cog
00-741-6835	49.3	cog/plain
00-565-7526	52.3	cog

“B” CROSS SECTION. 21/32 inch wide by 13/32 inch thick. Mil Std MS39256.

Standard Capacity

	P/Lg	B/Styl
01-141-5085	29.0	plain
00-160-8296*	30.8	plain
00-433-3564*	31.8	plain
00-008-4860	33.8	cog/plain
01-140-9212	39.0	plain
00-793-1036	41.8	plain
01-142-2982	43.0	plain
00-529-0482	43.8	plain
00-529-0481	47.8	cog/plain
00-640-3095	53.8	plain
00-080-8811	63.8	cog
00-529-0469	76.8	cog
00-529-0472	86.8	plain
00-529-0471	91.8	cog
01-061-6627	93.8	plain
00-529-0476	121.8	cog

* Capacity not rated.

High Capacity

	P/Lg	B/Styl
00-482-4654	39.8	cog
00-197-7913	60.8	cog
00-529-0467	69.8	plain

“C” CROSS SECTION. 7/8 inch width by 17/32 inch thick. Mil Std MS39257.

Standard Capacity

	P/Lg	B/Styl
00-529-0394	70.9	cog
00-529-0393	77.9	cog
00-529-0391	87.9	plain
00-529-0389	98.9	plain

INDUSTRIAL (NARROW TYPE) BELTS. Rubberized fabric reinforced with fiber cords. Effective outside length in inches, industry number, and belt style listed.

“3V” CROSS SECTION. 3/8 inch width by 5/16 inch thick. Mil Std MS39277.

Standard Capacity

	Osd/Lg	No.	B/Styl
00-840-9344	28.0	3V280	cog/plain
00-843-8393	31.5	3V315	cog/plain
01-033-0597	33.5	3V335	plain
00-130-5189	36.0	3V360	plain
00-789-1151	42.5	3V425	cog/plain
00-866-1393	56.0	3V560	cog/plain
00-064-8265	63.0	3V630	plain
00-497-6683*	90.0	3V900	plain

* Capacity not rated.

High Capacity

	Osd/Lg	No.	B/Styl
00-967-8763	25.0	3V250	plain
00-492-8109	37.4	3V375	plain
01-271-0159	37.5	—	plain
00-224-2251	40.0	3V400	cog
00-431-9117	45.0	3V450	multi V
00-789-0637	45.0	3V450	plain
00-071-8018	53.0	3V530	cog/plain
00-106-1823	670	3V670	cog
00-880-0743	71.0	3V710	cog
00-587-0494	80.0	3V800	plain
00-828-4460	100.0	3V1000	plain

“5V” CROSS SECTION. 5/8 inch width by 17/32 inch thick. Mil Std MS39278.

Standard Capacity

	Osd/Lg	No.	B/Styl
01-214-1520	60.0	5V600	cog/plain
01-316-1082*	212.0	5V2120	cog/plain

* Capacity not rated.

High Capacity

	Osd/Lg	No.	B/Styl
00-484-7472	118.0	5V1180	plain
00-788-7406	125.0	5V1250	cog

“7M” CROSS SECTION. Plastic Polyurethane body. All flex type style.

Standard Capacity

	Osd/Lg
01-239-3678	48.0
01-165-1476	52.8
01-165-1475	70.0

ENGINE ACCESSORY DRIVE BELTS. Rubberized fabric reinforced with fiber cords. Effective Outside Length in inches. Belt Style shown.

“SAE” 3/8 INCH CROSS SECTION. .380 inch width by 5/16 inch thick. Mil Std MS51065.

	Osd/Lg	B/Styl
01-210-2739	28.0	plain
00-228-1254	30.2	plain
00-718-8195	34.3	cog
00-826-7650*	39.0	plain
00-961-9205†	40.5	plain
00-899-4888‡	44.0	cog/plain
00-517-1249*	45.0	cog
00-504-8682	45.0	plain
01-117-7490‡	45.0	cog/plain
00-816-4569†	47.0	plain
00-861-2334*	48.0	plain
01-147-6410	48.5	plain
00-115-4094	49.0	plain
01-256-3616	50.0	cog/plain
00-890-4727‡	57.5	cog/plain

* Low temperature requirement —65 degrees Farenheit.
† High capacity.
‡ Approximately .440 inch width.

“SAE” 1/2 INCH CROSS SECTION. 1/2 inch width by 13/32 inch thick. Mil Std MS51066.

	Osd/Lg	B/Styl
01-218-6699	29.5	plain
00-756-8412	35.0	plain
00-567-9211	36.0	cog
00-077-1269*	38.0	cog
01-017-4340	39.3	cog
00-860-6971†	43.0	plain
00-811-2144†	45.0	plain
00-878-6157*	46.6	plain
00-528-6756	47.0	plain
00-569-9447†	50.0	cog
00-849-1033*	51.0	cog
00-317-4811*	52.0	cog/plain
00-081-5436	59.0	cog
00-756-8416†	59.0	plain

* High capacity.
† Low temperature requirment -65 Degrees Farenheit.

“SAE” 11/16 INCH CROSS SECTION. .597 inch width by 13/32 inch thick.

	Osd/Lg	B/Styl
01-231-7066	49.5	Cog/plain

“SAE” 3/4 INCH CROSS SECTION. 3/4 inch width by 7/16 inch thick. Mil Std MS51068.

	Osd/Lg	B/Styl
00-404-3061	43.6	Cog
00-528-6819	47.0	plain
00-529-1063	51.7	plain

"SAE" 7/8 INCH CROSS SECTION. .785 inch width by 1/2 inch thick. Mil Std MS51069.

	Osd/Lg	B/Styl
00-174-5610*	46.0	cog/plain

* Low temp -65 degrees Farenheit.

NON SPEC BELTS

36 DEGREE ANGLE BELT. Standard capacity.

Plastic, Polyurethane material, strengthened with synthetic cord. Special feature: Polyflex belt with ribbed top.

	Lg/In.	W/In.	B/Styl
01-111-7770	36.9	.375	plain
01-111-5671	43.9	.375	plain
01-148-2792	45.5	.375	plain

Fiber and Rubber material, strengthened with a synthetic cord. Special features as listed.

	Lg/In.	W/In.	B/Styl
00-288-2665*	41.5	.469	plain
01-272-7604*	44.0	.531	cog/plain
01-267-4280	48.5	.375	plain
01-258-5125	58.7	.450	plain

* Oil and heat resistant.

38 DEGREE ANGLE BELT. Rubberized fabric material strengthened with synthetic cord. Heat, oil, and static resistant.

High Capacity

	Lg/In.	W/In.	B/Styl
00-844-3591	34.6	.438	plain
00-064-4470	44.5	.469	plain
00-416-4450	51.9	.719	cog

Standard Capacity

	Lg/In.	W/In.	B/Styl
01-044-3699	46.0	.531	plain

40 DEGREE ANGLE BELT. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Heat, oil, and static resistant. Used on Grumman A-10 aircraft. Standard Capacity.

	Lg/In.	W/In.	B/Styl
00-115-0013	41.3	.500	plain

45 DEGREE ANGLE BELT. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Standard capacity.

	Lg/In.	W/In.	B/Styl
00-033-2801	48.0	.500	plain

46 DEGREE ANGLE BELT. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Heat, Oil and static resistant. Heavy duty.

	Lg/In.	W/In.	B/Styl
00-232-2496	56.0	1.000	plain

MULTI-RIB BAND DRIVE. Rubberized fabric reinforced with synthetic cords. Nominal pitch length listed in inches.

"J" CROSS SECTION

6 Sections.

	Lg/In.	W/In.	Ang/Deg
00-117-2423	38.0	—	—
01-147-8546	46.0	—	—

8 Sections.

	Lg/In.	W/In.	Ang/Deg
00-081-9675	40.0	1.125	—
01-198-6560	56.0	1.120	60
01-382-2063*	60.5	1.120	—
01-293-8544	60.5	1.125	40
01-271-3754	68.0	1.125	—

* Rib width .240 inch.

10 Sections.

	Lg/In.	W/In.	Ang/Deg
00-962-2984	40.0	—	—
00-007-2324	52.0	—	—

MULTI-V BAND DRIVE.

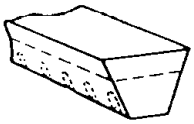
Fiber and Rubber body with a synthetic cord. Light duty. 4 sections.

	Lg/In.	W/In.	Ang/Deg
01-065-0832	123.0	1.175	38

BELTS, V, MATCHED SET

FRACTIONAL HORSEPOWER DRIVE BELTS. Rubberized fabric reinforced with fiber cords. Effective Outside Length in inches. Quantity of Belts and Belt Style listed.

"2L" CROSS SECTION 1/8 inch width by 1/4 inch thick. Standard Capacity.



	Osd/Lg	Qty/B	B/Styl
01-214-4268	43.5	2	Plain

"4L" CROSS SECTION. 1/2 inch width by 5/16 inch thick. Mil Std MS39242.

	Osd/Lg	Qty/B	B/Styl
00-250-9987	38.0	2	plain
00-243-7249	41.0	2	plain
00-943-1031	48.0	3	plain
00-849-1356	67.0	2	plain
00-060-2590	68.0	2	plain

INDUSTRIAL (MULTI-DRIVE) BELTS. Rubberized fabric reinforced with fiber cords. Pitch Length in inches. Quantity of Belts and Belt Style listed.

"A" CROSS SECTION. 1/2 inch width by 5/16 inch thick. Mil Std MS39255.

Standard Capacity

	P/Lg	Qty/B	B/Styl
00-160-8286	31.3	2	cog/plain
00-180-2101	32.3	2	cog/plain
00-246-0113	39.3	2	plain
00-618-2073	43.3	2	cog/plain
00-246-0165	69.3	3	cog/plain

"B" CROSS SECTION. 21/32 inch width by 13/32 inch thick. Mil Std MS39256.

Standard Capacity

	P/Lg	Qty/B	B/Styl
00-702-7942	47.8	2	cog/plain
00-528-8375	61.8	2	plain
00-180-2166	121.8	4	plain

High Capacity

	P/Lg	Qty/B	B/Styl
01-045-2619*	29.8	2	plain
00-998-7291	69.8	4	cog
00-316-0109	86.8	6	cog/plain

* Heat, oil, and static resistant

"C" CROSS SECTION. 7/8 inch width by 17/32 inch thick. Mil Std MS39257.

Standard Capacity

	P/Lg	Qty/B	B/Styl
00-239-5093	82.9	3	cog/plain
00-105-8238	107.9	4	plain
00-781-8960	107.9	9	plain

High Capacity

	P/Lg	Qty/B	B/Styl
00-866-6131	77.9	2	cog
00-460-2517	92.9	4	plain

INDUSTRIAL (NARROW-TYPE) BELTS. Rubberized fabric reinforced with fiber cords. Effective Outside Length in Inches. Quantity of Belts and Belt Style as listed.

"3V" Cross Section. 3/8 inch width by 5/16 inch thick. Mil Std MS39277.

Standard Capacity

	P/Lg	Qty/B	B/Styl
00-825-0894	45.0	2	cog/plain
00-351-2545	67.0	2	plain

High Capacity

	P/Lg	Qty/B	B/Styl
00-946-2970	63.0	3	plain

	P/Lg	Qty/B	B/Styl
00-172-1971	71.0	5	plain
00-980-0502*	90.0	6	plain

* Heat, Oil, and static resistant.

"5V" CROSS SECTION. 1 inch width by 17/32 inch thick. Mil Std MS39278.

Standard Capacity

	P/Lg	Qty/B	B/Styl
01-122-1683	75.0	2	plain
00-363-5631	106.0	8	plain

High Capacity

	P/Lg	Qty/B	B/Styl
00-313-1048	112.0	3	plain
01-038-1746	125.0	8	plain

"7M" CROSS SECTION. Rubberized fabric and synthetic fiber material. Heat, oil, and static resistant. Reinforced with synthetic cords.

	P/Lg	Qty/B	B/Styl
01-137-4624	44.8	2	plain

ENGINE ACCESSORY DRIVE BELTS. Rubberized fabric reinforced with fiber cords, unless otherwise noted. Effective Outside Length, Quantity of Belts, and Belt Style listed.

"SAE" 3/8 INCH CROSS SECTION. .380 inch width by 5/16 inch thick. Mil Std MS51065.

Standard Capacity

	P/Lg	Qty/B	B/Styl
00-883-1159*	42.0	2	plain
00-740-3650*	43.0	2	plain
00-069-3592	44.0	2	cog/plain
00-833-1325	46.0	2	cog/plain
01-124-2755	47.0	2	plain
00-983-2873*	48.0	2	plain

* Low temperature requirement -65 degrees Farenheit.

High Capacity

	P/Lg	Qty/B	B/Styl
00-778-1241*	36.0	2	plain
00-537-1531*	37.0	2	plain
00-938-5758	40.0	2	cog
00-379-2815	50.0	2	cog

* Low temperature requirement -65 degrees Farenheit.

"SAE" 1/2 INCH CROSS SECTION. 1/2 inch wide by 13/32 inch thick. Mil Std MS51066.

Standard Capacity

	P/Lg	Qty/B	B/Styl
01-127-6741	25.3	2	cog
00-298-6831	29.0	2	cog
00-832-4308*	36..0	2	plain
00-124-3423*	41.0	2	cog/plain
00-865-2470†	41.3	2	plain
00-865-2701*	42.0	2	cog/plain
00-818-8926*	44.0	2	plain
00-034-1865	46.0	2	cog
00-834-0507*	47.0	2	cog/plain
00-399-5235	50.0	4	cog
00-678-1161*	60.0	2	cog/plain

* Low temp requirement -65 degrees Farenheit.
† Heat, oil, and static resistant.

High Capacity

	P/Lg	Qty/B	B/Styl
00-179-6829	49.0	2	plain

"SAE" 11/16 INCH CROSS SECTION. .597 inch width by 13/32 inch thick. Mil Std MS51067.

High Capacity

	P/Lg	Qty/B	B/Styl
00-392-4697*	46.0	2	cog
00-257-0727†	52.3	2	cog

* Capacity not rated.
† Heat, oil, and static resistant.

SAE 7/8 INCH CROSS SECTION. .875 inch width.

Standard Capacity

	P/Lg	Qty/B	B/Styl
00-918-3606	79.0	2	plain

High Capacity

	P/Lg	Qty/B	B/Styl
00-109-3857	84.4	2	cog

NON SPEC BELTS

.531 inch width. Rubberized fabric and synthetic fiber material, strengthened with synthetic cord. Heat, oil, and static resistant. Standard Capacity.

	P/Lg	Qty/B	B/Styl
00-630-0092	47.5	2	cog/plain

36 degree angle belts. .469 inch width. Fiber, synthetic and rubberized fabric material. Reinforced with synthetic cord. Standard Capacity.

	P/Lg	Qty/B	B/Styl
01-212-7595	30.0	2	plain
01-248-1496	34.0	2	plain
01-301-8013*	37.0	2	plain
01-200-8695*	39.0	2	cog/plain
01-282-6968*	63.5	2	cog/plain

* Heat, oil, and static resistant.

38 degree angle belts. .469 inch wide. Rubberized fabric and composition synthetic fiber material. Reinforced with synthetic cord. Heat, oil, and static resistant. High Capacity.

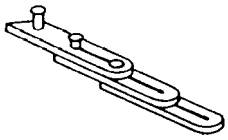
	P/Lg	Qty/B	B/Styl
00-208-7495	43.0	2	cog/plain

38 degree angle belts. .531 inch width. Rubberized synthetic body. Reinforced with synthetic cord. Standard capacity.

	P/Lg	Qty/B	B/Styl
01-158-4071	58.5	2	plain

BELTING, V, ADJUSTABLE LINK

Rubberized cotton duck links joined together by studs. Machine cut to correct angle, to fit standard sheaves. Fed Spec ZZ-B-220.



00-224-8357	O cross section
00-224-8358	A cross section
00-233-9126	B cross section

CROSS REFERENCE LISTING

(Industry Number to NSN)

Industry No.	
0380	00-607-0088
3L230	00-528-4458
3L240	00-528-4457
3L270	00-528-4452
3L290	00-528-4450
3L360	00-528-4441
3L370	00-528-4461
3L400	00-528-4592
3L410	00-528-4228
3L430	00-528-4231
3L450	00-528-4234
3V335	01-033-0597
3V360	00-130-5189
3V375	00-492-8109
3V400	00-068-7201
3V500	00-064-8247
3V530	00-071-8018
3V670	00-106-1823
3V670	00-106-1823
3V710	00-880-0743
3V800	00-587-0494
3V100	00-828-4460
4L200	00-528-4255
4L210	00-528-4256
4L220	00-528-4258
4L240	00-528-4260
4L250	00-528-4261
4L260	00-528-4219
4L270	00-528-4279
4L280	00-528-4281
4L290	00-528-4283
4L300	00-528-4286
4L310	00-528-4287
4L320	00-528-4264
4L330	00-528-4267
4L340	00-528-4269
4L350	00-528-4271
4L360	00-528-4273
4L370	00-528-4751
4L380	00-528-4634
4L390	00-528-4635
4L400	00-528-4636
4L410	00-528-4756
4L420	00-528-4752
4L430	00-528-4753
4L440	00-528-4754
4L450	00-528-4755
4L460	00-528-3763
4L470	00-528-3765
4L480	00-528-3767
4L490	00-528-3768
4L500	00-528-3770
4L510	00-528-3771

CLASS 3030

(Industry Number to NSN)

4L520	00-528-3788
4L530	00-528-3786
4L540	00-528-3787
4L550	00-528-3794
4L570	00-528-3796
4L580	00-528-3797
4L590	00-528-3798
4L600	00-528-3799
4L620	00-528-3805
4L640	00-528-3807
4L660	00-528-3824
4L670	00-528-3825
4L720	00-528-3762
4L800	00-528-3838
4L950	00-883-0888
5L260	00-528-4532
5L300	00-528-4529
5L320	00-528-4527
5L330	00-528-4526
5L340	00-528-4522
5L350	00-528-4521
5L360	00-528-4519
5L380	00-528-4516
5L430	00-528-4612
5L440	00-528-4611
5L450	00-528-4610
5L490	00-528-4626
5L500	00-528-4625
5L510	00-528-4624
5L520	00-528-4623
5L530	00-528-4622
5L550	00-528-4620
5L560	00-528-4619
5L580	00-528-4616
5L600	00-528-4639
5L620	00-528-4641
5L650	00-528-4734
5L680	00-528-4737
5L720	00-528-4627
5L760	00-528-4631
5L770	00-528-4632

GROUP 34
METALWORKING MACHINERY

CLASS 3433
GAS WELDING, HEAT CUTTING, AND METALIZING EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BRAZING AND SOLDERING SET

Acetylene and Air-Burning Kits. Suitable for light brazing, soldering, heating, and burning. Steel carrying case contains: a torch handle; fine, small, medium, and large torch stems; a soldering iron stem with pyramid-pointed soldering tip; a 6 foot 3/16 inch diameter fitted hose assembly with two tank unions; and a "B" tank (40 cubic inch) pressure regulator.

KIT WITH STANDARD TORCH HANDLE (NO SHUT-OFF VALVE). Fed Spec GGG-B-00690.

00-255-9333

KIT WITH PRECISION TORCH HANDLE (WITH NEEDLE VALVE). Reference Number 30 by 60.

00-027-1364

COLLET, WELDING TORCH

Used with welding torch collet body, to retain an electrode in a gas shielded arc welding torch. .062 inch electrode diameter.

00-953-6440

CUTTING ATTACHMENT, WELDING TORCH

90 degree head angle. Hand operated, forged type, 10-1/2 inch length, 7 inch cutting capacity. Use tip size 3. Used with Victor model 315 welding torch.

00-275-1231

TIP, CUTTING TORCH

Oxyacetylene cutting tips. Copper or tellurium-copper. For use with standard cutting torches. Tip number indicates drill size of cutting and preheat orifices, respectively. Cutting range is for straight edge cutting of medium Steel.

1/8 inch to 1/2 inch cutting range. With 4 preheats.

	Size
00-964-0264	1-62-64

1/4 inch to 1-1/4 inch cutting range. With 4 preheats.

	Size
00-964-0263	2-56-62

1 inch to 2-1/2 inch cutting range. With 4 preheats.

	Size
00-964-0262*	3-52-59

* Mil Std MS15013.

2 inch to 6 inch cutting range. With 4 preheats.

	Size
00-964-0261*	4-43-57

* Mil Std MS15013.

6 inch to 12 inch cutting range. With 4 preheats.

	Size
00-964-0260*	5-30-56

* Spec Mil-T-16391.

TORCH BODY, WELDING

MEDIUM DUTY. With oxygen and fuel valves. B type hose connections, 9/16 - 18 thread. 8-1/2 inch length overall. Used with Victor model 100 torch.

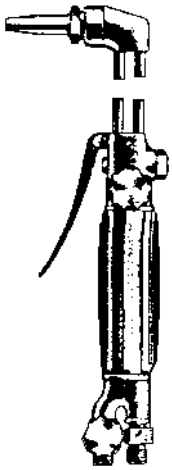
00-391-1220

GENERAL PURPOSE USE. With standard oxygen and gas valves, 11 inch length overall. Inlets threaded for B hose connection, 9/16 -18 thread. Used With Victor model 310 torch.

00-393-0335

TORCH, CUTTING

Standard Hand type Oxyacetylene Cutting Torch. 90 degree head angle. Approximately 21 inches in length. Spec Mil-T-13880.



00-273-2552

TORCH, WELDING

Hand Type Oxyacetylene Welding Torches. Designed for welding, brazing, heating, etc. Complete with: wrench, male hose connections, and welding tips(suitable for welding work up to thickness specified below). Hose connection size shown.

LIGHTWEIGHT, TYPE AB, Spec Mil-T-18134.

Welds steel up to and including 1/4 inch thick.

00-255-9332 3/8-24 RH/Thd

TORCH OUTFIT, CUTTING AND WELDING

Emergency Oxyacetylene Cutting Outfit. Canvas pack type. For damage control and other emergency cutting. Complete pack stowed in a steel cabinet. Replacement cylinder cradle stowed in a separate Steel cabinet. Outfit components and spare parts supplied, as per NAVSEA Drawings S9200-606943 through -606946.

NOTE: CYLINDERS AND GASES ARE NOT FURNISHED. ORDER SEPARATELY UNDER FOLLOWING STOCK NUMBERS:

1-cylinder, acetylene gas.
8120-00-285-4733

10 cubic feet acetylene gas.
6830-00-286-5434

1-cylinder, oxygen gas tech.
8120-00-285-1576

24.3 cubic feet oxygen gas tech.
6830-00-577-4228

00-026-4718

For use with oxygen and acetylene or MAPP gases. In areas requiring portability by two men and any construction, fabrication, repair, or mounting operation, either indoors or outdoors, that requires cutting or welding by hand operation. Includes: 33 inch length by 14 inch width by 12 inch height carrying case, necessary tips, O-rings, regulators, gages, coupling hoses and nuts, ferrules, crimping pliers, wrenches, tip cleaner, igniters, wire brush, hammer, and operator's manual. Spec Mil-T-18803.

00-076-3261

TORCH SET, CUTTING AND WELDING

HEAVY DUTY WELDING AND CUTTING. With 9 tips for welding and 14 tips for cutting. 1 each size: 000, 00, 0, 1, 2, 3, 4 and 5. Long cone welding tips with replacement tip ends, for acetylene and 1 each size 12 multi-flame. 3 each size; 1, 2 and 3 acetylene cutting tips, and 1 each size; 2 acetylene with 35 degree bend. Size 1 and 2 MAPP general purpose size; 1 and 2 propane two piece general purpose. Spec Mil-T-13880. INTENDED FOR USE IN FIELD AND BASE SHOPS.

00-845-5322

CLASS 3439

MISCELLANEOUS WELDING, SOLDERING, AND BRAZING SUPPLIES, AND ACCESSORIES

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BAFFLE, SOLDER EXTRACTOR

Used for removing solder. S-shaped sheet metal. 2.625 inch length by 0.375 inch width by 0.03 inch thick.

00-248-5263

BLADE, SOLDERING UNIT

Steel, U-shaped. 1.125 inch length. U/W Part Number PS-75, miniature soldering system.

00-417-7258

BRAZING ALLOY, COPPER

COPPER-BASE FILLER METALS. Fed Spec QQ-B-650. 36 inch length rods, diameter as noted.

Copper-Phosphorous Rod. Class: (FS BCuP-2) For brazing Copper and Copper Alloys. DO NOT USE ON FERROUS METALS. Brazing range, 1350 to 1550 degrees Fahrenheit. Diameter listed in inches.

BRAZING ALLOY, SILVER

SILVER-BASE filler metals. Fed Spec QQ-B-654. Grade and ASTM class, if applicable, as indicated. Size and form as noted.

Grade 1 (ASTM Class BAg-5). For general Silver soldering requirements including, the soldering of turbine blades. Brazing range 1370 to 1550 degrees Fahrenheit.

	W/In.	Thk/In.	Lg/In.
01-063-7414	0.062	.050	.20
00-262-4182	0.030	—	4272.
00-881-0049*	0.945	—	.078

* Ring

Grade 4 (ASTM Class BAg-la). General purpose alloy for brazing assemblies of, Mild alloy, Tool, Stainless Steels, Copper, Nickel, and dissimilar combinations of these metals. Brazing range 1175 to 1400 degrees Fahrenheit.

	Dia/In.	Lg/In.
00-528-3882	0.031	A/A
00-262-4190	0.125	A/A

Grade 5 (ASTM Class BAg 5). Used for the same applications as Grade 4, but for poor fit up and the production of fillets. For the brazing of Carbide tool tips and other high Tungsten Alloys. Brazing range 1270 to 1500 degrees Fahrenheit.

WIRE

	Dia/In.	Lg/Ft
00-262-4192	0.188	A/A

STRIP

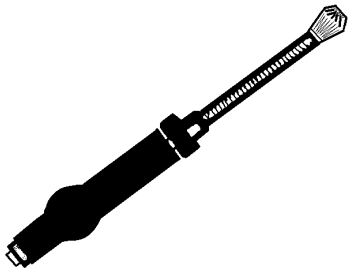
CLEANER SET, WELDING AND CUTTING TIPS

Cleans slag and splatter from gas orifices. Set of 21 Stainless Steel wire drills, sizes from .021 inch to .128 inch diameter. A-ssembled in consecutive order in an Aluminum Alloy carrying case. Spec Mil-C-17223.

00-270-6047 Labeled A to V

DESOLDERING TOOL

Adjustable vacuum pick-up action, spring loaded power source.



00-132-1331

DESOLDERING TOOL, ELECTRIC

Tip heated element; 40 Watts, 120 Volts AC, cylindrical handle, threaded end mounting. Includes: 1 tip cleaner, 1 hexagon-wrench, soldering iron stand, 3-cord plug adapter, and 7 straight conical tips. With carrying case.

	Tip Size	NSN
00-306-9547	025	01-143-9083
	038	00-910-2554
	046	00-910-2553
	059	01-003-4178
	063	00-910-2551
	078	00-910-2550
	090	00-910-2549

Straight handle. Head heating element with thermostatic control. 115V, 575W AC. Furnished with extra tips, air line, power cord, and cleaning brush.

00-808-2144

DESOLDERING WICK

Desoldering wick of woven untinned Copper braid. Rosin coated strands on spool.

	W/In.	Lg/Ft
00-545-3396	.028 to .032	5
00-426-0392	.046 to .050	5
00-403-5321*	.062	6
01-324-8208	.060	5
00-009-2334	.075 to .078	5
00-372-3480	.095 to .125	5

* Tinned

DISPENSER, FLUX SOLDER

Design Control Reference Number 613.

00-552-9309 6 oz container

ELECTRODE

A material which acts as a terminal, through which an electric current enters or leaves a liquid or gas. Item does not provide filler material or act as a lighting media.

	Dia/In.	Lg/In.
00-132-6708	.063	12

ELECTRODE, CUTTING, SOLID

DC Carbon-graphite, Type Mil-CuC. Copper-coated electrodes for use in the Carbon-arc compressed air cutting and gouging process. 50 per box. 12 inch lengths. Spec Mil-E-17777.

	Dia
00-900-2856	.312
00-288-4048	.375

ELECTRODE, RESISTANCE HEATING, SOLDERING AND BRAZING

An electric current carrying item which is held in a holder. Designed to raise metal temperature by resistance heating, at "point of contact" of the item and the metal. CRES filler. 3 per package.

01-037-5773 .040 In. Dia x A/A Lg

ELECTRODE, WELDING

Aluminum Alloy welding wire. Bright, clean wire for use with semi-automatic and machine gas metal-arc (consumable electrode), welding process. DC, reverse polarity. Spec Mil-E-16053.

Bare Types

Type EWP, clean finish.

	Dia/In.	Weld Position	Spool Wt/Lb
00-872-1411	0.040	All	7
00-105-9948	0.125	All	7

Flux-Covered for Shielded.

Metal-Arc Welding

Aluminum and Aluminum Alloy fillers. DC, reverse polarity. Horizontal fillets and flat positions. Spec Mil-E-15597.

Type 4043. For general welding of Aluminum and its alloys.

	Dia/In.	Weld Position	Lg/In.
00-262-2597	0.094	All	14

Copper-Nickel (70/30) Alloy, filler type Mil-CuNi. Spec Mil-E-22200/4 electrodes. For fabrication and repair welding of Copper-Nickel Alloy tubing, or plates and shapes. DC, reverse polarity.

	Dia/In.	Weld Position	Lg/In.
00-878-2882	0.094	All	12

HIGH-Nickel Alloy filler (CLASS E Ni), ASTM Std A398. AC or DC, reverse polarity. For making machinable repair welds on Cast Iron. Limited to non-critical applications. All position.

	Dia/In.	Weld Position	Lg/In.
00-262-2743	0.125	–	14

Carbon Steel fillers. Fed Spec QQ-E-450. For welding Carbon structural and grade HT Steels. General applications.

Type 6010. All positions. DC, reverse polarity only. Deep penetration. Very sound X-ray quality. Single and multiple pass welds on uncoated Carbon, and Low Alloy Steel plates, shapes, and castings.

	Dia/In.	Weld Position	Lg/In.
00-262-2652	0.094	All	12

Type 6013. AC or DC, reverse polarity. Shallow penetration, more suitable for welding light sheet metal.

	Dia/In.	Weld Position	Lg/In.
01-039-3494*†	0.094	All	12
01-108-6555	0.094	—	14
00-465-1914	0.125	All	14
00-165-4186*	0.125	All	14

* AC/DC
† Vanadium filler

Type Mil-8018-C3. AC or DC, reverse polarity. Deposits weld metal of higher strength than type Mil-7018.

	Dia/In.	Weld Position	Lg/In.
00-465-1908	0.125	All	14
00-465-1907	0.094	All	14
00-878-2158	0.188	All	14

Type Mil-11018-M. AC/DC, straight or reverse polarity. Note: “Not For Shipboard Use”.

	Dia/In.	Weld Position	Lg/In.
00-460-7651	0.094	All	9
00-460-7650	0.125	All	14

Type 309-15. Straight form. Steel corrosion resistant. Round shape. Reverse polarity.

	Dia/In.	Weld Position	Lg/In.
00-460-7642	0.094	All	9
00-460-7641	0.125	All	14

Type Mil-310-16. For same applications as Type Mil-310-15, but can be used with AC or DC, reverse polarity.

	Dia/In.	Weld Position	Lg/In.
00-270-9869	0.093	All	9
00-460-7660	0.094	All	9

ELEMENT, SOLDER REFLOW

For: American Beauty model 105142, handle.

01-045-0316 Short element

FLUX, BRAZING

Aluminum Alloy. For brazing light metals, their alloys, and Aluminum Bronze.

00-913-4750 8 oz jar paste

Brass, Bronze, Copper, and Steel. Paste form.

00-914-8390 16 oz jar

FLUX, SOLDERING

Liquid Flux. For use with Aluminum, Silver, and Lead Tin Alloys. Corrosion resistant. Mil Spec Mil-F-14256.

	Size	Type Flux
01-007-5494	1 pt bottle	RMA
00-069-5815	1 qt plastic bottle	RMA

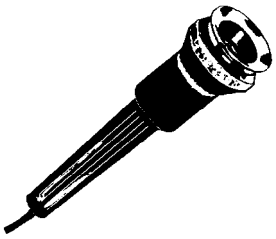
Noncorrosive. For use with Lead and Tin-Lead Alloy solders, and on all common metals, except Aluminum. Fed Spec O-F-506.

PASTE SOFT-SOLDER FLUX

01-069-9176 1 qt can

HANDLE, ELECTRIC SOLDERING IRON

Pencil type handle for electronic work. Full length insulated cord and plug connector. 115 V AC-DC.



00-631-6821 Fed Spec W-S-570

HANDLE, SOLDER REFLOW

Element P/N 105143, supplied with tool. American Beauty models: 105-A3, 105-A3T, 105-A5, 105-A7 power units.

01-045-0317

HANDLE, TORCH

Fits: Victor model 300 series welding torch.

01-050-0794 9 in. lg

HEAT GUN

Designed for 1/2 Inch or smaller tubing, and single conductors up to 18 gauge, 3/8 Inch diameter nozzle. Weight 13 ounces.

01-037-7268

HEATER ASSEMBLY

35 Watts. Pace model SX20 & SX25 solder extractor.

00-808-1806

120 Volt, .2 Amp, 3/8 inch diameter, 4-1/8 inch length. Pace model SX200.

00-488-0259

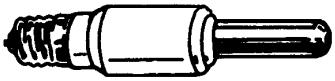
HEATING ELEMENT, WIRE STRIPPER

Wire Stripper Heating Element. With flattened cross section.

01-037-2495

HEATING UNIT, ELECTRIC SOLDERING IRON

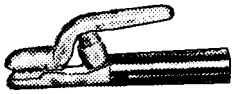
Screw-in heating unit. Rated 110-120V, AC/DC. One end with 0.465 inch diameter candelabra screw, for attaching to handles. Ungar Mod 776 and 777 or equal.



	Watts
00-337-6466	23 (600 to 650 deg F)
00-317-2732	33 (Temp 800 deg F)
00-895-2954	40 (750 to 950 deg F)
00-529-6136	45
00-827-3937	50

HOLDER, ELECTRODE, WELDING

Fully insulated manual holders. Non-submersible. Designed for metallic filler type electrodes. Spec Mil-H-865.



150 AMP

	Lg/In.	Dia/In.
00-603-8081	7	—

300 AMP

00-238-1638	A/A	0.094 to 0.250
00-880-1316	8-3/4	.250

500 AMP

00-266-9565	10-1/2	0.125 to 0.313

HOLDER, SOLDERING IRON

Wire guard. Protects user from burns and prevents damage to pencil irons. Attaches easily to top or underside of bench, or to wall, adjustable angle.

00-045-6527

ROD, WELDING

Class 4043. Silicone-Aluminum rod designed to weld 5052 and 6063 alloys, and Cast Aluminum alloys by the gas welding process. Also used for brazing 1100 and 3003 alloys (with brazing flux), and as a filler metal in inert Gas-Tungsten arc welding.

	Dia
00-254-5033	0.187

Type RCuS1-A.

	Dia
00-246-0564	0.062
00-246-0565	0.094
00-246-0566	0.125

Mil-703-2. Electrode has high Silicone content.

Used to make multiple pass welds in semi-filled and filled Steels. 36 inch length.

	Dia
00-900-8737	0.062

Stainless Steel, type Mil-308. Bare Chromium-Nickel rods. For Inert-Gas metal arc and Gas Tungsten-arc welding of types; 301, 302, 304, 305, and 308 Stainless Steels, Stainless cladded Steel, and overlays on Mild Steels, 36 inch length. Spec Mil-E-19933.

SOLDER EXTRACTOR, TIP

Copper Alloy solder extractor tip for removing solder. Rock Island Arsenal Drawing Number 12000647-23.

00-134-9201	.030 inch tip dia by 1.062 inch length

SOLDER COMPOSITIONS

SOFT SOLDER in accordance with Fed Spec QQ-S-571. Types, Composition, size and unit quantity as shown.

Ag-5.5 composition, 5.5 Silver/remainder Lead. Develops a shearing strength of 1500 PSI at 177 degrees Celsius.

Sb-5 composition, 94

Tin, 5

Antimony. For electrical or electronic connections subjected to peak temperatures of approximately 240 degrees Celsius, and for sweating Copper tube joints in refrigeration equipment.

Sn-35 composition, 35

Tin, 65

Lead. Wiping or plumbers solder. Higher antimony content in wiping solder promotes fine grain and greater strength.

Sn-40 composition, 40

Tin, 60

Lead. Frequently used for dip soldering as a wiping solder. Can be used for the same purposes as Sn-50, but is not workable in ″bit″ soldering or sweating.

Sn-50 composition, 50

Tin, 50

Lead. The ″half-and-half″ solder for use in ″bit″ soldering and sweated joints in plain, Tinned, or Galvanized Iron or Steel, Copper and Copper Alloys, etc., and for use with soldered fittings in Copper water tubing.

Sn-60 composition, 60

Tin, 40

Lead. Has a short melting range and is preferred for soldering electrical or electronic connections and for coating metals.

Sn-63 composition, 63

Tin, 37

Lead. For soldering printed circuits where temperature limitations are critical and in applications where an extremely short melting range is required.

SOLDER, LEAD ALLOY

TYPE AC-ACID CORE-Inorganic-Chloride. For use in the preparation of solder connections for all common metals or alloys other than Aluminum and Magnesium and their alloys.

NOT FOR USE IN ELECTRICAL OR ELECTRONIC CIRCUIT. Fed Spec QQ-S-571.

Composition Sn-40

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-188-6986	.094	5	6

TYPE-S-SOLID METAL CORE. (NO FLUX) For general soldering of all common metals or alloys, except Aluminum, and Magnesium.

Composition Sn-40

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-294-6191	.125	1	—

TYPE R- ROSIN CORE-Non-activated. For use in soldering joints in critical electrical and electronic equipment. Fed Spec QQ-S-571.

Composition Sn-10

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-003-8601	.028	1	2.2
00-265-7102	.063	1	2.2

TYPE RA ROSIN CORE-activated.

Composition Sn-10

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-057-5167	.094	1	1.1

Composition Sn-40

	Dia/In.	Spool Wt/Lb	Plastic Core %
01-074-9983	.125	1	3.3

SOLDER, LEAD-TIN ALLOY

Composition Sn-10

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-163-4348	.063	5	3.3

SOLDER, TIN ALLOY

TYPE RAP ROSIN CORE

Composition Sb-5

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-824-9856	.032	1	3.3
00-770-4262	.050	1	3.3
00-269-9610	.063	1	3.3

Composition Sn-63

	Dia/In.	Spool Wt/Lb	Plastic Core %
01-008-7580	.015	1/2	3.3
00-702-4067	.020	1	2.2
01-008-7577	.028	1	3.3
01-008-7578	.036	1	3.3
00-473-2000	.063	1	3.3
01-146-6953	.090	1	3.3

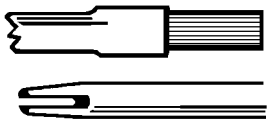
TYPE-S-SOLID METAL CORE (NO FLUX). For general soldering of all common metals or alloys, except Aluminum and Magnesium.

Composition Sn-50

	Dia/In.	Spool Wt/Lb	Plastic Core %
00-555-4629	.031	1	2.2

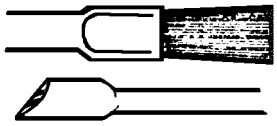
SOLDERING AID TOOL

Soldering tools with hexagonal handle. 8 inch length. Brush and forked tip. Heavy duty Stainless Steel brush for cleaning wire and terminals before soldering, forked tip for twisting and holding wires.



00-611-7136

Brush and scraper tip. Fine Stainless Steel brush and hardened Steel scraper for printed circuit repair work.



00-767-9126

Straight reamer and forked tip. Standard type. Chrome Plated Steel reamer tip for cleaning out lug holes, forked tip for twisting or holding wires. Wood handle.

00-629-2697

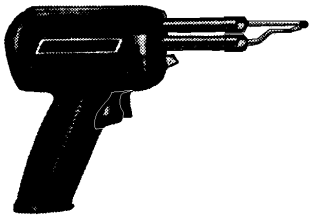
SOLDERING AND BRAZING OUTFIT, RESISTANCE HEATING

Includes: electric soldering pencil, case assembly, transformer, desoldering pencil rest and holder, 7 soldering tips, conformal coating stripping tip, wire stripping tip, dual in-line tip, flat pack tip, and 6 desoldering tips. AC current.

00-460-7198

SOLDERING GUN

Duel-heat transformer type, trigger-operated. With built-in spotlight, power cord, and plug connector. 115V, 60 Hz, AC. Fed Spec W-S-564.



Medium Duty. 3-Conductor Cord.

	Watts
00-542-0396	145/210

Heavy Duty. 3-Conductor Cord.

	Watts
00-618-6623	240/325

Pistol grip handle, dual heat control, thermostatically controlled. With spotlight. Set screw mounting. .312 inch diameter removable chisel tip. Single phase, 120 volt, 60Hz AC. 2 wire plug. Plastic carrying case containing 1 each: light, medium, and heavy duty tips and 1 roll of solder.

00-930-1638

SOLDERING IRON, CORDLESS, ELECTRIC

Cordless, Electric Soldering Iron. Battery operated with plug-in recharger or recharging stand, 700 degrees Fahrenheit tip temperature rating, with batteries, complete unit UL approved.

00-264-9573
01-045-1817*

* Not UL Approved.

SOLDERING IRON, ELECTRIC

Controlled Temperature Soldering Iron. 6 volt AC, 25 watts. Supplied With: thermostatic control, transformer and two soldering tips, one chisel and one conical shaped. 6 foot long cord. Tip sizes 1/8 and 1/4 inch.

NOT FOR SHIPBOARD USE

00-627-0500

Uncontrolled Temperature Soldering Iron. 115 volt AC/DC. Maximum tip temperature 850 degrees Farenheit. Complete with: 6 foot power cord, plug connector, rest stand, and one straight Copper tip. Tip diameter, shape, and heat power rating shown. Fed Spec W-S-570.

Standard type with coupling nut. With 3 conductor cord, screwdriver tip.

	Watts
00-019-4384*	60

* Non Spec Item

Standard type with set screw mounting.

	Tip/In.	Watts
00-204-3859	3/8 pyramid	A/A
00-204-3858	5/8 pyramid	A/A

Pencil type

With 3 conductor cord.

Plug in tip.

	Tip/In.	Watts
00-851-7021*	1/8 pyramid	50
00-204-3856	1/8 pyramid	2 tips

* 2-conductor power cord and plug connector.

Screw in tip

00-542-0454	3 pyramid tips, 1/8 & 5/16 Inch and 30x Bent pyramid
00-346-7538	1 Tip, 1/8 Inch Dia pyramid

Non Spec Item

120 volt AC, 25 watts. Thermostatically controlled. 1/8 inch diameter. Round with pointed tip. Weight 1/4 pound.

00-134-9202

SOLDERING PENCIL, ELECTRIC

Single Copper Alloy electrode. 60 inch lead length. 1/4 inch electrode diameter.

00-204-3855

SOLDERING STATION

Cylindrical handle with removable screwdriver tip. 3 wire plug. 120 volt AC, 60 Hz. Thermostatic control. Three digit “LED” readout, displaying temperature settings, and tip temperatures. With a resolution and set ability of 1 degree Fahrenheit.

01-183-4632

SPONGE AND TRAY, TIP CLEANER

Designed to fasten to work bench.

00-907-8076

TIP, DESOLDERING, SUCTION DEVICE

Vacuum solder removal type. PACE Model XX-200.

	Tip OD	Ref No.
01-138-7539	.250	1121-0214
01-057-1002	.053	1121-0213
01-065-9650	.072	—
01-078-8351	.104	1121-0217

EDSYN models, DS017, SS011, LTS13.

	Tip OD	Ref No.
00-403-2087	.062	MIT24

TIP, ELECTRIC SOLDERING GUN

Copper replacement tips. Bushing nut mounted. Manufacturer part number and point shape shown.

LOOP TYPE. For use with Welder gun models S400, D400, and 8200. 2.562 inch length by .531 inch width by .082 inch diameter.

00-540-8998 7135 wedge point

BENT PYRAMID TYPE. For use with Welder gun, coupling nut mounted, Copper alloy.

		Ref No.
01-007-9167	No. 1 wedge	7135N

TIP, ELECTRIC SOLDERING IRON

SOLDERING TIPS. Copper Alloy soldering tips. Designed to fit Ungar heating units No: 1235, 4035, 4045, or heating units conforming to Fed Spec W-S-570, as specified below.

PRESS-FIT MOUNTING

Round needle

	Ref No.	Mtg End/Dia	Tip W
00-149-8196	—	.125	.015

Copper-Alloy soldering tip designed to fit PACE Inc. heating units. Press fit. Overall length 2.125 inches, tip length .500 inch, mounting end diameter 0.125 inch, tip width .062 inch.

Round chisel

	Ref No.
00-149-8197	1121--131

Soldering tip designed to fit WAHL-CLIPPER units, set screw mounting method, mounting end diameter 0.187 inch.

Round conical

	Tip Dia	O/A Lg	Tip Lg
00-264-5807	.062	.750	.562
00-264-5818	.157	.625	.375

PLUG-IN MOUNTING METHOD, LOOP TYPE

Copper

Round chisel

	Tip Dia	Tip Lg	Tip W
00-808-1581*	.125	2.250	.125

* With set screw

Steel

Round offset flat (90 degree bent angle).

	Tip Dia	Tip Lg	Tip W
00-149-8201	.094	.156	.250

Copper and Iron Alloy Beveled. Sensor rated.

Round screwdriver

	Tip Dia	Tip Lg
00-234-9709*	.062	.625

* Sensor rated at 700 degrees.

Ungar Tip, Series 300.

Ungar No. 1235 and 4035 or equal. Threaded end. Tip shape and number shown below. Tip number prefixed with PL indicate, Silver Plating.

SCREW-IN MOUNTING

Round chisel

	Ref No.	Thread Size	Tip W
00-801-0952	PL333	6-32	.135
01-079-2822	PL155	1/4-28	.062
00-943-1676	—	1/4-18	.125
01-078-6125*	113	1/4-18	.125

* Accordance with SPCC HX Quality control.

Round tapered needle

	Ref No.	Thread Size	Tip W
00-801-0953	PL338	6-32	.050

Round bevel

	Ref No.	Thread Size	Tip W
00-972-0874*	PL340	6-32	.046
00-781-6390	—	1/4-28	.046

* .125 inch diameter thread.

Round conical

	Ref No.	Thread Size	Tip W
00-827-5445	PL331	6-32	.135
00-900-1685	—	1/4-28	.125

Round offset conical (30 degree angle)

	Ref No.	Thread Size	Tip W
00-835-1646	PL332	6-32	.135

TIP, RESISTANCE SOLDERING

Stainless Steel .078 inch diameter 1-1/2 inch length. 6 per package. For use with American Beauty model 10541.

	No.
01-044-5749	No. 10542

TIP, SOLDER EXTRACTOR

Used with Pace model SX-200 solder extractor or equal.

	ID	No.
00-149-8186	.036	1121-0117

TWEEZER, RESISTANCE SOLDERING

Tweezer type hand piece, for soldering 22 gauge wire and finer.

01-028-7145

CLASS 3441
BENDING AND FORMING MACHINES

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

EXPANDER, TUBE

Self-feeding type tube expander. Adjustable design without guard ring. Three tapered roller type expanders. One piece heads. Flexible tip not included. Expander tube outside diameter (OD) and wall thickness (Wall Thk), along with the tube sheet maximum thickness (Max Thk) is indicated in inches. Mil Spec Mil-E-15809.

ROUND HEADS

	Expander tube		Tube sheet
	OD	Wall Thk	Max Thk
00-250-8748	1/4	.028	.500
00-250-8750	1/4	.035	.500
00-250-8751	3/8	.035	.750
00-250-8749	3/8	.049	.750

MORSE TAPER HEADS

	Expander tube		Tube sheet
00-176-7912	5/8	.049	1.250
00-176-7911	5/8	.065	1.250
00-176-7913	3/4	.049	1.250
00-176-7910	3/4	.065	1.250

SQUARE HEADS

	Eff/Lg	Thk
01-122-4471	1.000	.250
01-017-8590	1.000	1.000
01-031-9694	1.500	1.500
01-018-2127	1.000	3.500

CLASS 3455
CUTTING TOOLS FOR MACHINE TOOLS

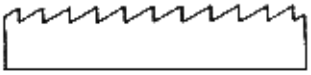
NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BLADE, BAND SAW

Metal cutting band saw blades. Welded hard edge Carbon Steel. Blade width, thickness, and teeth per inch (TPI) as shown.

FLEXIBLE BACK DESIGN

CONVENTIONAL TOOTH TYPE. Raker tooth set. Blades of 1/4 to 1 inch widths, inclusive, are adapted for contour cutting. All sizes are used in cutting ferrous, hard nonferrous metals, plastics, and hardwood.



Coiled length, 100 feet.

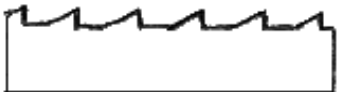
	W/In.	Thk/In.	TPI
00-278-0924	1/4	.025	10
00-277-3549	1/4	.025	18
00-277-3550	1/4	.025	24
00-277-3555	1/2	.025	6
00-277-3556	1/2	.025	10
00-224-3596	1/2	.025	14
00-277-3557	1/2	.025	18
00-517-5734	3/4	.032	10
00-517-5805	3/4	.032	14
00-277-3566	1	.035	6
01-209-6553*	1	.035	6
00-277-3568	1		10

* Joined length 11 feet, high speed Steel.

Joined length 14.667 feet.

	W/In.	Thk/In.	TPI
01-099-2285	3/4	.032	6
01-099-2286	3/4	.032	8
00-988-2894	3/4	.032	10
00-988-2895	3/4	.032	12
01-099-2287	3/4	.032	18

SKIP TOOTH TYPE. Skip tooth blades have more chip clearance and are suitable for cutting the softer nonferrous metal, wood, fiber, Plastic, and builder's board. Teeth set in accordance with usual commercial practice.



Coiled length, 100 feet.

	W/In.	Thk/In.	TPI
00-277-6671	3/8	.025	4
00-277-6673	1/2	.025	4
00-277-6674	3/4	.032	3
00-277-6675	1	.035	2

WELDED COMPOSITE, HIGH SPEED EDGE. Raker tooth set. 12 foot length, claw tooth.

	W/In.	Thk/In.	TPI
01-023-6105*	1	.035	3
01-008-7639†	1-1/4	.042	6

* 12 ft lg
† 14.5 ft lg

ALL HARD, Raker tooth set. Joined length 14.667 feet.

	W/In.	Thk/In.	TPI
01-100-3023	3/4	.032	6
01-099-2288	3/4	.032	8
01-099-2289	3/4	.032	10
01-099-2290	3/4	.032	12
01-099-2291	3/4	.032	14
01-099-2292	3/4	.032	18
00-284-0132*	1	.035	4
01-023-0241†	1	.035	8
01-181-8792‡	1-1/4	.042	4

* Joined length 12 feet.
† 14.5 foot length.
‡ 15.5 foot length.

SPRING TEMPERED DESIGN

Cuts material 5/32 to 1/2 inch thick. Joined length 3.75 feet.

	W/In.	Thk/In.	TPI
01-142-6231	1/2	.020	14

Cuts material 3/16 to 3-3/8 inches thick. Joined length 3.75 feet.

	W/In.	Thk/In.	TPI
01-142-6230	1/2	.20	10

BLADE, CIRCULAR SAW, METAL CUTTING

Combination unit type, keyway not included. Dimensions in inches.

	Dia/In.	Rim Thk	Arbor Hole Dia/In.
01-082-2548	10	.125	.750 in.

BLADE, HOLE SAW

High speed Steel, welded edge hole saws. 6 teeth per inch. 1-1/8 inch cutting depth. Cuts clean, round holes in Steel, Brass, Cast Iron, Aluminum, Plastics, wood, etc. WITHOUT ARBOR. Saw diameter size shown. CID A-A-51135A.

FITS ARBOR STYLE V AND W

	Dia/In.
00-335-3036	5/8
00-335-3037	3/4
00-335-3038	7/8
00-335-3039	1
00-335-3040	1-1/16
00-335-3041	1-1/8

FITS ARBOR STYLE X AND Y

	Dia/In.
00-335-3042	1-1/4
00-335-3043	1-3/8
00-335-3044	1-1/2
00-335-3045	1-5/8
00-335-3046	1-3/4
00-335-3047	1-7/8
00-187-2628	2
00-187-2629	2-1/16
00-187-2630	2-1/8
00-187-2631	2-1/4
00-187-2632	2-3/8
00-187-2633	2-1/2
00-222-4144	2-3/4

FITS ARBOR STYLE X, Y, AND Z

	Dia/In.
00-187-2634	3
00-187-2636	3-1/4
00-187-2637	3-1/2

NOTE: For Hole Saw Arbor see FSC 3460 Arbor, Hole Saw.

BLADE, POWER HACKSAW

ALL HARD DESIGN. Extra tough and long-wearing blades for both production work and run-of-the-shop cut-off jobs. 1 inch width by .050 inch thick. Blade length 14 inch. 6 TPI.

00-516-4572

CLASS 3455

WELDED COMPOSITE HIGH SPEED EDGE. Shatterproof, flexible back blades for heavy feeds, gang sawing, and interrupted cuts. Blade length and TPI shown.

1-1/4 inch width by .062 inch thick.

	Lg/In.	TPI
00-268-9377	14	6
00-268-9378	14	10
00-268-9380	17	6
00-268-9381	17	10
00-268-9382	18	10

1-3/4 inch width by .088 inch thick.

	Lg/In.	TPI
00-542-2447	18	6
00-516-4522	21	6

BLADE, THERMAL STRIPPER

Nickel alloy. .500 inch length by .344 inch width.

00-149-8183

CUTTER, INSERT

Uncoated screw-on type. Inside circle .250 inches. Screw size 4-40. Used with P/N SM1501, to form carbon rods for 35U-3 Spectrometer.

01-108-8676

CUTTER, MILLING, END

Straight shank single end mills. With right-hand cut and right-hand helical flutes. High speed Steel. Cut diameter, cut length, and overall length shown in inches below. Fed Spec GGG-C-755.

2-FLUTE, WITH FLATTED (WELDON) SHANK.

3/8 inch diameter Shank.

	Cut Dia	Cut Lg	O/A Lg
00-618-6007*	1/8	3/8	2-5/16
00-228-5223	1/8	3/8	2-5/16
00-224-3730	3/16	7/16	2-5/16
00-228-5294	1/4	1/2	2-5/16
00-224-3732	5/16	9/16	2-5/16
00-476-0463†	3/8	9/16	2-5/16
00-228-5295‡	3/8	9/16	2-5/16
00-228-5228	7/16	13/16	2-1/2

* 4 flutes.
† Center cut.
‡ Straight shank.

1/2 inch diameter Shank

	Cut Dia	Cut Lg	O/A Lg
00-250-0789	1/2	1	3
00-228-5296*	1/2	1	3
00-228-5297	5/8	1-1/8	3-1/8
00-228-5298	3/4	1-5/16	3-5/16

	Cut Dia	Cut Lg	O/A Lg

* Ball end.

7/8 inch diameter Shank

	Cut Dia	Cut Lg	O/A Lg
00-982-5113	1	1-1/2	3-3/4

4 FLUTES OR MORE, STRAIGHT SHANK. Shank diameter and cut diameter, are the same dimension and are listed under diameter below.

	Dia	Cut Lg	O/A Lg
00-224-3755	1/8	5/16	1-1/4
00-222-3792	1/4	5/8	1-11/16
00-224-3763	3/8	3/4	1-13/16
00-224-3767	1/2	15/16	2-1/4
00-224-3771	5/8	1-1/8	2-1/2
00-224-3776	3/4	1-1/4	2-5/8

CUTTER BIT, TOOL HOLDER

HIGH SPEED TOOL, TUNGSTEN, OR MOLYBDENUM STEEL. Ground all sides. CID A-A-51130.

CUTTER BIT BLANK, SQUARE SHAPE.

General Purpose

	Thk/In.	W/In.	Lg/In.
00-455-5458	3/16	3/16	2-1/2
00-272-9773*	3/16	3/16	2-1/2
00-272-9775†	5/16	5/16	2-1/2
00-272-9776	3/8	3/8	3
00-455-5461	1/2	1/2	4
00-272-9778	1/2	1/2	4
00-272-9780†	3/4	3/4	5

* Tungsten Steel.
† Molybdenum Steel.

Heavy Duty

	Thk/In.	W/In.	Lg/In.
00-272-9782*	3/16	3/16	2-1/2
00-272-9774*	1/4	1/4	2-1/2
00-516-3162	1/4	1/4	2-1/2
00-272-9784	5/16	5/16	2-1/2
00-272-9785	3/8	3/8	3
00-272-9786*	7/16	7/16	3-1/2
00-272-9787	1/2	1/2	4
00-272-9788	5/8	5/8	4-1/2

* Tungsten Steel

STRAIGHT CUT-OFF BLADES, BEVELED SHAPE.

General Purpose

	Thk/In.	W/In.	Lg/In.
00-272-9859‡	1/8	3/4	5
00-272-9860†	1/8	7/8	6
00-272-9863*	1/4	1-1/4	7

* Tungsten Steel.
† Molybdenum Steel.
‡ Any Acceptable

Heavy Duty

	Thk/In.	W/In.	Lg/In.
00-272-9769	1/8	7/8	6

CARBIDE AND STEEL. General Purpose. CID A-A-51143.

RIGHT HAND TURNING EDGE, 0 Degree Side Cutting Angle. Dimensions shown in inches.

	Thk	W	Lg	Style
00-554-8699	1/4	1/4	2	AR-4

RIGHT HAND SIDE EDGE, 15 Degrees Side Cutting Angle. Dimensions shown in inches.

	Thk	W	Lg.	Style
00-554-8700*	3/8	3/8	2-1/2	BR-6
00-554-8701	1/2	1/2	3-1/2	BR-8
00-554-8702	5/8	5/8	4	BR-10

* Right Hand turning edge.

CARBIDE TIP. Ground body and cutting edge. Dimensions in inches.

Square shape. Threading Edge.

	Sq	Lg
00-019-4328	.625	4

Square Edge

LEFT HAND TURNING EDGE. 0 Degree side cutting.

	Sq.	Lg	Ref No.
00-956-4103	.500	3.5	AL-8-VR75

RIGHT HAND SIDE EDGE. 0 Degree side cutting.

	Sq	Lg	Ref No.
00-996-9654	.312	2.25	AR-5-350
00-996-9656	.375	2.5	AR-6-883
00-404-5838*	.375	2.5	AR-6-K21
00-019-4234*	.500	3.5	AR-8-370
00-956-4109*	.500	3.5	AR-8-883
01-104-1197	.625	4.0	AR-10-883
00-090-1337*	.625	4.0	AR-10-883
00-019-4233*	.750	4.5	AR-12-370
00-055-2172	.750	4.5	AR-12-K21

* Right hand turning edge.

RIGHT HAND CORNER EDGE. 15 Degrees side cutting.

	Sq	Lg	Ref No.
00-132-0872	.375	2.5	BR-6-883
00-019-4237*	.500	3.5	BR-8-883
00-132-0871	.750	4.5	BR-12-370

* Right hand turning edge.

SQUARE NOSE EDGE

	Sq	Lg	Ref No.
00-019-4239	.750	4.5	B212.1

STRAIGHT POINTED NOSE EDGE

	Sq	Lg	Ref No.
00-019-4383	.375	2.5	D-6-350
00-019-4318	.500	3.5	D-8-883

THREADING EDGE

	Sq	Lg	Ref No.
00-132-0870	.375	2.5	E-6-883
00-610-1960	.375	2.5	EL-6-350
00-019-4327	.375	2.5	ER-6-883
00-019-4343	.500	3.5	E-8-370
00-019-4339	.500	3.5	E-8-883

Rectangular shape.

General Purpose

	W/In.	Thk/In.	Lg/In.
01-048-5620	.750	1.250	4.5
01-053-3392	1.250	1	5

Threading Edge

	W/In.	Thk/In.	Lg/In.
01-098-6876	.750	.750	4.5

NARROW DOVETAIL NOSE EDGE

	W/In.	Thk/In.	Lg/In.	Ref. No.
00-055-2167	.500	1.0	5.0	CT-121-K21

FILE, ROTARY

1/4 inch shank diameter. Solid ground teeth on file head. Use with power tools to shape metal, plastic, wood, etc. File head diameter and cutting surface, length in inches. Cut coarseness shown.

CARBIDE CUTTERS

Ball Shape

	Dia/In.	Lg/In.	Cut/In.
00-021-2410*	1/8	1/8	Med
01-041-6792	3/16	3/16	Med
01-046-0355	3/16	3/16	Med
01-041-5028	1/4	1/4	Med
01-045-9154	1/4	1/4	Med
01-033-6395	3/4	3/4	Med
00-224-8925	3/4	3/4	Med

* Tungsten.

Cone Shape

	Dia/In.	Lg/In.	Cut/In.
00-311-6183	1/4	3/4	Med
01-051-1390*	3/8	5/8	Med
01-243-3630*	1/2	1-1/8	Med
01-232-8411	5/8	1-5/16	Course

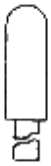
* Pointed diamond tooth cut.

Cone Shape, Radius End. 14 Degree Cone Angle.

	Dia/In.	Lg/In.	Cut/In.
01-050-7870*	1/4	5/8	Med
00-320-9847†	5/16	7/8	Med
00-311-6182	3/8	1-1/16	Med
01-232-4837	3/8	1-1/16	Fine
01-232-8410	3/8	1-1/16	Course
00-517-6018	3/8	1-1/8	Med
01-051-1391*	1/2	1-1/8	Med

* Pointed diamond tooth cut.
† Double cut fluting.

Cylindrical Shape, Ball Nose.



	Dia/In.	Lg/In.	Cut/In.
01-046-0356	1/8	9/16	Med
01-042-0892	1/4	5/8	Med
00-307-9536	5/16	3/4	Med
00-880-1310*	1/2	1	Med

* RH spiral fluting without chip breaker.

Cylindrical Shape, Flat End, without End Cut.

	Dia/In.	Lg/In.	Cut/In.
00-320-9832	5/16	3/4	Med
00-293-3561	1/2	1	Fine

Flame Shape

	Dia/In.	Lg/In.	Cut/In.
01-033-8751*	5/16	3/4	Med
00-880-1312	1/2	1-1/4	Med

* Tungsten.

Oval Shape

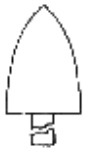
	Dia/In.	Lg/In.	Cut/In.
00-880-1311	3/8	5/8	Med
00-311-6150*	3/8	5/8	Med
00-307-9541*	1/2	7/8	Med

* Double cut fluting.

Tapered Shape

	Dia/In.	Lg/In.	Cut/In.
00-293-3560	1/4	1/2	Fine

Tree Shape, Pointed End.



	Dia/In.	Lg/In.	Cut/In.
00-309-3005	3/8	3/4	Med
01-009-6258*	1/2	1	Med

* Steel.

Tree Shape, Radius End.

	Dia/In.	Lg/In.	Cut/In.
01-168-8895	1/8	1/2	Med
00-984-3405	3/8	3/4	Med
00-318-7740	1/2	3/4	Med
00-324-5633	5/16	1-1/8	*

* Diamond cut 22 TPI.

HIGH SPEED STEEL CUTTERS

Ball Shape

	Dia/In.	Lg/In.	Cut/In.
00-023-4277	1/2	1/2	Med
01-009-6257	1/2	1/2	Med

Barrel Shape

	Dia/In.	Lg/In.	Cut/In.
00-023-4282	1/2	1-1/2	Med

Cone Shape with Right Hand Spiral Fluting.

	Dia/In.	Lg/In.	Cut/In.
00-023-4280	1/2	7/8	Med

Cylindrical Shape, Flat End, Without End Cut.

	Dia/In.	Lg/In.	Cut/In.
00-892-4677	1/2	1	Med

Cylindrical Shape, Ball Nose.

	Dia/In.	Lg/In.	Cut/In.
00-023-4276	1/2	1	Med

Inverted Cone Shape. 34 Degree Angle. Right Hand Spiral Fluting.

	Dia/In.	Lg/In.	Cut/In.
00-023-4281	3/4	5/8	Med

Oval Shape

	Dia/In.	Lg/In.	Cut/In.
00-516-4368	1/2	3/4	Med
00-224-8924	5/8	1	Med

Tree Shape. Pointed End. Right Hand Spiral Fluting.

	Dia/In.	Lg/In.	Cut/In.
00-023-4279	1/2	3/4	Med

Tree Shape. Radius End.

	Dia/In.	Lg/In.	Cut/In.
00-293-3559	1/2	3/4	Fine
00-023-4278	1/2	1-1/8	Med

INSERT, CUTTING TOOL

Designed for various machine operations, such as boring, cut-off, planing, slotting threading,and turning. Tool has two or more cutting edges. Not designed to be resharpened or reground. Carbide material. Dimensions in inches, given below.

MILLING FUNCTION

Diamond Shape. 80 Degree angle, plain hole mounting.

	Lg/W	Thk	Circle Dia	Point Rad
01-041-4924	.464	.188	.464	.031
01-274-3720	.500	.188	.500	.016
01-104-1150	.500	.188	.500	.031
01-231-3605	.500	.188	.500	.031
01-256-3403	.500	.188	.500	—-
01-318-0717	.500	.188	.500	.46

Triangular Shape. 60 Degree angle, plain hole mounting.

	Lg/W	Thk	Circle Dia	Point Rad
01-046-7053*	.359	.125	.250	.016
01-026-1387	.344	.125	.250	.031
01-045-0321	.734	.188	.375	.016
01-080-6420	.531	.125	.375	.031
01-047-3091	.547	.125	.375	.016
01-041-8434	.719	.188	.375	.031
01-098-6488	—	.188	.500	.016

* Clamp mounting.

THREADING FUNCTION

Rectangular shape. 60 Degree angle. Clamp mounting.

	Lg/W	Thk	Circle Dia	Point Rad
01-154-6389	.634	.344	.195	.004
01-104-0786	.634	.344	.195	.004

Parallelogram Shape. 60 Deg angle. Clamp mounting.

	Lg/W	Thk
01-291-4386	.344/.219	.150

TURNING FUNCTION

Parallelogram Shape. 60 Degree angle. Clamp mounting.

	Lg/W	Thk	Circle Dia.	Point Rad
01-300-3148	.634	.344	.195	—
01-051-2566	.634	.344	.195	.005
01-044-3738	.760	.453	.255	—

Triangular Shape. 60 Degree angle. Clamp mounting.

	Thk	Circle Dia	Point Rad
01-046-7064	.125	.375	.015
01-273-7871	.125	.375	.016

TURNING, BORING, PROFILING FUNCTION

Diamond Shape. 80 Degree angle. Plain hole mounting.

	Lg/W	Thk	Dia	Point Rad
01-194-6626	.500	.188	.500	.031
01-195-2148	.500	.188	.500	.031
00-401-6176	.719	.188	.500	.031

CLASS 3456

CUTTING AND FORMING TOOLS FOR SECONDARY METALWORKING MACHINERY

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BLADE, LOWER, SHEAR CUTTER

Plastic shear, cuts flexible plastics.

01-275-9741

BLADE, SHEARING MACHINE

Metal upper spare blade, for table shear.

01-271-0742

BLADE, UPPER, SHEAR CUTTER

Plastic shear, cuts flexible plastics.

01-275-9740

EXPANDER, TUBE

Carbon Steel, 3 roller, .250 inch square drive.

	OD/In.	Gage/In.
01-365–9308	.375	17

MANDREL, ROLLER TUBE EXPANDER

Water drum and water screen header mandrel. Hand or power operated, with 0.5 inch square shank. Hand turning rod not included. Approximate size designator .500 inches, except where noted. Length .750 inches. Dimensions "A" and "B" shown in illustration are listed in inches. Spec Mil-E-17624 and/or NAVSEA Drawing S5101-F-1385500.

4.375 inch length overall.

	Dim "A"	Dim "B"
00-640-3259	.515	.624
00-640-3241	.578	.687
00-640-3243	.609	.718

5.375 inch length overall.

	Dim "A"	Dim "B"
00-640-3172	.171	.312
00-640-3174	.203	.344
00-640-3176	.234	.375
00-640-3177	.250	.391

9.875 inch length overall.

	Dim "A"	Dim "B"
00-640-3313*	—	.437
00-640-3314*	—	.452

* Non Spec Item.

CLASS 3460
MACHINE TOOL ACCESSORIES

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ADAPTER, QUICK CHANGE CHUCK

Tellurium Copper Alloy Works with King Nutronics Thermo Unit Model 3604. Design Control reference number shown below. Dimensions shown in inches.

	Lg	OD	ID	Ref No.
01-074-1522	5	1	.258	—
01-108-4713	6	1	.320	21-312
01-108-4714	6	1	.509	21-500
01-108-4715	6	1	.633	21-625
01-108-4716	6	1	.758	21-750
01-108-4717	6	1	.883	21-875
01-108-4718	6	1	.945	21-937

ARBOR, HOLE SAW

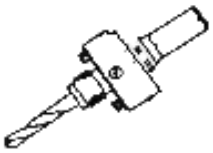
Steel arbor with 1/4 inch high speed pilot drill. Arbor style and size of drive shown below. CID A-A-51135.

Fits 5/8 inch through 1-3/16 inch diameter, hole saws.

	Style	Drive Size/In.
00-293-1737	W	7/16 hex

Fits 1-1/4 inch through 4-1/8 inch diameter, hole saws.

	Style	Drive Size/In.
00-540-1291	X	7/16 hex



Fits 1-1/4 inch through 6 inch diameter, hole saws.

	Style	Drive Size/In.
00-540-1603	Y	5/8 hex

NOTE: For hole saw blades see FSC 3455 Blade, Hole Saw.

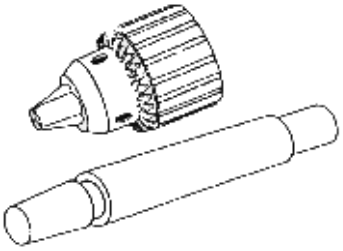
BLOCK, LAPPING

Single block, 2 inch by 4 inch. Reference number 65-0646.

00-606-7141

CHUCK, DRILL

3 Jaw Chuck. With tapered shank arbor with tang. Chuck capacity and arbor size shown. Fed Spec GGG-C-350.



Light Duty, Plain Bearing

	Cap.	No.
00-231-2253	1/2	2 Amer. Std.

Heavy Duty, Ball Bearing

	Cap.	No.
00-268-9218	1/4	1 Amer. Std.
00-268-9219	3/8	2 Amer. Std.
00-268-9220*	1/2	3 Amer. Std.

* With key.

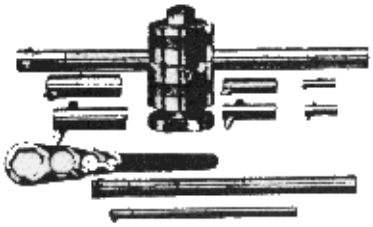
CHUCK, ELECTRODE, IONIZER

CRES. Designed to hold 7/16 inch diameter wire. 1-5/16 inch length, 1/4 inch diameter a shank. Used with vent fog precipitator model, 425212.

01-073-5950

HOLDER, CUTTING TOOL

Cutting tool holder supplied with: 3 straight boring bars; 3/8, 1/2, and 3/4 inch diameter. 6 end caps; 30, 45, and 90 degree. 6 high-speed cutting bits.3 wrenches.



00-247-7432

Adjustable cutting tool holder, shank; 1 inch width by 1 inch height by 5 inch length. 80 degree diamond.

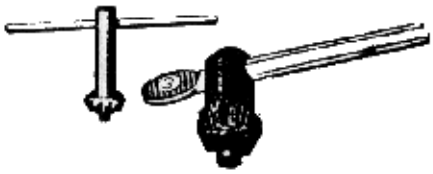
01-193-8966

Shaper cutting tool holder, shank; 3/4 inch width by 3/4 inch height by 4 inch length. Rectangular shape bit.

01-149-5744

KEY, DRILL CHUCK

Steel. T-handled pinion-type chuck keys. For use with geared drill chucks. Design type, key number, and chuck size accommodation shown. Fed Spec GGG-C-350.



Heavy Duty

	Type	No.	Size
00-293-1623	Jacobs	7/7B	1/4
00-264-5577	Jacobs	1	3/8

Light Duty

	Type	No.	Size
00-264-5578	Jacobs	3	1/2

Steel. T-handle, self ejecting. Fits Jacobs and Supreme chucks.

	Jacobs No.	Supreme No.
01-018-4220	633C, 633D	6T33E
01-018-4221	7, 7-1A, 7B	4A, 4B, 4C
01-018-4224	3333C	5T33C,15T33C

	Jacobs No.	Supreme No.
01-018-4227	U4G61,U4G41, MC1G61, MC2 U4G60, MC1G4	B1A, B80A, BM80A, BM1A

Jacobs only

00-264-5580	3, 3A, 3AE, 3B, 3KD, 3PD, 6A, 6AE, 6B, 14N, 34, 34B, 34KD, 34PD, 55B, 56B, 58B, 75A

MANDREL, MACHINE, SOLID

Tapered arbor upon which hollow cylinders are held for turning and facing exterior surfaces. Accommodates 1/8 inch thick wheel. 1/4 inch diameter shank with 3/8 inch pilot. Overall length 1-31/32 inches. Design control reference number 310-0035-2.

00-320-9848

MANDREL-FLANGE

Cadmium or Zinc plated. 2.750 inch length; diameter 1/2 one end, other end 1/2-20 UNF thread; 1-1/4 hex flange 1-1/4 inch from unthreaded end; one 1/2-20 UNC at hex nut; two discs 1/8 inch thick by 2-1/4 inch diameter with center hole diameter .508 inch; two 16 gage soft steel plates. 2.370 inch overall diameter, .380 inch height, with center hole diameter .515 inch

00-150-7164

NIB, DIAMOND, WHEEL DRESSING

1/4 carat industrial diamond mounted on metal bar. 3/8 inch diameter, 2 inch length. For truing, shaping, and dressing abrasive wheels on portable, external, and internal grinders.

00-529-5478

SHANK, ADAPTER

Steel. Designed to mount threaded spindle of grinding wheels. 1/4 inch diameter with hexagon nut one end. 1/4-20 internal thread. Overall length 1-1/4 inch. Reference number QC-4.

01-013-3459

SOCKET, TAPER SHANK TOOL

Steel reducing sleeves. For Morse taper shank drills. Inside and outside taper size, and overall length shown. CID A-A-51132.

	I/Top	O/Top	Lg/In.	Size
00-227-7520	2	3	4-7/16	5
00-227-7521	2	4	4-7/8	6
00-227-7500	3	4	5-3/8	8

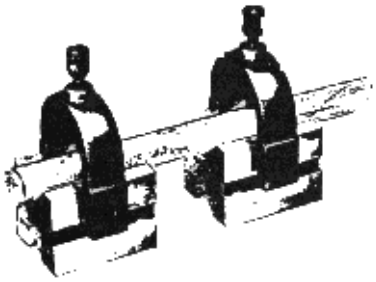
SPLIT MANDREL

Glass filled nylon steel insert. 2-7/8 inch length , 3/8 inch diameter. Reference number 935.

00-150-7163

V-BLOCK SET, MATCHED

Set of hardened steel V-blocks and clamps. V-grooves top and bottom, ground central, parallel, and square with ends and sides. 1-5/8 inch length, 1-1/4 inch width, 1-1/4 inch height. Spec Mil-V-15945.



00-517-6075 1-1/4 Single clamping groove

VISE, MACHINE TABLE

Continuous screw type. Stationary base with three mounting lugs. Sliding jaw has a centrally located 90 degree vertical V notch. Jaw width and opening in inches shown below. Fed Spec GGG-V-443.

Light Duty

	W	Opening
00-529-4693	3-1/2	4

Heavy Duty

	W	Opening
00-293-0272	6	6

WHEEL, ABRASIVE

Aluminum Oxide. Straight abrasive wheels. For precision grinding, tool sharpening, finishing, and other metal working operations. With bench and pedestal grinders. Grit size and grade designation shown.

NOTE: DO NOT EXCEED MAXIMUM RPM RATING PRINTED ON ABRASIVE WHEEL.

1 inch diameter, 1/8 inch thick.

	Grit Size	Grade
01-098-3864	36	R-hard

1-1/4 inch diameter, 5/8 inch thick.

	Grit Size	Grade
01-043-1518	46	Q-hard

3/8 inch Arbor Hole

3 inch diameter, 1/32 inch thick.

	Grit Size	Grade
00-170-7886	60	I-medium
01-102-9973	60	O-medium

3 inch diameter, 1/16 inch thick.

	Grit Size	Grade
00-172-5291	36	T-hard
01-102-8534	54	T-hard

3 inch diameter, 3/32 inch thick.

	Grit Size	Grade
01-014-9032	36	R-hard

3 inch diameter, 1/8 inch thick.

	Grit Size	Grade
00-172-5292*	24	I-medium
00-548-3820†	46	R-hard
00-528-3100	60	Any

* Fe Spec GGG-W-290.
† Silicone carbide.

3 inch diameter, 3/16 inch thick.

	Grit Size	Grade
01-015-8426	36	R-hard

4 inch diameter, 1/16 inch thick.

	Grit Size	Grade
01-048-5451	36	J-medium
00-624-1933	36	R-hard

1/4 inch Arbor Hole

4 inch diameter, 1/32 inch thick.

	Grit Size	Grade
01-305-4769	60	T-hard
01-208-0865	60	O-medium

1/2 inch Arbor Hole

4 inch diameter, 1/16 inch thick.

	Grit Size	Grade
00-528-3113	60	Q-hard

5/8 inch Arbor Hole

6 inch diameter, 3/4 inch thick.

	Grit Size	Grade
00-882-1215	60	M-medium

6 inch diameter, 1 inch thick.

	Grit Size	Grade
00-882-1219	36	O-medium

7 inch diameter, 1/4 inch thick.

	Grit Size	Grade
01-216-3406	17	K-medium
00-364-5005	20	R-hard

7 inch diameter, 1 inch thick.

	Grit Size	Grade
00-882-1228	36	O-medium
00-882-1230	60	M-medium

1 inch Arbor Hole

16 inch diameter, 1 inch thick.

	Grit Size	Grade
00-552-4291	24	T-hard

1-1/4 inch Arbor Hole

10 inch diameter, 1-1/2 inch thick.

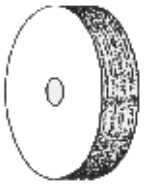
	Grit Size	Grade
00-762-7092	36	H-soft
00-882-0008	60	M-medium

Conical round tip. Pumice stone with thread insert mounting method .099-48 UNC. Used for dental, glass, and metal working and stone polishing. 5/16 inch diameter, 1 inch thick. Non Spec Item.

	Grade
00-225-1955	F-soft

WHEEL, BUFFING

20-ply muslin buffing wheels. Full-disc spiral stitched. Plain center, without face plates. Dimensions in inches. Fed Spec GGG-W-301.



	Wheel OD	Arbor Hole	Face Width
00-174-1854	6	1/2	3/4
00-174-1858	12	1	1-1/2

WHEEL, FLAP ABRASIVE

Aluminum Oxide; 120 grit; resin bond. Formed by multiple leaves of abrasive cloth, mounted radially on thread shank hub. Thread shank designed with shank adapters, for use with chuck, collet, or thread spindles. Rated for 12000 to 18000 RPM.

	Dia/In.	W/In.
01-050-0817	1-5/8	1

GROUP 39
MATERIAL HANDLING EQUIPMENT

CLASS 3940
BLOCKS, TACKLE, RIGGING AND SLINGS

NOTE: As non-plastic, alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BLOCK, TACKLE

FOR FIBROUS ROPE TACKLE

REGULAR

GENERAL PURPOSE BLOCKS. Round pattern. Malleable Iron or Steel shell with becket. Steel center pin and sheave bushed with self-lubricated Bronze bearing. Fitted with thimble and attachment as shown. Galvanized finish overall. Fed Spec GGG-B-490.

Single Sheave

4 inch size - 1,000 pound SWL, 1/2 inch diameter rope.

	Atch
00-879-2128*	B
00-984-3800	C
00-926-3728	D

* 1,600 pound SWL

6 inch size - 2,000 pound SWL, 3/4 inch diameter rope.

	Atch
00-926-3709	A
00-879-2133	B

8 inch size - 3,300 pound SWL, 1 inch diameter rope.

	Atch
00-072-0331	A
00-926-3710	D

10 inch size - 5,000 pound SWL, 1-1/4 inch diameter rope.

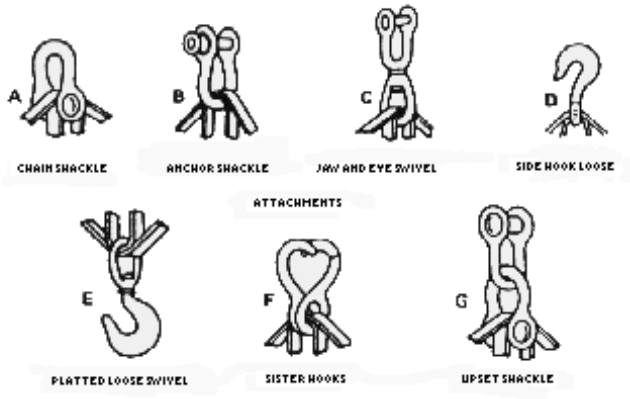
	Atch
00-926-3737	B
00-950-2960	C

12 inch size - 6,800 pound SWL, 1-1/2 inch diameter rope.

	Atch
00-926-1081	B

14 inch size - 9,600 pound SWL, 1-3/4 inch diameter rope.

	Atch
00-926-3712	B



Double Sheave

4 inch size - 1,600 pound SWL, 1/2 inch diameter rope.

	Atch
00-984-0223	B
00-950-2956	C
00-926-3713	E

6 inch size - 3,300 pound SWL, 3/4 inch diameter rope.

	Atch
00-892-4560	A
00-892-4561	B
00-984-0224	C
00-059-5996	E

8 inch size - 5,100 pound SWL, 1 inch diameter rope.

	Atch
00-926-3716	B
00-950-2961	C
00-926-3718	E

10 inch. size - 7,700 pound SWL, 1-1/4 inch diameter rope.

	Atch
00-059-5995	A

6 inch size - 4,000 pound SWL, 3/4 inch diameter rope.

	Atch
00-926-3721	A
00-984-0220	C
00-926-3734	D

8 inch size - 6,800 pound SWL, 1 inch diameter rope.

	Atch
00-926-3727	D

10 inch size - 10,000 pound SWL, 1-1/4 inch diameter rope.

	Atch
00-892-4559	A

OVAL, NAVY STANDARD WOOD BLOCK. Double-sheaved. Gray colored wood shell with Steel roller bearings, Steel center pin, and Steel sheave. Fitted with thimble and chain shackle attachment. NAVSEA Drawing S1801-860393, pieces: 1 to 7, 9 to 16, 18, 24, 28, 32 to 34.

6 inch size - 3,700 pound SWL

	Dia/In.
00-227-5563	3/4 rope

PULLEY-TYPE BLOCKS. Galvanized Malleable Iron and Steel awning blocks with round swivel eye attachment. Fed Spec GGG-B-490.

Single Sheave

1 inch size - 150 pound SWL

	Dia/In.
00-494-0834	1/4 rope

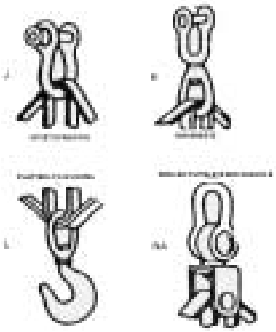
Double Sheave

	Dia/In.
00-494-0833	1/4 rope

SIGNAL HALYARD BLOCK. Bronze shell with roller-bushed single sheave and Steel center pin. Fitted with loose side sister hook attachment. NAVSEA Drawing S1801-860466.

3 inch size - 380 pound SWL

	Dia/In.
00-263-3041	5/16 rope



GENERAL PURPOSE SNATCH BLOCKS. Safety-locking swivel cross head and shackle link. Malleable Iron or Steel shell and sheave. Steel center and sheave bushed with self-lubricated plain Bronze bearing. Fitted with swivel attachment as noted. Galvanized finish. Fed Spec GGG-B-490.

6 inch size - 3,000 pound SWL, 3/4 inch diameter rope.

	Atch
00-723-3549	J

8 inch size - 4,800 pound SWL, 1 inch diameter rope.

	Atch
00-820-5145*	K
00-072-0369	L

* Either Bronze or Cpper bearing.

10 inch size - 6,000 pound SWL, 1-1/8 inch diameter rope.

	Atch
01-386-9355	A

10 inch size - 8,000 pound SWL, 1-1/4 inch diameter rope.

	Atch
00-892-4556	NA

12 inch size - 10,000 pound SWL, 1-5/16 inch diameter rope.

	Atch
01-386-9364	A

12 inch size - 10,000 pound SWL, 1-1/2 inch diameter rope.

	Atch
00-822-2250	K or NA

14 in. size - 12,000 lb SWL, 1-3/4 inch diameter rope.

	Atch
00-892-4557	NA

16 inch size - 16,000 pound SWL, 2 inch diameter rope.

	Atch
00-879-2137	NA

WOOD SNATCH BLOCK FOR LIFTING AND TOWING. Beech, Birch, or Maple cheeks. Galvanized Steel dowel bolt, burr, and sheave. Gp "M" Steel sheave pin, Bronze self-lubricating sheave bushing. "BW" Steel Galvanized swivel hook.

Single Sheave

12 inch size - 4,750 pound SWL 4 inch diameter rope.

00-003-0706

FOR WIRE ROPE TACKLE

REGULAR

DIAMOND, NAVY STANDARD BLOCKS. Galvanized Steel-plate construction. Steel sheave bushed with plain Bronze bearing. Lubricated through pressure-grease fitting in sheave pin. Furnished without attachment fittings. NAVSEA Drawings S1801-770367, -770368, and -770369 respectively. For Attachment fittings, refer to FSC 4010 Rope, Wire.

Single block

	Dia Wr	Sheave OD
00-174-6747	3/4	18

Double block

	Dia Wr	Sheave OD
00-264-4735	3/4	18

OVAL, NAVY STANDARD BLOCKS. Galvanized Steel-plate construction. Steel sheave bushed with plain Bronze bearing. Lubricated thru pressure-grease fitting in sheave pin. Furnished without attachment fittings. NAVSEA Drawings S1901-770367, -770368, -770369, and -770370. For Attachment fittings, refer to FSC 4010 Rope, Wire. Diameter and Overall Diameter listed in inches.

Single Sheave

	Rope Dia	Sheave OD
00-264-4762	1	24

ROUND, EXTRA-HEAVY DUTY BLOCKS. Structural Steel-plate construction with becket. Steel sheaves bushed with self-lubricated plain Bronze bearings. Fitted with thimble type becket and chain shackle attachment. Yellow-gloss painted finish. Diameter and Overall Diameter listed in inches. Mil Spec Mil-B-23990.

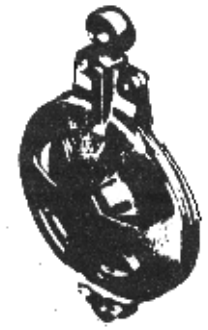
HOISTER, NAVY STANDARD CARGO BLOCKS. Galvanized Cast Steel construction. Single sheave bushed with tapered roller bearings. Provided with pressure-grease fittings for sheave pin and swivel eye attachment. NAVSEA Drawing S1801-770379. 1- Diameter and Overall Diameter listed in inches.

Oblong Swivel Eye

	Rope Dia	Sheave OD	SWL Lb
00-264-4764	3/4	18	15,000

CLASS 3940

Round Swivel Eye

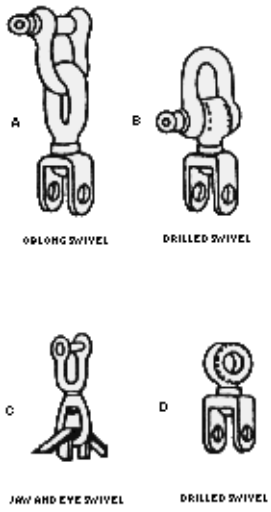


	Rope Dia	Sheave OD	SWL Lb
00-264-4767	3/4	18	15,000

SINGLE TROLLEY BLOCK. Strap-type welded steel construction. Single 8 inch dimeter, Bronze sheave bushed with plain Bronze bearing. Lubricated through pressure-grease fitting in Steel sheave pin. Drilled bottom plate and lug accommodate pins of 3/4 inch shackles which are not furnished. Used for trolleying oil hoses in fueling-at-sea (FAS) operations, by the Elwood method. NAVSEA Drawing FS5501-169245.

	Dia/In.
00-369-4456	7/8 WR

ATTACHMENTS



SNATCH

GENERAL PURPOSE, REGULAR DUTY SNATCH BLOCKS. Safety-locking swivel cross head and shackle link. Steel shell, single sheave, and center pin. Bushed with self-lubricated plain Bronze bearing. Fitted with swivel attachment as shown. Galvanized finish overall. Fed Spec GGG-B-500, except as noted.

8 inch size for 5/8 inch WR, 3 ton SWL.

	Attch
00-116-3894*	C

* Spec Mil-B-24141; 2.25 ton SWL.

LIFTING AND TOWING, EXTRA-HEAVY DUTY. Safety-locking swivel cross head and shackle link. Steel shell, sheave, and center pin. Bushed with grooved Bronze bearing lubricated through pressure-grease fitting in extra-large center pin. Fitted with swivel attachment as shown. Galvanized finish. Mil Spec Mil-B-11837.

Single Sheave

6 inch size - 5 ton SWL

	Dia/In.
00-609-8026	for 5/8 WR

NAVY STANDARD SNATCH BLOCKS. Safety-locking cross head yoke with swivel-pin and toggle latch-pin. Steel shell, single sheave, and sheave pin. Bushed with plain Bronze bearing. Provided with pressure-grease fittings for sheave pin and swivel attachment. Galvanized finish. Diameter and Overall Daimeter listed in inches. NAVSEA Drawing S1801-770377.

Round Swivel Eye

	WR Dia	Sheave OD	SWL Lb
00-264-4774	1/2	12	6,840

MINES WEEPING, NONMAGNETIC BLOCKS. Safety-locking cross head yoke with swivel-pin and chained toggle-pin. CRES. Single sheave bushed with self-lubricated plain Manganese Bronze bearing. Fitted with drilled swivel eye and shackle attachment.

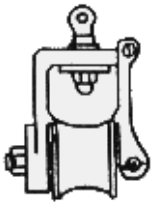
	WR Dia	Sheave OD	SWL Lb
00-368-7551*	1/2	6	5,000

* NAVSEA Drawing S8101–1723699.

MINES WEEPING BLOCK. Safety-locking, drilled sheave pin with spring loaded lockpin. CRES half-strap shell and 11 inch diameter. Single Bronze sheave bushed with self-lubricated, plain Bronze bearing. Fitted with swivel-eye attachment. Rated SWL 17,600 pounds. NAVSEA Drawing S8101-1723665.

00-809-7167	7/8 WR

HALF-STRAP PATTERN SNATCH BLOCKS. Safety-locking with latch pin. Plastic bearing, self lubricated. CRES center pin and shell. Accommodates chain tackle. NAVSEA drawing S8101–1723626.



4.5 inch size, 8 ton SWL

	Atch
00-722-8995	B

SET BLOCK AND TACKLE

LINEMAN'S SNUBBING BLOCK AND TACKLE. Consists of: two, 3-1/8 inch size, double sheaved Steel blocks NSN 3940-00-263-3042, twenty-five feet of 3/8 inch diameter manila rope NSN 4020-00-689-5688, two cable jaw grips NSN 5120-00-224-2647, and a regular hoist hook NSN 4030-00-141-3272. Galvanized finish on metal parts. Mil Spec Mil-B-30510.

	W/Lb
00-141-7218	1,200 SWL

SHACKLE, SIDE

Use with Diamond and Oval blocks. NAVSEA Drawing S1801-770374.

Single Sheave

	Block/In.
00-275-2961	3/4
00-275-2962	7/8

SHACKLE, TOP

Use with Diamond, Oval, Hoister and Snatch blocks. NAVSEA Drawing S1801-770374 and -7700375.

Single Sheave

	Block/In.
00-272-9984	1/2
00-272-9986	3/4
00-272-9987	7/8

Cargo Handling Gear

CLAMP, MATERIAL LIFTING

STEEL-PLATED VERTICAL LIFT CLAMP. Steel construction. Serrated gripping jaws with, cam-grip safety lock and lock-open device one end. 3 inch Inside Diameter lifting eye or shackle other end. Used for lifting plates, up to 11-1/4 inch thick, in a vertical position. Fed Spec GGG-C-412.

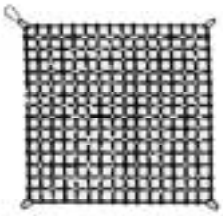
00-813-9002 4 ton lifting capacity

SLING, CARGO, NET

Nylon Webbing Net Slings. Square mesh construction, with color-coded inserts to identify net size. Mil Spec Mil-S-18313.

NOTE: Heavy duty slings may be repaired with anti-static treated Nylon webbing, NSN-8305-00-016-6483..

HEAVY DUTY, 4,500 pound Load Capacity. Each corner fitted with a hoist link and a 7 foot long loop of Nylon rope.



Anti-Static Treated, Charcoal-Gray Webbing.

	Sq/Ft	Insert/Color
00-892-4372	10	Blue
00-892-4373	12	Red
00-892-4374	14	Green

Untreated, Olive-Drab Webbing.

	Sq/Ft	Insert/Color
00-892-4375	12	Red

LIGHT-DUTY, 2,500 pound Load Capacity. Each corner formed as a 29 inch long reinforced loop.

Anti-Static Treated, Charcoal-Gray Webbing.

	Sq/Ft	Insert/Color
00-892-4379	12	Red
00-892-4380	14	Green

GALVANIZED-STEEL WIRE NET SLING. Diamond mesh construction. Each corner of jackstay formed with a 29 inch long loop. NAVSEA Drawing S2700-941216.

	Sq Ft
00-223-8829$_{NP}$	10

SLING, ENDLESS

FIBER ROPE SLING. 3/4 inch diameter Silicone and liquid Nylon coated fiber rope. Inside Circumference, 2.250 feet.

	Wt/Lb
01-053-2557	4500 SWL

Nylon webbing type sling. Abrasion resistant Nylon. Inside Circumference, 8 feet.

	W/In.	Lg/Ft
01-160-2398	1	8

MANILA ROPE BULL SLING. An endless loop of 1-5/16 inch diameter, salt-water resistant, manila rope. For use with barreled and boxed cargo.

00-174-0468 80 ft loop

SLING, MULTIPLE LEG

GENERAL PURPOSE CARGO SLING. Consists of: a 9 by 1-1/2 inch lifting ring, fitted with two wire rope legs (each 30 foot long) and a reverse eye slip hook. Galvanized finish overall. SWL (Safe Working Load) rated with legs 90 degrees apart. NAVSEA Drawing S2700-922938, Assembly B.

	Wt/Lb
00-355-4920	8,000 SWL

VEHICLE LOADING SLINGS, SHIPBOARD. Consists of: 4 upper and lower wire rope legs, with 2 Steel spreaders. Each lower leg fitted with a safety hoist swivel hook. With pear-shaped lifting link; 4 feet, 3 inch long upper leg; 9 feet 7-1/2 inch long lower legs, and 2 inch diameter by 78 inch long spreaders. Mil Spec Mil-S-22824.

	Wt/Ton
00-777-5744	5 SWL

With flounder plate; 5 feet 6 inch long upper legs; 10 feet 6 inch long lower legs; 3-1/2 inch diameter by 9 feet 4 inch long spreaders; 4 additional lower extension legs: Two, 4 feet 9 inches long, and two, 6 feet 6 inches long, each fitted with a safety hoist swivel hook.

	Wt/Ton
00-868-1589	30 SWL

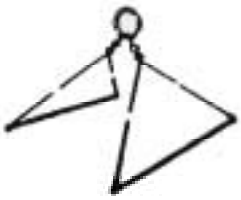
SLING, PALLET

WIRE ROPE PALLET SLINGS. For use with 48 inch wide (maximum) pallets. Consists of: a lifting ring fitted with, 2 wire rope bridles fitted to Steel pipe lifting bars at lower ends. Galvanized Steel fittings. Mil Spec Mil-S-3905.

With Spreaders. Consists of: two, 60-3/8 inch long wood spreaders, two, 57 inch long lift bars, and a 6 inch by 1-1/2 inch lifting ring. 12 feet 8 inches between pendant bearing surfaces.

	Wt/Lb
00-382-9159	7,500 SWL

Without Spreaders. Consists of: two, 57 inch long lift bars and a 6 inch by 1-3/8 inch lifting ring. 10 feet between pendant bearing surfaces.



	Wt/Lb
00-355-4926	4,000 SWL

Beam, one shackle each end, flexible wire rope legs suspended each shackle. Positive locking safety hook with two I-Beam ballet bars, 8,000 pound DIM. Overall width , 57.500 inch.

00-627-9603

GROUP 40
ROPE, CABLE, CHAIN, AND FITTINGS

CLASS 4010
CHAIN AND WIRE ROPE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

CHAIN ASSEMBLY, SINGLE LEG

BEAD CHAIN

STEEL ALLOY, Corrosion Resistant. Bead chain type with bead chain fasteners at each end. Beads per foot (BPF) are listed below. Bead diameter and overall length listed in inches. Breaking strength shown in pounds. National Aircraft Standard NAS1201-80205.

	BS	BPF	Dia	Lg
00-730-4917$_{NP}$	45	72	.125	4.0
00-882-5322$_{NP}$	90	50	.188	5.0
00-019-1506$_{NP}$	—	—	—	6.0
00-080-9818	90	50	.188	7.0

COPPER ALLOY, Chromium Treated.

	BS	BPF	Dia	Lg
00-757-5497$_{NP}$	45	50	.188	5.0

CRANE CHAIN

DAN BUOY. Corrosion Resisting Steel, welded, crane type chain. 4 enlarged common link type attachments. Magnetic permeability not to exceed 2.0. Primer paint all attachments. Used with Dan Buoy single float type. Diameter and length shown in inches. NAVSEA Drawing 448187.

	Dia	Lg	
00-274-3033$_{NP}$*	.375	96	cast

* Varnish asphalt coating

BOAT ANCHORS. Welded Steel, Zinc Coated crane type chain. Includes one pear shaped link, 3 enlarged common links and one chain shackle. Approximately 10 foot length and .375 inch diameter with a safe operating load of 4,650 pounds. Breaking strength 9300 pounds. For use with boat anchors.Mil Spec Mil-C-2683.

00-555-9510$_{NP}$

DOUGLAS DC-3. Crane type chain with quick attach/detach fitting, and hook and tension adjust screw. Overall length, 2 feet. Safe operating load to approximately 5 tons. For use to secure loads on Douglas DC3. Non Spec Item.

00-516-8405

GRAB HOOK CHAIN ENDS. Closed link style chain 14 foot length and .400 inch diameter. Safe operation to 4250 pounds; breaking strength 16200 pounds. All Steel composition. RR-C-271.

00-171-4427

"S" HOOK CHAIN ENDS. Safety plumbers style chain. 6 inches in length.

00-609-0165

CHAIN, BEAD

COPPER ALLOY; Nickel Plated. Beads per foot (BPF), bead diameter in inches and breaking strength in pounds are shown below. Fed Spec RR-C-271.

C-13 BEAD CHAIN

	BPF	Dia	Brkg Str
00-555-2658$_{NP}$*	102	.094	18
00-272-8812$_{NP}$	75	.125	25
00-171-4506$_{NP}$	50	.187	45

* Corrosion Resistant Steel.

STEEL OVERALL Size 6. 72 beads per foot with .125 inch bead diameter. Breaking strength shown in pounds. Non Spec Item. Drawing number, 530A189.

	Brkg Str
00-875-8059$_{NP}$	30

CHAIN, WELDED

STEEL OVERALL. Style, chain diameter in inches, safe operating load (Opr Ld), and breaking strength (Brkg Str) in pounds shown below. Fed Spec RR-C-271.

C-22 CLOSE LINK CHAIN

Red lead primed

	Dia	Opr Ld	Brkg Str
00-702-5003$_{NP}$	.281	2050	7750

Zinc Coated

	Dia	Opr Ld	Brkg Str
00-988-3181	.250	3250	11000

C-23 PROOF COIL CHAIN

Style, chain diameter in inches, safe operating load (Opr Ld), and breaking strength (Brkg Str) in pounds shown below.

Uncoated

	Dia	Opr Ld	Brkg Str
00-165-5629$_{NP}$	.219	522	2090
00-184-3476$_{NP}$	.406	2650	10600
00-149-5584$_{NP}$	.531	—	16500

Zinc Coated

	Dia	Opr Ld	Brkg Str
00-129-6049$_{NP}$	.281	900	3600
00-149-5583$_{NP}$	.344	1360	5440

Aluminum Alloy

	Dia	Opr Ld	Brkg Str
00-006-2587$_{NP}$	.250	550	—

C-20 CRANE CHAIN, Corrosion Resisting Steel.

	Dia	Opr Ld	Brkg Str
01-320-8239	.125	—	—
01-320-8238	.250	—	—

CHAIN, WELDLESS

Style, material, trade number (Trd No), stock diameter (Stk Dia), in inches and breaking strength in pounds are shown below. Fed Spec RR-C-271.

C-9 DOUBLE JACK CHAIN

Copper

	Trd No.	Stk Dia	Brkg Str
00-186-9381$_{NP}$	18	.048	20
00-228-9952$_{NP}$	8	.105	90
00-228-9951$_{NP}$	10	.135	145

C-7 SAFETY-PLUMBERS CHAIN

Aluminum Alloy, Anodized.

	Trd No.	Stk Dia	Brkg Str
00-262-1551	1	.028	30
00-934-0295*	—	.028	30

* 4 inch length. NAS 1455–80205.

Copper

	Trd No.	Stk Dia	Brkg Str
00-725-8402$_{NP}$	0	.023	110
01-145-4658	0	.023	110
00-720-4467$_{NP}$*	2	.028	190
00-274-3482$_{NP}$†	1	.028	150

* Nickel Plated.
† NAS 1455–80205.

Steel, Corrosion Resisting.

	Trd No.	Stk Dia	Brkg Str
00-262-1548$_{NP}$	00	.018	125

C-4 SASH CHAIN

Copper

	Trd No.	Stk Dia	Brkg Str
00-228-9933	35	.035	435

Steel, Copper finish.

	Trd No.	Stk Dia	Brkg Str
00-171-4512$_{NP}$	—	.035	350
00-228-9943$_{NP}$*	40	.042	573
00-228-9944$_{NP}$	45	.050	700

* Cadmium finish.

Steel, Corrosion Resisting.

	Trd No.	Stk Dia	Brkg Str
00-725-3338$_{NP}$	35	.035	700

C-8 SINGLE JACK CHAIN

Copper

	Trd No.	Stk Dia	Brkg Str
00-228-9964$_{NP}$	12	.105	80
00-228-9963$_{NP}$	10	.135	135

Steel, Zinc Coated.

	Trd No.	Stk Dia	Brkg Str
00-228-9975$_{NP}$	12	.105	115
00-228-9974$_{NP}$	10	.135	190

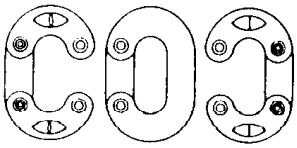
C-1 SINGLE LOOP CHAIN

Steel, Zinc Coated.

	Trd No.	Stk Dia	Brkg Str
00-297-5741$_{NP}$	1	.120	995

LINK, CHAIN, CONNECTING

Steel, Zinc Coated. Consisting of two link halves with integral rivets. Size .375 inch diameter and larger are provided with interlocking lugs. Chain sizes in inches, breaking strength in pounds, as listed below. Fed Spec RR-C-271.

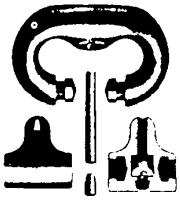


	Lg	W	Dia	Brkg Str
00-191-0091$_{NP}$*	1.500	1.000	.250	4500
00-149-5619$_{NP}$†	1.688	1.188	.312	6800
00-165-5605$_{NP}$*	2.062	1.375	.375	9300
00-270-1654	2.062	1.375	.375	9300
00-165-5607$_{NP}$*	2.625	1.750	.500	16500
00-179-0768$_{NP}$	3.875	2.500	.750	35400

* Fed Spec QQ-S-630 material.
† Steel Comp 1008–1025 material.

LINK, CHAIN, DETACHABLE

Navy type, high strength, forged Steel construction. Identified by USN and size in raised lettering on the C-link. Chain size in inches and breaking strength in pounds, as listed below. NAVSEA S2603-921790.

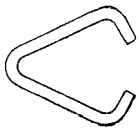


	Lg	W	Dia	Brkg Str
00-106-9474$_{NP}$	4.500	3.000	0.750	91000
00-106-9472$_{NP}$	6.000	4.000	1.000	156700
00-804-2719$_{NP}$*	8.000	5.250	0.750	—
00-106-9459$_{NP}$	11.250	7.250	1.875	—

* Pear shape; Zinc coated.

LINK, CHAIN, END

SPLIT TRIANGULAR STYLE. Corrosion Resisting Steel. Stock diameter .072 inches. Surface to bearing distance .856 inches, inside width .250 inches.



00-282-6225$_{NP}$

RECTANGULAR STYLE. Steel. Stock diameter 1.250 inches, inside length 8.750 inches, inside width 4.375 inches.

01-098-7327

ROPE, WIRE

AVIATION APPLICATIONS

Independent wire rope core construction. Lay method right regular all layers. Preform fabrication. Issued in 1000 foot rolls. Diameter shown in inches; breaking strength in pounds. Mil Spec Mil-W-83420.

COMPOSITION A. Carbon Steel, Tin or Zinc, or Tin and Zinc Coated. Type 1, non-jacketed wire rope.

Style 7 X 7

	Dia/In.	Brkg Str/Lbs
00-222-4494	.062	480
00-243-3589	.094	920

Style 7 X 19

	Dia/In.	Brkg Str/Lbs
00-285-3705	.15	2800
00-082-5963	.188	4200

COMPOSITION B. Corrosion Resistant Steel. Uncoated. Type 1, non-jacketed wire rope except where noted.

Style 3 X 7

	Dia/In.	Brkg Str/Lbs
00-951-5426*	.031	110

* 100 foot length.

Style 7 X 7

	Dia/In.	Brkg Str/Lbs
01-044-3175*	.062	480
00-222-4482	.062	480

* 1.166 ft lg.

Style 7 X 19

	Dia/In.	Brkg Str/Lbs
00-837-3649*	.064	500
00-575-6234†	.094	920
00-222-4490	.125	1760
00-222-4491	.156	2400
00-222-4492‡	.188	3700
00-956-2871§	.250	6400
00-222-4479	.250	6400
01-202-7014	.250	6400
00-222-4481	.312	9000
00-222-4493	.375	12000

* 1 foot length.
† Jacketed.

	Dia/In.	Brkg Str/Lbs

‡ Comp and type unknown.
§ 50 foot length.

GENERAL PURPOSE APPLICATIONS

Intended for use in general hauling, hoisting, lifting, transporting, well drilling. Diameter shown in inches; breaking strength in pounds; lengths in feet as indicated below. Fed Spec RR-W-410.

Steel CORE CONSTRUCTION. Steel material overall. Improved plow strand. Independent wire rope Steel core. Lay method right regular all layers. Preformed fabrication.

Zinc Coated Steel.

Style 6 X 19

	Dia	Brkg Str	Lg
00-274-3477	.625	35000	1000

Untreated Steel.

Style 6 X 19

	Dia	Brkg Str	Lg
00-272-8849	.375	13120	1000
00-272-8848	.500	25000	—

Style 6 X 37

	Dia	Brkg Str	Lg
01-022-2102	.250	6400	1000
00-878-9819	.375	12400	100
00-205-4015	.375	12500	200
00-270-8636*	.500	21450	600
00-269-9369	.500	22000	800
00-142-6486	.500	26000	1200
00-892-3943	.750	48600	600
00-142-6341	.750	47385	900
00-286-7611	.750	47385	2500
00-142-6342	.875	79600	900
00-269-9343	.875	65800	—
00-142-6485	1.000	83460	900

* Pre-stressed to 40% of Breaking Strength.

CORROSION RESISTANT Steel strand and core. Unknown type, class, and construction.

Style 6 X 19

	Dia	Brkg Str	Lg
00-274-3481	.438	16300	1000
00-194-1217	.500	22800	1000

FIBER CORE CONSTRUCTION. Steel improved plow strand except where noted. Fiber core. Lay method right regular all layers. Preformed fabrication except where noted.

Zinc Coated Steel.

Style 6 X 19

	Dia	Brkg Str	Lg
00-273-2903	.250	4932	600
00-273-2904	.375	10980	600

Style 6 X 25

	Dia	Brkg Str	Lg
00-542-2256	.625	30060	600

Style 6 X 37

	Dia	Brkg Str	Lg
00-542-2397	.250	4660	600
00-272-8794	.375	10380	600
00-901-4458	.500	18360	1800
00-542-2258	.625	28440	600

Untreated Steel.

Style 6 X 19

	Dia	Brkg Str	Lg
00-542-2255	.625	33400	600

Style 6 X 37

	Dia	Brkg Str	Lg
00-542-2383	.312	8060	600
00-286-7717	.375	12400	—
00-542-2386	.625	30810	600
00-270-8639*	.750	48600	600
00-286-7612	.875	59670	2500

* Pre-stressed to 40% of Breaking Strength.

COPPER ALLOY 510. Fiber core construction. Fed Spec QQ-B-750. Material response strand. Right regular all layers. Straight fabrication.

Style 6 X 19

	Dia	Brkg Str	Lg
01-088-3491*	.312	3680	—
00-272-8798	.312	3680	600
00-272-8800	.438	7080	600
00-272-8802	.562	11500	600

* Preformed fabrication.

MARINE APPLICATIONS

Intended for use in multiple/general marine type applications. Includes uses such as; Spring lay lines and running ropes. Diameter shown in inches; breaking strength in pounds; length in feet. Fed Spec RR-W-410.

SPRING LAY LINE. Steel improved plow strand, Zinc Coated. Fiber core construction. Preformed fabrication.

Style 6 X 3 X 19

	Dia	Brkg Str	Lg
00-185-0222	1.625	88900	600

MINESWEEPING APPLICATIONS

Intended for the use in minesweeping applications. Diameter shown in inches; breaking strength in pounds; lengths are unknown. Mil Spec Mil-W-18242.

CORROSION RESISTANT Steel composition 305 strand. Wire strand core. Preformed, right regular all layers except as noted.

Style 7 X 19; warrington.

	Dia	Brkg Str
00-782-5431$_{NP}$	.187	3900
00-184-9553$_{NP}$	.250	5600
00-184-9557$_{NP}$	.312	8700
00-184-9558$_{NP}$	.375	12200

NON-SPEC ITEMS

CORROSION RESISTANT Steel overall. Lay method right lay all layers, straight fabrication. Style 7x7. Ball terminal attached to each end, and one ball in the center. Diameter approximately .062 inches; breaking strength 350 pounds. Various approximate lengths in inches as noted.

	Lg
00-105-3815	20.0
00-105-3814	28.0
00-105-3813	2.5
00-105-3812	2.0

Steel Strand, Zinc Coated. Surface treatment overall. Preformed fabrication. Approximately .031 inch diameter. Furnished in 1000 foot sections. Features clear vinyl coating.

00-886-6251

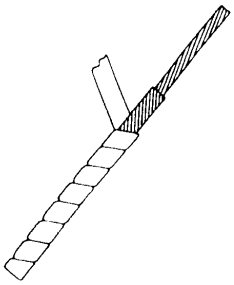
TELETYPE EQUIPMENT. Intended for use on teletype and facsimile equipment.

00-370-1116

STRAND, WIRE

AERIAL TOWING CABLE. Intended for aircraft use in towing aerial targets. Manufactured to meet the needs of a variety of reeling machines. Used in conjunction with many target types.

ARMORED outer covering of flat Steel wire. Wrapped spirally around an all Steel 1 by 19 style wire. Zinc surface treatment overall. Diameter shown in inches, breaking strength in pounds, and length in feet. Mil Spec Mil-S-5765.



	Dia	Brkg Str	Lg
00-202-2087$_{NP}$	.172	4000	10500

GENERAL AIRCRAFT USE. Intended for use in general aviation related applications.

CRES strand wire. Preformed fabrication. Non-flexible, 1 by 19 strand style. Furnished in 1000 foot sections. Approximate diameter shown in inches, breaking strength in pounds. Spec Mil-W-5693.

	Dia	Brkg Str
00-224-9432$_{NP}$	.062	500

SEIZING WIRE. Steel strand wire overall. Preformed fabrication of 1 by 7 style. Furnished in 1000 foot length. Diameter shown in inches; breaking strength in pounds. Fed Spec RR-W-410.

Annealed Steel, Zinc Coated.

	Dia	Brkg Str
00-224-9428$_{NP}$*	.031	185
00-238-3472$_{NP}$	.062	140
00-222-5346$_{NP}$	.094	300
00-222-5347$_{NP}$	.125	530

* Mil Spec Mil-W-6940

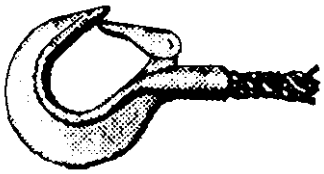
CRES, Zinc Coated.

	Dia	Brkg Str
00-641-6185$_{NP}$	.062	140
00-641-6184$_{NP}$	.094	300
00-641-6183$_{NP}$	.125	530

WIRE ROPE ASSEMBLY, SINGLE LEG

SHANK HOOK ENDS

Wire rope equipped with shank hooks at each end. Hooks are approximately 5 inches long with 1 inch throat openings. Preformed 7 by 19 style rope. Rope diameter .188 inch and 600 inch length.



D-65 SHANK HOOK

Steel Alloy with Zinc surface treatment overall. D-65 shank hooks fitted with inward acting safety throat closure. Right regular lay method.

00-285-9901

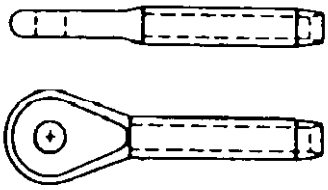
"S" HOOK ENDS

Steel Comp 302, D55 "S" hook on first end and Aluminum Alloy 2024, D311 straight terminal second end. Connected with a .062 inch diameter, 7 by 7 style, CRES wire rope. Approximately 6 inch length with a 480 pound breaking strength. 2 swaged fittings.

01-330-9936

SWAGING TERMINAL ENDS

Steel Composition 303 wire rope. Style 7 by 7 with preformed right regular lay method. Independent wire core. Approximately .063 inches in diameter, 480 pounds breaking strength. Equipped with a D-183 swaging terminal on each end. Lengths in inches and part numbers listed below.



D-183 SWAGING TERMINAL

	Lg	Part No.
00-051-7122	6	CA6T6V
00-115-2594	8	CA8T6V

TREATED Steel wire rope with all Steel attachments. Cadmium Coated terminal ends and Zinc Coated wire rope. Rope style 7 by 19. Equipped with a D-183 swaging terminal on each end.

Preformed fabrication. 4200 pound breaking strength. Right regular lay method. Approximately 30 foot length and .188 inch in diameter. Reference Number 41876.

00-238-6855

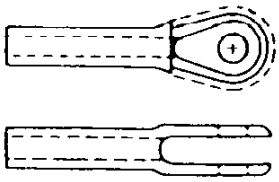
Straight fabrication. Breaking strength and lay method unknown. Approximately 18 foot long and .250 inch in diameter.

01-225-9712

LARGE DIAMETER CABLE. 1.375 inch diameter. Steel wire rope with an all fiber core. Preformed right lang all layers. Rope style 6 by 30. Each end equipped with a D-183 swaging terminal. Length in inches and dash number listed below. NavAirEngCtr Drawing 507306.

	Lg	Dash No.
00-050-8868	1056	88-0
00-050-8871	1320	110-0
00-050-8872	1380	115-0

CRES overall. Rope style 7 by 19 with preformed right regular lay method. Approximately 16 feet length and .188 inch in diameter. 4200 pound breaking strength. D-184 swaging terminal attachment both ends. Reference number 4147PC10.

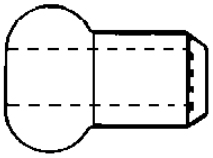


D-184 SWAGING TERMINAL

01-006-3855

SINGLE SHANK BALL END

Steel Composition 303SE or 305 wire rope. Extra improved wire rope and attachment ends. Preformed, right regular all layers 6 by 37 rope. Approximately 110 foot length and .312 inch in diameter. 9800 pound minimum breaking strength. D-2 single shank ball one end; plain other end. Passivate surface treatment shank end.



D-2 SINGLE SHANK BALL

01-026-1854

CRES. wire rope with a Plastic Polyamide strand covering. D2 single shank ball on both ends. Furnished with 1 screw. Overall length shown in inches. Design control reference 2771513, plus dash number as noted. Mil Spec Mil-S-18732

	Lg	Dash No.
01-259-2498	24	105
01-139-4296	30	104

SHANK BALL and TERMINAL ENDS

D-2 SHANK and D-184 SWAGING ENDS. Wire core construction rope of straight fabrication. D-2 single shank ball one end; D-184 swaging terminal other end. Length in feet and dash numbers listed below. Reference number, 107S7421.

	Lg	Dash No.
00-071-4464	4.765	16
00-071-4475	4.585	17

D-2 SHANK and D-183 SWAGING ENDS. Wire rope assembly. Approximately 19 foot length with a 8000 pound breaking strength. D-2 single shank ball one end; D-183 swaging terminal other end.

00-165-6019

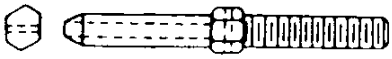
D-2 SHANK and STUD TERMINAL ENDS. Steel Composition wire rope and attachments. Rope style 7 by 19. Complies with Spec Mil-W-83420. D-2 single shank ball one end; other end as listed.

.125 inch diameter wire rope. Right regular outer layer.

D-182 Stud terminal second end. Overall length of rope 1.732 feet with a breaking strength of 2000 pounds. Surface treated.

01-239-3653

D-181 stud terminal second end. Breaking strength of 1760 pounds.



D-181 STUD TERMINAL

01-272-8384 2.042
01-272-8385 1.448

AIRCRAFT

D2 SHANK BALL AND D53 HOIST HOOK ENDS.

Wire rope 7 by 19 style. Approximately 101.5 foot length and .250 inch diameter. 7000 pound breaking strength. D2 shank ball one end, and D53 hoist hook other end.

00-716-3575

LOOP ENDS

LIGHT DUTY. Preformed Steel wire rope with a loop at each end. Seized and swaged. Wire diameter, length, and proof test load as noted.

	Dia	Lg/In.	Load/Lbs
01-216-3743	.052	12	150
01-021-6334	.062	7	250*
01-210-0905	.063	9	150

* Breaking strength.

Non-preformed fabrication. Also a CRES rope with an independent wire core. Rope style is 7 by 19, straight fabrication. Approximately 1.5 foot length and .062 inches in diameter. Clamped loops at both ends. Reference Number 3245138.

01-029-4127

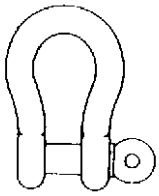
LOOP AND B312 TAPERED TERMINAL END. Steel wire rope, 7 by 7 style. Diameter .062 inches. Length in inches and Breaking strength in pounds as listed.

	Lg/In.	Brkg Str/Lbs
00-457-2957	6	48

SHACKLES

SCREW PIN ANCHOR SHACKLE

Steel Composition 1010 or 1015 wire rope and ends. Preformed, right regular layered 6 by 19 rope with a fiber core. 12 foot length and .890 inch diameter. Breaking strength of 70000 pounds. Looped and swaged first end, with attached D-133 screw pin anchor shackle; unknown terminal attachment second end. Reference Number 803-1313821.



D-133 SCREW PIN ANCHOR SHACKLE

00-789-1058

D122 ANTITOPPLING SHACKEL and D181 STUD TERMINAL ENDS

Steel wire rope, preformed. 30 inch length and .288 inch diameter.

00-477-1917

SPECIAL USE

WEAPONS SKID. Single leg wire rope assemble for use on a weapons skid. Ends unknown. Reference Number 64A114C82-2.

01-166-9450

SH-60B RECOVERY SYSTEM. Steel comp 302 straight wire rope. Terminal attachment one end, and D70 snap choker attachment other end. 67 foot length and .406 inch diameter.

01-269-7319

CLASS 4020
FIBER ROPE, CORDAGE, AND TWINE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

CORD ASSEMBLY, ELASTIC

Elastic material. 4.880 inch minimum to 5.120 inch maximum diameter.

01-203-1007

CORD, FIBROUS

COTTON BRAIDED CORD.

Lead or Taffrail Log Line. Natural color. Mil Spec Mil-L-1145.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-240-2164$_{NP}$	1/4	220	67

Sash Cord. Natural color. Fed Spec T-C-571.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-270-5468	1/8	100	1000
00-233-6555*	1/8	100	1000
00-271-1914	7/32	300	400
00-551-3343	1/4	370	333
00-551-8804	1/4	370	400
00-240-2160	5/16	560	400
00-241-8439	3/8	720	33
00-240-2142	3/8	720	420

* Mildew resistant and water repellent.

GLASS TWISTED CORD, used for electrical insulation or for mechanical support. Continuous filament, natural color, and Synthetic Rubber coating. Mil Spec Mil-Y-1140.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-008-6037	5/64	250	210

NYLON BRAIDED CORD. Used for parachute suspension lines and for various equipage items. Mil Spec Mil-C-5040.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-014-6699	1/16	100	34
00-531-2813*	1/16	100	167
00-240-2154	1/16	100	500
00-292-9920	1/16	100	500
01-071-3531	1/8	225	550
00-262-2019	1/8	400	400
00-555-8639	1/8	400	700
00-246-0688†	3/16	550	400
00-240-2146	3/16	550	700

* Red.
† Olive drab color.

FIBER ROPE ASSEMBLY, SINGLE LEG

Plain end and oval thimble style with snaphook attachment. Design control - NAVSEASYSCOM. White color.

	Dia/In.	Lg/Ft
01-119-2159	1/2	12
01-119-9058	1/2	50

MARLINE

Tarred Hemp. 2 ply balance twist construction. Fed Spec T-R-650.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-240-2185	Navy	170	1200
00-246-6134	Medium	95	120

RATLINE

Tarred Hemp. 6 yarn, 3 strand construction. Fed Spec T-R-650.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-240-2019	1/4	600	2

ROPE, FIBROUS

COTTON. Natural color. General purpose use, three strand construction. Fed Spec T-R-571.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-234-6763	1/8	120	667
00-231-9001	3/16	250	900
00-247-9224	1/4	420	533
00-068-7906	3/8	890	200
00-068-7907	1/2	1450	200

COTTON. Braided, mildew resistant, natural color. Used for flag halyards and distance lines. Mil Spec Mil-H-226.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-240-2161	1/4	500	800

MANILA HEMP. Natural color. General purpose use, three strand construction. Mildew resistant and preservative oil treated. Fed Spec T-R-605.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-231-9021$_{NP}$	1/4	600	917
00-231-9005$_{NP}$	5/16	1000	750
00-834-0708$_{NP}$	3/8	1350	200
00-231-2581$_{NP}$	3/8	1350	407
00-231-9007$_{NP}$	7/16	1750	400
00-238-7732$_{NP}$	1/2	2650	400
00-231-2572$_{NP}$	1/2	2650	900
00-231-9009$_{NP}$	9/16	3450	400
00-289-8616$_{NP}$	5/8	4400	200
00-290-5810$_{NP}$	5/8	4400	400
00-238-7734$_{NP}$	3/4	5400	400
00-231-9012$_{NP}$	13/16	6500	400
00-289-8617$_{NP}$	1	9000	200
00-231-9014$_{NP}$	1	9000	400
00-184-9807$_{NP}$	1-5/16	13500	300

NYLON stranded. General purpose use. Natural color. Where high strength or stretch is required, as in mooring, towing, and hoisting operations. Mil Spec Mil-R-17343.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-270-8245*	3/16	950	33
00-928-3438	1/4	1500	200
00-618-0261	1/4	1500	750
00-641-8898	5/16	2600	750
00-968-1356	3/8	3300	200
00-641-8899	3/8	3300	540
00-753-2886	7/16	4800	400
00-968-1357	1/2	5800	200
00-641-8900	1/2	5800	400
00-560-7732	9/16	7600	400
00-968-1358	5/8	9800	200
00-753-2887	5/8	9800	400
00-141-7152	3/4	13200	600
00-753-2888	13/16	15300	400
00-752-8878	1	23200	400
00-174-1232	1-1/8	32000	400
00-752-8879	1-5/16	41300	200
00-752-8880	1-5/8	60000	200
00-542-3307	1-3/4	72000	200
00-542-3308	2	90000	200

* Olive drab color.

NYLON, double braided. Natural color. General purpose use, where high strength and low elongation are required. Mil Spec Mil-R-24050.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-106-9342	1/4	1785	200
00-106-9341	5/16	2835	700
00-946-0436	3/8	4095	200
00-106-9361	1/2	7245	200
00-106-9402	5/8	12600	200
00-471-9336	1	27825	200
00-519-7916	1-1/8	37800	200
00-106-9407	1-5/16	50400	200
00-106-9409	1-5/8	78110	200
00-106-9411	2	109675	200
00-519-7946	2-1/4	149800	200
00-003-6293	2-5/8	192600	200

POLYAMIDE NYLON. Three strand, Olive drab color. 39 yard minimum length. Mil Spec Mil-R-1688.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-931-8793	7/16	4500	—

POLYAMIDE NYLON. Aramid overall. 4 strand, natural color. Non Spec Item.

	Dia/In.	Brkg Str/Lb	Lg/Yd
01-339-1571	1-5/16	96000	200
00-919-3443	3	23200	200
00-892-4028	8	164000	200

POLYESTER (Plastic). Used for in-haul, out-haul lines for; transfer at sea of personnel, light freight, and other applications. Where relative freedom from torque, high strength, high elongation, and maximum gripping surface are required. Issued on reels. Natural color, plated fabrication. Mil Spec Mil-R-24537.

	Dia/In.	Brkg Str/Lb	Lg/Yd
01-028-3843	1/2	6400	70
01-028-3841	1	19000	420
01-028-3840	1-1/4	27500	210
01-028-3837	3-11/16	25000	400

POLYESTER (Plastic). Natural color, twisted fabrication, issued on reel. Mil Spec Mil-R-30500.

	Dia/In.	Brkg Str/Lb	Lg/Yd
01-267-6226*	13/32	17000	—
00-630-4873	1/2	5000	400
00-142-6115	1	18500	400
00-630-4875	1-5/16	31000	200

* Black.

POLYETHYLENE (Plastic). Yellow in color. 3 strand twisted, and comes on a reel.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-710-2074	1/4	1000	200
00-968-1352	1-1/2	3700	200

POLYPROPYLENE (Plastic). Yellow in color. Used where high strength, light weight, and floatability are required. Mil Spec Mil-R-24049.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-968-1350	1/4	1000	200
00-530-0698*	5/16	1700	300
00-968-1351	3/8	2150	200
00-968-1352	1/2	3700	200
00-968-1353†	5/8	6000	200

* Orange.
† Olive drab.

TAPE, LACING AND TYING

Fabricated from continuous filament yarn. Mildew resistant. Put up in 1500 foot spool. Breaking strength 50 pounds. Used for; lacing and tying telephone switchboard cable forms, hookup wires, cable ends, aircraft cable bundles, electrical and electronic equipment, and electrical wire-harness assemblies. Mil Spec Mil-T-43435.

Glass, Plastic Tetra fluorocarbon. Impregnated.

	Color	W/In.	Thk/In.
00-053-5738	Natural	.062	.016

Nylon, wax impregnated.

	Color	W/In.	Thk/In.
00-753-6555	Black	.090	.012
00-656-1125	Natural	.090	.012
00-974-1875	Black	.012	.012

Rubber, Synthetic.

	Color	W/In.	Thk/In.
00-080-9807	Natural	.050	.012
00-226-5024	Natural	.085	.014
00-956-4754	Natural	.090	.012

TWINE, FIBROUS

Cotton, ball form. Twisted ply construction, natural finish, and color. Wrapping twine. Fed Spec T-T-871.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-233-5984	6	12	1000
00-233-5987	8	16	750
00-257-5390	24	48	250

Cotton, Seine Twine. 3 strand cable-lay construction. Fed Spec T-T-881.

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-243-3152$_{NP}$	18	35	340
00-243-1554$_{NP}$	30	60	70
00-243-3156$_{NP}$	36	70	175

Fiber, Vegetable. Six strand twisted construction. Natural color with wax finish, mildew resistant. 32 pound minimum breaking strength. 600 yard length issued in tube form. Mil Spec Mil-T-713.

00-231-5886$_{NP}$

Hemp, twisted construction. Natural color with polished wax finish. Size 60, 190 pound minimum breaking strength. 97 yard length, issued in ball form. Fed Spec T-R-650.

00-231-5870$_{NP}$

Linen, 2-ply twisted construction. Natural color with polished wax finish. 29 pound breaking strength. 500 yard length, issued in ball form. Fed Spec T-T-891.

00-231-5868$_{NP}$

Linen, 12-ply twisted construction. Natural color with wax finish. 60 pound minimum breaking strength. Mildew resistant. 370 yard length, issued in tube form. Mil Spec Mil-T-2520.

00-231-5878$_{NP}$

Polyamide Nylon, twisted construction. Used for tying; telephone switchboard cable forms, hookup wires, cable ends, a/c cable bundles, electrical and electronic wire harness assemblies. Suitable for applications at relatively high humidities. Issued in tube form. Mil Spec Mil-T-713.

Brkg

	Dia/In.	Brkg Str/Lb	Lg/Yd
00-855-2144	32	1400	Natural
00-202-1924*	48	375	Black
00-527-9089	48	750	Natural
00-542-2780*	48	950	Natural

* Wax coated - mildew resistant.

CLASS 4030
FITTINGS FOR ROPE, CABLE AND CHAINS

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BALL END, WIRE ROPE, SWAGING

CRES.

Ball end swaging terminals. Nominal dimensions listed in inches.

BALL END

	ID	OD
00-267-7111	.075	.190

SINGLE SHANK END, MS20664.

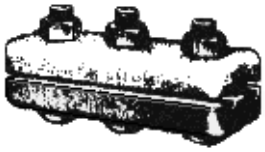
	ID	Ball OD	Shank OD	Dash No.
00-273-3081	.075	.210	.130	C2
00-272-7750	.106	.282	.168	C3
00-273-3079	.141	.348	.221	C4
00-132-9171	.171	.422	.259	C5
00-272-7749	.203	.490	.295	C6
00-132-9173	.267	.626	.403	C8

DOUBLE SHANK END, MS20663.

	ID	Ball OD	Shank OD	Dash No.
00-273-3080	.075	.205	.125	C2
00-273-3073	.106	.275	.162	C3
00-273-3076	.141	.343	.216	C4
00-273-3074	.171	.417	.252	C5
00-273-3075	.203	.185	.290	C6
00-273-3078	.266	.625	.398	C8

CLAMP, WIRE ROPE, BOLTED

Copper Alloy, Zinc Coated Steel plates. Provided with bolts and nuts. Wire rope strand size accommodated. Length and width, of clamp, given in inches. Right hand or left hand lay. Mil Std MS16791-5.



3-BOLT CLAMP

	Dia	Lg	W
00-864-9036	3/8-5/8	6-3/16	2-1/8

6-BOLT CLAMP

	Dia	Lg	W
00-141-2529	5/16	5-1/2	3

7-BOLT CLAMP

	Dia	Lg	W
00-253-9653	5/16	5	4-1/2

CLAMP, WIRE ROPE, SADDLED

Carbon Steel, Zinc Coated. Diameter of wire rope accommodated shown in inches. Grooved surface, single grip, and single saddle. Mil-Std-MS16842

	Dia	Dash No.
00-233-9565	1/8	1
00-233-9567	3/16	2
00-778-8899*	3/16	—
00-233-9568	1/4	3
00-243-4438	5/16	4
00-269-9761*	5/16	—
00-243-4439	3/8	5
00-233-9566	7/16	6
00-243-4440	1/2	7
00-243-4441	5/8	8
00-269-9764*	5/8	—
00-243-4442	3/4	9
00-243-4443	7/8	—
00-243-4444	1	11
00-243-4445	1-1/8	12
00-233-9578	1-3/8	—
00-233-9580	1-5/8	—
00-233-9581	1-3/4	15

	Dia	Dash No.

* Steel Composition, Passivated. Mil-F-17280.

Steel material, Zinc Treated. Diameter of wire rope accommodated shown in inches. Grooved surface, 3 double grip, double saddle. Mil-Std MS51868.

	Dia	Dash No.
00-042-7882	1/2	56

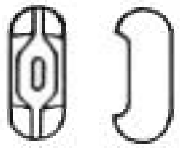
CLAMP, WIRE ROPE, THREADED

Steel, Cadmium, or Zinc Coated. Diameter of wire rope accommodated shown in inches. Mil-Std MS16843.

	Dia	Dash No.
00-838-3533	1/8	1
00-237-8741	3/8	5

COUPLING, BEAD CHAIN

USED TO CONNECT TWO DIFFERENT ITEMS.



Steel, CRES, Passivated. Overall height and material accommodation shown in inches.

	Dia/In.	H/In.
00-410-3125	1/2	1/8

FASTENER, BEAD CHAIN

Designed to connect a bead chain to other items.

Copper Alloy, Nickel Plated.

	Bead Size	Eye Dia
00-262-1573	1/8	.130
00-267-7024	3/16	.193

CLASS 4030

FERRULE, WIRE ROPE

Copper material, treated with Cadmium. Accommodates 1/8 inch diameter material.

00-878-8693

CRES. Accommodates 3/64 inch diameter material. Outside diameter is 5/32 of an inch.

01-302-6043

HOOK, CHAIN, S

Copper Alloy. Open ends type style. Upper and lower loop diameters shown in inches.

	Lg	Upper ID	Dia	Lower ID
00-272-7744	1.039	.375	.128	.453

Steel, Zinc Coated. Used for troop and officer-type berths. Upper and Lower loop diameters shown in inches.

	Lg	Upper ID	Dia	Lower ID
00-211-7310	2.000	.500	.312	.750

CRES, Passivated.

	Lg	Upper ID	Dia	Lower ID
00-618-3726	1.000	.250	.062	.500
00-801-5342	1.000	.250	.072	.500
00-821-8404	1.000	.250	.091	.500

HOOK, GRAB

Steel. Accommodated material size in inches, and proof load in pounds given below. Fed Spec RR-C-271.

	Dia/In.	Load/Lbs
00-274-3472	3/8	12,800

HOOK, HOIST

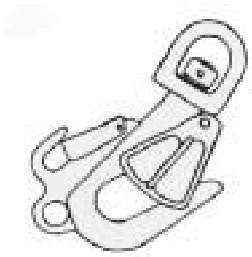
Steel Material, regular style with one round eye connection. Inward safety throat closure.

	ID	Load Rating/Lbs
01-120-9481	.750	2000b
00-163-0800	1.250	4000
00-899-4510	1.250	4000
01-128-6152*	1.750	9000

* Zinc surface treatment with swivel connection.

HOOK, PELICAN

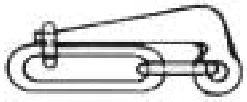
Rescue hook assembly. Small hook rated at 1000 pounds. Large hook rated at 3000 pounds. Accommodates 1 inch diameter material. Mil Std MS18027-2A.



Steel Composition 316.

	Lg	W	Thk
00-863-8546	5-7/16	3/4	5/16

Forged Zinc treated Steel. Double link body. Size accommodated, material diameter, main link stock diameter, and overall length shown in inches. NAVSEASYSCOM Drawing S1801-860234PC2T05-16.



	Mat Dia	Stock Dia	O/A Lg
00-266-7408	5/16	1/2	7-7/8
00-266-7413	5/8	1	14
00-266-7415	7/8	1-3/8	18-9/16

PLUG, LOCKING, DETACHABLE CHAIN LINK

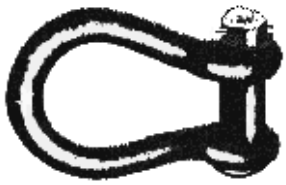
Lead material with tapered end. 2 inch per foot taper.

	Dia/In.	Taper Lg/In.	O/A Lg/In.
00-262-2066	.484	.375	1.000
00-262-2067	.531	.312	1.000
00-262-2068	.562	.500	1.375
00-262-2069	.625	.500	1.375
00-262-2070	.688	.500	1.375
00-262-2071	.750	.563	1.375
00-262-2074	.906	.625	1.375
00-262-2076	.969	.750	2.000
00-262-2078	1.094	.750	2.125
00-262-2079	1.188	.875	2.125
00-262-2082	1.375	1.125	2.875

SHACKLE

ROUND-PIN ANCHOR SHACKLE

General purpose. Galvanized Steel. Stock size and safe working load (SWL), shown in inches. Fed Spec RR-C-271.

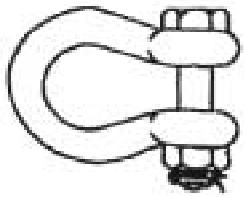


	Dia	Open W	Inside Lg	SWL
00-542-3178	1/4	15/32	1-1/16	710
00-542-3179	3/8	21/32	1-7/16	1590
00-542-3180	1/2	13/16	2	2830
01-163-6014	7/8	1-7/16	3-5/16	8650
00-542-3181	1-1/16	5/8	2-1/2	4420
00-542-3185	1-1/4	2	4-1/2	82500

SAFETY ANCHOR SHACKLE

Steel Composition 1020, Zinc Treated.

General purpose. Stock size and safe working load (SWL) shown below. With safety bolt and nut, threaded with cotter pin. Spec Mil-S-24214.



Regular

	Dia	Open W	Inside Lg	SWL
01-378-4842*	3/8	21/32	1-1/16	—
00-804-2307	1/2	13/16	1-7/8	4000
00-804-2308†	5/8	1-1/16	2-3/8	6500
00-373-1121	3/4	1-1/4	2-3/4	6360
00-373-1123	7/8	1-7/16	3-5/16	8650
00-373-1128	1	1/16	4	11300
00-369-3921	1-1/4	2-1/16	4-11/16	16500

* Forlock Pinhole.
† Non Spec Item.

High Strength

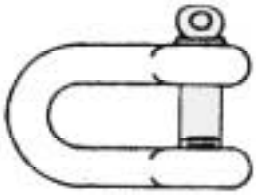
	Dia	Open W	Inside Lg	SWL
00-280-3453	1/2	13/16	1-7/8	6500
00-278-0700	5/8	1-1/16	2-1/4	—
00-278-0699	3/4	1-1/4	2-7/8	13800
00-278-0701	7/8	1-7/16	3-5/16	18700
00-279-4475	1	1-11/16	3-3/4	24400
00-278-0703	1-1/8	1-13/16	4-1/4	—
00-279-4476	1-1/4	2-1/32	4-11/16	—
00-278-0712	1-3/8	2-1/4	5-1/4	—
00-278-0714	1-1/2	2-3/8	5-3/4	—
00-369-2955	1-3/4	2-7/8	7	—
00-373-0939	2	3-1/4	7-1/2	—
00-369-2997	2-1/2	4-1/8	10-1/2	—

SAFETY CHAIN SHACKLE

Steel Composition 1020.

General purpose. Hex head bolt with cotter pin. Stock size and safe working load (SWL) shown

below. Mil Spec Mil-S-24214.



Regular

	Dia	Open W	Inside Lg	SWL
00-373-0927	5/8	1-3/32	2	4420
00-377-1170	3/4	1-1/4	2-3/8	6360
00-377-1171	7/8	1-7/16	2-7/8	8650

High Strength

	Dia	Open W	Inside Lg	SWL
00-369-4033	1/2	13/16	1-5/8	6500

SCREW PIN ANCHOR SHACKLE. With shoulder eye. General purpose. Galvanized Steel. Stock size and safe working load (SWL) shown below. Fed Spec RR-C-271.

Steel, Zinc Coated.

	Dia	Open W	Inside Lg	SWL
00-778-8967*	1/4	15/16	1-1/8	710
00-185-0481	1/4	15/32	1-1/8	710
00-282-4885	5/16	17/32	1-1/4	1060
00-270-5480	3/8	21/32	4-7/16	—
00-185-0482	3/8	21/32	1-7/16	1590
00-185-0490	7/16	23/32	1-11/16	2170
00-270-5482†	1/2	13/16	1-15/16	—
00-185-0489	1/2	13/16	1-7/8	2830
00-169-9296	9/16	7/8	2-1/8	3580
00-270-5483†	5/8	1-1/16	2-1/2	—
00-149-5574	5/8	1-1/16	2-13/32	4420
01-099-2692	5/8	1-1/16	2-3/8	—
00-270-5484†	3/4	1-1/4	3	—
00-242-5575	3/4	1-1/4	2-27/32	6360
00-270-5485†	7/8	1-7/16	3-1/4	—
00-162-9668	7/8	1-7/16	3-1/4	8650
00-270-5486†	1	1-11/16	3-3/4	—
00-290-1388	1	1-11/16	3-3/4	11310
00-185-0487	1-1/8	1-13/16	4-1/4	13360
00-169-9297‡	1-3/8	2-1/4	5-1/4	19800
00-373-1327§	1-1/2	2-3/8	5-3/4	—
00-169-9298	1-1/2	2-3/8	5-3/4	23740
00-369-3992§	1-5/8	2-5/8	6-1/4	—
00-160-1262	1-3/4	2-7/8	7	—
00-369-3993§	1-3/4	2-7/8	7-1/4	—
00-185-0488	2	3-1/4	7-3/4	42220

* CRES. Nonmagnetic, with forelock pin hole.
† CRES. Spec MIL-F-17280.
‡ 1.5 inch diameter closure pin.
§ Spec MIL-S-24214.

Steel Composition 1020, Zinc Coated. Screw pin with shoulder eye.

Spec Mil-S-24214.

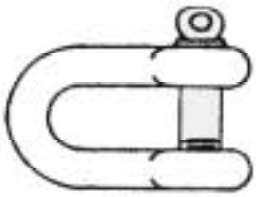
Regular

	Dia	Open W	Inside Lg	SWL
00-373-0968	3/16	3/8	7/8	520
00-369-3692	1/2	13/16	1-7/8	2830
00-369-3719	3/4	1-1/4	2-7/8	6360
00-377-1327	1-1/4	2-1/32	4-11/16	16500

High Strength

	Dia	Open W	Inside Lg	SWL
00-369-3962	1/2	13/16	1-7/8	6500
00-369-3963	5/8	1-1/16	2-25/64	10000
00-369-3973	3/4	1-1/4	2-3/4	13800
00-369-3988	7/8	1-7/16	3-1/4	18700
00-373-1316	1-1/8	1-13/16	4-1/4	28600
00-373-1317	1-1/4	2-1/32	4-21/32	36000

SCREW PIN CHAIN SHACKLE. With shoulder eye and screw pin. Stock size and safe working load (SWL), shown below. Spec Mil-S-24214.



Steel Composition 1020, Zinc Coated.

Regular

	Dia	Open W	Inside Lg	SWL
00-273-9275	1/4	15/32	7/8	710
00-286-5433	3/8	21/32	1-1/4	—
00-373-0902	1/2	13/16	1-5/8	2830
00-185-0476	5/8	1-1/16	2	4420
00-377-1162	3/4	1-1/4	2-3/8	6360
00-377-1163	7/8	1-7/16	2-5/16	8650

High Strength

	Dia	Open W	Inside Lg	SWL
00-369-3894	1/2	13/16	1-5/8	6500
00-279-4477*	5/8	1-1/16	2	—
00-369-3905	5/8	1-1/16	2	10000
00-373-0997	3/4	1-1/4	2-3/8	13800
00-278-0698*	7/8	1-7/16	2-13/16	—
00-369-3909	7/8	1-7/16	3	18700
00-373-0998	1	1-23/32	3-3/16	24400
00-369-3911	1-1/4	2-1/32	3-15/16	—
00-377-1406*	1-3/4	2-7/8	5-1/4	—
00-369-4045*	3-1/2	5-3/4	10-1/2	—

* Cotter pin and nut locking device.

Copper

	Dia	Open W	Inside Lg	SWL
00-272-8836	5/16	17/32	1	1300
00-272-8835	7/16	23/32	1-7/16	2750

Wire rope style shackle. CRES. Plain round eyelet style. Mil Std MS-20115.

	Dia	Open W	Inside Lg	SWL
00-916-8342	3/32	3/16	1/4	—
00-018-7602	3/16	5/16	7/16	—

SOCKET, WIRE ROPE

POURED TYPE

Closed Socket

For use where the full strength of the wire rope has to be utilized. Diameter of wire rope accommodated shown in inches. Fed Spec RR-S-550.

Galvanized Steel, Zinc Coated.

	Dia	O/A Lg
00-221-0766	5/16	4-9/16
00-221-0768	7/16	5-7/16
00-221-0771	5/8	6-5/16
00-221-0772	3/4	7-9/16
00-234-6245	7/8	8-3/4
00-221-0777	1	9-7/8
00-221-0778	1-1/4	12-1/8

Open Socket

Bolt and cotter pin furnished. Diameter of wire rope accommodated. Bolt hole diameter and overall length shown in inches. Fed Spec RR-S-550.

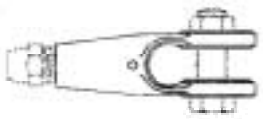
Galvanized Steel, Zinc Coated.

	Dia	Bolt Hole Dia	O/A Lg
00-162-5427	3/8	13/16	4-5/8
00-162-5428	1/2	1-1/16	5-1/8
00-162-5429	5/8	1-1/4	6-3/4
00-249-2987	3/4	1-3/8	7-15/16
00-249-2988	7/8	1-5/8	9-1/4
00-162-5430	1	2-3/32	10-9/16
00-162-5431	1-1/8	2-11/32	11-13/16
00-249-2992	1-3/8	2-1/2	13-3/16
00-162-5432	1-1/2	2-7/8	15-1/8

Open socket

Length 1/4 inch by 9/16 inch width. Bolt 1/2 inch diameter. With wedge, nut, and bolt. Material accommodated. Diameter shown in inches. Non Spec Item.

Copper Alloy



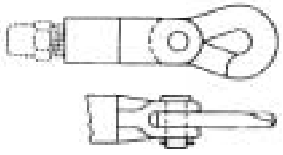
		Bolt Hole	O/A
00-316-2484	5/16	1/2	4-1/4

THREADED LOCK SLEEVE TYPE

Designed for 6 strand wire rope. Diameter of wire rope accommodated shown in inches.

Lifeline Sister Hook Style. Wedge designed for 6 strand fiber center ropes. Spec Mil-S-21433.

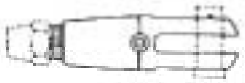
Copper Alloy



		Bolt Hole	O/A
00-184-9818	7/16	5/8	7-7/8
00-184-9819	9/16	5/8	8-5/8

Standard Open Clevis Style. With wedge accommodation.

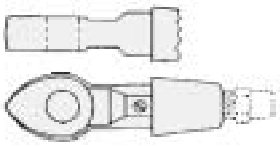
Steel, Cadmium, or Zinc finish.



		Bolt Hole	O/A
00-264-6499	5/16	7/16	4-1/4

Standard Clevis. Closed style. Wedge provided. Diameter of wire rope accommodated shown in inches.

Steel, Zinc Coated.



		Bolt Hole	O/A
00-104-9084	1/2	29/32	5-9/16

Steel, SAE1020. Wedge not provided.

		Bolt Hole	O/A
00-071-5184	2-11/16	—	—

SWAGING SLEEVE, WIRE ROPE

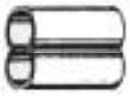
Diameter of wire rope and minimum overall length shown in inches.

FIGURE EIGHT

Aluminum

	Dia/In.	Lg/In.
01-105-7341	1/16	3/8
01-113-5973	3/16	7/8

Copper, Zinc Coated.



	Dia/In.	Lg/In.
01-257-7788*	3/64	7/16
00-431-5536	1/16	3/8
01-124-8201*	1/16	3/8
01-234-3281*	3/32	7/16
00-431-5537	3/32	7/16
00-132-9163	1/8	9/16
00-062-7780	1/8	3/4
00-431-5538*	11/64	5/8
00-132-9162	3/16	1
00-264-6502	5/16	1-1/4
00-431-5539	7/32	7/8
00-431-5540	1/4	1-1/8

* MS 51884

Copper Alloy

	Dia/In.	Lg/In.
01-184-3881	1/32	3/16
01-021-6339	1/16	3/8
01-137-7169*	1/16	7/16
01-021-6340	5/16	1-1/16
01-119-4535*	3/8	1-5/16

* MS 51884.

Copper

	Dia/In.	Lg/In.
01-137-7168	3/32	13/32
01-114-3895	3/16	1.00
01-112-6239	5/16	1-1/8
01-238-8945	1/2	13/16
01-127-8698	3/8	1-5/16
01-209-3832	1/2	1-15/16
01-166-3719	5/8	2-7/16

Steel Composition 304 or 305.

	Dia/In.	Lg/In.
01-178-2154	1/32	5/16
01-088-2952	1/16	7/16
00-877-5305	1/16	15/32
01-127-9488	3/64	7/16
01-142-0456	3/32	9/16
00-145-5721	1/8	9/16
01-209-7478	3/16	1
00-052-7072	1/4	3/4
01-322-5115	3/8	1-11/16

ROUND TAPERED

Copper, Tin Plated.

	ID	OD	O/A Lg
00-065-5088	1/16	13/64	7/32
00-762-6428	5/32	15/64	9/16

OBLONG TAPERED

CRES. Non Spec Items.

	Dia	H	W	Lg
01-022-5667	1/8	3/8	1/4	7/16
01-022-3164	5/16	1-1/8	3/4	1-5/8
00-753-1108	3/8	1-1/8	3/4	1-5/8
01-022-3163	7/16	1-7/16	1	2
00-753-1109	1/2	1-7/16	1	2
00-926-0617	5/8	1-11/16	1-7/16	2-5/16
00-753-1110	5/8	1-3/4	1-1/4	2-3/8
01-167-6283	9/16	1-3/4	1-3/16	2-1/4
00-753-1111	3/4	2-1/8	1-7/16	3-1/16
00-926-0619	3/4	2-1/8	1-11/16	2-3/4
00-926-0620	7/8	2-3/8	1-7/8	3-1/4
00-926-0644	1	2-11/16	2-1/8	3-7/8
00-753-1113	1	2-7/8	1-7/8	3-3/8

SWIVEL, LINK AND JAW

Steel, Cadmium Coated. Reach length 4-1/4 inches. Chain diameter given below. Diameter, inside width, and effective length shown in inches.

OVAL AND FORK ENDS

	Dia/In.	W/In.	Lg/In.
00-169-0816	1/2	1-1/4	1-5/16
00-401-8581	1/2	1-1/2	1-5/16
01-307-2489	3/4	2	1-3/4
00-720-4171	7/8	2-1/4	2-1/8

TERMINAL, WIRE ROPE, STUD

Swaging Wire Rope Terminal. Passivated.

Steel Composition 303SE, 305.

RIGHT HAND UNF THREAD, MS21260.

	Dia/In.	Thd Size/In.	Lg/In.
00-580-6792	3/32	10-32	2-27/32
00-580-6794	3/32	10-32	3-3/4
00-132-9215	1/8	1/4-28	3-5/32
00-580-6787	5/32	1/4-28	3-7/16
00-580-6785	5/32	1/4-28	4-5/16
00-580-6783	3/16	5/16-24	3-3/4

LEFT HAND UNF THREAD, MS21260.

	Dia/In.	Thd Size/In.	Lg/In.
00-580-6797	1/16	6-40	2-5/8
00-580-6791	1/8	1/4-28	3-5/32
00-580-6793	3/32	10-32	2-7/8
00-580-6795	3/32	10-32	3-3/4
00-580-6786	5/32	1/4-28	3-7/16
00-580-6782	3/16	5/16-24	3-3/4

RIGHT HAND UNF THREAD, MS21259.

	Dia/In.	Thd Size/In.	Lg/In.
00-132-9201	1/16	6-40	2-31/64
00-132-9203	3/32	10-32	2-29/32
00-132-9199	1/8	1/4-28	3-11/32
00-132-9196	5/32	1/4-28	3-41/64
00-132-9194	3/16	5/16-24	4-1/64
00-273-9279	5/16	1/2-20	5-27/32

LEFT HAND UNF THREAD, MS21259.

	Dia/In.	Thd Size/In.	Lg/In.
00-132-9200	1/16	6-40	2-7/16
00-132-9202	3/32	10-32	2-15/16
00-132-9192	1/4	3/8-24	4-15/16
00-132-9195	3/16	5/16-24	4-1/64

TERMINAL, WIRE ROPE, SWAGING

CRES, Passivated. Diameter of wire rope accommodated, shown in inches.

EYE END STYLE, MS20668.

	Dia	Bolt Hole Dia	Dash No.
00-958-7093	1/16	.191	-2
00-082-0656	3/32	.191	-3
00-132-9181	1/8	.191	-4
00-132-9180	5/32	.250	-5
00-132-9179	3/16	.314	-6

FORK END STYLE, MS20667.

	Dia	Bolt Hole Dia	Dash No.
00-958-8038*	1/16	.191	—
00-082-0655	3/32	.191	-3
00-958-8039	1/8	.191	-4
00-273-3084	5/32	.250	-5
00-958-8040	3/16	.314	-6

* AN667–2 Spec/Std.

BALL END NAS 287-55-4.CRES, Passivated.

Steel Composition 303SE, 305.

	Dia/In.	Bolt Hole/Dia/In.
00-273-3611	.144	.144

THIMBLE, ROPE

Steel, Zinc Coated.

Type 1 thimbles, are intended for use with fiber rope only. Type 2 thimbles, light, are intended for use, where the full tension of the rope is not developed, in normal use and for fiber rope. Type 3 thimbles, heavy, are intended for use, with high-grade plow-steel wire rope, where heavy commercial thimbles of the weight and specified dimensions are considered satisfactory. Fed Spec FF-T-276.

TYPE 1, SPLIT ROUND. Fiber Rope Thimbles.

	Dia/In.	ID/In.	OD/In.
00-282-2509	1/2	3/4	1-1/4
00-262-2048	5/8	15/16	1-1/2
00-262-1597	3/4	1-1/8	1-3/4
00-262-2049	7/8	1-3/16	2
00-270-8695	1	1-1/4	2-1/4
00-262-2051	1-5/16	1-3/4	3

TYPE 2, SPLIT OVAL. Light Fiber and Wire Rope Thimbles.

	Dia/In.	I/W/In.	I/Lg/In.
00-202-3339	3/16	11/16	1-1/4
00-266-0058	1/4	11/16	1-1/4
00-266-0085	11/32	1	1-5/8
00-282-2512	17/32	1-1/8	1-7/8
00-262-1791	5/8	1-3/8	2-1/4
00-269-9775	5/8	1-3/4	3-1/4
00-266-0086	1	2-1/8	3-5/16

TYPE 3, SPLIT OVAL. Heavy Wire Rope Thimbles.

	Dia/In.	I/W/In.	I/Lg/In.
00-266-0062	1/4	3/4	1-5/8
00-266-0063	5/16	1	1-7/8
00-266-0064	3/8	1-1/8	2-1/8
00-266-0065*	7/16	1-1/4	2-1/4
00-266-0066	1/2	1-1/2	2-5/8
00-266-0067	9/16	1-1/2	2-3/4
00-270-8708	5/8	1-3/4	3-1/4
00-270-8709	3/4	2	3-3/4
00-266-0070	7/8	2-1/4	4-1/4
00-266-0071	1	2-1/2	4-1/2
00-266-0074	1-1/8	2-7/8	5

* Non Spec Item.

Spec Mil-F-17280. Heavy Duty Wire Rope Thimble. CRES, Passivated.

SPLIT OVAL

	Dia/In.	I/W/In.	I/Lg/In.
00-269-9771	1/4	3/4	1-5/8
00-269-9772	5/16	1	1-7/8

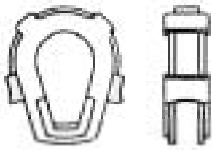
AN100C. Used for ground support equipment. CRES, Passivated.

SPLIT OVAL

	Dia/In.	I/W/In.	I/Lg/In.
00-262-1890	7/64	23/64	45/64
00-262-1891	5/32	15/32	51/64
00-171-4912	3/16	1/2	1
00-262-1894	1/4	45/64	1-13/32
00-272-7745	3/8	1	2
00-262-1896	7/16	1-1/8	2-1/4
00-262-1897	1/2	1-1/4	2-1/2

Copper Alloy

Oval, with lugs and cover plates style. Marked, “FOR PLASTIC ROPE”. Thimble size shown below. 41,200 pounds test load. 4 inch circumference. Accommodated. Spec Mil-T-23326.



	Dia/In.	I/W/In.	I/Lg/In.
00-814-5781	7/16	7/8	1-7/16
00-814-5790	9/16	1	1-23/32
00-814-5825	15/16	1-1/4	2-3/8
00-814-5827	1	1-5/8	2-25/32
00-814-5831	1-1/4	1-7/8	3-9/32
00-814-5847	1-5/16	2-1/8	3-19/32
00-814-5851	1-5/8	2-5/8	4-15/32

GROUP 41
REFRIGERATION, AIR CONDITIONING, AND AIR CIRCULATION EQUIPMENT

CLASS 4110
REFRIGERATION EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

DISPENSER, DRINKING WATER, MECHANICALLY COOLED

BASIN TOP, CABINET DISPENSERS. Includes, bubbler draw-off capacity of 7.5 gallons per hour, from top of dispenser. Water supply line dispensing pressure. CRES cabinet. Approximately 44 inch height by 17 inch width by 17 inch depth. Hermetically sealed, air cooling condenser. 115V AC, 60 Hz, single phase. Freon-12 coolant.

00-940-8383*
01-005-4874
01-154-9503
01-209-3181
01-392-7059
* Generic NIIN

FREE STANDING and WALL HANGING dispensers. Corrosion Resistant Steel material. Hermetically sealed air cooling condenser. Water supply line dispensing pressure. 115V AC, 60 Hz, single phase. Freon-12 coolant. Refrigerated storage space is not provided. CID A-A-1151.

FREE STANDING dispenser with bubbler draw-off capacity to approximately 9.5 gallons per hour.

	H/In.	W/In.	Dp/In.
00-255-8760	44.000	25.500	25.500

INVERTED BOTTLE dispenser. Gravity fed dispensing with a faucet draw-off device. Dispenses .95 gallon per hour. Designed for fresh water. Steel cabinet with baked Enamel finish. 115V, AC, 60 Hz, single phase. Uses Freon 12 or 22 coolant. CID A-A-1153.

	H/In.	W/In.	Dp/In.
00-203-0565	41.000	25.500	25.500

WALL HANGING dispenser, with bubbler draw-off capacity to approximately, 10 gallons per hour.

	H/In.	W/In.	Dp/In.
00-782-5125	32.000	25.500	25.500

ICEMAKER-DISPENSER

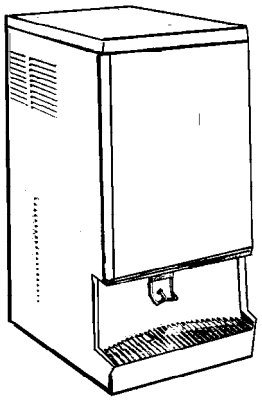
WATER DISPENSER INCLUDED with all styles. Rated at 120V AC, 60Hz, single phase for shipboard use. The storage reservoir capacity (Stg Cap.) is shown in pounds. Mil Spec Mil-I-43682.

525 pound capacity per 24 hours, (Floor model).

	Stg Cap.
01-280-3228	90
01-246-5293*	8

* Flake type, ice.

200 pound capacity, per 24 hours, (Counter model).



	Stg Cap.
00-306-9527	30

PLATE, FRONT

For a model 414 ice cream maker.

01-169-8436

REFRIGERATOR-FREEZER, MECHANICAL, FOOD

Steel cabinet with baked Enamel finish. White color. 120V AC, 60 Hz. Electric motor power source. Unit has two door access. Capacity listed in cubic feet.

	Cap.	W/In.	Dp/In.	Ht/In.
01-302-3711*	14.000	39	29	72

* 2 condensers. 115V AC, 60Hz. For shipboard use.

GROUP 42
FIRE FIGHTING, RESCUE, AND SAFETY EQUIPMENT

CLASS 4210
PORTABLE FIRE FIGHTING EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ADAPTER, STRAIGHT, PIPE TO HOSE

Copper Alloy Overall. NPT pipe thread at one end, and NPSH hose thread at the other end. Mil Spec Mil-C-52404.

MALE PIPE TO MALE HOSE

Hex Wrenching.

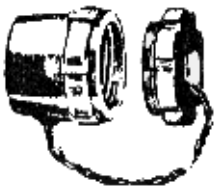
	NPT	NPSH
00-277-3376	1	1-1/2
00-277-3377	2	1-1/2
00-277-3378	2-1/2	1-1/2

Rocker Lug Wrenching.

	NPT	NPSH
00-289-1305	2-1/2	2-1/2 NH

FEMALE PIPE TO FEMALE HOSE

With Plug and Chain.



	NPT	NPSH
00-355-4862*	2-1/2	2-1/2 NH

* Non Spec Item.

Gasket seal, swivel nut.

	NPT	NPSH
01-037-6265*	1-1/2	1-1/2

* Mil Spec Mil-C-5240A.

APPLICATOR, NOZZLE

Enclosed, Copper Nickel Strainer. One end fitted with low velocity fog head. Other end fitted with, bayonet joint which snaps into position in the nozzle. Used with three position water nozzles. Head end of tubing for 4 foot size applicator, bent to a 60 degree angle. 10 foot and 12 foot sizes, bent to a 90 degree angle. Permits the fire fighter to reach over and around obstructions.

	Dia/In.	Lg/Ft
00-372-0866	2-1/2	12

AX, PICK HEAD

Carbon Steel. Designed for use by fire fighters. Head 12 inch length, 5 inch cutting edge and a 34-1/2 inch long handle. Fed Spec GGG-A-926.

00-142-4949 6 lb head

BELT, QUICK RELEASE

For fire hose. Nylon with CRES fittings. 1 inch width by 32 inch length.

01-092-5652

BLANKET, FIRE

Glass fiber. 174 inch length by 180 inch width, stitch binding.

01-306-7827

BRACKET, FIRE EXTINGUISHER

For use with 15 pound Carbon Dioxide (CO_2) extinguishers. Cam release type. NAVSEA Drawing 810-1335843.

00-268-9730

Wall hook type, vertical mounting. Used with 15 pound CO_2 extinguishers.

00-262-7070

Spring clip type. Used with 15 pound CO_2 extinguishers.

00-262-7071

Vertical mounting, left and right hand installation. Designed for CO_2 types.

01-112-1097 1 qt

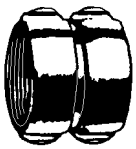
CARTRIDGE, GAS PRESSURE

Navy Type, Magnetic. Used with 18 pound extinguishers.

00-935-1669

COUPLING, HOSE

Copper Alloy Overall. Double female type. Both ends identical, with swivels, rocker arms, and gasket seals.



500 PSI maximum operating pressure. Spec Mil-C-52404.

00-288-8816 2-1/2 NH x 2-1/2 NH

600 PSI maximum operating pressure. Spec Mil-F-19488.

	NPSH
00-307-4699	1-1/2

CYLINDER, COMPRESSED GAS

CO2 shatterproof cylinder. Rigid neck. Valve furnished. Maximum operating pressure 2015 PSI. Red color.

Replacement cylinder for CO2 Fire Extinguisher, NSN 4210-00-203-0217. Internal 1-11-1/2 NPT threads. 15 pound capacity. 6.5 inches by any acceptable height. Spec Mil-E-24269.

00-151-9772

Internal 1-11-1/2 NPT and external 3-1/8-11 NS threads. Capacity rating 2320 cubic inches. Used with compressed gas fire fighting systems. Spec Mil-C-22491.

00-151-9778

DRY CHEMICAL, FIRE EXTINGUISHER

Purple powder, potassium bicarbonate extinguishing agent. For use in Dry Chemical Extinguisher, NSN 4210-00-843-2790. Free flowing, noncaking, moisture-proof, and nonconductor of electricity. Fed Spec O-D-1407.

00-752-9343 50 lb pail

EXTINGUISHER, FIRE, CARBON DIOXIDE

Portable hand actuated type. With permanent shut-off valve. Charged, nonshatterable cylinder, for class 'B' and 'C' fires.

Shipboard use. Squeeze-grip control device. Spec Mil-E-24269.

	CO2 Cap./Lbs
00-203-0217	15
00-096-2668	15

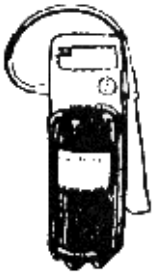
UL approved type. Conforms to all requirements of Underwriter's Laboratories Standard,UL 154. Capacity, UL classification, and rating listed. With wall bracket. Fed Spec O-E-910.

00-270-4512 5 lb C02 cap. 2 B,C
00-202-7858 15 lb C02 cap. 10 B,C

EXTINGUISHER, FIRE, DRY CHEMICAL

Hand actuated. For Class B and C fires. Purple powder. Potassium bicarbonate dry chemical extinguishing agent. Charged and rechargeable. UL approved. With mounting brackets.

Stored Pressure Model with one mounting bracket. Fed Spec O-E-915.



	Cap./Lb
00-775-0127	5
00-889-2492	20

Navy Approved. Spec Mil-E-24091.

18 pound capacity.

00-935-1656 Nonmagnetic
00-989-4589* Magnetic
* Recommended by Naval Safety Center for submarine use.

27 pound capacity.

00-413-4529 Magnetic

BROMOTRIFLUOROMETHANE. Nonrefillable. To be used to combat incipient petroleum-electric fires. One time usage. Vaporizing liquid. 7 pounds 11 ounces overall weight. 13-1/2 inch height by 3-1/2 inch diameter. Hand held. Nonshatterproof cylinder. Penetrating seal type valve. Manufacturer bracket furnished. Capacity in pounds shown below. Spec Mil-E-52031.

	Cap./Lb
00-555-8837	2-3/4
01-205-7893	5-3/4

EXTINGUISHER, FIRE, FOAM

Stored pressure type. Generates a low expansion foam, using AFFF and fresh water. 2-1/2 gallon capacity. Red color. Includes 1 vertical mounting bracket and 1 foam charge. Spec Mil-E-24652.

01-147-1091

EXTINGUISHER, FIRE, WATER

Stored pressure type. Stainless Steel shell. May be charged with plain drinking water or other extinguishing agent. For use only in class 'A' fires. Furnished with carrying handle, bracket, and suitable valve to introduce the specific charging pressure. CID A-A-392A.

	Cap./Gal
00-720-1815	2-1/2

FOAM LIQUID, FIRE EXTINGUISHING

Aqueous film forming foam, AFFF (light water). A noncorrosive, nontoxic chemical concentrate. When properly proportioned, at 6 parts concentrate to 94 parts of water and properly aerated, it will develop a foaming fire extinguishing agent, that will extinguish class "B" fires. For use with Proportioner, Foam Liquid

Injection Pump, NSN 4210-00-372-0233. Mil Spec Mil-F-24385.

5 gallon can.

01-056-8343

55 gallon container. A composite comprised of a plastic insert and a steel drum overpack.

01-056-0883

Fresh or Synthetic salt water mix. Foam produced at rate of 125 gallons per one gallon of solution. For use with NSN 4210-00-372-0233 and 4210-00-225-6225. 5 gallon pail with snap on type closures. Fed Spec O-F-555.

HANDLE, NOZZLE

Used on fire fighting trucks. Bronze. Square tapered hole, .500 inches to .600 inches taper with pointer and stop. 13.000 inches overall length. 1.000 inch width by .500 inch thick handle.

00-391-5500

HEAD, SPRINKLER, FIRE PROTECTION

SPRAY TYPE

For washdown. Installed water system sprinkler head, with 1/2-14 NPT male end connection.

		Orifice Dia/In.
00-541-6228	Bronze	.323
00-840-4938*	Aluminum	.438
00-859-6594†	Brass	.500

* Mil Spec MIL-H-19387.
† With Union nut and tailpiece for 1/2 inch butt weld pipe connection.

SPRINKLER TYPE

Copper Alloy. Overhead sprinkler system. 180 degrees full cone. 1/2 inch, 14 NPT male end connection. Mil Spec Mil-S-24660.

	GPH	PSI	Orifice Dia/In.
01-231-9906	30	100	.328
01-231-9907	39	100	.375
01-231-7168	40	50	.428

HEAD, SPRINKLER, FIRE PROTECTION, FOAM WATER

Designed to produce a conical homogeneous spray. 6-1/2 inch length by 2-1/4 inch diameter. With deflector plate, and an orifice larger than 1/4 inch Inlet connection. 1/2 NPT male, installed positioned pendant. Mil Spec Mil-H-24146.

00-022-3082

HORN AND VALVE ASSEMBLY

Used with 1/2 inch hose-reel system. 46 inch length. Mil Spec Mil-E-2185.

00-494-2522

HOSE ASSEMBLY, METALLIC

Steel tube with a braided CRES wire cover. Hose sizes are 13/64 inch inside diameter, 1/4 inch outside diameter, 14-1/2 inch length. Maximum operating pressure not rated. Hydrostatic test pressure 3250 PSI. Burst pressure 8000 PSI.

01-142-2630

HOSE ASSEMBLY, NONMETALLIC

Consists of a Synthetic Rubber tube with a Steel wire reinforcement and a Synthetic cover. A suitable friction ply or braid may be used over the wire reinforcement. Hose sizes are 5/16 inch inside diameter, 11/16 inch outside diameter, 34 inch length. Used with CO2 Fire Extinguisher NSN 4210-00-203-0217. Mil Spec Mil-H-24269.

00-372-0854

Consists of; a Synthetic Rubber tube, with braided Steel wire, and Synthetic Rubber cover. Recoil preventer on first end. Hose sizes are; 1/2 inch inside diameter, 31/32 inch outside diameter, 50 foot length. Maximum operating pressure, 1000 PSI. Temperature rating, M20 degrees Fahrenheit to 200 degrees Fahrenheit. Mil Spec Mil-H-16236.

00-372-0853

Used on pumping engines and where conditions require protection against wear by the extra jacket. Synthetic Rubber tubing with 2 layers of woven cotton cord. Hydrostatic test pressure 600 PSI. Mil Std MS24606. Dash number shown.

Female to Male. 1-1/2 inch Brass couplings with 1-1/2 inch NPSH threads. Abrasion and cold resistant, and waterproof. Burst pressure 900 PSI. Orange color. Includes gaskets.

	Lg/Ft	Dash No.
01-264-3871	25	25

Female to Male. 1-1/2 inch Brass couplings with /1-1/2 inch NPSH threads. Abrasions and cold resistant and waterproof. Orange color. Includes 3 gaskets.

	Lg/Ft	Dash No.
01-131-0249	50	150

Female to Male. 4 inch Brass couplings with 4 inch NH threads. Oil resistant. Maximum operating pressure 300 PSI. Burst pressure 1200 PSI.

	Lg/Ft	Dash No.
01-220-6648	50	400

Female to Male. 2-1/2 inch Brass couplings with 2-1/2 inch NH threads. Quick disconnect type.

	Lg/Ft	Dash No.
01-131-0247	50	250
01-273-4727*	1-1/2	250

* Abrasion/ozone resistant; Orange color.

Used at fire hydrants, stand pipes, reels, and where abrasion of the jacket is not severe. Synthetic Rubber tubing, with 1 layer of woven Cotton cord. Hydrostatic test pressure 300 PSI. Burst pressure 600 PSI. Non Spec Item.

Female to Male.1-1/2 inch Brass couplings, with 1-1/2 inch NH threads.

	Ft/Lg
00-892-5494	50

Rubber Chloroprene hose covered with Rubber impregnated fabric. Second layer of coiled helix Steel and an outer layer of molded Chloroprene Rubber. Hydrostatic test pressure 100 PSI. Burst pressure 300 PSI. Fed Spec ZZ-H-561.

Female to Male. 2 inch Brass couplings, with 2 inch NPSH threads.

	Ft/Lg
00-776-0657	20

Type B hose, for use with aqueous film forming foam. Conforming to Mil-F-24385, fresh water, or potassium dry chemical conforming to Fed Spec O-D-1407. Hose assemblies intended to be mounted on reels. Constructed with rubber tubing and first layer of polyester cord or aramid fibers. A second layer of aramid fibers and outer layer of rubber. Noncollapsible, heat resistant. 250 PSI maximum operating pressure. Female to male, Bronze threaded couplings. Mil Spec Mil-H-24580.

	Dia/In.	Lg/Ft
01-075-7324	1-1/2	50
01-076-3289	1-1/2	125
01-075-7325	1-1/2	150

Commercial types

For fresh or salt water use. Rubber tubing covered by woven Polyester fiber cord. Abrasion resistant. Female and male threaded Brass couplings. RH, NH threads. 50 foot length. Operating pressure not rated.

	Dia/In.
00-935-5432	1-1/2
00-935-5433	2-1/2

For fresh water use. Rubber tubing covered by first layer of Rubber impregnated fabric; second layer helix Steel coil; outer layer of molded Rubber. Fuel, oil, and ozone resistant.

Female to Male. RH/NH threaded Copper Alloy coupling. Application, “FIRE PUMP SUCTION HOSE”. 10 foot length by 3 inch diameter.

00-725-9234

LINK, FUSIBLE, FIRE

Molded, lead-tin Alloy. 2-1/4 inch thick, two terminal holes. .365 Diameter Center to Center. Distance 1-5/8 inch. Melting point 360 degrees.

00-443-3526

NIPPLE, HOSE

Copper Alloy fitting with identical male hose connections at each end. Rocker lug type wrenching facility at center. 600 PSI maximum. Spec Mil-C-52404.

	Thd Size	Lg/In.
00-277-3374	1-1/2 NPSH	2-1/8
00-277-3375	2-1/2 NH	2-3/4

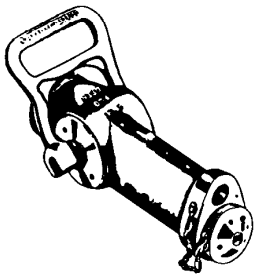
NOZZLE APPLIANCE

CRES. .125-27 NPT threads; .060 inch opening diameter.

01-061-5705

NOZZLE, FIRE HOSE

Three position type. With high-velocity tip secured to body by a chain. Bronze threaded female hose connection. With throw handle for shut, fog, and open position. Integral tip carrier and removable nozzle tip.



	NPSH	GPM
00-392-2943	1-1/2	52

Air-foam producing nozzles for general application in fire safety. Water capacity is 60 GPM at 100 PSIG. Inlet thread diameter as indicated. Mil Spec Mil-N-12279.

Chemical Foam Type.

For use on Class A, B, or C fires. Electrical fires up to 250,000 volts at 10 feet or more. Trigger operated with free swivel base. Pistol grip. Capable of foam, straight stream, narrow fog, and wide fog operation. Pick-up tube not included. The words, “FLIGHT AND HANGAR DECK USE ONLY”, shall be etched, stamped, or cast, inset into both sides of the nozzle pistol grip. Adjustments below 125 GPM cannot be made. 10 pound weight. Mil Spec Mil-N-24408.

00-465-1906
00-601-0986

Mechanical Foam Type.

Adjustable tip. Output capacity 60-125 GPM. Minimum water pressure required 1000 PSI. Adapter not included.

00-465-1905

PARTS KIT, NOZZLE APPLICATOR

Consists of: a Bronze applicator bay joint, Nickel Copper Alloy applicator strainer and strainer ring, Brass applicator tube ring, Bronze low velocity head body and cap, low velocity head coupling, 2 Brass broad applicator bayonet joint pins, Steel applicator tube, and 4 foot tubing with low velocity discharge head.

00-372-0864

PARTS KIT, THROTTLE CONTROL

Consists of: 1 cam control, 1 sensitive switch, 1 bracket, 2 screws, 2 lock washers, 2 terminals, 2 insulator sleeves, and 1 instruction sheet.

01-069-7849

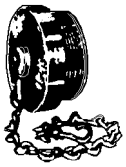
PIN ASSEMBLY, SAFETY

Steel pin and chain, straight pin with formed ring on end, and attaching link chain. For Fire Extinguishers (CO2) 2-1/2 to 20 pound capacity.

00-112-0171

PLUG, HOSE

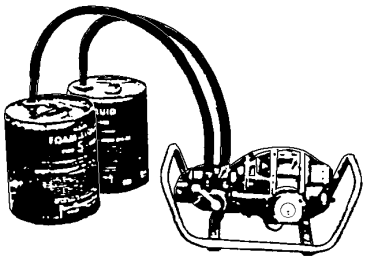
Copper Alloy, with slotted type wrenching facility. Furnished with holding chain. Mil Spec Mil-F-19488.



00-240-5537 2-1/2 inch NH male thds.

PROPORTIONER, FOAM LIQUID INJECTION PUMP TYPE

Portable type. Mechanical foam generating equipment. Water motor pump on skids. 3-position valve; one “OFF” and two “FOAM” positions. 2-1/2 inch NH foam intake connection. Foam liquid not furnished. Mil Spec Mil-P-15208. Class FP-180.



	GPM
00-372-0233	60 to 180

RACK, FIRE HOSE

Intended for manually operated fire fighting hose reels and hose guides, for shipboard use. Mil Spec Mil-R-24414.

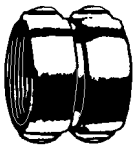
Machinery space Aluminum hose reel. For use with 50 foot of 1-1/2 inch Rubber hose. Nonswinging design. Bulkhead mounting. 50 inch overall length, 15 inch overall height.

00-030-6582

REDUCER, HOSE

Copper Alloy threaded reducers. Having either male or female RH hose threads at each end and wrenching facility.

Female to female, with rocker lugs and swivel at both ends. Mil Spec Mil-C-52404.



00-377-6521 2 to 1-1/2 NPSH

Female to male, with rocker lug locking. Mil Spec Mil-C-52404.

00-143-4353 2-1/2 NH to 1-1/2 NPSH

SIAMESE CONNECTION, FIRE HOSE

Copper Alloy. Red enameled finish, gated type. Each of the Siamese ends, with identical threaded hose connections, can be controlled independently of the others. Inlet connections are identical with female threads and rocker lug facilities. Mil Spec Mil-C-52404.

Two Connection Style.

00-255-0234 2-1/2 inch NH by 1-1/2 inch NPSH

Three Connection Style.

00-255-0232 2-1/2 inch NH by 1-1/2 inch NPSH

STRAINER, PRESSURE, FIRE HOSE

Bronze body, perforated Nickel-Copper screen. Equipped with level handle and ball valve. For attachment to fire hydrant, to assure a clean supply and uninterrupted fog nozzle operation. Barrel type, self cleaning.

00-465-1904 2-1/2 in. NH

STRAINER, SUCTION

Rounded end. 3-3/16 inch diameter by 8 inch length. Thread 2-1/2 inches, with thread quantity per inch, 7-1/2. Mil Spec Mil-5-12165.

00-240-5530

TIP, NOZZLE, FIRE HOSE

High-velocity fog tip. For replacement nozzle in three position water hose nozzle.

	Size/In.	Mat	Open Dia
00-604-4988	1-1/4 NS	Steel	.470

TRIPLE VALVE WATER THIEF

Cast Brass body, Nickel Plated balls. Bonded neoprene seats. 2.500 inch rocker lug swivel inlet, two 1.500 inch, and one 2.500 inch male valved outlets. Includes carrying strap.

01-038-6001

TUBE ASSEMBLY, TEST

Aluminum Alloy. Grooved for spanner wrench, threaded 1-1/4-11 1/2 NPSH.

00-066-0495

VALVE, CONTROL, AUTOMATIC SPRINKLER

Brass body and seat, Nickel Copper Alloy stem. 2 plain face flange connections. 11-1/2 inch face to face, with 5-9/16 inch overall diameter. Six ,11/16 inch diameter, bolt holes on 4-13/32 inch diameter bolt circle. Diaphragm operated. 250 PSI operating pressure. Designed for fresh water use, and a dry pipe sprinkler system. Ascending stem movement. Inside spring type bolted bonnet. Internally located valve loading spring. Bonded renewable seat ring. Test attachment furnished. Reference number C2818B.

00-214-2888

VALVE, FIRE EXTINGUISHER

Valves are of the pressure seated, positive shut-off type. Complete with; locking pin, brass release lever, and yoke, attached to carrying handle. Yoke slips over release lever, holding it in the operating position, to permit continuous discharge or recharge. Inlet external RH thread 1-11-1/2 NPT. Outlet external RH thread 1/4-18 NPS. With siphon tube. For use on 15 pound capacity portable hand type CO2 Fire Extinguisher NSN 4210-00-203-0217. Mil Spec Mil-V-17360.

00-628-5633

CLASS 4220
MARINE LIFESAVING AND DIVING EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

LIFESAVING EQUIPMENT

BLADDER, LIFE PRESERVER

Neoprene coated Nylon gland panel, with Rubber oral inflator tube. Brass oral inflation, and pressure relief valves and manifolds. Includes Neoprene coated Nylon components; 2 reinforcing patches, blast patch, tape, and ribbon. NAVSEA Drawing Number 608-2482705, Pieces: 19, 20, 25 to 31, 51 to 53, 58 to 61.

00-935-5528

CARTRIDGE, CARBON DIOXIDE

LIFE PRESERVATION USE

Electro-deposited, Cadmium Plated all Steel CO2 cylinders. These UDT approved puncturable-seal cartridges, are intended for use in inflating pneumatic life preservers. Cylinder CO2 charge listed in grams and dimensions listed in inches. Mil Spec Mil-C-25369.

For use with Yoke Life Preserver, NSN 4220-00-289-1891..

	CO2	Lg	Dia
00-372-0585	26	4.970	1.125

MULTIPLE USE

The Steel cylinders filled with Carbon Dioxide. Used as a component of the mechanical inflation system for inflating life preservers, flotation cots, and sonobuoys. Mil Spec Mil-C-601.

Cadmium Plated Steel cylinders. Charged with CO2 gas. Cylinder CO2 charge listed in grams.

	CO2	Lg/In.	Dia/In.
00-287-3740	8.4	2.540	0.735
00-805-8383	11.8	3.250	0.735

UNDERWATER USE

Non magnetic, Stainless Steel, or Anodized Corrosion Resistant Brass cylinders. Intended for use in multiple subsurface applications where UDT approved cylinders are required. Cylinder CO2 charge listed in grams. Mil Spec Mil-C-16385.

For use with UDT approved life preserver, NSN 4220-00-276-8929..

	CO2	Lg/In.	Dia/In.
00-287-3741	19	5.000	1.125

For use with, Mark 3 scuba Yoke Life Preserver, NSN 4220-00-015-3078..

	CO2	Lg/In.	Dia/In.
00-965-0595	32	5.000	1.125

CASE, EMERGENCY EQUIPMENT, LIFE RAFT

For storage of; 7 or 15 person capacity CO2 inflatable life boats, life rafts, and buoyant life nets. Square shape without handle. Chloroprene Rubber coated Nylon material. NAVSEA Drawing S8225-1170357.

00-399-6224 14-3/4 in. sq x 8 in. Dp

Nylon and Rubber material. Olive Drab color with handle. Reference number 6877H3-1.

	Lg/In.	W/In.	Dp/In.
00-535-8345	15-1/4	15	3

Plastic and Rubber material. Oxford Gray color. Rectangular shape.

	Lg/In.	W/In.	Dp/In.
00-122-1681	30	14	—

Polyamide Nylon and Rubber material. Indian Orange color with handle. Cylindrical Shape.

	Lg/In.	Dia/In.
00-913-1065	36	22

Nylon material

	Lg/In.	Dia/In.
00-018-2142	31-1/2	14-1/2
00-834-7854*	45	19-1/2
00-018-2141	36-1/2	15-3/8

* With handle. Orange color.

CHAIR, TRANSFER AT SEA

Aluminum pipe frame in the form of a cage. Collapsible for stowage. Fitted with a sheet Aluminum seat, a Canvas back rest, and a quick-acting safety belt.

00-369-4531

CONTAINER, GROMMET AND PAINTER LINE ASSEMBLY

The PVC container holds a 100 foot length of 5/32 inch diameter Nylon line. End item: LIFE RAFT, model MK6LR.

01-376-1728

COVER, LIFE PRESERVER

Adult size. Scarlet-munsell Red Cotton Drill. Used to replace worn or damaged covers, of fibrous glass filled vest-type preservers with collar. Mil Spec Mil-L-18045.

00-289-1892

CYLINDER, CARBON DIOXIDE

Type 3. For use in inflating pneumatic life preservers. Charged with 34 grams minimum to 36 grams maximum of CO2 gas. Mil Spec Mil-C-25369.

01-077-8773

ESCAPE APPLIANCE ASSEMBLY

Consists of; pouch assembly, belt assembly, buoyancy chamber panel, collar panel, reed panel, inflation tube cover patch, harness reinforced strip and retaining strip, chafing patch, light attachment loop and patch, base patch, snap fastener patch, oral valve clamp, accessory pocket with cover, inlet check valve, Brass adapter body, set screws, washers, marking patch, Brass snap fasteners, neck seal, oral inflation tube and valve, hood assembly, nose clip whistle, neck seal strips, valve cover, snap fastener tab and patch, and assorted strips.

00-066-4396

FISHING KIT, EMERGENCY

64 Components consisting of; assorted lures, hooks, flies, leaders, swivels, line, etc. Mil Spec Mil-F-6218.

00-244-0764
00-125-8751*
* 48 components. Non Spec Item.

INFLATION ASSEMBLY, LIFE JACKET

Anodized, high pressure Aluminum die cast body. Lever actuated with Nylon rope pull. Overall dimension - 2.500 inch length by 1.563 inch width by 1.000 inch height. Used in “LIFE PRESERVER, VEST OUTFIT”, with NSN 4220-00-805-8383 cartridge. Mil Spec Mil-I-23145.

	Inflator Type
00-012-3571	Dual

JACKET, BUOYANCY AID

Large size with collar. International Orange color.

	Size
01-317-2805	Large
01-317-1461	Extra Large

LIFE BOAT INFLATING ASSEMBLY

Consists of; non-shatterable Steel cylinder, complete with non-medicinal CO2 charge (Fed Spec BB-C-101), siphon tube, pull cable assembly, and valve. Valve is provided with, 3/8 inch American Standard straight male pipe thread fitting for connection to manifold hose. Valve is actuated by a pull on the cable assembly. Equipped to inflate the lower tube. Rated nonmagnetic.

7 person lifeboat. Cylinder dimensions: 3-45/64 inch outside diameter by 13-11/16 inch height.

	Gas Cap./Lb
00-274-5816	2

7 person lifeboat. Used to inflate upper tube. Cylinder dimensions: 3-45/64 inch outside diameter 9-9/16 inch height.

	Gas Cap./Lb
00-274-5818	1.25 pound gas capacity

LIFE PRESERVER, VEST

FILLED MATERIAL BUOYANCY METHOD

Fibrous glass.

Adult size, with collar. Replaceable outer cover, of Cotton Drill and fibrous glass batt,s enclosed in Cotton print cloth and sealed in Vinyl film envelopes. Included are; straps with Dee rings and snap hooks for tying at waist and straps for tying at bottom. Color is indicated below. Weight 40 ounces. Dimensions: 24 inch height by 55-1/2 inch width at base. For replacement of scarlet munsell Red outer cover, refer to NSN 4220-00-289-1892. Mil Spec Mil-L-18045.

	Color
00-200-0538	Sea Rescue

Plastic foam

Adult size, without collar. Replaceable outer cover of Cotton Drill sealed in sateen envelope. Strap with clasp fastening method. Package quantity: 10 to a bundle. 18 inch height by 49-1/2 inch width. Mil Spec Mil-L-17653.

	Color
00-276-8926	Orange

GAS INFLATION BUOYANCY METHOD

Cotton Drill outer cover, sealed in Nylon coated envelopes. Gas cylinder included. Snap fastener with front closure. Without collar. Mil Spec Mil-L-24247.

Small - 26-3/4 inch height by 43 inch width.

	Color
01-926-9460	Blue
00-926-9463	Brown
00-926-9462	Green
00-926-9464	Purple
00-926-9461	Red
00-926-9465	White
00-926-9459	Yellow

Medium - 27-3/4 inch height by 48 inch width.

	Color
00-926-9467	Blue
00-926-9470	Brown
00-926-9469	Green
00-926-9471	Purple
00-926-9468	Red
00-926-9472	White
00-926-9466	Yellow

Large - 28-3/4 inch height by 53 inch width.

	Color
00-926-9477	Brown
00-926-9476	Green
00-926-9478	Purple
00-926-9475	Red
00-926-9474	Royal Blue
00-926-9479	White
00-926-9473	Yellow

LIFE PRESERVER, YOKE

Gas inflated preserver with collar and gas cylinder. Reference number 68A73H1-101.

Used by Underwater Demolition Teams, as emergency equipment. UDT type, adult size with collar. Inflatable by either, CO2 Cylinder NSN 4220-00-287-3741 (not included), or orally. Blue-Gray neoprene coated Nylon. Buoyancy envelope, strap, and dee rings. Mil Spec Mil-L-16383.

	H/In.	W/In.
00-276-8929	22	17

Used by surface ships personnel. Adult size with collar. Inflatable by, CO2 Cartridge, NSN 4220-00-372-0585 (not included) or orally. Scarlet and munsell color. Synthetic Rubber coated Nylon envelope, collar, and belt with Aluminum belt buckle. 27-7/8 inch height by 17 inch width. Color shown below. Mil Spec Mil-L-15581.

	Color
00-289-1891	Scarlet and munsell
00-268-9720	Deck Gray

Used by pack carrying troops, engaged in amphibious operations. Adult-size with collar. Outer cover of Blue-Gray Cotton Drill. Tape for tying, collar, belt with fasteners. Dee rings and

strap fasteners. Fibrous glass pads enclosed in Vinyl film envelopes.

	H/In.	W/In.
00-202-7863	21-1/2	21

LIFE RAFT, INFLATABLE

Intended for use as emergency and life support equipment for aircraft personnel forced down at sea. Includes: carrying case. Reference number listed below. Mil Spec Mil-L-5567.

	Cap.	62A82-
01-074-3409	4 person	H1
01-074-3408	7 person	H2

PARTS KIT, LIFE PRESERVER

Gasket replacement kit for LPP-1 Life Preserver. Contains top and bottom gasket. Spec Mil-S-6855.

00-113-8290

POUCH ASSEMBLY, DYE MARKER

Polyamide reinforced top and main panel. 2 Nylon straps attached with, 2 Nylon tab fasteners.

01-124-3806

POUCH, LIFE PRESERVER

Pouch panel 23 inch length. Includes Nylon thread, 4 end and 4 side reinforcements, and 4 reinforcement pouches.

00-115-2944

REPAIR KIT, DIVING EQUIPMENT

Used for repairing CO2 inflatable yoke type life preservers. Consists of approximately 180 pieces such as: patches and patching material, gaskets, 4 one-way check valves, 12 hex caps, 4 yards of shearing wire, 7 tools, etc. Contained in water resistant fiber container, with a screw cap and scaled with a pressure sensitive water resistant tape. Mil Spec Mil-R-16417.

	Color
00-694-1410	Orange

RING BUOY, LIFESAVING

Plastic material, with life line rope attached. Outside diameter listed in inches. Mil Spec Mil-R-16874.

	OD
00-275-3155	18
00-275-3156	24
00-275-3157	30

VALVE, PNEUMATIC INFLATOR

Brass, cartridge type. Used with CO2 inflatable life preserver. Ref No. 67A319D18-1.

01-081-0322

Brass spool and cap material. Washer, flange and grip made of Rubber material. 4.500 inch outside diameter, 1.062 inch height. Mil Std MS22054-1.

00-470-6755

DIVING EQUIPMENT

BAG, DIVING EQUIPMENT

Rubberized cloth. Fluorescent Orange color. Snap fasteners. 33.000 inch length by 10.250 inch width by 7.500 inch height.

00-138-7118

BELT, DIVER'S

Heavyweight design, Nylon woven strap, Plastic buckle. Reference number 7125.

00-912-6668

Standard design, Nylon strap, Stainless Steel buckle. 2 inch width by 54 inch length.

01-227-6034

BOOTS, DIVERS'

To be used in conjunction with the MK-12 diving system. Black, Rubber overall. Buckle fastening method. Mil Spec Mil-B-87031.

	Size
01-327-2021	9
01-327-2022	10
01-327-2023	11

Rubber Chloroprene and Nylon material, Black color, with slide fastener. Barefoot boot has plush interior, seamless heel and toe design, molded sole, and mesh on both sides.

	Size
01-348-4490	9-10
01-348-7365	11-12
01-348-4491	13

Rubber material overall with knitted Nylon upper. 7.500 inch high. Black color.

	Size
01-261-3044	Large

CAP

Plastic cap with Nylon string retainer. .343 inch top diameter and .062 inch bottom diameter. .750 inch inside diameter. .937 inch overall height.

00-066-6034

FILLER AND GAUGE ATTACHMENT

Non-magnetic. Connects cylinder valve to standard compressed air fitting. Consists of; bleeder valve, gauge, 3 foot length tubing, with end fitting and yoke. Used for filling scuba air cylinders. Reference number 7007-15.

00-541-7398

GAGE, DEPTH, DIVER'S

Designed for maximum depth of 250 feet. Color coded depth zones. 2 inch luminous dial, Rubber wrist strap.

Aluminum case and bezel; Anodized Epoxy finish. Luminous 2 inch dial with Rubber strap and Chrome Plated buckle.

01-029-8736

GAGE SET, DIVER'S

Diver's depth gage and pressure gage on common mount.

01-247-5511

GAUGE, SEA DIVER'S

Luminous face. 0-4000 PSI dial indicator reading with built in relief valve.

00-217-5914

GLOVES, DIVERS

Rubber material with knitted Nylon fiber cloth. Black color.

	Size
01-256-8301	Large

HARNESS, SAFETY, DIVER'S

Nylon-Neoprene material. 2 inch width, 13/64 inch thick, with buckles, D-rings, Copper rivets. Used with Mark 1, Model O. NAVSEASYSCOM Reference Number 4666861.

01-041-3168

HOOD AND FACE SEAL, DIVER'S MASK

Used with Mark 1, Model O. NAVSEASYSCOM Reference Number 4666755.

01-039-1860

CLASS 4220

KNIFE, DIVER'S

Bayonet shaped blade, tool Steel, 6-7/8 inch length. One saw toothed blade, and one plain sharp edge. Hardwood handle with threaded portion for screwing into cylindrical Brass sheath. With Leather belt. Used for prying, hacking, or cutting such material as wood, wire, rope, or sheet metal. NAVSEASYSCOM Reference number S9400-921557.

	O/A Lg/In.
00-372-0665	12-1/4

Stainless Steel blade and butt cap. Black molded no-slip handle. Serrated edge. 6 inch scale, etched into 7 inch blade. Includes Nylon sheath.

00-141-1909

MANIFOLD, AIR LINE

Brass material with inlet and outlet valves. Maximum operating pressure, 3000 PSI.

00-104-8732

MASK, DIVER'S

Natural Rubber frame. Oval glass lens and adjustable Elastic head strap. 5-1/2 inch by 4-1/8 inch lens dimensions. Not adaptable for air supply.

Oval shaped

01-077-1603
00-955-6537

MOUTHPIECE, REGULATOR

Rubber, Chloroprene. Reference number 1058-78.

01-121-0512

POUCH ASSEMBLY, FLARE

Consists of the following items; one reinforcing strap, one binding tape, two loop straps, two attaching straps, marking ink as required, stitching thread as required, one inner panel, one reinforcing panel, one pouch panel, 4 buttons, 4 sockets, 4 studs, and 4 eyelets.

01-123-2194

SNORKEL

Plastic tube with soft molded Rubber mouthpiece. 360 swivel connection. 30 to 45 degree tube contour.

01-227-7503

SWIM FINS

Rubber overall, Black color. Nonadjustable. Size and Reference number shown below.

	Size	Ref No.
00-431-6519	8-9 Med large	6029
00-431-6518	10-11 Med large	6030
01-015-6762*	Large	6211
00-577-4139	12-1/2-14 Super extra large	—-

* Adjustable heel straps.

Rubber overall. Black color. With straps.

	Size	Ref No.
01-220-5816	X-Large	—

TAPE, DIVER'S MASK

Plastic Polyethylene, White color. Width listed in inches. For USN Mark 1, Model O diver's mask.

	W	Ref No.
01-039-1876	3/4	44666859
01-172-7574	2	827

VALVE, EXHAUST, ORAL-NASAL

Synthetic Rubber. Used on USN Mark 1, Model O Diver's Mask. Reference number 4666822.

01-039-1870

WEIGHT, DIVER'S

Standard heavyweight design. Waist style weight. Plastic Polyamide ballast, with a gross weight of 3 pounds.

00-905-5446

CLASS 4240
SAFETY AND RESCUE EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ARM HINGE ASSEMBLY

Used on air breathing apparatus, NSN 4240-01-297-5986.

01-302-9683

AURAL PROTECTOR, SOUND

Intended for use by military personnel required to be in areas where, due to the intensity of sound, ear protection is required. Consists of suspension assembly, attachment assembly, and ear cup assembly.

Designed for suspension over the head, back of the head, or under the chin, sound attenuation 25 DB for 500 HZ, 35 DB for 1000, 2000, 3000, and 4000 HZ, 30 DB for 6000 and 8000 HZ, with extra set of seals. Mil Spec Mil-P-38268

00-022-2946

AURAL PROTECTOR, EAR SEALS

Plastic, foam filled. 1 pair per box. Cove Red and Gray color. End item identification 4240-00-759-3290.

	O/A Lg/In.	W/In.	Thk/In.	Inside W/In.
01-127-8730	3-11/16	1/2	5/16	1-3/4

BAG, BREATHING, OXYGEN

Used for replacement of breathing bag on Oxygen Breathing Apparatus, NSN 4240-01-297-5986.

01-049-0986

BAIL, SHOCK ABSORBER

Used on Breathing apparatus, 4240-01-297-5986.

01-049-0989

BREATHING APPARATUS, OXYGEN GENERATING

Breathing Apparatus. Oxygen generating, self-contained unit. For use as fire fighting equipment. Reference number 120320.

01-297-5986

CANISTER, CHEMICAL-BIOLOGICAL MASK

Black cylinder attaches directly to face piece of chemical biological mask. Model C2. No timer.

	Dia/In.	Lg/In.
01-119-2315	4.368	2.740

CANISTER, GAS MASK, MK-5

Cylindrical Canister Gas Mask. Intended for use as a protective filter for respiratory protection of personnel aboard ships against radiological, biological, and chemical warfare. Not designed to give protection against gasoline vapors, refrigerants, Carbon Monoxide fumes, and other industrial gases. Mil Spec Mil-C-24314.

00-218-0779

CANISTER, OXYGEN GENERATING, BREATHING APPARATUS

Regular Type. Quick starting (self-activating). Each container shall contain: incorporated in and on the canister bottom, one Oxygen candle capable of supplying Oxygen, at the beginning of use of the canister, or at the end of the useful life of the canister. Mil Spec Mil-C-17671.

	Color
00-174-1365	Green

Training Type. Furnished as a kit of NSN 4240-00-270-4515, Type A-3 OBA to provide realistic training for 40 trainees in donning and activating the OBA quick start canister. When charged with fresh candle, canister will provide Oxygen for five minutes of training for each student. Mil Spec Mil-C-24382.

	Color
00-238-9959	Red

CAP, CANISTER

Tear off pulls, 10 per carton.

00-089-7963

CARTRIDGE, AIR FILTER

SPCC, HX Quality control specs. Mine Safety Appliances Company Part Number 456986.

00-181-8830

CARTRIDGE, FILTER, AIR BREATHING PUMP

Borosilicate Glass micro fibers. Non reusable element, cylindrical, without container. 5 micron Filtration range. Disposable cartridge filters, with retention efficiencies to 99

of .6 micron particles.

	ID/In.	Lg/In.	Thk/In.
01-084-0921	2	2-3/4	1/8

CARTRIDGE, RESPIRATOR, AIR FILTERING

DUST AND MIST

Organic Vapors

Used on: North series 7700, 75BP, and 7600

Respirators. 6 per package.

01-249-2563

Used on 3M Models: 7200 and 7300 respirators. NIOSH approval numbers as indicated.

	No.	Qty/Box
01-246-5409	TC-23C-440	6
01-246-5407	TC-23C-435	10

GMA type. 10 per box.

	No.
01-230-6892	TC-23C-40
01-204-2827	TC-23C-151

Fumes & Radionuclides

Used on: MSA mask number 460968, color Yellow. 10 per box.

	No.
01-103-8475	TC-23C-47

Type H filter. 6 per box.

	No.
01-230-6895	TC-23C-155
01-230-6894	TC-21C-135
01-206-1077	TC-23C-153

Acid Gasses

For use in filtering organic vapor and acid gasses. 6 per box.

01-240-4661
00-143-4391*
* Internally threaded connections.

Used on: 3M Models 7200 and 7300 respirators. NIOSH approval numbers as indicated. 6 per box.

	No.
01-246-5408	TC-23C-443

Petroleum Vapors

Used at inlet pressures up to 125 PSIG. For filtering dust, mist, and petroleum vapors. Does not remove Carbon Monoxide.

00-770-0270

CARTRIDGE, RETAINER

For use with organic vapor, organic gas cartridges, and pre-filter combinations.

01-235-0823

CATCH, LEFT

Used on Breathing Apparatus, NSN 4240-01-297-5986.

01-049-0987

CATCH, RIGHT

Used on Breathing Apparatus NSN 4240-01-297-5986.

01-048-9518

COOLING ASSEMBLY, AIRLINE RESPIRATOR

Consists of 1 each of the following components: Cooling assembly vortex, 50 foot pressure hose, 100 foot pressure hose, quick disconnect, air distribution tube. End item identification: NSN 4240-00-629-8199..

01-083-3399

COUPLING ASSEMBLY, EXHALATION

End item identification: NSN 4240-01-297-5986.

	Dia/In.	Lg/In.
01-409-0980	1.7	1.650

COUPLING ASSEMBLY, INHALATION

End item identification: NSN 4240-01-297-5986.

01-049-0979

COVER, VALVE

Used on Breathing Apparatus NSN 4240-01-297-5986.

01-049-0985

DEFLECTOR, VALVE, MASK

For use on Mask, Chemical-Biological Models: MCU-2/P and MCU-2A/P.

01-286-1842

DISK, MASK, INLET VALVE

A one way Rubber inlet valve.

	OD/In.	ID/In.	Thk/In.
01-224-6336	1.230	.095	.008

DISK, MASK, CHEMICAL-BIOLOGICAL

For use on the outlet valve of Scott Aviation model, MCU-2/P series 864 mask.

01-244-0111

DISK, MASK, CHEMICAL

For use with nosecup of chemical-biological mask model, MCU-2P.

01-346-1996

DISK, VALVE

Natural Rubber. Packed 10 per carton. U.S. Army Research and Development Command Reference number, B5-2-1006.

	Dia/In.	H/In.
00-712-6090	1.118	.028

EAR SEALS, AURAL PROTECTOR

Foam Rubber filled and Plastic covered ear seals. For use with NSN 4240-00-759-3290. Gray color. One pair per box.

	Lg/In.	H/In.
01-127-8730	3.687	.5

EYE-WASH STATION, LABORATORY

2.500 liter Plastic cylindrical container, with a double seal system to prevent evaporation and contamination. Includes: wall mounting bracket and push bar, to automatically dispense a stream of water for 4 to 6 minutes.

01-139-9483

FACE PIECE, OXYGEN BREATHING

End item identification: NSN 4240-01-297-5986.

01-049-0975

FACE PIECE, SMALL, OBA-4

Oxygen Breathing Apparatus Type A-4. Used by Navy for fire fighting on end item NSN 4240-01-297-5986.

01-322-6409

FILTER, PARTICULATE

Used for the filtration of chemical gases and vapors used in chemical warfare.

00-040-8453
00-559-3244
01-066-3266

FILTER, RESPIRATOR, AIR FILTERING

For dust. Does not remove Carbon Monoxide.

DUST, MIST, VAPOR

For use on North Series Respirator models: 7700, 75BP, and 7600.

	Qty
01-025-1415*	10

* North model 7506

For use on 3M respirator models: 7200 and 7300.

	Qty
01-246-5412	10

TOXIC DUST

Used on North Series Respirator Models: 7700, 7500, 75BP, and 7600.

	Qty
01-249-2573	2
01-249-2572	4

PAINT MIST

For use on 3M respirator models as noted.

	Qty	No.
01-300-9419	100	5000
01-246-5413	10	72/7300

PESTICIDES

Used on Respirator models as listed.

	Qty	No.
01-249-2577	10	North.76, 7700, 75BP
01-246-5414	10	3M 7200, 7300

HIGH EFFICIENCY

Used on respirators as listed.

	Qty	No.
01-268-0568	10	Wilson 600
01-246-5411	6	3M 72,7300

FIRE STARTING TOOL, MAGNESIUM

Built-in sparking insert. Starting power to 5400 degrees Fahrenheit. Fireproof in solid form.

01-160-5618

FOUNTAIN, EYE AND FACE WASH

WALL MOUNTED

Stainless Steel. 10 gallon capacity with bracket mounting. Hand held spray and tank mounted eye wash.

01-226-1073

Plastic, Polyethylene. Transparent. Counter or wall mounted. Furnished with: Stainless Steel wall brackets and Anti-Bacterial, Anti-Fungal additive with each unit. 14 gallon capacity. Medical grade PVC.

	H/In.	W/In.	Dp/In.
01-234-1796	25	16	10

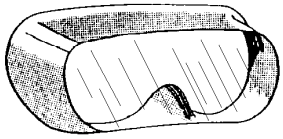
PORTABLE

Plastic, Polyethylene material. 16 gallon capacity. Gravity fed.

01-258-1245

GOGGLES, INDUSTRIAL

One piece single aperture rigid, Plastic, design can be worn over other spectacles.



One Piece Frame and Lens Single Aperture.

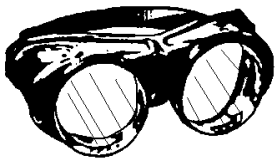
NON VENTED

	Color
01-063-5996	Clear
00-816-3819	Maroon
01-364-2169	—

VENTED

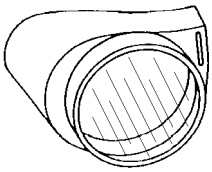
01-364-2994

CHIPPER'S Cover-Eye-Cup Type. Used to protect the eyes from flying objects. Plastic frame ventilated with adjustable nose bridge. Double aperture with two round shaped, clear, hardened, unpolarized lenses secured by retaining rings. Designed to be worn over personal spectacles. Furnished without carrying case. For replacement lens see NSN 4240-00-262-7091. Fed Spec GGG-G-513.



00-269-7912

WELDER'S Cover-Eye-Cup Type. Used to protect the eyes from glare caused by welding. Consists of: Plastic frame, ventilated, with a leather chain nose bridge, Double aperture with two filter lens and two glass cover lenses secured by retaining rings, Two extra lenses are also furnished. Designed to be worn over personal spectacles. Furnished without carrying case. For replacement cover lens, see NSN 4240-00-262-7092. Fed Spec GGG-G-513.

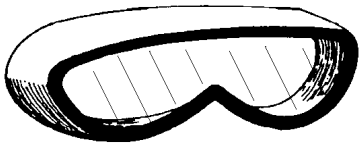


	No.
00-203-3804	6

Glare, injurious radiations and impact. Plus protects the wearer from flying objects. Can be worn with spectacles. Ventilated, designed to generally contour to the shape of the face, covering completely the eye sockets offering both frontal and side protection. Flexible adjustable nose bridge, adjustable replaceable head band. Provided with two plate glass lenses and two filter lenses. Shade number shown below. Fed Spec A-A-1814.

	No.
00-998-4418	4

Dust, chips, and machine cuttings, plus protects the eyes from small flying particles. Ventilated. One piece, single aperture with Clear Plastic lens. Designed to be worn over personal spectacles. Furnished without carrying case. Flexible frame with replaceable lens. Fed Spec GGG-G-513.



One Piece Single Aperture

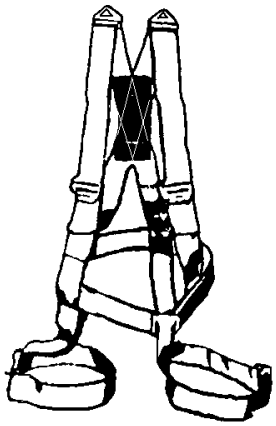
00-052-3776

Acids and Chemical Vapors protection for the eyes. Non-ventilated. Designed to be worn wherever gas-tight goggles are required. One piece molded rubber frame. Consists of two oval shaped clear, hardened, unpolarized lenses and headband. Can be worn over conventional type personal spectacles or to fit snugly and comfortably over the eyes. Furnished without carrying case. Fed Spec GGG-G-521.

00-190-6432

HARNESS, SAFETY, INDUSTRIAL

Intended for use by personnel working in fall hazardous situations, aboard surface ships and aboard submarines. One size harness. Capable of adjusting to fit all sizes of wearers between 140 pounds and 250 pounds in weight, and between 5 feet and 6 feet 4 inches in height. Furnished with shoulder strap adjustability and adjustable leg support. Not furnished with working lanyard and/or safety lanyard with energy absorbing device. Mil Spec Mil-H-24460.



00-022-2522

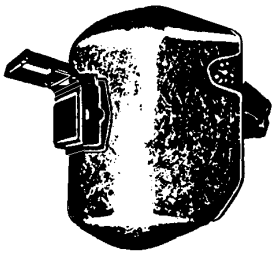
HEAD HARNESS

Adjustable webbing and cover shell. Tubular Nylon webbing resist chemical and moisture. Easily cleaned and sanitized.

01-088-1603

HELMET, WELDER'S

Lift Front Type. One piece reinforced molded Plastic, with hinged cover glass holder. Used to protect face, head, and neck from heat and injurious radiant energy, encountered in gas or electric welding or cutting. Furnished with one safety glass. Filter and cover glasses must be ordered separately. See LENS, HELMET, WELDER'S. Fed Spec GGG-H-211.



	Color
00-540-0623	Dull Black

For Acetylene Welding. Vulcanized fiber main body. 2 inches by 4-1/2 inches. Metal plate holder. Fits easily over glasses.

01-243-1954

HOOD, PAINT SPRAYER'S

A chemical resistant hood to protect paint sprayers from over spray. Blue Plastic Polyethylene body.

01-031-1094

HOSE, AIR DUCT, AIR BREATHING

Rubber hose material, 11-1/2 inches long. First end: inside diameter 27/32 inches, 11/16 inches long. Second end: inside diameter 1-1/4 inches, 1-3/8 inches long. Has 90 degree elbow, 1-3/8 inches long.

01-049-0978

HOSE ASSEMBLY, AIR DUCT, AIR BREATHING

Rubber hose material. Operating pressure 10 and 32 PSIG. Quick disconnect couplings external, and Number 11 internal.

	ID/In.	Lg/Ft
01-086-1210	3/8	50

Rubber hose material. First end style number 9 internally threaded coupling 3/4- 16 UNF. Second end style number, 8 externally threaded coupling 3/4-16 UNF.

	ID/In.	Lg/Ft
00-770-0268	3/8	25

INSERT, SPECTACLES, MASK

Holds spectacles in place under a face piece or gas mask. Consists of; 1 bracket, 1 nose piece, 2 lens frames.

00-781-6318

KIT, REPLACEMENT AIRLINE FILTER

Used for Breathing Apparatus Oxygen generating. End item identification number NSN 4240-00-770-0269.

Contains; 2 cartridges, 1 Black O ring gasket, wadding, and retaining ring.

01-085-3721

LANYARD, SAFETY BELT

Nylon rope, non-adjustable. Two double lock snaps, one on each end. 5 inch length. Free fall limit 6 feet.

	Dia/In.	Lg/In.	TS/Lbs
00-456-6146	1/2	53	6000

LANYARD, SAFETY HARNESS

Nylon rope or webbing. 6 feet with double lock snap hook on each end. Both latches are required to be depressed in order to engage or release the snaps. Includes an adjustment device capable of shortening the device by 50%. Mil Spec Mil-H-24460.

00-022-2518	working lanyard
00-022-2521	safety lanyard

LENS, COVER

Used on: Mine Safety Ultra View, Face piece. Clear Cellulose Acetate.

	Lg/In.	W/In.
01-052-9901	7-3/4	3-7/8

LENS, FACE PIECE, OXYGEN BREATHING

Polycarbonate material. End item identification number NSN 4240-01-297-5986.

01-049-0977

LENS, GOGGLE, INDUSTRIAL

CHIPPER'S type, Hardened Clear Plate Glass. Used as cover lens for chipper's filter lens. This is a replacement lens for GOGGLES, INDUSTRIAL, NSN 4240-00-269-7912. DOD-G-51510. Fed Spec GGG-G-513.

00-262-7091	50 millimeters diameter by 3.4 millimeters thickness.

WELDER'S type, Hardened, Clear Plate Glass. Used as a cover lens for welder's filter lens. This is a replacement for GOGGLES, INDUSTRIAL, NSN 4240-00-203-3804. Fed Spec GGG-G-513.

00-262-7092	50 millimeters diameter by 0.08 millimeters thick.

WELDER'S FILTER LENS. This is a round 50 millimeter diameter replacement lens. For GOGGLES, INDUSTRIAL, NSN 4240-00-203-7092. Used to protect eyes from glare. Filter lenses are intended for use when engaged in gas cutting, Medium gas welding, and for arc welding up to 30 amperes. DOD-G-51510. Fed Spec GGG-G-513.

	Matl	Thk	Shade No.
00-262-7098	Glass	3.400	5
00-262-7099	Plastic	.135	6

LENS, HELMET, WELDER'S

Welding filters shade list.

The following is a guide, for the selection of the proper shade numbers of filter lenses, or windows used in welding.

Welding operation	Suggested Shade No.
Shielded metal-arc welding 1/16, 3/32, 1/8, 5/32 inch electrodes	10
Inert-gas metal-arc welding (nonferrous) 1/16, 3/32, 1/8, 5/32 inch electrodes	11
Inert-gas metal-arc welding (ferrous) 1/16, 3/32, 1/8, 5/32 inch electrodes	12
Shielded metal-arc welding 3/16, 7/32, 1/4 inch electrodes	12
5/16-, 3/8-inch electrodes	14
Atomic hydrogen welding	10-14
Carbon-arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 in. to 6 inch	4 or 5
Heavy cutting, over 6 inch	5 or 6
Gas welding (light), up to 1/8 inch	4 or 5
Gas welding (medium), 1/8 inch to 1/2 inch	5 or 6
Gas welding (heavy), over 1/2 inch	6 or 8

NOTE: In gas welding or Oxygen cutting, where the torch produces a high Yellow light, it is desirable to use a filter or lens that absorbs the Yellow or Sodium line, in the visible light of the operation. 4.250 inches long by 2 inches Wide. Spec GGG-H-211.

Lens Shade, Glass, Filter.

Style A

	Shade No.
00-540-2427	CO-BS4
00-540-2422	CO-BS 9
00-276-8940	CO-BS 10
00-540-2421	CO-BS 11
00-276-8941	CO-BS 12

Clear Plastic Cover Lens. Used to protect filter lens from pitting. For use with Helmet Welders, NSN 4240-00-540-0623. GGG-H-211.

	Style	Lg/In	W/In.
01-311-6917	D	4 1/4	2

LENS RING KIT ASSEMBLY

Used with ultra-Filter and Ultra-Twin respirators. Contains: 2 lens rings, nuts, and screws.

01-055-8347

MASK, AIR FILTERING

MSHA approved with Elastic headband.

01-260-6236 adjustable

Molded fiber body, flame retardant. MSHA approved.

Molded fiber body, double Elastic strap, flame retardant. MSHA approved.

For dust and mist and fumes. With adjustable straps. MSHA approved.

01-247-2349*
* Nuisance Ozone levels relief.

For dust, fume, and mist. Elastic straps, with Purple exhalation valve cap. White color. MSHA approved.

	Size
01-272-1876	Medium
01-272-1877	Large

MASK, AIRLINE

Airline with face piece for supplied air for respirator assemblies. Fed Spec GGG-M-125/1.

FULL FACE PIECE

Comes with constant flow respirator, regulating valve, attachment fitting, and 100 feet of breathing hose with fittings.

01-251-9403

Comes with belt and bracket, for attachment of regulating valve. 25 feet airline hose.

00-275-3177

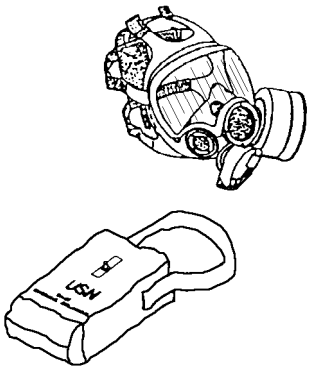
HALF-MASK FACE PIECE

Comes with; Clear single lens face piece, overhead harness, 28 inches of flexible breathing hose, demand flow, quick disconnect, belt mounted regulator and two connections.

01-022-1541

MASK, CHEMICAL-BIOLOGICAL MCU-2/P

Chemical resistant, canister filter type, particulate included. With direct attachment of canister to face piece. Left or right cheek mounting position. Plastic face piece cover type. Includes face piece speaking diaphragm with microphone hook-up capabilities. Elastic harness material. Nylon carrying case. Hood included.



	Size
01-327-4148	small
01-327-4149	medium
01-327-4150	large

PARTS USED WITH CHEMICAL BIOLOGICAL MASKS (MCU-2/P AND MCU-2A/P).

BAG, WATERPROOF

Plastic Vinyl Chloride, single wall, clear material. Waterproof snap fastener closure, top opening. Designed for tropical use.

	Face W/In.	H/In.	Thk/In.
00-803-5839	12-1/2	16-1/2	.006

BAND, ELASTIC

Rubber, Black Silicone. For Scott Model, MCU-2/P series 864.

	O/A Lg/In.
01-223-7312	2.600

OUTSERT ASSEMBLY

Consists of; outsert lens subassembly, Elastic band, and lens decal. For use on Scott Model, MCU-2/P series 864.

	Size.
01-224-4195	Small
01-224-4197	Medium & Large

TUBE, DRINKING

Consists of; Tube(quick disconnect), half-coupling, adhesive primer, and Methyl Ethyl ketone. Connects to plunger. Shall have a minimum airflow of 2.0 Liters per minute.

01-286-1841

Black Rubber. bent shape at 15 degree angle after 1.12 inches of length.

01-286-1843

VOICEMITTER, ASSEMBLY

FRONT

Baffle subassembly, rear baffle, gasket, and diaphragm.

	Dia/In.
01-224-0351	2

SIDE

Consists of: Baffle subassembly, rear baffle, gasket, and Diaphragm.

	Dia/In.
01-224-4198	.150

NOSECUP ASSEMBLY

For Oxygen breathing, at temperatures below 32 degrees Fahrenheit.

01-048-9400

PAD, WIPE, RESPIRATOR

Isopropyl Alcohol.

	Lg/In.	W/In.
01-250-8295	5-1/2	7-1/2

RESPIRATOR, AIR FILTERING KIT

CAUTION:

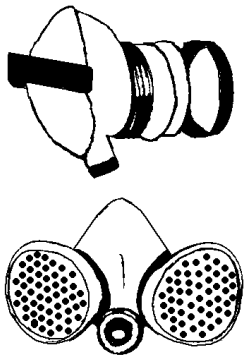
To preclude any possibility of health hazards, DISCARD RESPIRATOR when the filters and cartridges are consumed. UNDER NO CONDITIONS should requisitions be submitted for only the filters and/or cartridges.

Single or dual-element types with half-face piece masks. Bureau of Mines approved. Protects personnel exposed to dusts, metal fumes, paint sprays, and toxic vapors. Furnished with; head

harness, exhalation valve(s), and sufficient filters and/or cartridges, to last the life expectancy of the major item. Meets Fed Spec GGG-M-125 specs, as applicable.

FOR DUSTS

Single or double filter pad respirator. Complete with 50 extra filters for single element types, or 100 extra filters for dual-element types. For protection against pneumoconiosis and fibrosis dust, and nuisance or inert dusts. Fed Spec GGG-M-125/8.



00-084-9394

FOR ORGANIC VAPORS

Non replaceable filter pad.

For protection against pneumoconiosis and fibrosis producing dusts (including but not limited to Aluminum, Asbestos, coal, flour, Iron Ore, free Silica, and nuisance or inert dusts.). Fed Spec GGG-M-125/8.

Replaceable filter pad.

Dual cartridge respirator furnished with 100 filters. For use on Welders helmet. For protection against metal fumes. Fed Spec GGG-M-125/5.

00-099-6939

Adjustable Elastic material, Plastic half face piece. Non Spec Item.

	Size
01-300-9401	Small
01-300-9402	Medium
01-300-9403	Large

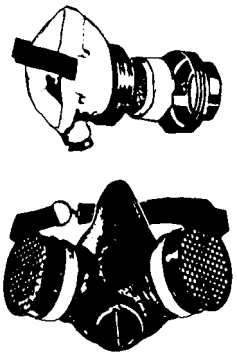
PAINT MIST AND PESTICIDE

Replaceable filter pad. Adjustable Elastic, Plastic face piece.

	Size
01-300-9416	Small
01-300-9417	Medium
01-300-9418	Large

Replaceable cartridge filter.

Single or dual cartridge respirator. Complete with 50 extra chemical cartridges for single-element type and 100 extra chemical cartridges for dual-element type. To protect wearer against concentration of organic vapors. Fed Spec GGG-M-125/4.



01-015-5194	Single strap
01-074-8390*	Double strap

* Non Spec Item, Non replaceable cartridge filter.

Cartridge and filter pad type, with replaceable filters. Silicone Rubber or Rubber mask material with half face piece. Elastic strap material for double or cradle straps. Comes with an exhaust valve and a head harness.

	Size
01-246-5401	Small/Medium
01-199-0077*	Medium
01-246-5403	Medium/Large

* Full face piece with Plastic Polycarbonate lens.

FOR ORGANIC VAPORS, PAINT SPRAYS

Replaceable cartridge and filter.

Single or dual cartridge, and filter combination respirator. Complete with, extra chemical cartridges and filters for protection against paint sprays and vapors. 25 cartridges and 50 filters for single types, 50 cartridges and 100 filters for dual types. Fed Spec GGG-M-125/6.

TOXIC PESTICIDES IN DUST, MISTS, SPRAYS, AND VAPORS

Replaceable cartridge and filter.

Single or dual cartridge respirator.,With 25 cartridges and 50 filters furnished with each single receptacle, and 50 cartridges and 100 filters with each dual receptacle mask. For protection against toxic pesticides in dusts, mists, sprays, and vapors. Fed Spec GGG-M-125/7.

Dual cartridge and replaceable filter pad. Half face piece head harness, adjustable. Black, double strap, Elastic material.

	Size
01-022-8501	Medium
01-086-7670	Large

Cartridge and filter pad type, with replaceable filters. Furnished with 2 cartridge and 2 filter pads. Used for protection against; dust and mist, paint mist and pesticide, and organic vapors 1, 2, and 3. Mask material is Silicone Rubber with a half face piece.

	Size
01-269-4171	Medium

SEAL, DOME

Replacement Seal, Aural Protector. 'O'-shaped, Vinyl film cover over Polyurethane, furnished in pairs. Adaptable to hearing protectors. Mil Spec Mil-A-23899.

00-979-4040

SHIELD, ARC VIEWING, HAND HELD

The shield has a Fiber body that covers the face completely. Lens, 4.250 inches long by 2.000 inches wide. Fed Spec A-A-2244.

00-270-4415

SLEEVE, SAFETY, CLIMBING

Aluminum, Steel. Static load rating 1000 pound maximum.

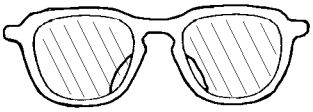
	H/In.	W/In.	Dp/In.
01-042-9688	11	3	5

SPECTACLES, INDUSTRIAL

Intended for use by personnel engaged in occupations, where small flying particles of relatively light impact are encountered. In addition, spectacles with absorbative lenses provide protection from the harmful effects of intense light, in the vicinity of welding or other sources of intense glare. Fed Spec GGG-S-620.

Plastic frame containing standard shape, impact resistant, absorbative, clear glass lens. Keyhole bridge with rigid nose pads. Green Plastic side shields, unless otherwise indicated. Corrosion resistant metal temple section with fully insulated temple core. Diopter curve designator 6.00. Carrying case furnished unless indicated otherwise.

KEYHOLE BRIDGE W/RIGID NOSE PADS



Clear Shields/Plastic Sides

	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-516-4728	6-1/2	20	46	39
00-516-4531	6-3/4	24	48	41
00-516-4529	6-3/4	26	48	41

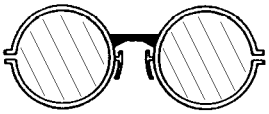
Green Shields/Plastic Sides

	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-516-4517	6-1/4	24	46	39

	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-516-4527	6-1/2	20	46	39
00-516-4523	6-1/2	22	46	39
00-516-4483	6-3/4	24	48	41

Nickel-Plated Brass. Green Plastic side shields. Nickel Silver material in temple section.

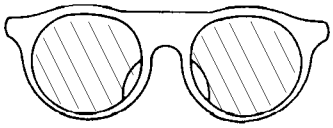
SINGLE BAR BRIDGE WITH ROCKER NOSE PADS



	Temple Lg In.	Nose Br W/mm	Maj Dia/mm	Min Dia/mm
00-269-9460	6-3/4	24	48	41

Clear Plastic. Plastic temple section material. Clear Plastic lens material. Clear Plastic side shield.

SADDLE BRIDGE WITH RIGID NOSE PADS



01-140-0282

STRAP, SAFETY, INDUSTRIAL

Nylon strap, Single tongue buckle.

	Lg/In.	W/In.
00-752-9715	84	1-3/4

STRAP, WRIST GROUNDING

Stainless Steel woven fibers with Elastic Nylon.

	Size
01-165-8866	Small
01-165-8865	Large

SUPPORT, BACK, LIFTING

Black color, supports the back and abdomen when lifting; has two stage closure and suspenders.

	Size
01-358-2906	Small
01-358-2905	Medium
01-361-4042	Large

SUPPORT, FACE PIECE

Used with breathing apparatus, 4240-01-297-5986.

01-049-0981

SWEATBAND, WELDERS HELMET

3 Plastic clip on strips adapts sweatband to helmet. Rubber with sponge.

	Lg/In.	W/In.
00-288-9325	8-1/2	1-3/4

TAB, PULL, BREATHING

Used with breathing apparatus, 4240-01-297-5986.

01-049-0984

TRAVELER ASSEMBLY, FIXED

Safety track traveler lifeline work belt used on SS Submarine. NAVSEASYCOM Drawing SSS1202-1226102ALT8PC6T010.

00-089-7615

TUBE, BREATHING

Used on Oxygen Breathing Apparatus, Navy Type

A-3. Rubber tubing with 20 corrugations. 3/64 inch wall thickness. NAVSEA Drawing. S9300-921871 PC105.

TUBE, BREATHING BAG

Used with breathing apparatus, 4240-01-297-5986.

01-049-0983

VALVE ASSEMBLY, COMBINATION

Used with Breathing Apparatus, NSN 4240-01-297-5986.

01-048-9515

VALVE ASSEMBLY, EXHALATION

Used with Breathing Apparatus, NSN 4240-01-297-5986.

01-048-9517

VALVE ASSEMBLY, INHALATION

Used with Breathing Apparatus, NSN 4240-01-297-5986.

01-048-9516

GROUP 45
PLUMBING, HEATING, AND SANITATION EQUIPMENT

CLASS 4510
PLUMBING FIXTURES AND ACCESSORIES

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

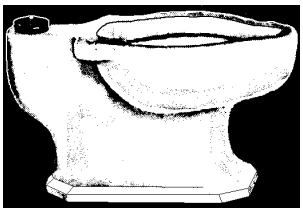
BAFFLE, DECK DRAIN

Brass. 1/16 inch thickness, 4 holes in one end. 7/32 inch diameter on a 1-7/8 inch diameter bolt circle. Diameters listed below.

	Major	Minor
01-115-8347	3-7/8	2-7/16
01-138-2014	3-7/8	2-5/16

BOWL, WATER CLOSET

Elongated front. Reverse bowl trap. Vitreous White Porcelain China bowls. Bottom outlet, 1-1/2 inch top inlet spud. Designed for deck mounting. With integral pedestal base, without flush valve or seat.

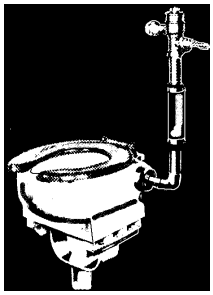


00-273-1202

Round front Porcelain bowl, with washdown flushing action. Bottom outlet, floor mounted 3.250 inch. Inlet spud top location.

01-080-3261

Round front Vitreous White China bowls. Siphon-jet type with rear outlet. 1-1/2 inch side inlet spud, and pedestal base designed for shock mounting. Without flush valve or seat. Bowl with supply waste, and shock fittings. All metal parts non-magnetic. NAVSEA Drawing 810-1385705.



00-540-1711

Elongated front. Nickel-Copper Alloy bowl. Bottom outlet, 1 inch rear inlet spud. Designed for deck mounting.

01-119-9923

BUBBLER, DRINKING FOUNTAIN

Cast Brass body. Forged Brass guard, Chrome Plated. Pressure 20 to 125 pounds. This is a pressure regulating, self closing valve. 3/8 IPS inlet.

00-325-3181

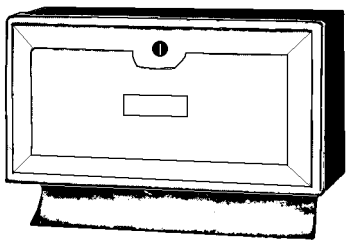
CONTROL VALVE, SHOWER

Designed for installation between shower head and shoulder arm. Water can be turned on-off and spray adjusted without disturbing temperature setting. Cuts water consumption 50 percent. Fits any standard shower head and arm. Control has 1/2 inch male and female connectors.

00-257-2215

DISPENSER, PAPER TOWEL

Single-fold towel dispenser, for hand towels. Under FAN, NSN 8540-00-262-7178. Bulkhead mounted. White enamel metal cabinet with bottom dispensing slot.



	Lg/In	H/In.	W/In.
00-224-8549	11.5	6	6.25

Triple fold towel dispenser, bulkhead mounted. 300 towel capacity. White enamel Steel cabinet with bottom dispensing. Fed Spec WW-D-1909.

	Lg/In	H/In.	W/In.
00-585-6305	11	15.5	3.875

DISPENSER, SOAP

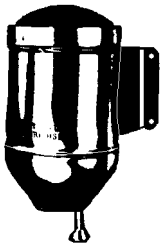
Hand operated soap dispensers. Rigid dispensing units with refillable soap containers. Dispenses measured amounts. Furnished with bracket and screws for bulkhead mounting. For liquid soaps, 10 ounce capacity. Hand pump valve.

00-203-2707 Glass, metal, or Rubber container

For liquid soap, any acceptable capacity. Hand pump valve.

00-919-1217 A/A material

For Borax and powdered toilet soap, NSN 8520-00-228-0985, and 8520-00-270-0258. With push-up valve. 20 ounce capacity.



00-203-2709 Glass, Plastic, or White enamel metal container

DISPENSER, TOILET PAPER

Stainless Steel cabinet and Plastic cabinet, metal roller or Plastic roller, frontal slot dispenser, automatic paper roll stop provided. Fed Spec WW-D-1908.

	Lg/In	H/In.	W/In.
00-752-9065	6	16-1/2	5

Steel cabinet, Plastic or Zinc roller, Chrome cabinet, frontal slot dispenser. Fed Spec WW-D-1908.

	Lg/In	H/In.	W/In.
00-892-5850	5-1/2	10-3/8	5-1/8

DRAIN, FLOOR

Shipboard deck drains. Integral trap type with strainer.

Female threaded outlet. With Brass body and perforated strainers.

	Drain Size/In.	Open Strainer Dia/In.
00-256-8835	2	4-11/16

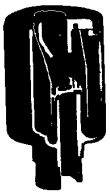
Flanged outlet. With Aluminum body and slotted 4-3/32 inch strainer. Bell trap. 2 inch outlet pipe accommodation. Flanged joint.

01-120-9349

Round flush type drain with an outlet on the bottom. Bronze body and open strainer. Bell trap. Outlet pipe, 1.500 inch diameter. Bolted type mounting. 4-19/32 inch diameter strainer.

00-949-5580

Male unthreaded outlet on bottom. Bronze body with back water valve and slotted strainer. Furnished without Steel sleeves.



	Drain Size/In.	Open Strainer Dia/In.
00-273-1077	1-1/2	4-19/32
00-273-1086	2	4-3/32
00-949-5581	3	5-5/32
00-273-1078	2	5-5/32
00-945-7790*	2	5-5/32
00-273-1079	2-1/2	6-5/32
00-273-1080	3	7-3/32

* With clean out feature.

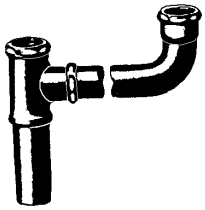
DRAIN, LAVATORY

Lavatory drain. Chrome Plated Brass. Furnished with 2-1/4 inch diameter flange drain fitting. Rubber stopper with bead chain, Rubber gasket, and locknut. 1-1/4 inch outside diameter by 6 inch length slip tail piece. Fed Spec WW-D-1991.

00-252-3154

DRAIN, MULTIPLE WASTE

End outlet continuous waste. Chrome Plated Brass. End outlet with 5 inch length slip tail piece. Dual inlets furnished with slip-joint nuts, friction rings. and washers. 1-1/2 inch outside diameter, size 24 to 25 inch centers.



00-276-7838

DRAIN, SINK

Flat-top Sink Strainer for 2-1/8 inch outlet. Chrome Plated Brass. Furnished with 1-1/2 inch by 4 inch slip tail piece, removable grid and mounting hardware.

00-273-1104

Stopper-basket type strainer. Chrome Plated Brass material. 1.500 inch diameter tailpiece with a 3.500 inch outlet.

00-216-5421

DRIER, HAND, ELECTRIC

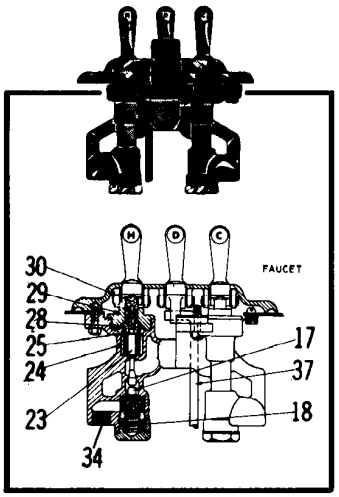
Wall style, metal or Plastic, for installation in washrooms, boiler rooms, and restrooms. All electric parts are designed to operate on 110/125 volts, 60 cycle, single-phase, alternating current. Materials used in construction are noncombustible and corrosion resistant. Complete weight of unit does not exceed 40 pounds. Fed Spec W-H-50.

00-069-2034

FAUCET, DOUBLE

Combination water supply and drain fixture. Self-closing. Chrome Plated exterior parts. Furnished complete. Mil Spec Mil-F-163.

00-202-8182 4-5/8 inch centers 1/4 18 NPT



Repair Parts

NIIN	Item Name	Navship Dwg Pc No.
00-372-0789$_{NP}$	Valve stem, lower	17
00-372-0777$_{NP}$*	Valve spring	18
00-372-0790$_{NP}$	Valve stem, upper	23
00-372-0775$_{NP}$†	Seat	25
00-372-0693$_{NP}$†	Diaphragm	28
00-300-6991$_{NP}$	Cap nut, stem	29
00-300-6995$_{NP}$	Cap, faucet stem	30
00-300-6992$_{NP}$	Tube, faucet conn	34
00-300-6998$_{NP}$	Rod, drain oper.	37

* FSC 5360
† FSC 4820

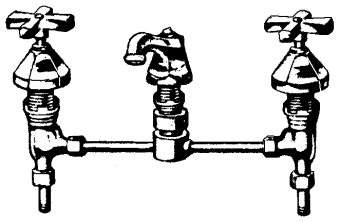
Bath supply combination fixtures. Brass body with compression seats. Handle indexed “C” and “H”.

Vertical surface mount, swing spout provided, marked hot and cold. 1/2 inch NPT supply connection.

00-927-5561 8 in. centers

Lavatory supply combination fixtures. Brass body with renewable seats. Handle indexed “C” and “H”. Exposed metal parts, Chromium Plated. 1/4-18 inch NPT, male tailpiece supply connections.

Concealed type wide-spread lavatory faucet. Cross type handles, and slip joint adjustable connections. 1/4-18 inch NPT.



00-252-6889 14 in. centers

Concealed type Brass lavatory faucet. Cross or lever type handle. 1/4-18 inch NPT.

00-252-6890 8 in. centers

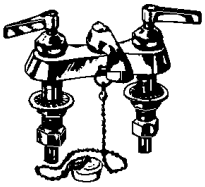
Center set single lever control. Polished Chrome Plated Stainless Steel body and handle. Fuller ball seat.

01-128-4720

Center set single level control, Zinc Chrome Plated. Fuller ball seat.

00-031-7634

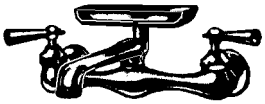
Exposed type center set lavatory faucet. Lever type handles, and eyelet attaching chain and stopper. Fed Spec WW-P-541.



00-252-6888 4 in. centers

Sink combination supply fixtures. Brass body with renewable seats. Handles indexed “C” and “H”. Exposed metal parts, Chromium Plated.

Utility sink faucet. 1/2 inch 14 NPT. Elevated swing spout, with aerator nozzle and metal soap dish. Female adjustable flange connection.



00-253-0857 8 in. centers

Round push button handle. 1/2 inch 14 NPT. Male thread connection.

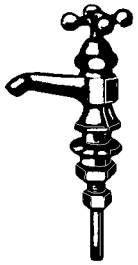
01-296-6859 4 in. centers

FAUCET, SINGLE

Self-closing faucet provided with a lever handle. 3/4 inch NPT, external thread inlet. Cast or milled body section, suitable to accept wrench. Pail hook provided, locking device included.

00-595-1785
00-484-3439
00-485-9188

Lavatory compression faucets. Brass body with renewable seat. 1/2 inch NPT male tailpiece. Indexed, cross-type, Brass handle. Exposed metal parts, Chrome Plated.



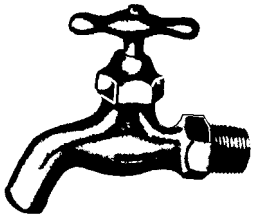
00-252-3776 Marked “Cold”

SHIPBOARD USE

Hex-shoulder Standard (Bibb) faucets. Bronze body with integral seat. NPT male supply connections, and Tee or (4 arm) handle. Exposed metal parts Nickel-Chrome Plated.

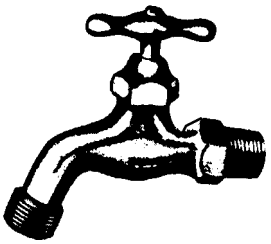
Compression

With plain end. Fed Spec WW-F-1910.



00-252-3767 3/4 in. supply

3/4 inch hose threaded. Mil Spec Mil-F-163.



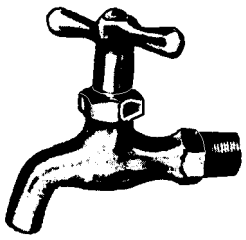
00-252-3771 1/2 in. supply
01-071-4296 1/4 in. supply

Self-closing

3/4 inch hose threaded. Fed Spec WW-F-1910.

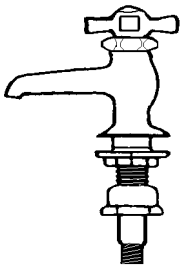
00-585-2260 3/4 in. supply

With plain end. Fed Spec WW-F-1910.



00-252-3778 1/2 in. supply

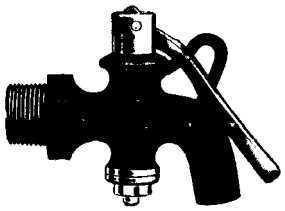
Polished Brass lavatory, fast, self closing. Rubber coated, CRES handle. Renewable compression seat. With supply connection and tailpiece. 1/2 inch NPT.



00-703-4402

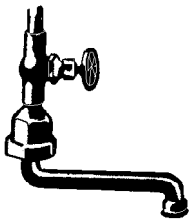
Noncorrosive-metal barrel faucets. Lever-lock type with metal to metal seat. 3/4 inch NPT male threaded inlet, and plain outlet.

With Ground key handle. Fed Spec WW-F-25.



00-580-2958

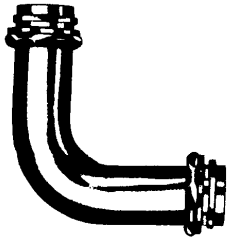
Overhead Supply swing-spout fixture. For use with steam kettles and urns. Chrome Plated Brass or Bronze valve with 1/4 in. NPT female threaded inlet, wheel handle, spout-adapter, and 14 inch length swing spout. Mil Spec Mil-F-163.



00-142-1238

FLUSH CONNECTION, URINAL-WATER CLOSET BOWL

90 degree Elbow Connection. Chrome Plated Brass. Provided with 2 slip joint nuts, friction rings, and Rubber washers. 1-1/2 inch outside diameter size, 8 inch lengths. Mil Spec Mil-F-19017.



00-273-1096

Straight connection. Brass, 1-1/2 inch outside diameter. 6 inch length.

00-203-1038

Straight reducing connection. Chrome Plated Brass. 1-3/8 inch outside diameter, 7-1/2 inch length. With slip joint ends, for connecting top spud urinals to flush valves. Mil Spec MIL-F-18930.

00-273-1095

HOLDER, SOAP

Concealed type cake holder. Chrome-Plated Brass. Wall surface mounted, accommodates 1 cake of soap.

00-289-8045

Chrome Plated Brass paper holders. Furnished with hardware for exposed-screw style bulkhead mounting.

Holder with removable spring-pivot roller. Furnished with 2-brackets and 2-wall flanges, or 1-bracket with 2-posts. Fed Spec WW-H-1911.

00-203-2721

Holder with sectional rigid bracket surface type mounting. Cadmium Plated finish. Wood roller, socket end.

00-364-3035

Wall surface mounting. Chrome Plated material. Accommodates 1 bar of soap. 4.000 inch width by 3.750 inch projection, furnished backplate and mounting screws.

00-126-3554

HOLDER, WATER TUMBLER AND TOOTHBRUSH

Chrome Plated Steel material. Screw mounted wall and surface type. Holds 1 tumbler and 4 toothbrushes.

00-242-3968

HOSE AND SPRAY ASSEMBLY

Pre-rinse spray with flexible Stainless Steel hose, 48 inch length. Automatic shut-off valve with sprayhead. 1/2 inch threaded female adapter.

01-056-9580

LAVATORY

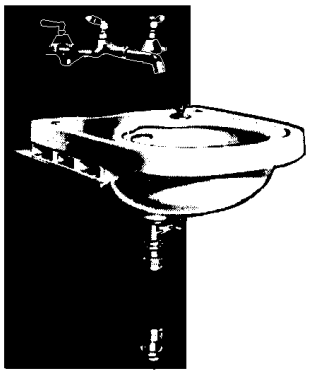
Pressed-metal lavatory with oval basin. 18 by 15 inch CRES body with apron front. Wall mounted. Furnished with over-rim type, self-closing combination faucet fitting, and snap-action pop-up drain assembly.

00-273-1105 13 in. x 10 in. basin

Vitreous Porcelain China, counter top installation “D” shape bowl. Top lavatory supply opening for 4 inch center to center supply lines. Inside length 12.125 inches by 15.000 inches inside width. Special features: 19.000 inches overall diameter.

01-250-2970

Vitreous Porcelain China with glaze surface treatment. Oval basin. 17 inches by 16 inches body. Apron front and soap depression. Designed for wall mounting. Furnished with over-rim type, self-closing combination faucet fixture. Snap-action, pop-up drain assembly and flexible hose connection to waste outlet. NAVSHIP Drawing 810-1385771.



00-277-9844 11-1/4 in. x 10-1/2 in. basin

PARTS KIT, FAUCET

4 components consists of: Faucet top cam spring, spring, gasket, packing ring, and seat ring.

00-690-7801

11 components consists of: cam assembly(1), spring(2), O-rings(4), Black Rubber gasket(1), Black Rubber gasket washer(2), and Allen wrench(1).

00-333-5475

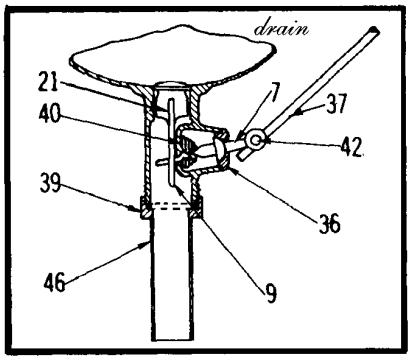
12 components consists of: 1 cap, 1 top spring, 1 locknut, 1 gasket, 1 top cam, 1 bottom cam, 1 spring, 1 centerpiece, 1 O-ring, 1 sleeve, 1 seat washer, 1 stem.

01-358-2530

16 components consists of: cup washer(2), O-ring(2), O-ring(2), seat washer with ring(2 each), screen(2), and strainer(4). End item: FAUCET, DOUBLE, 4510-01-296-6859.

01-298-1344

Repair Parts for Lavatory



Repair or replacement parts for existing metal lavatories. NAVSHIP Drawing S3601-860284, -860285, -860296.

NIIN	Item Name	NAVSHIP Dwg Pc No.
00-372-0691$_{NP}$	Actuator swivel	7
00-300-6996$_{NP}$	Stopper drain	9
00-372-0774$_{NP}$	Plunger	21
00-300-6994$_{NP}$	Coupling nut, rod	36
00-300-6998$_{NP}$	Rod, drain operating	37
00-372-0772$_{NP}$	Coupling nut, body	39
00-300-6999$_{NP}$*	Spring, drain operating	40
00-300-7000$_{NP}$	Swivel connector	42
00-372-0791$_{NP}$	Tailpiece, waste	46

* FSC 5360

PARTS KIT, FAUCET, WASHER

200 assorted Synthetic Rubber washers. 28 each size 00-1/2 inch outside diameter, 24 each size 0-17/32 inch outside diameter, 40 each size 1/4-9/16 inch outside diameter, 40 each size 1/4 -19/32 inch outside diameter, 28 each size 3/8-5/8 inch outside diameter, 10 each size 3/8 L-11/16 inch outside diameter, and 10 each size 1/2-3/4 inch outside diameter. Mil Spec Mil-W-19016.

00-903-6378

PARTS KIT, FLUSH VALVE

Includes: O rings, piston spring, compression springs, flex-sac assembly, and seat assembly.

01-144-9216

5 components consists of: control flush vacuum(1), bushing sleeve(1), push button(1), tubing assembly, non-metallic (1), and inlet fitting(1). Used on marine toilet FSC 4510-01-112-5789.

01-111-1425

PARTS KIT, SHOWER HEAD

Consisting of 1 each: knob, stem, hex-nut, washer, disc, plunger, distributor, bushing, seal, and spring.

01-137-3327

PARTS KIT, URINAL

Consisting of: 1 sleeve, 1 pad, 2 bolts, 5 washers, 3 nuts, 1 snubber, 1 screw, 1 reducer, 1 hose, 1 strip, 1 tailpiece, 4 rings, 1 gasket, 1 waste hose, 2 clamps, 1 pc tubing.

01-051-0328

Consisting of: 1 S-5 gasket, 1 S-14-A cup, 1 S-120 valve seat, 1 S-20 valve seat, 1 S-123-A main seat, 1 S-21 main seat, 1 B-39 seal, 1 A-31 gasket, 1 S-10 gasket, 1 M-10 gasket.

01-113-7869

PARTS KIT, WATER CLOSET

4 components consists of: Supply elbow(1), Ring, escutcheon(1), Ring, union(1), Washer(1).

01-123-3020

PARTS KIT, WATER MIXING VALVE

Consisting of: 1 mounting bracket, 2 bushing, 1 mixing plate, 1 mixing bar, 1 stem, 1 shower unit.

01-329-5024

Consisting of: 2 washers, 2 seals, 5 screws.

01-329-5025

Consisting of: 1 balance module, 2 washers, 2 O-ring, 1 seat washer, 1 plunger, 1 hot stem, 1 packing.

01-325-6379

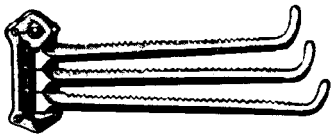
PRERINSE SPRAY UNIT

Sink mounted, deck type faucet. 1/4 inch external thread NPT. Hot and Cold connections. 40 inch overall height. With spring action at goose neck, manually operated spray valve.

01-063-1899

RACK, TOWEL

Swing-arm towel rack. Nickel-Chrome Plated Brass. Furnished with 3-arms (9-1/2, 10-1/4, and 10-3/4 inch), and hardware for exposed, screw style bulkhead mounting.



00-142-1219

SEAL RING, CLOSET BOWL FLANGE

Wax seal with Plastic flange. Accommodates 4.000 inch outside diameter drain outlet. 2.167 inch thick.

00-140-3856

SEAT, WATER CLOSET

Seats of molded Plastic, Plastic and hard Rubber, and/or Plastic and wood with pyroxylin seat surface treatment, as specified. Bumpers are Rubber or any Plastic material, having appearance comparable to seats and covers.

Plastic

Fits elongated bowl. Open front without seat cover.

Black

00-247-1370 Seat check and extended back.

White

00-202-7702 Self-sustaining hinge and extended back.

Fits round front bowl. Open front seat .

White

00-202-7688 Non check type hinge and extended back

01-112-3867 Self-sustaining hinge, extended back.

Fits round front bowl, closed front seat with cover.

00-202-7686 Non check type hinge and extended back.

Plastic and Hard Rubber

Fits round front bowl. Open front without seat cover.

White

00-277-1645 Self-sustaining hinge and extended back.

Black

00-277-7152 Standard hinge, no extended back.

SHOWER BATH FIXTURE

Shower fixture, Chrome-Plated, exposed Steel Two valve. 1/2 inch female inlets. 8 inch centers, indexed cross handles. Ball joint shower head, goose neck, riser withwall support, and drain plug.

00-454-4352

Nickel Chrome finished. 1/2 inch IPS, wall mounted, integral ball joint and concealed volume control, bent arm and wall flange, adjustable spray.

01-038-7682

Low flow, hand held features. Copper Alloy. 4-1/2 inch Center to center distance between valves, concealed.

01-092-4155

SHOWER HEAD

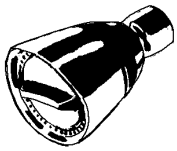
Ball-joint shower heads. 1/2 inch female inlet, adjustable spray.

Nickel Plated Brass. Volume or spray regulator. Any acceptable pattern design. Internal threads. Portable or wall mount.

01-316-7423

Angle Pattern Design

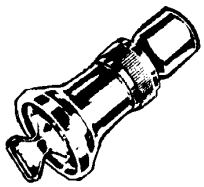
With integral automatic flow control. Nickel-Chrome Plated Brass or Plastic body. Restricted flow rate of 1.7 GPM. For shipboard use.



00-191-5244

Straight Pattern Design

Without flow control. Chrome Plated Brass body and faceplate or diffuser. Internal threads.



00-202-7703	
00-542-4917	Wall mounted
01-180-6357	A/A pattern design

STOPPER, WASTE DRAIN

White Rubber Basin Stoppers. With Chrome or Nickel Plated ring and post.

	Size/In.
00-242-4358	1
00-242-4359	1-1/8
00-242-4357	1-1/4
00-242-4360	1-1/2
00-242-4361	1-3/4

TAILPIECE, WASTE DRAIN

Chrome Plated Brass material. 1.500 inch outside diameter with flared end, for 1.500 inch drain outlet.

	Lg
00-317-3800	8.000
00-444-1795	12.000

TRAP, DRAIN, PLUMBING FIXTURE

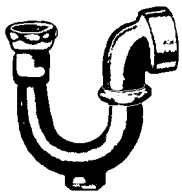
Chrome-Plated Brass P-Traps. With clean-out plug. Size/Inch listed below.

Cast-Brass Plain Trap. Nonadjustable. With female NPT threaded outlet. Fed Spec WW-T-1914.

	Inlet	Outlet
00-245-9486	1-1/4	1-1/4
00-756-1145*	1-1/4	1-1/4
00-061-4454	1-1/2	1-1/2

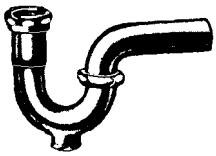
* With slip joint connection.

Adjustable trap with cast Brass elbow. With female NPT threaded outlet and swivel joint. Fed Spec WW-T-1914.



	Inlet	Outlet
00-595-0922	1-1/2	1-1/2

Adjustable slip joint inlet and outlet. Brass. Fed Spec WW-T-1914.



	Inlet	Outlet
00-245-9497	1-1/2	1-1/2

Adjustable slip joint inlet and outlet. Bronze includes swivel and clean out plug.

	Inlet	Outlet
01-363-2569	2	2

URINAL, STATIONARY

Aluminum wall mounted bowl unit. Width 8.375 inch. Trough length 6.000 inches and overall height 10.250 inches. Furnished with 1 drain screen.

00-885-7570

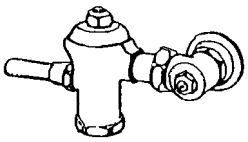
Lightweight Vitreous China wash-out urinal. With integral strainer, 3/4 inch top inlet, and 1-1/2 inch bottom outlet spud. Designed for shock-mounting on bulkhead. 13-1/4 inch height, 10 inch width. NAVSHIP Drawing 810-1385868.

00-727-1727

VALVE, FLUSH

Shipboard flushometers. Nickel-Chrome Plated Bronze flush valves of sealed design for use in sea, harbor, and river waters. With metal oscillating handle and inlet for SILBROZ connection. Furnished without flow control stops. Mil Spec Mil-V-15020.

Urinal flush valve. For concealed type installations. Handle located 90 degrees from inlet. 1 inch NPS male inlet tailpiece. 3/4 inch outside diameter tube outlet furnished with nut and washer for adapter-piece outlet.



00-013-7464

Water closet flush valve. For exposed type installations. Handle located 180 degrees from inlet. 1 inch NPT female inlet. 1-1/2 inch outside diameter tube outlet. Furnished without spud cover.

00-013-7445

Shore use flushometer. Chrome-Plated Brass flush valve, designed for use in fresh water. With metal oscillating handle. Female NPT threaded inlet, and slip tailpiece outlet. Furnished with angle flow control stop, vacuum breaker, and spud nut

With cover. Handle located 180 degrees from inlet for exposed type installations.

Pressure flush valve connection on right hand side. 3/4 inch. inlet and outlet size.

00-278-9549

Pressure flush type. Top and bottom guided disk flow. Right side inlet connection. 1 inch inlet and outlet.

00-245-9476

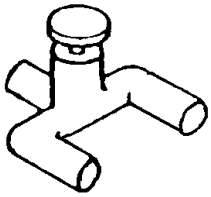
For exposed type installations. Brass flush valve. Designed for use in fresh water. First end,right hand 3/4 inch threaded internal pipe. Second end, 3/4 inch unthreaded internal pipe. Handle located 180 degrees from inlet right side.

01-078-0652

VALVE, WATER MIXING

Bronze spring-loaded piston control device. Three identical unthreaded internal pipe end connections, all of which accommodate 1/2 inch

pipe size. 100 PSI steam at 100 degrees Farenheit. For fresh water, threaded internal.



01-036-4035

GROUP 47
PIPE, TUBING, HOSE AND FITTINGS

CLASS 4710
PIPE AND TUBE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

PIPE

A straight hollow metallic product, over 12 inches long, welded or seamless construction, of continuous periphery. Has a uniform cross section and dimensions conforming to standard pipe tables.

TUBE

A straight hollow metallic product, over 12 inches long, welded or seamless construction, of round, square, or any other cross section. Continuous periphery, which do not conform to cross sectional dimensions to standard pipe tables for wall thickness (tube may have the same outside diameter as pipe).

PIPE, METALLIC

ALUMINUM

Alloy 5086, Temper H32, strain hardened and stabilized, one fourth hard. Good strength, weldable. Seamless, with plain ends. Lengths 16 to 20 feet. Fed Spec WW-T-700/5.

Standard Wall

	Size
00-542-2903$_{NP}$	1/2
00-542-2904$_{NP}$	3/4
00-542-2905$_{NP}$	1
00-542-2906$_{NP}$	1-1/4
00-542-2907$_{NP}$	1-1/2
00-542-2908$_{NP}$	2
00-542-2909$_{NP}$	2-1/2
00-542-2910$_{NP}$	3
00-542-2911$_{NP}$	3-1/2
00-542-2912$_{NP}$	4

Extra Strong Wall

	Size
00-542-2913$_{NP}$	1
00-542-2914$_{NP}$	1-1/4
00-542-2915$_{NP}$	1-1/2
00-542-2916$_{NP}$	2

BRASS

Red Brass. Annealed. Salt air, gases, or corrosion resistant. Lengths 12 to 20 feet. Fed Spec WW-P-351.

Standard Wall

	Size
00-277-6088$_{NP}$	1/8
00-289-2848$_{NP}$	1/4
00-277-7741$_{NP}$	3/8
00-289-2851$_{NP}$	1/2
00-277-6084$_{NP}$	3/4
00-277-7739$_{NP}$	1
00-277-6086$_{NP}$	1-1/4
00-277-6087$_{NP}$	1-1/2
00-289-2854$_{NP}$	2

Extra Strong Wall

	Size
00-277-6078$_{NP}$	1/4
00-277-6080$_{NP}$	1/2
00-542-2918$_{NP}$	3

CARBON STEEL

Shipboard Use. For oil, water, gas, and steam service, in fuel oil heaters, boiler water wall, water screen, and economizer headers. Cold finished, normalized, and stress-relieved. Seamless, with plain ends. Length 10 to 12 feet. 400 pound operating pressure.

Extra Strong Wall, Schedule 160.

	Size
00-810-4504$_{NP}$	1/2
00-810-4505$_{NP}$	3/4
00-810-4506$_{NP}$	1
00-810-4503$_{NP}$	1-1/2
00-810-4507$_{NP}$	2

ASTM A53, Grade B

Miscellaneous Service. For overflows and sounding tubes, vents, air intakes, and hanger deck sprinkler systems. Hot finished, normalized, and tempered. Seamless or welded type, with plain or beveled ends. Lengths 16 to 22 feet. Fed Spec WW-P-404.

Plain Ends, Seamless Type, Standard Wall.

	Size
00-277-8705$_{NP}$	1

Beveled Ends, Seamless Type, Standard Wall, Black Finish.

	Size
00-277-8702$_{NP}$	3/8
00-277-8703$_{NP}$	1/2
00-277-8704$_{NP}$	3/4
00-277-8706$_{NP}$	1-1/4
00-277-8707$_{NP}$	1-1/2
00-277-8708$_{NP}$	2
00-277-8709$_{NP}$	2-1/2
00-277-8710$_{NP}$	3
00-277-8711$_{NP}$	3-1/2
00-277-8712$_{NP}$	4
00-277-8713$_{NP}$	5
00-277-8714$_{NP}$	6
00-277-8715$_{NP}$	8

ASTM A106, Grade B

Plain Ends, Seamless Type, Schedule 40.

	Size
00-993-5036$_{NP}$	1/2
01-025-9583$_{NP}$	3/4
00-961-9174$_{NP}$	1
00-892-5914$_{NP}$	1-1/2
00-849-0871$_{NP}$	2
00-892-5913$_{NP}$	2-1/2

Plain Ends, Seamless Type, Schedule 80.

	Size
01-363-4159$_{NP}$	1/2
00-961-9175$_{NP}$	2-1/2
01-012-6806$_{NP}$	3

ASTM A53, grade A

Beveled Ends, Welded Type, Standard Wall, Black finish.

	Size
00-278-5350$_{NP}$	3/4
00-278-5351$_{NP}$	1
00-278-5348$_{NP}$	1-1/4
00-278-5349$_{NP}$	1-1/2
00-278-5346$_{NP}$	2

Beveled Ends, Welded Type, Extra Strong Wall, Black Finish.

	Size
00-277-3954$_{NP}$	1/4
00-277-3955$_{NP}$	3/8
00-277-3956$_{NP}$	1/2
00-277-3957$_{NP}$	3/4
00-277-3960$_{NP}$	1-1/2

Beveled Ends, Welded Type, Standard wall, Zinc coated. Schedule 40. 16 to 22 feet.

	Size
00-277-5472$_{NP}$	3/4
00-277-5473$_{NP}$	1
00-277-5468$_{NP}$	1-1/4
00-277-5469$_{NP}$	1-1/2
00-277-5466$_{NP}$	2
00-277-5467$_{NP}$	2-1/2

General Purpose Use. For steam, water, gas, and air line service. Not intended for close coiling, bending, flanging, or maximum sustained operating temperature above 450 degrees Fahrenheit. Hot or cold finish. Plain ends or threaded male ends, with one coupling. Lengths 16 to 22 feet for standard wall, and 12 to 22 feet for extra strong wall.

ASTM A 20

Plain Ends, Black Finish, Extra Strong Wall.

	Size
00-277-7449$_{NP}$*	1/4
00-277-7451$_{NP}$	1/2
00-640-6345$_{NP}$	3/4
00-277-7455$_{NP}$	1-1/2

* Mil-P-24691.

For use in fuel oil heaters, boiler water wall, water screen, economizer headers, and for other related applications as may be satisfactory to the activity concerned. Spec Mil-T-20157. 10 to 12 feet.

Plains Ends, Seamless Type, Schedule 80.

	Size
00-846-9210$_{NP}$	3/8
00-640-6346$_{NP}$	1/2
00-640-6344$_{NP}$	3/4
00-640-6484$_{NP}$	1
00-640-6500$_{NP}$	1-1/4
00-640-6506$_{NP}$	4

Plain Ends, Seamless, Annealed. Schedule 80. Descaled finish. Mil Spec Mil-P-24338. Lengths 24 feet nominal.

	Size
00-451-5181$_{NP}$	1/2

COPPER

Hard Drawn Temper. For plumbing, boiler feed lines, and similar purposes. Seamless with plain ends. Lengths 12 to 20 feet. Fed Spec WW-P-377.

Standard Wall

	Size
00-277-6099$_{NP}$	1/4
00-277-6100$_{NP}$	3/8
00-277-6101$_{NP}$	1/2
00-277-6068$_{NP}$	3/4
00-277-6069$_{NP}$	1
00-277-6126$_{NP}$	1-1/4
00-277-6127$_{NP}$	1-1/2

CRES

Austenitic Steel. For high temperature and general hydraulic or pressure service. Not intended for salt water systems or high pressure main steam lines. Seamless, with plain ends. Lengths 12 to 24 feet. Mil Spec Mil-P-1144.

Composition 304, Seamless quenched and tempered type, Standard Wall.

	Size
00-893-8624$_{NP}$	1/4
00-893-8626$_{NP}$	1/2
00-893-8622$_{NP}$	3/4
00-893-8627$_{NP}$	1
00-893-8628$_{NP}$	1-1/4
00-893-8623$_{NP}$	1-1/2
00-893-8629$_{NP}$	2
00-893-8631$_{NP}$	3

CRES. Composition 304. 18 percent Chromium, 8 percent Nickel, descaled. Seamless, with plain ends. 4500 PSI OP. Lengths 24 feet. Mil Spec Mil-T-23226.

	Size
00-432-3044$_{NP}$	1/2
00-432-3049$_{NP}$	1
00-432-3055$_{NP}$	2

NICKEL COPPER ALLOY

Monel, Cold Drawn, and Stress-relieved. Good strength and corrosion resistant. Lengths 5 to 24 feet. Seamless, with plain ends. Mil Spec Mil-T-1368.

Standard wall, Schedule 40

	Size
00-277-2466$_{NP}$	1/4
00-277-2467$_{NP}$	3/8
00-277-2468$_{NP}$	1/2
00-277-2469$_{NP}$	3/4
00-277-2470$_{NP}$	1
00-670-0653$_{NP}$*	1
00-277-2471$_{NP}$	1-1/4
00-277-2472$_{NP}$	1-1/2
00-277-2473$_{NP}$	2
00-277-2474$_{NP}$	2-1/2

* Any Acceptable length.

Annealed, descaled, seamless. 24 feet specific length. 4500 PSI operating pressure. Schedule 80. Mil Spec Mil-T-23520.

	Size
00-670-0753$_{NP}$	1/2
00-432-3163$_{NP}$	1/2
00-455-0195$_{NP}$	1/2
00-432-3164$_{NP}$	1
00-455-0197$_{NP}$	1

PIPE, PLASTIC

Rigid. Capable of being bent and formed when heated. High impact Polyvinyl Chloride. For cold sea water and potable drinking water. Not to exceed 140 degrees Fahrenheit. Seamless, with plain ends. Length, 20 feet. ASTM D 1785.

	Size	PSI 77 deg F
00-541-6617	1	A/A
00-541-6618*	1-1/4	420
00-541-6619	1-1/2	260
00-541-6620	2	290

* Any Acceptable Length.

TUBE, METALLIC

ALUMINUM ALLOY

Alloy 1100-Temper H-14. Strain hardened, half-hard. Good formability. Seamless, with plain ends. Lengths 8 to 12 feet. Fed Spec WW-T-700/1.

Standard Wall

	Dia
00-278-4975$_{NP}$	1.050
00-278-4976$_{NP}$	1.315
00-278-4973$_{NP}$	1.660
00-278-4974$_{NP}$	1.900
00-278-4971$_{NP}$	2.375

Alloy 6061, Temper T6. Solution heat treated and artificially aged. Seamless, with plain ends. Aircraft hydraulic quality. For use in hydraulic and pneumatic systems, of aircraft covered by Military Spec Mil-H-5440, including the 3000 PSI system. Mil Spec Mil-T-7081.

	Dia	Thk	Lg/Ft
00-816-4949$_{NP}$	.188	.028	10-12
00-289-2781$_{NP}$	.250	.035	10-12
00-684-5074$_{NP}$	.375	.035	12
00-289-2785$_{NP}$	.375	.049	10-12
00-142-3010$_{NP}$	.500	.035	8-12
00-289-2792$_{NP}$	.500	.083	10-12
00-279-0020$_{NP}$	.625	.035	10-12
00-289-2537$_{NP}$	1	.049	10-12
00-278-5784$_{NP}$	1	.035	10-12

Alloy 6061. Seamless, with plain ends. Heat treated, artificially aged. Fed Spec WW-T-700/6.

Round

	Dia	Thk	Lg/Ft
00-278-2097$_{NP}$	.250	.035	10-12
00-278-6430$_{NP}$	.750	.058	10-12
01-210-0319$_{NP}$	.500	.035	12

Square

	Sq/In.	Thk/In.	Lg/Ft
00-106-7381$_{NP}$	1.5	.083	10-12
00-106-7383$_{NP}$	2	.061	8-12

COPPER

General Shipboard Service. Cold drawn temper. For use with brazed and solder-type fittings, when bending or threading is required. Tube with adequate wall thickness should be specified. Seamless, with plain ends. Lengths 12 to 20 feet. Mil Spec Mil-T-24107.

	OD	Thk
00-277-4032$_{NP}$	.188	.032
00-277-4029$_{NP}$	.250	.032
00-278-2213$_{NP}$	.250	.049
00-277-4030$_{NP}$	.312	.032
00-277-4027$_{NP}$	.375	.032

	OD	Thk
00-277-4026$_{NP}$	.500	.032
00-277-4596$_{NP}$	.540	.065
00-277-4602$_{NP}$	.540	.072
00-278-2198$_{NP}$	.540	.109
00-277-4597$_{NP}$	.675	.065
00-277-4023$_{NP}$	.840	.065
00-277-4033$_{NP}$	1.050	.065
00-277-4034$_{NP}$	1.315	.065
00-277-4623$_{NP}$	1.660	.065
00-277-4624$_{NP}$	1.900	.065
00-277-4613$_{NP}$	2.375	.065
00-277-4606$_{NP}$	2.875	.065
00-277-4608$_{NP}$	4	.065

Water and Refrigeration Services. Annealed Temper. Coiled tubes are dehydrated. Sealed at both ends, with metal or Plastic caps, or plugs soldered or bonded to tube end to exclude dirt and air.

20 foot Coils, Hard Drawn Temper.

	OD	Thk
00-278-2214$_{NP}$	.250	.032
00-278-2215$_{NP}$	.375	.030
00-278-2216$_{NP}$	.500	.035
00-277-4533$_{NP}$*	.500	.049
00-278-2217$_{NP}$†	.625	.049
00-277-6119$_{NP}$	.750	.049

* 60 Foot Coils, Annealed Temper.
† MS14300.

Aramide fiber insulated covering. Seamless, with plain ends. Soft annealed, coiled. Non-Spec items.

Minimum 10 foot coil.

	OD	Thk
00-039-5702	.125	.018

Refrigeration, Tempered. Annealed tube supplied in 25 foot coils, for fuel, water, oil, and air lines in aircraft and automobiles. Annealed tubes supplied in 50 foot coils are for refrigeration field service. Fed Spec WW-T-799.

25 foot Coils, Annealed Temper.

	OD	Thk
00-277-7581$_{NP}$	0.125	0.030
00-277-5524$_{NP}$	0.188	0.030
00-277-5525$_{NP}$	0.250	0.030

50 foot Coils, Annealed Temper.

	OD	Thk
00-203-3171$_{NP}$	0.250	0.030
00-424-2694$_{NP}$	0.500	0.032

COPPER ALLOY

Condenser and Heat Exchanger Service. Copper-Nickel Alloy. For use in heat exchangers and condensers which use sea water as the cooling medium. Fully annealed temper. Seamless, with plain ends. Mil Spec Mil-T-15005.

Composition 70-30

	OD	Wall Thk	Lg/Ft
00-289-3439$_{NP}$	0.250	0.028	10
00-289-3436$_{NP}$	0.250	0.035	10
00-289-3437$_{NP}$	0.250	0.049	20
00-278-8498$_{NP}$	0.375	0.049	20
00-278-7859$_{NP}$	0.625	0.049	20
00-278-7865$_{NP}$	0.750	0.049	20

Composition 90-10

	OD	Wall Thk	Lg/Ft
00-278-8479$_{NP}$	.375	.049	20
00-278-8487$_{NP}$	.625	.049	20

Sea Water, Hydraulic, and High Pressure Air and Nitrogen Systems. Copper Alloy. Various PSI WP. Salt air and water corrosion resistant. Fully annealed temper. Seamless, with plain ends. Mil Spec Mil-T-16420.

Composition 70-30

	OD	Wall Thk	Lg/Ft
00-455-0192$_{NP}$	.245	.049	20
00-926-1201$_{NP}$	.250	.058	12-20
00-118-8885$_{NP}$	.250	.065	12-15.5
00-555-0934$_{NP}$	.375	.049	12-25
00-926-1180$_{NP}$	.540	.072	12-20
00-087-1470$_{NP}$	.540	.065	12-25
00-926-1197$_{NP}$	.540	.120	12-20
01-059-1099$_{NP}$	.540	.120	* 18.6
00-877-7408$_{NP}$	.840	.065	12-25
00-926-1199$_{NP}$	.840	.072	12-20
00-926-1196$_{NP}$	.840	.120	12-20
00-087-1469$_{NP}$	1.050	.065	12-25
00-277-4543$_{NP}$	1.315	.065	12-25
00-118-8895$_{NP}$	1.315	.120	12-15.5
00-432-3127$_{NP}$*	1.315	.180	20
00-926-4148$_{NP}$	1.315	.180	12-18
00-877-7417$_{NP}$	1.660	.072	12-25
00-118-8897$_{NP}$	1.660	.120	12-15.5
00-289-7993$_{NP}$	1.900	.072	12-25
00-926-4150$_{NP}$	1.900	.109	12-20
00-289-7994$_{NP}$	2.375	.083	12-20
00-926-4143$_{NP}$	2.375	.120	12-20
00-289-7995$_{NP}$	2.875	.083	12-25
00-829-3036$_{NP}$	3.500	.095	12-20
00-926-4177$_{NP}$	3.500	.165	10-20
00-604-8221$_{NP}$	4.000	.095	12-20
00-604-8328$_{NP}$	4.500	.109	12-20

* Mil-C-15726.

Composition 90-10

	OD	Wall Thk	Lg/Ft
00-277-4651$_{NP}$	.250	.035	12-20
00-277-4652$_{NP}$	.500	.035	12-16
00-277-4653$_{NP}$	.540	.065	12-25
00-277-4654$_{NP}$	.675	.065	12-25
00-277-4655$_{NP}$	.840	.065	12-25
00-277-4656$_{NP}$	1.050	.065	12-25
00-277-4657$_{NP}$	1.315	.065	12-25
00-289-8004$_{NP}$	1.660	.072	12-25
00-289-8005$_{NP}$	1.900	.072	12-25
00-289-8006$_{NP}$	2.375	.083	12-25
00-289-8007$_{NP}$	2.875	.083	12-25
00-604-7978$_{NP}$	3.500	.095	12-20
00-277-4663$_{NP}$	4.000	.095	12-20
00-604-7942$_{NP}$	4.500	.109	12-20
00-604-7989$_{NP}$	5.563	.125	10-18
00-604-8027$_{NP}$	6.625	.134	10-16
00-604-8050$_{NP}$	8.625	.151	8-12

CRES

Composition AISI 304 (Temper one eighth hard, cold drawn). For use in high pressure hydraulic and pneumatic systems. Including those conforming to; Mil-H-5540, Mil-H-25475, Mil-H-8891, and Mil-P-5518. Not suitable for welding or brazing. Lengths 5 to 20 feet except where noted.

Seamless, with Plain Ends. Mil-T-6845.

	OD	Wall Thk	Lg/Ft
00-278-3297$_{NP}$*	.188	.028	10-20
00-825-5894$_{NP}$	.250	.020	—
00-278-3294$_{NP}$	.250	.028	—
00-278-3292$_{NP}$	.250	.049	—
00-471-8593$_{NP}$	.250	.065	—
00-278-3281$_{NP}$	.375	.028	—
00-516-4831$_{NP}$	.375	.049	—
00-595-2785$_{NP}$	.500	.028	—
00-813-9872$_{NP}$	.500	.049	12
00-278-3300$_{NP}$	.500	.065	—
00-278-3305$_{NP}$	.625	.035	—
00-278-3302$_{NP}$	.625	.049	—
00-278-3314$_{NP}$	.750	.035	—
00-443-4773$_{NP}$	.750	.049	—
00-278-3317$_{NP}$	1.000	.035	—
00-278-3320$_{NP}$	1.000	.049	—

* Mil-T-8504.

Composition AISI 347, CRES. Annealed. Spec Mil-T-8606. Seamless, with plain ends.

	OD	Wall Thk	Lg/Ft
00-273-7948$_{NP}$	.250	.035	5-24
*00-580-9154$_{NP}$	.250	.049	10-12

* Straight seamed, with plain ends.

STEEL

Carbon Steel Seamless Tubes with plain ends. For naval oil, water, steam, and gas service at temperature not over 775 degrees Fahrenheit. Mil-T-24691. Length 12 to 24 feet.

600 PSI WP, Hot or Cold Finished.

	OD	Thk
00-277-7448$_{NP}$	0.250	.065
00-277-7450$_{NP}$	0.675	.120
00-277-7452$_{NP}$	1.050	.120
00-277-7453$_{NP}$	1.315	.120
00-277-7454$_{NP}$	1.660	.120
00-289-4513$_{NP}$	2.375	.134
00-289-4514$_{NP}$	2.875	.165

Special Service Annealed. 700 PSI WP.

	OD	Thk	Lg/Ft
00-640-6481$_{NP}$	.540	.120	12-24
00-640-6477$_{NP}$	.675	.120	12-20
00-541-5167$_{NP}$	1.315	.120	12-20
00-541-5169$_{NP}$	1.660	.167	12-20
00-812-2588$_{NP}$	1.900	.200	12-24
00-541-5170$_{NP}$	1.900	.350	12-20

	OD	Thk	Lg/Ft
01-023-7259$_{NP}$	2.375	.218	20-24
00-541-5171$_{NP}$	2.375	.300	12-24

Seamless. 400 PSI.Mil Spec Mil-P-24691.

	OD	Thk	Lg/Ft
00-277-7246	72.375	.120	12-24

Chromium-Molybdenum Alloy. Seamless Steel tubes with plain ends, 1200 to 1500 PSI OP. Normalized and tempered lengths. 20 to 24 feet. Mil Spec Mil-T-18165.

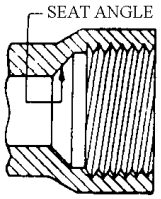
1-1/4 percent Chromium, .05 percent.

Molybdenum Steel.

	OD	Thk
00-542-4323$_{NP}$	.840	.120
00-542-4324$_{NP}$	1.050	.120

TUBE ASSEMBLY, METAL

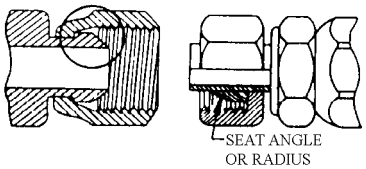
Pre-bent form, RH thread direction. Non Spec Items. Flare connections both ends. 3/8 -24 UNF, 45 degree seat angle.



FLARE

	OD	Thk
00-792-8984$_{NP}$	.188	.025

Swivel nut, inverted flare. 1/2-20 UNF. Seat angle, 30 degrees. Swivel nut with compression sleeve, 5/8-20 UN. Seat angle 12 degrees.

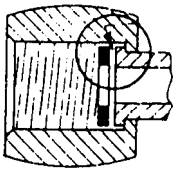


	OD	Thk
00-654-9021$_{NP}$	.250	.083

Swivel nut, Gasket seal, both ends. 7/16-24.

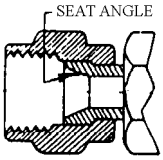
UNS.

Brass



	OD	Thk
00-105-3212	.190	.043

Swivel nut flared, both ends. 3/8-24 NF or UNF. Seat angle, 45 degrees.

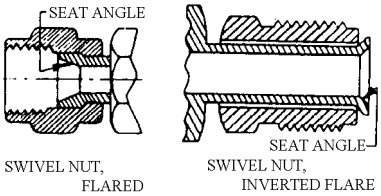


SWIVEL NUT, FLARED

	OD	Thk
00-364-3452$_{NP}$*	.188	.028
00-020-2733$_{NP}$	.188	.028
00-020-2734$_{NP}$	.188	.035

* Diesel engine application

Swivel nut flared, 3/8-24 UNF, and Swivel nut inverted flare, 7/16-24 UNS. Seat angle, 45 degrees.

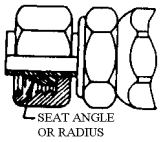


SWIVEL NUT, FLARED

SWIVEL NUT, INVERTED FLARE

	OD	Thk
00-093-5751$_{NP}$	.250	.062

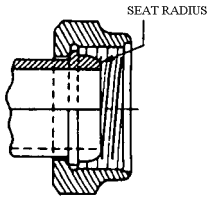
Swivel nut, Compression sleeve, both ends. 5/8-18 UNF. Seat angle, 45 degrees.



SWIVEL NUT with COMPRESSION SLEEVE

	OD	Thk
00-301-5114$_{NP}$	.312	.120

Swivel nut, compression, both ends. 1/2-18 UNF. Seat angle, 62 degrees.



SWIVEL NUT, COMPRESSION

	OD	Thk
00-073-3212$_{NP}$	.240	.070
00-073-3209$_{NP}$*	.250	.072

* Seat radius, 0.125.

TUBING, NONMETALLIC

GLASS

Round, rigid, clear, smooth

	ID	OD	Lg
00-716-7716$_{NP}$	.322	.740	1.380

PLASTIC

Round, rigid

	ID	OD	Lg/In.	Color
00-087-1645	.500	.625	36	Clear
00-087-1644	.625	.750	36	A/A

CLASS 4720
HOSE AND TUBING, FLEXIBLE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

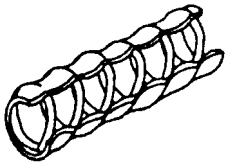
GUARD, HOSE-TUBING

Tube guard. 370.8 inch, overall length. Temperature range, minus 65 to plus 600 degrees Fahrenheit. 4.240 inch inside diameter. Mil Spec Mil-D-22707.

00-106-7360

HOSE, AIR DUCT

HELICALLY WOUND, CONTINUOUS WIRE, SUPPORTED.



Fiberglass and Rubber Chloroprene cloth and wire, and Fiberglass and Rubber Chloroprene reinforcing cord. Temperature range, minus 65 to plus 275 degrees Fahrenheit. Operating Pressure, 4 pounds PSI. Both ends soft.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-409-8810	2.000	10.500	.065	1.250
00-409-8812	2.000	20.000	.065	1.250
01-027-2296*	6.000	8.000	.175	—

* Operating pressure, 7 pounds. Temperature range, minus 20 to plus 250 degrees Fahrenheit.

Chloroprene Rubber impregnated Fiberglass cloth and wire, and Chloroprene Rubber impregnated Fiberglass cloth and Fiberglass cord. Wall thickness 0.150 inches. Not ozone resistant. Temperature range, minus 65 to plus 275 degrees Fahrenheit. Operating pressure, 20 PSI. First end plain. Second end soft type. 1.500 inch inside diameter by 1.000 inch length.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-455-2129	1.500	30	.050	1.000

Cotton and Rubber Synthetic material 1st and 2nd ply. Steel, Corrosion Resisting reinforcing wire. Temperature range, minus 40 to plus 160 degrees Fahrenheit. 8 pound operating pressure. Both ends are soft.

	ID/In.	Lg/In.	End Lg/In.
00-403-6410	3.000	110.000	1.000

Three layers of, Silicone impregnated Fiberglass cloth and one layer Fiberglass cord and Bronze Coated Steel wire. Not ozone resistant. Temperature range, minus 75 to plus 500 degrees Fahrenheit. Maximum operating pressure, 35 PSI. Both ends soft.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-445-4416	3.000	23	.080	1.250

Materials consist of Cotton, Linen, Fortisan, or Fiberglass impregnated. With thermosetting type Resin or Synthetic Rubber and wire. Vibration, solvent, water, flame, fungus, and ozone resistant. Temperature range, minus 65 to plus 300 degrees Fahrenheit. Maximum operating pressure, 16 PSI. Both ends soft. Mil Spec Mil-H-8796.

	ID/In.	Lg/In.	Thk/In.	End Lg/In.
00-067-6375	4.000	26.500	—	1.550

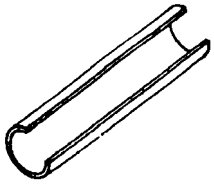
Plastic Polyvinyl Chloride, one ply. First end plain. Minimum bending radius .500 inches. Temperature range, minus 20 to plus 150 degrees Fahrenheit. Operating pressure, 10 PSI.

	ID/In.	O/A Lg/In.
01-216-1092	1	30

Fiberglass, one ply. Temperature range, minus 65 to plus 400 degrees Fahrenheit. Maximum operating pressure, 90 pounds PSI.

	Wall Thk/In.	ID/In.	O/A Lg/In.
00-106-7359	.040	3.500	360

SLEEVE SECTION



Rubber Silicone, 5 sleeve section. Temperature range, minus 65 to plus 450 degrees Fahrenheit. Mil Spec Mil-D-22706.

	Wall Thk/In.	ID/In.	O/A Lg/In.
00-564-1413	.025	3.500	360

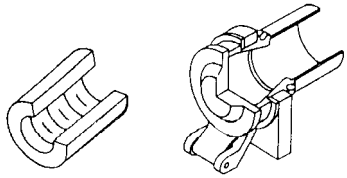
Rubber Synthetic and Fiberglass Rubber Chloroprene 2nd ply material. 5 sleeve section with a wall thickness .085 inches inside diameter 3.000 inches and overall length 2.750 inches. Both ends plain.

	Wall Thk/In.	ID/In.	O/A Lg/In.
01-064-5895	.085	3.000	2.750

HOSE ASSEMBLY, AIR BREATHING

HELICALLY WOUND, CONTINUOUS WIRE SUPPORTED

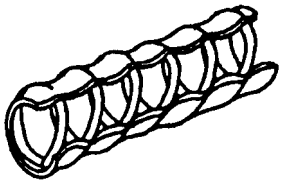
Ozone resistant. First end coupling style. Connector, Oxygen hose to regulator, and integral receptacle with 4 terminals. Second end, coupling 1/2-20 UNF with 4 receptacles, for communications cable.



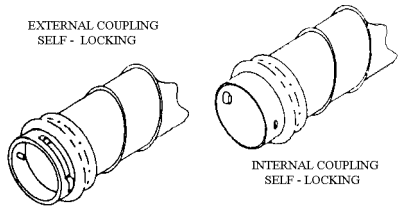
	ID/In.	Lg/In.
00-006-0429	.250	23.000

HOSE ASSEMBLY, AIR DUCT

HELICALLY WOUND, CONTINUOUS WIRE SUPPORTED



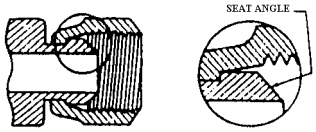
Cotton duct fabric, reinforced with helically wound, continuous supported Zinc Plated wire. Impregnated with Synthetic Rubber. Intended for use with portable ventilating sets on ships, where non-magnetic equipment is not required. Spec Mil-H-18158. Fitted with Steel, Zinc Plated self-locking couplings. One female and one male.



	ID/In.	Lg/In.
00-277-7225	8.000	184

HOSE ASSEMBLY, METALLIC

Two layers of braided Bronze wire. 1st end: threaded internal pipe, swivel nut inverted flare. 2nd end: 1/2 inch straight unthreaded pipe.



SWIVEL NUT, INVERTED FLARE

	ID/In	OD/In.	Lg/In.
00-391-5767	.500	1.150	14.500

Steel, Corrosion Resisting inside surface treatment. Annular, close-pitch corrugated tube style. Braided CRES wire. Passivated outside surface treatment. First end: threaded internal tube, with swivel nut flare straight end. Second end: threaded internal tube, with swivel nut flare. 90 degree elbow end connection.

	ID/In	OD/In.	Lg/In.
01-127-5856	.438	.740	25.250

Steel, Corrosion Resisting, inside surface treatment. Helical, open-pitch, corrugated tube style. Braided CRES wire. Passivated outside surface treatment. First end: threaded internal tube, with swivel nut flare, straight end. Second end: threaded internal tube, with swivel nut flare. 90 degree elbow end connection.

	ID/In	OD/In.	Lg/In.
01-031-7120	1.000	1.280	30.000

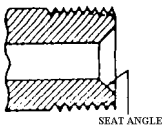
Steel, Passivated inside surface treatment. 1st layer: corrugated CRES. Outer layer: braided CRES wire. 20.250 inch overall length, minimum. Inside bending radius 2.500 inch. .500 inch NPT RH.

	ID/In	OD/In.	Lg/In.
01-019-9156	.458	.802	20.250

HOSE ASSEMBLY, NONMETALLIC

Air Service

Rubber. Covered by two layers of braided Rayon cord and an outer layer of Rubber. Fuel resistant. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Maximum operating pressure, 1250 PSI. Both ends identical, with 30 degree inverted flare seat angle, and 1/4-18 NPT external right hand thread. Inside bending radius, 3 inches.



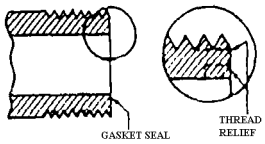
INVERTED FLARE

	ID/In	OD/In.	Lg/In.
00-554-9362	.250	.560	300

Rubber, Buna-N, smooth, inner conveying tube material. Threaded internal pipe thread 1st end. Plain style, straight connection, .125 inch Right-hand National Pipe thread. Threaded external pipe. 2nd end: Swivel, plain with straight end connection, .125 inch Thread size. Bronze fitting with right-hand National Pipe threads. Special feature: Threaded external end, fitted with .90 degree elbow.

	ID/In	OD/In.	Lg/In.
01-171-4202	.250	.500	13.322

Rubber, covered by Synthetic molded Rubber, plain threaded external pipe connectors, both ends identical. 1/4-18 NPT. Furnished with: 1 adapter and 1 cap adapter, with chain and ring. Inside diameter 0.438 inches, outside diameter 0.750 inches.



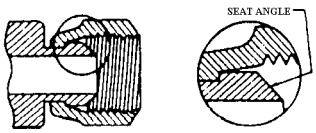
PLAIN

	ID/In	OD/In.	Lg/In.
00-770-0267	.438	.750	94

Plastic, Thermoplastic conveying tube material. 1st layer Braided Fiber, outer layer molded Plastic. Threaded internal tube, swivel nut flare. Straight end connection, with 37 degree seat angle. Steel fitting. 3/4 inch by 16 UN 3B. Right hand thread. 2nd end identical.

	ID/In	OD/In.	Lg/In.
01-213-0002	.375	.630	192

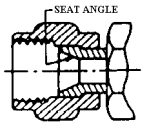
Synthetic Rubber. Covered by Any Acceptable 1st layer, and an outer layer of Chloroprene molded Rubber. Black color, light resistant. Maximum operating pressure, 700 pounds PSI. 9/16 UNF RH threaded internal tube, swivel nut inverted flare. 30 degree seat angle. Brass fitting, identical ends. Mil Spec Mil-S-15297.



SWIVEL NUT, INVERTED FLARE

	ID/In	OD/In.	Lg/In.
00-289-4611	.375	.719	300

Air, Fuel/Oil, Hydrocarbon and Fresh Water Service



SWIVEL NUT FLARE

Rubber. With 1 layer of CRES wire and an outer layer of Rubber impregnated, braided Cotton cord. Reusable end fittings. Temperature rating minus, 40 to plus 300 degrees Fahrenheit. Maximum operating pressure, 250 PSI. Minimum inside bending radius, 2.750 inches. Ends not identical. First end with 45 degree swivel nut flare, and 7/8-14 UNF-2B right hand thread. Second end with 30 degree inverted flare, and 1/2-14 NPTF external right hand thread.

	ID/In	OD/In.	Lg/In.
00-461-3767	.500	.860	80

Rubber, Ethylene Propylene with smooth inside surface. 2nd layer: braided Rayon or Polyester cord. Outer layer: moulded Rubber Ethylene Propylene with a round shape. Threaded internal pipe, plain style with straight connection. Titanium, nipple. Corrosion Resisting Steel, nut and socket. 2nd end identical. 9/16 UNJF 3B thread size.

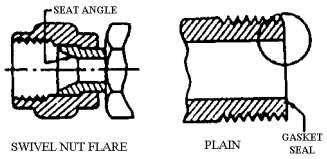
	ID/In	OD/In.	Lg/In.
01-320-8223	.380	.750	33.750

Synthetic Rubber. 1st layer: Braided fabric. 2nd layer: Braided Steel wire. Outer layer: Rubber, impregnated braided fabric. Both ends: Swivel nut flare style, 90 degree elbow, threaded internal tube type. 0.625 inch UNF size. Temperature rating, minus 40 to plus 300 degree Fahrenheit. Operating pressure, 2250 PSI. Hose assembly has a long and a short radius elbow.

	ID/In	OD/In.	Lg/In.
01-130-5468	.312	.670	64

Air, Water Service

Synthetic Rubber. 1st and 2nd layer: Braided textile yarn. Outer layer: Synthetic molded Rubber. First end type: threaded internal tube. 1/2 inch UNF. Swivel nut flared. Second end: threaded external pipe 1/4 inch NPT, plain end style. Bending radius, 2.000 inch. Brass fittings. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Operating pressure, 200 PSI. Furnished with nipple and sleeve. Mil Spec Mil-S-15297.



SWIVEL NUT FLARE PLAIN

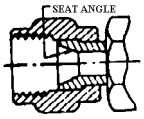
	ID/In	OD/In.	Lg/In.
00-289-4612	.312	.625	300

Fire Fighting-CO2 Service

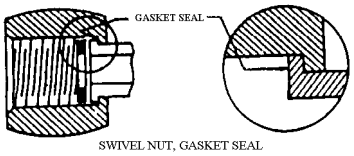
Aircraft fueling. Rubber. Gasoline resistant.

Smooth bore, reinforced with Rubber impregnated braided Rayon cord. Has a Synthetic Rubber, abrasion, oxidation, and weather resistant cover. Supplied with, control cable and contact assembly. Brass.

Threaded female swivel nut. 2-1/2 NPSC coupling on one end, threaded male 2-1/2-8NPT plain coupling other end. Mil Spec Mil-H-17902.



SWIVEL NUT FLARE



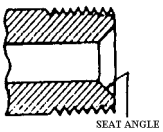
SWIVEL NUT, GASKET SEAL

	ID/In	OD/In.	Lg/In.
00-289-0756	2.500	2.752	600

Swivel couplings with control cables.

	ID/In	OD/In.	Lg/In.
00-826-4782	1.50	2.215	700

Fuel/Oil, Hydrocarbon Service



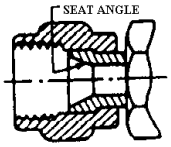
INVERTED FLARE

Synthetic Rubber Conveying Tube Material. 1st layer: braided fabric. 2nd layer: braided wire. Outer layer: molded Synthetic Rubber. Threaded external tube type. Straight, inverted flare. 0.625 inches UNF. Steel fittings. Temperature rating, minus 40 to plus 275 degrees Fahrenheit. Operating pressure, 2250 PSI.

	ID/In	OD/In.	Lg/In.
01-126-9171	.313	.672	15.250

1st, 2nd, 3rd, & 4th layers spirally laid Steel wire. Outer layer: molded Synthetic Rubber. 2nd layer: braided CRES wire. 3rd layer: molded Synthetic Rubber. Outer layer: spirally wrapped Cotton fabric. Hydraulic fluid and oil resistant. Inside diameter 0.375 inches, outside diameter 0.844 inches, 3/8-24 UNF minimum. Inside bending radius 5 inches. Temperature rating, minus 65 to plus 200 degrees Fahrenheit. Maximum operating pressure, 4000 PSI. Both ends identical: Steel with 30 degree inverted flare and 3/8-24 UNF right hand external thread. Special Feature: 12 inch spring guard each end.

	ID/In	OD/In.	Lg/In.
00-618-8290	.375	.844	120



SWIVEL NUT FLARE

1st and 2nd layers: Braided Steel wire. Outer layer: Chloroprene molded Rubber. 12000 pounds PSI burst test pressure. Temperature rating, minus 65 to 180 degrees Fahrenheit.

	ID/In	OD/In.	Lg/In.
00-826-3453	.6888	1.219	50

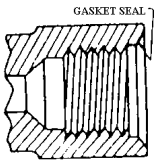
1st layer: Braided textile yarn. 2nd layer: Braided Steel wire. Outer layer: Rubber impregnated braided fabric. Threaded internal, swivel nut flared. Steel fittings. 7/16 UNF-3B. 3000 PSI operating pressure.

	ID/In	OD/In.	Lg/In.
01-079-7461	.188	.520	25.750
01-080-0105	.190	.520	20.500

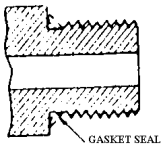
Chloroprene Rubber. 1st layer: spirally interlocked Rayon. 4 layers of spirally wrapped CRES fabric. Oil resistant and waterproof. Both ends same. Threaded internal tube type. Straight swivel nut flared. Steel fittings. 1.062 UN inches. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Operating pressure 5000 PSI.

	ID/In	OD/In.	Lg/In.
01-143-1406	.750	1.438	13.625
01-048-1232	.750	1.438	183

Outer layer: Synthetic molded Rubber. First end: Threaded internal boss type, gasket seal, brass fitting. Swivel nut flare, 0.562 UNF inch. Second end: Threaded external boss. External seat for gasket seal, 0.375 UNF inch. Chrome, Nickel Plated, Brass fittings.



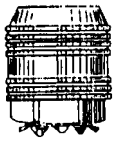
GASKET SEAL

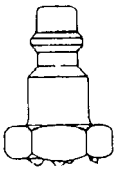


EXTERNAL SEAT for GASKET SEAL

	ID/In	OD/In.	Lg/In.
00-388-9878	.250	0.485	26

First layer: braided Steel wire. Outer layer: molded Rubber. Abrasion, oil, and weather resistant. Inside diameter 0.250 inches, outside diameter 0.652 inches. Minimum inside bending radius 4 inch. Maximum operating pressure, 2750 PSI. First end: push type, internal, QUICK DISCONNECT connector. Second end: push type, external, QUICK DISCONNECT connector. 1/4 inch connectors. Both connectors, Cadmium Plated Steel. 120 inch length. Special Feature: Furnished with plug.


PUSH INTERNAL

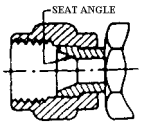

PUSH EXTERNAL

00-241-5856

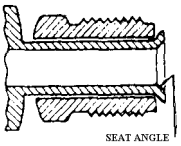
First layer: braided Rayon cord. Outer layer: molded Synthetic Rubber. Weather resistant. Inside diameter 0.375 inches, outside diameter 0.625 inches. Maximum operating pressure 400 PSI. Both ends Cadmium Plated Brass. Externally threaded.

00-143-3830 1st end 1/4-18 NPTF
2nd end 3/8-24 UNF
7.375 in. lg

1st layer: Braided Steel wire. Outer layer: Synthetic molded Rubber. Oil resistant. 1st end connection: threaded internal tube. Straight swivel nut flare, 0.562 UNF. 2nd end connection: threaded external tube. Swivel nut flared inverted. Elbow 90 degrees, 0.625 UNF. Temperature rating, minus 40 to plus 200 degrees Fahrenheit. Operating pressure, 2250 PSI. Reusable fittings.



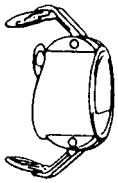
SWIVEL NUT FLARE



SWIVEL NUT INVERTED FLARE

	ID/In	OD/In.	Lg/In.
00-922-5122	.375	.688	14

Wire reinforced, outer layer of molded Synthetic Rubber. Both ends Bronze. First end: internal quick disconnect and 1-1/2-11-1/2 NPSH internal hose thread. 2nd end: external quick disconnect, 1-1/2 - 11-1/2 NPSH external hose thread and gasket seal. Temperature rating, minus 32 to plus 52 degrees Celsius. Maximum operating pressure, 125 PSI. Non-collapsible, used for high aromatic gasoline, JP-4 fuel, and diesel fuel. Fed Spec M370B05B33000.

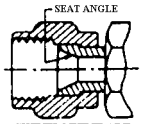

CAM or LEVER INTERNAL

CAM or LEVER EXTERNAL

	ID/In	OD/In.	Lg/In.
00-229-0662	1.500	2.125	300

1st layer: braided fabric. Outer layer: molded Polyurethane. Inside diameter 0.188 inches, outside diameter 0.438 inches minimum. Inside bending radius 0.750 inches. Temperature

rating, minus 40 to plus 200 degrees Fahrenheit. Maximum operating pressure, 3000 PSI. Both ends Steel. 1st end: 30 degree seat angle and 1/4-18 NPT RH external thread. 2nd end: 45 degree seat angle and 7/16-20 UNF internal thread, swivel flare nut both ends. Reusable end fittings.

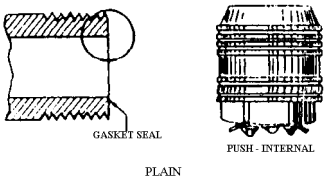


	ID/In	OD/In.	Lg/In.
00-460-2448	.188	.438	18.500

Grease Gun Service, High Pressure

Synthetic Rubber Conveying Tube Material

1st and 2nd layers CRES wire. Outer layer molded Chloroprene Rubber. Operable to minus 40 degrees Fahrenheit. Operating pressure 6000 PSI. Both ends Steel. 1st end: 1/8-27 NPT external threads. 2nd end: Internal Quick Disconnect, with .260 inch opening. For use with high pressure, hand operated, or power operated lube guns, buckets, or other dispensing equipment. Mil Spec Mil-H-3868.



	ID/In	OD/In.	Lg/In.
00-141-8311	.188	.593	19.500

Hydraulic Fluid

1st and 2nd layers of Rubber impregnated woven fabric. Outer layer is moulded Rubber, Synthetic. Threaded internal tube connection. Straight inverted flare style, Steel fitting. 3/8 UNF 2B RH threads. 3000 pounds burst test pressure.

	ID/In	OD/In.	Lg/In.
01-052-9700	.175	.438	11.938

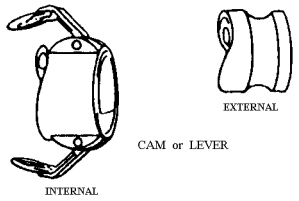
1st layer: braided Cotton cord. 2nd layer: braided Steel wire. Outer layer: Rubber impregnated braided Cotton cord. Fuel, Oil, and Hydraulic fluid resistant. Threaded internal tube, straight swivel nut flare. Steel fitting 9/16 UNF 3B right hand threads. 2nd end identical. Minus 65 to plus 275 degrees Fahrenheit temperature rating. 2000 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-702-5214	.312	.671	120

1st layer: Rubber impregnated, braided Steel wire. 2nd layer: moulded Synthetic Rubber. 1st end connection: threaded external tube, straight, swivel nut inverted flare. Socket Steel Cadmium treated fitting. 2nd end connection: threaded external tube, 90 degree elbow swivel nut inverted flare. Cadmium coated Steel fitting. 3/8 UNF 2A right hand threads both ends. Minus 40 to plus 200 degrees Fahrenheit temperature rating. 3000 pounds maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-237-3593	.188	.500	21

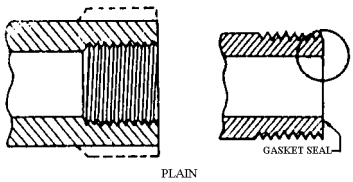
Gasoline suction and discharge. Synthetic Rubber, smooth bore. Reinforced with plies of braided or spiraled Cotton, or fiber cord with helixes of Steel wire. Has a fuel, oil, and ozone resistant Rubber cover. Mil Spec Mil-H-370. Used for suction and discharge of liquid fuels such as high aromatic gasoline, JP4, 5, and diesel fuels. Brass fittings. Cam or lever end style. 1st end: internal quick disconnect. 2nd end: external quick disconnect. 1-1/2 inch sizes.



	ID/In	OD/In.	Lg/In.
00-289-1409	1-1.500	2.125	600

Steam Service

Synthetic Rubber. Smooth bore, reinforced with plies of braided Steel wire embedded in Rubber, and a heat-resistant Rubber cover. Spec Mil-H-28596. Operating pressure 200 PSI. Used for temporary steam connection from dock to ship. Steel, Cadmium Plated. 1st end: plain threaded internal pipe. 2nd end: plain threaded external pipe.



1-1/2 in. NPT

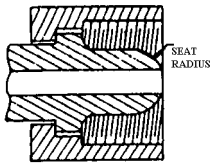
	ID/In	OD/In.	Lg/In.
00-289-7990	1.500	2.250	300

2 in. NPT

	ID/In	OD/In.	Lg/In.
00-289-7991	2.000	2.750	300

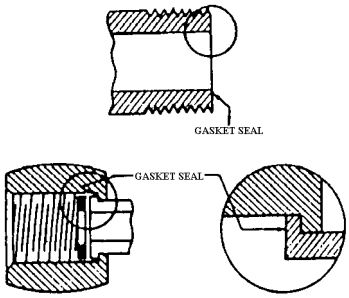
Welding and Cutting

Synthetic Rubber. Smooth bore, reinforced with plies of wrapped or braided Cotton, or Synthetic fiber fabric. Rubber cover coded to denote service, green for Oxygen, red for Acetylene-Hydrogen. Fed Spec ZZ-H-461. Left hand thread on Red item. Brass threaded female swivel nut (gas) tube couplings on ends. Both ends identical. 9/16-18 UNF-3B thread. 600 inch length excluding fittings. Inside diameter and outside diameter shown in inches.



SWIVEL NUT, GAS

	ID/In.	OD/In.	Color
00-289-4254	.250	.594	Green
00-289-4258	.250	.594	Red
00-293-7997	.312	.343	Green
00-273-9886	.312	.656	Red



SWIVEL NUT, GASKET SEAL

Synthetic Rubber. Smooth bore, reinforced with plies of Cotton or suitable Synthetic yarn or fabric.Rubber water resistant cover. Brass fittings. 3/4 11-1/2 NH inside diameter. Outside diameter and length shown in inches. Fed Spec ZZ-H-601.

Commercial hose

	ID/In	OD/In.	Lg/In.
00-585-2289	.750	A/A	600

Water resistant

	ID/In	OD/In.	Lg/In.
00-221-8763	2.500	A/A	120

Weather and ozone resistant

	ID/In	OD/In.	Lg/In.
00-230-6577	.750	A/A	300

Fuel oil, Hydrocarbon

Copper Alloy. Threaded female swivel nut, gasket seal, hose coupling one end. Threaded male plain gasket seal, hose 3/4-11-1/2 NH coupling other end. 600 inch length. Fed Spec L-H-520.

	ID/In	OD/In.	Lg/In.
00-203-3920	.625	A/A	600
00-203-3912	.750	A/A	600

General Purpose

1st and 2nd layers: Braided Steel wire. Outer layer: Molded Polyurethane. 12000 pounds PSI burst test pressure. Temperature rating, minus 65 to 200 degrees Fahrenheit. Nut drilled for lockwire.

	ID/In	OD/In.	Lg/In.
01-375-7243	.250	.480	24

Outer layer: Braided fiber or spiral interlocked. CRES. Outer layer: molded Rubber. Oil and fuel resistant. Maximum Operating pressure, 800 pounds PSI.

	ID/In	OD/In.	Lg/In.
00-066-4759	.250	A/A	600

Polytetrafluroethylene. 1st and 2nd layer: Braided, Corrosion Resistant Steel wire. Temperature rating, minus 100 to 450 degrees Fahrenheit. Hydrostatic test pressure, 3000 pounds PSI.

	ID/In	OD/In.	Lg/In.
01-115-7372	.880	1.090	73.125

Fuel oil, Hydrocarbon

Plastic, Polyvinyl Acetate inner conveying tube material. 1st layer: braided Polyester cord, Yellow outer layer, molded Plastic. Inside diameter .250 inches, outside diameter .375 inches. Maximum operating pressure, 500 PSI. 1st end: Brass, straight swivel nut, with gasket seal with 7/16-20 UNF right hand internal thread. 2nd end: Brass, with 45 degree elbow and swivel nut with gasket seal, with 7/16-20 UNF right hand internal thread. Special Feature: end connections have an internal self sealing feature.

	ID/In	OD/In.	Lg/In.
00-603-9257	.250	.375	36

1st layer: braided Rayon cord. Outer layer: moulded Synthetic Rubber. Inside surface smooth, designed for Fuel/Oil, Hydrocarbon and has a round cross-sectional shape. 1st end: connection plain, straight 1/4 inch threaded external pipe threads. 2nd end: connection plain, straight 3/8 in. threaded external pipe threads. Brass fittings Cadmium treated. 400 pounds maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-251-6977	.375	.675	10 in.

1st and 2nd layer: braided Steel wire. Outer layer: moulded Synthetic Rubber. Inside surface smooth, designed for Fuel/Oil, Hydrocarbon and has a round cross-sectional shape. 1st end connection: plain, straight, 3/8 inch NPT external threads. 2nd end identical. Steel fittings Cadmium treated both ends have a spring guard. 4000 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
01-250-6455	.375	.844	36 in.

Rubber inner conveying tube material, designed for Fuel/Oil, Hydrocarbon. Round cross-sectional shape with a convoluted inside surface. 1st end connection is straight 1-1/16 inch UNJ threaded internal tube. Fitting is CRES, swivel nut flare style. 2nd end is identical. Temperature rating minus 45 to plus 450 degrees Fahrenheit.

	ID/In	OD/In.	Lg/In.
01-029-5401	.652	1.062	12

1st layer: braided Cotton cord. 2nd layer: braided Corrosion Resistant Steel wire. Outer layer: Rubber, impregnated braided Cotton cord. 1st end is round, straight, threaded internal tube with a swivel nut flare end. 1-5/8 inch UN 12-3B thread size. Aluminum Alloy fittings. 2nd end identical. 600 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
00-824-8096	1.125	1.500	180

1st and 2nd layer: braided wire with an outer layer of moulded Chloroprene Rubber. Round cross-sectional shape with universal quick disconnect first end. Aluminum Alloy fitting 4-1/8 inches long. 2nd end identical. 100 pounds maximum operating pressure.

	ID/In	OD/In.	Lg/In.
01-331-2880	2.000	2.750	1200

Zinc Alloy. Threaded female swivel nut, gasket seal, hose coupling one end. Threaded male plain, gasket seal, hose coupling other end. 3/4-11-1/2 NH. Fed Spec L-H-520.

	ID/In	OD/In.	Lg/In.
00-729-5334	.625	A/A	600
00-729-5338	.750	A/A	600

Plastic Polytetrafluoroethylene inner tube material. Round cross-sectional shape with an outer layer of, braided Corrosion Resistant Steel wire. Threaded internal tube, straight, swivel nut flare, 1st end fitting. 7/16-24-2A UNS threads, Passivated Corrosion Resisting Steel fitting. 2nd end identical. 1500 pounds maximum operating pressure.

	ID/In	OD/In.	Lg/In.
01-201-1228	.250	.343	12.750
01-200-4295*	.406	.585	24.000

* 3/4-16-3B UNF threads 2nd end 90 degree elbow.

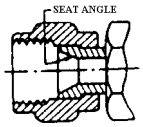
Plastic Polytetrafluoroethylene inner tube material. Round cross-sectional shape with an outer layer of braided Corrosion Resistant Steel wire. Threaded internal tube, straight,swivel nut flare, 1st end fitting. 1-1/16-12-3B UNJ threads, Corrosion Resisting Steel fitting. 2nd end has a 45 degree elbow. 1000 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
01-090-8358	.615	.812	38

Plastic Polytetrafluoroethylene inner tube material. Round cross-sectional shape with 5 layers of braided Corrosion Resisting Steel wire. Threaded internal tube, straight, swivel nut, flareless 1st end fitting, 1-5/16-12-3B UNJ. 2nd end has an elbow and both ends are Corrosion Resisting Steel. 3500 pound maximum operating pressure. Used on CH-46 helicopters.

	ID/In	OD/In.	Lg/In.
01-226-8472	.875	1.266	21.250

Plastic Polytetrafluoroethylene. For Hydrocarbon fuels and oils. Plastic compound reinforced with Corrosion Resistant Steel wire and Steel fittings. Both ends swivel nut flare. Thread size same both ends. Temperature rating, minus 65 degrees to plus 450 degrees Fahrenheit. Maximum operating pressure 1500 PSI, unless noted.



1st end straight. Second end 90 degree elbow. 7/16-20-3B UNJF.

	ID/In	OD/In.	Lg/In.
00-723-7397	.188	.342	14
00-883-9038	.234	.703	11
00-868-5779	.236	.609	12

Plastic, Tetrafluoroethylene

Outer layer braided CRES wire. Steel fittings CRES. Both ends: Threaded internal tube, Straight flared swivel nut, 7/16-20-2B UNF.

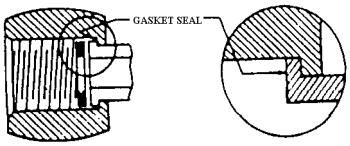
	ID/In	OD/In.	Lg/In.
00-803-3301	.250	.368	12

Outer layer: braided Passivated Corrosion Resistant Steel wire. Inner tube material: smooth, Plastic Tetrafluoroethylene. Threaded internal tube, straight, swivel nut flare, Passivated Steel fittings. 7/8-14-3B UNJF threads. 1500 pound maximum operating pressure.

	ID/In	OD/In.	Lg/In.
01-022-4452	.500	.656	25.250
00-234-2526*	.852	1.390	44

* 1-5/16-12-3B UNJ threads of the fittings with a 3000 pound maximum operating pressure.

Plastic. 1st and outer layers: Rubber impregnated polyamide fabric. Straight swivel nut ends, Threaded internal hose. Both fittings Brass. 600 PSI operating pressure. 50 foot lengths.



	ID/In	OD/In.	Lg/In.
01-248-8822	1.396	1.500	1-1/2 NPSH
01-254-4912	1.396	2.500	2-1/2 NPSH

Paint, dope, oil, solvents

1st layer: Any acceptable molder Rubber. Hydrostatic test pressure 400 pounds PSI. One nipple, 3/8-18 NPSC size to be connected to an end connection.

	ID/In	OD/In.	Lg/In.
00-289-3429	.380	A/A	300

Water and oil

1st to 5th layer: Corrosion Resistant Steel fabric. Internal quick disconnect. Temperature rating, minus 40 to 200 degrees Fahrenheit. Maximum operating pressure, 14000 pounds PSI. Permanent Steel, outer abrasion coating.

	ID/In	OD/In.	Lg/In.
01-038-7429	.500	1.220	600

Ethylene Glycol

Polytetrafluoroethylene Plastic. 1st layer: Braided Polyamide cord. Outer layer: Molded Rubber. Temperature rating, minus 40 to 160 pounds PSI.

	ID/In	OD/In.	Lg/In.
01-200-2816	.750	1.140	34
01-200-2819	.750	1.140	40
01-200-2820	.750	1.140	57
01-200-2809	.750	1.140	72

HOSE, NONMETALLIC

Alcohol, Methyl, and Ethylene Glycol and fuel/oil, hydrocarbon, and fresh water.

Automotive and other liquid-cooled engines. Rubber or Synthetic Rubber smooth bore tube. Reinforced with wrapped fabric or braided yarn, and a Rubber cover. Resistant to oil, cold alkalines, and rust. Issued by foot unless otherwise indicated.

Heavy duty, light wall. Low temperature service to minus 65 degrees Fahrenheit. Spec MS 521301.

	ID/In	OD/In.	Lg/In.
00-235-4120	1.125	A/A	36
00-985-1293	1.500	1.886	—
00-018-2162	1.875	—	—
00-401-9299*	1.000	1.438	--
00-730-7310*	2.000	A/A	2.5

* Minus 40 to 212 degrees Fahrenheit.

Fuel, oil, coolant, water, and Alcohol service. Smooth bore Synthetic Rubber hose reinforced. With one or more plies of impregnated fabric with suitable frictioning, and a Rubber cover. Mil Spec Mil-H-6000. Issued by the foot.

Low temperature engine installation service, to minus 40 degrees Fahrenheit.

	ID/In	OD/In.	Lg/In.
00-684-0260	.250	.562	500
00-278-1103	.500	.843	500
00-278-1113	1.000	1.343	500
00-278-1112	1.250	1.750	400
00-278-1109	2.000	2.437	300

Air and oxygen, gaseous

	ID/In	OD/In.	Lg/In.
00-200-0565	.375	.719	600
00-278-4900	.250	.594	—
00-230-6574	.250	.594	—

Pneumatic tool and light duty air application Synthetic hose. Reinforced with braided or wrapped Cotton, or Rubber impregnated fiber, and a Rubber cover. Fed Spec ZZ-H-500. Issued by the foot, unless otherwise indicated.

Air

	ID/In	OD/In.	Lg/In.
00-230-6545	.250	—	.750
00-230-6546	.375	—	.750
00-230-6520	.437	120	1.125
00-278-4889	.500	1.188	A/A
00-278-4890	.625	—	.937
00-278-4891	.750	A/A	A/A

Smooth bore Synthetic Rubber hose. Reinforced with Cotton or Synthetic yarn or fabric, and a Rubber cover. Fed Spec ZZ-H-601. Issued by the foot, unless otherwise indicated. 150 PSI.

Water discharge service

	ID/In.
00-230-6478	.375
00-230-6481	.750
00-230-6482	1.000
00-554-8029	1.500
01-322-2123	1.500
01-322-2124	1.500

Fuel/oil, hydrocarbon.

Hydraulic fluid Phosphate-Ester base hose. Reinforced with braided Steel wire, and a molded Rubber cover. Fed Spec M8788.

High-pressure hydraulic systems, 3000 PSI.

	ID	OD	Das No.
00-683-8830	.219	.625	4
00-554-8084	.274	.703	5
00-554-8085	.352	.765	5
00-554-8086	.450	.859	8
00-554-8087	.571	1.031	10
00-554-8088	.688	1.212	12
00-554-8089	.880	1.508	16

Aircraft hydraulic or pneumatic fuel and oil systems, smooth bore hose. Reinforced with one Cotton and one CRES wire braid. Braided Cotton, Rubber-impregnated, oil-resistant cover, with mildew inhibitor. Issued by the foot Fed Spec M8794.

Low temperature service, to minus 65 degrees Fahrenheit Inside diameter, outside diameter, and WP listed.

	ID	OD	PSI	Dash No.
00-289-9202	.125	.453	3000	3
00-639-9907	.188	.516	3000	4
00-289-9197	.250	.578	3000	5
00-278-1323	.313	.672	2000	6
00-999-8994	.406	.766	2000	8
00-540-1368	.500	.922	1750	10
00-595-1089	.625	1.080	1500	12
00-595-1088	.875	1.234	800	16
00-541-1313	1.125	1.500	600	20
00-289-9199	1.375	1.750	500	24
00-289-9201	1.812	2.220	350	32
00-289-9200	3.000	3.562	200	48

Aircraft air and vacuum instrument systems. Smooth bore Synthetic Rubber hose, reinforced with braided Cotton, or other suitable material. Longitudinal corrugated abrasion resistant Rubber cover. Issue by the foot, unless otherwise indicated. Fed Spec M5593.

Flexible low pressure hose. Low temperature service to minus 65 degrees Fahrenheit.

	ID	OD	PSI	Dash No.
00-540-1962	.250	.469	200	4
00-720-1096	.375	.578	A/A	06

Hose for (ship), alongside refueling-at-sea. Smooth bore Synthetic Rubber hose. Reinforced with plies of Nylon fabric cord held together with Rubber friction, and a Rubber cover. Fed Spec M22240-70-A.

Lightweight buoyant type, 150 PSI WP.

	ID/In.	OD/In.	Lg/In.
00-817-7781	7.000	7.910	420

1st layer and outer layer braided Polyester Cord. 2nd layer braided Steel wire. Plastic, Fluro-elastomer inner tube material. Inside surface smooth, cross-sectional shape round. Maximum operating pressure 300 pounds. Blue exterior color.

	ID/In.	OD/In.	Lg/In.
01-283-3040	1.812	2.220	A/A

General purpose Rubber or Synthetic Rubber smooth bore hose. Reinforced with plies of spiral wrapped or braided cord, and/or braided wire. Has an oil and abrasion resistant cover. Issued by the foot unless otherwise indicated. Low temperature service to minus 40 degrees Fahrenheit. Mil Spec Mil-H-24135.

	ID/In.	OD/In.	PSI
00-289-5222	.250	.688	5000
00-051-5542	.380	.840	4000
00-771-9428	.380	.840	5000
00-456-2076	.500	.970	3500
00-797-2488	.500	.970	4250
00-752-9952	.508	.970	3500
00-541-7189*	.750	1.230	3000
00-288-9873†	.750	1.250	2250
00-585-7293	1.000	1.560	3000
00-983-9169	1.012	1.562	4000
01-228-4286	1.125	1.500	625
00-288-9875	1.250	2.000	1625
01-124-9999	1.266	2.000	3000
00-954-2641	1.375	1.750	500
00-289-5221	1.500	2.250	1250
00-872-5980	1.547	2.312	2500
00-288-9865	2.000	2.750	1125
00-929-1092†	2.000	2.750	1125

* Salt Water use
† Air and Fuel/Oil Hydrocarbon use

Hydrocarbon Fuel/Oil service. Synthetic Rubber inner conveying material. 1st layer: braided CRES wire. Outer layer: braided CRES wire. Minus 40 to P300 degrees Fahrenheit temperature range. Fed Spec M83797.

	ID	OD	PSI	Dash No.
00-491-4980	.156	.375	A/A	—
00-541-9281	.219	.438	1000	1-ER

	ID	OD	PSI	Dash No.
00-420-4636	.281	.484	1000	1-FR
00-611-2548	.344	.549	1000	1-6
00-580-6618	.438	.641	1000	1-HR
00-555-3499	.688	.938	1000	1-KR
00-540-6434	.875	1.156	750	—
00-580-6944	1.125	1.437	500	—
00-053-4577	2.375	2.875	360	—

Plastic (Tetrafluoroethylene) smooth bore hose. Reinforced with CRES Steel wire, and a Plastic cover. High-temperature, medium pressure hose for use in fuel, lubricating oil, water-alcohol, chemical fluid, and hydraulic and pneumatic systems. Low temperature service to M65 degrees Farenheit. Issued by the foot, unless otherwise indicated. Mil Spec Mil-H-27267.

	ID	OD	PSI	Dash No.
00-857-1732	.188	.312	1500	4
00-857-1736	.250	.375	1500	—
00-857-1731	.313	.469	1500	—
00-815-6354	.406	.562	1500	—
00-857-1730	.500	.656	1500	—
00-857-1734	.625	.789	1000	12
00-857-1729	.875	1.109	1250	16Z
00-857-1733	1.125	1.359	1000	20Z

Rubber, Ethylene Propylene. 1st layer: Braided textile yarn. Outer layer: molded Rubber. Heat, oil, ozone, and mildew resistant. M40 to 212 degrees Farenheit. Fed Spec MS52130.

	ID	OD	Lg
00-415-1362	1.000	1.219	A/A
00-277-9028	1.750	2.188	36
00-882-1738	2.000	2.172	A/A
00-809-8802	2.250	2.531	—
00-235-4138	2.500	3.062	—

Rubber, Polyethylene. 1st and 2nd layers: braided Steel wire. Outer layer: molded Rubber. Ethylene Propylene. Round cross-sectional shape. M40 to P300 degrees Farenheit temperature rating. 5000 PSI maximum operating pressure.

	ID	OD	Lg
00-722-4722	.250	.690	A/A
00-722-4723	.375	.844	A/A

Plastic (Polytetrafluoroethylene) smooth bore hose, reinforced with braided CRES wire.

Electrostatic discharge capability.

Temperature rating M65 to P400 degrees Farenheit. Operating pressure 3000 PSI. Non Spec items.

	ID	OD
01-028-1350	.231	.390
01-035-6601	.391	.650
01-026-9156	.298	.490
01-026-9158	.485	.720
01-026-6161	.602	1.140
00-916-2940	.625	.750
01-115-7371	.641	.820
00-400-6559	1.125	1.315
00-436-2855	1.375	1.625

Temperature rating M100 to P450 degrees Farenheit.

	ID	OD	PSI
00-254-5957	.188	.312	1500
00-089-9177	.406	.531	2000
00-898-5108	.511	.633	1500
00-420-4495	.875	1.040	800
01-115-7372	.875	1.125	1500
01-115-5157	1.125	1.350	1125

Synthetic Rubber, smooth bore hose reinforced with braided Steel wire, and Rubber covered. Low temperature rating to M65 degrees Farenheit. Fuel Oil, Hydrocarbon use. Mil Spec Mil-H-13531.

	ID	OD	PSI
00-930-4513	.250	.690	5000
00-930-4515*	.500	.978	3500

* CRES

Synthetic Rubber, smooth bore hose reinforced with braided fiber or Polyester cord. Covered with molded Rubber or braided Polyester cord. Temperature rating M40 to P200 degrees Farenheit. Fuel Oil, Hydrocarbon use. Mil Spec Mil-H-24136.

	ID	OD	PSI	Dash No.
01-121-0873	.188	.516	1000	/3
01-021-1586	.375	1.000	2000	/2
00-080-4203	.500	1.125	2000	/2
00-504-7492	.625	1.078	550	/3
00-168-3444	.750	1.500	1500	/2
01-021-5663	1.000	1.780	1400	/2
00-167-4726	1.250	2.020	1000	/2
01-019-8976	1.500	2.250	1000	/2
00-167-4725	2.000	2.770	1150	/2
00-107-7706	2.500	3.300	1000	/4
00-933-1462	2.992	3.795	1000	/4
00-933-1463	4.000	4.862	600	/4
00-166-5892*	6.000	6.875	300	/1
01-092-1692	10.000	10.940	200	/1

* Fuel Oil, Hydrocarbon, and Water.

Synthetic Rubber, smooth bore hose with round cross-sectional shape. 1st and 3rd layers are braided textile yarn. 2nd layer is helix wire coil, and outer layer in molded Synthetic Rubber. Temperature rating M40to P200. Hydraulic fluid use.

	ID	OD	PSI
00-682-7920	.750	1.300	300

Hydraulic Service M67 to P400 degrees Farenheit. Outer cover braided CRES wire. Mil Spec Mil-H-83298.

	ID	OD	PSI	Dash No.
00-803-7157	.217	.507	3000	—
00-975-2885	.312	.567	3000	6
00-421-1321	.425	.742	3000	—
00-507-4159	.552	.882	3000	10

Rubber, Butadiene Acrylonitrile. Oil and ozone resistant. Temperature rating: M40 and 212 degrees Farenheit. Any Acceptable length.

3 layers of: spirally laid Copper wire. Outer layer of molded Rubber, Chloroprene. Dash Number M52471/6 listed below.

	ID	OD	PSI	Dash No.
01-075-2106	1.500	2.250	2500	4

2 layers of braided CRES wire. Outer layer of Chloroprene Rubber. Dash Number M52471/5-listed below.

	ID	OD	PSI	Dash No.
01-018-6550	.500	.968	3500	8

2 layers of braided wire. Outer layer of Chloroprene Rubber.

	ID	OD	PSI	Dash No.
00-289-2615	.375	.840	4000	6

NON SPEC ITEMS

For Hydrocarbon fuel/oil service. Use for additional service will be noted. General purpose Rubber or Synthetic Rubber. Smooth bore hose reinforced with plies of spiral wrapped or braided cord, and/or braided wire. With an oil and abrasion resistant cover. Issued by the foot unless noted.

	ID	OD	PSI
00-401-8231	.188	.531	1600
01-067-6472	.190	.520	3000
00-836-7189*	.188	.516	3000
00-288-9840	.310	.680	2250
00-406-3309	.320	.430	2500
00-274-1154*	.375	.625	250
00-676-7936	.375	.625	1125
00-067-0454	.406	.766	2000
00-203-3029	.500	.920	1750
00-803-9672	.500	.922	1750
00-574-4943	.500	.922	600
00-288-9870*	.620	1.080	1500
00-888-6075	.625	1.078	1500
00-450-9156*	.875	1.234	800
01-061-3177	.875	1.280	500
00-803-9701	.880	1.270	800
00-289-2618	1.000	1.560	2000
00-177-1721	1.810	2.220	350
00-838-2184	2.375	2.870	350
00-540-5174	2.500	3.090	1200
00-624-4060*	3.000	3.594	200

* Hydraulic fluid, oil, air, fresh and salt water service.

Non-Spec items for hydrocarbon fuel/oil, fresh water, and air service. General purpose Rubber or Synthetic Rubber smooth bore hose. Reinforced with plies of spiral wrapped or braided cord, and/or braided wire. With an oil and abrasion resistant cover. Issued by the foot unless noted otherwise.

	ID	OD	PSI
00-847-1710	.250	.500	250
00-278-1092	.312	.516	250
00-089-2022	.312	.680	2250
00-933-5878	.500	.750	250
00-051-4670	.500	.922	1750
00-062-9481*	.625	1.090	2750
00-541-8859	.750	1.031	350
01-254-0191†	2.500	3.125	200
00-564-3217	4.000	4.703	600

* Salt water.
† 50 foot length.

Hydraulic and oil, fresh and salt water service.

	ID	OD	PSI
01-074-8873	.310	.670	500
00-187-4102	.310	.680	650
00-989-6479	.500	.870	3500
00-166-9835	.750	1.210	250
00-187-4283	1.120	1.500	450
00-423-1001	1.380	1.750	400
00-554-8052	5.000	5.938	500
00-585-6208	6.000	6.910	350
00-166-5888	8.000	8.940	300

Fuel Oil, Hydrocarbon.

	ID	OD	PSI
01-228-1054	.057	.250	—
00-187-4279	.410	0.770	625
00-574-6558	.500	0.922	600
00-194-8911*	.880	1.230	500
01-190-0393	1.500	2.125	—
01-392-8703	1.810	2.220	200
01-074-0337	1.875	2.300	50
00-404-7277	2.750	3.142	3000
00-540-1701	3.000	3.090	900
01-061-2568	4.500	5.000	—
01-007-1940	5.000	5.875	300

* Water service.

Air and Fuel Oil, Hydrocarbon.

	ID	OD	PSI
00-730-7361	.250	0.688	5000
00-054-3830	.375	0.844	4000
00-890-5014	.500	0.969	3500
00-289-3306	1.125	1.500	625

Air and Fuel Oil, Hydrocarbon and Hydraulic fluid, butane, fresh and salt water service.

	ID	OD	PSI
00-288-9878	.188	.516	3000
01-003-1064	.375	.777	4000
00-967-8997	.406	.766	2000
00-717-1701	.410	.770	2000
00-624-4057	.875	1.234	800
00-288-9867	1.125	1.500	625
00-624-4058	1.380	1.750	500
00-624-4059	1.812	2.219	350

Air and Fuel Oil, Hydrocarbon, fresh and salt water service.

	ID	OD	PSI	Color
00-051-4712	.250	.578	3000	Blue
00-717-1621	.312	.685	2250	Blue
01-048-0636	.500	.750	300	Black

Air and methyl alcohol, ethylene glycol, fresh water.

	ID	OD	PSI
00-845-3032	.500	.750	250

HOSE, PREFORMED

For use on heaters of autos and liquid cooled engines. Inside diameter, wall thickness shown below. Issued by the foot unless otherwise indicated. Fed Spec MS 521301.

Synthetic Rubber, Heavy and moderate duty, light wall, 3/16 inch thick. Oil resistant, and fungus resistant, medium volume swell, and ozone resistant. Fed Spec MS52130.

M40 and 212 degrees Farenheit.

	ID	Lg
00-708-3507	1.250	76
00-288-9754	1.875	36
00-813-9050	3.500	A/A

M65 and 212 degrees Farenheit.

	ID	Lg
00-087-9122	2.500	36

Non-Spec items

Synthetic Rubber, Fabric reinforced.

Straight Style

	ID/In.	Thk/In.	Lg/In.
00-789-4863*	.812	.195	.760
01-118-1751	3.500	.045	2.625
00-893-5429	3.500	.062	2.750
00-398-4930	2.250	.188	24.00

* Fabric/yarn reinforced.

Straight, Corrugated Style

	ID/In.	Thk/In.	Lg/In.
00-140-3731*	1.750	.150	23.250

* Wire reinforced.

1st arm 2.000 inch length, 2nd arm 2.500 inch length. Bend radius 3.500 inches.

	ID/In.	Wall Thk/In.	Lg/In.
00-440-2072	1.950	.188	6.500

Natural Silicone Rubber

	ID/in.	Wall Thk/In.	Lg/In.
01-355-9202	3.375	.110	3.750

SLEEVE, REINFORCING, HOSE

Nickel Aluminum Bronze ring, with Buna-Rubber banding.

	ID	OD	O/A Lg	Coil W/In.
01-223-3692	3.500	3.910	4.000	780
00-929-1105	5.400	5.930	6.120	910

SPRING, REINFORCING, HOSE

Cylindrical, CRES, Open design. RH helix. Size .030 inch, rectangular open coil. 1.130 inch inside diameter by 1.160 inch spring free outside diameter.Any acceptable length.

00-104-6259

TUBING ASSEMBLY, NONMETALLIC

Hydrocarbon Fuel/Oil Service

Plastic flexible material. 1st end: Straight threaded internal tube, 7/16 UNF-3B CRES fittings. Flared swivel nut. 2nd end: Straight unthreaded external tube.

	ID	OD	Lg
00-689-6844	.438	.250	34

Polyamide Nylon. Natural color, straight plain threaded external tube. Steel fittings. 1/8 inch NPT right hand both ends.

	ID	OD	Lg
00-133-9264	.125	.250	28.500

TUBING, NONMETALLIC

Fuel/Oil, Hydrocarbon Service. Rubber Synthetic, 60 shore durometer rated. Petroleum oil, weather, and ozone resistant. High ozone concentration. Issued by the foot. Fed Spec M6855/4-.

	ID	OD	Dash No.
00-273-1051	1.250	1.500	10H309

General Use Service. Rubber, Buna-5, 40 shore durometer rated. Non-oil resistant.

	ID	OD	Dash No.
00-235-5458	.250	.436	20L109

Plastic, Vinyl Chloride Cold and fire resistant. Fed Spec ZZ-T-831.

	ID	OD	Lg
00-709-0441	.500	.750	A/A

Non-Spec Items

Plastic

Smooth inside surface, clear color, flexible. For liquid ingestion.

	ID	OD	Lg
01-119-8104	.375	.625	A/A

Smooth inside surface, clear color, flexible for hydraulic fluid media.

	ID	OD	Lg
00-716-7717	.306	.736	3.188

Smooth inside surface, clear, flexible Plastic tubing.

Temperature rating 73 and 180 degrees Farenheit operating pressure. In accordance with SPCC HX quality control Item.

180 PSI

	ID	OD
00-610-3385	.500	.688
01-067-1569*	.500	.750

* Temperature rating and operating pressure not listed.

Gas ingested liquid, smooth inside surface, clear color, flexible. Temperature rating M20 to 200 degrees Farenheit. Wall thickness .125 inches.

	ID	OD
00-197-4862	.500	.750

Cream color, flexible Polyamide Plastic tubing. Temperature rating M65 to P150 degrees Farenheit . In accordance with SPCC HX quality control item.

	ID	OD
00-223-0070	.190	.250

Plastic, Polycarbonate

Smooth inside surface, rigid, clear color.

	ID	OD	Lg
00-363-4199	.500	.625	10.000
00-627-9848*	.500	.750	46.125

* Any Acceptable color, flexible.

Smooth inside surface, flexible. Temperature rating M60 to P160 degrees Farenheit. Maximum operating pressure 200 PSI.

	ID	OD	Lg
00-269-2189	.125	.250	—

Plastic, Polyethylene.

Smooth inside surface, flexible Purple color. Cold and light resistant. Maximum operating pressure 125 PSI.

	ID	OD	Lg
00-846-0956	.170	.250	—
00-926-4277	.250	.375	—

Plastic Polyvinyl Chloride.

Smooth inside surface, clear color, flexible.

	ID	OD	Lg
00-181-9140*	.188	.312	120
01-221-8871	.250	.375	—
00-641-4406	.250	.500	1200
01-098-1194	.375	.562	A/A
00-346-2221†	.312	.438	75
01-055-7882	.508	.762	100 ft
00-052-8228*	1.000	1.375	A/A
00-540-6183*	1.500	1.875	A/A

* Mercury free, thermoplastic.
† SPCC HX Quality Control Item.

Smooth inside surface, clear color, abrasion and fire resistant. Flexible, temperature rating M5 to P175 degrees Farenheit. Maximum operating pressure 225 PSI.

	ID	OD
01-022-4455	.375	.625
01-245-3663*	1.000	1.375

* PSI not listed.

Plastic, Vinyl

Smooth inside surface, clear color, abrasion resistant and flexible. Temperature rating 0.0 to 215 degrees Farenheit. Maximum operating pressure 45 PSI.

	ID	OD
00-061-2082	.500	.750

Smooth inside surface, clear, flexible. Temperature rating 0 to 180 degrees Farenheit. 60 PSI operating pressure.

	ID	OD	Lg
00-351-7316	.375	.625	A/A
00-403-0901	.750	1.063	A/A

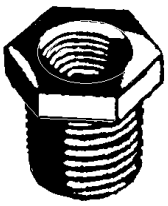
CLASS 4730

FITTINGS AND SPECIALTIES; HOSE, PIPE, AND TUBE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ADAPTER, BUSHING

THREADED EXTERNAL TO THREADED INTERNAL ENDS.



Brass

	External NPT	Internal UNF	Lg
00-608-1777	1/2-14	5/8-18	.780

Rubber, Hard

	UNC	NPT	Lg
00-595-4607	3/4-10	1/8-27	1.000

Stainless Steel

	UNF	Acme G	Lg
01-120-2876	1-3/8-12	3/4-10	1.344

ADAPTER, STRAIGHT, FLANGE TO BOSS

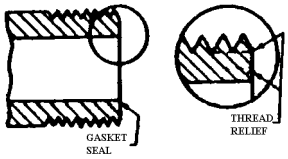
Copper Alloy material. Plain round flange with holes on one end and a threaded external boss. With seat for gasket seal on the other end. 1-7/8 inch thread size, UNF designation, and a 2A thread class. Flange end has 6 holes, .562 inch diameter on a 3.938 inch bolt circle.

	Lg
01-031-2839	6.219

ADAPTER, STRAIGHT, FLANGE TO HOSE

PLAIN FACE FLANGE. Round.

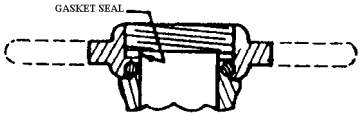
Bronze. Maximum operating pressure for steam 100 PSI at 425 degrees Fahrenheit. For water, oil, and gas, 150 PSI at 150 degrees Fahrenheit. The installation of these flanges is intended to be accomplished by Silver Brazing. Cannot exceed a temperature of 1400 degrees Fahrenheit. The fittings are intended for use with Copper tube, Copper-Nickel tube, Brass tube, and Nickel Copper Alloy tube. 1st end: flange fitting. 2nd end connection: NH thread 2-1/2-7-1/2 inches. Threaded external hose connection. These adapters are used to connect pipe or hose through bulkheads. Mil Spec Mil-F-20042.



PLAIN HOSE

	Flange OD/In.	Lg/In	No. Bolt Holes
00-289-2046	6.625	1.375	8
00-289-2047	7.188	1.438	8
00-289-2048	7.688	1.438	8
00-289-2049	9.062	1.563	10
00-289-2050	10.125	1.688	12

Swivel nut gasket seal, threaded internal hose connection. NH thread 2-1/2 - 7-1/2 inches. Non Spec except where indicated.



SWIVEL NUT, GASKET SEAL (HOSE)

	Flange OD	Lg	No. Bolt Holes
00-277-3379	6.625	3.375	8
00-277-3380*	7.190	1.880	8
00-277-3381	7.687	1.437	8
00-277-3382	9.062	1.562	10
00-277-3383	10.125	1.687	12

* Spec Mil-F-20042

PLAIN OVAL FLANGE to unthreaded external hose connection. Steel, 2 bolt holes, 1.680 inches, bolt circle diameter, 1.000 inches. Inside diameter hose accommodation, 1.062 inches long. Flange size 2.470 inches long by 1.410 inches wide.

00-901-0826

RAISED FACE FLANGE to barbed unthreaded external hose. Round without bolt holes. CRES, Passivated. Raised face diameter 3.620 inches, flange outside diameter 4.500 inches, flange thickness .110 inches. Inside diameter hose accommodation 2.905 inches. Overall length 7.000 inches. Mil Std MS17833.

00-960-4569

RAISED STRAIGHT FACE FLANGE to threaded external hose gripping nipple. Round with 4 holes. Copper Alloy material. Flange outside diameter is 3.812 inches with a 2.690 inch bolt circle diameter. 1.120 inch inside diameter hose accommodation with an overall length of 2.890 inches. Furnished with 1 hose coupling nut.

00-212-4992

RECESSED FLANGE to multi-grooved unthreaded external hose. Round without bolt holes. Steel Composition, Passivated. Recess diameter 3.650 inches, recess depth .120 inches, flange outside diameter 4.500 inches. Flange thickness .110 inches. Inside diameter hose accommodation 3.500 inches. Length, 7.000 inches. Adapter features three, .250 inch diameter pins equally spaced circumferentially. Mil Std MS17835.

00-960-4568

ADAPTER, STRAIGHT, SWIVEL FLANGE TO HOSE

SWIVEL RAISED FACE FLANGE. ROUND, TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

4 bolt holes, .620 inches in diameter. Copper Alloy material. Bolt hole circle diameter 2.750 inches, raised face. Height .015 inches, raised face diameter 1.840 inches. Flange outside diameter 3.880 inches, flange thickness .440 inches. Inside diameter hose accommodation, 1.125 inches. Outside diameter hose accommodation 1.500 inches. Length 2.890 inches. Furnished with 1 socket.

00-913-6500

Magnesium material. Bolt hole circle 3.500 inch, raised face. Height .015 inches, raised face diameter 2.740 inches. Flange outside diameter 4.620 inches. Flange thickness, .440 inches. Inside diameter hose accommodation 1.810 inches and outside diameter hose accommodation 2.220 inches. Furnished with one hose coupling nut.

00-602-3898

ADAPTER, STRAIGHT, HOSE TO BOSS

THREADED EXTERNAL HOSE GRIPPING NIPPLE TO THREADED EXTERNAL BOSS, GASKET SEAL.

Nickel and Copper material. .625 inches. Inside diameter hose accommodation 1.078 inches. Outside diameter hose accommodation

1-3/4-12 UN-3A boss end. 3.120 inches overall length. Furnished with 1 socket.

00-905-9524

THREADED INTERNAL BOSS, GASKET SEAL TO THREADED EXTERNAL HOSE.

Copper Alloy material. Special Features: 1 molded Nylon spider contact; 2 Brass shaft contacts; 2 springs for shaft contacts; 1 Brass cotter pin, and 2 Brass washers. NPT thread both ends.

	Boss Thd	Hose Thd	Lg/In.
00-674-8311	1-1/2-2B	2-1/2-2A	3.000

UNTHREADED EXTERNAL HOSE, BEADED TO THREADED EXTERNAL BOSS, GASKET SEAL.

BARBED OR BEADED (HOSE)

Aluminum Alloy (Anodized inside)

.375 inch inside diameter hose accommodation, 9/16-18 UNF-3A boss, 1.802 inch overall length.

00-595-4359

Copper Alloy

.452 inch inside diameter hose accommodation. 9/16-18 UNF-2A boss. Overall length 1.781 inches.

01-162-6353

UNTHREADED EXTERNAL HOSE MULTIGROOVED, TO THREADED INTERNAL BOSS, GASKET SEAL.

Steel, Corrosion Resisting

.750 inch inside diameter hose accommodation 1-16 UN-2B boss, 2.687 inches overall length.

00-375-6803

ADAPTER, STRAIGHT, PIPE TO BOSS

UNTHREADED INTERNAL PIPE, SOCKET END TO THREADED EXTERNAL BOSS, FLARED WITH GASKET SEAL. For use with liquefied gas.

Steel, Corrosion Resisting

	Pipe NPT	Boss UNF	Lg
01-199-3121	1/4-18	7/16-20	1.390

ADAPTER, STRAIGHT, PIPE TO GAS FITTING

THREADED EXTERNAL PIPE, PLAIN TO THREADED EXTERNAL GAS FITTING SWIVEL NUT, FLARED. Copper Alloy material. NPT threads on one end and NGO threads on the other. Pipe size .500 inches. Gas fitting size .250 inches. Overall length, 4.312 inches.

00-476-0283

THREADED EXTERNAL PIPE TO THREADED INTERNAL GAS FITTING, SWIVEL NUT. Steel Composition material. 1/4 inch. NPT thread on one end and 29/32 inches. NGO thread on the other end. NGO thread is left hand. Overall length is 2.000 inches.

01-263-3063

ADAPTER, STRAIGHT, PIPE TO HOSE

THREADED EXTERNAL PIPE TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

Copper Alloy

	NPTF/In.	ID/In.	OD/In.	Lg
00-987-9073*	.500	.375	.796	4.875
00-432-9616	.750	.640	.760	2.260
00-513-7850	.750	.625	1.708	3.240
00-513-7849	1.000	.875	1.234	2.990
00-513-7851	2.000	1.810	2.220	4.050

* Short hose gripping, MS39133-2B.

Steel Overall

	NPTF/In.	ID/In.	OD/In.	Lg
00-374-6946	.500	.500	.920	2.880
00-374-6960	.500	.500	.970	3.158
00-374-6947	.750	.620	1.080	3.240
00-568-2200	.750	.750	1.250	3.610

Steel, Zinc Plated

	NPTF/In.	ID/In.	OD/In.	Lg
00-225-8596	1.000	1.000	1.562	4.400
00-289-3257	1.500	1.500	2.250	5.406

THREADED EXTERNAL PIPE TO THREADED INTERNAL HOSE, GASKET SEAL. Right hand threads both ends. Furnished with 1 gasket. Special Feature: Wrenching feature located on outer periphery of flange, 5/8 inch from hose end.

Aluminum Alloy Anodized

Copper Alloy

	NPTF/In.	ID/In.	OD/In.	Lg
00-533-8143	.375	.410	.770	2.480
00-990-6108	.500	.500	.920	2.880
00-203-3631	1.250	1.120	1.500	3.230
00-506-2683	1.500	1.380	1.750	3.480

Nickel Alloy

	NPTF/In.	ID/In.	OD/In.	Lg
00-177-5945	.375	.410	.770	2.480

Steel

	NPTF/In.	ID/In.	OD/In.	Lg
00-880-1273*	.250	.250	.580	1.960
00-374-6953†	1.500	1.380	1.750	3.480

* NPT thread.
† 37 degree seat angle.

Steel, Cadmium Plated

	NPTF/In.	ID/In.	OD/In.	Lg
00-374-6948	.125	.190	.520	1.680
00-217-2433	.250	.312	.520	2.130
00-374-6950	.375	.410	.770	2.480
00-879-5398	.500	.406	.770	2.730
00-374-6951	1.000	.875	1.234	2.990
00-852-6227	1.250	1.125	1.500	3.212

THREADED EXTERNAL PIPE, PLAIN TO UNTHREADED EXTERNAL HOSE, BARBED OR BEADED.

BARBED OR BEADED (HOSE)

Copper Alloy

	NPT/In.	ID/In.	Lg/In.
00-028-7021	.250	.375	1.594
01-158-8417	.250	.375	1.641
00-934-8026	.375	.380	1.760

UNTHREADED EXTERNAL PIPE, (BEADED) TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

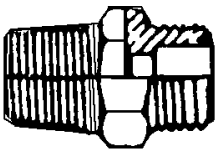
Aluminum Alloy

	Pipe Size/In.	Hose ID/In.	Lg/In.
00-793-9811	6.000	5.800	6.560
00-793-9809	7.000	6.700	7.410

ADAPTER, STRAIGHT, PIPE TO TUBE

Threaded External Pipe to:

THREADED EXTERNAL COMPRESSION TYPE TUBE. Furnished with sleeve and coupling nut. Mil Std MS39169.



Copper Alloy

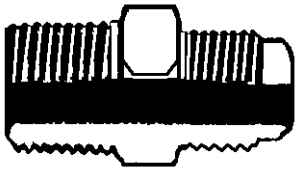
	Pipe NPTF	Tube UNS	O/A Lg
00-288-9928*	1/8-27	5/16-24	.790
00-851-1940*	1/8-27	3/8-24	.844
00-278-4357†	1/8-27	7/16-24	.875
00-270-4613	1/8-27	1/2-24	.906
00-278-4575	1/4-18	7/16-24	1.310
00-266-2417†	1/4-18	1/2-24	1.090
00-278-4574‡	1/4-18	9/16-24	1.222
00-270-4621‡	1/4-18	5/8-24	1.188

* UNF thread.
† NPT thread.
‡ UNEF thread.

Steel, Cadmium Plated

	Pipe NPT	Tube UNS	O/A Lg
00-740-2580	1/4-18	11/16-20	1.219

THREADED EXTERNAL TUBE, FLARED. 37 degree seat angle. Army-Navy Aeronautical Std AN816. AN dash number listed.



Aluminum Alloy, Anodized

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-222-1794	1/8-27	5/16-24	1.016	2D
00-240-5905	1/8-27	7/16-20	1.120	4D
00-187-0088	1/8-27	1/2-20	1.141	5D
00-187-0087	1/4-18	7/16-20	1.375	4-4D
00-196-9585	1/4-18	1/2-20	1.375	5-4D
00-196-9580*	1/4-18	9/16-18	1.375	6D
00-196-9584	3/8-18	9/16-18	1.406	6-6D
00-196-9581*	3/8-18	3/4-16	1.500	8D
00-196-9589†	3/4-14	1-1/16-12	1.953	12D
00-186-9495	3/4-14	1-5/16-12	2.031	‡

* UNF thread.
† UN thread tube.
‡ 16-12D.

Copper Alloy, Cadmium Plated

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-287-0547*	1/4-18	7/16-20	1.406	4-4B
00-274-4504*	1/2-14	9/16-18	1.625	6-8B

* NPT thread pipe.

Copper Alloy, Non Spec Items

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-677-1289	1/8-27	7/16-20	1.110
00-277-7905*	1/4-18	7/16-20	1.500
00-580-2070	1/4-18	9/16-18	1.430
00-899-4758	1/2-14	3/4-16	1.750
01-192-4393*	9/16-14	9/16-18	.846
00-289-4716	1-12	1-5/16-12	2.250
01-159-0832†	1-12	1-5/8-12	2.500

* NPT thread pipe.
† UNJ thread tube.

Steel, Cadmium Plated

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.
00-942-9147	3/8-18	7/16-20	1.422

Steel, Corrosion Resisting. Non Spec Item.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.
00-473-8357*	1/8-27	7/16-20	1.062

* 45 degree seat angle.

Steel, Corrosion Resisting. Type 304.

	Pipe ANPT/In.	Tube UNJF/In.	O/A Lg/In.	Dash No.
00-720-0182*	1/8-27	5/16-24	1.062	2J
00-698-4035	1/8-27	7/16-20	1.109	4J
00-911-7127	1/4-18	7/16-20	1.375	4-4J
00-842-6484	1/4-18	1/2-20	1.375	5-4J

* NPT pipe and UNF tube.

Steel, Corrosion Resisting. Type 347.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-289-0360	1/4-18	7/16-20	1.375	4-4S

Steel, Cadmium Plated.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-187-0840*	1/8-27	7/16-20	1.109	4
00-542-3284	1/4-18	7/16-20	1.375	4-4

* NPTF pipe.

Steel, Cadmium Plated. MS51500 dash number listed below.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
01-031-6180	1/8-27	7/16-20	1.110	—
00-289-0383	1/8-27	7/16-20	1.220	A4
00-289-5484	1/4-18	7/16-20	1.380	A4-4
00-995-1559	1/4-18	9/16-18	1.380	A6
00-322-8457	3/8-18	9/16-18	1.400	A6-6
00-079-8814	1/2-14	9/16-18	1.690	*
00-809-9427	1/2-14	3/4-16	1.720	A8-8
00-202-8470	1-1/4-12	1-5/8-12	2.360	—

* A6-8S.

Steel, Corrosion Resisting.

	Pipe ANPT/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-836-7807	1/4-18	9/16-18	1.390	A6S
01-239-7501	1/4-18	9/16-18	1.430	B6S
00-837-7073	1/4-18	7/16-20	1.420	*

* A4-4S.

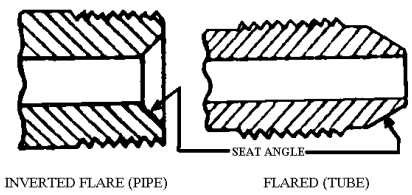
45 DEGREE SEAT ANGLE. Mil Std MS39158 and MS35869.

Copper Alloy

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-288-9938	1/8-27	5/16-24	.920	—
00-266-0531	1/8-27	3/8-24	.938	—
00-266-0535	1/8-27	1/2-20	1.156	—
00-900-3296	1/8-27	7/16-20	1.060	—
00-439-6021*	1/8-27	5/8-18	1.440	—
00-266-0533†	1/4-18	7/16-20	1.230	22
00-266-0536‡	1/4-18	1/2-20	1.343	—
00-266-0538†	1/4-18	5/8-18	1.438	23
00-266-0534	3/8-18	7/16-20	1.375	—
00-439-1722	3/8-18	5/8-18	1.440	—
00-266-0541	3/8-18	3/4-16	1.620	—
00-827-9291†	1/2-14	5/8-18	1.690	43
00-266-0543†	1/2-14	7/8-14	2.000	45

* Non Spec Item.
† Mil Std MS35869.
‡ NPT thread.

THREADED EXTERNAL PIPE, INVERTED FLARE, 30 DEGREE SEAT ANGLE TO EXTERNAL TUBE, FLARED, 37 DEGREE SEAT ANGLE.



Copper Alloy. Mil Std MS39158 dash number listed below.

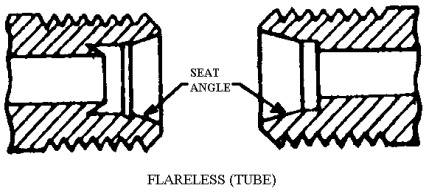
	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-391-3771*	1/4-18	7/16-20	1.245	—

* 45 degree seat angle, tube.

Steel, Cadmium Plated. Mil Std MS51500. Dash number listed below.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-865-9251	1/2-14	1-1/16-12	1.953	A12-8
00-718-2621	1-12	1-5/16-12	2.300	A16

THREADED EXTERNAL TUBE, FLARELESS. Furnished with 1 sleeve and 1 coupling nut. MS dash number given where applicable.



12 DEGREE SEAT ANGLE.

Steel, Cadmium Plated. MS51819 dash number listed below.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-003-5919	1/8-27	7/16-20	1.120	3
00-836-3498	1/4-18	7/16-20	1.320	5

Steel, Corrosion Resisting. MS51819 dash number listed below.

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-684-4065	1/8-27	7/16-20	1.000	—

	Pipe NPTF/In.	Tube UNF/In.	O/A Lg/In.	Dash No.
00-812-1175	1/8-27	7/16-20	1.120	3SS
00-720-2007	1/4-18	7/16-20	1.320	5SS
00-239-0189*	1/4-18	7/16-20	1.188	—
01-010-6291*	1/4-18	9/16-18	1.068	—
01-097-0977	1/2-14	1-1/16-12	1.880	13SS

* Non Spec Item with NPT thread.

20 DEGREE SEAT ANGLE, NON SPEC ITEM.

Copper Alloy

	Pipe NPT	Tube UNS	O/A Lg
00-588-2687*†	1/4-18	7/16-20	1.188
00-691-5441	1/4-18	9/16-20	1.281
00-691-5442†	3/8-18	9/16-20	1.281

* UNF thread tube.
† Furnished with 2 sleeves.

Steel, Composition , Passivated.

	Pipe NPT	Tube UNF	O/A Lg
00-935-9490	3/8-18	7/16-20	1.510
00-691-5460*	3/8-18	9/16-20	1.281
00-103-1978†	1/2-14	7/16-20	1.438

* NPTF thread pipe.
† Furnished with 2 sleeves.

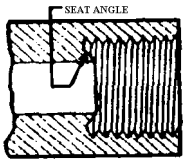
37 DEGREE SEAT ANGLE.

Mil Spec Mil-F-18866.

Steel, Corrosion Resisting.

	Pipe NPTF	Tube UNF	O/A Lg
00-845-4983	1/4-18	9/16-18	1.340

THREADED INTERNAL TUBE, INVERTED FLARE. 42 DEGREE SEAT ANGLE. Mil Std MS51875.



INVERTED FLARE (TUBE)

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg
00-424-5867*	1/8-27	5/16-24	.750
00-289-1930	1/8-27	3/8-24	.687
00-540-2612†	1/8-27	7/16-24	.734
00-424-5871†	1/4-18	7/16-24	.875
00-812-7495	1/4-18	1/2-20	.958

* NPT thread pipe.
† UNS thread tube.

45 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPT	Tube UNF	O/A Lg
00-289-1254	1/4-18	5/8-18	.968

Steel

	Pipe NPT	Tube UNF	O/A Lg
00-947-4290	1/4-18	3/4-18	1.487

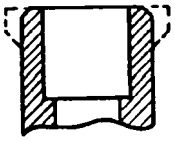
UNTHREADED EXTERNAL TUBE, GROOVED.

GROOVED (TUBE)

Copper Alloy

	Pipe NPTF	Tube Size	O/A Lg
00-396-0162	1/8-27	1/4	1.218

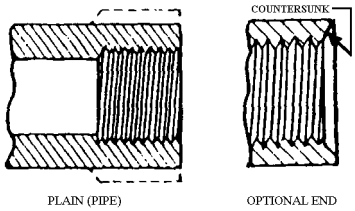
UNTHREADED INTERNAL TUBE, SOCKET.


SOCKET (TUBE)

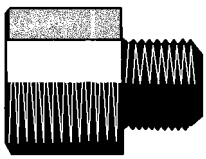
Copper Alloy

	Pipe NPT	Tube Size	O/A Lg
00-203-7007	1/2-14	3/4	1.656

THREADED INTERNAL PIPE TO: THREADED EXTERNAL TUBE, FLARED. 37 DEGREE SEAT ANGLE.



PLAIN (PIPE)
OPTIONAL END



Steel, Cadmium Plated. Mil Spec Mil-F-18866.

	Pipe NPTF	Tube UNF	O/A Lg
00-802-2818	1/4-18	7/16-20	1.390

Steel Composition 316. Mil Std MS51503-A6S.

	Pipe NPTF	Tube UNF	O/A Lg
00-709-2778	1/4-18	9/16-18	1.400

Steel CRES, Mil Std MS51503A4-4S.

	Pipe NPTF	Tube UNF	O/A Lg
00-580-8171	1/4-18	7/16-20	1.390

45 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg
00-090-0832	1/8-27	7/16-20	1.060
00-289-0379	1/4-18	7/16-20	1.250
00-270-4606	1/4-18	5/8-18	1.312
00-289-0368	3/8-18	5/8-18	1.375
00-266-0545	1/2-14	7/16-20	1.125
00-826-4278	3/4-14	7/16-20	1.125

THREADED EXTERNAL TUBE, FLARELESS. Furnished with 1 sleeve and 1 coupling nut.

12 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg
00-722-1371	1/4-18	7/16-20	1.125
00-139-3885*	1/4-18	1/2-24	1.297

* UNS thread, tube.

Steel, Corrosion Resisting. Mil Std MS51816-5SS.

	Pipe NPTF	Tube UNF	O/A Lg
00-088-4554	1/4-18	9/16-18	1.310

20 DEGREE SEAT ANGLE.

Copper Alloy

	Pipe NPTF	Tube UNF	O/A Lg
00-140-7066	1/8-27	7/16-20	1.560

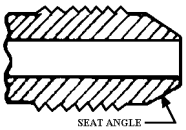
Steel, Corrosion Resisting.

	Pipe NPT	Tube UNF	O/A Lg
00-684-4064*	1/8-27	7/16-20	1.250
00-720-3913	1/4-18	7/16-20	1.219
00-725-3594†	3/8-18	9/16-20	1.250

* Furnished with 2 sleeves.
† NPTF thread pipe and UNS thread tube.

ADAPTER, STRAIGHT, TUBE TO BOSS

THREADED EXTERNAL TUBE, FLARED.



FLARED (TUBE)

THREADED EXTERNAL BOSS, EXTERNAL SEAT FOR GASKET SEAL. 37 DEGREE SEAT ANGLE.

EXTERNAL SEAT for GASKET SEAL (BOSS)

Aluminum Alloy, Anodized.

	Tube UN	Boss UN	O/A Lg
00-117-3959	1-1/16-12	1-5/8-12	1.910

Steel, Cadmium Plated. MS51525 dash number listed below.

	Tube UNF	Boss UNF	O/A Lg	Dash No.
01-007-5232	7/16-20	7/16-20	1.234	A4
00-816-4793*	7/16-20	7/16-20	1.219	4
00-906-1675†	9/16-18	9/16-18	1.300	—
00-051-5209	9/16-18	3/4-16	1.375	‡
01-156-4835	3/4-16	3/4-16	1.480	—
00-710-5571	§	§	1.969	A12

* Mil Std MS24487.
† Non Spec Item.
‡ A6-8S.
§ Tube and Boss 1-1/16-12 UNF.

Steel, Corrosion Resisting MS51525 dash number listed below.

	Tube UNF	Boss UNF	O/A Lg	Dash No.
00-834-5035	7/16-20	7/16-20	1.230	A4S
00-861-1814	7/16-20	9/16-18	1.290	—
00-683-8586	9/16-18	9/16-18	1.300	A6S

Steel, Painted MS51525 dash number listed below.

	Tube UNF	Boss UNEF	O/A Lg	Dash No.
00-937-0229	3/8-24	5/8-24	1.188	—

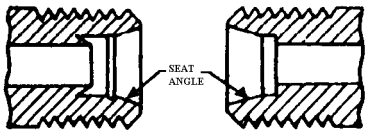
45 DEGREE SEAT ANGLE.

Steel

	Tube UNF	Boss UNF	O/A Lg
00-446-6602	3/8-24	7/16-20	2.594
00-432-1204	*7/16-20	9/16-24	2.500

* UNEF thread boss.

THREADED EXTERNAL TUBE, FLARELESS.



FLARELESS (TUBE)

THREADED EXTERNAL BOSS, EXTERNAL SEAT FOR GASKET SEAL. Tube end seat angle listed.

5 DEGREE SEAT ANGLE.

Aluminum Alloy

	Tube UNF	Boss UNEF	O/A Lg
00-130-6801	1-5/8-12	1-11/16-18	1.950

12 DEGREE SEAT ANGLE.

Steel, Cadmium Plated. MS51843 dash number listed below.

	Tube UNF	Boss UNF	O/A Lg	Dash No.
00-173-1884	7/16-20	7/16-20	1.130	3A
00-407-0558	9/16-18	9/16-18	1.120	5

Steel, Corrosion Resisting. MS51843 dash number listed below.

	Tube UNF	Boss UNF	O/A Lg	Dash No.
00-897-5591	7/16-20	7/16-20	1.130	3SS
01-010-6290*	9/16-18	9/16-18	1.156	—
00-411-5597	9/16-18	9/16-18	1.210	5SSB

* Non Spec Item.

Steel, Phosphate Coated. MS51843-8P dash number listed below.

	Tube UNF	Boss UN	O/A Lg
00-678-9458	1-1/16-18	1-1/16-12	1.790

20 DEGREE SEAT ANGLE.

Plastic Polyamide

	Tube UNF	Boss UNF	O/A Lg
00-125-4770*	9/16-18	9/16-18	1.188

* Non Spec Item.

Steel, Corrosion Resisting.

	Tube UN	Boss UNF	O/A Lg
00-411-5438	9/16-20	9/16-18	1.380

30 DEGREE SEAT ANGLE.

Aluminum Alloy

	Tube UN	Boss UNF	O/A Lg
00-121-7487*	3/4-16	9/16-18	1.610

* Non Spec Item.

THREADED EXTERNAL TUBE, INVERTED FLARE TO THREADED EXTERNAL BOSS, GASKET SEAL.

8.5 DEGREE SEAT ANGLE.

Titanium Alloy

	Tube UNJS	Boss UNJF	O/A Lg
00-005-5513*	9/16-20	7/16-20	.942
00-009-0369*†	1-9/16-14	1-5/16-12	1.349

* Three, .070 inch diameter safety wire holes, 120 degrees apart.
† UNJ thread boss.

12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting

	Tube UNF	Boss UNF	O/A Lg
00-950-0087	7/16-20	7/16-20	1.219

THREADED EXTERNAL TUBE TO THREADED INTERNAL BOSS. Flared tube end type with 37 degree seat angle. MS24398 dash number listed below.

Aluminum Alloy, Anodized

	Tube UNJF	Boss UNJF	O/A Lg	Dash No.
00-929-6211*	7/16-18	3/8-24	.843	—
00-060-5754	7/16-20	1/2-20	1.500	D5-4
00-684-6917†	7/16-20	9/16-18	1.391	D6-4

* UNS thread tube and UNF thread boss.
† UNF all ends.

Steel, Cadmium Plated. MS24398 dash number listed below.

	Tube UNJF	Boss UNJF	O/A Lg	Dash No.
00-806-5902	7/16-20	9/16-18	1.391	6-4
00-805-7536*	7/16-20	3/4-16	1.578	8-4

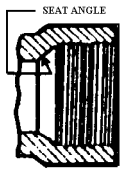
* UNF all ends.

Steel, Corrosion Resisting. MS24398 dash number listed below.

	Tube UNJF	Boss UNJF	O/A Lg	Dash No.
00-440-0229*	7/16-20	1/2-20	1.406	—

* UNF all ends.

THREADED INTERNAL TUBE, FLARED TO: THREADED INTERNAL TUBE, INVERTED FLARE. 45 DEGREE SEAT ANGLE TO THREADED EXTERNAL BOSS, GASKET SEAL.

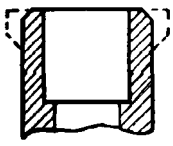


FLARED (TUBE)

Steel

	Tube UNS	Boss UNF	O/A Lg
00-424-4019	3/4-18	9/16-18	1.125

UNTHREADED INTERNAL TUBE, SOCKET (UNION) TO: THREADED EXTERNAL BOSS, GASKET SEAL.


SCOKET (TUBE)

Steel

	Tube OD	Boss UNF	O/A Lg
01-017-5123	1/4	7/16-20	1.250

ADAPTER, STRAIGHT, TUBE TO HOSE

THREADED EXTERNAL TUBE, FLARED TO UNTHREADED EXTERNAL HOSE, BEADED. 45 DEGREE SEAT ANGLE.

Copper Alloy

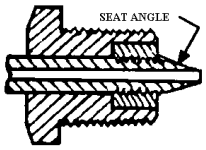
	Tube UNS	Hose ID	O/A Lg
00-913-5967	7/32-32	3/32	1.094

THREADED EXTERNAL TUBE, GASKET SEAL TO UNTHREADED EXTERNAL HOSE, BEADED.

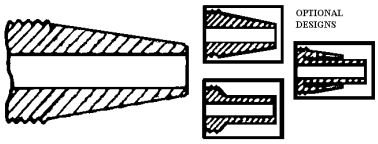
Steel, Corrosion Resisting

	Tube UNS	Hose ID	O/A Lg
00-919-7367	3/8-27	1/4	1.094

THREADED EXTERNAL TUBE, SWIVEL NUT WITH INTERNALLY THREADED SLEEVE AND FLARE TUBE TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 37 DEGREE SEAT ANGLE.



SWIVEL NUT with INTERNALLY THREADED SLEEVE and FLARE TUBE (TUBE)



GRIPPING NIPPLE (HOSE)

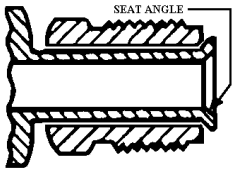
Aluminum Alloy, Anodized. MS24587 dash number listed below.

	Tube UN	Hose ID	O/A Lg	Dash No.
00-842-113911	-5/16-12	7/8	2.870	16

Steel Cadmium Plated. MS24587 dash number listed below.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-842-2198	3/8-24	1/8	1.688	3

THREADED EXTERNAL TUBE, SWIVEL NUT, INVERTED FLARE TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 45 DEGREE SEAT ANGLE.



SWIVEL NUT INVERTED FLARE (TUBE)

Steel

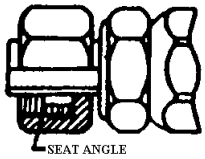
	Tube UNF	Hose ID	O/A Lg
00-485-9279	1/2-20	1/4	1.840
00-977-8774	3/8-24	5/16	2.720

Steel, Cadmium Plated

	Tube UNF	Hose ID	O/A Lg
01-107-2000*	7/16-24	3/16	2.469
00-483-4831*	.3/4-18	13/32	3.130

* UNS thread tube.

THREADED INTERNAL TUBE, COMPRESSION SLEEVE TO THREADED HOSE GRIPPING NIPPLE. 12 DEGREE SEAT ANGLE. MS28761 dash number listed below.

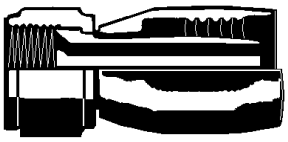


SWIVEL NUT with COMPRESSION SLEEVE (TUBE)

Aluminum, Anodized body. Steel, Cadmium Plated nipple and nut.

	Tube OD	Hose ID	O/A Lg	Dash No.
00-541-6603	3/4-16	7/16	3.156	8

THREADED INTERNAL TUBE, FLARED SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. MS dash number given where applicable.



37 DEGREE SEAT ANGLE.

Aluminum Alloy, Anodized. MS24587 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-842-2202	3/4-16	13/32	2.580	8
00-842-1138	7/8-14	1/2	2.850	D10
00-842-2199	1-1/16-12	5/8	2.414	12
00-848-7283	1-5/8-12	1-1/8	3.047	20
00-844-3483	1/7/8-12	11-3/8	3.340	24

Aluminum Alloy, Anodized. Mil Std MS27053.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-125-2640	7/8-14	1/2	1.860	10
00-935-9382	1-1/16-12	5/8	2.240	12

Aluminum Alloy, Anodized. MS27404 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-497-4281*	7/16-20	1/4	1.594	4D
00-278-5686*	9/16-18	7/16	2.000	6D

* UNF thread tube.

Aluminum Alloy, Anodized. Mil Spec Mil-F-83798. MS83798/1 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-613-1859*	9/16-18	11/32	1.480	6
00-585-6212	1-5/16-12	7/8	2.641	16
00-585-6210	1-5/8-12	1-1/8	3.281	20

* UNF thread tube

Aluminum Alloy, Anodized. Mil Std MS87018. Dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-541-9105	7/8-14	9/16	2.440	10

Copper Alloy

	Tube UNF	Hose ID	O/A Lg
00-709-7520	7/16-20	1/4	1.300
00-051-4678	7/16-20	3/16	1.750
00-506-2472	1/2-20	1/4	1.900
00-066-0735	9/16-18	5/16	1.740
00-588-2587	9/16-18	5/16	2.050
00-203-3558	3/4-16	13/32	2.520
00-119-0511	7/8-14	1/2	2.220
00-397-3169	1-1/16-12	5/8	2.330
00-203-3553	1-1/16-12	3/4	3.150
00-573-1416	1-5/16-12	1	2.820
00-217-2431	1-5/8-12	1-1/8	3.000
00-588-2597	1-7/8-12	1-3/8	3.280
00-771-9424	2-1/2-12	1-13/16	3.880

Nickel Alloy

	Tube UNF	Hose ID	O/A Lg
00-904-8172	9/16-18	5/16	2.050
00-082-5987	3/4-16	13/32	2.520
00-082-5995	1-5/8-12	1-1/8	3.000

Steel

	Tube UNF	Hose ID	O/A Lg
00-937-0234	7/16-20	1/4	2.640
01-065-7552	9/16-18	5/16	2.050
01-012-5660	9/16-18	5/16	2.330
01-023-7726	9/16-18	3/8	2.980
00-684-7441	3/4-16	27/64	2.484
00-568-2258	7/8-14	1/2	2.800
00-897-5930	7/8-14	1/2	3.100
00-081-5893	7/8-14	1/2	3.300
00-982-1360	7/8-14	5/8	3.400
00-881-5536	1-1/16-14	5/8	3.490
00-420-4494	1-1/16-14	41/64	2.330
00-592-1014	1-5/16-12	7/8	2.820

	Tube UNF	Hose ID	O/A Lg
00-203-3420	1-5/8-12	1-1/8	3.000
00-547-0951	1-5/8-12	1-1/4	5.100
00-928-6571	1-7/8-12	1-1/2	5.160

Steel, Cadmium Plated. Mil Std MS24587 dash number listed below.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-842-2200	7/16-20	3/16	1.800	4
00-842-2201*	1/2-20	1/4	2.120	5
00-843-0269	9/16-18	5/16	2.100	6

* UNJF thread tube.

Steel, Cadmium Plated. Intended for use in high pressure hydraulic and pneumatic flexible hose applications (3000 PSI). MS28760.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-541-4252	7/16-20	7/32	3.156	4
00-554-7830	1/2-20	9/32	3.156	5
00-554-7831	9/16-18	11/32	3.281	6
00-541-4253	3/4-16	7/16	3.125	8
00-554-7832	7/8-14	9/16	3.671	10
00-554-7833	1-1/16-12	11/16	4.234	12
00-541-6606	1-5/16-12	7/8	4.651	16

Steel, Cadmium Plated. Mil Spec Mil-F-83798/1.

	Tube UNF	Hose ID	O/A Lg
00-618-7378	7/16-20	7/32	1.730

Steel, Cadmium or Zinc Plated. Non Spec Item.

	Tube UNF	Hose ID	O/A Lg
00-203-3550	7/16-20	3/16	1.750
01-087-8886	7/16-20	3/16	1.970
00-628-0020	9/16-18	1/4	2.790
01-157-7960	9/16-18	3/8	2.890
01-076-1515	3/4-16	3/8	3.160
01-106-9651	3/4-16	13/32	2.780
00-952-0038	3/4-16	1/2	3.200
00-929-1107	1-5/16-12	7/8	3.500
00-374-6954	1-5/16-12	1	4.480
00-703-4391	2-1/2-12	2	5.900

Steel, Corrosion Resisting. Intended for use in medium pressure, high temperature fuel, lubricating oil, water-alcohol, chemical-fluid systems, and hydraulic and pneumatic systems. 37 degree seat angle. MS27053 dash number listed below.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-007-2199*	3/16-24	3/16	1.547	3-4C
00-889-2474	7/16-20	3/16	1.720	4C
00-889-2475	1/2-20	1/4	1.790	5C
00-982-9736	9/16-18	5/16	1.225	6C
01-022-3151†	3/4-16	13/32	1.700	8CL
00-889-2476	3/4-16	13/32	2.130	8C
01-049-3696*†	7/8-14	1/2	1.860	‡
00-889-2478	1-1/16-12	5/8	2.500	12C
00-889-2473	1-5/16-12	7/8	2.750	16
00-017-8234	1-5/16-12	1	2.593	16C

* UNJF thread tube.
† Drilled for lockwire.
‡ 10CL.

Steel, Corrosion Resisting. Intended for use in aircraft and missile high temperature (§400 degrees Fahrenheit), high pressure (3000 PSI) hydraulic systems. Suitable for use in high pressure (3000 PSI), high temperature (§160 degrees Fahrenheit) pneumatic systems. 37 degree seat angle. MS27616-. Dash numbe rlisted below.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-948-9003	7/16-20	7/32	1.578	4C
00-266-8301	9/16-18	5/16	1.690	6C
00-543-8660	3/4-16	7/16	1.890	8C

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNF	Hose ID	O/A Lg
00-057-6456	7/16-20	3/16	1.750
00-421-1357	3/4-16	7/16	1.980
00-421-1358	7/8-14	1/2	2.220
00-400-6558	1-5/16-12	7/8	2.520
00-052-4834	1-5/16-12	7/8	2.820
00-420-8670	1-5/8-12	1-1/8	2.920

Steel or Iron, Zinc Plated. Mil Spec Mil-F-52525.

	Tube UN	Hose ID	O/A Lg
00-472-2611	1-1/16-12	3/4	2.860

45 DEGREE SEAT ANGLE.

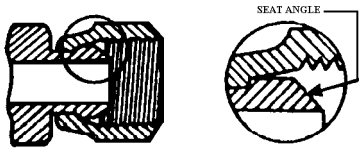
Copper Alloy

	Tube UNF	Hose ID	O/A Lg
00-592-0158	5/8-18	5/16	2.050
00-542-4336	3/4-16	13/32	2.437
00-709-7518	7/8-14	1/2	2.800

Steel, Cadmium or Zinc Plated.

	Tube UNF	Hose ID	O/A Lg
00-051-8568	5/8-18	5/16	2.360

THREADED INTERNAL TUBE, INVERTED FLARE SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 37 DEGREE SEAT ANGLE. Mil Std MS28761.



SWIVEL NUT INVERTED FLARE (TUBE)

Aluminum, Anodized body. Steel, Cadmium Plated nipple and nut.

	Tube UNF	Hose ID	O/A Lg
00-541-6607	7/16-16	7/32	2.491

Steel, Corrosion Resisting.

	Tube UNF	Hose ID	O/A Lg
01-024-0910*	7/16-24	9/64	1.438

* Drilled for lockwire. UNJS thread tube.

THREADED INTERNAL TUBE, SWIVEL NUT, FLARE. 37 DEGREE SEAT ANGLE TO THREADED EXTERNAL HOSE, PLAIN.

Aluminum Alloy, Anodized. MS27053 dash number listed below.

	Tube UNF	Hose NPSH	O/A Lg	Dash No.
00-618-8485	3/4-16	1/2-14	2.130	8

THREADED INTERNAL TUBE, FLARED SWIVEL NUT TO UNTHREADED EXTERNAL HOSE, BARBED OR BEADED. 37 DEGREE SEAT ANGLE.

Copper Alloy

	Tube UNF	Hose ID	O/A Lg
00-555-1152	7/16-20	1/4	1.460

45 DEGREE SEAT ANGLE.

Copper Alloy

	Tube UNF	Hose ID	O/A Lg
00-542-2807	3/4-16	1/2	1.950

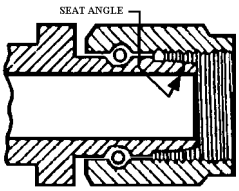
THREADED INTERNAL TUBE, FLARED SWIVEL NUT TO UNTHREADED INTERNAL HOSE CAP SOCKET. 37 DEGREE SEAT ANGLE.

CAP SOCKET (HOSE)

Aluminum Alloy, Anodized. MS27404 dash number listed below.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-289-2824	3/4-16	1/2	2.172	8D

THREADED INTERNAL TUBE, FLARELESS SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 12 DEGREE SEAT ANGLE.



SWIVEL NUT, FLARELESS (TUBE)

Aluminum, Anodized socket. Steel, Cadmium Plated nipple and nut. MS28761 dash number listed below.

	Tube UNF	Hose ID	O/A Lg	Dash No.
00-541-6608	7/8-14	9/16	3.564	10
00-541-6605	1-1/16-12	11/16	3.594	12

Steel, Corrosion Resisting. 1500 PSI. MS27381 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-877-9876	1/2-20	1/4	1.570	5C
00-929-5705	3/4-16	13/32	2.000	8C
00-248-3918	1-5/16-12	7/8	2.422	16C

Steel, Corrosion Resisting. 3000 PSI. MS27629 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-948-9314	7/16-20	7/32	1.734	4C
00-948-9623	9/16-18	5/16	1.000	6C
00-106-4417	3/4-16	7/16	2.210	8C
00-545-0791	7/8-14	9/16	2.410	10C

37 DEGREE SEAT ANGLE.

Steel, CRES. 1500 PSI. MS27381 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-053-0379	9/16-18	5/16	1.715	6C

45 DEGREE SEAT ANGLE.

Aluminum Alloy (Anodized). 1500 PSI. MS27381 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-053-0418	7/8-14	1/2	2.140	10

Steel, Corrosion Resisting. MS27381 dash number listed below.

	Tube UNJF	Hose ID	O/A Lg	Dash No.
00-054-7650	7/16-20	3/16	1.688	4C

THREADED INTERNAL TUBE, SWIVEL NUT FLARELESS TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNF	Hose ID	O/A Lg
01-026-9149	7/16-20	7/32	1.690
01-026-9151	9/16-18	1/4	1.800
01-026-9152	7/8-14	15/32	2.350
01-026-9154	1-1/16-12	9/16	2.700

THREADED INTERNAL TUBE, SWIVEL NUT, GASKET SEAL TO THREADED EXTERNAL HOSE GRIPPING NIPPLE.

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNJ	Hose ID	O/A Lg
01-024-0911*	9/16-20	5/16	2.310

* Drilled for lockwire.

THREADED INTERNAL TUBE, SWIVEL NUT FLARE TO UNTHREADED EXTERNAL HOSE. 12 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting. Non Spec Item.

	Tube UNJF	Hose ID	O/A Lg
01-027-2653	3/4-16	3/8	2.140

37 DEGREE SEAT ANGLE.

Copper Alloy. Non Spec Item.

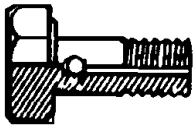
	Tube UNJF	Hose ID	O/A Lg
01-004-8348	7/16-20	5/32	1.600

Steel Composition. Non Spec Item.

	Tube UNJF	Hose ID	O/A Lg
01-026-9149	7/16-20	9/64	1.460
01-026-9144	9/16-18	1/4	1.570
01-026-9147	1-1/16-12	9/16	2.260

BOLT, FLUID PASSAGE

THREADED EXTERNAL TUBE. Hexagon wrenching feature.



Steel overall length, 1.406 inches, thread size 1/2-20 UNF. Distance from radial hole center to end of bolt, .844 inches. Radial fluid hole diameter .187 inches and concentric hole diameter .188 inches.

00-754-0152

Steel, overall length 4.625 inches. Thread size 1/2-20 UNF, thread length .937 inches. Distance from radial hole center to end of bolt, 1.375 inches. Radial hole diameter .062 inches and concentric hole diameter .125 inches.

00-212-6331

THREADED EXTERNAL TUBE, FLARED. Hexagon wrenching feature. 45 degree seat angle.

Steel, Cadmium Plated overall length, 1.375 inches, thread size, 7/16-20 UNF. Thread length .437 inches. Distance from radial hole center to end of bolt .781 inches. Radial hole diameter .187 inches and concentric hole diameter .172 inches. AN Std AN775 dash number listed below.

	Dash No.
00-278-0375	4
00-006-9373*	4J

* Steel Corrosion Resisting.

THREADED EXTERNAL TUBE, INVERTED FLARE. Hexagon wrenching feature, 45 degree seat angle.

Aluminum, Anodized. Overall length, 1.375 inches. Thread size, 7/16-20 UNF. Thread length .406 inches. Distance from radial hole center to end of bolt .796 inches. Radial fluid hole diameter .172 inches and concentric hole diameter .172 inches.

00-720-0692

BOWL, SEDIMENT

Plastic, Polycarbonate. Threaded open end type, 2-3/4-16 UNS threads convex closed end. Unthreaded .625 inch hole, 5.188 inches long. Inside diameter, 2.225 inches. Largest outside diameter, 2.750. Furnished with O-ring and drain cock.

01-032-6017

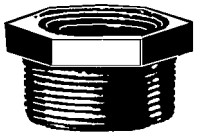
BUSHING, DIESEL GENERATOR

Brass. 1.775 inch inside diameter. Flanged on one end, 2.490 inches. Outside diameter .080 inches thick. Width .250 inches. Inside diameter of inner circle is 2.375 inches.

00-931-0975

BUSHING, PIPE

TAPER PIPE THREAD, EXTERNAL TO INTERNAL. Outside head, hexagon or octagon wrenching feature. AN Std AN912 dash number listed below.



Aluminum Alloy, Anodized. ANPT.

	Ext	Int	Dash No.
00-194-0204	1/4	1/8	1D
00-194-0205	3/8	1/8	3D
00-223-7074	3/8	1/4	2D
00-194-0206	1/2	1/4	5D
00-194-0209	3/4	3/8	8D

Brass, Bronze, or Copper Alloy, Cadmium Plated.

	Ext	Int	AN912-
00-277-9386	1/4	1/8	—
00-194-0215	3/8	1/8	3
00-222-1819*	3/8	1/4	2
00-194-0216*	1/2	1/4	5

* NPT Thread.

Steel, Composition. ANA Std AN912 dash number listed below.

	Ext	Int	Dash No.
00-278-3905*	1/4	1/8	1J
00-540-6145	3/8	1/4	2J

* NPT thread.

Steel, Passivated.

	Ext	Int	Dash No.
00-929-3399*	1/4	1/8	1K

	Ext	Int	Dash No.
00-959-3815	3/8	1/8	3K

* NPT thread.

Brass, Bronze, or Copper Alloy. NPT MS14315 dash number listed below.

	Ext	Int	Dash No.
00-196-0930	1/4	1/8	1XA
00-202-6491*	3/8	1/4	—
00-277-1896	1/2	1/4	5X
00-817-6578	1/2	3/8	4
00-989-3550	3/4	1/4	9X
00-196-0936	3/4	3/8	—
00-196-0938*	3/4	3/8	—
00-278-3167*	3/4	1/2	—
00-196-0939	1	3/8	12V
00-196-0940	1	1/2	11X
00-202-6492	1-1/4	1	14X
00-277-1873	1-1/2	3/4	20X
00-268-7479	2	1-1/2	22X

* NPT thread.

Brass or Copper. NPT. Fed Spec WW-P-471.

	Ext	Int
00-202-6446	1	3/4
00-196-0951	1-1/2	1

Iron, Malleable, Zinc Coated.

	Ext	Int
00-186-3024	1/4	1/8
00-196-0881	3/8	1/4
01-192-4729	1/2	1/4
00-196-0884	1/2	3/8
00-196-0886	3/4	1/4
00-193-0875	3/4	1/2
00-196-0887	3/4	3/8
00-196-0888	3/4	1/2
00-196-0892	1	3/4

Brass, NPTF. Non Spec Item.

	Ext	Int
00-204-1993	3/8	1/8

Steel, NPT. Non Spec Item.

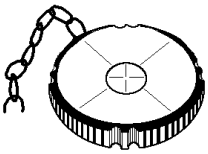
	Ext	Int
01-186-1017	3/8	1/8

Steel, Cadmium or Zinc Plated. NPTF. Non Spec Item.

	Ext	Int
00-580-7417	1/2	1/4

CAP, HOSE

Slotted type wrenching surface. Internal National hose thread. Furnished with holding chain.



Brass or Copper Alloy

	Thread Size
00-242-3242	1-1/2--9
00-240-5540	2-1/2--7-1/2
00-240-5538	4-6

CAP, LUBRICATION FITTING, PROTECTIVE

Press-on type. Caps are colored to permit grease coding and lubrication scheduling. End connection pressure type.

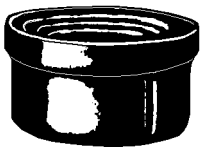
Polyethylene Plastic

00-270-3916	Black
00-270-3917*	Blue
00-270-3918	Brown
00-270-3919	Green
00-270-3920	Red
00-270-3921	White
00-270-3922	Yellow

* End connection, socket type.

CAP, PIPE

THREADED INTERNAL NPT THREADS. Not rated for WP or temperature. Mil Spec Mil-F-52618C.



Aluminum Alloy

	Thread Size
00-260-8267	3/4-14

Aluminum Alloy. Rated 150 PSI.

	Thread Size
00-260-8270	1-1/2--11-1/2

Aluminum Alloy per QQ-A-250/8.

	Pipe Size/In.
01-258-5118	2-1/2
01-258-7241	3

Copper Alloy, NPT 125 PSI steam WP. MS14310 dash number listed below.

	Thread Size	Dash No.
00-224-0544	1/8-27	1A
00-224-0545	1/4-18	2A
00-224-0546	3/8-18	3A
00-724-1998	1/2-14	—-
00-231-2386*	3/4-14	5A
00-231-2400	1--11-1/2	6A
00-224-0550	1-1/4--11-1/2	7A
00-231-2402†	1-1/2--11-1/2	8A
00-231-2403	2--11-1/2	9
00-231-2404	2-1/2--8	10A

* Polished outside.
† NPTF thread.

Iron, Malleable. NPT 150 PSI steam WP. Fed Spec WW-P-521.

Black Finish

	Thread Size
00-231-2411	1/2-14
00-231-2412	3/4-14
00-231-2413	1--11-1/2
00-231-2414	1-1/4--11-1/2
00-231-2415	1-1/2--11-1/2
00-231-2416	2--11-1/2

Zinc Coated Finish

	Thread Size
00-203-3168	1/4-18
00-231-2424	1/2-14
00-231-2425	3/4-14
00-231-2426	1--11-1/2
00-231-2428	1-1/2--11-1/2
00-231-2429	2--11-1/2

UNTHREADED INTERNAL SOCKET. With brazing ring.

Copper Alloy. MIL-F-1183/2 dash number listed below.

	Pipe Size	Dash No.
00-595-1285	1/4	1-S
00-595-1282	3/4	4-S
00-595-1281	1	5-S
00-595-1279	1-1/2	—
00-595-1278	2	—

CAP, QUICK DISCONNECT

PUSH-PULL

Aluminum Alloy, Anodized.

	Size
00-475-4826	1-13/64

QUICK LEAD THREADS. Furnished with Cadmium Plated Steel hook.

Aluminum Alloy, Anodized.

	Size
00-546-4736	1

SPRING PUSH-PULL

	Size
00-837-2459	1-1/4

TWIST-LOCK, quick disconnect type cap for use on hydraulic fluid lines. Furnished with chain.

Aluminum Alloy, Anodized.

	Size
00-561-1544	3/4
00-796-0334	1-1/4

CAP, TUBE

THREADED INTERNAL, NATIONAL SCREW THREADS, FLARED TYPE. 45 DEGREE SEAT ANGLE. Mil Spec Mil-F-15049.

Copper Alloy

	Tube OD	UNF
00-260-8284	1/4	7/16-20
00-260-8285	5/16	1/2-20
00-260-8286	3/8	5/8-18
00-260-8288	1/2	3/4-16
00-260-8289	5/8	7/8-14
00-260-8290*	3/4	1-1/16--14

* UNS Thread.

Steel, Cadmium or Zinc Plated. 37 degree seat angle.

	Tube OD	UN
00-647-3311	3/4	1-1/16--12

THREADED INTERNAL, NATIONAL SCREW THREADS, FLARED TYPE. 37 DEGREE SEAT ANGLE, PRESSURE SEAL.

Aluminum Alloy. Anodized. ANA Std AN929 dash number listed below.

	Tube OD	UNF	Dash No.
00-633-4398*	1/8	5/16-24	A2
00-221-2126	3/16	3/8-24	3W
00-278-5006	1/4	7/16-20	4
00-585-8770*	1/4	7/16-20	A4
01-061-4150	5/16	1/2-20	5
00-825-1460*	5/16	1/2-20	A5
00-585-8769*	3/8	9/16-18	A6
00-541-8296*	1/2	3/4-16	A8
00-221-2127	5/8	7/8-14	10
00-221-2128†	3/4	1-1/16--12	12
00-221-2129	1	1-3/8--12	16
00-221-2130†	1-1/4	1-5/8--12	20

* Cap drilled for safety chain.
† UNJ Thread.

Steel, Corrosion Resisting.

	Tube OD	UNF	AN 929-
00-140-4484*	1/4	1/4-28	—
00-720-1508†	1/4	7/16-20	A4J
00-541-1206	1/2	3/4-16	8J
00-606-3825	3/4	1-1/16-12	12C

* Non Spec Item.
† Cap drilled for safety chain.

Steel, Corrosion Resisting. MS9314 dash number lsited below.

	Tube OD	UNF	Dash No.
00-939-8492	1/4	7/16-20	04
00-984-4997*	1/4	7/16-20	04

* MS9315.

THREADED INTERNAL, NATIONAL SCREW THREADS. FLARELESS TYPE, PRESSURE SEAL.

Steel, Cadmium Plated. MS21914 dash number listed below.

	Tube OD	UNJF	Dash No.
01-142-7904	1/8	5/16-24	2S
00-289-8633	3/16	3/8-24	3
00-640-0632	1/4	7/16-20	4
00-618-9069	5/16	1/2-20	5
00-618-3572	3/8	9/16-18	—
00-289-8634	1/2	3/4-16	8
00-618-4227	5/8	7/8-14	10
00-202-8792*	3/4	1-1/16--12	12
00-274-7120*	1	1-5/16--12	16

* UNJ Thread.

Steel, Corrosion Resisting. MS21914 dash number listed below.

	Tube OD	UNF	Dash No.
00-990-6078	3/8	9/16-18	6J

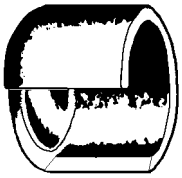
Steel, Corrosion Resisting. Non Spec Item.

	Tube OD	UNF
01-061-2584	3/8	9/16-18
00-133-0673	1/2	3/4-16

Steel, Corrosion Resisting. 20 degree seat angle. MS51890 dash number listed below.

	Tube OD	UNF	Dash No.
00-727-7491	1/4	7/16-20	3SS

UNTHREADED INTERNAL, SOCKET TYPE. With preinserted brazing ring. Mil Spec Mil-F-1183.



Copper Alloy

	Tube OD
00-595-1284	.675
00-595-1283	.840
00-595-1280	1.660

CHUCK, AIR INFLATING

SINGLE FOOT DESIGN

Threaded external shank.

	UNF
00-684-4343*	1/8-27
00-142-5207	7/16-20
00-142-5164†	7/16-20

* NPT Thread.
† 90 degree foot angle.

Threaded internal shank.

	UNF
00-277-6948*	1/4-18

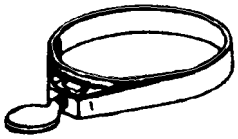
* NPT Thread.

Serrated shank.

	UNF
00-270-3855	1/4 ID Hose

CLAMP, HOSE

THUMB SCREW ADJUSTMENT. Air Force, Navy Aeronautical Std AN737.

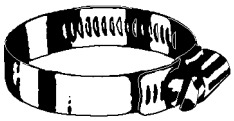


RADIAL STYLE.

Steel, Corrosion Resisting

	Min ID	Max ID
00-278-9095	1/2	3/4

SLOTTED SCREW ADJUSTMENT, WORM TYPE. Mil Std MS35842.



TANGENTIAL STYLE.

Steel, Corrosion Resisting.

	Min ID	Max ID
00-871-6729	15/64	5/8
00-024-3971*	5/16	7/8
00-908-3195	7/16	25/32
00-202-8972	1/2	29/32
00-720-0167	9/16	15/16
00-877-6298	9/16	1-1/16
00-908-3194	11/16	1-1/4
00-278-2523	3/4	1-3/4
00-346-3003*	29/32	2-3/4
00-908-3193	1	2
00-204-3491*	1-9/16	2-1/2
00-909-8627	1-13/16	2-3/4
01-129-5592*	2-1/2	12-1/4
00-908-6292	2-9/16	3-1/2
00-821-0251*	2-9/16	8-19/32
00-277-7132	3-1/8	4-5/64
00-908-6293	3-5/16	4-1/4
00-274-5828*	3-9/16	4-1/2
00-541-8018*	3-7/8	4-3/4
00-930-3250*	4	6
00-908-6294	4	7
00-838-9889*	6-5/8	7-1/2

* Non Spec Item.

SLOTTED HEXAGON HEAD SCREW ADJUSTMENT, SNAPLOCK SWIVEL ACTION. .551 inches wide.

	Min ID	Max ID
01-211-8445	1/2	3/4
00-720-1274	15/16	2-13/16
00-020-4270	1-3/64	2-9/32
00-132-9948	1-3/64	4
00-880-3539	2	5-3/16

	Min ID	Max ID
00-617-6921	2	6

THUMB SCREW ADJUSTMENT, WORM TYPE. Air Force, Navy Aeronautical Std AN737.

Steel, Corrosion Resisting.

	Min ID	Max ID
00-278-9200	7/16	11/16
00-278-9197	1/2	13/16
00-913-7330*	11/16	2-5/8
00-215-8010*	11/16	8-5/8
00-555-1352	13/16	1-3/16
00-203-3129	61/64	1-1/2
00-278-9211	1	1-7/16
00-277-2549*	1-1/16	2
00-277-2550*	1-5/16	2-1/4
00-203-3131	1-21/64	2-1/16
00-726-9346*	1-9/16	2-1/2
00-277-9387	1-5/8	2-1/16
00-278-0422	1-7/8	2-5/16
00-541-7747	1-7/8	2-27/32
00-726-9347*	2-1/16	3
00-278-0417	2-1/8	2-9/16
00-202-8967	2-13/16	4-1/8
00-407-6627*	2-13/32	3-11/32
00-540-4032*	3-1/8	4
00-253-3496	3-9/16	5

* Non Spec Item.

SLOTTED MACHINE SCREW ADJUSTMENT WITH APPLIED LOCK.

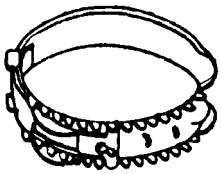
Copper Alloy

	Nom ID
00-278-2546	5/8
00-202-7769	3/4
00-277-5850	1-17/32

Steel, Zinc Plated

	Min ID	Max ID
00-289-1686	3/8	1/2
01-092-1904	2-11/32	2-19/32

ADJUSTABLE BAND, SPRING TENSION TYPE. Mil Std MS22064.

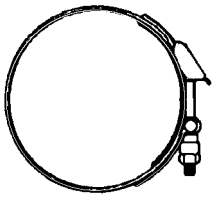


Steel, Phosphate or Zinc Coated

	Min ID	Max ID
00-585-8621*	13/16	29/32
00-269-3760	15/16	1-1/4

* Non Spec Item, painted

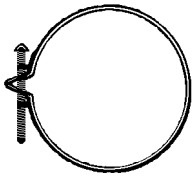
HEXAGON HEAD SCREW ADJUSTMENT. SELF LOCKING NUT.



Steel, Corrosion Resisting. Cadmium or Zinc Plated nut and bolt.

	Nom ID
00-019-4792	2-7/8
00-632-3421	3-1/4
00-080-5799	3-3/4
01-134-8839	3-7/8
00-045-5278	10

UNIVERSAL BAND CLAMP. Fastened with plain slotted head screw. Procured in flat form including nut and screw. For use in clamping low pressure water hose. Mil Spec Mil-C-11569.



Steel, Corrosion Resisting.

	Min ID	Max ID	W
00-278-2513	1.000	3.000	.500

CONNECTOR, MULTIPLE, FLUID PRESSURE

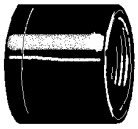
TWO FLUID CONNECTIONS. Threaded, inverted flare, 30 degree seat angle. 3/16 inch outside diameter tube, 3/8-24 UNF-3A thread. Bolt hole diameter .395 inches, with fluid passage. 90 degrees between outlets.

Brass

	Lg	W	Thk
01-122-2172	1.019	1.019	.380

COUPLING PIPE

PLAIN WITH FLAT SIDES. THREADED INTERNAL NPT THREADS. BOTH ENDS IDENTICAL.



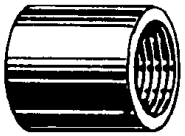
Copper Alloy. 125 PSI steam. MS14305 dash number listed below.

	Thd Size	OA Lg	Dash No.
00-187-7647	1/4-18	31/32	2Y
00-187-7648	3/8-18	1-3/64	—
00-278-2648	1/2-14	1-23/64	4ZA
00-203-8347	3/4-14	1-1/2	5ZA
00-187-7651	1--11-1/2	1-11/16	6YA
00-187-7652	1-1/4--11-1/2	1-55/64	7YA
00-203-8350	1-1/2--11-1/2	1-59/64	8YA
00-187-7654	2--11-1/2	2-3/16	--

Malleable Iron; Zinc Coated. 150 PSI steam. Fed Spec WW-P-521.

	Thd Size	O/A Lg
00-187-7609	1/8-27	61/64
00-187-7612	1/2-14	1-11/32
00-187-7613	3/4-14	1-33/64
00-187-7614	1-11-1/2	1-3/4
00-187-7616	1-1/2-11-1/2	2-5/32
00-187-7617	2-11-1/2	2-17/32
00-187-7618	2-1/2-8	2-7/8

THREADED INTERNAL NPT THREADS. BOTH ENDS IDENTICAL. PLAIN SIDES.



Copper Alloy, 125 PSI steam. Mil Std MS14305.

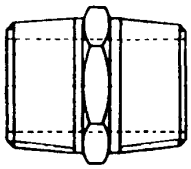
	Thd Size	Lg
00-203-8338	1/8-27	53/64

Steel. 3000 PSI Water Oil Gas. Mil Std MS14304.

	Thd Size	Lg
00-187-7568	1/4-18	1-3/8
00-202-9915*	1/4-18	1-3/4
00-187-7570	1/2-14	1-7/8
00-187-7571	3/4-14	2

* Zinc Coated

THREADED INTERNAL, RIGID, SHORT CENTER WRENCHING FACILITY.



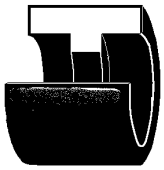
Copper Alloy. AN Std AN910.

	Thd Size	Lg
00-223-9255	1/4 ANPT	1-1/8

Steel, Cadmium Plated.

	Thd Size	Lg
00-580-7408	1/4 NPTF	1-1/8

UNTHREADED INTERNAL SOCKET TYPE. BOTH ENDS IDENTICAL. For use with standard plastic pipe. Mil Spec Mil-P-22011.



Plastic

	Pipe Size	O/A Lg
00-554-7126	1-1/4	2-3/4

Nickel Alloy. Non Spec Item.

	Pipe Size	O/A Lg
00-957-7882	1	1-3/4

Steel (3000 PSI)

	Pipe Size	O/A Lg
00-822-7655	1/4	1
00-822-7656	3/8	1
00-822-7657	1/2	1-3/8
01-114-3884	3/4	1-1/2
00-808-7920*	1	1-3/4
00-822-6537	1-1/4	1-7/8
00-822-6539	2	2-1/2

* PSI not rated.

Steel, Corrosion Resisting (3000 PSI).

	Pipe Size	O/A Lg
01-067-3933	1/2	1-3/8
00-808-7920	1	1-1/2
00-892-5663*	1	1-3/4
01-106-0796	1-1/2	2

* PSI not rated.

UNTHREADED INTERNAL SOCKET WITH BRAZING RING. BOTH ENDS IDENTICAL.

Copper Alloy

	Pipe Size	O/A Lg
00-289-8493	2-3/8	3.620

INTERIOR STREAMLINED FROM SOCKET TO SOCKET, GROOVED. With separately packaged brazing rings. Mil Spec Mil-F-1183/3.

Copper Alloy. MIL-F-1183/3 dash number listed below.

	Pipe Size	Lg	Dash No.
00-542-5100	1/4	0.970	01A
00-542-5101	3/8	1.050	02A
00-542-5102	1/2	1.290	03A
00-542-5103	3/4	1.438	04A
00-542-5104	1	1.680	05A
00-542-5105	1-1/4	1.875	06A
00-542-5106	1-1/2	1-15/16	07A
00-542-5107	2	2.203	08A
00-542-5108	2-1/2	2.880	09A
00-542-5109	3	3.180	10A
00-542-5110	4	3.430	11A
00-542-5111	4	3.690	12A
00-542-5112	5	4.220	13A

COUPLING, TUBE

THREADED INTERNAL TUBE, SWIVEL NUT, FLARE TO UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES. RIGID WITH OFFSET WRENCHING FACILITY. The internal surface of the swaged end will be polytetrafloroethylene coated into the fitting bore. 8.5 degree seat angle.

Steel, Corrosion Resisting. Plastic Coated Overall.

	Tube OD*	Thd Size	Lg
00-348-8176	7/16	3/8-28 UNJ	1.620
00-348-8177	1/2	7/16-24 UNJS	1.810
00-348-8178	3/4	9/16-20 UNJ	1.950
00-348-8179	1	3/4-20 UNJ	2.510
00-348-8180	1-1/4	7/8-16 UNF	2.645
00-348-8203	1-1/2	1-1/16-16 UNJ	2.710

* Both ends.

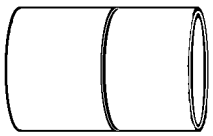
THREADED INTERNAL TUBE, SWIVEL NUT WITH LOOSE OR INTEGRAL CLINCH SLEEVE, 20 DEGREE SEAT ANGLE TO THREADED INTERNAL TUBE, SWIVEL NUT, FLARE, 37 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting.

	Tube OD*	Thd Size	Lg
00-977-3255	1/2	7/16-24 UNF	1.234

* Both ends.

UNTHREADED INTERNAL TUBE, CRIMPED. SILVER BRAZING SOCKET TYPE WITH ROLLED TYPE STOP. For use in refrigeration equipment.



Copper or Copper Alloy. MS35927 dash number listed below.

	Tube OD	Dash No.
00-264-9151	1/2	2
00-264-9153	3/4	3
00-264-9154	1	4
00-264-9155	1-1/4	5
00-264-9156	1-1/2	6
00-264-9157	1-3/4	7
00-264-9158	2-1/4	9

UNTHREADED INTERNAL TUBE, PLAIN WITH TAPERED ENDS. BOTH ENDS IDENTICAL.

Copper Alloy

	Tube OD	Lg
00-372-0793	2-13/16	5.000

UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES. TAPERED ENDS. The internal surface of the swaged end, will be polytetrafluoroethylene coated into the fitting bore.

Steel, Corrosion Resisting.

	Tube OD	Lg
00-008-9853	3/8	1.250
00-008-9854	1/2	1.535
00-009-5217*	3/4	1.198
00-008-8818	3/4	1.685
00-009-7238*	1	1.770
00-009-3386	1	2.700
00-172-3540	1-1/4	1.777
00-008-9855	1-1/4	2.773
00-172-3544	1-1/2	1.877
00-008-9856	1-1/2	2.913
00-008-9857	2	3.202

* Socket one end.

COUPLING ASSEMBLY, QUICK DISCONNECT

PUSH-PULL STYLE

Unthreaded external hose, barbed, first end to unthreaded external hose, barbed, second end.

Plastic

	End	ID Hose
00-889-2197	1	1/4
	2	3/16
00-931-4610	1	1/4
	2	1/4

COUPLING ASSEMBLY, SELF SEALING.

THREADED EXTERNAL TUBE, FLARELESS, 12 DEGREE SEAT ANGLE. BOTH ENDS IDENTICAL. 3000 PSI. -65 to 273 degrees Fahrenheit. Mil Std MS24334-8.

Aluminum Alloy, Anodized.

	Tube OD	UN
00-815-6491	1/2	1-5/16-12

COUPLING HALF, QUICK DISCONNECT

CAM-LOCKING STYLE

EXTERNAL, RAISED FLANGE HALF, ROUND WITH OUT BOLT HOLES. Mil Std MS17834.

Steel, Corrosion Resisting.

	Raised Face H	Dia	Flange OD
00-961-1973	0.156	3.625	4.500

THREADED EXTERNAL PIPE, PLAIN. SELF SEALING.

Steel, Corrosion Resisting.

	NPTF	Leg Lg
01-162-4128	1/4-18	1.062

PUSH-LOCK STYLE

THREADED EXTERNAL PIPE PLAIN ENDS. .250 INCH QUICK DISCONNECT SIZE. NPT thread series and 1.938 inches long.

Copper Alloy

	Thread Size	Leg Lg
00-148-4905	1/4	.438

THREADED INTERNAL BOSS, GASKET SEAL. 0.625 INCHES QUICK DISCONNECT SIZE.

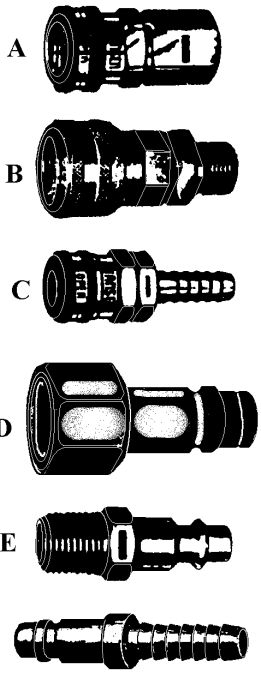
Steel, Cadmium Plated.

	Thread Size	Leg Lg
00-152-2432	1-1/16-8	.969

THREADED INTERNAL TUBE. 37 degree seat angle flare. External second end. 1.625 inches long.

	UNF Thread	Leg Lg
01-009-9520	1/4	.611

REFERENCE LETTERS A TO F REFER TO THE FOLLOWING ILLUSTRATION.



PUSH PULL STYLE

PSI NOT RATED. INTERNAL COUPLING HALF.

Aluminum Alloy

	End Style
01-124-3766	3/4 external tube, 12 degree flareless, 9/16 UNJF
00-238-5350	1 external tube, flared 3/4 UNF

Copper Alloy

	End Style	Ref
00-203-0177	External pipe, 1/2 NPT	B

Ref no. M4109-051600B.

Copper Alloy. Mil Std MS26552-4.

	End Style	Ref
00-759-2975	1-1/2 external pipe, ANPT	E

Plastic

	End Style
01-180-7251	Unthreaded external hose, beaded, one end and internal self sealing other end

Steel, Corrosion Resisting. 37 degree seat angle.

	End Style
00-052-3423*	1 external tube, flare thread 3/4 UNF

* 12 degree seat angle.

Steel, Zinc Plated

	End Style	Ref
00-142-1958*	1/4 external pipe, ANPT	E
00-142-1960	1/4 internal pipe, NPT	D

* AN Std AN6027-1.

40 PSI. INTERNAL COUPLING HALF, SELF SEALING. Hydraulic fluid.

Aluminum Alloy

	End Style
00-080-3090*	1/2 external tube, flareless thread, 7/16 UNJF

* 12 degree seat angle.

100 PSI, INTERNAL COUPLING HALF. Any acceptable body material.

Zinc Plated

	End Style	Ref
00-766-9028	1/4 internal pipe, NPTF	A

150 PSI, INTERNAL COUPLING HALF, Self sealing. Low capacity air. Mil Spec Mil-C-4109.

Copper Alloy

	End Style	Ref
00-293-7184	1/4 external hose, barbed M4109-04-08-20-B	C
00-494-0904	1/4 external pipe, NPT M4109-01-08-00-B	B
00-494-3273	1/4 internal pipe, NPT M4109-02-08-00-B	A
00-494-3272	3/8 external hose, barbed M4109-03-12-00-B	C
00-289-8192	3/8 internal pipe, NPT M4109-06-12-00-B	A
00-203-0178	3/8 external pipe, NPT M4109-01-12-00-B	B
00-369-4692*	3/8 external pipe, NPT M4109-05-12-00-B	B

* High capacity air.

Steel

	End Style	Ref
01-177-0987	1/4 internal pipe NPTF M4109-02-08-00-C	A

150 PSI. EXTERNAL COUPLING HALF. Low capacity air. Mil Spec Mil-C-4109.

Steel, Cadmium Plated

	End Style	Ref
00-277-5678	1/4 external hose, barbed M4109-11-08-00-C	F
00-489-6303	1/4 internal pipe, NPT M4109-10-08-00-C	D
00-494-3271	1/4 external pipe, NPT M4109-09-08-00-C	E
00-277-5679	3/8 external hose, barbed M4109-11-12-00-C	F
00-293-7182	3/8 external pipe, NPT M4109-09-12-00-C	E

250 PSI, INTERNAL COUPLING HALF, SELF SEALING.

Steel, Passivated

	End Style	Ref
00-435-4268*	1/2 external tube, flareless thread 7/16	UNF

* 20 degree seat angle.

300 PSI. EXTERNAL COUPLING HALF.

Steel

	End Style	Ref
01-103-7295	1/8 external pipe, NPT	E
00-595-2943*	1/2 internal pipe, NPT	D

* Steel, Cadmium Plated

1000 PSI. EXTERNAL COUPLING HALF.

Aluminum Alloy

	End Style
00-067-7650*	1-1/4 external tube, flared thread 7/8 UNF
01-123-3836†	2 external tube, flareless thread 1-5/16 UNJ

* 37 degree seat angle.
† 12 degree seat angle.

1500 PSI. INTERNAL COUPLING HALF.

Steel, Cadmium Plated

	End Style	Ref
00-293-7165	1/2 external pipe, NPT M4109-13-16-00-C	E
00-928-4506	1/2 internal pipe, NPT	D
00-608-2590	3/4 external hose, barbed	F

3000 PSI. INTERNAL COUPLING HALF, SELF SEALING. 37 degree seat angle.

Aluminum Alloy

	End Style
00-720-0890	3/4 external tube, flared thread, 9/16 UNF

10,000 PSI, WOG. EXTERNAL COUPLING HALF.

Steel, Corrosion Resisting

	End Style	Ref
00-722-3461	1/4 external pipe, NPT	E

PUSH-PULL TO FLANGE TYPE

60 PSI, FUEL. EXTERNAL COUPLING HALF TO ROUND PLAIN FACE FLANGE. All dimensions given in inches. Mil Std MS26549.

6 BOLT HOLES

Aluminum Alloy

	Flange OD	Bolt Hole	Bolt Cir Dia
00-892-6270	4.531 MS26549-1	.328	3.812

QUICK LEAD THREAD STYLE

3,000 PSI, HYDRAULIC FLUID. INTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style
00-540-1268*†	1-1/2 external tube, flared thread-1/16 UNJ

* 37 degree seat angle.
† Coupling half is Blue, nut is Red.

3,000 PSI, HYDRAULIC FLUID. EXTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style
00-720-4464*	1/2 external tube, flared thread 7/16 UNJF
00-585-0469*	1-1/2 external tube, flared thread 1-1/16 UN

* 37 degree seat angle.

SPRING PUSH-LOCK STYLE

PSI NOT RATED. EXTERNAL COUPLING HALF.

Steel, Corrosion Resisting

	End Style
01-116-3735	1-1/2 external pipe, ANPT

500 PSI, FUEL/OIL, HYDROCARBON. EXTERNAL COUPLING HALF. Safety locking feature and self sealing.

Steel, Composition, Passivated

	End Style
01-017-8313	1-1/2 internal hose, threaded NPSH thread
01-116-3734	1-1/2 external pipe, ANPT

500 PSI, FUEL/OIL, HYDROCARBON. INTERNAL COUPLING HALF. Safety locking feature and self sealing.

Aluminum Alloy, Anodized or Steel, Corrosion Resisting. Mil Std MS24475.

	End Style	Dash No.
00-600-1762*	1-1/2 external tube, flared thread 1-1/16 UN	2

* 37 degree seat angle.

Steel, Composition, Passivated.

	End Style
01-015-7518*	1-1/4 external tube, flared thread size 1.625 UNJ

* 37 degree seat angle.

SPRING PUSH-PULL STYLE

PSI NOT RATED. External coupling half.

Steel Composition, Passivated.

	End Style
01-162-0139*	1-1/2 external tube, flareless thread 1-1/16 UNJ

* 12 degree seat angle.

PSI NOT RATED. Internal coupling half.

Copper Alloy

	End Style
00-477-6602*	5/8 external tube, flared thread 1/2 UNF

* 37 degree seat angle.

Steel Composition, Passivated

	End Style
01-160-5794*	3/4 external tube, flareless thread 9/16 UNJF
01-160-5795*	1 external tube, flareless thread 3/4 UNJF

* 12 degree seat angle.

250 PSI EXTERNAL HOSE COUPLING HALF BARBED or SERRATED. Hydraulic fluid and water.

Copper Alloy

	End Style
00-277-5676	3/4 inch hose connection

300 PSI. INTERNAL COUPLING HALF. SELF SEALING. Water, oil, gas, hydraulic fluid, petroleum base.

Copper Alloy, Chromium Treated

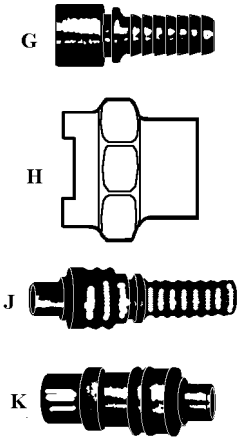
	End Style
00-990-5555	1/2 internal pipe, NPT

1500 PSI. INTERNAL COUPLING HALF, SAFETY LOCKING FEATURE.

Copper Alloy

	End Style
00-608-2589	3/4 external hose, barbed

REFERENCE LETTERS, G TO K REFER TO THE FOLLOWING ILLUSTRATION:



TWIST-LOCK STYLE

PSI NOT RATED. EXTERNAL COUPLING HALF.

Any Acceptable Material

	End Style
00-766-9029	1/4 ext pipe, NPTF

Copper Alloy. Mil Spec Mil-C-3486.

	End Style	Ref
00-277-6159	7/16 external hose, barbed	J
00-289-4242	1/2 external pipe, NPT	K

PSI NOT RATED. INTERNAL COUPLING HALF.

Aluminum Alloy, Anodized

End Style

	End Style
00-818-9948*	1-1/2 external tube, flareless thread 1-1/16 UN

* 12 degree seat angle.

Copper Alloy. Mil Spec Mil-C-3486.

	End Style	Ref
00-289-4240	7/16 external hose, barbed	G
00-289-4247	1/2 external hose, barbed	G
00-277-5680	1/2 external pipe, NPT	H
00-289-4241	5/8 external hose, barbed	G

70 PSI. EXTERNAL COUPLING HALF, SAFETY LOCKING AND SELF SEALING FEATURE. Mil Std MS22068.

Steel

	End Style	Ref
00-755-7237	1/8 external pipe, ANPT MS22068-4	K

70 PSI. INTERNAL COUPLING HALF, SAFETY LOCKING AND SELF SEALING FEATURE. 37 degree seat angle. Mil Std MS22068.

Steel, Corrosion Resisting

	End Style	Dash No.
00-630-0310	5/8 external tube, flared thread 1/2/UNF	7

500 PSI. EXTERNAL COUPLING HALF, SAFETY LOCKING AND SELF SEALING FEATURE. 37.5 degree seat angle.

Aluminum Alloy

	End Style
00-825-3021	1/2 external tube, flared thread 7/16 UNF

500 PSI. INTERNAL COUPLING HALF, SELF SEALING. 37 degree seat angle.

Aluminum Alloy, Anodized

	End Style
00-684-0738*	1/2 external tube, flared thread 7/16 UNF

* Color coded, union nut and body Yellow, adapter Blue, and union nut sleeve orange.

1500 PSI. INTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style
00-071-8244*	1-1/4 external tube, flared thread 7/8 UNF

* 37 degree seat angle.

3000 PSI. EXTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style
00-756-1943†	3/4 external tube, flareless thread 9/16 UNF
00-842-0067*	1-1/2 external tube, flared thread 1-1/16 UN
00-842-0065*	2 external tube, flared thread 1-5/16 UN
00-826-3897*	2 external tube, flared thread 1-5/16 UNJ
00-880-7011†	2 external tube, flareless thread 1-5/16 UN
00-090-0465	2 in. external tube flareless thread 1-5/16 UNJ

* 37 degree seat angle.
† 12 degree seat angle.

Steel, Corrosion Resisting

	End Style
00-729-5736*	1-1/2 external tube, flared thread 1-1/16 UN

* 37 degree seat angle.

3000 PSI, HYDRAULIC FLUID. INTERNAL COUPLING HALF, SELF SEALING.

Aluminum Alloy, Anodized

	End Style
00-684-6551*	3/4 external tube, flared thread 9/16 UNJF
00-818-9947†	1-1/4 external tube, flareless thread 7/8 UNF

* 37 degree seat angle.
† 12 degree seat angle.

COUPLING HALF, SELF SEALING.

THREADED EXTERNAL TUBE, FLARED. 37 degree seat angle.

3000 PSI.

Aluminum Alloy, Anodized

	OD	Thd UN	Lg
00-062-1291	2.000	1-5/16	4.352

THREADED EXTERNAL TUBE, FLARELESS. 12 degree seat angle.

225 PSI.

Steel, Nickel Plated

	OD	Thd UN	Lg
00-006-7906	1-1/2	1-1/16	3.070

3000 PSI.

Aluminum Alloy, Anodized

	OD	Thd UN	Lg
00-936-2174*	3/4	9/16	2.040

* UNF Thread.

Steel, Corrosion Resisting

	OD	Thd UN	Lg
00-936-2173*	3/4	9/16	2.800

* UNF Thread.

THREADED INTERNAL PIPE, PLAIN. Furnished with cap and chain.

Steel, Oxide Coated

	Thd	Lg
00-376-5619	3/8 NPTF	1.873

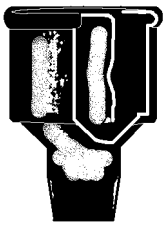
CUP, GREASE

AUTOMATIC, SELF LOCKING WITH LEATHER WASHER. External pipe threads, capacity 0.300 ounces. Mil Std MS36759-2.

Copper Alloy

	Thd NPT	Lg
00-256-3843	1/4 18	4.250

STRAIGHT CAP FEED, LIGHT DUTY USE. Provided with knurled edge and a cover locking spring to prevent cover being shaken loose by vibration. Mil Std MS35758.



Copper, Alloy

	Size Oz	Thd NPT	H
00-190-5570	1	1/4-18	2.500
00-190-5568	3	1/8-27	1.875

Steel, Cadmium Plated. Any acceptable capacity. .500 inch long shank, 1.250 inch Height, and 3/8 UNF thread size.

01-057-1985

Steel Zinc Plated. .250 ounce capacity. Any acceptable shank length, 2.375 inch height, and 1/8 NPT thread size.

01-180-6064

EDUCTOR, AIR

Steel, Galvanized and Aluminum Alloy. 800 CFM at 90 PSI. 1/2-14 NPT compressed air inlet, 4.675 inch outside diameter exhaust, 7-1/2 inch

base, and 31-1/4 inches long.

00-313-0680

ELBOW, HOSE

UNTHREADED INTERNAL HOSE, SOCKET ENDS, BOTH ENDS IDENTICAL. 90 DEGREE FLOW ANGLE.

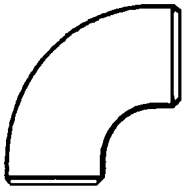
Synthetic Rubber

	ID Hose	OD Hose	Lg
01-073-6062	1.625	2.000	2.312

ELBOW, PIPE

BUTT WELD PIPE, BEVELED. BOTH ENDS IDENTICAL.

90 degree elbow. 600 PSI, steam. 750 PSI, WOG.



Steel

	Pipe Size/In.	Leg Lg/In.
01-031-5900	1	1-1/2
00-249-3957	3	4-1/2
00-249-3959	4	6
00-249-3961	5	7-1/2

THREADED INTERNAL PIPE. Generally used for saturated steam service with pressure up to 125 PSI. For gas and liquid up to 175 PSI not to exceed 150 degrees Fahrenheit.

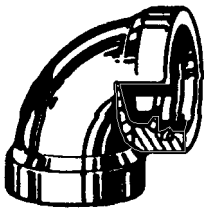
45 degree elbow. Mil Std MS14305.

Copper Alloy

	NPT	Leg Lg	Dash No.
00-221-4993	1/4	0.560	—
00-221-4994*	3/8	0.630	3A
00-221-6220	1/2	0.780	—
00-249-3873	3/4	0.890	—
00-806-7968	1-1/2	1.300	—

* PSI not rated.

90 degree elbow. Mil Std MS51845.



Copper Alloy

	NPT	Leg Lg	Dash No.
00-249-3882	1/8	0.540	1
00-277-5542	1/4	0.719	2
00-277-5543	3/8	0.830	3
00-249-3885	1/2	1.010	4
00-253-5751	3/4	1.180	5
00-221-6231	1	1.430	6
00-221-5012	1-1/4	1.690	7
00-249-3890	2	2.102	9

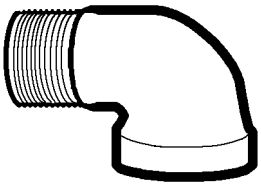
THREADED INTERNAL PIPE. For steam service up to 150 PSI, with temperature not to exceed 500 degrees Fahrenheit. WOG and shock pressures up to 300 PSI with temperature, not to exceed 150 degrees Fahrenheit. Fed Spec WW-P-521.

90 degree elbow.

Malleable Iron, Black

	NPT	Leg Lg
00-249-3917	1/2	1.120
00-249-3921	1-1/2	1.940

THREADED INTERNAL TO THREADED EXTERNAL. For use in all types of fluid systems. Dimensions listed in inches.



90 degree elbow.

Aluminum Alloy, Anodized

	ANTP	Leg/Lg Int	Leg/Lg Ext
00-111-7785	1/8 to 3/8	0.437	0.890

Copper Alloy

	NPTF	Leg/Lg Int	Leg/Lg Ext
00-278-4824	1/4 to 1/4	.891	.219

Steel, Corrosion Resisting. Non Spec. Brass adapter on external end.

	NPSM	Leg/Lg Int	Leg/Lg Ext
01-026-7466	3/8 to 3/8	.810	1.030

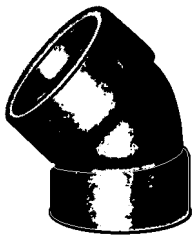
THREADED INTERNAL TO THREADED EXTERNAL. For use in saturated steam service, pressure up to 125 PSI at corresponding temperature. For gas and liquid up to 175 PSI not to exceed 150 degrees Fahrenheit. Mil Std MS51952.

90 DEGREE ELBOW

Copper Alloy

	NPT	Leg/Lg Int	Leg/Lg Ext
00-277-5553	1/4 to 1/4	0.710	1.110
00-277-5546	1-1/2 to 1-1/2	1.840	2.460

UNTHREADED INTERNAL PIPE FITTINGS.



45 DEGREE ELBOW.

200 PSI WOG. Mil Spec Mil-F-1183/5.

Copper Alloy

	Pipe Size	Leg/Lg
00-542-5221	3/8	.630
00-542-5222	1/2	.780
00-542-5223	3/4	.890
00-542-5224	1	1.060
00-542-5225	1-1/4	1.220
00-542-5226	1-1/2	1.300
00-542-5227	2	1.450
00-542-5228	2-1/2	1.950
00-542-5229	3	2.170
00-542-5231	4	2.610
00-542-5232	5	3.050

Steel. 600 PSI steam WP.

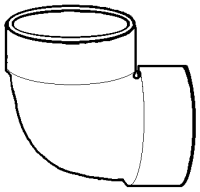
	Pipe Size	Leg/Lg
00-249-3968	1/2	.812
00-822-9120*	1/2	.875
00-249-3969	3/4	1.000
00-249-3970	1-1/4	1.188
00-249-3972	1-1/2	1.312
00-249-3973	2	1.625

* PSI not rated.

Steel. 1500 PSI steam WP.

	Pipe Size	Leg/Lg
00-595-3978	1/2	.796

90 DEGREE ELBOW, with brazing rings. 200 PSI WOG. Mil Spec Mil-F-1183/5.



Copper Alloy

	Pipe Size	Leg/Lg
00-542-5164	1/4	.710
00-542-5141	3/8	.820
00-542-5142	1/2	1.010
00-542-5143	3/4	1.180
00-542-5144	1	1.430
00-542-5155*	1	2.310
00-542-5145	1-1/4	1.690
00-542-5146	1-1/2	1.840
00-542-5148	2-1/2	2.700
00-542-5149	3	3.080
00-542-5151	3-1/2	3.420
00-542-5152	4	3.790
00-542-5153*	5	8.130
00-542-5154	6	5.130

* Long turn (long leg length).

Plastic, Polyvinyl Chloride for potable cold water.

	Pipe Size	Leg/Lg
00-144-4948	1	1.875

Steel, 600 PSI steam WP.

	Pipe Size	Leg/Lg
00-249-3974	1/4	.812
00-249-3976	1/2	1.000
00-249-3977	3/4	1.250
00-249-3978	1	1.562
00-249-3979	1-1/4	1.562
00-249-3980	1-1/2	1.750
00-249-3981	2	2.125

Steel. 1500 PSI, steam WP.

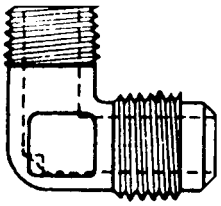
	Pipe Size	Leg/Lg
00-595-3986	1/2	1.000
00-595-3987	3/4	1.250
00-595-3988	1	1.375

Steel. 3000 PSI, steam WP.

	Pipe Size	Leg/Lg
00-088-8803	1/4	.812
00-088-8805	1/2	1.125
00-088-8807	3/4	1.132
00-833-0289	1	1.500
00-833-0291	1-1/2	2.000
00-083-8773	2	2.125
00-507-0005	2	2.380

ELBOW, PIPE TO TUBE.

THREADED EXTERNAL PIPE TO THREADED EXTERNAL TUBE, FLARED. 90 degree elbow. 37 degree seat angle. Mil Std MS20822 dash number listed .



	NPTF	UNF	Tube OD	Dash No.
00-186-9963	1/4	7/16-20	1/2	4-4D

Steel, Cadmium Plated. 37 degree seat angle.

	NPTF	UNF	Tube OD	Dash No.
00-231-4009	1/8	7/16-20	1/2	4
00-231-4010	1/4	7/16-20	1/2	4-4

Steel, Corrosion Resisting. 37 degree seat angle. Mil Std MS51504 dash number listed .

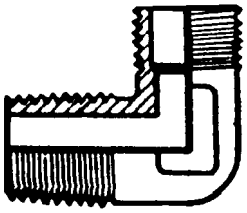
	NPTF	UNF	Tube OD	Dash No.
00-799-6002	1/4	7/16-20	1/2	A4-4S

Copper Alloy. 45 degree seat angle. Mil Std MS39162. Dash number listed below.

	NPTF	UNF	Tube OD	Dash No.
00-254-6211	1/8	7/16-20	1/4	3
00-254-6225*	1/4	7/16-20	1/2	—
00-902-8991	1/4	5/8-18	3/4	5
00-235-1482	3/8	7/16-20	1/2	—
00-254-6228	3/8	5/8-18	3/4	—

* Non Spec Item.

THREADED EXTERNAL PIPE TO THREADED EXTERNAL TUBE, COMPRESSION TYPE. 90 degree elbow, .063 inch seat radius. Mil Std MS39162 listed below.

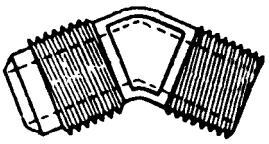


Copper Alloy

	NPTF	UNEF	Tube OD	Dash No.
00-263-4983	1/4	9/16-24	3/4	—
01-228-0984*	1/4	9/16-24	3/4	—

* NPT, UNF.

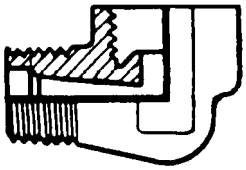
THREADED MALE PIPE TO THREADED MALE TUBE, FLARED. 45 degree elbow. 37 degree seat angle. Mil Std MS20823 dash number listed below.



Aluminum Alloy, Anodized

	NPT	UNJF	Tube OD	Dash No.
00-186-9980	1/8	1/2-20	5/8	5D

THREADED EXTERNAL PIPE TO UNTHREADED INTERNAL TUBE, INVERTED FLARE.



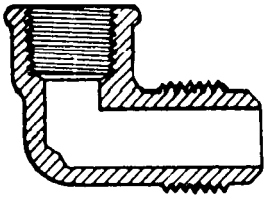
90 degree elbow. 42 degree seat angle. MS51879 dash number listed below.

Copper Alloy

	NPTF	UNF	Tube OD	Dash No.
00-277-8269	1/8	3/8-24	1/2	—
01-043-5999*	1/8	7/16-24	1/2	4
00-640-1051	1/8	1/2-20	5/8	5
00-842-3162	1/4	1/2-20	5/8	—
00-780-5223†	1/4	1/2-20	5/8	—
00-277-8270	1/4	1/2-20	5/8	—
00-277-8274	1/4	5/8-18	3/4	—
00-221-6215	3/8	3/4-18	1	—

* UNS Tube end.
† NPT Pipe end.

THREADED INTERNAL PIPE TO THREADED EXTERNAL TUBE, flared. Mil Spec Mil-F-15049.



90 DEGREE ELBOW. 37 degree seat angle.

	NPTF	UNF	Tube OD
00-263-4978*	1/8	7/16-20	1/2

* Non Spec Item.

45 degree seat angle.

	NPT	UNF	Tube OD
00-250-7927*	1/4	7/16-20	1/2

* Non Spec Item.

THREADED EXTERNAL PIPE TO THREADED

CLASS 4730

EXTERNAL TUBE, FLARELESS.

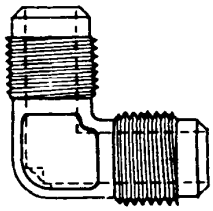
90 degree elbow. 20 degree seat angle.

Steel, Corrosion Resisting

	NPT	UNF	Tube OD
00-490-6257	1/4	7/16-20	1/4

ELBOW, TUBE

BOTH ENDS THREADED EXTERNAL FLARED TUBE ENDS.



90 DEGREE ELBOW, 37 degree seat angle. Mil Std MS24401 dash number listed below.

Aluminum Alloy, Anodized

	UNJF	Tube OD	Dash No.
00-402-4404*	7/16-20	1/2	4D
00-722-7212	7/16-20	1/4	D4

* AN833.

37 degree seat angle. Mil Std MS51505.

Steel, Cadmium Plated

	UN	Tube OD	Dash No.
01-214-8929	1-5/8-12	2-1/2	A20

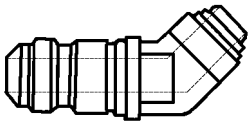
45 degree seat angle. Mil Std MS39160.

Copper Alloy

	UNF	Tube OD	Dash No.
00-891-9967*	7/16-20	1/2	—
00-847-0035	1/2-20	5/8	4
00-288-9422	5/8-18	3/4	5
00-288-9420*	3/4-16	1	—

* Non Spec Item.

BOTH ENDS THREADED. EXTERNAL FLARED TUBE ENDS, WITH BULKHEAD STYLE MOUNTING ON FIRST END.

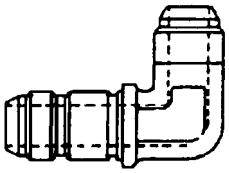


45 DEGREE ELBOW. 37 degree seat angle. Mil Std 24396 dash number listed .

Steel, Cadmium Plated

	UNJF	Tube OD	Dash No.
00-804-1933	7/16-20	1/2	4

90 DEGREE ELBOW. 37 degree seat angle. Mil Std MS24394.



Aluminum Alloy, Anodized

	UNJF	Tube OD	Dash No.
00-684-6922	3/8-24	3/4	D6
00-725-4351	7/16-20	1/2	D4

37 degree seat angle. AN Std AN833.

Aluminum Alloy, Anodized

	UNF	Tube OD	AN833-
00-533-5746	9/16-18	3/4	6D
00-197-2919*	1-1/16-12	1-1/2	12D

* UNJ Threads.

37 degree seat angle. Mil Std MS24394.

Steel Composition, Passivated

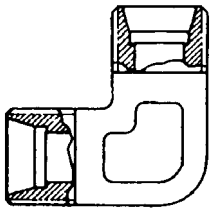
	UNJF	Tube OD	Dash No.
00-722-7214	7/16-20	1/4	J4

37 degree seat angle. AN Std AN833.

Steel

	UNF	Tube OD	AN833-
01-169-4665	7/16-20	1/2	4

BOTH ENDS THREADED EXTERNAL. FLARELESS TUBE ENDS. Mil Std MS21904.



90 DEGREE ELBOW. 12 degree seat angle.

Steel, Corrosion Resisting

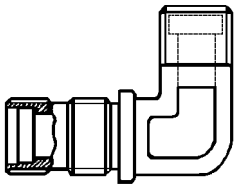
	UNF	Tube OD
00-794-2280	3/4-16	1

20 degree seat angle.

Steel

	UNF	Tube OD
00-683-9339	7/16-20	1/2

12 degree seat angle. Mil Std MS21908.



Aluminum Alloy, Anodized

	UNJF	Tube	Dash No.
00-640-0830	7/16-20	1/4	D4

12 degree seat angle. Mil Std MS21908.

Steel Composition, Passivated

	UNJF	Tube	Dash No.
00-684-3576	9/16-18	3/4	J6

UNTHREADED INTERNAL PIPE ENDS, SOCKET TYPE BRAZING ENDS. Steam, WOG 200 PSI. Mil Spec Mil-F-1183/5-21A.

45 DEGREE ELBOW.

Copper Alloy

	Pipe	Leg Lg
00-542-5220	1/4	.560

UNTHREADED INTERNAL TUBE ENDS, SOCKET TYPE BRAZING ENDS. Mil Spec M1183/5-08A.

90 DEGREE ELBOW.

Copper Alloy

	Tube	Leg Lg
00-542-5147*	2-3/8	2.120

* With preinserted brazing rings.

BOTH ENDS UNTHREADED internal solder joint type. Copper to copper. Mil Std MS35917 dash number listed below.

90 DEGREE ELBOW.

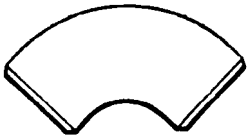
Copper Alloy

	Tube OD	Dash No.
01-024-7127*	1/2	—
00-837-0685	3/4	3
00-254-6449	1	4
00-254-6450	1-1/4	—
00-254-6424	1-1/2	6
00-254-6447	1-3/4	7

* Non Spec Item.

BOTH ENDS BUTT WELD ENDS. Mil Spec Mil-F-20236.

90 DEGREE ELBOW. 150 PSI, steam WP.



Wrought Steel

	Tube OD	Leg/Lg
00-640-6245	4-3/4	3.000
00-640-6246	5-3/4	3.750
00-640-6241	8	6.000

THREADED INTERNAL END, SWIVEL NUT. FLARE TO THREADED EXTERNAL END. 37 degree seat angle, both ends. Mil Std MS51521 dash number listed below.

90 DEGREE ELBOW.

Corrosion Resisting Steel, Cadmium Plated

	Tube OD	UNF	Dash No.
00-618-5370	1/2	.438	A45

THREADED INTERNAL TUBE, SWIVEL NUT, FLARELESS. 12 DEGREE SEAT ANGLE TO UNTHREADED INTERNAL TUBE. SWAGED WITH GROOVES.

90 DEGREE ELBOW.

Steel, Corrosion Resisting

	Tube OD	UNJF
00-134-8886*	1/2	7/16-20
01-044-7232*	1	3/4-16
01-013-0312	1-1/4	7/8-14

* The internal surface of the swaged end will be polytetrafloroethylene coated into the fitting bore.

ELBOW, TUBE TO BOSS

THREADED EXTERNAL TUBE, FLARELESS TO THREADED EXTERNAL BOSS. DOUBLE THREADED SECTION BOSS FITTING GASKET, WITH LOCKNUT SEAL. 12 degree seat angle.

90 DEGREE ELBOW.

Steel, Corrosion Resisting. Mil Std MS51839-3SS.

	Tube OD	Both Ends UNF
00-727-9795	1/2	7/16

ELBOW, TUBE TO HOSE

THREADED INTERNAL TUBE, FLARED WITH SWIVEL NUT TO THREADED EXTERNAL HOSE, GRIPPING NIPPLE. 37 degree seat angle.

45 DEGREE ELBOW.

Steel, Cadmium Plated

	Tube OD	UNF	Hose ID	Hose OD
00-088-3736	1/2	7/16	7/32	5/8
	Mil Std MS28780-4.			

90 DEGREE ELBOW.

	Tube OD	UNF	Hose ID	Hose OD
00-892-5596	1	3/4	7/16	7/8
	Mil Std MS28781-8.			

45 DEGREE ELBOW.

Steel, Corrosion Resisting

	Tube OD	UNJF	Hose ID	Dash No.
00-889-2468	3/4	9/16	5/16	6C
	Mil Std MS27059.			

90 DEGREE ELBOW.

	Tube OD	UNF	Hose ID	Hose OD
01-040-5532	3/4	9/16	1/4	1/2
00-228-1106*	1	3/4	13/32	9/16
01-026-9141	1-1/2	1-1/16	9/16	1

* Mil Std MS27060-8C.

45 DEGREE ELBOW. 3000 PSI.

Steel, Corrosion Resisting

	Tube OD	UNF	Hose ID	Hose OD
00-551-2951*	1/2	7/16	7/32	15/32

* Mil Std MS27617-4C.

THREADED INTERNAL TUBE, FLARED. WITH SWIVEL NUT TO THREADED EXTERNAL HOSE. SWIVEL NUT HOSE GRIPPING NIPPLE. Medium pressure. 37 degree seat angle.

90 DEGREE ELBOW. 1500 PSI.

Steel Composition, Passivated

	Tube OD	UNJF	Hose ID	Hose OD
00-013-6970	1/2	7/16	3/16	5/16
	Mil Std MS27060-4C.			
00-013-6969	3/4	9/16	5/16	7/16
	Mil Std MS27060-6C.			

THREADED INTERNAL TUBE, FLARELESS. WITH SWIVEL NUT TO THREADED EXTERNAL HOSE GRIPPING NIPPLE. 12 degree seat angle.

45 DEGREE ELBOW. 3000 PSI.

Steel, Corrosion Resisting

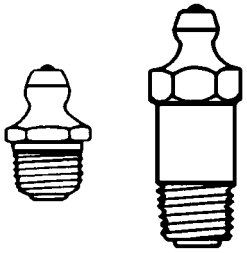
	Tube OD	UNJF	Hose ID	Hose OD
00-106-4416	1	3/4	1/2	3/4
	Mil Std MS27630-8C.			

90 DEGREE ELBOW. 1500 PSI.

	Tube OD	UNJF	Hose ID	Hose OD
00-057-0664	1/2	7/16	3/16	5/16
	Mil Std MS27385-4C.			
00-053-0380	3/4	9/16	5/16	7/16
	Mil Std MS27385-6C.			
00-119-9854	1	3/4	13/32	9/16
	Mil Std MS27385-8C.			

FITTING, LUBRICATION

HYDRAULIC STYLE, THREADED EXTERNAL. WITH BALL CHECK VALVE. Mil Std's MS15001 through MS15006 and MS15720 through MS15721.



Nickel Alloy

	PTF-SPL Thd	Shank Lg	H
00-289-5241*	1/8-27	.250	1
00-172-0043	1/8-27	.312	3/4
	Mil Std MS15005-1.		
00-172-0044	1/8-27	.312	1-1/4
	Mil Std MS1005-2.		
00-172-0040†	1/4-28	.188	1/2
	Mil Std MS15004-1.		

* Non Spec Item.
† UNS Thread.

Steel, Cadmium or Zinc Plated

	PTF-SPL Thd	Shank Lg	H
00-203-6406*	1/8-27	.234	9/16
00-050-4208†	1/8-27	.281	11/16
	Mil Std MS15003-1.		
00-172-0049‡	1/8-27	.375	15/16
	Mil Std MS15006-1.		
00-172-0022	1/8-27	.750	1-1/4
	Mil Std MS15003-2.		
00-289-6230‡	1/8-27	1.266	1-3/4
00-255-2690§	7/32-36	.141	33/64
00-048-1788*	1/4-18	.438	29/32
00-172-0010	1/4-28	.125	17/32
	Mil Std MS15002-1.		
	W/SAE-LT Thds.		

	PTF-SPL Thd	Shank Lg	H
00-050-4203	1/4-28	.187	1/2
	Mil Std MS15001-1.		
	PTF-SPL Shank.		
00-172-0001*	1/4-28	.625	15/16
	SAE-LT Thds.		
00-278-5652*	5/16-24	.250	21/32
	UNF Thds.		
00-278-5651*	3/8-24	.266	21/32
	UNF Threads.		

* Non Spec Item.
† NPTF Thread.
‡ NPT Thread.
§ UNS Thread.

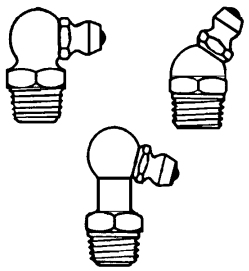
Steel, Corrosion Resisting

	PTF-SPL Thd	Shank Lg	H
00-972-5789	1/4-27	.281	3/4
	Mil Std MS15721-1.		

Steel

	SAE-LT Thd	Shank Lg	H
00-916-3368	1/4-28	.188	1/2
	Mil Std MS15720-1.		

ANGULAR FITTINGS, HYDRAULIC STYLE. THREADED EXTERNAL With ball check valve. Mil Std MS15001 through MS15006, and MS15721.



30 DEGREE FLOW ANGLE.

Nickel Alloy

	PTF-SPL Thd	Shank Lg	H
00-172-0045	1/8-27	.312	1-1/4
	Mil Std MS15005-3.		

Steel, Cadmium or Zinc Plated

	NPTF	Shank Lg	H
00-172-0025	1/8-26	.281	1-5/32
	Mil Std MS15003-3.		

45 DEGREE FLOW ANGLE.

Nickel Alloy

	SAE-LT Thd	Shank Lg	H
00-172-0041	1/4-28	.187	7/8
	Mil Std MS15004-2.		

Steel

	SAE-LT Thd	Shank Lg	H
00-347-6184	1/4-28	.233	7/8
	Mil Std MS15702-2.		

Steel, Cadmium or Zinc Plated

	SAE-LT Thd	Shank Lg	H
00-172-0028*	1/8-27	.281	1-3/32
	Mil Std MS15003-4.		
00-172-0015	1/4-28	.125	3/4
	Mil Std MS15002-3.		
00-050-4205	1/4-28	.187	13/16
	Mil Std MS15001-3.		

* PTF-SPL Threads.

65 DEGREE FLOW ANGLE.

Nickel Alloy

	PTF-SPL Thd	Shank Lg	H
00-172-0046	1/8-27	.312	1-3/32
	Mil Std MS15005-4		

Steel, Cadmium or Zinc Plated

	PTF-SPL Thd	Shank Lg	H
00-172-0031	1/8-27	.281	31/32
	Mil Std MS15003-5.		

90 DEGREE FLOW ANGLE.

Nickel Alloy

	SAE-LT Thd	Shank Lg	H
00-172-0047*	1/8-27	.312	1-1/16
	Mil Std MS15005-5.		
00-172-0042	1/4-28	.187	3/4
	Mil Std MS15004-3.		

* PTF-SPL Threads.

Steel

	SAE-LT Thd	Shank Lg	H
00-450-9371	1/4-28	.188	25/32
	Mil Std MS15720-3.		

Steel, Cadmium or Zinc Plated

	NPTF Thd	Shank Lg	H
00-172-0034	1/8-27	.281	15/16
	Mil Std MS15003-6.		
00-172-0058	1/8-27	.375	1.000
	Mil Std MS15006-4.		
00-050-4207*	1/4-28	187	25/32
	Mil Std MS15001-4.		

* SAE-LT Threads.

HYDRAULIC STYLE, SPECIAL TAPERED SELF-TAPPING DRIVE, with ball check valve. Straight fitting.

Steel, Cadmium or Zinc Plated

	Shank Dia	Shank Lg	H
00-256-4305*	.250	.250	.547

* Serrated shank.

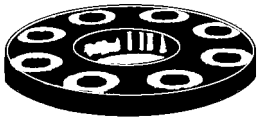
FLUSH STYLE, UNTHREADED EXTERNAL DRIVE TYPE with ball check valve.

Steel, Cadmium or Zinc Plated

	Shank Dia	Shank Lg	H
01-077-4893	.127	.131	.182
00-250-7902	.250	.312	.359

FLANGE, PIPE

SLIP-ON TYPE, WITH BOSS. UNTHREADED PIPE CONNECTIONS. Mil Spec Mil-F-18180.



4 bolt holes, 3/4 inch diameter.

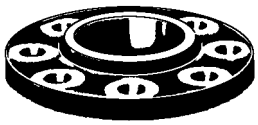
Steel, raised face. Painted.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-720-3852	2	6	4-3/4
	Mil Spec M18180/3-06A1.		
00-235-4080	2-1/2	7	5-1/2
	Mil Spec M18180/3-07A01.		

8 bolt holes, 3/4 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-193-6972	4	9	7-1/2
	Mil Spec M18180/3-10A07.		

SLIP-ON TYPE, WITHOUT BOSS. Unthreaded pipe connection. Mil Spec Mil-F-20670.



3 bolt holes, 9/16 inch diameter. 750 degrees Fahrenheit.

Steel, plain serrated face. 150 PSI steam.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-256-8552	1/2	3-9/16	2-7/16

4 bolt holes, 9/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-256-8553	3/4	3-13/16	2-11/16

	Pipe Size	Flange Dia	Bolt Cir Dia
00-256-8554	1	4-1/4	3-1/8
00-256-8555	1-1/4	4-1/2	3-3/8

6 bolt holes, 9/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-256-8556	1-1/2	5-1/16	3-15/16
00-256-8557	2	5-9/16	4-7/16
00-256-8558	2-1/2	6-1/8	5

8 bolt holes, 9/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-256-8559	3	6-5/8	5-1/2
00-256-8560	3-1/2	7-3/16	6-1/16
00-256-8561	4	7-11/16	6-9/16

10 bolt holes, 11/16 inch diameter. 775 degrees Fahrenheit.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-256-8563	5	9-1/16	7-13/16

GROOVED SOCKET TYPE, WITH SILVER BRAZING ALLOY RINGS. For use by Silver brazing without exceeding temperature of 1500 degrees Fahrenheit. 150 PSI steam, water, oil, and gas working pressure at 425 degrees Fahrenheit maximum. Mil Spec Mil-F-20042.

3 bolt holes, 9/16 inch diameter.

Copper Alloy. With boss and machined face.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6854	1/4	3-1/4	2-1/8
00-640-6856	3/8	3-9//16	2-7/16

4 bolt holes, 9/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6832	3/4	3-13/16	2-11/16
00-640-6834	1-5/8	4-1/2	3-3/8

4 bolt holes, 3/4 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-252-3508*	2	6	4-3/4

* Non Spec Item.

6 bolt holes, 9/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6835	1-7/8	5-1/16	3-15/16
00-640-6836	2-3/8	5-9/16	4-7/16
00-640-6837	2-1/2	6-1/8	5

6 bolt holes, 11/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-989-7459	2-1/2	6-1/8	5

8 bolt holes, 9/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6823	3	6-5/8	5-1/2
00-640-6824	3-1/2	7-3/16	6-1/16
00-640-6825	4	7-11/16	6-9/16

8 bolt holes, 11/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-541-3199	4	7-11/16	6-9/16

12 bolt holes, 11/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6829*	6	10-1/8	8-7/8

* 150 degrees Fahrenheit maximum operating pressure.

14 bolt holes, 11/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6831	8	12-3/8	11-1/16

3 bolt holes, 9/16 inch diameter.

Copper Alloy. With boss and serrated face.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6855	3/8	3-13/32	2-1/4

4 bolt holes, 9/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6833	1	4-1/4	3-1/8

4 bolt holes, 3/4 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-022-2800*	3	7-1/2	6

* Non Spec Item with 180 degree Fahrenheit maximum operating pressure.

10 bolt holes, 11/16 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-640-6827	5	9-1/16	7-13/16

SILVER BRAZING SOCKET. WITHOUT PREINSERTED BRAZING RING. 600 PSI steam WP at 850 degrees .

4 bolt holes, 5/8 inch diameter.

Steel. Socket neck, raised machined face.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-174-5939	1/2	3-3/4	2-5/8
	M18180/2-52A09A.		
01-023-7776	1-3/8	4-7/8	3-1/2
	M18180/2-54A01A.		
01-024-8613	1-1/16	4-5/8	3-1/4

4 bolt holes, 3/4 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
01-115-7437	3/4	4-5/8	3-1/4
	M18180/2-53A09A.		

4 bolt holes, 7/8 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-174-5943	1-1/2	6-1/8	4-1/2
	M18180/2-56A09A.		

4 bolt holes, 3/4 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-174-5941	1	4-7/8	3-1/2

SOCKET NECK, RAISED MACHINED FACE. Steel. 1500 PSI steam WP, at 975 degrees Fahrenheit. For use with schedule 80 pipe.

4 bolt holes, 7/8 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-289-8133	1/2	4-3/4	3-1/4
00-289-8134	3/4	5-1/8	3-1/2

SOCKET NECK, RAISED SERRATED FACE.

4 bolt holes, 9/16 inch diameter.

Steel. 600 PSI steam WP.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-174-5937	1/4	3-3/8	2-1/4
	M18308-14.		

4 bolt holes, 5/8 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-878-8583	1/2	3-3/4	2-5/8

LONG NECK, PLAIN MACHINED FACE. Copper Alloy. Features 4 slots spaced 90 degrees apart. .750 inches wide x 1.500 inches deep.

4 bolt holes, 3/4 inch diameter.

	Pipe Size	Flange Dia	Bolt Cir Dia
00-932-4753	2.000	7.000	5-9/16

INSERT SET, SOUND ISOLATION

Rubber, Synthetic. 80 durometer rating. Consists of 3 parts: Part 1, positioning insert; part 2, thrust insert with Brass washer; part 3, bonded Brass thrust washer. All washers are Tetrafluoroethylene coated. For use in maintenance and repair of RISTIC-1 (formerly E.B. type) flexible connectors. Mil Spec Mil-I-24063. M24063 dash number listed below.

	Pipe Size	Dash No.
01-042-3186	1-1/2	21
01-041-7219	2	22
01-064-7927	2-1/2	23
01-042-9681	3	24

	Pipe Size	Dash No.
01-080-6399	4	26
01-056-9586	5	27

INSERT, TUBE FITTING

Straight serrated type. Not case hardened. Used with fittings on Oxygen and Acetylene applications. Dimensions given in inches. Mil Std MS-15011 dash number listed.

Brass

	Tube ID	Flange OD	Sleeve OD	Dash No.
01-228-7622*	.213	.375	.245	—
00-025-1092	.250	.500	.344	6

* Non Spec Item, plain type.

Nylon, Polyamide

	Tube ID
01-181-9598*	.750

* Non Spec Item, Plain type.

LATERAL, PIPE.

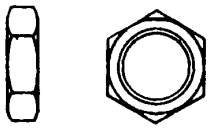
SOCKET TYPE, WITH BRAZING RINGS. 150 PSI steam WP, at 425 degrees Fahrenheit. Mil Spec Mil-F-1183 dash number listed below.

Copper

	Pipe Size	Mil-F-1183-
00-542-5291	1.500	07A
00-542-5292	2.000	08
00-542-5294	3.000	10A

LOCKNUT, TUBE FITTING

THREADED INTERNAL LOCKNUT. Recessed for packing. ANA Std AN6289 dash number listed below.



Aluminum Alloy, Anodized

	Tube UNF	OD	Dash No.
00-277-6371	7/16-20	1/2	D4
00-277-5083*	9/16-18	1	D6
00-277-5081	3/4-16	1	D8
00-277-5077†	1-1/16-12	1-1/2	D12

* UNJF Threads.
† UN Threads.

Steel, Cadmium Plated

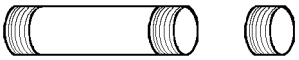
	Tube UNF	OD	AN6289-
00-277-5084	9/16-18	3/4	6

Steel, Corrosion Resisting

	Tube UNF	OD	AN6289-
00-453-6187	7/16-20	1/2	J4
00-734-5774	9/16-18	3/4	C6

NIPPLE, PIPE

THREADED EXTERNAL NATIONAL PIPE THREAD ENDS. Weight Standard and Extra Strong. Fed Spec WW-N-351.



Mil Std MS51846.

	NPT	Lg	Dash No.
00-230-1996	1/8	3/4	1
00-264-9209	1/8	1	--
00-264-9125	1/8	1-1/4	--
00-196-1963	1/8	2	9
00-196-1964	1/8	2-1/2	10
00-196-1965	1/8	3	12
00-196-1967	1/8	4	14
00-196-1971	1/8	6	18
00-222-1837	1/4	7/8	20
00-264-9129	1/4	1-1/4	--
00-193-2709	1/4	1-1/2	24
00-193-2710	1/4	1-3/4	--
00-196-1972	1/4	2	27
00-196-1973	1/4	2-1/2	28
00-196-1974	1/4	3	30
00-196-1975	1/4	3-1/2	31
00-196-1976	1/4	4	32
00-114-4049	1/4	5	34
00-196-1980	1/4	6	36
00-222-1838	3/8	1	39
00-264-9126	3/8	1-1/4	--
00-193-2711	3/8	1-1/2	42
00-196-1981	3/8	2	45
00-196-1982	3/8	2-1/2	46
00-196-1983	3/8	3	48
00-196-1984	3/8	3-1/2	49
00-196-1985	3/8	4	50
00-196-1989	3/8	6	54
00-222-1839	1/2	1-1/8	58
00-193-2713	1/2	1-1/2	60
00-193-2714	1/2	1-3/4	--
00-196-1990	1/2	2	63
00-196-1991	1/2	2-1/2	64
00-143-3883	1/2	3	66
00-196-1993	1/2	3-1/2	67
00-196-1994	1/2	4	68
00-196-1996	1/2	5	70
00-196-1998	1/2	6	72
00-222-1840	3/4	1-3/8	77
00-196-1999	3/4	2-1/2	82
00-196-2000	3/4	3	84
00-196-2002	3/4	4	86
00-196-2003	3/4	4-1/2	87
00-196-2006	3/4	6	90
00-014-4615	1	1-1/2	96
00-193-2716	1	2	92
00-196-2007	1	2-1/2	100
00-159-0009	1	3	102
00-196-2010	1	4	104
00-196-2014	1	6	108
00-222-1842	1-1/4	1-5/8	115
00-193-2717	1-1/4	2	--
00-196-2015	1-1/4	3	120
00-196-2017	1-1/4	4	122
00-222-1843	1-1/2	1-3/4	134
00-264-9128	1-1/2	2-1/4	--
00-193-2719	1-1/2	2-1/2	136
00-196-2022	1-1/2	3	138
00-196-2024	1-1/2	4	140
00-196-2028	1-1/2	6	144
00-222-1844	2	2	152
00-196-2029	2	3	156
00-196-2031	2	4	158
00-196-2035	2	6	162

Extra Strong Wall. Mil Std MS51872.

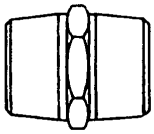
	NPT	Lg	Dash No.
00-193-2715	3/4	2	81

Standard Wall. Mil Std MS51953.

Steel, Zinc Coated

	NPT	Lg	Dash No.
00-196-1487	1/4	3	34
00-196-1541	1/4	6	40
00-196-1468	3/4	1-3/8	97

THREADED EXTERNAL PIPE ENDS WITH CENTER WRENCHING FACILITY.



Aluminum Alloy, Anodized. ANA Std, AN911 dash number listed below.

	ANPT	Lg	Dash No.
00-186-7783	1/8	.969	1D

Steel, Cadmium Plated

	NPTF	Lg
00-278-3722	1/4	1-7/16

NIPPLE, TUBE

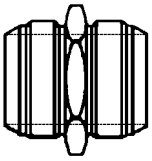
THREADED EXTERNAL ENDS, COMPRESSION TYPE BOTH ENDS. WITH .062 INCH SEAT RADIUS.

Copper Alloy

	UNS	Tube Size
00-278-8717	7/16-24	1/2
00-289-0782*	9/16-24	3/4

* UNEF Threads.

PRECISION TYPE. THREADED EXTERNAL ENDS, BOTH ENDS FLARED. Equilateral triangle on wrench pad indicates, precision type.



37 DEGREE SEAT ANGLE. Mil Std MS24392 dash number listed .

Aluminum Alloy, Anodized

	UNJF	Tube Size	Dash No.
00-834-9560	7/16-20	1/2	D4
00-925-4752*	7/16-20	1/2	4D
00-684-6916	9/16-18	3/4	D6
00-684-6915	3/4-16	1	D8
00-866-1829	7/8-14	1-1/4	D10

* AN815.

Copper Alloy, Cadmium Plated. ANA Std AN815.

	UNJF	Tube Size	Dash No.
00-277-6837	7/16-20	1/2	4

Steel, Cadmium Plated. Mil Std MS51501 dash number listed below.

	UNF	Tube Size	Dash No.
00-825-7304	7/16-20	1/2	A4
00-187-0486*	9/16-18	3/4	6
00-187-0489†	1-1/16-12	1-1/2	12

* AN815.
† UNJF Threads.

Steel, Cadmium Plated. Mil Std MS24392 listed below.

	UNJF	Tube Size	Dash No.
00-684-6911	7/16-20	1/2	4

Steel Composition, Passivated. ANA Std AN815.

	UNJF	Tube Size	Dash No.
00-875-8264	7/16-20	1/2	4J

Steel Composition, Passivated. Mil Std MS24392 listed below.

	UNJF	Tube Size	Dash No.
00-684-6912	7/16-20	1/2	J4
00-182-9021	9/16-18	3/4	J6
00-885-9442	3/4-16	1	J8

Steel, Corrosion Resisting. Mil Std MS51501 listed below.

	UNF	Tube Size	Dash No.
00-781-6089	9/16-18	3/4	A6S

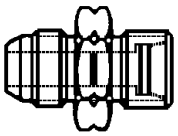
45 DEGREE SEAT ANGLE.

Copper Alloy. Mil Std MS39157 listed below.

	UNF	Tube Size	Dash No.
00-277-6988	7/16-20	1/2	3
00-764-8770	1/2-20	5/8	—
00-949-8694*	5/8-18	3/4	—
00-873-3885	3/4-16	1	—

* Non Spec Item.

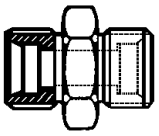
THREADED EXTERNAL ENDS. ONE END FLARED TYPE WITH 37 DEGREE SEAT ANGLE. OTHER END FLARELESS TYPE WITH 12 DEGREE SEAT ANGLE. Mil Std MS21900 dash number listed below.



Steel, Cadmium Plated

	UNJF	Tube Size	Dash No.
00-541-1579	7/16-20	1/2	4

THREADED EXTERNAL ENDS. FLARELESS BOTH ENDS. With 12 degree seat angle both ends. Mil Std MS21902 dash number listed.



Aluminum Alloy, Anodized

	UNJF	Tube Size	Dash No.
00-142-2155	7/16-20	1/2	D4

Steel, Corrosion Resisting. Mil Std MS21902 dash number listed below.

	UNJF	Tube Size	Dash No.
00-702-5377	7/16-20	1/2	J4
00-009-8259	7/16-20	1/2	K4
00-839-5843*	7/16-20	1/2	3SS

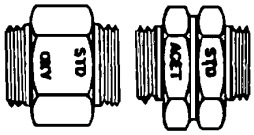
* Mil Std MS51814, W/UNF Threads.

Steel, Corrosion Resisting. 20 degree seat angle.

	UNF	Tube Size
00-061-0412*†	7/16-20	1/2
00-061-0414*	9/16-18	3/4

* Non Spec Item.
† 12 degree seat angle.

THREADED EXTERNAL ENDS. FLARELESS TYPE BOTH ENDS. With 30 degree seat angle. Mil Std MS15011. PC1 for Acetylene, PC2 for Oxygen.



Copper Alloy, for Acetylene.

00-828-8799 9/16-18 UNF, LH 7/8

Copper Alloy, for Oxygen.

00-828-8800 9/16-18 UNF, RH 7/8

NOTE: For hose connector gland, see ″INSERT, TUBE FITTING″ FSC 4730.

NOZZLE, GARDEN HOSE

INTERNAL NATIONAL HOSE THREADS, screw type. Adjustable from spray to solid stream.

Copper Alloy

00-223-6731 3/11-1/2 NH

PISTOL GRIP TYPE. Brass body, CRES. Steel lever arm, Rubber cover. 150 PSI, water only. Adjustable from spray to solid stream. 7-3/8 inches long by 6-1/2 inches high by 2-3/8 inches wide. Furnished with hose adapter.

00-900-0733

NOZZLE, SPRAY, FLUID-EMULSION

INTERNAL THREAD. 5/16-24 UNF. 1/2 inch outside diameter, 3/8 inch long.

Steel

01-037-4884

NUT, SLIP JOINT

THREADED INTERNAL AMERICAN STANDARD STRAIGHT PIPE THREADS, FOR MECHANICAL JOINTS. Furnished with friction ring and washer. Mil Spec Mil-F-18930, Figure 6.

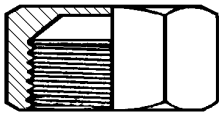
Copper, Chrome Plated

	NPSM	Tube OD
00-270-3891	1-1/2	1.250
00-270-3886	1-1/2	1.500
00-419-9372*	1-1/2	1.990

* Non Spec Item, NPSL Threads.

NUT, TUBE COUPLING

THREADED INTERNAL COMPRESSION TYPE. 45 degree seat angle. Mil Std MS39176 dash number listed.



Copper Alloy

	UNF	Tube Size	Dash No.
00-067-9801	5/16-24	1/4	1
00-043-3750	3/8-24	3/8	2
00-011-4627*	7/16-24	1/2	3
00-278-8829*	1/2-24	5/8	4
00-287-1537†	9/16-24	3/4	5

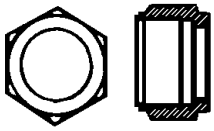
* UNS Threads.
† UNEF Threads.

Steel Composition, Passivated

	UNJF	Tube Size	Dash No.
00-001-3956*	7/16-20	1/2	—
00-009-2132*	9/16-18	3/4	—
00-009-3393*	3/4-16	1	—
00-172-1835*	7/8-14	1-1/4	—
00-009-2133*	1-1/16-12	1-1/2	—

* Non Spec Item.

THREADED INTERNAL FLARED TUBE TYPE. Army-Navy Aeronautical Std AN-818 and Mil Spec 5509.



Aluminum Alloy, Anodized

	UNF	Tube Size	Dash No.
00-287-0289	7/16-20	1/2	4D
00-142-2167	9/16-18	3/4	6D
00-287-0290	7/8-14	1-1/4	10D

Copper Alloy

	UNF	Tube Size
00-817-1891*	7/16-20	1/2

* UNJ Threads.

Steel, Cadmium Plated

	UNF	Tube Size	Dash No.
00-222-1912	7/16-20	1/2	4
00-287-0276	1/2-20	5/8	5
00-203-3831*	9/16-18	3/4	6
00-722-4891*	3/4-16	1	8

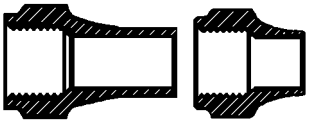
* UNJF Threads.

Steel, Corrosion Resisting

	UNF	Tube Size	Dash No.
00-203-2658	7/16-20	1/2	4J
00-203-2661	9/16-18	3/4	6C
00-203-2662	3/4-16	1	8J
00-113-0575*	1-5/16-12	2	16J

* UNJ Threads.

THREADED INTERNAL FLARE TYPE, 45 DEGREE SEAT ANGLE.



Copper Alloy, Long

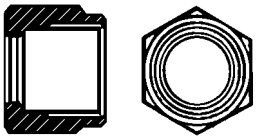
	UNF	Tube Size
00-014-4303	5/16-24	1/4
00-189-2729	7/16-20	1/2
00-011-8538	1/2-20	5/8
00-189-2733	3/4-16	1

Copper Alloy, Short. Mil Std MS35872 dash number listed.

	UNF	Tube Size	Dash No.
00-189-2736*	3/8-24	3/8	—
00-189-2737	7/16-20	1/2	2
00-189-2738*	1/2-20	5/8	—
00-189-2739	5/8-18	3/4	3
00-228-0826	3/4-16	1	4

* UNJ Threads.

THREADED INTERNAL FLARELESS TYPE, 45 DEGREE SEAT ANGLE. Mil Std MS21921 dash number listed.



Steel, Cadmium Plated, Short

	UNF	Tube Size	Dash No.
00-554-8015	7/16-20	1/2	4
00-810-4499	7/16-16	3/4	6
00-554-8018*	3/4-16	1	8
00-914-9851*	1-1/16--12	1-1/2	12

* UNJ Threads.

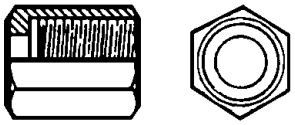
Steel, Corrosion Resisting, Short

	UNF	Tube Size	Dash No.
00-800-4788*	7/16-20	1/2	—
00-919-4651†	7/16-20	1/2	4J
01-074-6036†	9/16-18	3/4	6J

* 40 degree seat angle.
† NJ Threads.

PACKING NUT

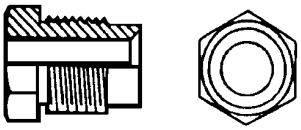
THREADED INTERNAL, SHOULDERED. NATIONAL SCREW THREADS. Hexagon wrenching feature.



Steel, Corrosion Resisting

	UNEF	Small ID
00-752-9655	1-20	3/4

THREADED EXTERNAL NATIONAL SCREW THREADS, INVERTED FLARE. Hexagon wrenching.



Bronze. 30 degree seat angle.

	UNEF	Small ID	O/A Lg
00-200-0485	1-7/16--18	1.000	7/8

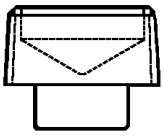
THREADED INTERNAL NATIONAL SCREW THREADS. IRREGULAR STYLE. Mil Spec Mil-H-25579.

Steel

	UNF	Smallest ID	OD	O/A Lg
00-142-1003	7/8-14	7/8	1-3/8	1-3/8

PLUG, PIPE

THREADED EXTERNAL PLUG. RAISED SQUARE HEAD WRENCHING TYPE.



SOLID HEAD AND BODY

Copper Alloy. Mil Std MS14314.

	NPT	Dash No.
00-011-3175*	1/8-27	—
00-011-2578	1/4-18	2X
00-011-2304	3/8-18	3X

	NPT	Dash No.
00-011-3177	3/4-14	5Y
00-011-3179	1-1/4-11-1/2	7XA

* Fed Spec WW-P-471.

Copper Alloy, Cadmium Plated. Head drilled for lockwire. Mil Std MS20913.

	NPT	Dash No.
00-188-3509	1/8-27	1

Iron or Steel, Zinc Plated. Fed Spec WW-P-471.

	NPT	Dash No.
00-279-0985	1/4-18	AASBCB
00-010-3867	3/8-18	AASBUC
00-187-4191	1/2-14	AASBCD
00-834-6187	1/2-14	AASBUD

SOLID HEAD, CORED BODY

Copper Alloy. Fed Spec WW-P-460.

	NPT
00-011-3178	1-11-1/2
00-187-4231	1-1/2--11-1/2

Iron or Steel. MS51884.

	NPT	Dash No.
00-187-4210	3/4-14	9

Plastic

	NPT
00-990-2096*	1/4-18

* Non Spec Item.

CORED HEAD AND BODY

Copper Alloy

	NPT	Dash No.
00-011-3176*	1/2-14	—
00-187-4232	2-11-1/2	9Y

* Non Spec Item. NPTF Thread.

THREADED EXTERNAL PLUG. HEXAGON WRENCHING TYPE. Mil Spec MS51884.

SOLID HEAD AND BODY

Steel, Corrosion Resisting

	NPT
00-343-7247	3/8-18

SOLID HEAD, CORED BODY

Copper Alloy, Cadmium Plated. ANA Std AN933 dash number listed below.

	Thd ANPT	Dash No.
00-585-6749	3/8-18	B3

THREADED EXTERNAL PLUG. ROUND HEAD, RECESSED SQUARE WRENCHING TYPE.

SOLID HEAD AND BODY

Copper Alloy. Mil Std MS14314.

	NPT
00-203-0153	1/2-14
00-278-3437	3/4-14

Iron or Steel, Cadmium Plated.

	NPT
00-604-7953	1--11-1/2

THREADED EXTERNAL PLUG. ROUND HEAD, RECESSED HEXAGON WRENCHING TYPE.

SOLID HEAD AND BODY

Iron or Steel, uncoated. Fed Spec WW-P-471.

	NPT	Dash No.
00-018-9566*	1/8-27	ACABCA
00-042-8988	1/4-18	ACABUB
00-954-1281*	1/4-18	ACABCB
00-057-5555*	3/8-18	—
00-289-5176*	1/2-14	ACABUD
00-359-3872	3/4-14	ACABCE

* NPTF Threads.

Steel, Cadmium Coated. Mil Std MS27769.

	ANPT	Dash No.
00-278-3462	1/8-27	2

Steel, Corrosion Resisting. Mil Std MS27769.

	Thd ANPT	Dash No.
00-541-7749	1/8-27	S2

PLUG, TUBE FITTING, THREADED

A threaded external fitting having an internal or external seating surface. Designed to form a seal when mated with other tube fittings, to retain fluids under pressure during equipment operations. Flared with 37 degree seat angle.

Steel, Cadmium Plated. Mil Std MS24404 dash number listed.

	UNF	Tubing OD	Dash No.
00-542-4994	7/16-20	1/2	4
00-142-1831*	1/2-20	5/8	5
00-805-1404	3/4-16	1	8
00-278-4998*	3/4-16	1	8
00-278-4997*	7/8-14	1-1/16	10
00-278-5000	1-1/16--12	1-1/2	12
00-278-4996*	1-5/16--12	2	16

* ANA Std AN806.

Steel, Corrosion Resisting. Mil Std MS51518 dash number listed below.

	UNF	Tubing OD	Dash No.
01-108-7746	9/16-18	3/4	B6S

Steel, Cadmium Plated. Flareless, with 12 degree seat angle. Mil Std MS21913 dash number listed below.

	UNJF	Tubing OD	Dash No.
00-595-2612	7/16-20	1/2	4
00-053-1919*	7/16-20	1/2	J4
00-541-1465	1/2-20	5/8	5
00-203-3709	9/16-18	3/4	6
00-202-8341	3/4-16	1	8
00-966-5695	7/8-14	1-1/8	10
00-289-8627	1-1/16--12	1-1/2	12
00-289-8626	1-5/16--12	2	16

* Steel Composition, Passivated

PLUG, TUBE REPAIR

Tapered plug designed to plug temporarily the end of leaking boiler tubes, condenser tubes, and the like.

Phenolic, unthreaded. Mil Spec Mil-P-15742 dash Number listed below.

	Plug Size	Small Dia	Large Dia	Dash No.
00-337-6753	1/4	.094	.312	2
00-289-0593	3/8	.219	.438	3
01-029-2857	5/8	.437	.687	5
00-289-0595	3/4	.500	.812	6

Steel. Internal threaded large end.

	Thd Size	Small Dia	Large Dia
00-142-2690	5/8-12RH	.750	.937
00-142-1505	5/8-11NC	1.625	1.812

REDUCER, HOSE

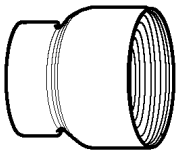
THREADED INTERNAL HOSE, GASKET SEAL TO THREADED EXTERNAL HOSE, PLAIN END. 200 PSI WATER.

Copper Alloy

00-618-8593 3 inches to 4 inches

REDUCER, PIPE

THREADED INTERNAL NATIONAL PIPE THREADS BOTH ENDS.



Brass, Bronze, or Copper Alloy. 125 PSI steam. Fed Spec WW-P-460.

	From Size	To Size
00-287-0706	1/4-18	1/8-27
00-189-3029	3/8-18	1/4-18
00-189-3030	1/2-14	1/4-18
00-189-3031	1/2-14	3/8-18
00-189-3032	3/4-14	1/4-18
00-189-3033	3/4-14	to 3/8-18
00-189-3034	3/4-14	1/2-14
00-189-3036	1--11-1/2	1/2-14

	From Size	To Size
00-189-3037	1--11-1/2	3/4-14
00-189-3039	1-1/4--11-1/2	1--11-1/2
00-189-3040	1-1/2--11-1/2	3/4-14
00-189-3041	1-1/2--11-1/2	1--11-1/2
00-189-3042	1-1/2--11-1/2	1-1/4--11-1/2
00-189-3045	2--11-1/2	1-1/2--11-1/2

UNTHREADED INTERNAL SOCKET TYPE BOTH ENDS. With brazing rings. MIL Spec MIL-F-1183/8 dash number listed below.

Copper Alloy

	From Size	To Size	Dash No.
00-542-5308	1/2	1/4	02A
00-542-5309	3/4	3/8	04A
00-542-5310	1	1/2	06A
00-542-5311	1-1/4	3/4	08A
00-542-5312	1-1/2	1	10A
00-542-5314	2-1/2	1-1/2	14A
00-542-5316	3	2	16A

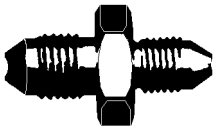
UNTHREADED INTERNAL PIPE, SOCKET END TO UNTHREADED EXTERNAL PIPE, PLAIN END. 3000 PSI WOG.

Steel

	From Size	To Size
01-022-3152	1/4	1/2
01-022-3153	1/2	3/4

REDUCER, BOSS

THREADED EXTERNAL AMERICAN STANDARD AND UNIFIED FORM THREADS BOTH ENDS. FLARED TYPE BOTH ENDS. 37 degree seat angle.



Aluminum Alloy, ANA Std AN919.

	End	Tube Size	Thd Size	Dash No.
00-187-3588	1	1-1/4	7/8 UNJF	15D
	2	1	3/4 UNF	—
00-187-3593	1	1-1/2	1-1/16 UNJ	20D
	2	1-1/4	7/8 UNF	—

Steel Composition, Passivated

	End	Tube Size	Thd Size	Dash No.
00-720-0233	1	3/4	9/16 UNJF	J6-4
	2	1/2	7/16 UNJF	—

Steel, Cadmium Plated

	End	Tube Size	Thd Size	Dash No.
00-235-1499	1	5/8	1/2 UNJF	3
	2	1/2	7/16 UNF	—

Steel Comp, Cadmium Plated

	End	Tube Size	Thd Size	Dash No.
00-187-3600	1	3/4	9/16 UNJF	6
	2	1/2	7/16-UNJF	—

Steel, Corrosion Resisting

	End	Tube Size	Thd Size	Dash No.
00-541-8287	1	1/2	7/16 UNJF	2C
	2	3/8	3/8 UNF	—

Aluminum Alloy, Mil Std MS24399.

	End	Tube Size	Thd Size	Dash No.
00-812-5036	1	1/2	7/16	D3
	2	3/8	3/8	—
00-684-7451	1	5/8	1/2 UNJF	D4
	2	1/2	7/16 UNJF	—
00-684-7157	1	3/4	9/16	D7
	2	1/2	7/16	—
00-833-9800	1	1	3/4	D12
	2	5/8	1/2	—

Steel, Cadmium Plated

	End	Tube Size	Thd Size	Dash No.
00-805-5097	1	3/4	9/16-18	7
	2	1/2	7/16-20	—

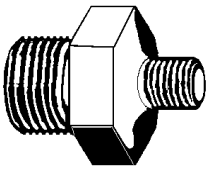
NON SPEC ITEMS.

37 degree seat angle, both ends.

Steel

	End	Tube OD	UNF
00-524-7924	1	1/2	7/16-20
	2	3/8	3/8-24

THREADED MALE AMERICAN STD AND UNIFIED FORM THREADS BOTH ENDS. FLARELESS TYPE BOTH ENDS. 12 degree seat angle.



Mil Std MS 21916.

Steel Composition, Passivated

	End	Tube OD	UNJF	Dash No.
00-720-0234	1	1	3/4-16	J8-6
	2	3/4	9/16-18	—

NON SPEC ITEMS.

Steel, Corrosion Resisting. 12 degree seat angle, both ends.

	End	Tube Size	Thd Size
00-793-2732	1	3/4	9/16-20 UNS
	2	1/2	7/16-20 UNF

THREADED EXTERNAL, FLARELESS, 15 DEGREE SEAT ANGLE. TO THREADED EXTERNAL, FLARED, 37 DEGREE SEAT ANGLE.

Aluminum Alloy, Anodized

	End	Tube OD	UN
00-843-1505	1	2.1/2	1-5/8-12
	2	1-1/2	1-1/16-12

THREADED INTERNAL TUBE, SWIVEL NUT INVERTED FLARE. 8.5 DEGREE SEAT ANGLE TO UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES. The internal surface of the swaged ends are polytetrafluoroethylene coated.

Steel, Corrosion Resisting

	End	Tube Size	Thd Size
00-351-2199	1	3/4	9/16-20 UNJ
	2	1/4	—

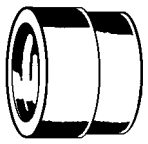
UNTHREADED INTERNAL TUBE BOTH ENDS WITH SOCKET BRAZING RING. Mil Spec Mil-F-1183.

Copper Alloy

	End	Tube Size	Thd Size
00-542-5313	1	2-3/8	—
	2	1-5/8	—

REDUCER, TUBE

UNTHREADED INTERNAL SOCKET END WITH PREINSERTED BRAZING RING, TO UNTHREADED EXTERNAL FITTING END. 3000 PSI WOG WP.

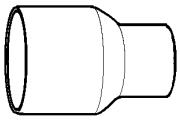


Copper Alloy

	End	Tube OD
00-142-1193	1	.540
	2	.675
00-142-1195	1	.840
	2	1.050
00-142-1196	1	.840
	2	1.315
00-142-1197	1	1.050
	2	1.315
00-142-1204	1	1.900
	2	2.375

	End	Tube OD
00-142-1203	1	2.375
	2	2.875

UNTHREADED INTERNAL CRIMPED BOTH ENDS, COPPER-TO-COPPER REFRIGERATION TYPE. Mil Std MS35923 dash number listed below.



Copper Alloy

	End	Tube Size	Dash No.
00-264-9171	1	.625	5
	2	.500	—

REPAIR KIT, METALLIC PIPE AND GENERAL PURPOSE, DAMAGE CONTROL

A kit for making emergency repairs to metallic piping systems and general purpose damage control. Consisting of two assemblies containing a synthetic thermo-setting resin in paste and liquid forms. With associated hardening agents and with glass reinforcement.

Mil-R-17882, Assembly 1 and 2.

Contents of Assembly 1, Kit:	
Resin, liquid	4 cans, 400 grams each
Hardener, liquid	4 cans, 100 grams each
Cloth, glass, woven roving	1 piece, 24 x 40
Void, cover	1 piece, 8 x 36
Film, Polyvinyl Chloride	1 piece, 36 x 72
Stirring tool, spatula	4 each
Chalk line	1/8 lb
Abrasive cloth	1 sheet, 9 x 11
Scissors	1 each
Gloves, Polyethylene	4 pairs
Face shield	2 each
Instruction manual	1 copy

Contents of Assembly 2, Kit	
Resin, paste	4 cans, 300 grams each
Hardener, paste	4 cans, 75 grams each
Stirring tool, spatula	4 each
00-542-3359	Assembly 1
00-542-3362	Assembly 2

RESTRICTOR, FLUID FLOW

THREADED TUBULAR.

Steel, Corrosion Resisting

	Orifice Dia	UNF	OD
00-383-4560	.0400	1/4-28	.435

THREADED TUBULAR , HEXAGON SHAPE.

Brass

	Orifice Dia	UNS	OD
00-117-4550	.055	2/16-34	.330

Steel, Black Oxide Coated

	Orifice Dia	UNS	OD
00-366-1187	.437	5/8-24 UNEF	.625

UNTHREADED TUBULAR.

Brass

	Orifice Dia	OD	Lg
00-678-0285	.020	1/4	.250
00-055-1642	.125	5/16	.188

Plastic

	Orifice Dia	OD	Lg
00-203-7626	.026	3/16	.875

RESTRICTOR UNIT, FLUID FLOW

Straight design with plate and screen. Steel, Corrosion Resisting. Mil Std MS18301 dash number listed.

150 PSI

	Pipe Size	Orifice Dia	Lg	Dash No.
00-216-6146	1/2	.030	2.812	05,11
00-216-6132	3/4	.030	3.375	06,12

600 PSI

	Pipe Size	Orifice Dia	Lg	Dash No.
00-216-6152	1/2	.030	3.188	03,09
00-216-6151	3/4	.030	3.938	04,10

1500 PSI

	Pipe Size	Orifice Dia	Lg	Dash No.
00-217-7462	1/2	.020	3.750	01,07
01-054-3762	1/2	.036	—	07,15
00-217-7443	3/4	.020	4.125	02,08

RING, WELDING, PIPE JOINT

Inverted T-shaped cross section. Preformed, open-lap joint. Rings are intended for use in making sound, smooth, uniform, crack-free, root welds where accessibility is limited to one side. Mil Spec Mil-I-23413.

Steel, Austenitic Chromium Nickel

	Size
00-880-4592	1/8

SEAL, CONICAL, FLARED TUBE FITTING

Copper Alloy, non case hardened. Non-lox cleaned. .005 inch wall thickness. 37 degree seat angle.

	Tube Size	OD	Body Lg
00-118-6501	3/8	3/8	.060

SEAL NUT, PIPE

PIPE SEAL NUT FURNISHED WITH PREFORMED PACKING.

Steel, Cadmium and Chromate Plating

	NPT
00-715-2761	1/8-27

Steel Composition

	NPT
01-190-2744	1/4-18
01-198-5595	1/2-14

Steel, Corrosion Resisting

	NPT
01-030-7179	1/4-18

SEAT AND GASKET

HEXAGON HEAD. Stainless Steel seat, Brass gasket.

	OD	UNF	Hex Size
00-391-8422	.625	1/2-20	.625

SEAT, BALL

Plastic. Used on Duplex fuel oil strainer. 4-1/2 inch diameter.

01-146-7063

SHIELD, SAFETY, PIPE FLANGE

Heavy weight, plain weave, fibrous glass cloth. Aluminized. Naval Sea System Command drawing 803-2145518.

240 INCHES LONG WITH 148 HOOKS.

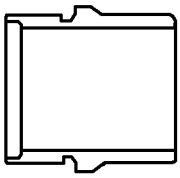
	W
01-010-6123	9.000
01-010-1001	10.000
01-010-1002	11.000
01-010-1003	12.000

360 INCHES LONG WITH 228 HOOKS.

	W
01-010-0997	5.000
01-010-0998	6.000
01-010-0999	7.000
01-010-1000	8.000

SLEEVE, CLINCH, TUBE FITTING

FLARELESS SLEEVE WITH 35 DEGREE SEAT ANGLE. Mil Std MS21922 dash number listed below.



Steel, Cadmium Plated

	Tube Size	Sleeve OD	Dash No.
00-289-8618*	3/8	.254	3
00-289-8619†	1/2	.309	4
00-554-7398†	3/4	.435	6
00-580-2120	1	.585	8
00-541-7725	1-1/4	.707	10
00-289-8622	1-1/2	.836	12
00-289-8623	2	1.086	16

* 37 degree seat angle.
† 12 degree seat angle.

Steel, Corrosion Resisting

	Tube Size	Sleeve OD	Dash No.
00-720-0461	1/2	.309	4C
00-618-7621	3/4	.435	6C
00-684-4041*	2	1.086	16C

* 12 degree seat angle.

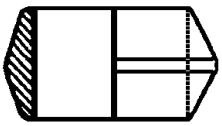
FLARELESS SLEEVE WITH 40 DEGREE SEAT ANGLE.

Steel, Corrosion Resisting

	Tube Size	Sleeve OD	Dash No.
00-800-2585	1/2	.312	3SSA

SLEEVE, COMPRESSION, TUBE-HOSE FITTING

DOUBLE BEVELED FLARELESS STYLE.



Aluminum Alloy, Anodized

	Hose/Tube Size	Lg
00-989-3167	1/2	.320

Brass, Uncoated

	Size	Lg
00-278-8761	1/4	.188
00-701-7737	3/8	.218
01-193-7390	1/2	.250
00-278-8764	5/8	.250
00-278-8765	3/4	.255

SLEEVE, FLARED, TUBE FITTING

Flared sleeves with 33 degree seat angle. Mil Std MS20819 dash number listed below.

Steel, Cadmium Plated

	Tube Size	Sleeve OD	Dash No.
00-278-0678	1/2	.297	4
00-433-3375	5/8	.366	5
00-433-3376	1	.562	8
00-277-5357	1-1/4	.690	10
00-433-3377	1-1/2	.826	12

Steel, Corrosion Resisting

	Tube Size	Sleeve OD	Dash No.
00-580-7471	1/2	.297	4J
00-595-3102	3/4	.432	6J
00-540-6719	1	.562	8J

SPUD, WATER CLOSET

Non-reducing type. Furnished with Rubber gasket and metal locknut.

Copper Alloy, External threads.

	NPT
00-221-2398	1.250
00-221-2392*	1.500
00-221-2397	1.500
00-221-2399	2.000

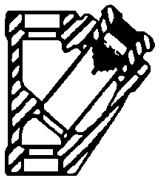
* Passage inside diameter, 1.375.

STRAINER, SEDIMENT

Y-PATTERN STRAINERS FOR SMALL BRANCH STEAM LINES.

PERFORATED SCREEN TYPE. Bronze body, with removable Copper-Nickel Alloy screen. 250 PSI steam WP at 425 degrees Fahrenheit. .062 inch perforation diameter. NAVSHIP Drawing Number, 5000S4823F841499 Revision G.

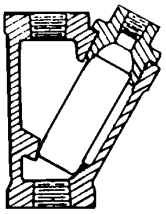
Unthreaded Silver brazing inlet and outlet connections, with clean out connection.



	Pipe Size
00-926-9622	1

WIRE MESH SCREEN TYPE. Cast Iron or semi-Steel body with Copper Alloy or Nickel-Copper Alloy removable screen. 250 PSI steam WP at 425 degrees Fahrenheit. Mil Spec Mil-S-16293 dash number listed below.

Threaded internal inlet and outlet connection, with clean out connection.



	NPT	Dash No.
00-278-2607	2--11-1/2	C35

STRAINER ELEMENT, SEDIMENT

CYLINDRICAL SHAPE. EXTERNAL FLANGE ONE END, PLAIN OPEN OTHER END. Copper Alloy filter. 36 perforations per inch, .047 inch diameter. Flange thickness .016 inch.

	Element OD	Flange OD	Flange ID
01-037-0893	1.469	1.750	1.156

CYLINDRICAL SHAPE. EXTERNAL FLANGE ONE END, FLAT CLOSED OTHER END. Steel, 128 mesh size filtering medium. Features with double bail.

	Element OD	Flange OD	Flange ID
00-254-5828	4.750	5.305	4.485

CYLINDRICAL SHAPE. EXTERNAL FLANGE ONE END, FLAT CLOSED OTHER END. Nickel Alloy. 80 mesh size filtering medium. 1.312 inches long, .006 inch wire diameter.

	Element OD	Flange OD
00-277-5288	.281	.531
00-300-7926*	1.750	2.125

* 6 inches long.

CYLINDRICAL SHAPE. EXTERNAL FLANGE CHAMFERED ONE END, CONVEX OTHER END. Steel, CRES filter. Flange thickness .240 inch. Chamfer angle 37 degrees, mesh size 375, .020 inches. Wire diameter, 450 microns.

	Element OD	Flange OD	Lg
01-046-6807	.219	.502	.875

CYLINDRICAL SHAPE. ONE END EXTERNAL THREAD, 2.000 INCH SIZE; OTHER END INTERNAL SOCKET. Flange thickness .340 inch, mesh size 30, .012 inch wire diameter. Steel, Corrosion Resisting filter.

	Element OD	Flange OD	Flange ID
01-036-7331	3.900	4.000	3.250

CYLINDRICAL SHAPE. PLAIN OPEN ONE END, FLAT CLOSED END. Copper Alloy filter. 400 perforations per inch, .032 inch diameter.

	Element OD	LG
00-929-3464	.344	.219

CYLINDRICAL SHAPE. PLAIN OPEN ENDS.

Plastic filtering medium

	OD	Lg	Pref Dia
01-075-5071	1.250	3.500	.094

Steel, Corrosion Resisting filtering medium

	OD	Lg	Mesh Size
01-076-9359*	1.078	2.609	—
00-536-0338	7.563	7.375	4

* 24 perforations per inch, .062 inch diameter.

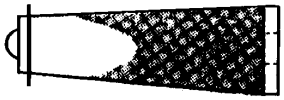
FRUSTRUM SHAPED, WIRE MESH TYPE. EXTERNAL FLANGE BOTH ENDS. Inverted cone strainer from small end to large end with 100 size mesh. Corrosion Resisting Steel wire. Mil Std MS26551-1.

Steel, Corrosion Resisting, rings

	Flange OD Large End	Flange OD Small End	Lg
00-886-8203	2.305	1.250	5.750
01-122-4293*	5.250	4.375	11.719

* Nickel Alloy filtering, medium

FRUSTRUM SHAPED, WIRE MESH TYPE. INTERNAL FLANGE and FLAT CLOSED END. 100 size mesh, Nickel Alloy wire.



	Flange OD Large End	Flange OD Small End	Lg
00-202-8880	1.516	1.350	5.220

RECTANGULAR SHAPE (BASICALLY FLAT). Steel filter. 6 mounting holes spaced 7.125 inches center to center, .750 inches from outside edge along the width. .438 inches from outside edge along the length. Wire diameter .024 inches, mesh size 8.

	Lg	W	Thk
00-745-7786	15.750	5.312	.156

ROUND (BASICALLY FLAT) SHAPE STRAINER ELEMENT.

Steel filtering medium

	OD	Thk	Perf Dia
00-595-0792	2.219	.038	.250

ROUND (BASICALLY FLAT) WITH CENTER OPENING. Mil Std MS18301.

Nickel Alloy filter

	OD/In.	ID/In.	Thk/In.	Mesh/In.
00-541-9089*	.320	.160	.038	80

* Non Spec Item.

Steel, Corrosion Resisting filter. MS18301-11.

	OD/In.	ID/In.	Thk/In.	Mesh/In.
00-432-1293	1.875	.719	.156	65

SQUARE SHAPE. 19.500 inch Stainless Steel. .28 inch overall length, 80 mesh, .007 inch diameter wire, .0055 inch opening.

00-073-3164

SWING JOINT, TUBE

THREADED EXTERNAL TUBE, FLARED BOTH ENDS. SINGLE JOINT ELBOW DESIGN. BULKHEAD TYPE. 37 degree seat angle(Bulkhead end 1 below).

	End	Tube Size	Thd Size
00-627-4324	1	1/2	7/16 UNJF
	2	1/2	7/16 UNF

TEE, BOSS

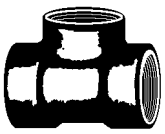
THREADED INTERNAL SCREW THREADS. ALL THREE ENDS IDENTICAL. Army Navy Aeronautical Std, AN938 dash number listed.

Steel, Corrosion Resisting

	UNJF	Dash No.
00-247-0519	7/16-20	J4

TEE, PIPE

THREADED INTERNAL NATIONAL PIPE THREADS. ALL THREE ENDS IDENTICAL. 125 PSI steam WP at 406 degrees Fahrenheit temperature. Mil Std MS14305 dash number listed.



Copper Alloy

	NPT	Dash No.
00-289-2870	1/8-27	—
00-254-6243	1/4-18	2UA
00-287-1391	3/8-18	3U
00-254-6241	1/2-14	4U
00-254-6238	3/4-14	5U
01-126-0203	1--11-1/2	6UA
00-289-2875	1-1/2--11-1/2	—

Malleable Iron, Zinc Coated. 150 PSI steam WP. Fed Spec WW-P-521.

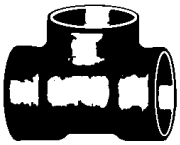
	NPT	Leg Lg
00-257-2120	3/4-14	1.310
00-257-2124	2--11-1/2	2.250

Steel, Uncoated. 1000 PSI steam WP at 900 degree Fahrenheit temperature.

	NPT	Leg Lg
00-263-5264*	1/4-18	.969

* Non Spec Item.

UNTHREADED INTERNAL SOCKET TYPE ENDS. All ends identical. 600 PSI steam WP.



Steel

	Pipe Size	Leg Lg
00-257-2144	1/4	.812
00-257-2146	1/2	1.000
00-257-2147	3/4	1.250
00-257-2148	1	1.375
00-257-2150	1-1/2	1.750
00-257-2151	2	2.125

Steel. 1500 PSI steam WP.

	Pipe Size	Leg Lg
00-595-3970	1/2	1.000
00-595-3972	1	1.375

Steel. 3000 PSI WOG WP.

	Pipe Size	Leg Lg
00-840-8721	1/2	1.125

UNTHREADED INTERNAL, STREAMLINED WITH BRAZING RINGS (Rings packaged separately). 200 PSI steam. Equal size ends and reduced ends listed in inches. Mil Spec Mil-F-1183/9 dash number listed below.

Copper Alloy

	End 1	End 2	End 3	Dash No.
00-542-5246	.250	.250	.250	100A
00-542-5347	.500	.250	.500	404A
00-542-5358	1.000	.750	.500	423A
00-542-5361	1.000	1.000	.250	426A
00-542-5250	1.000	1.000	1.000	104A
00-542-5251	1.250	1.250	1.250	105A
00-542-5382	1.500	1.500	.500	455A
00-542-5252	1.500	1.500	1.500	106A
00-542-5395	2.000	2.000	1.500	471A
00-542-5253	2.000	2.000	2.000	107A

	End 1	End 2	End 3	Dash No.
00-542-5257	4.000	4.000	4.000	111A

Long turn single sweep tee.

	End 1	End 2	End 3	Dash No.
00-542-5335	4.000	4.000	4.000	211A

UNTHREADED INTERNAL SOCKET, GROOVED W/BRAZING RINGS (Rings packaged separately). 200 PSI steam. Equal size ends and reduced ends listed in inches. Mil Spec Mil-F-1183/9 dash number listed.

Copper Alloy

	End 1	End 2	End 3	Dash No.
00-542-5247	.375	.375	.375	101A
00-542-5348	.500	.500	.250	406
00-542-5248	.500	.500	.500	—
00-542-5261	.500	.500	.500	102A
00-542-5262	.750	.750	.750	103A
00-542-5401	2.500	2.500	2.000	481A
00-542-5254	2.500	2.500	2.500	108A
00-542-5255	3.000	3.000	3.000	109A
00-542-5256	3.500	3.500	3.500	110A

Long turn single sweep tee.

	End 1	End 2	End 3	Dash No.
00-542-5331	2.000	2.000	2.000	207A

TEE, PIPE TO TUBE

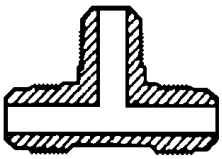
THREADED EXTERNAL TUBE, FLARED ON RUN TO THREADED EXTERNAL PIPE ON BRANCH. 37 degree seat angle.

Steel, Cadmium Plated. Mil Std MS20825-6.

	Tube Size	UNF	NPTF
00-277-5104	3/4	9/16	1/4

TEE, TUBE

THREADED EXTERNAL NATIONAL SCREW THREADS. FLARED TYPE ENDS. ALL THREE ENDS IDENTICAL. 37 degree seat angle. Mil Std MS24402 dash number listed.



Aluminum Alloy, Anodized

	UNJF	Tube OD	Dash No.
00-722-1207	7/16-20	1/2	D4

Copper Alloy

	UNJF	Tube OD	Dash No.
00-850-3828*	7/16-20	1/2	—

* UNF Thread, Non Spec Item.

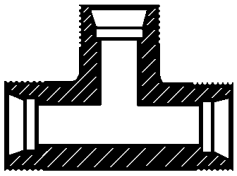
Steel, Cadmium Plated, ANA Std AN824.

	UNJF	Tube OD	Dash No.
00-278-9376	7/16-20	1/2	4

Copper Alloy. 45 degree seat angle. Non Spec Item.

	UNF	Tube OD
00-092-3883	7/16-20	1/2
00-287-1701	5/8-18	3/4
00-287-1703	3/4-16	1

THREADED EXTERNAL NATIONAL SCREW THREADS. FLARELESS TYPE ENDS. ALL THREE ENDS IDENTICAL.



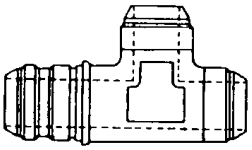
20 DEGREE SEAT ANGLE. Non Spec Item.

Steel, Corrosion Resisting

		Tube OD
00-684-3796	7/16-20 UNF	1/2
00-061-7716	9/16-18 UN	3/4
00-061-7717*	3/4-20 UNEF	1

* 12 degree seat angle.

THREADED EXTERNAL NATIONAL SCREW THREADS. FLARED TYPE ENDS WITH BULKHEAD TYPE ON FIRST RUN END. 37 degree seat angle. Mil Std MS24390 dash number listed.



Aluminum Alloy, Anodized

	UNJF	Tube OD	Dash No.
00-720-4984	7/16-20	1/2	D4

THREADED INTERNAL SWIVEL NUT FLARE ONE END, AND THREADED EXTERNAL FLARED TUBE OTHER ENDS. 37 degree seat angle all ends. 1/2 inch outside diameter tube size.

Steel Composition, Passivated

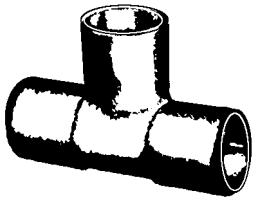
00-720-1810 7/16-20 UNF Threads

THREADED INTERNAL SWIVEL NUT FLARELESS ONE END, AND THREADED EXTERNAL FLARELESS TUBE OTHER ENDS. 12 degree seat angle. 1/2 inch outside diameter tube size.

Steel Composition

01-230-0960 7/16-20 UNJF Threads

UNTHREADED INTERNAL SOCKET TYPE ENDS, COPPER-TO-COPPER. Dimensions listed in inches. Mil Std MS35929 and WT725.



Copper or Copper Alloy

	End 1	End 2	End 3
00-257-2163	.250	.250	.250
00-263-6460	.375	.375	.375
00-263-6465	.500	.500	.500
00-263-6472	.625	.625	.625

UNTHREADED INTERNAL TUBE, SWAGED WITH GROOVES, ALL ENDS IDENTICAL. The internal surface of the permaswage will be plastic coated.

Steel, Corrosion Resisting

	Tube Size
00-008-9832	1/2
00-008-9834	3/4

TEE, TUBE TO BOSS

THREADED INTERNAL BOSS, GASKET SEAL, FIRST END. THREADED EXTERNAL BOSS, FLARED WITH GASKET SEAL, SECOND END. THREADED EXTERNAL TUBE, FLARED WITH 37 DEGREE SEAT ANGLE BULKHEAD (BRANCH) END.

Aluminum Alloy, Anodized

	UNF	Tube Size
00-720-4407	7/16-20	1/2

TRAP, STEAM

THERMOSTATIC DESIGN. ANGLE PATTERN. 100 PSI STEAM WP. Brass, Bronze, or Copper-Nickel Alloy body and Corrosion Resisting parts, union nut, strainer, unthreaded internal tailpiece inlet and outlet connection. Inlet connection located on side and outlet on bottom in relation to installed position. Mil Spec Mil-T-2118.

	Pipe Size
00-289-4619	1/2

Bronze body, Steel, Corrosion Resisting working parts. End connection with union ends, and Silver-brazing tailpieces. Inlet/outlet location in reference to installed position, inlet top end, outlet center side. Mil Spec Mil-T-2118.

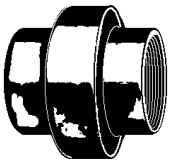
	Pipe Size
00-032-1517	1/2

END CONNECTION WITH UNION ENDS AND SILVER-BRAZING TAILPIECES. Inlet/outlet location in reference to installed position, inlet top end, outlet bottom end. Bronze body and cap, Brass strainer. Steel, Corrosion Resisting valve head and gunmetal working parts.

	Pipe Size
00-343-7024	1/2

UNION, PIPE

THREADED INTERNAL NPT THREADS. Ball-cone seat, 250 PSI steam WP. Fed Spec WW-U-516 dash number listed.



Copper Alloy

	NPT	Lg	Dash No.
00-287-0421	1/8-27	1.440	03
00-189-2588	1/4-18	1.560	11
00-287-0422	3/8-18	1.750	19
00-289-5091	1/2-14	1.990	27
00-287-0420	3/4-14	2.130	35
00-189-2592	1--11-1/2	2.438	43
00-289-5506	1-1/2--11-1/2	2.800	59
00-189-2595	2--11-1/2	3.190	67

Malleable Iron or Steel, Black. Brass or Bronze ground joint seat. 250 PSI steam WP. Fed Spec WW-U-531 dash number listed.

	NPT	Lg	Dash No.
00-189-2624	1-1/2--11-1/2	2.780	28TA
00-189-2619	2--11-1/2	3.130	29TA

Malleable Iron or Steel, Zinc Coated. Copper Alloy ground joint seat. 250 PSI steam WP.

	NPT	Lg	Dash No.
00-189-2634	2--11-1/2	3.130	41TA

Steel, Forged. Beveled Steel seat, 3000 PSI WOG WP. Mil Spec Mil-U-18182 dash number listed.

	NPT	Dash No.
00-222-1862	1/2-14	26U
00-222-1866	1-1/2--11-1/2	—

UNTHREADED INTERNAL SOCKET TYPE ENDS.

Copper Alloy. Beveled seat. 200 PSI steam. Mil Spec Mil-F-1183 M1183/10 dash number listed.

	Pipe Size	Dash No.
01-140-4853	1/4	10N1

Steel. Beveled seat. 3000 PSI WOG WP.

	Pipe Size	Lg
01-023-7729	1/2	1.938

UNTHREADED INTERNAL SOCKET WITH GROOVE, BEVELED SEAT. Copper Alloy 200 PSI steam WP. Mil Spec Mil-F-1183 M1183/10 dash number listed.

	Pipe Size	Dash No.
00-542-5189	3/8	11A1
00-542-5190	1/2	12A3
00-542-5191	3/4	13A3
00-542-5192	1	14A34
00-542-5193	1-1/4	15A3
00-542-5194	1-1/2	16A5
00-542-5195	2	17A34

WYE, QUICK DISCONNECT

BOWES TYPE. Twist-lock disconnect coupling. For use on air hose. Mil Spec Mil-C-3486.

Cast Bronze body and Brass couplings. Consisting of one internal inlet and two external outlets. Used with 7/16 inch, 1/2 inch, and 5/8 inch hose.

00-288-8802

GROUP 48
VALVES

CLASS 4820
VALVES, NONPOWERED

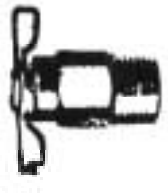
NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

COCK, DRAIN

AUTOMOTIVE TYPE

Threaded male pipe inlet. Copper Alloy. For use in fluid piping systems up to 150 PSI pressure. Thread type and size, and MS dash number listed.

Straight Internal Seat



	Size	Dash No.
00-684-0880	1/8-27NPTF	1
00-720-4488	1/4-18NPTF	2
00-174-0339	3/8-18NPTF	3

Straight External Seat

	Size	Dash No.
01-228-1028*	1/8 NPT	—
00-752-9040	1/8-27 NPTF	4
00-849-1220	1/4-18 NPTF	5
00-276-9041	3/8-18 NPT	6

* Disc or stem type.

BIBB TYPE

Threaded male pipe inlet. Brass body. Angle type with level handle. 150 PSI steam service.

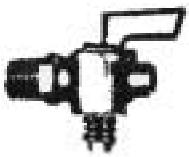
	Size	MS35787-
00-272-3332	1/8-27NPTF	1
00-272-3333	1/4-18NPT	—
00-272-3335	1/2-14NPT	4

Threaded male pipe inlet. Copper. T-handle with hose bib, that accommodates 3/8 inch inside diameter hose. Has 150 PSI liquid/gas rating.

	Size	MS35783-
00-845-1096	1/4-18NPTF	2

PET TYPE

Threaded male pipe inlet. Copper Alloy. For use in liquid or gas systems, up to pressures as indicated below. Spec Mil-C-1203.



50 PSI		MS35784-
00-555-9761	1/8-27NPTF	1
00-287-4268	1/4-18NPTF	2
00-272-3346	3/8-18NPTF	3
00-272-3347	1/2-14NPTF	4

125 PSI	Size	MS35785-
00-826-2190	1/8-27NPT	1
00-197-4984	1/4-18NPT	2
00-554-8391*	1/2-14NPT	4

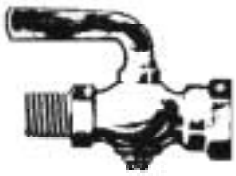
* Disc or stem type.

COCK, PLUG

TWO WAY, TWO PORT, 360 DEGREE PLUG TURN.

FEMALE to MALE

Threaded female and male pipe ends. Copper body. For use with fluid or gas to 125 PSI pressure. Ground Key Lever Handle.



00-274-3647	1/4-18NPT
00-287-5617	3/8-18NPT

MALE ENDS

Threaded male pipe ends. Bronze body. For use in steam systems to 125 PSI pressure.

00-541-7567*	1/4-18NPT
00-289-1020*	3/8-18NPTF

* Non-spec.

COCK, POPPET DRAIN

Aluminum overall. Manually operated poppet valve. Threaded external boss connection, with external seat for gasket seal. Spec MS29571-1.

01-114-6672 3/4 UNJF-3A

COCK, SHUTOFF, SCREW STEM

″T″ ANGLE TYPE-MALE ENDS.

Copper Alloy overall. Manually operated. First end compression type, with .062 inch seat radius and 7/16-24 UNS threads. Second end plain, 1/8-27 NPT threads. Ferrule furnished.

00-391-3782

STRAIGHT THRU TYPE

Copper Alloy overall. Threaded external pipe ends, 1/4-18-NPT.

01-020-3812

SEAT, VALVE

PLAIN FLANGED Corrosion Resisting steel. Flat seat recessed seal accomodated.

1.062 inch diameter flange. Body outside diameter .750 inches. Inside diameter .375 inches. Flange seat to disk end .312 inches high. Under flange .235 inches high. Anodized.

00-878-0387

1.500 inch diameter flange. Body outside diameter 1.250 inches. Inside diameter .594 inches. Flange seat to disk end .312 inches high. Under flange .297 inches high.

00-906-1459

1.500 inch diameter flange. Body outside diameter 1.250 inches. Inside diameter .750 inches. Flange body outside diameter 1.250 inches. Inside diameter .750 inches. Flange seat to disk end .344 inches high. Under flange .328 inches high.

00-878-0402

1.500 inch diameter flange. Body outside diameter 1.250 inches. Inside diameter 1 inch. Flange seat to disk end .312 inches high. Under flange .297 inches high.

00-878-0405

1.062 inch diameter flange. Body outside diameter 1.062 inches. Inside diameter .828 inches. Flange seat to disk end .094 inches high. Under flange .031 inches high.

00-878-0397

1.531 inch diameter flange. Body outside diameter 1.531 inch. Inside diameter 1.203 inches. Flange seat to disk end .141 inches high. Under flange .125 inches high.

00-878-0398

Cobalt Composition. Threaded flange 2.117 inch in diameter. .216 inch seat to disk end height. 18 threads per inch. Mil Spec Mil-C-24252.

01-442-9990

VALVE, ANGLE

THREADED PIPE.

Copper Alloy body, CRES control device. Threaded internal tube, both ends. Needle flow control device. Screwdriver slotted stem with plastic cap.

00-650-4666 7/16-20UNF-2B

Copper Alloy body, flow control device, and seat, Steel stem. 500 PSI water oil and gas maximum operating pressure.300 degrees Fahrenheit maximum operating temperature. Integral inside screw type bonnet. With valve stem lock shield, bonnet packing. and thread. Seal cap on body top.

00-289-4383 First end plain style threaded external pipe W/1/4-18NPT RH. Second end flared style, threaded external tube with 7/16-20UNF 3A RH threads.

CRES body with CRES disk flow control device. Inside screw bonnet, with

thread attachment method. First end accommodates, 1-1/2 inch outside diameter tube. Second end accommodates, 1-3/8 inch outside diameter tube. Dover Corporation Reference Number, DD150 or equal.

00-957-5655 1/2 inch NPT female threads both ends.

THREADED BOSS

Steel composition 316 with cone type flow control device. 3000 PSI WOG maximum operating pressure. Temperature not rated. Manual operation. Threaded inside screw type bonnet, without packing. Bulkhead mounted.

00-965-1211 First end internal boss style with gasket seal and 7/16-20UNF 3B Right Hand threads. Second end external boss style with 7/16-20UNF 2A Right Hand threads. Both ends accommodate 1/4 inch outside diameter tube.

THREADED TUBE

Overall Steel, threaded male tube. IPS shown below. Packing retainer, Bonnet type. UNC Male end Copper Alloy body. Steel and Plastic disk type flow control device. Media not specified. 300 PSI maximum operating pressure at 200 degrees Fahrenheit maximum operating temperature. Manual operation. Threaded bonnet attachment with inside spring. Bulkhead mounted with bonnet packing. Two nut-sleeves furnished with swagelok type ends.

00-554-2990 1-1/16 UNS male end, 7/8

Overall Steel, threaded male tube. IPS shown below. Packing retainer, Bonnet type.

00-224-2205 Both ends flare less, threaded ext tube W/7/16-20UNF RH thds.

THREADED / UNTHREADED TUBE

Copper Alloy overall. Unthreaded internal tube, socket type to threaded external flared, tube 45 degree seat angle. Disk type flow control, manual valve operation, threaded inside screw type bonnet. Furnished with cap and chain. For use with halogenated refrigerants. Spec Mil-V-20064.

	Socket end	Flared end	UNF
00-469-1853	3/8	3/8	5/8-18

THREADED PIPE

200 WOG service. Copper Alloy 922 body. Nickel Alloy seat, stem. IPS shown below. 425 degrees Fahrenheit steam service.

	NPT
00-495-6229*	1/4
00-483-0692	1/2
00-186-3542	3/4
00-483-0693	1
00-188-8245	1-1/4
00-495-6234*	1-1/2
00-243-9769*†	2

* Water, gas, oil service.
† 400 PSI WOG 150 degree Fahrenheit.

UNION NUT and THREADED EXTERNAL TAILPIECE

200 PSI Steam service. Bronze body, Nickel-Copper Alloy stem, seat and disk. High shock type. Rated for temperature to 425 degrees Fahrenheit.

00-495-6233 3/8 NPT

FLANGED PIPE

100 PSI WOG service. Copper Alloy 922 body, seat and disk. Nickel Alloy seat and stem. Rated for temperature to 425 degrees Fahrenheit. Sizes to 2-1/2 have union bonnets. 3 inch size has bolted bonnet. NAVSHIPS Drawing 5000-S4824-1385541.

	IPS/In.	Flg OD/In.	Bolt Hole No.	Bolt Hole Size
00-278-9874	2-1/2	6-1/8	Six	9/16
00-278-9877	3	6-5/8	Eight	9/16

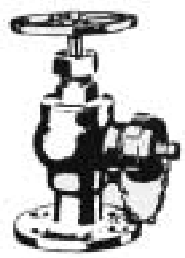
UNTHREADED INTERNAL PIPE

600 PSI steam service. Steel body, outside screw and yoke. CRES stem, Cobalt Alloy seat and disk. Rated for temperatures to 775 degree Fahrenheit. Spec Mil-V-22094.

	IPS/In.	Flange OD/In.
00-892-5698	1/2	3-3/4

THREADED EXTERNAL HOSE and FLANGE ENDS

Copper Alloy body and seat. Nonmetallic composition disk, Nickel-Copper Alloy stem. Furnished with cap and chain.



Inside screw, threaded bonnet attachment.

01-173-1161 1-1/2 IPS female end, 1-1/2 NPSH male end. 5-1/16 outside diameter flange, Six 9/16 bolt holes. NAVSHIPS Dwg 810.

Outside screw-yoke, bolted bonnet attachment.

00-580-6422 2-3/2 female end, 2-1/2 NH male end, 6-1/8 outside diameter flange. Six 11/16 bolt holes.

UNTHREADED INTERNAL TUBE

Copper alloy body, seat and stem. Plastic disk flow control device. Packless type. For use with refrigerants. Socket connections, inside screw bonnet, threaded screw attachment. Spec Mil-V-20064.

	OD Tube	PSI
00-287-2599	3/8	150
00-277-1714	5/8	500
00-277-1717	7/8	300
00-277-1715	1-1/8	300

SCREW-IN CARTRIDGE

Bronze body, Plastic disk flow control device. Steel stem. WOG media. Threaded cartridge, both ends. 1/2-12UN-2B. Left hand direction. Manual operation, 600 PSI 225 degree Fahrenheit. Union inside screw bonnet with handle.

00-962-2739

VALVE, BALL

STRAIGHT THRU TYPE, MANUAL VALVE OPERATION

Threaded external hose, plain ends, both ends identical. Copper Alloy body.

	Pipe Size/In.
00-025-3364	1-1/2 NPSH

Flange connection, Ball and lubricated plug. For combined sewage and sea water service. Spec Mil-V-24509.

	Pipe Size/In.
01-033-7237	3
01-033-7238	4

Threaded internal pipe, plain ends, both ends identical. Copper Alloy overall, Chrome Plated ball. 250 PSI WOG 300 degrees Fahrenheit maximum. Press-in renewable seat ring.

	Pipe Size/In.
00-417-1120	1/2-14 NPT

VALVE, BUTTERFLY

Straight thru type. Unthreaded internal pipe, socket type, both ends identical. Nickel Alloy body, Rubber seat. 200 PSI WOG at 180 degrees Fahrenheit maximum. Manual valve operation.

	Pipe Size/In.
01-088-3444	2-1/2

Straight through type, flanged ends. 2-1/8 inches. Face to face distance. Copper Alloy stem and flow control device. Manual operation. 9 inches diameter with flange. Includes (8) 7/8 inch diameter holes. Spec Mil-V-24624.

	Valve/In.
01-225-5805	4

VALVE, CARTRIDGE

Threaded external boss, 1.125-12UNF LH thread. Nickel-Aluminum-Bronze. CRES disk flow control, manual operation, 2-pronged handle. 6000 PSI. Furnished with: 2 Rubber O-rings and 1 Teflon backup ring.

	Dia/In.	Lg/In.
00-010-5602	3.500	4.000

VALVE, CHECK

Automatic valve operation, disk flow control. Round flange with bolt holes. 100 PSI WOG. Flange outside diameter, bolt circle diameter, and face to face distance (length) listed. Spec Mil-V-17547.

STRAIGHT THRU STYLE

PLAIN FACE

8 BOLT HOLES, .562 inch diameter.

	Flange OD/In.	Thk/In.
00-266-9518	6.625	.625
00-086-9540	7.688	.500

10 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-891-4894	9.062	.562

12 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-266-9515	10.125	.562

250 PSI. NAVSHIPS Drawing, 5000-4824-1385637.

6 BOLT HOLES, .688 inch diameter.

	Flange OD	Thk
00-058-3509	6.125	.930

8 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-489-5314	7.688	1.000

10 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-058-3630	9.062	1.062

12 BOLT HOLES, .688 inch diameter.

	Flange OD/In.	Thk/In.
00-489-5348	10.125	1.188

PLAIN ALL ENDS

THREADED INTERNAL PIPE

Swing disk type. Copper Alloy body stem, seat, and disk. Rated for temperature to 150 degrees Fahrenheit. Internal threads Spec Mil-V-18436.

175 PSI water service.

00-422-9494 1/2 NPT

200 PSI WOG service.

00-288-6678 3/4 NPT

300 PSI steam service.

Straight through style with disk flow control. Threaded internal pipe, plain, both ends. 150 PSI steam. Copper Alloy body, Plastic lining. Automatic valve operation.

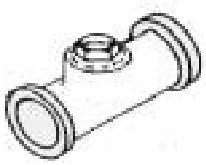
01-119-9009 3/4 NPT both ends

UNTHREADED INTERNAL/EXTERNAL PIPE

	Valve Size
00-482-8906	1/4
00-483-0678	3/8
00-483-0679	1/2
00-483-0681	1
00-482-8907	1-1/4
00-483-0682	2

THREADED EXTERNAL PIPE

	Valve Size
00-483-0680	3/4



UNTHREADED EXTERNAL TUBE

Plastic body, automatic valve, disk flow control.

	Valve Size/In
01-061-2948	.200 - OD
01-074-5046	.250 - OD

FLANGE ALL ENDS

Copper Alloy, CRES seat and flow control device. Automatic valve operation. (6) 9/16 inch bolt holes. 7-1/4 inch face to face distance.

00-287-2299 2 inches

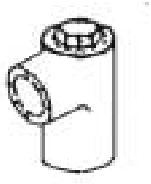
THREADED INTERNAL TUBE

Poppet flow control device. Salt water use. Hydraulic valve. 250 PSI. 3/8 inch socket connection. Spring disk loaded.

00-725-4507

THREADED INTERNAL/EXTERNAL PIPE

Poppet flow control. Threaded internal pipe to threaded external pipe, plain, both ends. Steel, CRES body. Steel poppet. Automatic valve operation.



00-391-5899 3/8 NPT both ends

THREADED EXTERNAL BOSS

3000 PSI, Fuel oil. Steel, CRES body and poppet. Gasket seat both ends.

	OD	Thk
00-865-2759	3/4	1 1/16-12UN

THREADED EXTERNAL PIPE

Air service, ball flow control. Steel, CRES overall. 200 PSI steam service. Automatic valve operation.

00-457-6470 3/8 NPT both ends

THREADED EXTERNAL PIPE / TUBE

Poppet flow control. Inverted flare, 37 degree seat angle. Copper Alloy body and poppet, Rubber seat. 3000 PSI at 400 degrees Fahrenheit maximum. Press-in renewable seat, automatic valve operation.

	NPT	UNF
00-481-6686	1/4	.438

THREADED INTERNAL / EXTERNAL TUBE

Ball flow control. Threaded internal tube, gasket seal to threaded external tube. Automatic valve operation. Any acceptable material.

00-967-4828 1/4-20 UNF and 1/2-18 UNF

4 BOLT HOLES: 4.562 outside diameter, .625 inch inside diameter.

01-131-2742 2 in.

Disk flow control, flare less, 20 degree seat angle. Copper Alloy overall. 1000 PSI at 300 degrees Fahrenheit maximum. Spring disk loading, Automatic valve operation.

	NPT	UNF
01-058-4993	1/4	.250

Poppet flow control, flared. 37 degree seat angle, Spring disk loading, automatic valve operation.

600 PSI, Air, Aluminum Alloy overall.

00-226-4667 3/4 1.062-12UN

Poppet flow control, Flare less. 12 degree seat angle, Spring disk loading, automatic valve operation. Mil Std MS24423.

3000 PSI, hydraulic fluid. Steel CRES body.

	Tube Size	Thd Size	Dash No.
00-903-3755	3/8	9/16-18UNF	6

Disk flow control, socket type. Spring disk loading, automatic valve operation. Copper Alloy body. Nickel Alloy disk, seat, and stem.

01-030-4942 1/2 in.

Copper Alloy body, Nickel Alloy flow control device Copper seat. Steam, WOG media. 400 PSI. 425 degrees Fahrenheit. Automatic valve. 2-29/32-10 UNS. Horizontal mounting.

00-482-8908 1-1/2 in.

VALVE, EXPANSION

THREADED EXTERNAL TUBE

ANGLE BODY STYLE

Diaphragm Flow Control Device, Refrigerant 12.

Brass body, Ni-Co-Alloy, Monel seat. CRES flow control device. Thermostatic valve expansion control. Valve evaporator temperature range-high. 12 BTU per hour refrigeration capacity. Both ends with 45 degree flared seat angle. Capillary tube 60 inches long with clamp, mounted.

Bulb 3-1/2 inches long by 1/2 inch diameter. Valve equalizer, external location.

00-571-5892 3/8 and 1/2

Bulb 3 inch long by 1/2 inch diameter. Internal valve equalizer.

00-898-5282 1/2 and 1/4

Disk, Top Guided Flow Control Device, Refrigerant 12.

Brass body. Seat, flow control and stem, any acceptable. Pressure range not rated. Internal valve equalizer. 60 inches long capillary tube with clamp mounted bulb. 6 BTU per hour refrigeration capacity. Valve press limiting setting 15 PSI. Valve evaporator temperature range-low. Thermostatic valve expansion control. Both ends with external threads, 45 degree angle flared seat.

00-978-7206 3/8 and 1/4

Brass body. Seat flow control and stem any acceptable. Pressure type valve expansion control. Temperature not rated. Valve pressure limiting setting 40 PSI absolute, 0 to 40 PSI range. 6 BTU per hour refrigeration capacity. Internal valve equalizer with adjustable pressure range 0 to 40 PSI. Both ends identical, external threads flared, with 45 degree angle seal. SPECIAL FEATURES: Manual Operating Device.

00-804-7488 5/8 UNF

STRAIGHT-THRU BODY STYLE

UNTHREADED INTERNAL TUBE

Diaphragm Flow Control Device-Refrigerant 12.

Brass body, CRES flow control and seat. Both ends unthreaded crimp end style. Temperature rating 100 degrees Fahrenheit. Pressure type valve expansion control. Valve pressure limiting device setting. 30 PSI absolute 0 to 80 PSI range. BTU per hour not rated. Flared tube external valve equalizer, 7/8 inch diameter connection. 0 to 80 PSI range.

01-023-7330 1/2 in. OD tube accommodation

THREADED EXTERNAL TUBE

Piston type body, Free Type Flow Control Device -Refrigerant 12.

Brass body, seat, flow control and stem. Both ends threaded with flared end style and 45 degree angle seat. 3/8 and 1/2 inches tube accommodation. Temperature rating M50 degrees to 50 degrees Fahrenheit. Thermostatic type valve expansion control. Valve evaporator temperature range-low. 12 BTU per hour refrigeration capacity. 60 inch long capillary tube with clamp mounted. 3-1/2 inch long by 1/2 inch diameter bulb. Internal valve equalizer.

00-410-4496

VALVE, FLOAT

STRAIGHT-THRU WITH OFFSET BODY STYLE

Needle Flow control device, Air.

CRES body, stem and flow control. 75 PSI air media. Automatic-operated. Both ends, 1-1/2 UNF external threaded tube with gasket seal end style.

00-947-6308

VALVE, FOOT

Low or medium pressure body style. Aluminum Alloy body and seat. Non metallic swing type disc, with external loading spring. One end: gasket seal style with threaded internal hose type connection. 3 inch inside diameter. Fresh water media.

00-540-2381

VALVE, GATE

BUTT WELD PIPE

STEAM

Steel body, Cobalt disk, and seat. Straight thru style with disk flow control. Butt weld pipe, beveled, both ends identical. Manual valve operation, rising stem type, outside screw-yoke bonnet. String type pressure seal bonnet attachment, bonnet packing feature. Mil Spec Mil-V-18110.

600 PSI operating pressure

	Pipe Size
00-444-7247	2.500

1500 PSI

	Pipe Size
00-446-8370	2.500
00-446-8371*	3.000

* CRES.

SOCKET WELD PIPE

Copper Alloy body, Nickel-Copper seat, stem, and flow control device. Solid wedge disk. 200 PSI for steam to 425 degrees Fahrenheit, and 400 PSI WOG to 150 degrees Fahrenheit temperature. Nonmagnetic service. Rising Stem, inside screw threaded bonnet.

	IPS
00-432-9581	1/2
00-432-9582	3/4
00-432-7195	1
00-432-9583	1-1/4

PLAIN FACE FLANGE with HOLES

Copper Alloy, Rising stem, outside screw and yoke. Bronze body, Nickel-Copper seat, stem, and flow control device. Solid wedge disk, and threaded renewable seat ring. Spec Mil-V-1189.

100 PSI WOG

	IPS/In.	Flg OD/In.	Bolt Holes No.	Bolt Holes Size
00-277-9848	2-1/2	6-1/4	Six	9/16
00-892-5488	3-1/2	7-3/16	Eight	9/16
00-277-9849	3	6-5/8	Eight	9/16
00-287-2840	8	12-3/8	Fourteen	11/16

Copper-Alloy body, Ni-Co flow control seat and stem. Mil-V-1189.

	IPS/In.	Flg OD/In.	Bolt Holes No.	Bolt Holes Size
00-277-9853	5	9-1/16	Ten	11/16
00-277-9856	6	10-1/8	Twelve	11/16

250 PSI Salt water. Mil-V-1189.

	IPS/In.	Flg OD/In.	Bolt Holes No.	Bolt Holes Size
00-541-5692*	2-1/2	6-1/8	Four	11/16
00-541-5695	4	7-11/16	Four	11/16
00-541-5696	5	9-1/16	Six	11/16
00-541-5697†	6	10-1/8	Eigth	11/16
00-541-5699	8	12-3/8	Ten	11/16

* CRES stem.
† 150 PSI.

NON SPEC TYPES

Copper Alloy body, Ni-Co Alloy disk, seat, and stem. Rated 250 PSI Salt Water. Ends identical. Eight 11/16 bolt holes on 6-5/8 outside diameter by 1/4 thick flange. Threaded seat ring, rising stem, and threaded outside screw yoke.

00-541-5693 3 IPS 6-1/4 inches Face to Face

Copper Alloy body, Ni-Co Alloy disk, seat, and stem. Rated 100 PSI WOG, 250 PSI Salt Water and 250 degrees Fahrenheit all media. Ends identical 7-3/16 outside diameter by 1/2 thick flange. Eight 9/16 bolt holes. Threaded seat ring, rising stem, outside screw-yoke bonnet with packing.

00-541-5694 3-1/2 IPS 6-1/2 in. Face to Face

RAISED FACE FLANGE

Steel body, disk, seat. CRES stem. Flow control and seat Cobalt-Chromium-Tungsten Alloy. 150 PSI Steam. 500 Degrees Fahrenheit. Spec Mil-V-18110.

	IPS/In.	Flg OD/In.	Bolt Holes No.	Bolt Holes Size
00-418-0160	2-1/2	7	Four	3/4
00-419-0456*	3	7-1/2	Four	3/4
00-469-7725	3-1/2	8-1/2	Eight	3/4
00-419-3024	4	9	Eight	3/4
00-419-5826	6	11	Eight	7/8
00-419-5827	8	13-1/2	Eight	7/8

* CRES.

THREADED INTERNAL PIPE

Copper Alloy. Straight through style with disk flow control. Plain, both ends identical. 200 PSI Steam, 400 PSI water, gas. Stem type, manual valve operation, inside screw bonnet with packing feature.

	NPT
00-268-9152	3/8
00-554-8713	1/2
00-268-9154	3/4
00-268-9157	1-1/2

SOCKET WELD PIPE

Rising stem. Copper Alloy body. Nickel-Copper seat, stem, and flow control device. Solid wedge disk. 200 PSI for steam to 425 degrees Fahrenheit, and 400 PSI for WOG to 150 degrees Fahrenheit temperature.

	IPS
00-495-6213	1/4
00-483-0675	3/8
00-184-9107*	1/2
00-497-1677†	3/4
00-184-9108*	1
00-483-0676	1-1/4
00-483-0677†	2

* With 3 Rubber gaskets.
† Threaded external boss.

VALVE, GLOBE

THREADED INTERNAL PIPE

Air. 10,000 PSI to 500 degrees Fahrenheit. Steel overall with needle type flow control device. Inside screw type bonnet with packing. Cadmium Plated.

00-924-0578 1/4 NPT

150 PSI steam pressure, to 425 degrees Fahrenheit temperature. Copper Alloy body, seat, and flow control device. Nickel-Copper stem. Spec Mil-V-202.

00-262-6875 3/8 NPT
00-262-6877 3/4 NPT

300 PSI steam to 425 degrees Fahrenheit temperature. Copper Alloy body and stem. CRES seat. Disk is either CRES or Nickel-Copper composition. Spec Mil-V-1187.

00-541-0372	1/2 NPT
00-541-0371	3/4 NPT

5000 PSI WOG service to 450 degrees Fahrenheit. Steel overall. Needle type flow control device. Threaded inside screw type bonnet. Bulkhead mounting facility.

00-834-3594	1/4 NPT

6000 PSI Air service to 250 degrees Fahrenheit. Copper Alloy overall. Disk flow control. Threaded internal pipe. Plain, both ends. Threaded inside screw type bonnet. Bracket mounting. Bonnet packing feature.

00-881-0992	1/4 NPT

UNTHREADED INTERNAL PIPE

1200 PSI fuel/oil, hydrocarbon to 100 degrees Fahrenheit. Steel overall with needle type flow control device. Inside screw type bonnet with union attachment method. Special Features: Minimum temperature M20 degrees Fahrenheit. Spec Mil-V-24586.

01-085-3346	1/4 IPS

200 PSI steam to 425 degrees Fahrenheit. Bronze body and seat. Nickel-Copper stem and disk.

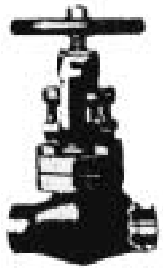
	IPS
00-188-8248	1/4
00-497-1684	3/8
00-497-1686	1/2
00-483-0699	3/4
00-495-6228	1-1/2
00-497-1681	2

UNTHREADED INTERNAL PIPE, SOCKET ENDS

	IPS
00-189-4887	1
00-186-3541	1-1/4

600 PSI and 1500 PSI steam to 775 degrees Fahrenheit temperature. Steel body, stellite faced seat and disk. CRES stem. Spec Mil-V-22094.

UNTHREADED INTERNAL PIPE, SOCKET ENDS



600 PSI steam.

	IPS
01-196-7440	1/4
00-484-8482	1/2
00-841-9968	1-1/2

THREADED EXTERNAL PIPE PLAIN ENDS

400 PSI WOG to 150 degrees Fahrenheit. Bronze body. Nylon disk type flow control device. Ni-Co Alloy seat and stem. Threaded renewable seat ring. Threaded inside screw bonnet, with packing.

	IPS
00-483-0695	1/2
00-188-8247*	1
00-483-0697†	1-1/4

* With 3 BUNA-N “O” rings, for oil service only.
† Socket with brazing ring.

UNTHREADED INTERNAL PIPE, SOCKET ENDS

400 PSI WOG to 250 degrees Fahrenheit. Bulkhead mounting facility. Disk flow control. Copper Alloy body. Plastic disk and packing. Nickel Alloy seat and stem. Manual valve operation. Threaded inside screw bonnet.

	IPS
01-080-0062	3/8

100 PSI steam WOG and salt water to 425 degrees Fahrenheit temperature. Bronze body. Nickel-Copper seat, stem, and disk.

			Bolt Holes	
	IPS/In.	Flg OD/In.	No.	Size
00-287-2046	2-1/2	6-1/8	Six	9/16
00-287-2047	3	6-5/8	Eight	9/16
00-287-2041	3-1/2	7-3/16	Eight	9/16
00-287-2042	4	7-11/16	Eight	9/16
01-215-1455	5	S 9-1/16	Ten	11/16

150 PSI to 140 degrees Fahrenheit. Plain face flange, disk flow control. Copper Alloy body. Rubber disk. Nickel Alloy seat and stem. Manual operation, inside screw bonnet.

			Bolt Holes	
	IPS/In.	Flg OD/In.	No.	Size
01-073-6183	2-1/2	6.130	Six	9/16

FLANGED PIPE W/RAISED STRAIGHT FACE

1500 PSI WOG to 775 degrees Fahrenheit. Ni-Co Alloy body and disk, with Steel seat. Bolted inside screw type bonnet. Raised face 1/4 inch height, 2-7/8 inch diameter.

			Bolt Holes	
	IPS/In.	Flg OD/In.	No.	Size
01-032-5696	1-1/2	7	Four	1-1/8

THREADED EXTERNAL PIPE

400 PSI WOG. 150 degrees Fahrenheit. Plain ends, disk flow control. Copper Alloy body. Manual operation, inside screw bonnet with packing.

00-483-0698	2 NPT

6000 PSI WOG to 275 degrees Fahrenheit. Copper Alloy, Ni-Al body. Nylon disk type flow control device. Ni-Co Alloy seat and Steel stem. Threaded inside screw type bonnet, with packing.

00-070-6918*	1-3/16 UNF
01-184-9371	1-3/8 UNF

* Without vent, union nuts, tail pieces, and tailpiece O-rings.

OFFSET BODY 1-3/4 inch offset. 6000 PSI hyd service. Temperature not rated. Copper Alloy body, Copper Alloy flow control device, CRES stem, BUNA-N Rubber packing. Threaded inside screw type bonnet.

00-070-6920	1/2 NPT

THREADED EXTERNAL HOSE with PLAIN FACE FLANGE

250 PSI, Bronze body and seat, Ni-Co stem.

00-585-7567	5-1/16 outside diameter flange with six 9/16 bolt holes. 1-1/2 hose accommodation.

FLANGED PIPE to HOSE

250 PSI water service. Bronze body and seat. Nickel-Copper stem and nonmetallic disk.

00-585-7566 2-1/2 IPS W/6 11/16 holes 2-1/2 NPSH Hose

THREADED EXTERNAL TUBE

5000 PSI WOG service to 160 degrees Fahrenheit. Steel overall, with needle flow control device. 12.5 degree end seat angle. Threaded inside screw type bonnet with packing. Mil-V-24578.

00-941-8593 7/16-28 UNF 1/4 in. OD tube accommodation

6000 PSI WOG service. CRES overall, with stem flow control device, and Rubber packing. 45 degree end seat angle. Threaded inside screw type bonnet with, 2 nuts and 2 tail pieces. For use as an instrument piping isolation valve (gage valve). Without O-ring groove. .316 inch diameter, .050 inch depth on valve end and socket weld on other. Spec Mil-V-24578.

01-104-0611 9/16 UNF

UNTHREADED INTERNAL TUBE

300 PSI service. Socket ends, Copper Alloy piston type body, seat, and flow control device. Packless type. For use with refrigerants 12 and 22. Threaded inside screw bonnet, lug mounted. Spec Mil-V-20064.

Shut-off service

	Size
00-287-3317	1/4
00-287-5342	3/8
00-287-3323	5/8
00-287-3327	7/8
00-287-3328	1-1/8
00-288-9204*†	1-3/8

* Non Spec Item.
† 400 PSI.

150 PSI Gas Refrigeration service. Copper Alloy body, seat, and stem, Nylon flow control device.

	Size
00-287-3325	3/8 IPS

300 PSI, Refrigerant.Halogenated. Socket ends. Overall Brass. Inside screw type bonnet, threaded. Mil-V-20064.

	Size
00-287-3324	1/2

500 PSI refrigerant service to 450 degrees Fahrenheit. For refrigerant 12 and 22. Copper Alloy body and seat. Steel stem. Nylon disk type flow control device with 1 THREADED and 1 UNTHREADED end. Lug mounted thread, inside screw type bonnet. 1 cap chain furnished.

00-287-3318 1st end socket style 3/8 in. tube 2nd end flared 5/8-18 UNF W/45 deg seat angle. 3/8 in. tube

400 PSI WOG service to 250 degrees Fahrenheit. Copper Alloy body, Ni-Co Alloy seat and stem. Thermoplastic disk type flow control device. Threaded inside screw type bonnet with packing.

01-085-3344 1/4 in. OD tube accom

6000 PSI WOG service to 400 degrees Fahrenheit. Ni-Co Alloy overall. Stem type flow control device. Integral inside screw type bonnet. Spec Mil-V-24578.

01-246-2812 7/16 in. OD tube accom

UNTHREADED INTERNAL TUBE

700 PSI WOG to 250 degrees Fahrenheit. Socket with brazing rings. Disk flow control, manual operation. Nickel Alloy body, disk, and stem. Inside screw bonnet, integral attachment with handwheel.

	Size
01-061-1504	1/2

THREADED EXTERNAL BOSS

4000 PSI air. Steel, CRES overall. External seat for gasket seal, 37 degree seat angle. Stem flow control, manual operation, inside screw bonnet.

	Size
00-886-3802	7/16-20 UNF

THREADED INTERNAL BOSS

6000 PSI WOG service to 250 degrees Fahrenheit Cooper alloy body. CRES stem type flow control device. Threaded inside screw type bonnet with packing. Bulkhead mounting facility.

	Size
00-882-0013	9/16-18 UNF

VALVE, LIFT CHECK

THREADED INTERNAL BOSS

3000 PSI Fuel/Oil to 160 degrees Fahrenheit. Aluminum Alloy body, Steel seat, gasket seal. Poppet flow control, automatic operation. Press-in renewable seat, inside screw bonnet, spring disk loading. Horizontal mounting position.

	Size
00-971-3567	7/16-20 UNJF

UNTHREADED INTERNAL PIPE

Copper Alloy body, Nickel Alloy seat and stem, Rubber disk. Socket type ends. Disk flow control. Threaded renewable seat ring, inside spring bonnet, spring disk loading. Diaphragm chamber activates disk per line pressure differential.

	Size
01-058-9728	3/8 IPS

VALVE, PLUG

THREADED INTERNAL BOSS

FLOW STYLE: Two-way, two port 90 degree plug turn.

3500 PSI hydraulic fluid, Phosphate-ester base to 185 degrees Fahrenheit. CRES overall, enamel surface. Gasket seal ends. Manual operation, nonadjustable rotation.

	Size
00-056-8479	9/16-18 UNF

THREADED INTERNAL PIPE

FLOW STYLE: Two-way two port 90 degree plug turn.

Air service. 150 PSI to 280 degrees Fahrenheit. Copper Alloy overall. Plain ends. Manual operation, nonadjustable rotation.

	Size
01-154-2071	1/4 NPT

FLOW STYLE: Four-way, four port, 90 degree plug turn.

Bulkhead Mounting Facility. Steel, Composition 304. Manual operation, nonadjustable rotation. SPCC HX Quality control specs.

	Size
00-782-6560	1/8 NPT

VALVE, PNEUMATIC TANK

THREADED EXTERNAL TUBE

Air or gas service. CRES overall. Stem and disk flow control device. Furnished with cap. Special features: 2 lock wire holes and 5000 PSI operating pressure. 1st end: External seat for gasket seal. 2nd end: Hose socket. Mil STD MS 28889-2.

00-535-6483 1st end 1/2-20 UNF
2nd end .305-32 UNEF

THREADED EXTERNAL PIPE

Brass body and seat, Nickel Plated body. One end connection. Core flow control, Brass or Plastic. Standard core length. Steel spring with medium tension, with cap.

	Size
00-242-4064	1/8-27 NPT

THREADED EXTERNAL PIPE/TUBE

Brass body, Nickel Plated. Steel core flow control. Threaded external pipe, plain to threaded external flare less tube. 45 degree seat angle. 300 degrees Fahrenheit temperature rating. Standard core length, Steel spring. Includes 6300C cap.

00-454-7606 .125-27NPT .302 UNS

VALVE, REGULATING, FLUID PRESSURE

PLAIN FACE FLANGE

Bronze body, Ni-Co Alloy seat and stem. Synthetic Rubber flat disk flow control device. Spec Mil-R-16743.

Air service. Thread type, renewable seat ring. Manual single stage regulation, with spring loaded valve and bellows. Remote actuation method, without filter. Maximum inlet pressure150 PSI. 100 to 150 PSI outlet pressure range.

00-946-2700 6-1/8 OD flg
Six 9/16 bolt holes

Salt water service. Thread type renewable seat ring. Manual single stage regulation, with spring loaded valve and bellows, remote actuating method. Maximum inlet pressure 150 PSI. 40 to 140 PSI outlet pressure range.

00-752-9809 5-1/16 OD flg
Six 9/16 bolt holes

Salt water service. Temperature not rated. Thread type renewable seat ring. Auto single stage regulation, with spring loaded valve and bellows, remote actuating method. Without filter. Maximum inlet pressure 150 PSI. 70 to 170 PSI outlet pressure range.

00-288-8371 2IPS 5-9/16 OD flg
Six 9/16 bolt holes

Monochlorodifluoromethane service. Inlet pressure 150 PSI, outlet pressure 70 to 260 PSI to 170 degrees Fahrenheit. Ni-Co Alloy diaphragm flow control, automatic single stage regulation, spring loading, remote bellows actuation.

00-560-6682 1.250 IPS 4.500 OD flg
Four 9/16 bolt holes

Salt water service. Inlet pressure 150 PSI, outlet pressure 40 to 140 PSI. Brass body and stem, Aluminum Bronze seat. Brass and Rubber flow control. Disk, top and bottom guided, diaphragm mounted. Threaded renewable seat, automatic single stage regulation, spring loading, remote bellows actuation.

00-618-9001 3/4 IPS 3.13/16 OD flg
Four .563 bolt holes

Intended for use in water systems of naval ships. Bronze body, Ni-Co Alloy seat and stem. Plastic flat disk type flow control device. 150 PSI maximum inlet pressure rating. 165 degrees Fahrenheit temperature rating except as noted. Threaded renewable seat ring. Spring loaded valve. Without filter. Spec Mil-V-2042.

Fresh and salt water service. SPECIAL TEST FEATURES: High impact shock tests required. 25 to 60 PSI maximum outlet pressure range. Auto double stage regulation.

00-181-8934 5-1/16 OD flg
Six 7/16 bolt holes
00-181-8935 6-1/8 OD flg
Six 9/16 bolt holes
00-181-8937 6-5/8 OD flg
Eight 9/16 bolt holes

Salt water service. Manual single stage regulation. 150 inlet pressure.

00-461-4466 5-9/16 OD flg
Six 9/16 bolt holes
00-256-6543 7-3/16 OD flg
Eight 9/16 bolt holes

THREADED EXTERNAL TUBE/ THREADED INTERNAL GAS CYLINDER

350 PSI Acetylene service. Body, seat, and stem CRES, Nonmetallic disk. 6.5 to 7.5 PSI outlet pressure range with 3.5 PSI accuracy rating. Minus 25 to 150 degrees Fahrenheit temperature rating. With filter and auto-relief valve. Spec Mil-R-19180.

00-551-0757* 9/16-18UNF L/H ext thd
.620-20NGO R/H int thd
* 30 degree seat angle mating surface.

Oxygen service. Brass body with cylinder and delivery gauge, with indicator. Spec Mil-R-19180.

1600 PSI maximum inlet pressure.

00-171-9816* .908-14 NGO R/H int thd. 9/16-18 UNF R/H ext thd. 0 to 400 PSI and 0 to 3000 PSI, or 0 to 500 PSI and 0 to 4000 PSI dial range. 1st stage auto, 2nd stage manual.

01-256-0264 9/16-18 UNJF R/H ext thd W/12 deg seat angle. .908-14 NGO R/H int thd. 0 to 400 PSI and 0 to 3000 PSI, or 0 to 500 PSI and 0 to 4000 PSI range. Manual single stage regulation.
* Any Acceptable body material.

2000 PSI maximum inlet pressure.

00-171-9819 .908-14 NGO R/H int thd. 9/16-18 UNF L/H ext thd. 0 to 40 PSI outlet. Automatic relief valve, cylinder gage, delivery gage, and indicator. Manual single stage regulation. Dial ranges 0 to 60 and 100 to 4000 PSI.

2500 PSI maximum inlet pressure.

00-551-0758* 9/16-18 UNF R/H ext thd, with 60 deg seat angle. .903 to 14 NGO R/H int thd. 1st stage auto, 2nd stage manual. 40 PSI outlet press setting. With filter and auto relief valve.

* A/A body material

THREADED EXTERNAL TUBE

400 PSI Acetylene service. Flared and compression ends. Brass body, seat, and stem. Chloroprene Rubber diaphragm type flow control device. Wheel type manual single stage regulation. Single seat valve stem design weight loaded. With filter and automatic relief valve. Spec Mil-R-13877.

00-551-1094 9/16-18 UNF LH ext thd, 45 deg seat angle. .880-14 NGO LH ext thd. 250 PSI max inlet press. 0 to 15 PSI outlet press range. 0 to 30 PSI and 0 to 400 PSI and 0-500 PSI dial range.

THREADED EXTERNAL TUBE / THREADED EXTERNAL GAS CYLINDER

1600 PSI CRES with nonmetallic valve seat. 2 inch or 2-1/2 inch outside diameter with automatic relief valve. Minus 25 degrees to plus 150 degrees Fahrenheit temperature range. Spec Mil-R-19180.

Argon service. With filter, cylinder gauge, and flow meter. Regulation, first stage automatic, second stage manual.

00-291-5565 .960-14 NGO R/H ext thd. 9/16-18 UNF R/H ext thd. 0 to 3000 PSI and 0 to 4000 PSI dial range.

2500 PSI air, Helium or Nitrogen service. Corrosion resistant metal body with nonmetallic valve seat. 0-100 PSI outlet pressure range. With filter, auto-relief valve, and inlet pressure gauge. Manual single stage regulation. Spec Mil-R-19180.

00-515-5663* 9/16-18 UNF R/H ext thd. .960-14 NGO L/H ext thd

* 60 degree seat angle mating surface.

THREADED INTERNAL TUBE/ THREADED EXTERNAL GAS CYLINDER

Argon, Helium, and Nitrogen service. 50 PSI maximum inlet pressure. Body Aluminum Alloy, with Brass needle type flow control device. 1st stage auto, 2nd stage manual type regulation. Knob control, spring loaded valve, with filter, flowmeter, and inlet pressure gage.

00-664-6655 5/8-18 UNF RH int thd. .960-14 NGO RH ext thd.

THREADED EXTERNAL TUBE/ UNTHREADED EXTERNAL HOSE

Air service. 250 PSI maximum inlet pressure, with 300 degrees Fahrenheit temperature rating. Auto single stage regulation, with spring loaded valve. Bracket mounted, 20 PSI outlet pressure setting. Steel disk type flow control device and Aluminum Alloy body, with painted surface.

00-816-4489 3/8-24 UNF RH ext thd W/ 37 deg seat angle. Beaded 2nd and 3rd ends for unthd hose

THREADED INTERNAL BOSS

Air and fresh water service. Bronze body, seat, and stem. Synthetic Rubber flat disk flow control device. 200 PSI maximum inlet pressure rating. 5 to 95 PSI outlet pressure range. 150 degrees Fahrenheit temperature rating. Screw type manual control. Single seat spring loaded valve, with strainer.

00-482-6369 7/16-20 UNF RH int thd

THREADED INTERNAL PIPE

150 PSI inlet pressure, 10 to 60 PSI outlet pressure, air and fresh water service. Bronze body, seat and disk. Top and bottom guided, yoke mounted to diaphragm flow control device. 100 degrees Fahrenheit temperature rating. Manual screw type single stage regulation. Single seat spring loaded valve. Diaphragm remote actuation method 10 to 60 PSI outlet pressure range, without filter. SPECIAL FEATURES: 19 GPM water maximum flow capacity, at maximum rated inlet and outlet pressure.

00-288-8383 3/4-14 NPT R H

150 PSI air service to 100 degrees Fahrenheit. Brass body. Swivel nut, flared ends. Poppet flow control, spring loaded. Spec Mil-V-24384.

00-096-8563 1-1/4 -111/2 NPT RH

150 PSI salt water service. Bronze body, Ni-Co Alloy seat, stem, and disk. Top guided flow control device with BUNA-N Rubber packing. 170 degrees Fahrenheit temperature rating. Threaded renewable seat ring. 1st stage auto, 2nd stage manual regulation. Screw type manual, bellows type automatic. Single seat spring loaded valve stem design. 70-260 PSI outlet pressure range, with pressure breaker.

00-690-5218 3/4-14 NPT RH

300 PSI water service. Bronze body, Ni-Co seat. Plastic disk flow control, threaded renewable seat ring, manual screw single stage regulation, spring loading. 25 to 75 PSI outlet pressure.

00-409-6328 3/4-14 NPT RH

350 PSI fresh water service. Bronze body, Ni-Co Alloy seat, stem, and disk type flow control device. Bellows actuated auto single stage regulation. Spring loaded valve. 70 to 250 PSI outlet pressure range.

00-889-5779 3/8-18 NPT RH

400 PSI air and water service. Brass body, Acetate Plastic seat. BUNA-N Rubber diaphragm type flow control device. 150 degrees Fahrenheit temperature rating. Auto single stage regulation. Spring loaded valve, with bonnet.

00-004-8282 1/8-27 NPT RH

THREADED INTERNAL TUBE

400 PSI air service. Brass body and seat. BUNA-N Rubber diaphragm flow control device. Marine finish outside surface treatment. Bonded renewable seat ring. Knob type manual single stage regulation. Spring loaded valve. Diaphragm remote actuation method. 0 to 50 PSI outlet pressure range accurate to .5 PSI.

00-138-2075 3/8-24 UNF RH

UNTHREADED INTERNAL TUBE

150 PSI fresh water service. Bronze body. Bellows flow control device. Auto single stage regulation. Spring loaded valve.

00-609-7456 1/2 in. OD tube accom.

150 PSI, Noncorrosive refrigerant to 170 degrees Fahrenheit. Cast Naval Bronze body, Ni-Co seat and stem. Socket ends. Ni-Co diaphragm flow control, bellows loading. 70 to 260 PSI outlet pressure. Spec Mil-F-18866.

01-003-5530 1/2 in. OD tube

UNTHREADED INTERNAL PIPE

150 PSI fresh and salt water service. 165 degrees Fahrenheit temperature rating. Diaphragm type flow control device. Both ends streamlined with one brazing ring style. Threaded renewable seat ring. Auto double stage

regulation. Single seat spring loaded valve. 25 to 60 PSI outlet pressure with nut, union, and tailpiece. SPECIAL FEATURES: Ends without brazing rings installed. SPECIAL TEST FEATURES: High impact shock tests are required. Spec Mil-V-2042.

	ID
00-181-8911	1
00-181-8912	1-1/4
00-181-8920	1-1/2
00-181-8910	2

150 PSI salt water service. Bronze body, Ni-Co Alloy seat, and Brass stem, with Synthetic Rubber disk type flow control device. Threaded renewable seat ring. Auto single stage regulation. Single seat valve stem. Bellows valve loading method and remote actuated. 70 to 260 PSI outlet pressure range. SPECIAL FEATURES: Both line connections have union joints, with socket weld tailpieces, .250 inch flare nut connection.

	ID
00-106-2051	3/4

150 PSI salt water service. Bronze body. Disk type flow control device. Auto single stage regulation. Bellows valve loading method. Diaphragm remote actuated with filter.

	ID
00-106-2050	1

VALVE, REGULATING, TEMPERATURE

THREADED INTERNAL / EXTERNAL PIPE

Bronze body, Brass stem, CRES Steel piston. Angle body style, 1 plain internal end, 2 plain external ends. Free type piston flow control, Integral with valve thermostatic element, adjustable temperature. Furnished with dial, nut, union, and tailpiece. SPECIAL FEATURE: Furnished with flange plate and position indicator.

01-027-2212 1/2-14 NPT RH All ends

UNTHREADED INTERNAL PIPE

Bronze body. CRES seat and flow control device. Self actuating, valve closes on temperature rise. 120 to 180 degrees Fahrenheit temperature range. 2000 pound steam per hour at 75 PSI inlet pressure. 14 foot long capillary tube with 1/2 inch diameter bulb.

00-202-6371 1-1/4

VALVE, RELIEF, PRESSURE AND TEMPERATURE

UNTHREADED INTERNAL PIPE

Fresh water service. Angle body style. Bronze body, seat, and poppet type flow control device. CRES stem. 180 degrees Fahrenheit unadjustable temperature rating. Fusible temperature control device. 80 PSI opening pressure setting.

00-761-1981 1st end 1/2 in. pipe accom, 7/8-14 UNF 2nd end 1/4 in. pipe accom, 7/8-14 UNF

VALVE, SAFETY RELIEF

THREADED EXTERNAL PIPE

200 PSI Acetylene, air, hydrogen, and refrigerant 12 service. Maximum operating temperature M40 to P250 degrees Fahrenheit all services. Aluminum Alloy body, seat, stem, and disk type flow control device (BUNA-N rubber). Flow rate not rated. Automatic or manual operation. Spring loaded disk. Integral inside spring type bonnet. 25 PSI opening pressure setting. 29 to 72 PSI adjustable pressure range.

00-054-7713 1/8-27 NPT

200 PSI air to 300 degrees Fahrenheit. Angle style adjustable from 25 to 200 PSI. Plain ends. Aluminum body, seat, and stem. Copper Alloy and Silicon disk flow control, automatic operation, integral bonnet attachment, spring disk loading. Pressure tight outlet side.

00-482-2441 1/4 NPTF

250 PSI air service. Bronze body, seat, and disk. Brass stem. Automatic or manual lever valve operation. 26 to 75 PSI adjustable pressure range. Single end external thread. NAVSHIPS Drawing AS11S49-8 pc 433.

00-446-3499 1/2-14 NPT single end

2500 PSI WOG. M40 to 300 degrees Fahrenheit temperature rating. Steel body and poppet flow control device, with BUNA-N Rubber packing. Auto valve oper. Spring loaded disk. 3 to 50 PSI adjustable pressure range. SPECIAL FEATURES: Installed with deflector cap.

01-027-8920 1/2-14 NPT both ends

THREADED INTERNAL BOSS

150 PSI to 250 degrees Fahrenheit. Adjustable from 20 to 80 PSI. Angle style, gasket seal ends. Copper Alloy body. CRES Steel disk flow control. 100 cubic feet per minute discharge flow rate. Automatic operation, spring disk loading.

01-074-8361 1-3/16-12 UN

275 PSI FUEL/OIL to 275 degrees Fahrenheit. Opening pressure 240 PSI, gasket seal ends. Aluminum Alloy body and seat. CRES Steel poppet flow control.,Aautomatic operation. 3.5 GPM discharge flow rate, spring disk loading. Pressure tight outlet side.

00-055-5114 9/16-18 UN

THREADED INTERNAL PIPE

30 PSI steam to 210 degrees Fahrenheit. Opening pressure 30 PSI. Copper Alloy overall. Poppet flow control, automatic or manual operation, spring disk loading. Bonnet packing and pressure tight outlet side.

00-771-4730 3/4 NPT

160 PSI fresh water service. Temperature, flow rate not rated. Bronze overall. With spring loaded disk type flow control device. Automatically operated. Inside spring type bolted bonnet. 70 PSI opening pressure setting. SPECIAL FEATURE: Valve has emergency BTU steam discharge capacity but is not to be used for steam service installations.

01-093-7289 1 in. NPT, all ends

4000 PSI salt water. Adjustable from 200 to 4000 PSI. Angle style. CRES Steel body and seat. Cone flow control, automatic operation, spring disk loading. 125 GPM discharge flow rate. Pressure tight outlet side.

00-460-2374 1/4 NPT

THREADED EXTERNAL TUBE UNTHREADED INTERNAL PIPE

400 PSI fresh water to 150 degrees Fahrenheit. Adjustable from 171 to 200 PSI. Angle style socket type ends. Copper Alloy body, Nickel Alloy seat. Copper Alloy disk flow control, automatic operation, spring disk loading.

01-057-4138 1/2 In. pipe size

460 PSI air. Adjustable from 116 to 150 PSI. Angle style, socket type ends. Copper Alloy body. Copper Alloy disk flow control, automatic operation, inside spring bonnet (bolt attachment), spring disk loading.

01-130-8756 1/2 In. 3/4 In.

UNTHREADED INTERNAL TUBE

155 PSI refrigerant 12 service. Angle style. Brass body seat and stem. Chloroprene Rubber disk type flow control device. Spring loaded disk. Threaded inside spring type bonnet. 200 PSI opening press setting, with valve stem lock shield and pressure tight outlet side.

00-287-4045 5/8 in. OD tube accom

5000 PSI air to 165 degrees Fahrenheit. Adjustable from 2901 to 5000 PSI. Angle style, socket with brazing ring one end, plain socket other end. CRES Steel body, disk, and stem. Disk flow control, automatic operation, inside spring bonnet (thread attachment). Pressure tight outlet side.

01-025-0341 1/2 in. tube, both ends

THREADED INTERNAL / EXTERNAL PIPE

60 PSI fresh water. 30 PSI opening pressure. Copper Alloy body, Chrome Plated. Angle style, plain ends. Poppet flow control, automatic operation, inside screw bonnet (integral attachment). External end is valve inlet.

00-003-8324 3/4 NPT, both ends

Oxygen, liquid service. Angle style. CRES body, seat, and stem with plug type flow control device. Spring loaded disk. 100 to 120 PSI adjustable pressure range, with pressure tight outlet side. For Aircraft use in both 300 and 70 PSI. Liquid Oxygen converters. Spec Mil-V-9050.

00-980-7721 1/8 ANPT RH

55 PSI opening pressure. Angle style, plain ends. Copper Alloy, Chrome Plated body. Copper Alloy seat and stem. Plastic or Copper Alloy poppet flow control, automatic or manual operation, inside spring bonnet (integral attachment), spring disk loading.

01-020-4709 3/4 NPT, both ends

VALVE, STOP CHECK

PLAIN FACE FLANGE

100 PSI steam and WOG service. 425 degree Fahrenheit maximum operating temperature. Angle body style. Copper Alloy body, seat, and stem. Ni-Co Alloy disk type flow control device. Manually operated. Horizontal mounting. Bolted outside screw-yoke type bonnet, with packing.

00-289-2245 2-1/2 in., 6.125 in. OD flg. 6 bolt holes. .562 in. dia

100 PSI WOG to 425 degrees Fahrenheit. Straight through style. Copper Alloy body, Nickel Alloy disk, seat, and stem. Disk flow control, manual operation, horizontal mounting, threaded renewable seat ring, outside screw-yoke bonnet (bolt attachment). NAVSHIP (80064) Drawing 5000-S4824-C1385541.

00-188-8262 2-1/2 in., 6.125 OD flg. 6 bolt holes. 9/16 in. dia

RAISED FACE FLANGE

1500 PSI steam. Straight through style. Nickel Alloy body and stem, Cobalt Alloy seat, Nickel Alloy or Cobalt Alloy disk flow control. Manual operation, horizontal mounting, outside screw-yoke (bolt attachment), bonnet packing.

01-017-1200 7.000 OD flg 1/4 in. hg, raised face 4 bolt holes 1-1/8 dia.

THREADED EXTERNAL PIPE

PSI not rated. Copper Alloy body. Disk flow control, manual operation, horizontal mounting, threaded renewable seat ring, inside screw bonnet (thread attachment), bonnet packing. SPCC (03950) Spec CID 882037228.

00-184-9186 1-1/2 NPT

200 PSI steam to 425 degrees Fahrenheit. Copper Alloy body, Nickel Alloy disk, seat, and stem. Disk flow control, automatic or manual operation, horizontal mounting, threaded renewable seat ring, inside screw bonnet (thread attachment), bonnet packing. SPCC (03950). Spec CID 882037229.

00-183-6995 2.000 NPT

UNTHREADED INTERNAL PIPE

200 PSI steam to 425 degrees Fahrenheit. Straight through style, socket ends with brazing rings. Copper Alloy body, Nickel Alloy disk, seat, and stem. Disk flow control, automatic or manual operation, horizontal mounting, threaded renewable seat ring (thread attachment), bonnet packing. SPCC (03950) Spec listed.

	Pipe Size	Spec
00-183-6991	1/2	CID 882037224
00-184-9185	3/4	CID 882037225

GROUP 49
MAINTENANCE AND REPAIR EQUIPMENT

CLASS 4930
LUBRICATION AND FUEL DISPENSING EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ADAPTER, GREASE GUN COUPLING

Extension adapter, hydraulic type coupling/inlet connection. Nozzle type dispensing end. 10,000 PSI maximum working pressure. Steel, Cadmium or Zinc plated. Used to connect lubricating fittings of different types, for the purpose of dispensing grease with high pressure or power operated lubricating guns, buckets, or similar dispensing equipment. Mil Spec Mil-L-4387.

FLEXIBLE, STRAIGHT COUPLING. 12 to 14 inches overall length.

NPTF

00-288-1511 Int thd 1-1/8-27

RIGID, FIXED ANGLE COUPLING.

	Type	Lg
00-141-8258*	Straight	7
00-563-2388	45 degrees	3-1/2
00-563-2389	90 degrees	3-1/2

* 8 position, 360 degree swivel.

BOTTLE, FUEL SAMPLE

Plastic, Polypropylene chemical resistant: 1 liter capacity, threaded top. Calibrated re band 800 ML, Green band 500 ML. (For Model 390R Contaminated fuel detector 6640-01-341-7448).

01-341-7448

COUPLING, GREASE GUN

Flush Type Nozzle, Chromium Alloy, Plated Steel coupling. 1/8-27 NPT female thread inlet connection. Spec MS24205.

00-722-4094

Hydraulic Type Nozzle, Cadmium Plated Steel coupling. 1/8-27 NPT female thread inlet connection. Mil Spec Mil-L-4387.

00-200-1355 W/check valve

Hydraulic type nozzle with 18 inch bent extension, 10 to 20 degree bend.

00-294-5104 W/O check valve

Shafer Type Nozzle. Cadmium and Zinc Plated Steel coupling. 1/8-27 NPTF female thread inlet connection. Spec MS24203-1.

00-200-1841 W/O check valve

DISPENSER, GRAPHITE

Plastic. 1/4 ounce capacity, nonrefillable, not packaged for issue. Mil Spec Mil-D-43278.

00-294-5108

DISPENSING PUMP, HAND DRIVEN

DIAPHRAGM TYPE

Used to transfer liquid petroleum product from drums into vehicles and aircraft fuel tanks, and into smaller containers, having 1-1/2 or 2 inch standard straight pipe thread plug opening. With fluid return drain pan. Fed Spec XX-D-385.

Adjustable inlet pipe. 21 inches to 40 inches. Outlet hose 3/4 inches inside diameter, 8 feet long.

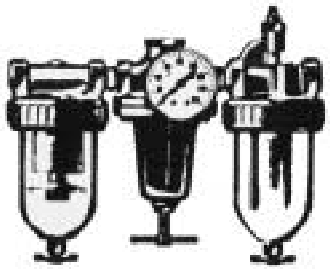
00-263-9886 10 GPM 100 CPM

This pump is intended primarily for pumping lightweight or medium weight oil, from 15 to 55 gallon drums. 1 quart measured quantities per stroke. With threaded plug. 1-1/2 inches to 2 inches Bung opening size. Adjustable range of intake pipe is from 30 inches to 42 inches. Locking device included. With fluid return drain pan. Fed Spec XX-D-370.

00-294-6897

FILTER AND OILER, AIRLINE

Combination Filter and Oiler, consisting of: a clear plastic centrifugal air filter with drain cock, air pressure gage with a range from 0 to 160 PSI, air regulator with a clear plastic oil bowl, and an adjustable feed. Used when dry, clean, pressure reduced, adequately lubricated compressed air is required. Mil Spec Mil-F-82042.



NPT

00-293-8152 1/2 inch

Aluminum Alloy, with chromate treatment, 1/2 inch inlet, 3/8 inch outlet port. 150 PSI. 140 degrees Fahrenheit maximum temperature rating.

01-060-8915

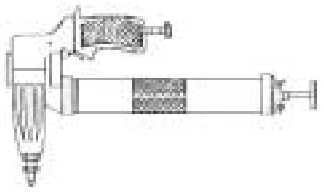
FILTER - LUBRICATOR ASSEMBLY, AIRLINE

Plastic Polycarbonate. 8 ounce oil reservoir capacity, T-Handle pressure adjustment, manual drain valve, and pressure gage with mounting bracket. Mil Spec Mil-O-82042.

00-293-8154

GREASE GUN, PNEUMATIC

Pneumatic Grease Gun. 80 to 125 PSI operating pressure range. One shot type. Air hose connection, 1/4-18 NPT female thread. Extension 7/8-9 NC male thread. Extension accessories are: 1 hydraulic to hydraulic 90 degree angle adapter, 1 hydraulic to pin type adapter, 1 hydraulic to push type adapter, 1 hydraulic coupling, 1 hose assembly whip(18 inches long), 1 hose assembly(25 feet long), and 2 additional grease containers. 1 pound lubricant capacity.



00-432-9211

GUN, FLUID DIRECT DELIVERY

Pump type, push handle oiler. Designed to supply lubricants or similar liquids by force feed. All parts subject to wear, breakage, or distortion are readily accessible for adjustment and repair. Fed Spec GGG-O-591.

Flexible metallic hose, rigid bent 90 degree angle tube, and rigid gooseneck tube.

	Cap./Oz
00-910-8373	11

Palm and finger-grip control. Rigid bent spout. Maximum delivery pressure 3000 PSI. Used in small machinery and close quarters.

	Cap./Oz
00-356-3924	5

Push handle disengagement from follower feature, flexible metallic hose, rigid bent angle tube, and rigid curved tube.

	Cap./Oz
00-274-5699	25.8

LEVER, MANUAL CONTROL

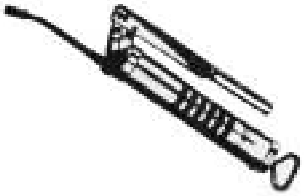
Aluminum. 5.250 inch overall length, 2.562 inch overall width, .656 inch thick. With handle on one end. 2.250 inches long and square hole, .438 inch square on second end. Mark: Open and Close on bottom of second end.

00-918-8506

LUBRICATING GUN, HAND

LEVER OPERATED

Equipped with 6-1/2 inch long rigid bent angle tube extension. 6000 PSI maximum delivery pressure. Spring priming method. Hydraulic coupler on dispensing end. Intended for use with cartridge and/or bulk grease. Spec M3859/1-4.



	Cap./Oz
00-253-2478	14

Equipped with 12 inch long flexible rubber hose extension and furnished with adapter kit. 10,000 PSI maximum delivery pressure.

	Cap./Oz
00-965-0288	16

Equipped with 18 inches long flexible rubber hose extension. Furnished with: 90 degree elbow; One end .125 inch NPT internal. Other end: .125 inch NPT external. 4800 PSI discharge pressure. Hydraulic coupler type. Spring priming method. Non-Spec item.

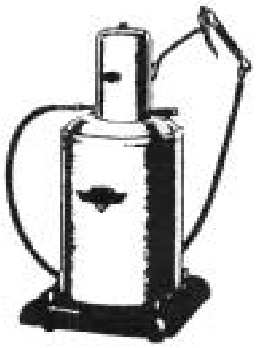
	Cap./Oz
01-028-1442	16

Spring primed lube gun with hydraulic type fitting without loader fitting. 4000 PSI maximum delivery pressure. Mil Spec Mil-G-3859.

	Cap./Oz
00-250-8038	3

LUBRICATING UNIT, POWER OPERATED

High pressure air operated lubricating unit. Handles fibrous light or heavy bodied lubricants. Gun pressure, 6000 pounds maximum. Equipped with, hydraulic coupler and 6 foot long hose. 60 pound container mounted on Rubber tired dolly. Fed Spec GGG-L-795.



	Max PSI
00-720-4849	80 to 150

LUBRICATOR

Air driven. Two nozzle approximately 4.5 inches apart, orifice opening 0.24 inch diameter; overall shape circular on approximately 5.13 inches circumference; stem approximately 1.66 inches long, 0.352 inch outside diameter, 0.125 inch, inside diameter; Material AMS 5510, AMS 5645, and AMS 5570 various places; flow minimum 52.0 pounds per hours.

01-133-4713

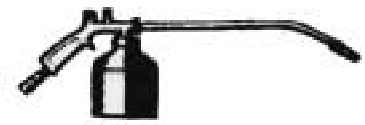
NOZZLE, FUEL AND OIL SERVICING

Pistol grip, self closing. Hand operated with integral strainer. Aluminum Alloy body and Aluminum tubing. Rigid spout. Intended for use on ground equipment for servicing aircraft.

	NPT
01-022-7901	2-11-1/2 int thd

OIL GUN, PNEUMATIC

Button or trigger operated. Provided with adjustable spray nozzle and air adjustment valve to regulate line pressure of 50 PSIG, to minimum operating pressure. Sprays SAE 5W to SAE 30 oil, kerosene, and other cleaning solvents. Mil Spec Mil-O-14559.



	Cap./Qt
00-222-2975	1

OILER, AIRLINE

Rigid horizontal airline. Inlet and outlet connections listed below. Aluminum bowl adjustable under pressure, oil feed sight glass. 1/2 pint bowl capacity. Non-Spec item.

	Pipe size
00-779-5763	1/4
01-152-7902	1/2

OILER, HAND

Handle and lever operated. Self-priming pump type. Fed Spec GGG-O-591.

Flexible spout.

	Cap./Oz	Spout Lg/In.
00-262-8868	16	13
00-266-9159	32	18

Rigid spout with bent tip.

	Cap./Oz	Spout Lg/In.
00-169-8275	16	9
00-396-1040	32	15

Flexible spout with removable tip.

	Cap./Oz	Spout Lg/In.
00-517-1280	32	8

Pistol Grip Pump Type. Furnished with removable tip. Spec MS15762.

Rigid bent tip spout.

	Cap./Oz	Spout Lg/In.
00-274-5713	4	3
00-554-6778	8	6
00-268-9786	22	6

Rigid straight spout.

	Cap./Oz	Spout Lg/In.
00-275-7900	36	A/A

Push Button Type. Rigid removable spout. Fed Spec GGG-0-591.

Bell shaped, Bench

	Cap./Oz	Spout Lg/In.
00-273-3653	8	6

Straight spout

	Cap./Oz	Spout Lg/In.
00-266-9182	8	4

OILER, SELF FEEDING

Copper alloy body with Nickel surface treatment. Straight style body, regulated, with shut-off and sight feed. .750 inch clarence radius, 4.750 inches high. .125 inches by 27 inches, NPT. .625 ounce oil capacity.

00-243-4632

PARTS KIT, FUEL AND OIL SERVICING NOZZLE

Consisting of: Handle grip, collar bumper, wave washer, assorted washers, spring, packing, seal, cotter pin, and gaskets.

00-778-7422

Consisting of: Cover assembly, needle valve, cotter pin, valve crank, assorted washers, plug, hex bolts, collar bearing, O- ring, spacer, screws, and ball.

00-778-7336

PUMP, BUCKET, LUBRICATING HAND

Gooseneck coupler with leak proof cover. 5 foot hose, 35 pounds lubricant capacity. 750 pounds PSI nominal pressure capacity. CID A-A50202.

00-244-4860

PUMP LUBRICANT TRANSFER

Air operated, 144 pounds lubricant dispensing capacity per minute. 150 pounds pressure rated, drum pump type, bung opening.

00-718-4075

Air operated. Lubricant dispensing capacity .750 pounds per minute. 150 pound pressure rated. Full opening. Equipped with follower plate and carrying handle.

01-223-3730

REEL, ASSEMBLY, HOSE

Wall mounted, spring actuation, 3,000 pound pressure capacity. 24 feet hose capacity. Fuel/oil, hydrocarbon media. 11.810 inch diameter by 8.470 inch width.

01-117-3695	Right Hand
01-254-1195	Left Hand

REEL, STATIC, DISCHARGE

Reel with 50 feet of aircraft grounding cable. Furnished with grounding hardware on free cable end.

01-150-3807

STRAP, HOSE REEL

Nylon webbing, Cadmium Plated bracket, Black. 3 inches wide by 7-3/4 inches long.

01-204-0638

CLASS 4940

MISCELLANEOUS MAINTENANCE AND REPAIR SHOP SPECIALIZED EQUIPMENT

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

AGITATOR, PAINT, SHAKER

1/4 HP AC, 110V, 60 Cycle, Single phase motor. With automatic timer, four can adapter unit. pedestal base with feet and square can adapter unit. 1/4 pint to 1 gallon, rated capacity.

00-243-2735

APPLICATOR, REPAIR PATCH

Polyethylene material. 3.500 inches long x 2.25 inches high (Squeegee).

01-253-7376

AUGER MACHINE, PIPE AND SEWER, POWER OPERATED

60 HZ, single phase, with flexible leader, arrow head drill, down head boring gimlet.

01-266-1491 small auger
01-267-0640 large auger

CLEANER, PRESSURE, SOLVENT-WATER

1000 PSI delivery at 2 gpm. 1.5 HP, 115 V, single phase, 60 Hz. Special features: .500 HP. Power source: AC/D/C electric motor.

01-151-8907

CLEANING GUN, PNEUMATIC

Solvent flow regulated by nozzle. Trigger valve operated. Straight nozzle. Air connection. Threaded 3/8-18 inch diameter, IPS. Solvent connection threaded, 1/4-18 IPS. Mil Spec Mil-G-952.

00-248-0866

CUP, PAINT, SPRAY GUN

Metal, with cover.1/4-14 screw thread. Devilbiss Model P-EGA-502.

00-222-2675	8-oz	screw mounting
00-190-5164	qt	clamping

DEMAGNETIZER

A/C, 115 V. 50/60 Hz.

01-296-1800

EXPANDER, HOSE EXPANSION RING

Bench mounting. Hose accommodation: 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, and 3 inches.

00-595-8284

GLOVE, PROTECTIVE, CLEANER

RH Rubber with: 6 eyelets, 6 studs, and 1 Spring Steel ring.

00-062-5661

GLOVE, SAND BLASTER

01-173-4676 large

GUN, AIR BLOW

Straight design, with removable tip, threaded internally. Fed Spec GGG-G-770.

3/8-18 NPT

00-223-8972 button over operation
00-223-8973 lever over operation

1/4-18 NPT

00-333-5541* —
01-243-6484 lever over operation
* Nozzle in accordance DOL Safety and Health Standards.

HEATER, GUN TYPE, ELECTRIC

Aluminum Alloy housing. 115V AC. Single phase, 60 Hz. With heating element.

Painted Aluminum handle. 750 to 1000 degrees Fahrenheit rating. Any acceptable switch functions. With triangle base plate.

	O/A Lg	H	W
00-986-5899	10	8	A/A

Aluminum handle. 200 to 500 degrees Fahrenheit. 1.44 kilowatt. Fan On-Off and Heating element On-Off switch positions. With 10 foot cable, 3 wire, with plug.

	O/A Lg	H	W
00-785-1162	17	7-1/2	7-3/4

Rubber handle, 500 to 750 degrees Fahrenheit. 1.68 Kilowatt. Fan, On-Off and Heating element, On-Off switch.

	O/A Lg	H	W
01-028-7493	8	9-1/2	5-1/4

Cast Iron housing. 115V AC single phase, 60 Hz. 500 to 700 degrees Fahrenheit. Fan On-Off and Heating element On-Off. Air control position with reflector: Open-570 degrees Fahrenheit, Half Open-600 degrees Fahrenheit. Air control position without reflector: Open-500 degrees Fahrenheit. Closed-585 degrees Fahrenheit.

	O/A Lg	H	W
00-561-1002	12	10	6

MINI-GUN, HOTAIR

115 V, AC, 7 amps, includes: bench stand, adapter, solder sleeve, and equipment with hot air blower.

00-307-2745

PARTS KIT, SPRAY GUN

Spray gun end item identification: 4930-00-270-0718.

01-122-6730

For Paint spray gun Model MBC.

01-106-4054

PRESSURIZING KIT, RADIO

Designed to maintain pressure in antenna tuning. Consists of: Nitrogen cylinder Regulator hose.

00-313-7703

SEPARATOR, OIL AND WATER, SPRAY GUN

Wall type mounting. Supply line pressure gauge range 0 to 200. PSI Regulated Air pressure gauge range 0 to 100 PSI. 1 regulator, filter/separator CRES. Mil Spec Mil-S-12928.

00-242-4100

Wall mounting any acceptable material. Mil Spec Mil-S-15847A.

00-200-2096

SPRAY GUN, PAINT

Aluminum Alloy body. Hand operation, nonbleeder design. 55 pound pressure rating. 1-1/4 18 NPS air hose connection thread. 3/8-18 NPS fluid hose connection thread. Both with 60 degree beveled tapered seats. Mil Spec Mil-S-12877.

	CFM
00-261-8415	7-8
00-270-1040	14

Aluminum, machine operation, nonbleeder design. 30 pound pressure rating. Air consumption rate of 4 CFM. 1-1/4 18 NPS air hose connection thread, 3/8-18 NPS fluid hose connection thread.

00-270-1044

SPRAY KIT, SELF PRESSURIZED

Consisting of: (6) spray devices, (10) propellant cans, (4) product jars with lids, and (20) dip tubes. End item use: SPRAY KIT. Mil Spec Mil-S-22805.

00-803-6444

TANK, PRESSURE-FEED, FINISHING- MATERIAL

110 PSI, 2 gal pressure regulator, air motor driven. 8 CFM, 1/4-18 NPS inlet/outlet

00-251-6478

TUBE AND FLUE CLEANER, BOILER, INTERNAL

Curved water tube. 1 inch outside diameter tube accommodation. Air motor powered with hose. Flexible shaft not included. Mil Spec Mil-C-17370.

	Dia/In.	Lg/ft
00-224-7777	.250	25

ULTRASONIC DEGREASER

Stainless Steel 6 to 10 gallon tank. 120 V, 60 Hz, 10, 15 AMPS. 1000 Watt thermostatically controlled heater. Adjustable 0 to 210 degrees Fahrenheit.

01-284-7726

WORK STATION KIT, ELECTROSTATIC CONTROL

Consists of: (2) static dissipative rigid table mats, (1) common point ground system, (1) adjustable wrist strap cuff, (1) wrist strap cord with current limiting resistor, and (1) alligator clip. To be used in clean room environment. Spec M87893.

01-250-4235

Consists of: (1) 15 feet ground cord, (1) coil, (1) small wrist band, (1) large wrist band, and a Work surface (24 by 24) inches. Made of 10 Mill conductive plastic sheet, with 2 storage pouches.

01-168-2044

Consists of: (1) Common point ground system table, (1) static dissipative soft table mat, (1) wrist strap cord with current limiting resistor, (1) adjustable size wrist cuff, and (1) alligator clip. To be used in all areas other than clean rooms or laminar flow booths where ESD sensitive items are handled.

01-250-4236

Consists of: (1) Static dissipative portable work surface, (1) common point ground system, (1) adjustable size wrist strap cuff, (1) wrist strap cord with limiting resistor used in situations where other static control work stations are not available, and (1) alligator clip.

01-250-4237

WRIST STRAP WITH CORD

6 foot wrist strap coiled grounding cord. Made of 22 gauge 6 strand CAD tinsel with urethane coating. Comes with an adjustable wrist strap.

01-382-9136

GROUP 51
HAND TOOLS

CLASS 5110
HAND TOOLS, EDGED, NONPOWERED

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ADZ

Carpenter's full type head. Consists of: a head, a rectangular eyehole, and a thin arched blade curved upward and at right angles to the handle. Cutting edge is 3-1/2 to 5 inches wide. Length from cutting edge to top is 8-1/2 to 9-3/4 inches. Head weight without handle is 3 to 5 pounds. Furnished with handle which is properly fitted into eyehole and then disassembled. Fed Spec GGG-A-151.

00-243-0865$_{NP}$

AX, DOUBLE BIT

Head weight 3-1/2 pounds. Width of cutting edge 4-3/4 inches. Hickory handle is 36 inches long.

00-596-1029$_{NP}$

AX, SINGLE BIT

Intended for use as a utility tool on life boat and life raft. Chopping ax with curved, forged Steel handle, Rubber grip, with sheath. Cutting edge 3 inches wide. Head and handle assembly is 13-1/8 inches overall length. Fed Spec GGG-A-926.

00-720-0711$_{NP}$

Chopping ax fitted with 31 inch long curved, wooden handle, 4 pound head, 4-3/4 inch width of cutting edge. Fed Spec GGG-A-926.

00-293-2336$_{NP}$

Intended for general use in forestry service. 24 inch handle length, 2-1/4 pound head, 3-15/16 inch cutting edge.

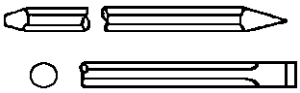
00-293-2339$_{NP}$

House Ax. 18 inch long handle, 2-1/4 pound head, 3-15/16 inch cutting edge. Fed Spec GGG-A-926.

00-272-2699$_{NP}$

BAR, CHISEL

Chisel bars for cold cutting and prying. 60 degree chisel point one end, other end blunt. 1 inch stock size and 36 inch overall length. Fed Spec GGG-B-101.



00-240-6031$_{NP}$

BLADE, CARTON OPENER

Heavy duty blades for carton opener, NSN 5110-00-345-5289. Steel, double-edge. 5 blades per package.

00-293-2866$_{NP}$

BLADE, COPING SAW

6-1/2 inches long spring, Steel coping saw blades with pin ends. Fits coping saw frame, NSN 5110-00-555-9359. 12 blades per package. Fed Spec GGG-B-471. Teeth per inch (TPI) and width as noted.

	TPI	W
00-243-6911$_{NP}$	16	.093

BLADE, KNIFE

High Carbon Steel. Used with X-acto handles, No 1, ISGK, 3, and 3111 for stencils, scoring, etching, small holes, and notches. Fixed blade for light duty holder. Fed Spec GGG-K-450.

00-765-4144$_{NP}$

High Carbon Steel. For use with X-acto handles No. 1, 3, and 7KP. Fed Spec GGG-K-450.

00-359-6478$_{NP}$

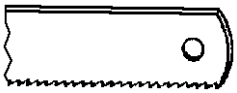
High Carbon Steel packing and shipping knife blades. Fits knife, NSN 5110-00-293-1143. 1-3/4 inches long 3/4 inches wide. 5 blades per package. Fed Spec GGG-K-494.

00-293-2865$_{NP}$

CLASS 5110

BLADE, HAND HACKSAW

Steel hand hacksaw blades, flexible back. Fits standard hacksaw frame. NSN 5110-00-289-9657. 1/2 inches wide by 0.025 inches thick. Teeth per inch (TPI) and length listed in inches. 10 blades per bundle. Fed Spec GGG-B-451. High-speed Steel.



	Lg	TPI
00-277-4587$_{NP}$	10	18
00-277-4588$_{NP}$	10	24
00-277-4589$_{NP}$	10	32
00-277-4590$_{NP}$	12	18
00-277-4591$_{NP}$	12	24
00-277-4592$_{NP}$	12	32

Rod-shaped, abrasive-surfaced blade. Fits standard 12 inch hacksaw frame, NSN 5110-00-289-9657. Makes straight or irregular cuts in Titanium, Stainless Steel, Glass, Ceramics, Cobalt and Glass, or Carbon-filled Plastics. Rust and scale resistant Tungsten Carbide. 5 blades per package.

00-927-1063$_{NP}$

BLADE, JEWELER'S SAW

5 inches long Steel jeweler's saw blade. Fits Frame Jeweler's Saw, NSN 5110-00-223-4972. Used for straight or contour cutting of metal, wood, Plastic, Bone. Gold and/or similar materials. 12 blades per package. Fed Spec GGG-B-471.

	No.	W	Thk	TPI
00-293-2494$_{NP}$	1/0	.024	.011	64
00-293-2495$_{NP}$	3/0	.020	.010	66
00-243-8757$_{NP}$	7/0	.014	.007	80
00-293-0025$_{NP}$	2	.028	.014	48
00-241-2582$_{NP}$	4	.032	.015	40

BLADE, KEYHOLE SAW

Metal cutting blade, 11 inches long with punched butt end. Fed Spec GGG-S-65.

00-892-5844$_{NP}$ 11 points per in.

BLADE, KNIFE, CRASH RESCUE

Steel, single bevel edge blade. 2-1/16 inches overall length. 1/32 inches thick. Used with Department of Air Force rescue knife, 53B7128. End item identification: 5110-00-524-6924.

00-098-4326$_{NP}$

BLADE, WIRE STRIPPER

3 holes, 10 to 14 gage. For use with Type E 600V Teflon wire. Supplied in pairs. Used on Ideal Industries model 45-176, NSN 5110-00-177-7285 and model 45-186, NSN 5110-00-132-1863.

01-075-0761

3 holes, 10 to 14 gage. For use with Type EE 1000V Teflon wire. Supplied in pairs. Used on Ideal Industries models 45-173 and 45-183.

01-075-0763

16 to 26 gage wire. For use with type E 600V Teflon wire. Packaged two blades per set. Used on Ideal Industries Models 45-177 and 45-187.

01-097-0762

6 holes, 16 to 26 gage. For use with Type TE 1000V Teflon wire. Supplied in pairs. Used on Ideal Industries models 45-174 and 45-184.

01-075-0762

10 to 14 gage. For use with Ideal Industries models: 45-170 and 45-180.

00-115-2356

16 to 26 gage. 2 blades. For fiberglass insulation and Plastic. Used on Ideal Industries models: 45-171 and 45-181.

00-115-2358

26 to 30 gage, 2 blades. For fiberglass and Plastic insulation. Used on Ideal Industries models: 45-172 and 45-182.

00-115-2357

BRACE, BIT RATCHET

Box ratchet brace. Ball-bearing chuck holds tapered square. Shank bits from 3/16 to 1/4 inches on the small side and 5/16 to 7/16 inches on large end. Or round shank bits from 1/8 to 1/2 inches diameter. Fed Spec GGG-B-671.

	Sweep/In.
00-293-1957	8
00-293-1958	10
00-221-1188	12

CHISEL, BLACKSMITH'S

Handled chisels for working Iron or Steel. Furnished with 16 inch long Hickory handle. Fed Spec GGG-T-563.

Cold Chisel. For cutting and necking cold metals. 1-1/2 inch cutting edge, 6-1/2 inches long blade.

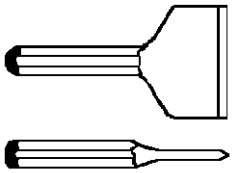
00-221-1075$_{NP}$

Hot Chisel. For cutting hot Iron and Steel. 1-3/4 inches long cutting blade, blade overall length 6-7/8.

00-221-1076$_{NP}$

CHISEL, BRICK

Straight shank, 7 inches long with 4 inches long cutting edge. Fed Spec GGG-C-315.



00-233-9110$_{NP}$

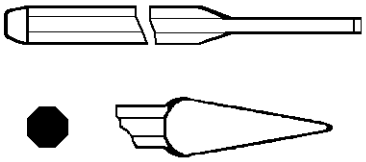
CHISEL, BUTT, WOOD-WORKING

Tang style butt chisels for pattern-makers, cabinet-makers, carpenters, etc. Plastic handle with Steel cap. 2-1/2 inch long blade. Fed Spec GGG-C-311.

	Blade Width/In.
00-585-8433	1/4
00-585-8425	3/8
00-585-8427	1/2
00-585-8426	5/8
00-585-8428	3/4
00-585-8429	1
00-585-8430	1-1/4
00-585-8432	2

CHISEL, CAPE, HAND

Normal duty cape chisel for chip cutting metal. Double-beveled cutting edge. Wear and shock resistant hot forged Alloy Steel. Fed Spec GGG-C-313.

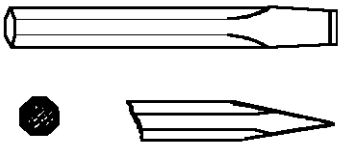


	W	O/A Lg
00-223-1087$_{NP}$	1/8	4-1/2
00-197-9499$_{NP}$	1/4	5
00-197-9497$_{NP}$	5/16	6
00-222-2128$_{NP}$	3/8	6-1/2

	W	O/A Lg
00-236-2041$_{NP}$	1/2	7

CHISEL, COLD, HAND

Forged Steel cold chisels. For cutting bolts, rivet heads, and Steel plate. Double-beveled cutting edge. Fed Spec GGG-C-313.



Regular length

	O/A Width	Lg
00-234-1927$_{NP}$	1/4	4
00-242-3457$_{NP}$	3/8	5
00-186-7107$_{NP}$	1/2	5-3/4
01-335-1418$_{NP}$*	1/2	6
00-221-8132$_{NP}$	5/8	6
01-335-1419$_{NP}$*	5/8	6-1/2
00-236-3272$_{NP}$	3/4	6-1/2
01-335-1420$_{NP}$*	3/4	7-3/4
00-236-3273$_{NP}$	7/8	7-1/2
00-234-1944$_{NP}$	1	8

* Non Spec Item. GSA replacement tool.

Long length

	O/A Width	Lg
00-293-3385$_{NP}$	3/4	12
00-234-1949$_{NP}$	1	12

Nonsparking nonmagnetic cold chisels. For use where flammable dust, gasses, and explosives are present. Made of nonferrous alloys.

	O/A Width	Lg
00-221-1372$_{NP}$	27/32	7-3/4
00-222-2127$_{NP}$	1-1/32	9

CHISEL SET, BUTT, WOOD-WORKING

Tang style butt chisels for pattern-makers, cabinet-makers, carpenters etc. Plastic handle with Steel cap. 2-1/2 inch long blade. 5 piece chisel set. Fed Spec GGG-C-311.

	W/In.
00-945-8055	1/4, 1/2, 3/4, 1, 1-1/2.

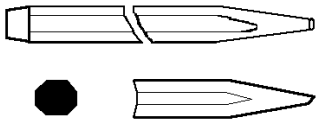
CHISEL SET, COLD HAND

Set of 5 hand chisels (metal working). Hot-forged of Alloy Steel and having a double-beveled cutting edge ground on both sides to an included angle of 65 degrees. Has good cutting wear and shock-resisting properties. Fed Spec GGG-C-313.

	W/In.
00-357-5593	1/2, 5/8, 3/4, 7/8, 1

CHISEL, DIAMOND POINT, HAND

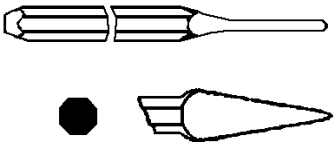
Normal duty. Hot forged Alloy Steel. Fed Spec GGG-C-313.



	W	O/A Lg
00-221-8121$_{NP}$	1/8	4-1/2
00-186-7115$_{NP}$	1/4	5-1/2
00-223-1079$_{NP}$	3/8	6-1/2
00-223-1103$_{NP}$	3/4	8

CHISEL, HALF ROUND NOSE, HAND

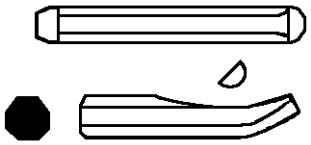
Normal duty. Hot forged Alloy Steel. Semicircular cutting edge with single bevel. Fed Spec GGG-C-313.



	W	O/A Lg
00-222-2117$_{NP}$	1/4	5-1/2
00-222-2118$_{NP}$	5/16	6
00-222-2119$_{NP}$	3/8	6
00-222-2120$_{NP}$	1/2	7
00-271-9943$_{NP}$	3/4	8

CHISEL, RIVET BUSTER, HAND

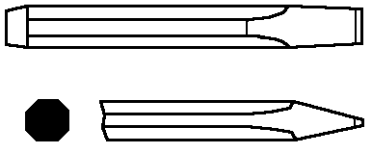
Rivet buster chisel for cutting hardened heads or burred ends of installed rivets. Single bevel work-end, uniformly bent.



	W	O/A Lg
00-293-0556$_{NP}$	5/8	11-1/2

CHISEL, SIDE CUTTING, HAND

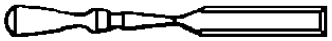
Side-cutting cold chisel. Tapered work-end with single-beveled cutting edge. Fed Spec GGG-C-313.



	W	O/A Lg
00-221-8133$_{NP}$	7/8	7

CHISEL, FIRMER

Socket style woodworker's chisel. Sharpened and honed with beveled edge. Hand forged and heat-treated Steel blade, with Leather-capped hardwood handle. Fed Spec GGG-C-311.



	Blade Width	O/A Lg
00-640-5419	1	6-1/4
00-640-5423	1-1/2	6-1/4
00-640-5424	2	4

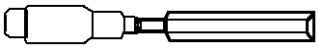
CHISEL, FLOOR

18 inch long floor chisel with 2 inch wide cutting edge. For ripping floor boards, clapboards, shingles, etc. 3/4 inch tool Steel shank.

00-223-1084$_{NP}$

CHISEL, PARING

Woodworker's paring chisel with straight tanged shank. Hardwood handle with metal ferrule. Fed Spec GGG-C-311.



	Blade Width	O/A Lg
00-227-5037$_{NP}$	1/4	5-1/4
00-186-8167$_{NP}$	1/2	6-3/4
00-186-8169$_{NP}$	3/4	6-3/4
00-186-8170$_{NP}$	1	7

CHISEL SET, FIRMER

Set of six woodworker's chisels, socket style. Steel blade, hand-forged, and heat treated. Beveled edges sharpened and honed. Blade width's: 1/4, 1/2, 3/4, (4-1/2 in. long); 1, 1-1/4, 1-1/2, (6 inches long). Plastic roll container. Fed Spec GGG-C-311.

00-449-6907

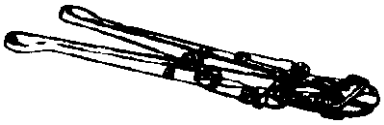
CUTTER, BOLT

Adjustable rigid-head. Tempered to cut Wrought-Iron, annealed soft-Steel bolts, rivets, and cold-drawn screw stock. Fed Spec GGG-C-740.

Angular Cut (Flush-Cutting).

	Cap.	Lg
00-224-7055	1/4	14
00-224-7056	3/8	24
00-224-7057	9/16	36

Clipper Cut (Close-Cutting).



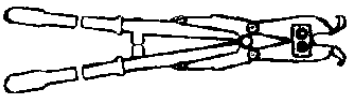
	Cap.	Lg
00-596-9162	5/16	18
00-596-9156	3/8	24
00-596-9155	1/2	30
00-188-2524	9/16	36

CUTTER, CABLE, HAND OPERATED

Compound lever, hand operated. Drop forged Steel. Red Plastic insulated handles. For use on Aluminum and Copper cables.

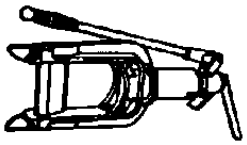
01-090-5872

Hand-operated cable and bolt cutter. Compound lever, center-cutter type with groping hook guide and insulated handles. Use for cutting electrically charged barbed wire, cables, and transmission lines. Cutting capacity: 3/8 inch diameter solid mill Steel wire, overall length 21 inches. Mil Spec Mil-C-3958.



00-541-6730

Hydraulic cable cutter unit. For cutting in place armored and Lead sheathed cables, up to 2-1/2 inches in diameter. Consists of pump, necessary valves, and allied mechanisms. Minimum pressure 9000 PSI. Fed Spec GGG-C-749.

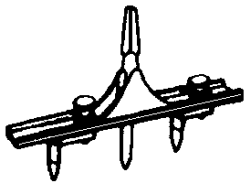


00-595-8267

CUTTER, CIRCLE

Fed Spec GGG-C-748. Adjustable circle and hole cutter. For cutting washers and gaskets from conventional sheet gasket materials such as: Asbestos, Rubber, Canvas, Cork, and similar pliable materials.

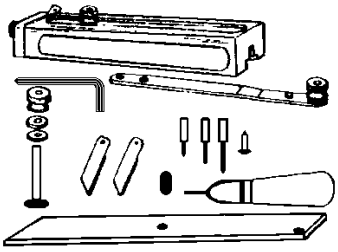
Center pivoting type with auger bit shank. Cutter blade holders slide in a graduated crossbeam and lock in place. Cuts 5/8 to 5-1/2 inch inside and 3/4 to 6 inch outside circles, in 1/8 inch thick material.



00-222-4522$_{NP}$

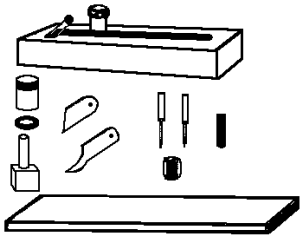
Movable pivoting tools. Large and handy models include: Plastic block, pivot post, 6 blades, pivot pins, and instructions, packed in metal carrying case. Also includes: Plastic-coated work board with center pivoting ferrules.

Large model with two 12 inch extensions. Cuts circles 1 inch to 13 inch diameter; with extensions cuts circles up to 36 inches diameter. Cuts material from 0.001 - 3/4 inch thick. 18 inch square work board.



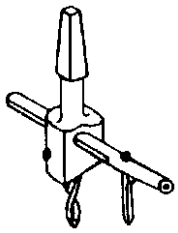
00-288-9300

Handy model without extensions. Cuts circles, irregular shapes, and strips. Cuts diameters from 1/4 to 6 inches. Cuts material from 0.001 - 3/8 inches thick. 6 inches square work board.



00-288-8722

For cutting 1 3/4 to 8-1/2 inch holes or discs in 16 gage mild Steel sheets. Also cuts Brass, Aluminum, sheet fiber, Plastic, or wood up to 3/8 inches thick. Auger bit shanked body holds nongraduated sliding bar with tool bit. Pivots on replaceable 1/4 inch twist drill bit, supplied with setscrew wrench. Fed Spec GGG-C-748.



00-764-5222$_{NP}$

CUTTER, GLASS

Glass cutters for sheet or round gage glass. Hardened tool Steel wheels honed and beveled for long cutting life. Fed Spec GGG-C-751.

Standard (Sheet) cutter with single fixed wheel. Three break notches.

00-222-4400$_{NP}$

Turret head type with six cutter wheels. Two break notches. Replaceable wheels.

00-222-4401$_{NP}$

Circle cutter. Adjustable graduated bar with integral cutting head and replaceable cutter wheel. 2 to 24 inch range.

01-342-3196$_{NP}$

CUTTER, PIPE

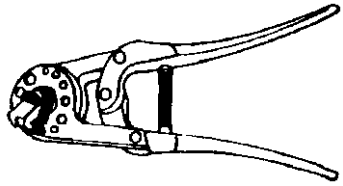
Single-wheel type pipe cutters. For cutting Steel or Wrought-Iron pipe, with one cutter wheel and two rollers. Sliding hand screw feed. Pipe size cutting range as shown below. Fed Spec GGG-C-771.

	Size
00-293-0460	1/8 to 2
00-221-1049	2 to 4
00-529-5092	4 to 6

NOTE: For replacement cutting wheels see "CUTTING WHEEL, PIPE CUTTER".

CUTTER, RIVET

Squeeze type with length gage. Cuts aircraft and other rivets with universal or countersunk heads. Cuts 1/6 to 1/4 inch diameter rivets, with lengths of 1/4 to 3/4 inches.

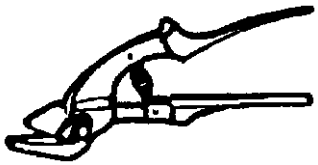


00-180-2892

CUTTER, STEEL STRAPPING

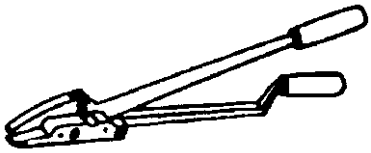
Hand-operated Steel strapping cutters. Cuts tightly drawn or loose strapping. Forward cutting action. Fed Spec GGG-C-835.

Light duty. Cuts strapping up to 3/4 inches wide and up to 0.035 inches thick. Fixed upper jaw blade.



00-771-3732

Heavy duty. Cuts strapping up to 2 inches wide and 0.050 inches thick. Removable upper jaw blade.



00-223-6281

CUTTER, TILE, ASPHALT

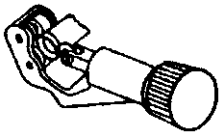
Portable hand operated with built in handle. Makes up to 12 inch long square and diagonal cuts 1/16 inches to 3/16 inches thick, on all types of resilient floor tile. Weight 45 pounds. Mil Spec Mil-C-9912.

00-570-9017

CUTTER, TUBE

Cutter for Copper, Aluminum, Brass, and Lead tubing. Steel frame and deburring tool and Steel Alloy cutting wheel. Rollers rotate freely and align tubing as it is cut. Cuts without crushing tubing. Tubing outside size cutting range as shown. Fed Spec GGG-C-771.

Enclosed feed. For close flare cut. Four rollers and spare cutting wheel.



	Range/In.
00-288-6520	1/8 to 1-1/8
00-293-3402	1/4 to 1-3/8
00-288-6521	3/8 to 2-5/8

Sliding feed. Positive feed adjustment. Two facing Steel rollers. Comfortable handle grip.

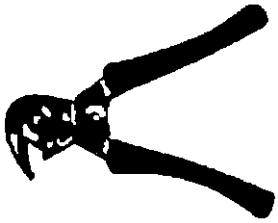
	Range/In.
00-965-0878	1/8 to 1/2

CUTTER, WIRE ROPE, HAND OPERATED

Bolt clipper style compound lever wire rope cutter. Cuts soft wire rope up to 7/8 inches in diameter. Center-cutter type, forged Steel jaws with beveled cutting edges. Supplied with an extra pair of cutting jaws. 43 inch overall length length.

00-221-1047

Plier style compound lever wire cutter, for electrically charged barbed wire. Made of Carbon Steel, with insulated handles. Center cutter type 0.116 inch maximum diameter cutting capacity. Mil Spec Mil-C-386.

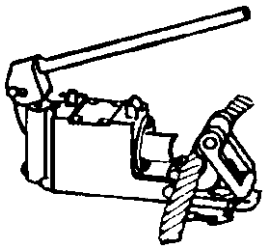


00-595-8229

Shear style compound lever wire rope cutter. Cuts preformed flexible Carbon and CRES Steel aircraft control cable, up to 1/4 inch diameter. 14 inch overall length. Fed Spec GGG-C-740.

00-224-7053

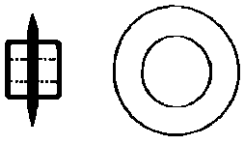
Horizontal-cutting, hydraulic wire rope cutter. Self-contained hydraulic unit develops 16 ton thrust, by continuous hand pumping. Easily cuts high grade plow Steel wire rope, up to 1-1/8 inches in diameter. 15 inches overall length. Fed Spec GGG- C- 800.



00-224-7058

CUTTING WHEEL, PIPE CUTTER

Replacement cutting wheels for Steel pipe cutters with sliding feeds. Smooth cutting edge cuts a variety of pipe and tubing. Designation letter as indicated. Fed Spec GGG-C-771.



Single wheel 1/8 to 2 inch cutting range. Size: 1-1/4 inch diameter, 0.745 inches wide, 0.345 inch diameter bore.

00-837-0990$_{NP}$

Three wheels. 2 to 6 inch cutting range. Each wheel size: 1-1/2 inch diameter blade, 3/4 inch diameter hub, 11/32 inch diameter bore. Designation: F, G, and H.

00-620-1345$_{NP}$

CUTTING WHEEL, TUBE CUTTER

For use with Imperial-Eastman tube cutters, Models 174-F, 274-FC, and 312-FB. Cutting range: 1/8 to 1-5/8 inches.

00-443-4195$_{NP}$

DIE SET, METAL STAMPING, HAND

Heavy duty Tool-Steel stamping set. For use on Steel, Wood, Leather, etc. Each set is packed in a wooden box. Character height size as shown. Fed Spec GGG-D-280.

Numeral Figure stamping. Set has Gothic numeral from 0 to 8. Invert figure 6 for 9.

	H
00-289-0001	1/16
00-289-0002	1/8
00-289-0003	1/4
00-289-0004	3/8

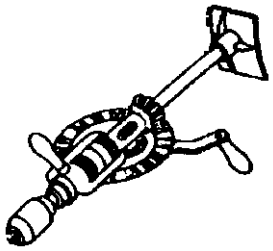
Letter stamping. Set has complete alphabet of capital letters with period and ampersand (&), except as noted.

	H
00-289-0005	1/16
00-289-0006	1/8
00-293-1904	3/16
00-293-1905*	3/16
00-289-0007	1/4
00-289-0008†	3/8

* With numbers 0 to 8.
† Period not furnished.

DRILL, BREAST

Two-speed breast drill with spirit level. For use in drilling wood or metal. 3-jaw chuck holds straight round-shank drill bits up to 1/2 inches. Adjustable breastplate, detachable wood grip, and crank handle.

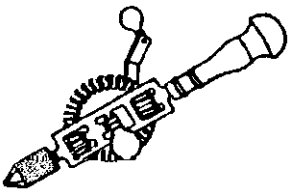


00-596-9323

DRILL, HAND

Single-speed hand drills with crank driven gears. 3-jaw chucks. Non-ratchet, wood, or Plastic handle.

Rigid hollow handle. 8 wood-boring drill bits in handle (sizes 1/16 to 11/64 inch diameter). Chuck holds straight-shank drills up to 3/8 inch diameter with side handle.



00-293-3411

DRILL, MASONRY, HAND

Star (four flute) stone drills. Forged Steel drills with slightly pointed cutter face and four cutter edges. 12 inches long overall. Cutting size as shown. Fed Spec GGG-D-691.

	Size
00-240-6141$_{NP}$	1/4
00-236-2047$_{NP}$	3/8
00-186-7105$_{NP}$	1/2
00-234-1956$_{NP}$	5/8
00-236-2046$_{NP}$	3/4

DRILL SET, MASONRY, HAND

Drill set in roll kit. Consists of: one Steel holder with Rubber grip, protective flange, and six twist-fluted drill points (sizes: 3/16, 1/4, 5/16, 3/8, 7/16, and 1/2 inches) with round tapered shanks. 0.300 inch diameter on small end.

00-698-7966

DRILL, PUSH

Hand operated, automatic push drill. Actuated by Bronze spiral pushing on handle. 8 drill points, 1/16 to 11/64 inches diameter, in magazine handle. Chrome-Plated finish. About 10 inches long. Fed Spec GGG-D-671.

00-293-3410$_{NP}$

FILE, HAND

Heat treated, hardened, and tempered hand files. Standard American and Swiss pattern files for use as indicated. With tang, except as noted, for attachment to wood handles. Blade length as indicated.

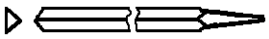
Flat, tanged, curved-tooth file. Rigid, milled teeth, standard cut faces, safe edges. Non Spec item.

	Lg
00-156-0215$_{NP}$	8

AMERICAN PATTERN

Fed Spec GGG-F-325.

Cant type. Triangular, single-cut. Sharpens crosscut saws with M-shaped teeth, circular saws, and other saw teeth, with less than 60 degree angle.



00-242-8179$_{NP}$	6
00-250-6512$_{NP}$	8

Cross-cut type. Two rounded edges.

00-204-0616$_{NP}$	8

Flat type. Slightly tapered.

Double-cut on face, single cut on edge. For general purpose filing.

Bastard Cut

	Lg
00-249-2848$_{NP}$	8
00-249-2849$_{NP}$	10
00-234-6539$_{NP}$	12
00-203-5486$_{NP}$	14

Second Cut

	Lg
00-234-6531$_{NP}$	6
00-234-6534$_{NP}$	8
00-234-6537$_{NP}$	10
00-203-4855$_{NP}$	12
00-203-4854$_{NP}$	14

Smooth Cut

	Lg
00-234-6532$_{NP}$	6
00-203-4935$_{NP}$	8
00-249-2850$_{NP}$	10
00-234-6544$_{NP}$	14
00-203-4936$_{NP}$	12

Half-round, Slightly tapered, one side flat. For general purpose filing and maintenance work.

Bastard Cut

	Lg
00-241-9147$_{NP}$	6
00-241-9150$_{NP}$	8
00-241-9153$_{NP}$	10
00-252-4015$_{NP}$	12
00-203-4950$_{NP}$	14

Second Cut

	Lg
00-241-9145$_{NP}$	4
00-241-9148$_{NP}$	6
00-241-9151$_{NP}$	8
01-336-4192$_{NP}$*	8
00-249-2858$_{NP}$	10
00-203-4941$_{NP}$	12
00-241-9158$_{NP}$	14

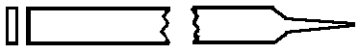
* .750 inches wide by 0219 inches thick.

Smooth Cut

	Lg
00-241-9146$_{NP}$	4
00-241-9149$_{NP}$	6
00-241-9152$_{NP}$	8
01-336-4193$_{NP}$*	8
00-233-7683$_{NP}$	10
00-241-9156$_{NP}$	12
00-241-9159$_{NP}$	14

* .750 inches wide by .219 inches thick.

Hand Type. Regular, double-cut face. Ssingle-cut and safe edge. Used for flat surface and ideal for filing close to shoulder with safe edge.



Bastard Cut

	Lg
00-156-0049$_{NP}$	6
00-156-0052$_{NP}$	10

Multi Cut

	Lg
01-335-1590	10

Smooth Cut

	Lg
00-156-0059$_{NP}$	10

Knife type. Slightly tapered. Knife cross-section, with angle of 9 to 15 degrees between sides. Double-cut on wide flat, single-cut on thin edge. Used for keyways or slots.

Bastard Cut

	Lg
00-234-6563$_{NP}$	6
00-234-6566$_{NP}$	8
00-234-6569$_{NP}$	10

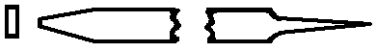
Second Cut

	Lg
00-203-4948$_{NP}$	6
00-234-6567$_{NP}$	8
00-234-6570$_{NP}$	10

Smooth Cut

	Lg
00-203-4552$_{NP}$	6
00-203-4553$_{NP}$	8
00-203-4554$_{NP}$	10

Lead-float. Flat, slightly tapered. Single-cut teeth. Files Lead, Babbitt, and other soft metals.



	Lg
00-156-0131$_{NP}$	12

Mill, regular. Slightly tapered. Single-cut on flats and square edges. For general filing and sharpening work.

Bastard Cut

	Lg
00-241-9132$_{NP}$	6
00-242-5384$_{NP}$	8
00-242-5385$_{NP}$	10
00-242-5386$_{NP}$	12
00-242-5387$_{NP}$	14

Second Cut

	Lg
00-241-9133$_{NP}$	6
00-241-9134$_{NP}$	8
00-203-4556$_{NP}$	10
00-241-9140$_{NP}$	12
00-241-9143$_{NP}$	14

Smooth Cut

	Lg
00-243-7965$_{NP}$	6
00-241-9135$_{NP}$	8
00-241-9138$_{NP}$	10
00-203-4645$_{NP}$	12
00-241-9166$_{NP}$	14

Round, regular. Tapered. For enlarging circular openings, elongating holes, etc. Double-cut bastard faces; single-cut second and smooth faces. Length and diameter of largest section as shown.

Bastard Cut

	Lg	Dia
00-234-6545$_{NP}$	4	11/64
00-234-6548$_{NP}$	6	15/64
00-234-6551$_{NP}$	8	5/16
00-234-6554$_{NP}$	10	3/8
00-234-6557$_{NP}$	12	1/2
00-234-6560$_{NP}$	14	5/8

Second Cut

	Lg	Dia
00-806-1000$_{NP}$	4	11/64
00-234-6549$_{NP}$	6	15/64
00-234-6552$_{NP}$	8	5/16
00-234-6555$_{NP}$	10	3/8
00-203-4692$_{NP}$	14	5/8

Smooth Cut

	Lg	Dia
00-203-4647$_{NP}$	4	3/16
00-234-6550$_{NP}$	6	1/4
00-234-6553$_{NP}$	8	5/16
00-234-6556$_{NP}$	10	3/8
00-234-6559$_{NP}$	12	1/2
00-234-6562$_{NP}$	14	5/8

Square. Tapered, double-cut. For enlarging square holes, filing slots, keyways, etc.

Bastard Cut

	Lg
00-203-4731$_{NP}$	6
00-238-9658$_{NP}$	8
00-203-9774$_{NP}$	10
00-238-9664$_{NP}$	12
00-238-9667$_{NP}$	14

Second Cut

	Lg
00-203-4714$_{NP}$	4
00-203-4751$_{NP}$	6
00-203-9758$_{NP}$	8
00-203-9804$_{NP}$	10
00-203-9806$_{NP}$	12

Smooth Cut

	Lg
00-203-4781$_{NP}$	6
00-238-9660$_{NP}$	8
00-203-9805$_{NP}$	10
00-238-9666$_{NP}$	12

Taper. Triangular, single-cut. For sharpening any saw with 60 degree angle teeth.

Regular

	Lg
00-234-6522$_{NP}$	6
00-516-3822$_{NP}$	8
00-234-6524$_{NP}$	10

Slim

	Lg
00-234-6526$_{NP}$	4
00-423-0720$_{NP}$	5
00-234-6528$_{NP}$	6
00-234-6529$_{NP}$	8

Extra Slim

	Lg
00-529-3206$_{NP}$	4
00-242-8185$_{NP}$	7
00-293-3428$_{NP}$	8

Double-Extra-Slim.

	Lg
00-239-7538$_{NP}$	7

Three-squared. Triangular, tapered. Double-cut, with sharp corners for filing internal angles, cleaning out corners, etc. Also used for filing taps and cutters in the annealed state.

Bastard Cut

	Lg
00-241-7675$_{NP}$	6
00-241-9164$_{NP}$	10

Second Cut

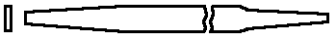
	Lg
00-243-0938$_{NP}$	6
00-239-7556$_{NP}$	8
00-241-9165$_{NP}$	10

Smooth Cut

	Lg
00-241-9160$_{NP}$	6
00-241-9163$_{NP}$	8

	Lg
00-241-9167$_{NP}$	10

Warding type. Rectangular tapered. Double-cut on flats, single-cut on squared edges. For filing notches in keys and locks, narrow slots, and in close spaces.



Bastard Cut

	Lg
00-243-8099$_{NP}$	6
00-204-0719$_{NP}$	8
00-204-0720$_{NP}$	10

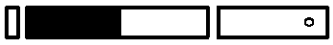
Second Cut

	Lg
00-204-0722$_{NP}$	6
00-238-9649$_{NP}$	8
00-204-0723$_{NP}$	10

Smooth Cut

	Lg
00-204-0726$_{NP}$	6
00-243-8100$_{NP}$	8
00-204-0725$_{NP}$	10

Milled, curved teeth. Flat flexible blade with out tang. Single-cut on flats, uncut (safe) edges. For finishing flat or slightly curved surfaces of soft materials such as Aluminum, Brass, or Copper. May be used on mild Steel. Overall length and cut coarseness as shown.



	Lg	Cut
00-245-3016$_{NP}$	14	Standard
00-245-3015$_{NP}$	14	Fine
00-961-3488$_{NP}$	14	Smooth

NOTE: For file holders see ″ FILE HOLDER ″.

SWISS PATTERN

Fed Spec GGG-F-331.

Contact point with flat handle. Double-cut faces, uncut (safe) edges. Used for cleaning electrical contact points.

	Lg/In.
00-595-8295$_{NP}$	5-1/4

Hand file with tang. Double-cut faces. Single-cut one end, safe other end. Flat finishing file.

	Lg/In.
00-233-7749$_{NP}$	6

Needle point hand type. Double cut, 6-1/4 inches long.

00-245-4177$_{NP}$	Round
00-239-3269$_{NP}$	Half-round
00-239-7590$_{NP}$	Three-square
00-156-0063$_{NP}$	Flat
00-239-7602$_{NP}$	Square
00-156-0062$_{NP}$	Equaling
00-239-7614$_{NP}$	Slitting

Knife

	Cut	Lg
00-233-9687$_{NP}$	No. 1	4
00-156-0065$_{NP}$	No. 2	6-1/4

Taper round type. Double cut, No. 0 face.

	Dia	Lg
00-239-7739$_{NP}$	3/16	6
00-273-0122$_{NP}$	21/64	10

FILE SET, HAND

AMERICAN PATTERN

Fed Spec GGG-F-325.

14-piece file set in roll pack. Components as listed below.

3 Half-round, 8 in. bastard, double-cut
3 Half-round, 8 in. smooth, double-cut
2 Hand-type, 8 in. bastard, regular, double-cut
2 Blunt handsaw, 6 in. Extra-slim type, single-cut
2 Taper, 6 in. regular, single-cut
2 Taper, 6 in. slim, single-cut

00-595-8317

SWISS PATTERN

Fed Spec GGG-F-331.

6-piece set of double-cut 6 inch files. In Plastic container. Components as listed below.

1 Half-round, cut No. 2
1 Hand, cut No. 4
1 Pillar, cut No. 1
1 Square, cut No. 0
1.Round Taper, cut No. 0
1 Three-square, cut No. 4

00-595-8316

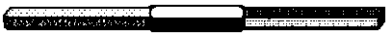
12-piece set of assorted needle files. In Plastic case with cover. Cut number and length as indicated. One each of the following:

Barrette	Half-round
Round	Crossing
Slitting	Joint (round-edge)
Equaling	Knife
Square	Flat
3-Square	Marking (half round)

	Cut	Lg
00-204-2685	No. 2	6-1/4
00-541-7999	No. 4	6-1/4

FILE, THREAD RESTORER

Repairs damaged threads with a few strokes. About 8-1/2 inches long. Restores American National thread forms. Size(TPI) as noted.



For 9, 10, 12, 16, 20, 27, 28, and 32 TPI.

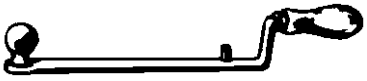
00-516-3812$_{NP}$

For 11, 12, 13, 14, 16, 18, 20, and 24 TPI.

00-373-1691$_{NP}$

FILE HOLDER

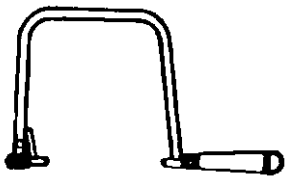
File holder with hand and knob grips. Without blade. Holds 12 inch and 14 inch curved teeth milled files, NSN 5110-00-245-3014, 00-245-3015, and 00-245-3016.



00-239-0644	For flat surfaces.
00-243-2508	For concave and convex surfaces.

FRAME, COPING SAW

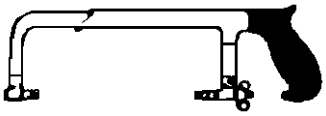
Deep throat coping saw frame. Chrome or Nickel-Plated Steel. For 6-1/2 inch blade. Throat depth, 6-3/4 inch Blade by handle. Fed Spec GGG-F-671.



00-555-9359

FRAME, HAND HACKSAW

Adjustable flat hacksaw frame. Bright Chrome or Nickel-Plated Steel, for 10 inch or 12 inch blades. Four 90 degree blade positions tensioned by wing nut. Hard Rubber or Plastic handle. Fed Spec GGG-F-671.



OPEN GRIP HANDLE

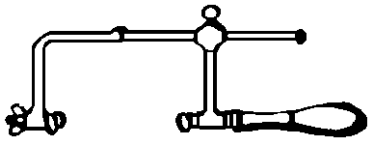
00-289-9657

CLOSED GRIP HANDLE

01-040-8943

FRAME, JEWELER'S SAW

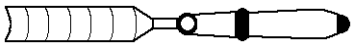
Medium throat jeweler's saw frame. Adjustable for 3 to 6 inch blade lengths. Thumb-nut blade tensioning. Throat depth, about 2-1/2 inches. Fed Spec GGG-F-671.



00-223-4972

GOUGE, FIRMER

Socket or tang type. Outside bevel gouge, having a cutting edge evenly ground on the convex portion of the blade. Striking end provided with leather cap. Fed Spec GGG-C-311.



	W/In.
00-193-5012$_{NP}$	1/2

HANDLE, CHISEL AND GOUGE

Wood (socket firmer) handles with 3/8 inch thick leather striking cushion. Fed Spec NN-H-00106.

Size 1, Small

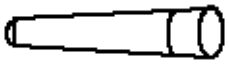
	Dia	Lg
00-254-3469$_{NP}$	1	5-1/4

Size 2, Medium

	Dia	Lg
00-254-3468$_{NP}$	1-1/16	5-3/8

HANDLE, FILE

Wood file handle with metal ferrules. Range of files indicated for which each handle is suitable. Fed Spec NN-H-106.



Size 1, Small 1 inch diameter 4 inches long

00-263-0342$_{NP}$ for 3-6 in. files

Size 2, Medium 1-1/4 inches diameter by 4-1/2 inches long

00-263-0349$_{NP}$ for 6-10 in. files

Size 3, Large 1-1/2 inches diameter by 5-1/2 inches long

00-263-0341$_{NP}$ for 10-14 inch files

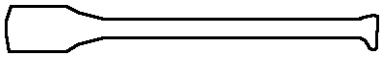
Wood or metal. Tang type shank. Adjustable threaded metal sleeve or screw, and adjustable cap for tightening. Fed Spec NN-H-0085.

Size 1. Small 1 inch diameter by 4-1/8 inches long.

00-595-8325$_{NP}$

HANDLE, DOUBLE BIT AX

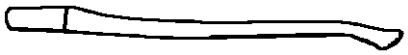
Seasoned hickory double-bit ax handles 36 inches long. Interim Fed Spec NN-H-0093.



00-254-6635$_{NP}$

HANDLE, SINGLE BIT AX

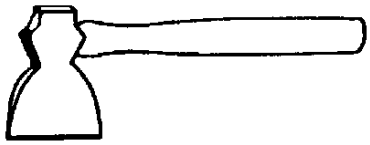
36 inch long handle. Fed Spec NN-H-0093.



00-288-6573$_{NP}$

HATCHET, BROAD

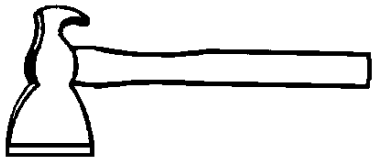
Broad hatchet with 4-1/2 inch cutting edge. Beveled bit on one side only. 14-1/2 to 16-1/2 inch hickory handle. Nonmagnetic, non-sparking. Fed Spec GGG-H-131.



00-555-8868$_{NP}$

HATCHET, CLAW

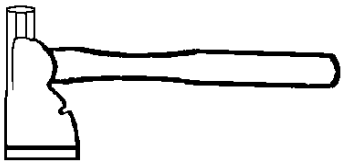
Claw hatchet with 3-7/8 inch cutting edge. 14 inch hickory handle. Fed Spec GGG-H-131.



	Head Wt/Oz
00-222-0457$_{NP}$	22 to 31

HATCHET, HALF

Half-hatchet with 3-1/2 inch cutting edge. Positive grip nail slot, 14 inch hickory handle. Fed Spec GGG-H-131.



	Head Wt/Oz
00-228-3161$_{NP}$	18 to 26

HATCHET, LATHING

Beveled slot for drawing nails. The head contains machine cut checkered serrations. Cutting edge 2-1/4 inches wide. Handle 14 inches long. Fed Spec GGG-H-131.

	Head Wt/Oz
00-223-5379$_{NP}$	12 to 17

KNIFE, CRAFTSMAN'S

Bevel point. 2-3/4 inch cutting blade length.

00-240-7073

Dental knife for trimming compound and plaster. 1-1/2 inch long fixed Steel blade with sharp point. One-piece hardwood handle. 5-1/4 inch overall length. Fed Spec GG-K-508.

00-537-2000$_{NP}$ 1-1/2 inch cutting blade

Hawkbill knife. For cutting floor tile and linoleum made of Rubber, Plastic, Vinyl, and Asphalt and similar materials. Steel blade, hardwood handle. Fed Spec GGG-K-481.

Rigid blade

	Lg/In.
00-344-9900$_{NP}$	1-1/2
00-240-7070$_{NP}$	2-1/2

Folding blade

	Lg/In.
00-250-8053	3

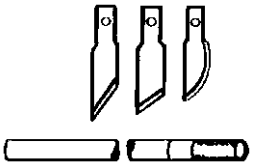
Detachable blade shop knives with extra blades in handle. Metal, 5-1/2 inches long overall. Fed Spec GGG-K-494.

General Purpose utility knife. Push button retracts or locks blade in three cutting depths. Cuts gaskets and shims. Trims and scores: fiberboard, cork, Rubber, linoleum, leather, etc. 4 extra blades in handle.

00-892-5071

Stencil, etching, and multipurpose cutting knife sets. Light to medium duty. Set consists of, 5 inch long blade holder with chuck jaws, for holding removable razor-sharp blades. Good for close corner cuts, templates, mat trimming, etc. Interim Fed Spec GGG-K-00450.

With light-duty holder 5-blade set. Supplied with: one each curved, stencil-cutting and square blade; two beveled blades, 3/4 to 1-1/16 inch long blades.



	Handle Lg/In.
00-293-1585	4.5

With Medium-duty holder.

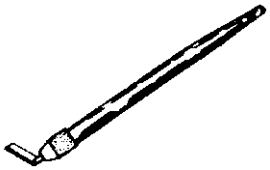
Single broad blade, 4-1/2 inches long.

00-564-1338

6-blade set. Supplied with one each broad and curved blade and two each double-edged and close-corner blades. 1-3/8 to 2-1/8 inch blade length.

00-595-8400

Swivel-blade stencil knife. 4-3/4 inches overall length with 2 spare blades. Fed Spec GGG-K-450.



00-595-8406

Shoe knife. For cutting and trimming leather goods. Straight square point blade. 4-1/2 inch handle. Fed Spec GGG-K-481.

	Blade Lg/In.
00-223-7782$_{NP}$	3-1/2
00-595-8403$_{NP}$	4-1/4
00-595-8402$_{NP}$	6-1/4

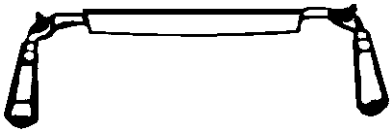
KNIFE SET, CRAFTSMAN'S

Consists of: 3 holders(No. 1, No. 2, and Heavy duty No. 5) with blades, 10 extra blades: (1 each, No. 10. 3 each, No. 11. 1 each, No. 16. 1 each, No. 17. 1 each, No. 18. 1 each, No. 19. 1 each, No. 22. 1 each, No. 24). Set enclosed in Plastic or wood. Fed Spec GGG-K-450.

00-018-0952

KNIFE, DRAW

Used by carpenters and woodworkers in shaping and trimming wood. Fixed or rigid handles shaped for comfortable gripping. Carbon Tool Steel blade with beveled edge razor blade, 10 inches by 1-1/8 inches. Fed Spec GGG-K-471.



00-222-4455

KNIFE, ELECTRIC HEATING

With soldering iron attachment. Operates on 120 volts and 25 watts. Cooper-Weller or equal.

00-028-9089

KNIFE, POCKET

Electrician's pocketknife with screwdriver, wire scraper, and clevis. Cutting blade 2-3/8 inches long. Smooth Plastic handle. Fed Spec GGG-K-484.

00-240-5943

Pocketknife with: bottle-opener, can opener, needle nose and regular pliers, wire cutters, ruler, large and small screwdriver, Phillips screwdriver, metal/wood file/saw and awl/punch. One 2.500 inch blade, overall length 4 inches, closed position, and comes with a leather case.

01-279-9332

Pocketknife with: can opener, punch blade, screwdriver, bottle-opener, and clevis. Cutting blade 3-1/4 inches long. General purpose use. Mil Spec Mil-K-818.

00-162-2205$_{NP}$

Pocketknife with snap-blade, marlin spike, and shackle. Cutting blade 3 inches long. Shackle locks marlin spike in open position.

00-530-1757$_{NP}$

Pocketknife with: bottle-opener, can opener, modified needle nose plier head and wire cutter, drop point knife blade, utility blade with wire stripper, serrated sheep foot blade, flat blades for large, medium and small screwdrivers, Phillips screwdriver and scale, and comes with a lanyard ring. 4-3/8 inches Blade length. Special Features: Satin finish. Supplied with leather sheath and snap closure plus a belt loop.

01-346-5339

Pocketknife with: bottle-opener, can opener, pliers, wire cutter, utility blade with wire stripper, lanyard eye, and ruler. 4-3/8 inches Blade length. Special Features: Satin finish, supplied with leather sheath with snap closure. Plus a belt loop. 7 blades.

01-346-5341

KNIFE, RESCUE

Knife assembly. Consists of: a handle, a cover, a key, and two blades.

00-524-6924

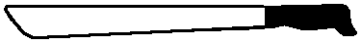
KNIFE, SCRAPING

Paint scraping knives. Also used for applying and smoothing soft compounds, and similar applications. Steel blades, 3 inches wide and 4-1/4 inches long. Overall length 8 inches. Fed Spec GGG-K-481.

00-223-8827	Flexible
00-221-1538	Stiff

MACHETE, RIGID HANDLE

Tapered blade machete, high Carbon Steel. Used for cutting cane, brush, and small saplings. Also used for chopping ice and snow. 5-3/16 inch handle, without sheath. Fed Spec GGG-M-45.

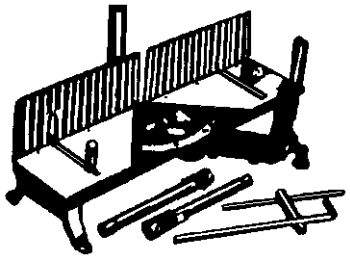


	Blade Lg/In.	W/In.
00-813-1286	18	2-1/4
00-024-9681	26	2-5/16

MITER BOX

Adjustable bench style miter box. Equipped with: bed, back, swinging lever, saw guides, posts,

and length gage. Can cut acute angle less than 45 degrees. Takes up to 4 inches stock. Minimum angle capacity, 90 degrees, 9-1/2 inches; 45 degrees, 6-1/2 inches. Used with miter box saw, NSN 5110-00-221-0233, which is not furnished. Fed Spec GGG-M-451.



00-250-2525

NIBBLING TOOL, SHEET METAL

Spring loaded cutting punch. Squeeze grip, hand operated nibbling tool. Cuts round, square, or keyed holes of any size in sheet metal, air ducts, radio chassis, etc. Without adding strain or distortion to the edges. Cutting Capacity: 18-gage Steel and 16-gage Aluminum or Copper.

00-719-6061$_{NP}$

NIPPERS, END CUTTING

End-cutting nippers for assembly or repair work. Overall length as noted. Fed Spec GGG-N-350.

Normal duty. With integral cutters for cutting fine wire. Nickel-Steel Alloy with polished jaws. Length listed in inches.

	Lg/In.
00-221-1498$_{NP}$	6
00-221-1499$_{NP}$	7

Heavy duty, detachable cutters. Flat adjustable jaws.

	Lg/In.
00-184-9407$_{NP}$	7

Light duty. Jeweler's cutters for cutting fine wire in jewelry work. Nickel-Steel Alloy with polished jaws.

	Lg/In.
00-221-1503$_{NP}$	4-1/2

OPENER, CARTON

Die-cast Zinc carton opener. Concealed blade adjustable for depth of cut. Also removes heavy duty staples. Furnished with a package of 5 blades, NSN 5110-00-293-2866. Flash 420 model.

00-345-5289$_{NP}$

PLANE, BLOCK

6 inch block plane. For cross-grain planing and general small work. 1-5/8 inch wide cutter. Fed Spec GGG-P-436.

00-180-0831

PLANE, JACK

14 inch jack plane with smooth bottom. For preliminary planing of average-sized rough work. 2 inch wide cutter. Fed Spec GGG-P-436.

00-224-7911

PLANE, RABBET

4 inch bullnosed rabbet plane. For fine cabinet work. Works close into corners. 1 inch wide cutter. Fed Spec GGG-P-436.

00-242-2828$_{NP}$

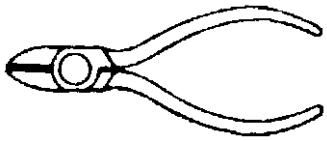
PLANE, SMOOTH

Smooth planes. For finish smoothing of work. 2 inches wide, cutter, smooth bottom. Fed Spec GGG-P-436.

	Lg/In.
00-242-3057	9

PLIERS, DIAGONAL CUTTING

Regular nose, diagonal-cutting pliers. Cutting edges have an angle of approximately 15 degress, with plane of handle. Used for cutting wire and cotter pins close to flat surfaces. Fed Spec GGG-P-468.



Regular nose, Plain

	Lg/In.
00-935-0890*	4
00-618-2700†	4-1/2
00-239-8253$_{NP}$	6
00-222-2708$_{NP}$	7-1/2

* With cushion grip handles.
† With handles covered with Red Vinylite.

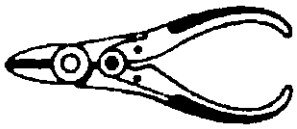
With stripping notches and skinning hole.

	Lg/In.
00-806-9551$_{NP}$	5
00-224-1532$_{NP}$	6

With cushion throat jaws.

	Lg/In.
00-293-3209	4-1/2
00-293-3210	7-1/2

Regular nose, compound action.



	Lg/In.
*01-088-4320$_{NP}$	4
00-878-6519†	4-1/4
01-083-9317‡	5

* Material will be IAW SPCC Spec.
† Insulated handles, with coil spring.
‡ Pointed hose.

Short nose, plain

	Lg/In.
00-596-7164$_{NP}$	6
01-314-1814	6-1/8
01-200-5121	7-1/4
01-089-1240*	8

* Hand form Red Plastic dipped handles.

Pliers made from nonferrous alloy having a low sparking hazard and a low magnetic permeability. For use in the presence of flammable gasses, dusts, and explosives. Mil Spec Mil-P-19290.

Short nose

	Lg/In.
00-595-9490$_{NP}$	7

Short nose, compound lever action. Flush cutting edge angled at 29 degrees. Plastic coated handles with coil spring. 7/16 inch jaw length, 1/4 inch jaw thickness, 7/16 inch jaw width at joint, and 1/32 inch jaw thickness at tips.

	O/A Lg/In.
00-764-4801	4

GSA economical replacement tool. Cushion throat cutter, bowed Vinyl grip handles.

	Jaw Lg	O/A Lg
01-367-4647	13/32	4-1/4
01-367-4650	3/4	6-1/8
01-367-3878	1-3/16	7-3/4

PUNCH, CUTTING, REVOLVING HEAD

6-hole leather punch. Steel frame, spring handle. Nonremovable hole cutters. Cuts hole diameters: 5/64, 3/32, 7/64, 1/8, 5/32, and 3/16. Mil Spec Mil-P-2001.

00-596-9604$_{NP}$

PUNCH, CUTTING, DOUBLE BOW

Circular cutting (drive) punches. High-grade Carbon or Alloy Steel. Intended to be used to punch holes in leather, Cork, Rubber, and similar materials. Fed Spec GGG-P-833.

	Dia	No.
00-541-7697$_{NP}$	3/8	3
00-180-0922$_{NP}$	7/16	4
00-180-0923$_{NP}$	1/2	5
00-180-0924$_{NP}$	5/8	7
00-293-0420$_{NP}$	11/16	8
00-180-0925$_{NP}$	3/4	9
00-293-0417$_{NP}$	13/16	10
00-180-0926$_{NP}$	7/8	11
00-293-0418$_{NP}$	15/16	12
00-180-0927$_{NP}$	1	13
00-541-7698$_{NP}$	1-1/8	15
00-541-7699$_{NP}$	1-1/4	16
00-540-5788$_{NP}$	1-3/8	17
00-540-5787$_{NP}$	1-1/2	18
00-540-5786$_{NP}$	1-5/8	19
00-180-0933$_{NP}$	1-3/4	20
00-180-0934$_{NP}$	1-7/8	21
00-180-0935$_{NP}$	2	22
00-540-1860$_{NP}$	2-1/8	23
00-180-0937$_{NP}$	2-1/2	26

PUNCH, CUTTING, SINGLE BOW

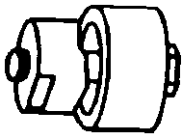
Belt or saddler's punch

	Dia	No.
00-180-0938$_{NP}$	3/32	—
00-180-0939$_{NP}$	1/8	5
00-293-0350$_{NP}$	11/64	8
00-180-0941$_{NP}$	3/16	9
00-180-0942$_{NP}$	7/32	11
00-180-0943$_{NP}$	1/4	13
00-180-0944$_{NP}$	9/32	15
00-180-0945$_{NP}$	5/16	16

PUNCH AND DIE, KNOCKOUT

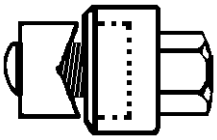
Accurate-cutting punch and die sets. High quality Alloy Steel. Punches holes in sheet metal, Plastic, hard Rubber, and leather. Tightening drive screw operates punch. Light-duty (chassis) models cut mild Steel up to 24-gage. Heavy-duty (conduit) model cuts mild Steel up to 10-gage. Fed Spec GGG-P-836.

Round-hole, Light-duty.



	Dia
00-288-8737$_{NP}$	1/2
00-293-0109$_{NP}$	5/8
00-684-3920$_{NP}$	11/16
00-243-1645$_{NP}$	3/4
00-293-0107$_{NP}$	7/8
00-293-0108$_{NP}$	1
00-180-0915$_{NP}$	1-1/16
00-293-0105$_{NP}$	1-1/8
00-293-0106$_{NP}$	1-5/32
00-233-3657$_{NP}$	1-3/16
00-293-0103$_{NP}$	1-1/4
00-180-0920$_{NP}$	1-3/8
00-180-0921$_{NP}$	2-1/4

Round-hole, Heavy-duty.



	Dia	Conduit Size
00-595-9498$_{NP}$	1-3/32	3/4
00-595-9499$_{NP}$	1-11/32	1
00-243-1648$_{NP}$	1-11/16	1-1/4
00-595-9497$_{NP}$	1-15/16	1-1/2
00-180-0949$_{NP}$	2-3/8	2

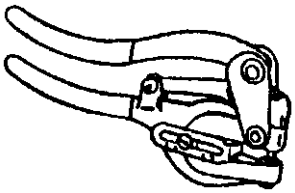
PUNCH AND DIE SET, KNOCKOUT

4-punch heavy-duty (conduit) set in roll kit. Cuts round hole sizes: 7/8, 1-3/32, 1-11/32, and 1-11/16 inches in diameter. Fed Spec GGG-P-836.

	Conduit Size
00-555-8497	1/2 to 1-1/4 in.

PUNCH AND DIE SET, METAL CUTTING, HAND

Circular holes, light duty, 16 gage sheet Steel maximum. Furnished with 1/16, 3/32, 1/8, 5/32, 3/16, 7/32, and 1/4 inch diameter punches and dies. Fed Spec GGG-P-840.



00-473-5931

PUNCH SET, CUTTING, DOUBLE BOW

With seven hollow punches for cutting: 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, and 5/8 inch diameter holes, in other than metal gasket material. Detachable mandrel, hinged Plastic, or metal container.

00-449-7313

RASP, HAND

Wood rasps. Heat treated, hardened, and tempered rasps with tang. Fed Spec GGG-F-325.

Flat type, bastard cut.

	Lg/In.	W/In.	Thk/In.
00-233-9721$_{NP}$	10	1	11/32
00-233-9718$_{NP}$	12	1-3/16	13/32

Half-round, bastard cut.

	Lg/In.	W/In.	Thk/In.
00-233-9710$_{NP}$	8	13/16	5/16
00-233-9711$_{NP}$	10	1	3/8
00-233-9712$_{NP}$	12	1-3/16	7/16
*00-233-9722$_{NP}$	12	1-3/16	7/16
00-233-9713$_{NP}$	14	1-3/8	1/2

* Smooth cut, deviation from spec.

Half-round cabinet type. Second cut.

	Lg/In.	W/In.	Thk/In.
00-233-9716	8	29/32	1/4
00-233-9717	10	1-1/8	9/32
00-233-9714	12	1-5/16	11/32

Surface forming tools. Fast-cutting, easy to use tools for cutting and forming wood, plastics, plaster, soft metal, and metals up to the hardness of mild steel. Replaceable blades

feature: super-sharp, preset, edge-cutting teeth that won't clog. STANLEY TOOL, or equal No.'s listed below.

Combination plane and rasp. Plastic rear handle. With regular-cut flat blade. 1-1/8 inches wide, 10 inches overall length.

	No.
00-941-2707	285

Palm-size rasp. Fits in apron or overall pocket. Fine-cut blade 1-3/8 inches. wide, 5-11/16 inches long.

	No.
00-083-0042	No. 399

REAMER, CYLINDER RIDGE

Adjustable reamer for cylinders 2.6 to 5 inches inside diameter. Furnished with six extra cutting blades. Without bracket. Mil Spec Mil-C-82069.

00-228-7009

REAMER, HAND

Straight, High speed Steel. Straight, round shank with squared end. Fed Spec GGG-R-180 reamers.

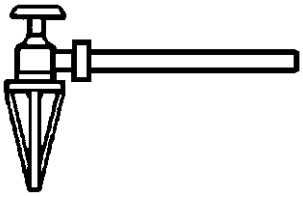
	Dia/In.	Lg/In.
00-186-6687$_{NP}$	1/8	3
00-268-1253$_{NP}$	5/32	3-1/4
00-260-1665$_{NP}$	3/16	3-1/2
00-260-1664$_{NP}$	1/4	4
00-186-6697$_{NP}$	9/32	4-1/4
00-255-6600$_{NP}$	5/16	4-1/2
00-260-1668$_{NP}$	11/32	4-3/4
00-255-6579$_{NP}$	3/8	5
00-260-1671$_{NP}$	13/32	5-1/4
00-268-1258$_{NP}$	7/16	5-1/2
00-255-6541$_{NP}$	1/2	6
00-260-1645$_{NP}$	5/8	7
00-255-6557$_{NP}$	3/4	8-3/8
00-260-1721$_{NP}$	7/8	9-3/4
00-253-3190$_{NP}$	1	10-7/8

Adjustable inserted blade reamers. High speed Steel, straight flutes. Straight round shank with squared end. Expansion range and size as shown.

	Range	Size
00-529-2014$_{NP}$	1/4-9/32	8/A
00-541-4962$_{NP}$	5/16-11/32	6/A
00-260-1702$_{NP}$	3/8-13/32	4/A
00-541-4961$_{NP}$	13/32-7/16	3/A
00-720-4782$_{NP}$	7/16-15/32	2/A
00-260-1705$_{NP}$	15/32-17/32	A
00-260-1706$_{NP}$	17/32-19/32	B
00-260-1707$_{NP}$	19/32-21/32	C
00-260-1708$_{NP}$	21/32-23/32	D
00-289-1011$_{NP}$	23/32-25/32	E
00-260-1717$_{NP}$	25/32-27/32	F
00-260-1728$_{NP}$	27/32-15/16	G
00-260-1727$_{NP}$	15/16-1-1/16	H
00-232-6343$_{NP}$	1-1/16-1-3/16	I
00-268-1235$_{NP}$	1-11/32-1-17/32	K

Pipe burring reamers. Carbon Steel. Pipe size capacity shown below.

Ratchet handled style. Complete unit with an inserted tooth or solid cone straight-fluted reamer. Distance from center line of reamer to end of lever is 10 inches (minimum).



	Pipe Size/In.
00-186-4215$_{NP}$	1/8 to 2

Spiral fluted, bit brace shank style. 1/4 inch diameter at point. 2-17/64 inch diameter at large end.

	Pipe Size/In.
00-232-6329	1/4 to 2 in.

Straight fluted taper pin reamers. High speed Steel. Straight round shank with squared end.

	Taper Size	O/A Lg/In.
00-253-3152$_{NP}$	7/0	1-13/16
00-253-3154$_{NP}$	6/0	1-15/16
00-253-3156$_{NP}$	5/0	2-3/16
00-253-3158$_{NP}$	4/0	2-5/16
00-253-3160$_{NP}$	3/0	2-5/16
00-243-2003$_{NP}$	2/0	2-9/16
00-243-2004$_{NP}$	0	2-15/16
00-243-2005$_{NP}$	1	2-15/16
00-243-2006$_{NP}$	2	3-3/16
00-253-3170$_{NP}$	3	3-11/16
00-253-3172$_{NP}$	4	4-1/16
00-243-2007$_{NP}$	5	4-5/16
00-253-3176$_{NP}$	6	5-7/16
00-253-3178$_{NP}$	7	6-5/16

Repairman's solid "T" handle reamer. Straight flutes, Carbon Steel. 5-1/2 inches overall length, 1/8 inch diameter at the small end with a pointed tip. Large diameter is 1/2 inches.

00-186-4214$_{NP}$

Left hand spiral-fluted tapered pipe reamers. High speed Steel. Round shanks with squared ends.

	Pipe Size/In.	O/A Lg/In.
00-516-3815$_{NP}$	1/8	2-1/8
00-268-1309$_{NP}$	1/4	2-7/16
00-810-8982$_{NP}$	3/8	2-9/16
00-595-9295$_{NP}$	1/2	3-1/8
00-268-1310$_{NP}$	3/4	4
00-268-1311$_{NP}$	1	3-3/4

Brown and Sharp taper socket (hand). Straight or tapered spiral fluted taper section. High speed Steel. Straight, round shanks with squared ends.

	Taper Size	O/A Lg
00-186-4203$_{NP}$	1	4-3/4
00-186-4204$_{NP}$	2	5-1/8
00-186-4205$_{NP}$	3	5-1/2
00-186-4206$_{NP}$	4	5-7/8

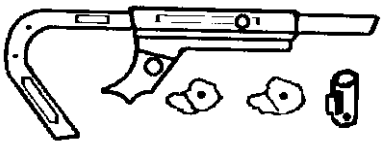
REAMER SET, HAND

Eleven in set. Round shank with square end. Straight fluted taper pin hand reamers. High speed Steel. One each of number sizes, from 0 thru 10. With case. Fed Spec GGG-R-180.

00-289-0010

RECONDITIONING TOOL, PISTON RING GROOVE

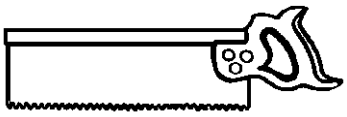
Piston ring groove reconditioning tool. Services 2-1/2 to 6 inch diameter pistons. 5/64, 3/32, 1/8, 5/32, 3/16, and 1/4 inche wide piston ring grooves. Includes: guide, sliding head, land cutter and holder, chamfer cutter and holder, and drill pilot jig.



00-554-7286

SAW, BACK

Back saw. Fits standard miter box. For crosscutting or ripping. Reinforced Steel back. Length of cutting edge and Points Per Inch (PPI) as shown. Fed Spec GGG-S-65.



SAW, BOW

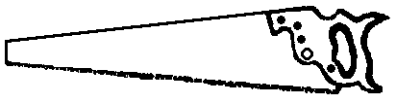
Bow saw. Strong, light tubular Steel frame holds 36 inch blade with wide set teeth. Saws logs up to 6 inches diameter. Cuts on forward and back stroke. Interim Fed Spec GGG-S-0064.

00-340-3276$_{NP}$

SAW, HAND, CROSSCUT

Full taper ground crosscut saws. Beveled filed teeth are spring set. Hardwood handles secured to blade by screws. Length of cutting edge and points per inch (PPI) as shown. Fed Spec GGG-S-65.

Straight back. First quality saw Steel blade.



00-203-8310$_{NP}$	20	10
00-142-4999$_{NP}$	24	10
00-293-3435$_{NP}$	26	8
00-307-0468*	26	10

* Nickel-Alloy blade.

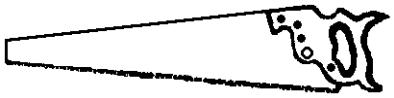
SAW, HAND, FINGER GRIP

Zinc Plated. Two grip assemblies. Two blade mounting thumb screws, 3/8 inches long. One round saw blade, 0.050 inch diameter by 20 inches long. Thirteen turns per inch. Survival type MB-2. Mil Spec Mil-S-9964.

00-570-6896$_{NP}$

SAW, HAND, METAL CUTTING

Straight-back metal cutting saw. 18 inch cutting edge with unset teeth, milled straight across. 15 points per inch. Hardwood handle. Fed Spec GGG-S-65.



00-221-0235$_{NP}$

SAW, HAND, RIP

26 inch cutting edge, 6 points per inch. Teeth filed straight across. Hardwood handle. Fed Spec GGG-S-65.

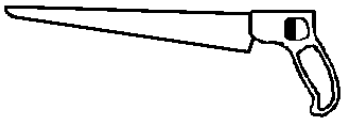
Skew back

00-142-5015$_{NP}$

SAW, KEYHOLE

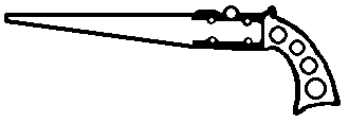
Keyhole saw for starting cuts from drilled holes. Select Steel tapered blade, 3/4 inch wide handle. Fed Spec GGG-S-65.

Adjustable handle. Nail-saw blade. Handle can be rotated 360 degrees and can be locked in 8 positions at 45 degree intervals. Plastic or cast metal handle. Also accepts keyhole blade and compass blade. 11 inch long blade, 11 points per inch. Fed Spec GGG-S-65.



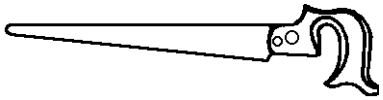
00-892-5847

Metal-cutting, Detachable pistol-grip metal handle, 7-1/2 inch long blade. 5-1/2 inch cutting edge, 25 points per inch.



00-237-8095$_{NP}$

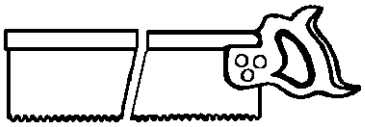
Wood cutting. Detachable hardwood handle holds blade with 10 inch cutting edge, 10 points per inch. Spring set teeth crosscuts and rips.



00-142-5010

SAW, MITER BOX

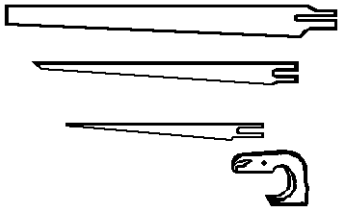
26 inch miter box saw. Fits standard miter box, NSN 5110-00-250-2525. With reinforced Steel back. Bevel-filed teeth are spring set, 11 points (minimum) per inch, for crosscutting and ripping. Fed Spec GGG-S-65.



00-221-0233$_{NP}$

SAWS, NESTED

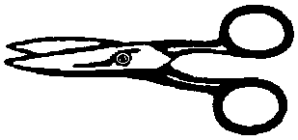
3-blade set of nested saws. Includes: detachable hardwood handle, 1-keyhole saw, 10 inches long, 10 points per inch; 1-compass saw, 14 inches long, 9 points per inch; and 1-nail cutting saw, 16 to 18 inches long, 16 points per inch. Fed Spec GGG-S-65.



00-293-0090

SCISSORS, ELECTRICIANS'

5 inch long electrician's scissors. Pointed blades with file and scraping edges on backs of blades. Cuts wire, light sheet metal, and insulation. Nickel-Plated forged Steel. Interim Fed Spec GGG-S-00278.



00-255-0420$_{NP}$

SCISSORS, LADIES'

6 inch long heavy-duty sewing or trimming scissors. Nickel-Plated forged Steel. Interim Fed Spec GGG-B-00278.

00-754-1499$_{NP}$

Stainless Steel. Both blades pointed or one blade pointed and one blade beveled. Plastic handles. Overall length 6-1/4 inches.

01-241-4375

SCISSORS, POCKET

4 inch long, hot drop-forged solid Steel blades, with rounded ends. 1-1/2 inch minimum length of cut. Blades and handles are fully Nickel Plated. Fed Spec GGG-S-00278.

00-290-3766$_{NP}$

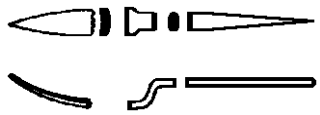
SCRAPER, BEARING

Forged Steel bearing scrapers. Used on flat or curved surfaces. Hardwood handles on all except double-ended scraper. Fed Spec GGG-S-113, as applicable.

Triangle (three-square). 4 inch blade length, 1/2 inch across flats.

00-596-9369$_{NP}$

Half-round (spoon). Blade length and width at widest point, listed in inches.



	Blade Lg/In.	Blade W/In.
00-203-6499$_{NP}$	2-1/2	9/16
00-596-9370$_{NP}$	3-1/2	5/8
00-596-9371$_{NP}$	4-1/2	13/16

Double-end, flat, Steel. 12 inches long overall. One end with square scraping edge, 7/8 inches wide; other end with convex scraping edge, 1-1/8 inches wide.

00-237-8702$_{NP}$

SCRAPER SET, BEARING

Consists of 3 scrapers, half-round (spoon), 1 each: NSN 5110-00-240-7661, 5110-00-596-9370, and 5110-00-596-9371. Respective blade length and width at widest point 3 by 5/8, 3-1/2 by 5/8, and 4-1/2 by 13/16. Fed Spec GGG-S-113.

00-596-0808$_{NP}$

SCRAPER, CARBON, FLEXIBLE

Flexible Carbon scraper. 9 inch long tool removes Carbon in low, hard-to-reach areas, and high spots. Sliding band regulated flexibility of 10 round Steel blades.

00-251-6481$_{NP}$

SCRAPER, GLASS, RAZOR BLADE

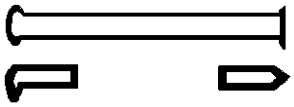
Razor-blade glass scraper. 4 inch handle holds standard single-edge razor blade. Blade retracts when not in use. 5-blades furnished, 1-5/8 inches wide, 1/4 inches thick.

00-997-4237$_{NP}$

SCRAPER, SHIP

Paint-and-scale removing ship scrapers. Carbon Steel scraping edges. Fed Spec GGG-S-116.

All metal scraper, angle-bent end. 1-3/4 inches wide scraping edges. No handle.

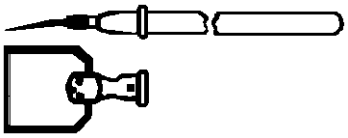


	Lg/In.
00-240-3094$_{NP}$	15

Hull and deck scraper. 2 inches wide scraping edges. 30-1/2 inch long wood handle.

	Lg/In.
00-224-9928$_{NP}$	36

Ship bottom scraper. 6 inches wide scraping edge. 45 inch long wood handle.



	Lg/In.
00-224-9926$_{NP}$	53-3/4

All metal, angle-bent end scraper. Nonsparking and nonmagnetic. Can be used where flammable gases, dust, and explosives present a hazard. 2 inch wide scraping edges. Mil Spec Mil-S-21263.

	Lg/In.
00-277-2690$_{NP}$	12

SCRAPER, WOOD

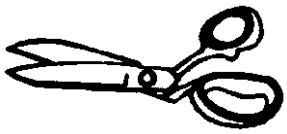
Floor type scraper. 2 inch wide Carbide tipped replaceable blade. Any acceptable length.

00-935-4660

SHEARS, BENT TRIMMERS

Professional cloth cutters shears. Chrome or Nickel-Plated forged Steel blades(one pointed and one beveled or two pointed blades). Heavy duty, cuts canvas, leather, upholstery, and similar materials on flat surface. Fed Spec GGG-S-278.

Solid Steel blades



	Lg
00-162-2203	9
00-596-9703	10
00-203-9642	12

Steel blades with Plastic handle. The blade ends are: 1 beveled/1 sharp pointed, or 2 sharp pointed. No left hand operation.

	Lg
01-241-4371	8-1/4

SHEARS, METAL CUTTING, HAND

Trimmer's hand snips. Steel blades cut light-gage metals. Handle stops prevent closing on fingers. Right-hand operation, except NSN 5110- 00-273-0127. Fed Spec GGG-S-291.

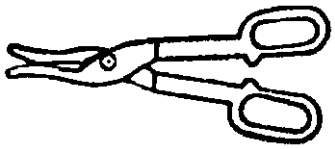
Straight cutting. Medium duty.

	Lg/In.	Cut/In.
00-289-8659	8	1-3/4
00-293-0089	12-1/2	2-3/4

Straight cutting. Heavy duty.

	Lg/In.	Cut/In.
00-221-1083	16	2-1/4

Duckbill Combination cut. Cuts curves and irregular shapes. Use for intricate patterns.



	Lg/In.	Cut/In.
00-221-1085	7	1-1/2
00-221-1087	12-1/2	2-3/4

Compound lever hand snips. Compound leverage system distributes cutting strain evenly. Alloy Steel blades, finely serrated cutting edges. Spring action keeps blades open. Handles with locking device.

Straight cutting. Can also cut curves and intricate patterns.

	Lg/In.	Cut/In.
00-273-0128	10	1-3/16

Circular cutting, Left hand.

	Lg/In.	Cut/In.
00-273-0126	10	1-3/16

Circular cutting, Right hand.

	Lg/In.	Cut/In.
00-273-0127	10	1-3/16

Dental shears for cutting thin Gold plate. Chrome-Plated Carbon Steel. Straight style, sharp-pointed blades. 2-1/2 inch cut.

	Lg/In.	Cut/In.
00-555-9500$_{NP}$	8	2-1/2

SHEARS, PINKING

9 inch long heavy-duty pinking shears. Forged Steel blades cut scalloped edges. Fed Spec GGG-S-278.

00-162-2202

SHEARS, STRAIGHT TRIMMERS

Steel shears for office, household, and shop use. Heavy-duty. Right-hand operated japanned handles with Chrome or Nickel-Plated blades. Overall lengths as shown. Fed Spec GGG-S-278.

Paper or Stationer's shears. Pointed blades.

	Lg
00-161-6912	9
00-162-2207	12

Household or Industrial shears. One pointed and one beveled blade. Cuts cloth, leather, rubber, and paper.

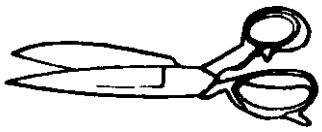
	Lg
00-293-3444	6
00-293-9199	7
00-223-6371	8
00-161-6909	9

Steel, 1 beveled, 1 sharp pointed, or 2 sharp pointed blades. Plastic handles.

	Lg
01-241-4373	8-1/4

SHEARS, TAILOR'S

12 inch long Tailor's (Sailmaker's) shears. One pointed and one beveled, or blunted edge blade. Cuts heavy materials such as canvas, leather, upholstery, and similar materials. Japanned handles with Chrome or Nickel-Plated blades. Fed Spec GGG-S-278.

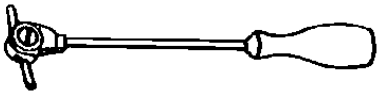


00-223-6370

SLOTTER AND SCRAPER, COMMUTATOR, HAND

11 inch long commutator cleaning tool. Adjustable swivel head rotates to any angle, for cleaning out commutator slots and for beveling Copper edges.

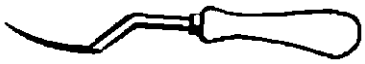
Mil Spec Mil-S-17709.



00-245-9542

SLOTTING TOOL, COMMUTATOR, HAND

10 inch overall length. Curved 3 edge single end type. Draw cut style. Primarily used for light or intermittent undercutting of the mica insulation, between commutator bars. Mil Spec Mil-S-17709.



00-289-0531

SPLITTING TOOL, NUT

Steel, heavy duty forged body encircles nuts up to 7/8 inches across flats. The hardened cutting chisel is held in the housing with a friction ball, and can be turned to the best position for splitting action. The pressure screw has a 3/4 inch hex head for wrench application. The anvil is held in the screw with a replaceable friction ring and is designed for removing nuts, rusted or frozen in place. DO NOT USE WITH POWER WRENCHES.

00-803-6339$_{NP}$

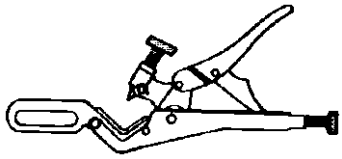
SPOKESHAVE

Spokeshave for dressing curved edges. 10 inch long frame with raised handles and cap Iron. Tempered tool Steel straight cutter, 2-1/8 inches wide. Fed Spec GGG-S-271.

00-237-8573

STRIPPER, CABLE, HAND

Cable stripper with adjustable toggle handle and cutter. Strips heavy duty armored and unarmored cables from 3/8 to 1-5/8 inches in diameter, and through insulation 1/4 inch thick. Fed Spec GGG-S-665.

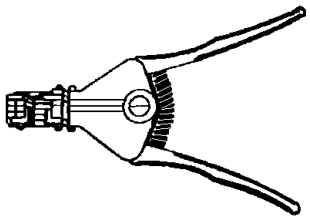


00-238-7696$_{NP}$

STRIPPER, WIRE, HAND

For removing at least 3/4 inch length of insulation from standard solid and stranded wires. With automatic stop return and replaceable cutter blades. Range of AWG and AN wire sizes as noted. Fed Spec GGG-S-665.

With pivot handles. Use on free stripping aircraft ignition and electrical cable, and general purpose solid and stranded wire. With automatic stop return.

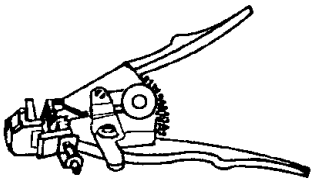


	No.
00-268-4224$_{NP}$	8 thru 22
01-088-4318*	10 thru 30
00-542-4487$_{NP}$	14 thru 30

* SPCC Quality Control Item.

With pivot handles. For Teflon insulation. 7-1/4

inch overalll Length. 6 inches between handles when fully released. With stripping length stop and short stop latch.

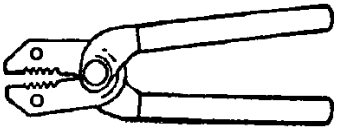


	No.
00-177-7286$_{NP}$	16 thru 26

With pivot handles. For Teflon insulation. Automatic stop return. Fed Spec GGG-S-665C.

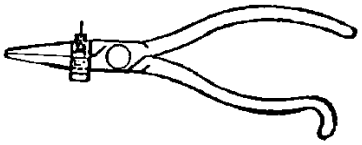
	No.
01-090-5870$_{NP}$	16 through 26 and Type E-600 volt

Flat jaws and handles. 6-1/4 inch overall length. Solid wire only.



	No.
00-246-0975	10 thru 18

Modified plier style. Yellow handles.



	No.
01-019-1772	26 through 28

White handles.

	No.
00-472-2328	30 AWG

Spring loaded handles, with adjustable stop for wire size.

	No.
00-063-3037	.5 through 25

TOOL KIT, MULTI PLIER

This kit contains a pocket knife, NSN 5110-01-346-5339, with 6 screwdriver bits and a coupler that fits over cross tip screwdriver blade. Includes 3 cross tip bits and 3 flat tip bits. Comes in Black Synthetic, heavy duty sheath with Velcro closure and belt loop. Special Feature: Nip item.

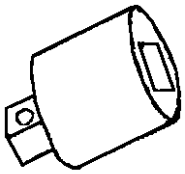
01-385-7354

CLASS 5120
HAND TOOLS, NONEDGED, NONPOWERED

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

ADAPTER, SOCKET WRENCH

Socket wrench drive adapters. Converts female square drive to male square drive. Chrome or Nickel Plated Steel. Square male drive tang, square female socket openings. Fed Spec GGG-W-641.



	Female	Male	Lg
00-224-9219$_{NP}$	1/4	3/8	13/16
00-227-8095$_{NP}$	1/4	3/8	7/8
00-240-8703$_{NP}$	3/8	1/2	1-19/64
01-335-0696$_{NP}$	3/8	1/2	1-5/16
00-240-8702$_{NP}$	3/8	1/2	1-3/8
00-144-5207$_{NP}$	1/2	3/4	1-23/32
00-227-8088$_{NP}$	1/2	3/4	1-29/32
00-227-8104$_{NP}$	3/4	1	2-5/16
00-227-8103$_{NP}$	3/4	1	2-9/16

ADAPTER, TORQUE WRENCH

Chrome Steel. .772 inch outside diameter by .515 inch thick drive end. .875 inch outside diameter by .750 inch head thickness, on drive end. Hex shape .509 inch wrenching size, (internal). Square shape .507 inch drive size (internal). G M Diesel 53, 71, V-71, and 110.

00-019-5232$_{NP}$ 3.260 in. lg

Chrome Steel. Overall length, 2 inches. Spline wrenching shape. Square drive. Mil Spec M8982/3.

3/8 Square drive

	Wrenching Size	Spline
01-074-6573$_{NP}$	5/16	10
00-867-5515$_{NP}$	3/8	12
00-867-5517$_{NP}$	1/2	16

ALIGNMENT TOOL, ELECTRONIC EQUIPMENT

Combination screwdriver and wrench type. Plastic bodies or handles. Two working ends, dimensions and type as noted.

Metallic screwdriver tip. .127 inches long by .055 inches wide. Slot type wrench.

	Lg /In.
00-720-1908	4-1/8

Metallic screwdriver tip. .175 inches long by .055 inches wide. Slot type wrench. Fed Spec GGG-A-450.

	Lg /In.
00-333-9809	6

Metallic screwdriver tip. .050 inch size Allen wrench.

	Lg /In.
00-724-3767	5-1/8

Metallic screwdriver tip. Opposite end designed for dressing wires, finding loose connections, and shorts.

	Lg /In.
00-288-7789	6-5/16

Nonmetallic screwdriver tip. Allen wrench. Size .100 inch.

	Lg /In.
00-767-7582	5-7/16

Nonmetallic. Flat screwdriver tip and Allen wrench.

	Lg /In.
00-288-7786	5-1/4

Screwdriver type with one working end.

Nonmetallic tip. Plastic body. .025 inch thick, 1/8 inch diameter.

	Lg /In.
00-288-7785	7

Nonmetallic tip designed to fit K-TRAN Transformer slot. 2 working ends.

	Lg /In.
00-288-7787	7

Screwdriver type with two working ends. Nonconductive Plastic body. Fed Spec GGG-A-450.

Nonmetallic tips, both ends projecting. All Plastic alignment screwdrivers. 7 inches long.

	Size
00-060-6423	1/4 both ends
00-508-9755	1/4 both ends

Metallic screwdriver tip and recessed screwdriver tip with a Pocket clip. Polyamide Nylon body.

	Lg /In.
01-246-6113	4-15/16

Metallic screwdriver tip and recessed screwdriver tip.

	Lg /In.
00-227-7291	5

Metallic screwdriver tip both ends.

	Lg /In.
00-288-7781	6

Orange wood or Plastic tool, with round tips. 2 inches long tapered and beveled tips each end. 1/8 inches wide by 1/16 inches thick by 6-7/8 long, 7-3/2 inch body diameter. Army Electronic Command Drawing SCB98203.

00-293-2081

ALIGNMENT TOOL, PLUNGER

Aluminum. 3-1/2 inches overall length, 1-3/4 inch inside diameter. 4-1/2 inch flange with four-3/16 inch diameter holes equally spaced, 3 inch outside diameter. 2-1/2 inch outside diameter, 1/2 inch long, guide.

01-010-4483

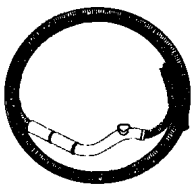
ANVIL, JEWELER'S

Jeweler's anvil with five milled slots, nominal widths: .018, .024, .028, .034, .041. Sixteen graduated holes ranging from .047 inches to .250 inches. Non- Spec Item.

00-618-4913

AUGER, PIPE AND SEWER, HAND

Augers for opening clogged pipes and sewers. Single helical coil or flat spring. Fed Spec GGG-A-821.



Flexible coil spring auger. Bulbous cleaning head. Reversible offset sliding handle. Outside

diameter and length of coil spring as noted.

	OD/In.	Lg/Ft
00-273-0083$_{NP}$	1/4	25
00-273-0084$_{NP}$	3/8	25
00-273-0085$_{NP}$	1/2	50

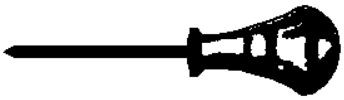
AUGER, WATER CLOSET, HAND

Auger for opening closet bowls. Right hand wound oil-tempered coil spring with hook type spring head. Fastens to eyelet when not in use. Seamless Brass tube with return bend to catch and hold water from spilling when removing spring from bowl. Handle revolves freely on crankshaft. 1/2 inch coil diameter, overall length 3 feet. Fed Spec GGG-A-821.

00-240-7561

AWL, SCRATCH

Scratch awl. 3-1/2 inches long Carbon Steel blade. 3 inches hardwood handle with metal ferrule. Fed Spec GGG-A-891.



00-221-1542$_{NP}$

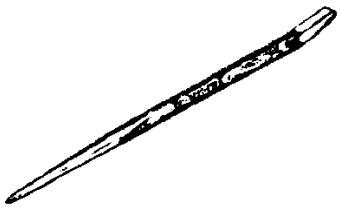
BAR, COMBINATION PRY AND SCRAPE

Multipurpose pry and scraper bar/rocker head. Rugged, heavy-duty tool. Pries, pulls, and cuts nails; scrapes, lifts, and pounds nails. Each tapered blade has sharp edges and a V-type nail notch. Tempered Steel. Stock size and overall length shown. Fed Spec GGG-B-110.

00-965-0879$_{NP}$ 2 x 15

BAR, PINCH

Off set pinch bars. Round tapered straight end for use as an aligning tool, other end offset for prying. Forged Steel. End sizes as shown. Fed Spec GGG-B-101.



13-1/2 inches long.

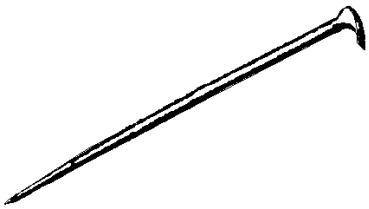
	Dia	W/In.
00-240-6051$_{NP}$	3/16	11/16

26 inches long.

	Dia	W/In.
00-224-1372$_{NP}$	5/16	1

BAR, PRY

Pry bar with rolling head. Other end round tapered and pointed. For use as an aligning tool and for loosening cylinder heads, gears, and bolts. Forged Steel, 1/2 to 9/16 inches WAF and 15 to 16 inches long. Fed Spec GGG-B-101.



00-224-1389$_{NP}$

BAR, RESCUE TOOL

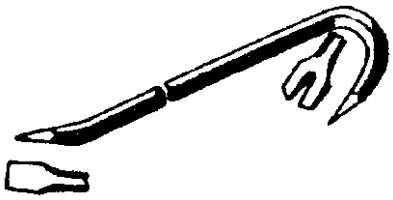
Combination crowbar, pick, and sledge hammer. 30 inches long, weight 9 pounds.

00-009-5044$_{NP}$

BAR, WRECKING

Wrecking bars. For demolition work, razing structures, and opening boxes and crates. Claw for pulling nails, offset pinch-point. Forged Steel. Fed Spec GGG-B-101.

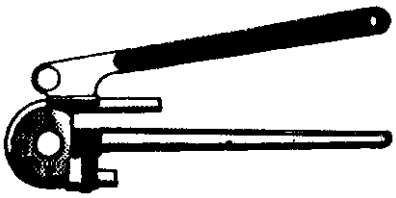
Goose neck claw and pinch point.



	Size	Lg
00-223-7218$_{NP}$	1/2	12
00-293-2384$_{NP}$	5/8	18
00-224-1393$_{NP}$	3/4	24
00-293-0665$_{NP}$	3/4	30
00-242-0762$_{NP}$	3/4	36

BENDER, TUBE, HAND

Single size, lever-actuated tube benders. Makes accurate bends up to 180 degrees. Use on any soft metal thin wall tubing: copper, aluminum, steel. How-to-use instructions included. Outside diameters of tubing for which designed, shown below. Fed Spec GGG-B-191.



	OD
00-240-0152$_{NP}$	1/4
00-240-0153$_{NP}$	5/16
00-240-0154$_{NP}$	3/8
00-240-0155$_{NP}$	1/2
00-240-0156$_{NP}$	5/8

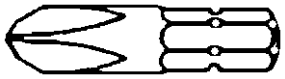
BENDER SET, TUBE, HAND

Six piece set of external coil-spring tubing benders. Outside diameter and NSN'S noted. Set includes: 1/4 inch, 00-234-8739; 5/16 inch, 00-234-8740; 3/8 inch, 00-234-8741; 7/16 inch, 00-234-8742; 1/2 inch, 00-234-8743; 5/8 inch, 00-234-8744. Fed Spec GGG-B-191.

00-293-0019$_{NP}$

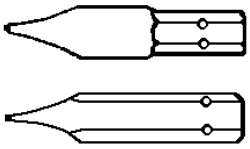
BIT, SCREWDRIVER

Phillips Cross Tip. Shank width wrench flats 1/4 inch. Bit overall length, 1.000 inches.



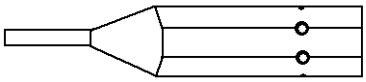
	Tip Size
00-223-6971$_{NP}$	1
00-595-8197$_{NP}$	2
00-250-5576$_{NP}$	3

Flat tip



	Tip W	Shank WAF	O/A Lg
00-293-2057$_{NP}$	3/16	1/4	1-1/2

Male Hexagonal Tip. Shank width across wrench flats, 1/4 inch.



	Tip Size	O/A Lg
00-640-6725$_{NP}$	3/32	1
00-640-6731$_{NP}$	3/16	1-5/16

Male Hexagonal Tip. Male straight round with wing drive. Bit length 5 inches.

	WAF
00-156-0969$_{NP}$	3/64
00-156-0981$_{NP}$	9/64

Torque Set Cross Tip. Shank width across wrench flats 1/4 inch. Bit overall length, 1.000 inch. Mil Std MS-33781.

	Tip Size
00-888-5829	4
00-888-5827$_{NP}$	6
00-888-5826$_{NP}$	8
00-888-5831$_{NP}$	10
00-226-5606$_{NP}$	1/4

Male Hexagonal Tip Type.

	W	Lg
00-969-0071$_{NP}$	5/32	2-1/16
01-012-5020	1/8	6

BIT, WIRE WRAPPING, HAND

Steel. Overall length 3.112 inch. Bit face, mod wrap, wire gage size 24. Terminal hole diameter .074 inch. Depth 1.125 inches.

00-051-3858

BLOWER, WATCHMAKER'S

Bulb type. Squeeze expels air. For removing dirt or foreign matter from small instruments.

00-254-4612

BRUSH, WIRE, BATTERY

Cleans and removes corrosion from battery posts and clamps. Clamp cleaner telescopes into post cleaner portion. Steel spring cutters with knurled metal gripping surfaces.

00-926-5175

BURNISHER, CONTACT, HAND

For cleaning and burnishing contact points of relays. Fed Spec GGG-B-00785.

4-jaw chuck burnisher with 12 sand blasted blades. Phenolic body stores: 6-Flat Steel blades, 3/16 wide by 1-1/2 long by .035 inches thick, 6-round (music wire) blades, .024 diameter by 1-1/4 long, with .020 diameter ball-tips. Hard Rubber cap has metal pocket clip. Overall length 4 inches.

00-255-4458

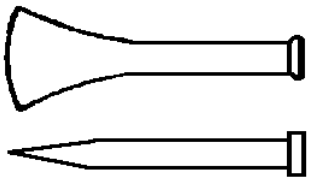
CARTRIDGE ASS'Y DISPOSABLE

Polyethylene, 12 ounce capacity. Overall length 12 inches. Outside diameter .660. 1/4 inch NPT internally threaded on nozzle end. Opposite end .812 diameter flange.

00-670-3293

CAULKING IRON, WOOD

Carbon Steel ship-caulking irons. Working end width and overall length as noted. Fed Spec GGG-I-671.

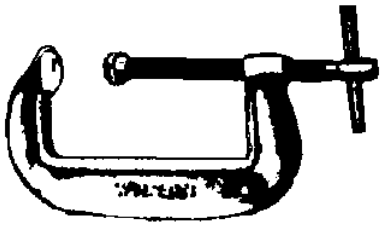


Straight without crease.

	W	Lg
00-222-3241$_{NP}$	2	5-1/8

CLAMP, C

Adjustable screw "C" clamps. Nominal size and full opening and throat depth in inches as noted. Fed Spec GGG-C-406.



Very light service. Steel frame.

	Jaw Size	Throat Depth	Test Load/Lb
Reg Throat			
00-596-4053$_{NP}$	1	3-1/2	200
00-203-6439$_{NP}$	2-1/2	2-1/2	900

Light service. Forged Frame.

Reg Throat

	Jaw Size	Throat Depth	Test Load/Lb
00-180-0905$_{NP}$	2	1-3/4	2700
00-180-0907$_{NP}$	3	1-7/8	3000
00-180-0908$_{NP}$	4	2-1/4	3700
00-180-0909$_{NP}$	6	2-3/4	4500
00-203-6436$_{NP}$	8	3-1/4	5200

Medium Service. Forged Frame.

	Jaw Size	Throat Depth	Test Load/Lb
00-222-1612$_{NP}$	4	2-1/4	10,000
00-203-6431$_{NP}$	6	2-1/4	11,500
00-840-3358$_{NP}$	8	2-1/2	12,500

Heavy Service. Forged Frame.

	Jaw Size	Throat Depth	Test Load/Lb
00-249-7492$_{NP}$	3	2-1/4	16,250
00-180-0897$_{NP}$	6	3-1/8	27,500
00-249-7494$_{NP}$	8	3-1/2	31,250

CLAMP, PLIER

Locking plier-clamps. Finger tip release unlocks adjustable forged Steel jaws. For use in assembly and repair work. Nominal length and jaw width in inches as noted. Fed Spec GGG-W-649.

"C" Clamp Radius or rounded clamping surfaces with smooth or serrated gripping surface. 0 to 3-3/8 inches clamping cap.

	Lg	Jaw W
00-731-2862$_{NP}$	11	7/16

Narrow-jawed clamp. Holds material without marring surface. Nominal length, and jaw width as noted.

	Lg	Jaw W
00-287-2512$_{NP}$	7	3/8

Sheet metal clamp. Self-adjusting, with portable vise. Enlarged clamping surfaces for gripping strips, sheets, etc. 1-3/4 jaw depth.

	Lg	Jaw W
00-494-1889$_{NP}$	8	3-1/16

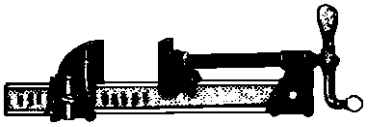
Welding clamp. Upset jaws with open area in center to permit welding, soldering, riveting, etc. 0 to 1-5/8 inches clamping cap.

	Lg	Jaw W
00-494-1895$_{NP}$	9	2-5/8

CLAMP, SCREW, QUICK ADJUSTING

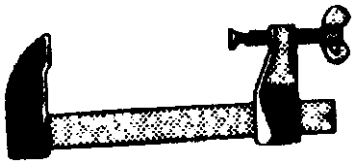
Clamp screws for holding work in a fixed position. Nominal jaw opening as noted. Fed Spec GGG-C-406.

Fixed head with adjustable double jaw.



	Lg/In.
00-180-2936$_{NP}$	36

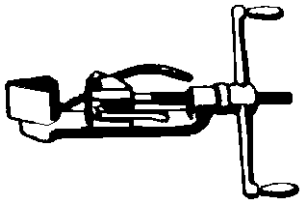
Sliding head with swivel button.



	Lg/In.
00-222-1403$_{NP}$	12

CLAMPING TOOL, STRAP BAND, HOSE

Cutting and tensioning tool for Steel strapping. Handles 3/8 through 3/4 inches wide and .025 inches through. 0.030 inches thick metal strapping at tensions up to 2700 pounds when attaching pliable tubing to rigid tubing. Also used in splicing electric welding cable, tying conduit or cable to pipelines or girders, and making cable line taps. Fed Spec GGG-C-413.



00-278-9925

CONTACT POSITIONER TERMINAL CRIMPING TOOL

Mil Spec Mil-C-22520/2.

	Size/Accom	Dash No.
00-017-3921$_{NP}$	M24308/10-1	-08
	M24308/11-1	
	M24308/16-1-5	
	M24308/17-1-5	
00-016-7657$_{NP}$	M3343-23-22/A,B	-03
	M3343-23-28/A,B	
	M90460-23-22/A,B	
	M90460-23-28/A,B	
	M90461-23-22/A,B	
	M90461-23-28/A,B	

CRIMPING TOOL, TERMINAL HAND

Manual compression terminal crimping tools. AWG wire size range accommodated as noted.

For attaching Copper insulated terminals to electric cable. Mil Spec Mil-C-22520.

	AWG Size Accom	Mil Spec
00-165-3910	28-21	2-01
00-165-3912	27-14	1-01
00-132-6913	A/A	5-01
00-596-9313*	27-12	5-100
00-293-2319†	23-12	24-01

* With die.
† Maximum compression force, 130 PSI.

Non-Spec types

	AWG Size Accom
00-008-0705	25-14
01-120-8721	27-14

For crimping insulated solderless terminals and connectors. Cutting jaw and wire stripper. Cuts sizes 4 to 10 screws.

	AWG Size Accom
00-278-2423	22-10

CROW BAR

High Carbon Steel crowbars. Long pry bars. Stock size and maximum length as noted. Fed Spec GGG-B-101.

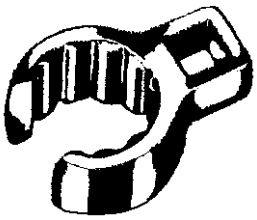
Pinch Point

	Dia	Lg
00-224-1390$_{NP}$	1-1/4	61

CROWFOOT ATTACHMENT SOCKET WRENCH

Nonratcheting crowfoot wrenches. Square female drive end. Wrench size (WAF) as noted. Fed Spec GGG-C-1507.

12 Point box, open wall.



1/4 inch drive

	Wrench Size
00-888-8000$_{NP}$	5/16
00-541-4074$_{NP}$	9/16

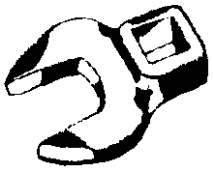
3/8 inch drive

	Wrench Size
00-224-7288$_{NP}$	5/8
00-189-7896$_{NP}$	11/16
00-189-7898$_{NP}$	3/4
00-189-7895$_{NP}$	13/16
00-541-4075$_{NP}$	15/16
00-229-2772$_{NP}$	1
00-181-6764$_{NP}$	1-1/16

1/2 inch drive

	Wrench Size
00-229-2773$_{NP}$	1-1/8
00-181-6759$_{NP}$	1-1/4
00-181-6755$_{NP}$	1-1/2

Open-end style with two 3/8 inch square drive openings.



	Wrench Size
00-184-8383$_{NP}$	7/16
00-184-8384$_{NP}$	1/2
00-184-8397$_{NP}$	9/16
00-184-8398$_{NP}$	5/8
00-236-2261$_{NP}$	11/16
00-184-8400$_{NP}$	3/4
00-184-8403$_{NP}$	15/16
00-595-8213$_{NP}$	1
00-184-8405$_{NP}$	1-1/16
00-184-8410$_{NP}$	1-3/8

Open-end style. With two 1/2 inch square drive openings. Head thickness 1/2 inches. SPCC HX Quality Control Specs. Wrench size and NAVSHIPSYSCOM Drawing 820-4530101 PC number given.

	Size	No.
00-467-5104$_{NP}$	1/2	PC 1
00-467-5137$_{NP}$	9/16	PC 2
00-467-5143$_{NP}$	5/8	PC 3
00-483-8383$_{NP}$	3/4	PC 4

DISPENSER, SEALANT

Steel mechanical BR1 manual ratchet type. Vent nozzle dispensing with integral tip. 16 ounce cap.

00-679-5655

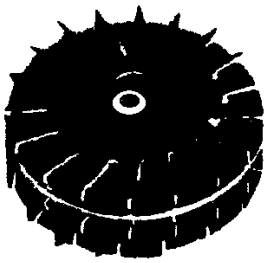
Steel mechanical BR2 manual ratchet type. Angular dispensing with removable tip. Threaded internal coupling. Style 1 nozzle, 1/2 inch discharge.

00-293-3208

DRESSER, ABRASIVE WHEEL, HAND

Revolving cutter-wheel type dressers. For dressing or truing grinding wheels used in foundries, forge shops, machine shops,

shipyards, etc. Size 0 and 1, with 4 cutters. Fed Spec GGG-D-631.



Size No. 0: 1-1/4 inch cutter diameter. For wheels up to 10 inches diameter and 2 inches wide.

00-223-9952$_{NP}$

Size No 1: 1-1/2 inch cutter diameter. For wheels 10 to 16 inches in diameter, 2 to 3 inches wide.

00-287-4448$_{NP}$

DRIFT, DRILL

Plain drift, forged Steel. For driving taper shank tools out of machine spindles, sockets, and sleeves. Fed Spec GGG-D-641.

Size 1, Fits Morse socket No. 1

00-293-0097$_{NP}$

Size 2, Fits Morse socket No. 2

00-224-8949$_{NP}$

Size 3, Fits Morse socket No. 3

00-224-8950$_{NP}$

EXTENSION, SOCKET WRENCH

Square-drive extension bars. Black Oxide, Chromium Plated, Nickel Plated, or Zinc Plated. Nominal length given in inches. Fed Spec GGG-W-641.

Flexible, 1/4 inch drive size.

	Lg/In.
00-240-1532$_{NP}$	6

Solid bars.

1/4 inch drive size.

	Lg/In.
00-227-8105$_{NP}$	2-3/4
00-243-7325$_{NP}$	6
00-517-7808$_{NP}$	14

3/8 inch drive size.

	Lg/In.
00-243-1689$_{NP}$	3
00-227-8107$_{NP}$	6
00-243-1693$_{NP}$	9
00-243-1691$_{NP}$	12

1/2 inch drive size.

	Lg/In.
00-243-1697$_{NP}$	2
00-243-7326$_{NP}$	5
00-227-8074$_{NP}$	10
00-242-3137$_{NP}$	12
00-240-8705$_{NP}$	20

3/4 inch drive size.

	Lg/In.
00-273-9208$_{NP}$	3
00-227-8079$_{NP}$	16

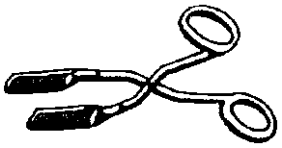
EXTRACTOR, CIRCUIT

Steel inner and outer vinyl covered jaws. 2-7/8 inches wide with retaining bar, button head rivet, and spring. Extracts PC boards. Maximum thickness, .094 inches.

00-758-6653

EXTRACTOR, ELECTRON TUBE

Spring-Steel extractor tong-type. Rubber cushioned prongs curved to fit various type tubes. Bow handles. May also be used to install tubes. 8 inches long. Fed Spec GGG-E-00930.



	OD
00-293-0808	1.500

EXTRACTOR, LAMP

Miniature lamp type extractor. Brass extractor end with nonmetallic handles.

00-772-2466

Synthetic rubber extractor for miniature lamps. One end 11/32 inches. Tapers to 3/16 inch inside diameter. 3/4 inches deep. Other end 11/16 inches. Tapers to 15/32 inches inside diameter. 1-1/16 inches deep, 3 inches long overall.

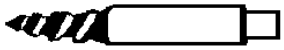
00-288-7679

EXTRACTOR, SCREW

Steel screw and pipe extractors. For removing broken screws, studs, bolts, and pipe fittings. Fed Spec GGG-E-936.

Taper-type screw and pipe extractors. Size number as shown.

Spiral fluted drill style.



Number 1: Screw size 3/16-1/4

00-240-5223$_{NP}$

Number 2: Screw size 1/4-5/16

00-580-2359$_{NP}$

Number 3: Screw size 5/16-7/16

00-240-5221$_{NP}$

Number 4: Screw size 7/16- 9/16

00-240-5222$_{NP}$

Number 5: Screw size 9/16-3/4

00-240-5219$_{NP}$ pipe size 1/8-1/4

Number 6: Screw size 3/4-1

00-240-5220$_{NP}$ pipe Size 3/8

Number 7: Screw size 1 to 1-3/8

00-240-5217$_{NP}$ pipe size 1/2

Number 8: Screw size 1-3/8 to 1-3/4

00-242-1118$_{NP}$ pipe size 3/4

Number 9: Screw size 1-3/4 to 2-1/8

00-240-5215$_{NP}$ pipe size 1

Straight-fluted.

Number 1: Screw size 1/4 to 5//16

00-180-0777$_{NP}$

Number 2: Screw size 3/8

00-180-0778$_{NP}$

Number 3: Screw size 7/16

00-180-0779$_{NP}$ pipe size 1/8

Number 4: Screw size 1/2 to 9/16

00-180-0780$_{NP}$ pipe size 1/4

EXTRACTOR, SCREW THREAD INSERT

Extractor tool for Unified and American National Coarse and Fine Thread Series coil thread inserts. Steel blade, shaft, and handle. Mil Spec Mil-T-21309.

00-723-6833$_{NP}$ No. 10 to 3/8
00-251-1527$_{NP}$ 7/16 to 1 inch

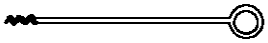
EXTRACTOR, STUFFING BOX AND PUMP PACKING

For removing worn or leaky packing from stuffing boxes. Fed Spec GGG-E-950.

Screw and flexible shaft. T-handle one end.

	Bit Dia/In.	O/A Lg/In.
00-223-9556$_{NP}$	7/32	7
01-021-9700$_{NP}$	9/32	7
00-223-9557$_{NP}$	9/32	11
00-223-9558$_{NP}$	13/32	14-1/2
00-223-9559$_{NP}$	1/2	18

Screw and rigid shaft. Eye in handle. Steel rod.



	Bit Dia/In.	O/A Lg/In.
00-247-2896$_{NP}$	5/32	6

Double end, rigid shaft.

	Bit Dia/In.	O/A Lg/In.
	Dia	Lg
00-243-3632$_{NP}$	5/16	6

EXTRACTOR, TAP

4-Flute style tap extractors. For standard machine and hand taps. Steel body with sliding sleeve and collar, flute gripping fingers. Nominal tap size as noted. Fed Spec GGG-E-936.

	Size
00-288-9180$_{NP}$	1/4
00-288-9182$_{NP}$	3/8

EXTRACTOR SET, SCREW

Spiral-fluted drill style extractor sets. For removing broken screws and bolts. Contains one each of the sizes listed. Fed Spec GGG-E-936.

00-595-8279$_{NP}$ No's. 1 thru 5
00-357-5853$_{NP}$ No's. 1 thru 6
00-610-1888$_{NP}$ No's. 1 thru 9
01-071-2993$_{NP}$ No's. 1 thru 10

Straight type screw extractors. Straight fluted with sliding turnout nut. For removing broken screws, studs, bolts, and pipe fittings. Furnished with number 1 through 5, sizes: 1/4, 5/16, 3/8, 7/16, and 1/2 in. extractors and drill guides for each.

00-540-1416$_{NP}$

Extractor, straight fluted. Screw sizes: 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4, and 1 inch. Standard pipe sizes: 1/8, 1/4, 3/8, 1/2, and 3/4 inch. With sliding turnout nuts furnished on 1/4, 5/16, 3/8, 7/16, and 1/2 inch screw extractors and drill guide assemblies. All extractors have a lead taper for easy entry into the hole. Fed Spec GGG-E-936.

00-305-2275

16 piece 4 flute style tap extractors. For standard machine and hand taps. Steel body with sliding sleeve and collar, flute gripping fingers. Fed Spec GGG-E-936.

00-082-1811

FACE, HAMMER, INSERTED

Plastic screw-in hammer face. Removable inserts fit inserted face hammers and holders. Face shape, diameter of insert, hardness, and hardness color are as noted. Fed Spec GGG-H-33.

Convex

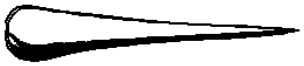
	Dia	Hardness	Color
00-596-1075	1-1/2	Tough	Green
00-293-2997	2	Tough	Green

Flat

	Dia	Hardness	Color
00-555-2074	1	Hard	Black
00-293-3003	1	Med	Red
00-293-2999	1	Tough	Green
00-596-1071	1-1/2	Med	Red
00-540-4273	2	Hard	Black

FID

Seasoned wood fids, for splicing fiber rope. Mil Spec Mil-F-3113.



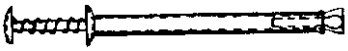
Hand- type concave fit.

	Lg/In.	Butt Dia/In.
00-223-8921$_{NP}$	12	1-3/4
00-223-8860$_{NP}$	18	2

FINGER, MECHANICAL

Mechanical pick-up tool. For retrieving screws, bolts, nuts, etc from tight or inaccessible places. Fed Spec GGG-F-360.

Rigid



	Reach/In.	Lg/In.
00-288-8716$_{NP}$	3	8
00-180-2949$_{NP}$	4	11-3/4

Flexible

	Reach/In.	Lg/In.
00-629-6258$_{NP}$	1	14-7/8
00-180-2951$_{NP}$	2	23-3/4

FLARING TOOL, TUBE HAND

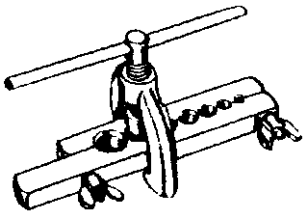
Screw-actuated tube flaring tools. For flaring metal tubing ends. Fed Spec GGG-F-451.

74 degree roller-cone flare head, attached flaring gage, and deburring reamer. Produces high quality flares on annealed and cold-drawn Corrosion Resisting Steel tubing. Sizes: 3/16, 1/4, 5/16, 3/8, 1/2, and 5/8 inch outside diameter. Metal carrying case holds die-block assembly, compression assembly, and deburring reamer.

00-391-0101$_{NP}$

With double flaring feature and adapter. Accommodates tube diameters: 1/8, 3/16, 1/4, 5/16, 3/8, 1/2, and 3/4. Furnished with swaging adapters for: 1/8, 3/16, 1/4, 3/8, 1/2, and 3/4

tubing. Cadmium Plated tubing is not acceptable.



00-251-2267$_{NP}$

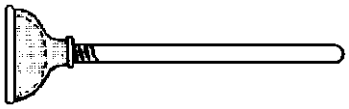
FLINT TIP, FRICTION IGNITER

Renewal flint for friction igniter NSN 5120-00-965-0326. Metal sleeve type. 6-40 NF threaded female end, 6 per box. Fed Spec GGG-I-271.

00-965-0603

FORCE CUP, PLUMBER'S

Plumber's "friend", with Rubber cup and hardwood handle. Fed Spec ZZ-F-566.



Light duty. Bell-shaped cup, unclogs sinks and drains. Size as noted.

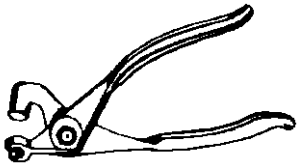
	Min OD/In.	Max OD/In.	Range Lg/In.	Size
00-223-8862	4	5	6-9	3
00-223-8927	4-1/4	5-1/8	23-31	1
00-223-8928	5-3/8	6-3/8	23-31	2

Heavy duty. Ball-shaped cup, unclogs toilet bowls and similar plumbing fixtures.

	Dia	Lg
00-849-1141	5-1/2	23-31

FORCEPS, SHEET HOLDER

Straight type. Forged Steel, Cadmium Plated, 8 inches long (Use with sheet metal holders). Fed Spec GGG-F-570.



00-221-1597$_{NP}$

GUN, SEALANT, HAND

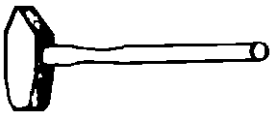
Metal or Plastic cartridge retainer 6 ounce size. Used to apply: sealants, calking materials, polysulfides, polyurethanes, silicones, and epoxies from premixed or filled on the job cartridges.

00-952-3507

HAMMER, HAND

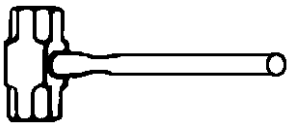
Blacksmith's or Engineer's hammers. Forged Steel head, hickory handle. Fed Spec GGG-H-86.

Cross peen



	Head Wt/Lb	Lg/In.
00-242-3915$_{NP}$	3	16
00-224-4130$_{NP}$	12	34

Double-face



	Head Wt/Lb	Lg/In.
00-203-4656$_{NP}$	2-1/2	15
00-900-6118*	2-1/2	15
00-251-4489$_{NP}$	8	32
00-243-2957$_{NP}$	10	32
00-900-6097*	10	32
00-293-0887$_{NP}$	12	34
00-230-7843$_{NP}$	20	36

* Fiberglass handle.

Double face, nonsparking, nonmagnetic.

	Head Wt/Lb	Lg/In.
00-265-7462$_{NP}$	6	32

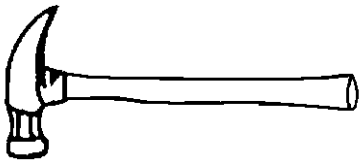
Double-face nonsparking, nonmagnetic hammer with wood handle. Mil Spec Mil-H-18745.

	Head Wt/Lb	Lg/In.
00-288-9707$_{NP}$	5	32

Carpenter's curved claw nailing hammers. Forged Steel head and fiberglass handle. Bright polished plain bellface. Fed Spec GGG-H-86.

	Head Wt/Lb	Lg/In.
00-892-6263	7 oz	12 to 14
00-900-6110	13 oz	12 to 14
00-892-5485	1 lb	12 to 14
00-900-6109	1-1/4 lb	12 to 14

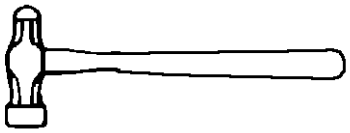
Carpenter's straight claw ripping hammers. Forge Steel head. Bright polished plain bellface with fiberglass handle. Fed Spec GGG-H-86.



	Head Wt/Lb	Lg/In.
00-900-6113	1	13 to 14
00-892-5744	1-1/4	13 to 14

Machinist's ball-peen hammers. Forged Steel heads. Polished face and peen with fiberglass handles. Fed Spec GGG-H-86.

Handle



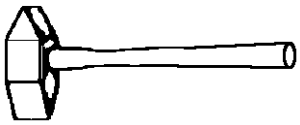
	Head Wt/Lb	Lg/In.
00-250-3911$_{NP}$*	2 oz	10
00-061-8540	4 oz	10-1/2
00-061-8541	8 oz	12
00-061-8542	12 oz	13
00-061-8543	1 lb	14-1/2
00-061-8544	1-1/4 lb	15
00-061-8545	1-1/2 lb	15
00-061-8546	2 lb	16

* Hickory handle.

Nonsparking, nonmagnetic ball-peen hammer. Hard alloy head. Mil Spec Mil-H-18745.

	Head Wt/Lb
00-187-1033$_{NP}$	1-1/2
00-187-1034$_{NP}$	2

Scaling hammer (boiler pick). Forged Steel head with cross-tapered chipping edge on one edge. Hickory handle. Fed Spec GGG-H-86.



	Head Wt/Lb	Lg/In.
00-224-4111$_{NP}$	1	14

Ship (top) maul, forged Steel head, Hickory handle. Fed Spec GGG-H-86.

	Head Wt/Lb	Lg/In.
00-255-1476$_{NP}$	5	32

Soft-face regular faces. Nonsparking. SPECIAL FEATURE: Fine lead shot sealed within unitized metal canister. 1/2 inch diameter faces.

	Head Wt/Lb	Lg/In.
01-032-7496	1-1/2	12

Soft head hammers. Prevents marring and damaging of work surfaces. Fed Spec GGG-H-33.

Solid head type. Square or barrel shaped head. Hickory or Steel handle. Brass head Wood handle.

	Head Wt/Oz	Lg/In.
00-242-3908$_{NP}$	4	8

Copper head.

	Total Wt/Lb	Lg/In.
00-194-1645	1/2	11
00-194-1648	2	13
00-187-1016	3	14

Lead head

	Total Wt/Lb	Lg/In.
00-243-2951	3	14

Hard Plastic

	Wt	Face Dia/In.	Lg/In.
01-072-7987	8 oz	1	10
01-071-5356	14 oz	1/1/2	10
01-097-4520	1-1/2 lb	1-3/4	11
01-065-9037*	3 lb	2-1/2	14
01-065-2211	4 lb	2-3/4	16

* Soft Plastic

Striking hammer. Hand drilling short pattern. 4-1/2 inches long, forged Steel head. Double face, ground finish. Hickory handle. Fed Spec GGG-H-86.

	Head Wt/Lb	Lg
00-224-4141$_{NP}$	4	10-1/2

Tack hammer. Magnetized forged Steel head, with a Hickory handle. Fed Spec GGG-H-86.

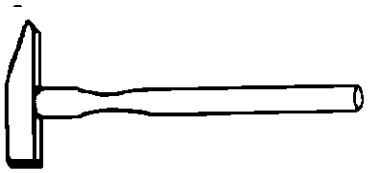
	Head Wt/Oz	Lg
00-293-2193	5	11

Tinner's hammer. Enamel-coated forged Steel head with bright finished face. Hickory handle. Fed Spec GGG-H-86.

Riveting

	Head Wt/Oz	Lg
00-224-4113$_{NP}$	16	14

Setting



	Head Wt/Oz	Lg
00-230-7855$_{NP}$	16	13

Welder's hammer. Flat Steel handle. Cross peen and punch point. Fed Spec GGG-H-35.

Straight peen

	Head Wt/Oz	Lg
00-585-2383$_{NP}$	14	5 to 5-1/2

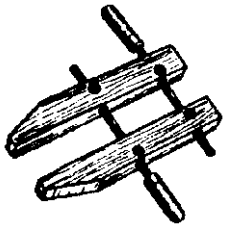
HAMMER-BRUSH, WELDER'S

Welder's straight-peen and brush. Double beveled chisel edge. 4 inch length, detachable wire brush. Forged-Steel or coiled Steel handle. Two extra brushes included. Fed Spec GGG-H-35.

	O/A Lg
00-240-3096$_{NP}$	10-1/2 to 11

HAND SCREW

Cabinet worker's hand screw clamps. Each jaw made of seasoned hard-rock maple to preclude warping. Steel screws with left hand thread on one end and right hand thread on other end. Fed Spec GGG-H-406.



	Size/In.	O/A Jaw Lg/In.
00-222-1534$_{NP}$	6	10
00-222-1535$_{NP}$	10	14

HANDLE, HAMMER

Hardwood hammer handles. Red and/or White hickory handles. Grade symbols indicate quality of hickory handles. AA-finest, A-medium, B-coarse. Fed Spec NN-H-93.

Blacksmith's type. Grade A or B.

	Eye-end Lg	Width	Handle Lg
00-254-6626$_{NP}$	1	3/4	16

Carpenter's type

	Eye-end Lg	Width	Handle Lg
00-287-4528$_{NP}$	1	1/2	14

Machinist's type. Grade A or B.

	Eye-end Lg	Width	Handle Lg
00-288-6560$_{NP}$	1-1/16	9/16	16

Sledge type. Grade AA or B.

	Eye-end Lg	Width	Handle Lg
00-288-6564$_{NP}$	1-5/16	15/16	36

Grade B

	Eye-end Lg	Width	Handle Lg
00-266-7023$_{NP}$	1-7/16	1-3/16	36

HANDLE, SCREWDRIVER

Plastic. Overall length 4-1/8 inches, diameter 1-3/16 inches. With spring locking device to hold interchangeable bits.

00-056-3935

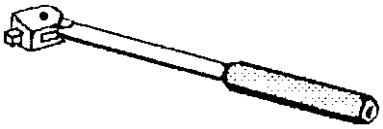
HANDLE, SOCKET WRENCH

Drive handles for square-drive socket wrenches. Nickel or Chrome Plated Steel. Fed Spec GGG-W-641.

Brace type speeders. Single revolving grip.

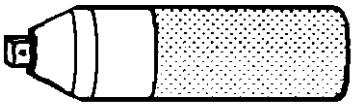
	Drive Size/In.	Lg/In.
00-240-1418$_{NP}$	1/4	14
00-237-4969$_{NP}$	3/8	16
00-249-1071$_{NP}$	1/2	18

Flexible-hinge handles. Works at any angle.



	Drive Size/In.	Lg/In.
00-221-7960	1/4	5-1/2
00-240-5396	3/8	8-1/2
00-221-7958	1/2	11-1/4
00-236-7590	1/2	16-1/2
00-221-7959	3/4	20-1/2

Impact types. Loosens and tightens nuts, bolts, and screws. Spin rigid type.



	Drive Size/In.	Lg/In.
00-472-2607$_{NP}$*	1/4	6
00-293-2885$_{NP}$	3/8	5-1/4

* SPCC HX Quality control.

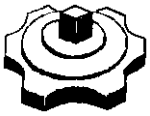
Reversible ratchet handles. Regular type.

	Drive Size/In.	Lg/In.
00-221-7957$_{NP}$	1/4	4
00-240-5364$_{NP}$	3/8	5-3/4
00-230-6385$_{NP}$	1/2	9-1/2
00-541-8444$_{NP}$	1/2	15
00-249-1076$_{NP}$	3/4	17

Flex-head reversible ratchet handle. Hinge joint at ratchet head allows 120 degree swing in handle. 3/8 inch square drive. 8-7/8 inch length.

00-065-4903$_{NP}$

Palm grip reversible ratchet handle. Drives screwdrivers and nut-spinner wrenches, with 3/8 inch square female inserts in handle. 3/8 inch square drive size, 2-3/4 inch diameter by 1-1/8 inch height.



00-786-3782

Sliding T handles. Can be used as “T” or “L” handle in tight places, to loosen stubborn connections.

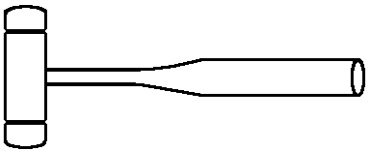
	Drive Size/In.	Lg/In.
00-221-7966$_{NP}$	1/4	4-1/2
00-241-3143$_{NP}$	3/8	7

Spin-type speed handles. Plastic screwdriver grip.

	Drive Size/In.	Lg/In.
00-242-3256	1/4	5-5/16

HOLDER, INSERTED HAMMER FACE

Holder for screw-in plastic faces. One-piece nonsparking and nonmagnetic heads with fiberglass handles. Screw-in head readily accepts insert faces. Order separately, not furnished with holder. Face diameter, head length, and weight (with insert) indicated. Fed Spec GGG-H-33.



Regular holder

	Face Dia	Head Lg	Wt
00-903-8545	1	2	6 oz
00-903-8546	1	2	9 oz
00-903-8555	1-1/2	2-3/8	1-1/8 lb
00-903-8553	2	2-1/2	2 lb
00-903-8552	3	3-3/4	3-1/2 lb

HOLDER, SCREWDRIVER BIT, FEMALE SQUARE DRIVE

Adapter for driving male hex shank screwdriver bits. Bit-locking design, holds bit securely. Fed Spec GGG-B-1222.

Fits 1/4 inch male shank bits.

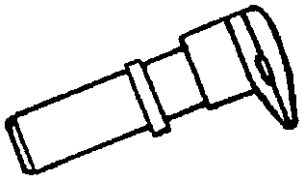
	Drive
00-528-2892$_{NP}$	3/8

Fits 5/16 inch male shank bits.

	Drive
00-528-2891$_{NP}$	1/4

HOLDER, SHEET METAL, EDGE GRIP

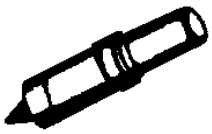
Forceps operated sheet metal holder. Edge spring compression type. Fed Spec GGG-H-575.



	Jaw opening/In.
00-197-5344	1/2 W x 1/2 dp

HOLDER, SHEET METAL, HOLE

Forceps operated sheet metal holders. Hole spring compression type. 0 to 1/4 inch clamping capacity. Fed Spec GGG-H-575.



	Rivet Size
00-242-3789$_{NP}$	3/32
00-541-1808$_{NP}$	1/8
00-222-3336$_{NP}$	5/32
00-242-3791$_{NP}$	3/16

HOOK

One working end. Steel 7 inch overall length by 1/8 inch diameter. Working end tapered, for 1 inch with .062 inch bent through 180 degrees.

00-873-4006$_{NP}$

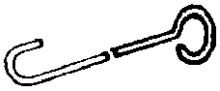
S-shaped working end. Steel 7 inch overall length by 9/32 inch diameter.

00-873-3998$_{NP}$

HOOK, HELICAL SPRING PULLER, HAND

Helical spring puller hook, with loop handle

4-9/16 inch length handle. 1/16 inch distance across throat. 1/8 inch stock diameter.



00-448-3927

IGNITER, FRICTION

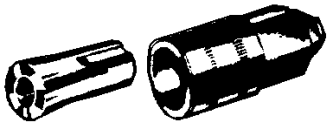
Spark-lighter for oxyacetylene torches. Wire frame with hooked round fil. No. 6-40 NF threaded flint holder with single flint. Fed Spec GGG-I-271.

00-965-0326$_{NP}$

INSERTER AND REMOVER, STUD

For removing damaged bolts and studs. Chrome or Nickel Plated Steel. Fed Spec GGG-S-775.

Collett-grip type for NC and NF threaded studs. Wrenchable male hex end on drawbolt turns threaded-jaw collets.



1/4, 5/16, 3/8, 7/16, 1/2, 9/16, and 5/8 inch stud size range.

00-390-8586$_{NP}$

3/4, 7/8, and 1 inch stud size range.

00-060-6995$_{NP}$

Eccentric wheel type for smooth threaded, or unthreaded studs. 1/2 inch square female or male hex drive end. Ribbed cam grips studs, 1/4 to 3/4 inch diameter.

00-288-6578$_{NP}$

INSERTER, ELECTRICAL CONTACT

	Mil-I-81969/	Contact Size
00-177-7028	2-01	22
00-005-8054	2-02	20
00-251-9503$_{NP}$	8-01	22M
00-137-9140$_{NP}$	8-03	22
00-177-6967$_{NP}$	8-05	20
00-018-0529$_{NP}$	8-07	16
00-079-4598	17-03	20
00-079-4599	17-04	16
00-079-4600	17-05	12
00-930-7504	18-01	16
00-132-0396	39-01	20

INSTALLING AND REMOVAL TOOL, CONNECTOR ELECTRICAL CONTACT

Combination tool for installing and removing electrical contacts from a variety of connectors. One piece Plastic construction, with a White removal tip. Mil Spec Mil-I-81969.

	Size	Color
00-157-3138	12	Yellow
00-132-5451	12	Yellow
00-132-5218	16	Blue
00-915-4587	20	Red
00-132-6328	20	Red
00-132-5808	22	Green

INSTALLING AND REMOVAL TOOL, ELECTRICAL CONTACT

Use for contact sizes: 22d and 23. Colored coded with a Green installing tip and a White removal tip. Overall length, 3-1/2 inches. Mil Spec Mil-I-81969.

00-018-0575

INSTALLING TOOL, PLASTIC STRAP

Pistol grip with tension adjustment with cutoff device. Used for installing Straps.

	Nose/W	Slot/W	MS90387
00-781-7891	.630	.063	1

INSTALLING TOOL, TUBE PACKING RING

Designed for 5/8 inch outside diameter tubing. Includes: one hand-insertion tool, 6-3/4 length by 25/32 diameter, and one tapered loading pin, 2- 3/8 inch length.

00-224-6634

INTRENCHING TOOL, HAND

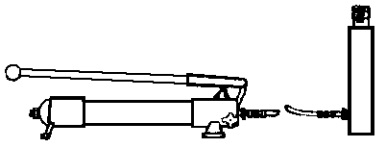
Hinged shovel and handgrip. One serrated cutting blade edge and one axe blade edge. Alum D type hand grip. Used to remove earth and capable of severing roots and clearing light bush. Mil Spec Mil-I- 43684.

00-878-5932$_{NP}$

JACK, HYDRAULIC, HAND

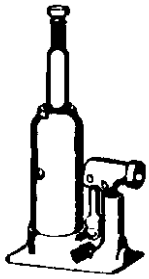
Hand-operated hydraulic jacks with solid plunger for lifting and lowering loads. Rated capacity indicated. Fed Spec GGG-J-63.

Remote control type. Cylinder and ram connected to pump. Used for general purpose maintenance, construction, and transportation work.



	Cap/Ton	Lift
00-293-0078	10	5-7/8 to 7
00-293-0076	10	13-1/4 to 17-1/2

Self-contained, lever control type. With screw extension. For general industrial and vehicle use.



	Cap/Ton	Lift
00-233-6829	3	9 to 16-7/8
00-595-8396	8	9-1/2 to 17-7/8

JACK KIT, HYDRAULIC, HAND

It is intended that with the aid of the hydraulic jack, with attachments and accessories, the operator shall be capable of: (1) pulling with chains and pull-plate, (2) pushing with flat base, V-base, and/or serrated saddle, (3) clamping with clamp head and toes, and (4) spreading with spreader toes. Furnished with plastic, wood or metal case. Fed Spec GGG-J-60.Remote hydraulic hand jack with manually operated pump, a remote ram, and a hose assembly connecting the two, with lever operated handle and a relief valve. 10 cubic inch minimum reservoir capacity and minimum of .05 cubic inches per stroke displacement. Rams with 10 inch collapsed height and 5 inch plunger travel. 6 foot hose with quick disconnect at ram end. ATTACHMENTS: Clamp, (offset head) (1); serrated or grooved saddle (1); 90 degree concave V-blades (2); flat base (1); flexible (rubber) head, 3 inch diameter (1); male connector (1); 5 foot minimum long chains, 1/4 inch minimum diameter of cross section with hook on one end (2), chain pull plate (1); adjustable body spoon(1); wedge head(1);

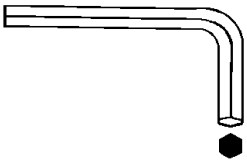
adjustable extension (1); plunger toe (1); ram (body) toe (1); 6 steel quick-disconnect extension tubes, 3 inch length. (1), 5-16 inch length (1),15 inch length., (1). Remaining 3 equaling not less than 47 inch length. With each tube being not less than 6 inches or more than 23 inches long. Male adapter (1); lock pins (4); extension tube connectors (3). Fed Spec A-A-314.

00-935-0772 4 ton

KEY, SOCKET HEAD SCREW

Socket-head screw keys (wrenches). Hexagon spline and square-head types. Fed Spec GGG-K-275, except as noted.

Hex wrench. L-type Alloy Steel, with 2 working ends. Width across flats (WAF) and long arm length listed in inches.



Short series

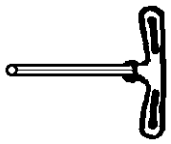
	WAF	Arm Lg
00-555-2639$_{NP}$	.028	1-7/32
00-198-5400$_{NP}$	.035	1-5/16
00-198-5401$_{NP}$	.050	1-3/4
00-198-5398$_{NP}$	1/16	1-27/32
00-224-2504$_{NP}$	5/64	1-31/32
00-242-7410$_{NP}$	3/32	2-3/32
00-224-2482$_{NP}$	7/64	2-7/64
00-889-2162$_{NP}$	7/64	2-7/32
00-240-5292$_{NP}$	1/8	2-11/32
00-889-2163$_{NP}$	9/64	2-15/32
00-198-5392$_{NP}$	5/32	2-19/32
00-491-9516$_{NP}$*	5/32	2-1/2
00-240-5300$_{NP}$	3/16	2-27/32
00-242-7411$_{NP}$	7/32	3-3/32
00-224-4659$_{NP}$	1/4	3-11/32
00-240-5274$_{NP}$	5/16	3-3/4
00-198-5390$_{NP}$	3/8	4-11/32
00-240-5277$_{NP}$	7/16	4-27/32
00-198-5391$_{NP}$	1/2	5-11/32
00-240-5268$_{NP}$	9/16	5-27/32
00-224-2510$_{NP}$	5/8	6-11/32

* SPCC HX Quality Control Item.

Long series

	WAF	Arm Lg
00-596-1236$_{NP}$	1/32	2-49/64
00-293-1476$_{NP}$	1/16	3-3/32
00-293-0080$_{NP}$	5/64	3-9/32
00-221-8036$_{NP}$	3/32	3-15/32
00-198-5413$_{NP}$	5/32	4-7/32
00-984-0247$_{NP}$	9/64	3-7/16
00-198-5410$_{NP}$	3/16	4-19/32
00-241-3179$_{NP}$	7/32	4-31/32
00-241-3180$_{NP}$	1/4	5-11/32
00-198-5409$_{NP}$	5/16	6-3/32
00-198-5406$_{NP}$	3/8	6-27/32
00-198-5407$_{NP}$	1/2	8-11/32
00-198-5404$_{NP}$	9/16	9-3/32

Fixed “T” Steel handle. Replaceable external hexagon blade. Fed Spec GGG-K-275.

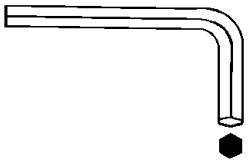


	WAF	Lg
00-952-0108$_{NP}$	1/8	5-5/8
00-293-2224$_{NP}$	5/32	5-9/16
00-826-6007$_{NP}$	3/16	5-5/8
00-773-8026	7/32	6-1/2
00-554-9203$_{NP}$	7/32	6-5/8

Straight hex Steel blade. With 2 ident stops, 1/2 inch from one end.

	WAF	Lg
00-872-4869	3/4	6-5/8

Spline wrenches. L type. Alloy Steel, two working ends. Size (nominal diameter) and long-arm length as noted. Fed Spec GGG-K-275.



Short series.

4 Splines

	Dia	Lg
00-827-2967$_{NP}$	3/64	1-5/16
00-224-2496$_{NP}$	5/64	1-3/4

Square-key blade and screwdriver type handle. 1-1/8 inch length nonadjustable blade, 19/64 inch across, and 4-3/8 inch overall tool length. Part of TERMINAL BOARD, NSN 5940-00-178-0392.

00-241-3181

External hexagon single end with screwdriver handle. Steel wrenching surface, Plastic handle and ball point tip. 15 inch overall length 5/32 inch wrenching surface.

01-289-3021

KEY SET, SOCKET HEAD SCREW

Socket-head screw wrench sets. Fed Spec GGG-K-275, except as noted.

SETS IN METAL HOLDERS

L type hexagon wrench sets. Sizes included (nominal width across flats) indicated below.

8 self contained wrenches. Sizes: 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, and 1/4 inch.

00-439-8988$_{NP}$

7 piece, roll L style, hexagon.

	WAF	Drive Lg
00-112-9599	2MM	2
	3MM	2-1/4
	4MM	2-7/8
	5MM	2-7/8
	6MM	3-1/16
	7MM	3-5/16
	8MM	3-7/8

11-Piece set of L type hexagon and spline wrenches. Includes 7 hex-keys. Sizes: .035 by 1-3/8, .050 by 1-5/8, 1/16 by 1-3/4, 5/64 by 1-13/16, 3/32 by 2, 1/8 by 2-1/4, and 5/32 by 2-1/2. 4 spline keys, sizes: .076 by 1-3/4, .094 by 1-13/16, .110 by 2, and .144 by 2-5/16 height.

00-752-9636$_{NP}$

12 piece set of L Type hexagon wrenches. SPECIAL FEATURE: Ball point head screw Sizes: 3/16, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, and 5/16. Case included.

01-004-2718$_{NP}$

SETS IN PLASTIC WRAPPERS

L type hexagonal wrench sets. Sizes shown are nominal width across flats (WAF). 10 Short series wrenches. Sizes: 1/32, 3/64, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, and 1/4 inch.

00-729-6392

11 Short series wrenches. Sizes: 3/64, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16, and 3/8 inch.

00-595-9244

11 piece set of L-type hexagon wrenches. Size and length: 3/64 by 2-27/32, 1/16 by 3, 5/64 by 3-3/16, 3/32 by 3-3/8, 1/8 by 3-3/4, 5/32 by 4-1/8, 3/16 by 4-1/2, 7/32 by 4-7/8, 1/4 by 5-1/4, 5/16 by 6-3/16, and 3/8 by 6-3/4.

00-529-1475

20 short series wrenches. Sizes: 1/64, 1/32, 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, and 3/4.

00-935-4641

15 standard large metric hex keys. Size: 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 17, and 19 MM.

01-046-5079

12 straight hexagon blade set with screwdriver handle. SPECIAL FEATURE: Hexagon ball shape wrench ends. Sizes: WAF 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, and 5/16.

00-116-7841

5 adjustable hexagon blades with screwdriver type handle. 3 inch long blades. Sizes: 3/64, 1/16, 5/64, 3/32, and 1/8. Plastic handle with setscrew lock and 1/16 inch key for bit change or adjustment.

00-696-4768

8 piece set, hexagon and spline, with screwdriver type handle. 4 L-type hexagon keys with screw on handle. Sizes: 1/32, 3/64, 1/16, and 5/64. Four removable spline blades. Diameter Sizes: 3/64, 1/16, 5/64, and 3/32 inch.

00-679-4459

8 drivers with hex bits. Screwdriver type handles. Sizes .035, .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, plus .050 and 1/16 inch. Keys for bit change or adjustment, and a bag container.

00-912-1085

9 drivers 4 inch length ballpoint hexagon key blades, supplied with regular handle and extension. Size .05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, and 3/16 inch.

01-018-8956

9 drivers, with hexagon bits in roll.

	Driver Size
01-063-4004	3/64 x 6-5/8
	1/16 x 6-5/8
	5/64 x 7-1/8
.	3/32 x 7-1/8
	7/64 x 7-1/8
	1/8 x 7-1/8
	9/64 x 7-1/8
	5/32 x 7-1/8
	3/16 x 7-1/8

L type spline wrench sets. Sizes shown are maximum major diameter.

9 short series wrenches. Sizes: with 4 splines: 1/32, 3/64, 1/16, and 5/64 inch. With 6 splines: 3/64, 1/16, 5/64, 3/32, and 7/64 inch.

00-970-8947

12 short series wrenches. Sizes with 4 splines: 1/16, 5/64. With 6 splines: 1/16, 3/32, 7/64, 9/64, 3/16, 7/32, 1/4, 19/64, 3/8, and 29/64 inch. With case. Non-sparking, Nonmagnetic. Fed Spec GGG-K-275.

00-893-5686

14 short series wrenches. Sizes: 1/16, 9/64, 5/64, 3/32, 7/64, 9/64, 3/16, 7/32, 1/4, 19/64, 3/8, 29/64, .595, and 5/8.

00-529-2553

10 piece set of hexagon wrenches with integral “T” handle grip for greater turning power and more leverage. Sizes noted are nominal. Width across flats (WAF): 3/32, 7/64, 1/8, 9/64, and 5/32 inch, all with 3 inch long handles. 3/16, 7/32, and 1/4 inch, all with 4 inch handles. 5/16, and 3/8 inch, with 6 inch long handles. All blades are 9 inches long. No holder furnished.

00-935-7340

KNIFE, PUTTY

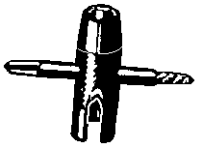
Putty knives for glazing, scraping, smoothing, and filling. High grade Steel blade. 3-1/2 inch length, 1-1/4 inch width, 3-3/4 inch long handle. Fed Spec GGG-K-481.

00-221-1536 Flexible
00-294-4605 Semi-flexible

LUBRICATION FITTING TOOL

T-handle tool reams out, cleans, and retaps high pressure grease fittings. Socket wrench opening at each end. T-handle has LH spiral on one end for removing broken or worn fittings, other end has tap for rethreading fittings.

1/8-27 tap size, 7/16 inch socket size. For standard hexagon, angle, or straight fittings.



00-246-2311$_{NP}$

1/4-28 tap size, 5/16 inch socket size. For midget hexagon, angle, or straight fittings.

00-223-9533

MALLET, RAWHIDE

Used where soft non marring applications are needed. Non sparking and non magnetic. Round shaped head. Face diameter and head length shown in inches. Fed Spec GGG-H-33.

	Face Dia	Head Lg
00-293-3398	1-1/4	2-3/4
00-293-3397	2	3-1/2
00-222-2220	2-3/4	4-3/4

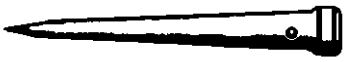
MALLET, RUBBER

Hard Rubber mallet. 24 ounce solid resilient Rubber mallet for body, fender, and battery work. 2-1/4 by 4 inch head, 15 inch Hickory handle. Fed Spec GGG-H-33.

00-293-3399

MARLINESPIKE

Wire rope type marlinspikes. Formed with 5/16 inch diameter lanyard eye. Length in inches as noted. Carbon Steel, polished. Mil Spec Mil-M-15926.



	Lg
00-221-2731$_{NP}$	8
00-293-1136$_{NP}$	12
00-224-9440$_{NP}$	16

Nonsparking, nonmagnetic, Aluminum Bronze.

	Lg
00-288-7769$_{NP}$	16

Manila rope type Marlinspike, with lanyard eye. Fed Spec GGG-M-00100.

	Lg
00-221-2728$_{NP}$	6

MIRROR, INSPECTION

Fed Spec GGG-M-350, except as noted.

1-1/4 inch diameter mirror. 8 inch overall length.

01-313-4096

1 inch diameter mirror. 9 inch overall length.

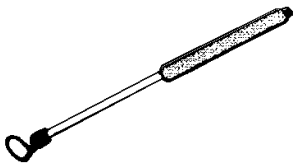
01-313-4097

Telescoping Handle

7/8 inch diameter glass mirror. Handle adjusts from 4-1/2 inch to 17 inch and comes with a pocket clip.

00-177-6870

2-1/2 inch diameter glass mirror. Handle adjusts from 9 inch to 15 inch.

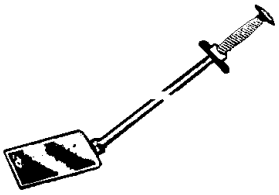


01-278-8257

3-3/4 inch diameter mirror. 3-piece handle nickleplate reflecting surface resistant to heat discoloration. Extends from 12 inches to 34 inches. Polished.

00-618-6901

Plunger-actuated adjustment mirrors. Spring loaded handle permits one-handed operation. Mirror locks into any angle from 90 to 180 degrees. Rectangular glass mirrors.



00-278-9926$_{NP}$ 1-1/4 x 1-1/2 x 10
00-618-6902$_{NP}$ 1-3/4 x 2-5/8 x 16

1-1/4 inch diameter mirror. 14 inch length, overall. Furnished with magnifying mirror.

00-879-4998

Non Spec Items

135 degree fixed position mirror. 4-1/2 inch to 17 inch overall length. 1-1/4 diameter hinged for 360 degree adjustment.

00-053-1808

MIRROR, REPLACEMENT, INSPECTION

Glass piece, 2-9/16 inch length by 1-11/16 inch width. Fits end item: NSN 5120-00-618-6902.

00-363-3914$_{NP}$

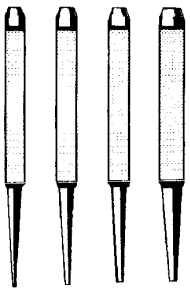
MULTIPLIER, TORQUE WRENCH

Gear ratio: 4 to 1. 1250 feet/pounds torque capacity. SPECIAL FEATURES: Planetary gear type function, 1/2 inch input and 3/4 inch output, square drive.

00-506-9092

NAIL SET ASSORTMENT

Set of four. Includes point diameter sizes: 1/16, 3/32, 1/8, and 5/32. Fed Spec GGG-N-71.



00-293-3341$_{NP}$

NOZZLE, CAULKING GUN

Plastic disposable type. Round orifice. Straight shape 1/4 inch NPT external threads. Designed for nonpowered tool operation. Reference number shown.

	Dia	Lg	Ref No.
00-673-1885	1/8	2-1/2	220540
00-773-3791	1/8	4	220550

NUT AND SCREWDRIVER

Consists of: handle; 9 interchangeable nut driver blades; 4 single end interchangeable screwdriver blades; 2 Phillips, 2 flat tips in plastic coated canvas wrap. Nut driver wrench sizes: 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 7/16, and 1/2 inches. Screwdriver blade sizes: Flat tip 3/16, and 1/4 inches, with Phillips No. 1 and 2.

00-440-8008

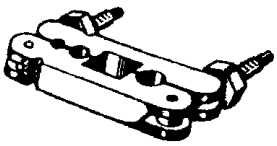
PALM, SEWING

Leather sewing palm for right hand. Metal thimble forces needle through heavy material. Fed Spec KK-P-91.

00-223-6837$_{NP}$ Roping
00-223-6838$_{NP}$ Seaming

PINCH-OFF TOOL, TUBING

For making temporary gas-tight closures on Copper Brass Aluminum and soft Steel tubing. 1/4, 5/16, 3/8, and 1/2 inch size diameter holes round out tubing after pinching. Wing-nut screw adjustment. Mil Spec Mil-P-1215.

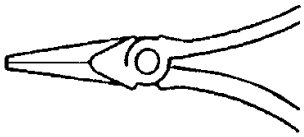


00-223-8846$_{NP}$

PLIERS

Chain (round) nose pliers. Use to form loops, handle small objects and reach into small openings. Polished heads with scored gripping surfaces.

Long nose (without cutter).



	Lg
00-268-3579$_{NP}$	6

Long nose, with side cutter. 1/8 inch nose diameter. Mil Spec Mil-P-19290.

	Lg
00-247-5177$_{NP}$	6
00-541-6732$_{NP}$*	6-3/4
00-293-0032$_{NP}$	7

* Nonsparking and nonmagnetic.

Short nose with side cutter.

	Lg
00-222-2232$_{NP}$	5

Short nose, without cutter. 1/16 inch nose diameter.

	Lg
00-293-3486$_{NP}$	4
00-126-2076$_{NP}$*	4-1/2
00-224-1533$_{NP}$	8

* With coil spring.

Short nose without cutter. Smooth jaws. 1/32 inch nose diameter. SPCC HX QUALITY CONTROL ITEM.

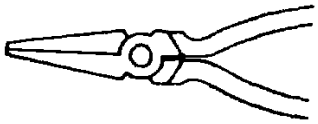
	Lg
01-088-4319$_{NP}$	4

Short nose without cutter. Smooth jaws. 1/16 inch tip width.

	Lg
00-087-4106	4-17/32

Duckbill pliers without cutter. Polished head, tapered jaws.

Long nose, Smooth jaws.



	Lg
01-028-0937$_{NP}$	4
00-256-2150$_{NP}$	6

Short round nose, smooth jaws with rounded edges. Very fine point for delicate work in very confined areas.

	Lg
01-192-4963	4

Short Nose. Scored jaws.

	Lg
00-595-9519$_{NP}$	8

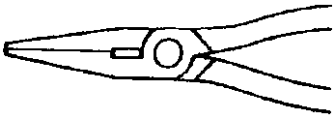
Wide nose, without cutter. Scored gripping surfaces.

	Lg
00-188-3239$_{NP}$	4

Medium nose, Smooth jaws. Without cutter.

	Lg
01-028-7102$_{NP}$	4-1/2

Flat medium nose, with side cutter. Scored surfaces.



	Lg
00-293-3480$_{NP}$	6

Flat wide nose, without cutter. Scored gripping surfaces.

	Lg
00-240-6213$_{NP}$	6

Fencing, single head pliers. Suitable for maintaining and installing wire fence on metal or wood posts. Combination: hammer, pincer, staple puller, 2 eyes in head for twisting and splicing wire, and 2 side cutters. Forged Steel. Fed Spec GGG-P-471.

	Lg
00-293-3485	10

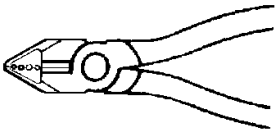
Gas pliers for gripping pipe and rods. Polished head, without cutter.

	Lg
00-293-3478$_{NP}$	10

Lineman's pliers with side cutters. Polished heads. For cutting and gripping wire.

Without wire skinners.

Plain handles.



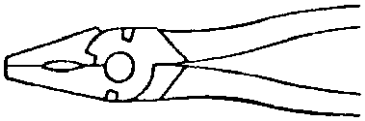
	Lg
00-239-8254$_{NP}$	6
00-239-8251$_{NP}$	8
00-224-1540$_{NP}$*	8

* Nonsparking and nonmagnetic. Mil Spec Mil-P-19290.

Insulated Handles.

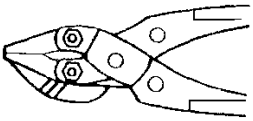
	Lg
00-756-1155	6
00-756-1156	8

Combination utility and cutting pliers. Non insulated handles.



	Lg
00-227-7097$_{NP}$	8

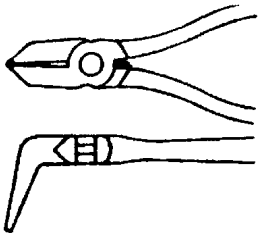
Lineman's parallel action jaw pliers. One jaw with .040 inch deep grove for gripping wire. With side cutter, 1/2 inch jaw opening.



	Lg
00-224-1541$_{NP}$	6-1/2

Round needle nose pliers. Polished heads, half-round tapered jaws.

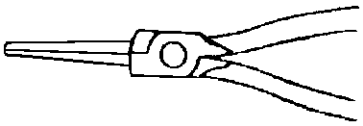
Curved nose, without cutter.



	Lg
00-403-4555*	4-1/2
00-239-8250$_{NP}$	6

* With spring coil in handle.

Straight nose, without cutter.

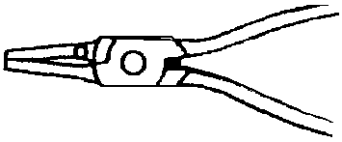


	Lg
00-293-3481$_{NP}$	6-1/2

Straight nose with cutter.

	Lg
00-184-9403$_{NP}$	6-1/2

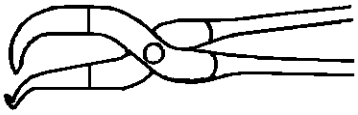
Round nose and round-jaw pliers. Without cutter. Circular gripping surfaces for bending and shaping wire.



	Lg
00-239-8252$_{NP}$	4-1/2

PLIERS, BRAKE REPAIR

For passenger cars and light trucks. With groove in end of one handle, and socket or cup. Spring remover and replacer on end of other handle. Fed Spec GGG-P-474.



	Lg
00-690-8044$_{NP}$	12

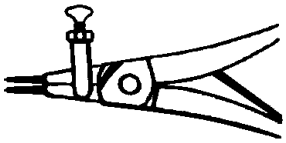
PLIERS, RETAINING RING

Flat-jawed retaining ring pliers. For inserting and removing external and internal rings. Conforms to Mil Spec Mil-R-21348 and Fed Spec GGG-P-480.

Pliers for internal retaining rings. Housing diameter range of standard and inverted type retaining rings shown.

Pliers with adjustable jaw stop and spring.

Straight tips.



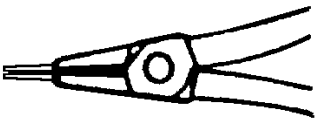
	Ring Size	Tip Dia
00-293-0048$_{NP}$	.038-1.020	.038-1.370
00-293-0045$_{NP}$	.070-1.750	.070-2.000
00-293-0046$_{NP}$	.090-3.000	.090-3.500

90 degree bent tips

	Ring Size	Tip Dia
00-024-9531$_{NP}$	.038-.562	.038-.562
00-595-9532$_{NP}$	1.062-1.750	1.430-2.000
00-602-4845$_{NP}$	1.810-3.000	2.060-3.000

Pliers without jaw spring and stop.

Straight tips.



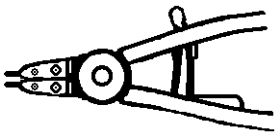
	Ring Size	Tip Dia
00-596-1106$_{NP}$	.250-.310	.022 nom

45 degree bent tips

	Ring Size	Tip Dia
00-640-6356$_{NP}$	.038-1.020	.038-1.370

Pliers with double ratchet action. Without spring and stop.

Straight tips.



	Ring Size	Tip Dia
00-293-0186$_{NP}$	3.060-6.250	3.150-4.000

Pliers for external retaining rings. Shaft diameter range of standard and/or inverted type rings shown.

Pliers with round jaws. Non Spec item. Accommodates external retaining rings.

Bent tips, 90 degree.

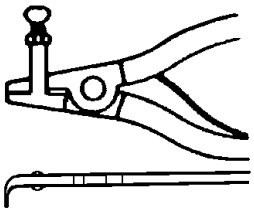
00-024-9528$_{NP}$ 5-5/16 in. lg

Pliers with adjustable jaw stop and spring.

Straight tips.

	Ring Size	Tip Dia
00-288-9717$_{NP}$	.025-.870	.050-1.000

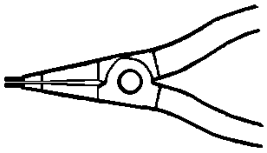
90 degree bent tips



	Ring Size	Tip Dia
00-408-1434$_{NP}$	.038-.870	.038-1.000

Pliers without jaw stop and spring.

Straight tips.



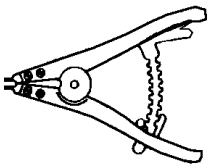
	Ring Size	Tip Dia
00-293-2513$_{NP}$	.038-,870	.038-1.000
00-595-9555$_{NP}$	.093-1.430	1.060-2.000

45 degree bent tips

	Ring Size	Tip Dia
00-640-6353$_{NP}$	.038-.830	.038-1.000

Pliers with double ratchet action, without spring and stop.

Straight



	Ring Size	Tip Dia
00-595-9552$_{NP}$	3.540-6.500	3.500-3.930

Pliers with straight jaws. .038 inch diameter tips. 5-3/4 inch length. Non-Spec.

00-089-0874

Pliers with straight jaws. Non Spec items. Accommodates external and internal retaining rings. 3-5/16 inch internal setting and 3-15/16 inch external setting.

Round tips, .070 inch diameter.

00-088-9393 7-7/8 in. lg

Automotive brake key pliers. Expands horseshoe C-washers and lock rings on brakes, transmissions, differentials, and pulleys. 7 inch length. 1-7/16 inch maximum jaw opening.

00-595-9551$_{NP}$ External ring type

PLIERS, SLIP JOINT

Forged Steel slip joint pliers. Chrome or Nickel Plated polished faces. Fed Spec GGG-P-471, except as noted.

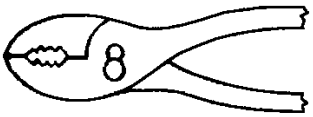
Angle nose, tongue and groove, or notched slot box joint, without cutter.

	Lg	Min Jaw Cap
00-278-0350$_{NP}$	5	7/16
00-278-0351$_{NP}$	8	11/16
00-278-0352$_{NP}$	10	1-3/8
00-541-6731$_{NP}$*	10	1-3/8

Mil Spec Mil-P-19290.
* Nonsparking and nonmagnetic.

Straight-nose combination jaw pliers, with wire cutter.

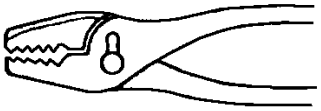
Regular nose



	Lg
00-223-7396$_{NP}$	6
00-223-7397$_{NP}$	8
00-240-6217$_{NP}$*	8
00-223-7398$_{NP}$	10

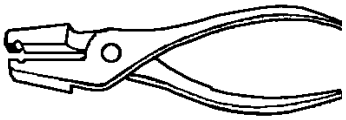
Mil Spec Mil-P-19290.
* Nonsparking and nonmagnetic.

Thin nose



	Lg
00-224-1567$_{NP}$	6

Hose clamp wire pliers. For installing or removing corbin (self-tightening spring wire) type clamps, up to 2 inch inside diameter hose size. Jaw width is 7/16 inch. Fed Spec GGG-P-474.



	Lg
00-537-3375$_{NP}$	7-5/8

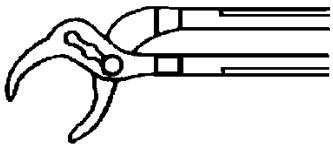
Parrot nose, tongue and groove pliers. Serrated jaws, without cutters. Polished head, heavy duty. Fed Spec GGG-P-471.

	Lg
00-059-6711$_{NP}$	9-7/8 x 1-3/8

Angle nose, tongue, and groove pliers. With insulated handles.

	Lg
00-781-0819	12 x 2

Electrical connector pliers. Multiple joint, conduit nose style. Used to loosen and tighten all sizes of threaded lock collars, of electrical connectors without marring.



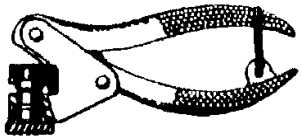
	Lg/In.
00-624-8065$_{NP}$	9
00-305-2306	9
00-542-4171	12

PRESS, LEAD SEAL, HAND

Plier type press. Bright Nickel finish. Consists of malleable Iron handles and removable Steel dies. Lower dies blank. Fed Spec GGG-S-735.

Reversible upper die is engraved with round, partial inspection symbol on one side and

square. Complete inspection approval on the other side.



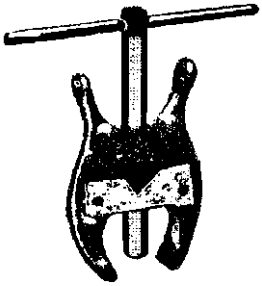
00-301-1078$_{NP}$

Plain dies which are removable but not reversible.

00-237-6995$_{NP}$

PULLER, BATTERY TERMINAL

Pulls battery terminal clamps by gripping clamp either below or on sides. 2-spring loaded jaws with “T” type forcing screw. Plastic pouch furnished.



00-944-4268$_{NP}$

PULLER, FUSE

Plier type cartridge fuse pullers for use on shipboard or in damp places. Grips and holds fuses during installation and removal. Safeguards against shocks. For 1/4 inch to 1/2 inch diameter midget fuses, grid leaks, etc. One working end. Fed Spec W-P-796.

	Lg
00-224-9453	5

For 11/32 inch to 1.000 inch range, of cartridge diameters accommodated. Fuse electrical rating, 0 to 100 amp/250V, and 1 to 100 amp/600 V.

	Lg
00-224-9456	8

For 1-9/16 inch to 2-1/2 inch range of cartridge diameters accommodated. Fuse electrical ratings, 100 to 600 amp/250V, and to 400 amp/600V. Two working ends.

	Lg
00-243-2776	12

PULLER, MECHANICAL

Mechanical gear and bearing pullers. Fed Spec GGG-P-781.

2-jaw external single-end grip. Head or yoke with forcing screw, straps, cap screws, and jaws.

4 inch spread range, 3-1/4 inch reach.

	Size
00-293-2925$_{NP}$	2

8 inch spread range, 6 inch reach.

	Size
00-288-7710$_{NP}$	3

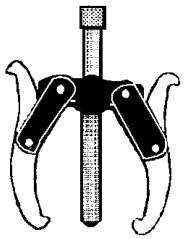
10 inch spread range, 9 inch reach.

	Size
00-030-7942$_{NP}$	4

12 inch spread range, 11 inch reach.

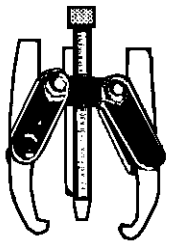
	Size
00-288-7711$_{NP}$	5

2-jaw external double-end grip. 8 inch spread range. 5-1/2 inch reach.



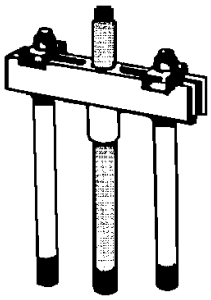
	Size
00-595-9305$_{NP}$	2

3-jaw external single end grip. Jaws equally spaced on head or yoke. 8 inch spread, 6 inch reach.



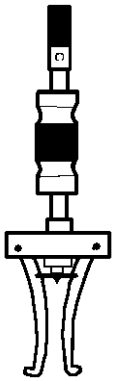
	Size
00-516-3120$_{NP}$	4

Push-pull type gear and bearing pullers. Slotted cross head with forcing screw and nut, side plates and washers, securing nuts or bolts, and 5/8-18NF-2A threaded legs. 2 to 7-3/4 inch spread range. 6-3/4 to 11-3/4 inch reach length.



	Size
00-288-7713$_{NP}$	1

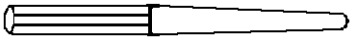
Slide hammer, gear and bearing, two jaw internal. 6-1/4 inch reach length. 1/2 to 6-1/4 inch spread range. Heavy Duty. Fed Spec GGG-P-781.



00-293-1429$_{NP}$

PUNCH, ALIGNING

For lining up holes in plates, frames, and housings. High grade alloy Steel, taper length hardened. Point diameter, body size, and overall length shown in inches. Fed Spec GGG-P-831.



	Point Dia	Body Size	O/A Lg
00-756-1195$_{NP}$	3/32	1/4	8
00-293-0448$_{NP}$	3/16	3/8	8
00-242-0763$_{NP}$	1/4	7/16	8-1/2
00-240-8894$_{NP}$	5/16	1/2	8-1/2

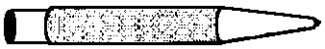
PUNCH, CENTER, AUTOMATIC

Automatic, adjustable center punch. Removable point angle, 80 degrees. Knurled body and screwcap. Dimensions in inches. Fed Spec GGG-P-831.

	Body Dia	O/A Closed Lg
00-595-9471$_{NP}$	3/8	3-1/8
00-293-3466$_{NP}$	1/2	4-1/8
00-221-1072$_{NP}$	5/8	5

PUNCH, CENTER, SOLID

Solid center punches for marking steel, Brass, Aluminum, and wood. High-grade Steel, point-end hardened. Octagonal or round knurled body, point angle 90 degrees. Fed Spec GGG-P-831.



	Point Dia	Stock Dia	Lg
00-278-1264$_{NP}$	1/16	3/16	3-1/8
00-293-3510$_{NP}$	5/64	1/4	3-1/4
00-293-3512$_{NP}$	1/8	5/16	3-3/4
00-293-3509$_{NP}$	5/32	3/8	4
00-237-4956$_{NP}$	7/32	1/2	4
00-197-9490$_{NP}$	3/8	5/8	6

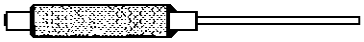
PUNCH, DRIFT

High grade alloy Steel aligning punches. Fed Spec GGG-P-831.

	Point Dia	Stock Dia	Lg
Size 2			
00-240-8898$_{NP}$	1/8	5/16	8
Size 12			
00-242-0764$_{NP}$	3/8	9/16	9

PUNCH, DRIVE PIN

Straight type. Used for driving pins from force-on or drive-fit holes. High grade alloy Steel, point hardened. Circular body punches suitably knurled to facilitate a firm grip. Mil Spec Mil-P-831.



Standard point. Length, 4 inches.

	Point Dia	Point Lg
00-240-6082$_{NP}$	1/16	1/2
00-242-3435$_{NP}$	3/32	11/16
00-242-5966$_{NP}$	1/8	3/4
00-240-6104$_{NP}$	5/32	13/16
00-293-0791$_{NP}$	3/16	15/16
00-293-0792$_{NP}$	7/32	1
00-240-6083$_{NP}$	1/4	1
00-293-0793$_{NP}$	5/16	1
00-273-0001$_{NP}$	3/8	1

Extra long point length.

	Point Dia	Point Lg	O/A Lg
00-752-9030$_{NP}$	1/16	1-1/2	6
00-223-1014$_{NP}$	1/8	3-1/2	8
00-223-1015$_{NP}$	3/16	3-1/2	8
00-223-1016$_{NP}$	1/4	3-1/2	8
00-223-1018$_{NP}$	3/8	3-1/2	8

Tapered starting punches.

	Point Dia	Taper Lg	O/A Lg
00-242-3433$_{NP}$	1/8	1-5/8	4-1/2
00-293-1408$_{NP}$	3/16	2-3/8	5
00-223-0989$_{NP}$	3/8	3	6

Straight type. With detachable handle. NAVSHIPSYSCOM Drawing S2603-840327.

	Point Dia	Point Lg
00-880-4565$_{NP}$	27/64	1
00-880-4560$_{NP}$	17/32	1
00-880-4570$_{NP}$	19/32	1
00-880-4574$_{NP}$	5/8	1-1/4
00-880-4604$_{NP}$	57/64	1-3/8
00-880-4583$_{NP}$	1-1/16	1-3/8

PUNCH, PRICK

For locating hole centers. High grade alloy Steel, hardened point end. 50 degree angle, 3/8 inch body, 4 inch length. Fed Spec GGG-P-831.

	Size
00-224-7446$_{NP}$	2

PUNCH SET, DRIVE PIN

5 components. 8 inch length. Fed Spec GGG-P-831.

	Point Dia	Point Lg	Size No.
00-541-7704	1/8	1-1/2	1
	3/16	3-1/2	2
	1/4	3-1/2	3
	5/16	3-1/2	4
	3/8	3-1/2	5

9 components. 4 inch length. Fed Spec GGG-P-831.

	Point Dia	Point Lg	Size No.
00-883-3003	1/16	1/2	1
	3/32	11/16	2
	1/8	3/4	3
	5/32	13/16	4
	3/16	15/16	5
	7/32	1	6
	1/4	1	7
	5/16	1	8
	3/8	1	9

PUNCH, TUBE BELLING, HAND

Outside tube belling punches. Outside diameter tube size and belling radius in inches as shown.

	OD	Belling Radius
00-595-9463$_{NP}$	5/8	0.550

PUNCH AND DIE, GROMMET INSERTING

For inserting eyelet, spur, and conical point grommets. Mil Spec Mil-P-16208.

For eyelet grommets.

	Size
00-357-5753$_{NP}$	00
00-357-5754$_{NP}$	0
00-256-9259$_{NP}$	2
00-256-0651$_{NP}$	4

For spur and conical-point grommets.

	Size
00-221-1146$_{NP}$	0
00-221-1147$_{NP}$	1
00-221-1148$_{NP}$	2
00-221-1149$_{NP}$	3
00-221-1150$_{NP}$	4
00-221-1151$_{NP}$	5

PUNCH SET, ALIGNING

Set of 5 aligning punches in roll. Includes 1-each of: 3/32, 3/16, 1/4, 5/16, and 3/8 inch point diameters. Fed Spec GGG-P-831.

00-330-5869$_{NP}$

PUNCH SET, CENTER SOLID

Solid center punches in plastic case. Fed Spec GGG-P-831.

6 punches listed below

	Body Size	Punch Size
00-278-1264	3/16	0
00-293-3510	1/4	2
00-293-3512	5/16	4
00-293-3509	3/8	5
00-237-4956	1/2	7
00-197-9490	5/8	10

REMOVER, ELECTRICAL CONTACT

For removing miniature poke-home contacts conforming to Mil-I-81969. Contact size indicated.

	Size	M81969/3-01
00-177-7029	23	3-01
00-177-7095	23	3-05
00-146-6558$_{NP}$	22M	8-02
00-146-6557$_{NP}$	22	8-04
00-177-6966$_{NP}$	20	8-06
00-409-5206$_{NP}$	16	8-08
00-133-0097	16	19-01
00-133-0098	12	19-02
01-212-2432*	20	19-06
00-079-4601	20	19-07
00-079-4602	16	19-08
00-079-9461	12	19-09
00-930-7503$_{NP}$	166&20	20-01
00-133-0144	8	29-02
00-133-0351	22	30-01
00-148-9844	16	30-06

* Aluminum handle, Corrosion Resistant Steel plunger, and Stainless Steel proble.

Designed for No. 22 AWG size pin contact.

00-409-5202

REMOVER PIN

Forged-Sel extractor, 6 to 10 inch length. Pointed and shaped for easy removal of cotter pins. Fed Spec GGG-E-926.

00-222-4284

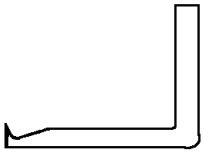
REMOVAL TOOL KIT, CONNECTOR ELECTRICAL CONTACT

Designed for AN/MS and type F contacts, Sizes 8, 12, and 16. Consists of handle and 5 tips.

00-789-0093*
* Non Spec Item.

REMOVAL TOOL, SPECIAL

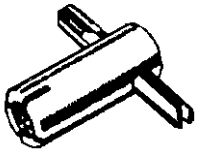
Brass. 3/16 inch diameter, with 3-1/8 and 4-1/8 inch length legs. Long leg indented 3/32 inch. For removing "O" rings. Prior to use, tool may require modification to suit removal application by filing of grind-out. NAVSHIPSYSCOM Drawing Number 820-4550827. SPCC HX Quality Control Specs.



01-019-8081$_{NP}$

REPAIR TOOL, PNEUMATIC TIRE VALVE

Standard-size repair tool. Inserts and removes cores, rethreads stem, deflates tubes, and smooths mouth of tire valves. Mil-Spec Mil-T-4873.



00-308-3809

RETRIEVING TOOL, MAGNETIC

Magnetic pick-up tools. Permanent magnetic head retrieves small objects from tight or inaccessible spaces. Fed Spec GGG-F-360.

Telescoping type. Hinged magnet head lifts 8 ounce minimum, moves at any angle. Extends to 27-1/2 inches.

00-545-4268

Flexible uncovered spiral wound wire. 21 inch length overall 19/64 inch diameter, with 3 inch length by 17/32 inch diameter magnet. 12 ounce lifting power. Designed to prevent parts from accidently parting.

00-620-1432

Flexible type. Integral magnet head lifts 5 ounce minimum. Insulated coiled-spring shaft bends around corners. 33 inch length.

00-850-6313

RIVETER, BLIND HAND

Lightweight riveters for serrated-stem Aluminum and mild Steel rivets. Installs and sets pull-through and self-plugging type blind rivets, conforming to Mil Stds: MS20600, MS20601, MS20604, and MS20606. Fed Spec GGG-R-395.

Straight-head type with puller heads for each size, 100 degree flathead rivets. 6 inch long heads, size 1/8, 5/32, and 3/16 rivet diameter. With carrying case.

00-357-6065$_{NP}$ 9-1/2 in. lg

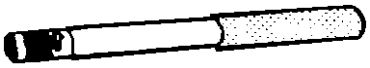
Straight head type. For rivet sizes: 3/32, 1/8, 5/32, and 3/16 inch. 4 inch nose pliers provided to set smooth mandrel Alum, Steel, Copper, and Brass rivets. Rivet assortment and metal or plastic case with operating instructions and rivet selection provided. Rivet assortment includes 50 each: 1/8 by 1/8 inch and 1/8 by 1/4 inch button head, Steel rivet and mandrel. 50 each: 1/8 by 1/8 inch and 3-1/16 by 1/8 inch, button head Alum rivet and mandrel. 50 each: 1/8 by 1/8 inch, countersunk Steel rivet and mandrel.

01-289-4310

SCREW STARTER, HAND

Screw-holding, slot-gripping screwdrivers. Length under handle and tip width as noted. Fed Spec GGG-S-121.

Center-rotating tip type. Pushing pressure on handle holds screw.



Aluminum handle.

	Lg	Tip W
00-243-3296$_{NP}$	2-3/4	9/32
00-288-8728$_{NP}$	6	9/32

Plastic handle.

	Lg	Tip W
00-278-0325	1-1/4	3/16
00-278-0326	4	1/4
00-278-0327	8	3/16

Non Spec Types.

Flat tip with rotating wedge type grip. Steel handle. Blade 3/8 inch width by .030 inch thickness. Blade length any acceptable.

00-370-1241

Combination Phillips and flat tip type. Rotating wedge type grip. Plastic handle, 3/8 inch diameter by 7-3/16 inch length with fluted outer surface. Phillips screw starter on one end 9/32 inch diameter of tip. .030 inch thick tip for each stationary blade, .025 thickness of tip for movable blade. Straight slot screw starter on opposite end; 9/32 inch diameter tip, .030 inch thick tip for each stationary blade, .090 inch length of each tip of stationary blade. Movable blade to be .025 inch thick by 100 inch length. 9 inch length overall.

00-832-6221

SCREWDRIVER, CROSS TIP

Phillips Screwdriver

For driving and removing cross-recessed screws. Straight blades with round cross sections and plastic handles. Tip size designation and blade length as noted.

	Tip No.	Lg
00-820-2995	0	1-1/4
00-498-7365*	0	2
00-060-2004	0	4

	Tip No.	Lg
00-224-7370	1	1
00-240-8716	1	3
00-529-3101	1	8
00-227-7293	2	1-1/2
00-234-8913	2	4
01-367-3795†	2	4
00-764-8097‡	2	4-1/2
00-596-0861†	2	7
00-542-3438	2	8
01-367-3801	2	8
00-234-8912	3	6
00-224-7375	4	8

* Furnished with pocket clip.
† Furnished with external screw gripper.
‡ With 3/8 inch square female drive in end of handle.

Nonsparking, nonmagnetic blades. Mil Spec Mil -S-2111.

	Tip No.	Lg
00-596-0864	2	4
00-596-0865	3	6

Reed and Price Screwdrivers.

Steel blade and Plastic handle. Fed Spec GGG-S-121.

	Tip Dia	Lg
00-596-0866	3/16	3
00-237-8173	1/4	4
00-237-8172	5/16	6
00-237-8174	3/8	8

SCREWDRIVER, FLAT TIP

Intended for driving and removing single-slotted screws. Polished Steel blades, Plastic handles. Fed Spec GGG-S-121.

Cabinet-tip screwdrivers. Plain round blade, straight-sided tip.

Extra-light duty. For Number 1 to Number 4 screws.

	Blade Lg	Tip W
00-278-1269	3/4	9/64
00-289-9662	2-1/2	9/64
00-287-2504	3	9/64
00-905-6728*	3	3/16
00-540-0563	4	9/64
00-905-6730*	4	1/4
00-287-2505	5	9/64
00-596-8653	6	1/4
00-278-1267	8	9/64
00-905-6729*	8	3/8
00-913-5843*	10	3/16

* With cushion grip handle.

Light duty. For No. 3 to No. 8 screws.

	Blade Lg	Tip W
00-288-7803	1-1/2	3/16
00-236-2127	3	3/16
00-278-1270	5	3/16
00-227-7356	6	3/16
00-260-4837	8	3/16
00-227-7334	10	7/32
00-278-1268	12	7/32

Normal-duty. For Number 12 screws.

	Blade Lg	Tip W
00-293-0314	10	1/14

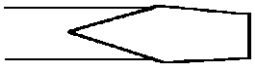
Close-quarter (stubby) screwdriver. Round or square blade with flared tip.

	Blade Lg	Tip W
00-222-8866	1	7/32
00-596-8502	1-1/2	1/4
00-278-1273	1-3/4	5/16

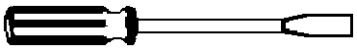
Flared-blade screwdriver with external gripping screw starter. Square, hexagon, or octagonal blade. Plastic handle.

	Blade Lg	Tip W
00-293-3171	4	7/32
00-293-3159	6	5/32
00-293-3178	10	5/32

General Purpose screwdrivers. Flare sided blades. Plastic handles.



Medium-heavy duty.



Round blade, plain handle.

	Blade Lg	Tip W
00-293-3311	3	7/32
00-222-8852	4	1/4
00-062-0813	6	3/16
00-234-8910	6	5/16
00-237-6985*	8	3/8
00-293-3309	10	3/8
00-278-1276	12	3/8
00-236-3242	18	1/2

* With cushion grip handle.

Round blade, 3/8 inch square female drive. Insert in handle end. For drive handle see: NSN 5120-00-786-3782.

	Blade Lg	Tip W
00-764-8058	4	1/4
00-764-8059	6	5/16

Square blade, plain handle.

	Blade Lg	Tip W
00-596-9364	8	1/4

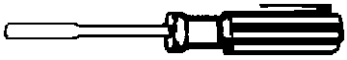
Heavy duty.

Square or round forged blade with plain handle.

	Blade Lg	Tip W
00-278-1283	6	5/16

Mechanic's and machinist's heavy-duty screwdrivers. Flared blades. Steel handles with wood inserts.

Pocket-clip screwdriver with Plastic handle. Flared blades for general purpose light-duty work.



Magnetized tip.

	Blade Lg	Tip W
00-227-7377	2	1/8

Non-Magnetic tip.

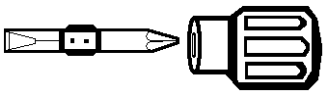
	Blade Lg	Tip W
00-236-2140	2	1/8
00-720-4969	3	3/32
00-542-2281	4	1/8

Common screwdriver with nonsparking, nonmagnetic blades. Flared blades, Plastic handles. Mil Spec Mil-S-21111.

	Blade Lg	Tip W
00-236-2132	3	9/32
00-293-1608	6	5/16
00-287-2502	8	3/8
00-287-2503	12	3/8

SCREWDRIVER, FLAT TIP-CROSS TIP

Close-quarter screwdriver with combination bit. Plastic handle, with hex-insert reversible bit,with 1/4 inch with flat tip, and one No. 2 Phillips cross tip point on other end. Assembly length about 3-1/8 inch. Fed Spec GGG-S-121.



00-301-1076

SCREWDRIVER, JEWELERS, SWIVEL KNOB

Without external screw gripper.

	Tip W
00-180-0706	3/64

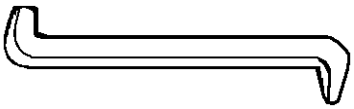
Blade length 7/8 inch. Handle length 3-1/2 inch. One blade.

	Tip W
00-180-0705	1/32
00-180-0727	1/16
00-180-0728	5/64
00-180-0729	3/32
00-180-0730	7/64

SCREWDRIVER, OFFSET

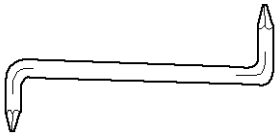
Offset screwdrivers, for use in restricted spaces. Fed Spec GGG-S-121.

Double offset, single flat tip each end.



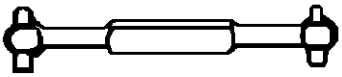
	Tip Size	O/A Lg
00-022-9794$_{NP}$	1/4	3
00-287-2130$_{NP}$	1/4	4-1/4
00-288-9710$_{NP}$	5/16	5
00-240-5232$_{NP}$	3/8	6

Double offset. Phillips cross tip each end. Tapered Steel shanks.



	Tip Size	O/A Lg
00-256-9014$_{NP}$	1 & 2	4-3/4
00-241-3170$_{NP}$	2 & 3	5-1/2
00-242-3268$_{NP}$	3&4	6

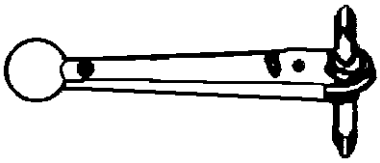
Nonmagnetic, nonsparking. 4 way offset, double flat tips each end. One end with 2 blades offset at 45 degrees, other end with a parallel blade and a 90 degree offset blade. High grade Steel.



	W	Lg
00-287-2129$_{NP}$	5/32	3
00-180-0798$_{NP}$	1/4	5-1/4

SCREWDRIVER, RATCHET

Reversible, right-angle offset, ratcheting type. With Phillips Number's 1 and 2 nonremovable blades. 5/16 inch length, overall length 3-13/16 inches. Fed Spec GGG-S-1408.



00-892-5931$_{NP}$

Double-spiral action screwdrivers. Automatic spring return, turns right or left. Locks when closed. Furnished with 3 removeable flat-tip screwdriver bits. Closed length (with bits) listed. Fed Spec GGG-S-121.

Light-duty. With three bits: 5/32, 3/16, 7/32, inch tip widths.

	Lg
00-221-7097	10-3/8

Medium-duty. With three bits: 7/32, 1/4, and 9/32 inch tip widths.

	Lg
00-255-1096	17-1/4

8 removable hex-bits, 1-5/8 inch length with offset ratchet handle. Bit sizes: 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, and 5/16. Fit right angle offset screwdriver handle, 3-1/4 inch length. Fed Spec GGG-S-1408.

00-288-8732

SCREWDRIVER BIT SET AND HANDLE

Plastic hollow handle, 4 inch shank. Non-ratchet type handle. Bit types or sizes shown. Bits held by alnico magnet anchored in hollow shaft. Bits are magnetized to hold and start screws.

Bit types	Size or No.
Std	1/32 x 3/16
Std	3/64 x 1/4
Phillips	No. 1
Phillips	No. 2

00-997-2858 4 Tips

Plastic hollow storage type handle. With pocket roll kit. Set of 3 reversible blades. Phillips size Number 1, 2, and 3. Flat tip widths 3/16, 1/4, and 5/16.

00-062-5413 6 Tips

9 straight hex-blade set with screwdriver type handle and 4 inch extension adapter. WAF of blades: 3/64, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, and 3/16. 4 inch length.

00-851-4247

Furnished with clear Plastic box. Consists of ratchet and 19 screwdriver bits. Ratchet has 1/4 and 5/16 inch hexagon openings.

1/4 In. Shank	5/16 In. Shank
.050 Hex	9/64 Hex
1/16 Hex	5/32 Hex
5/64	3/16 Hex
3/32 Hex	1/4 Square
7/64	5/16 Hex
1/8 Hex	3/8 Flat
7/32 Hex	
No. 1 & 2 Phillips	
1/4 Flat	
No. 1 & 2 Poi-Drive	

Each bit shall be furnished with a Rubber retaining ring to secure it in ratchet opening.

00-870-6928 19 Tips

SCREWDRIVER SET, CROSS TIP

Set of 4 straight Phillips screwdrivers. Plastic handle, steel blades. Size and length are listed. Fed Spec GGG-S-121.

	Size	Lg
00-224-7375	4	8
00-234-8912	3	6
00-234-8913	2	4
00-240-8716	1	3

00-596-0828

Set of 5 straight Phillips screwdrivers. Plastic handles, Steel blades. Set includes one each of sizes: Number 1 by 1, Number 1 by 3, Number 2 by 1-1/2, Number 2 by 4, and Number 3 by 6. Fed Spec GGG-S-121.

00-357-7175

SCREWDRIVER SET, CROSS TIP, STRAIGHT AND OFFSET

Set of 6 (straight and offset) Phillips screwdrivers. Set includes 4 straight Phillips screwdrivers, Sizes: Number 1 by 3, Number 2 by 4, and Number 4 by 8. Also 2 double offset screwdrivers. Sizes: Number 1 and 2 by 4-3/4, and Number 3 and 4 by 6. Fed Spec GGG-S-121.

00-580-0334

SCREWDRIVER SET, FLAT TIP

Consists of 5 components. Plastic handles, Steel blades. Fed Spec GGG-S-121.

Blade Thk	Blade W	Blade Lg	O/A Lg
.037	1/4	1-1/2	3-1/4
.032	3/16	2-7/8	6-1/8
.037	1/4	4	7-5/16
.046	5/16	6	10-1/4
.050	3/8	8	12-3/4

00-103-9743

SCREWDRIVER SET, FLAT TIP AND CROSS TIP

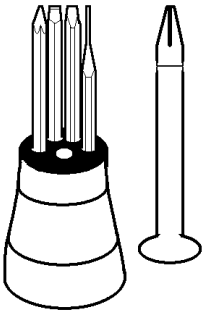
Consists of 8 components: 5 flat tip screwdrivers and 3 Phillips screwdrivers.

	W/In.	Blade Lg/In.
Flat	3/16	1-1/2
	1/4	1-1/2
	1/4	4
	5/16	6
	3/8	8
Cross Tip	1	3
	2	1.5
	2	4

01-033-2134

SCREWDRIVER SET, JEWELER'S SWIVEL KNOB

Set of swivel knob screwdrivers. Steel handle with single-ended flat-tip blade. Includes one of each blade size: .025, .040, .055, .070, .080, and .100 inch tip width. Fed Spec GGG-S-121.



00-288-8739

SCREWDRIVER SET, OFFSET

Set of 4, flat tip style. Steel. Dimensions as follows. Fed Spec GGG-S-121.

	Tip Size	O/A Lg
00-287-2129	5/32	3
00-287-2130	1/4	4-1/4
00-288-9710	5/16	5
00-240-5232	3/8	6

Double offset, single flat tip each end.

00-596-9591$_{NP}$

SCREWDRIVER SET

Set of 8 miniature screwdrivers with colored handles. To be inserted individually into the hexagon opening of Black Plastic handle (1-1/6 inch overall diameter by 3-1/8 inch length) when in use. Three Phillips cross sizes: Number O (Blue), Number 1 (Brown), and Number 2 (Amber). Five flat tip sizes, 3/32 inch (Green), 1/8 inch (Red), 5/32 inch(Black), 3/16 inch (Orange), and 1/4 inch (Amber). 3-1/2 inch overall length.

00-933-8979

SCRIBER, DIAMOND POINT

Diamond marking pencil for inscribing glass surfaces. Natural diamond mounted in Steel nib and set in hexagonal Aluminum handle. About 6 inch length. Mil Spec Mil-S-15825.

00-421-0000$_{NP}$

SCRIBER, MACHINIST'S

Machinist's scribers for layout work on metal. Knurled body or sleeve, long tapered points. Overall length shown. Fed Spec GGG-S-121.

Pocket style, single-point scriber. 3/8 inch diameter with hexagonal head, knurled chuck. 3/16 inch diameter reversible point, telescopes into body.

	Lg/In.
00-224-9728$_{NP}$	6

Double point scribers. Straight and bent points. Non-removable points.

	Lg/In.
01-034-6884	7.625

Adjustable sleeve type. 5/32 inch diameter. One piece scribing point fits 5/16 inch diameter sleeve with knurled chuck.

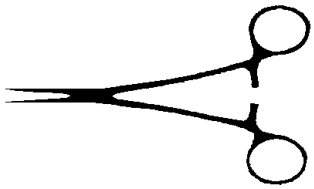
	Lg/In.
00-221-7063$_{NP}$	8 to 9

Removable points type. Two threaded points fit into round sleeve.

	Lg/In.
00-596-1543$_{NP}$	8 to 9

SEIZER, SOLDERING

Tempered Stainless Steel. Box joint construction. Two position snap lock.



Curved serrated jaws.

	Lg/In.
00-012-4016$_{NP}$	5-3/4

Straight serrated jaws.

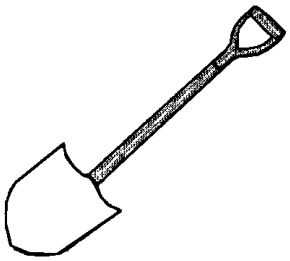
	Lg/In.
00-012-4013$_{NP}$	5-3/4

SHOVEL, HAND

General purpose Steel-bladed shovels. Open back, socket pattern. Shoulder edges of blade are rolled. Hardwood handles. Commercial size as noted. Fed Spec GGG-S-326.

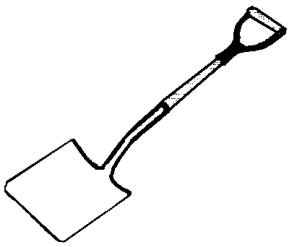
D-Handle.

Round point



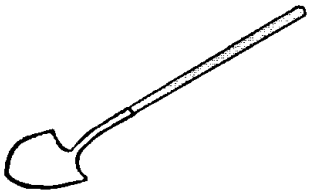
	Lg/In.
00-293-3336$_{NP}$	12 nominal blade

Square point



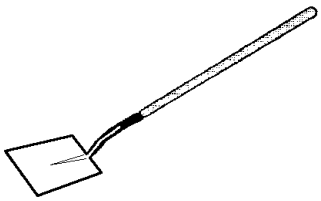
00-224-9326$_{NP}$ 10 W x 12 in. lg blade

Long handle



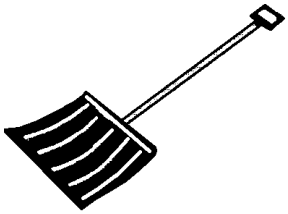
00-188-8450$_{NP}$ 49 in. handle

Square point



00-293-3330$_{NP}$ 12 in. nom lg blade, 39 in. handle

Snow shovel. Medium weight Steel blade. 14 by 17 inches with Black enamel finish. Hardwood "D " handle with Steel reinforced grip. 48 inches overall length.



00-494-1863$_{NP}$

SOCKET SET, SOCKET WRENCH

11 regular length sockets in metal case. 12 point. Sizes: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch. Fed Spec GGG-W-641.

00-935-7311$_{NP}$ 1/2 in. square drive

11 deep-style sockets in metal case. 12-point long length sockets. Sizes: 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, and 1-1/8 inch. Fed Spec GGG-W-641.

00-596-8622 1/2 in. square drive

13 regular length sockets in metal case. 6 point. Sizes: 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch.

00-935-7313$_{NP}$ 3/8 in. square drive

SOCKET, SOCKET WRENCH

Detachable socket wrenches. Standard-wall, Chrome-Plated Steel. Wrench opening size listed. Fed Spec GGG-W-641.

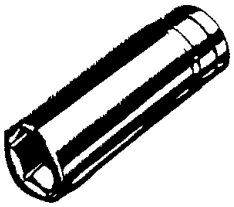
6-point hexagon sockets. Use on hexagon nuts, bolts, and machine screws. Grips rounded corners.

1/4 inch square drive.

Regular length

	Size
00-236-2262$_{NP}$	3/16
00-236-2263$_{NP}$	7/32
00-236-2264$_{NP}$	1/4
00-242-3345$_{NP}$	9/32
00-241-3186$_{NP}$	3/8
00-239-0016$_{NP}$	7/16
00-761-1732	9/16

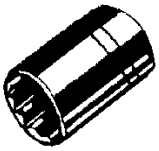
Long (deep) length



	Size
00-189-7920$_{NP}$	5/16
00-189-7922$_{NP}$	3/8

12 point (double-head) sockets. Use on standard hexagon nuts and cap screws. More turning positions than other types.

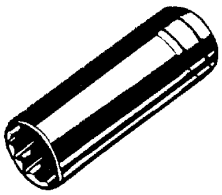
Regular length, 1 inch.



	Size
00-189-8609$_{NP}$	1/4
00-935-7487$_{NP}$*	5/16
00-235-5878$_{NP}$	5/16
00-242-3351$_{NP}$	11/32
00-242-3352$_{NP}$	3/8
00-935-7490$_{NP}$*	7/16
00-235-5869$_{NP}$	7/16
00-189-8610$_{NP}$	1/2

* SAE-AS 954.

Deep Length. 2 inches. Midget sockets for light work. Thin walled to get at hard-to-reach places.

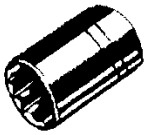


	Size
00-235-5822$_{NP}$	5/16
00-775-6980$_{NP}$*	7/16
00-087-0697$_{NP}$	1/2

* SAE-AS 954.

3/8 inch square drive.

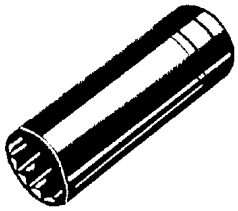
12-point, regular length.



	Size
00-288-8155$_{NP}$	1/4
00-227-6702$_{NP}$	3/8
00-935-7410$_{NP}$*	3/8
00-227-6703$_{NP}$	7/16
00-237-0977$_{NP}$	1/2
00-227-6704$_{NP}$	9/16
00-237-4973$_{NP}$	5/8
00-232-5706$_{NP}$	11/16
00-227-6705$_{NP}$	3/4
00-788-5407$_{NP}$†	3/4
00-235-5807$_{NP}$	13/16
00-242-3330$_{NP}$	7/8

* SAE-AS 954.
† Hexagon 6-point. Non Spec Item.

12 point, long length.



	Size
00-277-1463$_{NP}$	3/8
00-277-1464$_{NP}$	7/16
00-241-3185$_{NP}$	1/2
00-239-0017$_{NP}$	916
00-239-0018$_{NP}$	5/8
00-277-4252$_{NP}$	11/16
00-235-5879$_{NP}$	3/4
00-596-0836$_{NP}$	13/16
00-235-5809$_{NP}$	7/8

12-point socket and universal joint.

	Size
00-082-8526$_{NP}$*	5/16
00-242-3354$_{NP}$	7/16
00-237-0978$_{NP}$	9/16

* 1/4 inch square drive, SAE-AS954.

Sparkplug- holding socket, 12 point wrench opening. Rubber insert holds standard auto plugs, for insertion or removal (not for use with shielded plugs).

1/2 inch square drive.

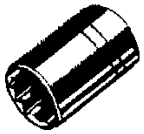
6-point, long length. 3-1/4 inch length, Non Spec.

	Size
00-467-5127$_{NP}$	1-1/4

8-point, regular length.

	Size
00-180-1018$_{NP}$	1/2
00-180-1019$_{NP}$	9/16
00-180-1020$_{NP}$	5/8
00-199-7772$_{NP}$	3/4

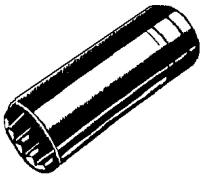
12-point, regular length.



	Size
00-237-0982$_{NP}$	3/8
00-189-7924$_{NP}$	7/16
00-237-0984$_{NP}$	1/2
00-189-7932$_{NP}$	9/16
00-935-7420$_{NP}$*	9/16
00-189-7946$_{NP}$	5/8
00-235-5870$_{NP}$	11/16
00-189-7985$_{NP}$	3/4
00-189-7934$_{NP}$	7/8
00-189-7935$_{NP}$	15/16
00-189-7927$_{NP}$	1
00-189-7913$_{NP}$	1-1/16
00-189-7914$_{NP}$	1-1/8
00-189-7917$_{NP}$	1-1/4
00-277-1465$_{NP}$	1-1/2

* SAE-AS954.

12-point, long length. 3 inches.

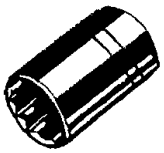


	Size
00-243-7350$_{NP}$	7/16
00-243-7348$_{NP}$	9/16
00-242-3349$_{NP}$	3/4
00-243-7342$_{NP}$	7/8
00-243-7343$_{NP}$	15/16
00-243-7340$_{NP}$	1
00-243-7341$_{NP}$	1-1/16
00-243-7339$_{NP}$	1-1/8
00-076-3270$_{NP}$*	1-1/2

* Non Spec Item. 3-1/4 inches long.

3/4 inch square drive.

12-point, regular length.

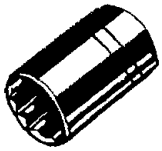


	Size
00-239-0021$_{NP}$	1-1/8
00-232-5681$_{NP}$	1-5/16
00-189-7931$_{NP}$	1-7/16
00-293-0094$_{NP}$	1-1/2
00-199-7768$_{NP}$	1-13/16
00-199-7769$_{NP}$	1-7/8

SOCKET WRENCH ATTACHMENT, SCREWDRIVER

Internal wrenching hexagonal sockets. For socket head set screws and cap screws. Square female drive one end, hexagon male drive bit other end (male end hex width across flats). WAF, overall length shown. Fed Spec GGG-W-641.

HEXAGON



1/4 inch square female drive.

	WAF	Lg
00-596-0930$_{NP}$	3/32	1-1/8
00-761-2015$_{NP}$	7/64	1-7/8
00-596-0934$_{NP}$	1/8	23/32
00-044-1718$_{NP}$	9/64	1-7/8
00-596-0940$_{NP}$	5/32	1-5/16
00-116-7692$_{NP}$	5/32	3-5/8
00-596-0938$_{NP}$	3/16	3/4
00-935-4612$_{NP}$	3/16	1-3/4

3/8 inch square female drive, short hexagon bit.

	WAF	Lg
01-075-1200	7/32	6-1/8
00-243-1674$_{NP}$	5/16	13/16
00-224-7362$_{NP}$	5/8	-

3/8 inch square female drive, long hexagon bit.

	WAF	Lg
00-935-7474$_{NP}$	9/64	2
00-683-8597$_{NP}$	3/16	2
00-596-8511$_{NP}$	7/32	2
00-596-8508$_{NP}$	1/4	2
00-683-8602$_{NP}$	5/16	2-1/4
00-555-2353$_{NP}$	5/32	6-1/16
00-596-1199$_{NP}$	3/8	2

1/2 inch square female drive.

	WAF	Lg
00-243-1676$_{NP}$	1/2	1-1/2

FLAT SLOTTED

1/4 inch flat (slotted) drive.

	Size	O/A Lg
00-797-2992$_{NP}$	HTS-2	1
00-863-4944$_{NP}$	HTS-3	1
00-640-6347$_{NP}$	1/4 x .033 in.	3

3/8 inch flat (slotted) drive.

	Size	O/A Lg
00-243-7337$_{NP}$	1/4 x .037	3
00-797-2994$_{NP}$	HTS-4	1
00-863-4943$_{NP}$	HTS-4A	1-1/4

1/2 inch flat (slotted) drive.

	Size	O/A Lg
00-223-6986$_{NP}$	47/64 x .109	1-3/4

PHILLIPS (CROSS)

1/4 inch drive.

	Tip Size	O/A Lg
00-180-0876$_{NP}$	1	2
00-879-3547$_{NP}$	2	1-7/8

3/8 inch drive.

	Tip Size	O/A Lg
00-293-0318$_{NP}$	2	2
00-785-8151$_{NP}$	3	2-5/16
00-180-0881$_{NP}$	4	3
00-293-0319$_{NP}$*	4	3

* Hexagon shank, detachable bit.

SPATULA SET

Consists of: 3 spatulas with 2 each working ends. Length and end widths listed in inches.

O/A Lg	1st End W	2nd End W
7-1/4	1/16	9/32
7-1/4	3/8	9/32
7-1/4	3/8	1/2

00-056-3237

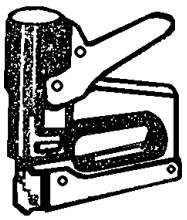
SPUDGER

Fiber. Overall dimension: 5-1/2 inch length by 5/16 inch diameter.

00-293-3112

TACKER

Gun-type staple tacker. Manually operated. Accommodates 1/2 inch width, flat-top staples. Listed in FSC 5315. Fed Spec GGG-T-20.



Medium duty. For .030 by .020 inch wire size staples. 3/16, 1/4, and 5/16 inch leg lengths.

00-250-9137

Heavy duty. For .050 by .020 inch wire size staples. 1/4, 5/16, 3/8, and 1/2 inch leg lengths.

00-889-1796

TOOL, ANTIWICKING

“L” shaped head affords greater visibility, facilitates work in tightly confined solder areas. Box joint design prevents side slippage. Gives excellent conductor contact. Satin Chrome finish. Forged of solid, non-fatiguing Beryllium Copper Alloy. 4-1/2 inch overall length. Conductor contact length 1/16.

	AWG/Size
00-954-1269$_{NP}$	20
00-954-1270$_{NP}$	22

TOOL, WIRE UNWRAPPING, HAND

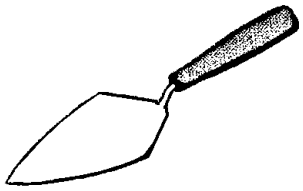
Used for unwrapping post Size .040 inches and 26 through 32 AWG wire size. 5.750 inch length overall. Both tips .750 inch length by .093 inch diameter. Handle 4.250 inch length.

00-871-5882

TROWEL

Steel trowels with hardwood handles. Fed Spec GGG-T-671.

Brick trowel. Flexible blade, 5-1/4 by 10-1/4 inch. 5-1/2 inch handle.



00-223-9482

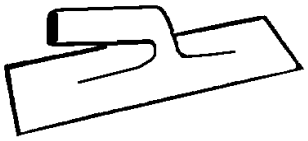
Regular cement trowels. Light spring Steel blade, 4-1/2 inch handle.

00-293-3412 4 x 12
00-224-4748 4 x 14

Mastic trowel. For spreading mastic when laying asphalt tile. Serrated on one side and one end. 4-7/16 by 10-1/2 inch blade.

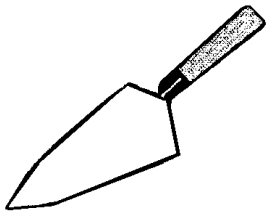
00-540-0754

Plastering trowel. 4-5/8 by 11-1/8 inch blade. 4-1/2 inch handle.



00-223-9480

Pointing trowel. 2-5/8 by 6 inch blade. 4-1/2 inch handle.



00-246-4350

Margin trowel. 2 by 8 inch blade.

00-009-3743

TUNING WAND, ELECTRONIC EQUIPMENT

Plastic rod, 6 inch length. Outside diameter 3/16 inch Rigid.

00-288-7783

TURRET HEAD ASSEMBLY, CONTACT POSITIONER, CRIMPING TOOL

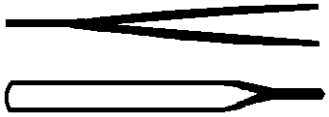
Tools and kits covered by this specification are intended for crimping Mil-C-23216, MIL-C-26636, and Mil-C-39029 removable contacts (e.g., power, coaxial, shielded, thermocouple and filter pin contacts); Mil-C-39012 coaxial connectors; Mil-T- 7928 splices; and Mil-F-21608 ferrules to wire conductors for use in electric connectors, terminal junction systems, and other electric and electronic components. These tools may be used to crimp other connecting devices of design or materials other than those specified here in, provided the required performance is obtained. Mil Spec dash number Mil-C-25520 listed.

	Contact Sizes	Dash No.
00-016-6382	12, 16, 20	1-02
00-016-7582	12-12, 16-16, 20-20	1-04

TWEEZERS, CRAFTSMAN'S

Chrome or Nickel Plated Steel tweezers. Fed Spec GGG-T-870.

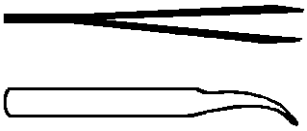
Assembly smooth jaws. Fine tip .020 by .005 inch closed size.



	Lg/In.
00-247-0868$_{NP}$	4-3/8

Curved-point tweezers.

Fine tip, smooth jaws. .010 by .025 inch closed tip size.



	Lg/In.
00-288-9685$_{NP}$	4-1/2

General purpose tweezers.

Fine tip. 0.015 by 0.005 inch closed tip size. 4-1/2 inch length overall.

With smooth jaws

00-247-0867$_{NP}$

With serrated jaws

00-247-0864$_{NP}$

Slim point, smooth jaws. .030 by .050 inch closed tip size.

	Lg/In.
00-252-7720$_{NP}$	4-1/2

Self-closing cross-lock tweezers. Serrated jaws. 5/32 inch tip width, 3/4 inch jaw opening.

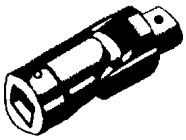
	Lg/In.
00-293-0149$_{NP}$	6-1/2

Cutting tweezers. Used for repair work on instruments where small objects (springs and wire) are to be cut. Angled cutting edge. Fed Spec GGG-T-870.

	Lg/In.
00-596-1210$_{NP}$	3-5/8

UNIVERSAL JOINT, SOCKET WRENCH ATTACHMENT

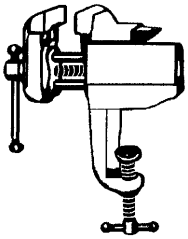
Detachable square-drive universal joints. Chrome or Nickel Plated. Identical female and male square drive ends. Size in inches, as shown. Fed Spec GGG-W-641.



	Drive	O/A Lg
00-243-1686$_{NP}$	1/4	1-5/16
00-224-9215$_{NP}$	3/8	2-3/16
00-269-7971$_{NP}$	1/2	2-3/4

VISE, BENCH, CLAMP BASE

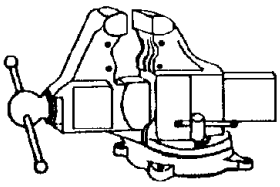
For light bench work. Fits benches 1/2 to 2 inches thick. Nominal jaw width and jaw opening. Stationary base. 3 inches by 3 inches. Fed Spec GGG-V-410.



00-221-1119$_{NP}$

VISE, BENCH AND PIPE

Heavy-duty bench and pipe vise. 360 degree swivel base, stationary main jaws. Replaceable pipe jaws grip pipe and round stock. Nominal jaw width and jaw opening size, as noted. Fed Spec GGG-V-410.



1/4 to 2-1/2 inch diameter pipe range.

00-188-1182$_{NP}$ 3 x 3-1/2 in. jaw

1/4 to 3-1/2 inch diameter pipe range.

00-223-1951$_{NP}$ 4-1/2 x 5 in. jaw

1/4 to 4-1/2 inch diameter pipe range.

00-243-9072$_{NP}$ 5 x 6 in. jaw

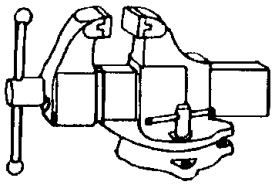
1/4 to 6 inch diameter pipe range.

00-293-0110$_{NP}$ 6 x 8 in. jaw

VISE, MACHINIST'S

Machinist's bench vise with 360 degree swivel base. Replaceable main jaw facings. Hardened Steel sliding member. Jaw width and jaw opening size in inches as noted. Fed Spec GGG-V-410.

Stationary jaws.



00-180-0681$_{NP}$ 3 x 4
00-293-1439$_{NP}$ 4 x 6
00-221-1117$_{NP}$ 5 x 8
00-223-1945$_{NP}$ 6 x 9

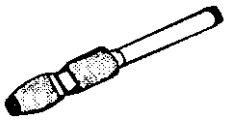
VISE, MULTIPOSITION

Light-duty work positioner. For manufacture and repair of electronic and mechanical parts and assemblies. 2-1/2 inch jaw width, 2-1/4 inch jaw opening. Work holding head swivels 360 degrees horizontally, and tilts 90 degrees downward from normal level position. Locks in any position. Replaceable jaw faces. Fed Spec GGG-V-410.

00-991-1907$_{NP}$

VISE PIN

Single-chuck pin vise with metal handle. For hand or machine use. Chrome or Nickel Plated Steel. Hole extends full-length through knurled handle. Lets chuck hold files, taps, drills, etc, securely. Chuck capacity range as noted. Fed Spec GGG-V-412.



	Chuck Cap. Rng
00-243-1349$_{NP}$	.045 to .125

Non-Spec type. Metal handle. 1st end chuck capacity, 0 to .059 inches. 2nd end chuck capacity, .046 to .081 inches.

00-595-8467$_{NP}$

WEDGE, JOINT BREAKING

Hardened Steel jointing and breaking wedges. For machine shop and ship construction work. Fed Spec GGG-W-201.

	Lg	W	Thk
00-224-9486$_{NP}$	6	1-1/2	3/4
00-224-9487$_{NP}$	10	2	2

Non-sparking, nonmagnetic flange wedge. Double taper style, 8 inch length overall.

00-223-8870$_{NP}$

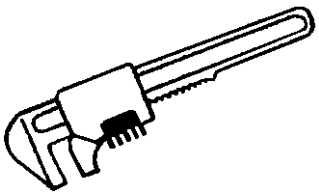
WEDGE, TOOL HANDLE

Metal tool handle wedges. Locks tool heads securely and prevents splitting. Nominal size as noted. Fed Spec GGG-W-181.

00-278-7591$_{NP}$ 1-1/4 13/16 3/16

WRENCH, ADJUSTABLE

Adjustable auto wrench. Steel or malleable Iron. Nominal length and minimum jaw opening capacity as shown. Fed Spec GGG-W-631.

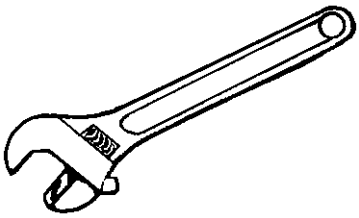


	Lg	Cap
00-242-3254$_{NP}$	9	2-1/2
00-473-6476$_{NP}$	11	2-3/4
00-264-3793$_{NP}$	15	3-5/8

Adjustable monkey wrench. Steel or Iron. Nominal length and jaw opening capacity. Nonmagnetic and nonsparking. Fed Spec GGG-W-631.

	Lg	Cap
00-240-5336	12	2-1/8

Adjustable open-end wrench with 22-1/2 degree head. Rack and worm adjustment. Nominal length and minimum jaw opening, capacity shown.



Forged Steel, heavy-duty. Bright Chrome or Nickel-Plated finish. Polished head. Fed Spec GGG-W-631.

	Lg	Cap
00-240-5330$_{NP}$	4	.510
00-264-3795$_{NP}$	6	.760
00-240-5328$_{NP}$	8	.947
00-449-8083$_{NP}$	10	1.135
00-264-3796$_{NP}$	12	1.322
00-423-6728$_{NP}$	15	1.698
00-240-1414$_{NP}$	18	2.062
00-449-8084$_{NP}$	24	2.438

Nonsparking, nonmagnetic wrenches. Beryllium Copper. Mil Spec Mil-W-17912.

	Lg	Cap
00-278-0340$_{NP}$	6	.076
00-293-0031$_{NP}$	8	.947
00-278-0341$_{NP}$	10	1.135
00-264-3794$_{NP}$	12	1.322
00-293-0008$_{NP}$	15	1.698

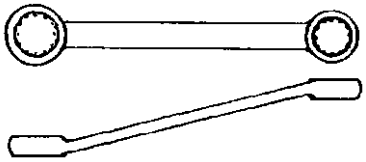
WRENCH, BOX

Aluminum single head straight. Oval wrenching surface, non sparking. Wrenching end has two 1/4 inch wide slots and one 25/32 inch diameter hole in handle. Used to open and close Oxygen valves.

00-097-4136 4-15/16

Fixed box-end wrenches. Polished heads. 12 point (wrenches 7/16 inch or smaller, may be

either 6 or 12 point). Wrench opening sizes and minimum length shown. Fed Spec GGG-W-636.



15 degree offset, each end. Chrome Plated forged Steel.

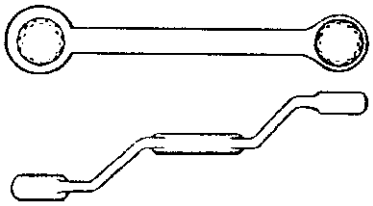
Regular length

	1st End	2nd End	Lg
00-888-8007$_{NP}$	1/4	5/16	7-3/8
00-224-3146$_{NP}$	3/8	7/16	7-13/32
00-596-8556$_{NP}$	7/16	1/2	7-1/2
00-277-3364$_{NP}$	1/2	9/1/6	8-5/16
00-224-3148$_{NP}$	9/116	5/8	9-1/16

Nonsparking, nonmagnetic wrenches. Mil Spec Mil-W-19928.

	1st End	2nd End	Lg
00-277-5781$_{NP}$	7/16	1/2	7-1/2
00-274-9653$_{NP}$	1/2	9/16	8-1/2
00-274-9655$_{NP}$	9/16	5/8	9
00-274-9658$_{NP}$	3/4	7/8	12

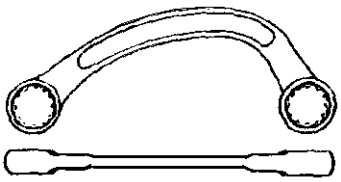
Deep, double-offset, each end. Chrome-Plated, forged Steel. Fed Spec GGG-W-636.



Regular length

	1st End	2nd End	Lg
00-224-3135$_{NP}$	3/8	7/16	8
00-287-4527$_{NP}$	7/16	1/2	8-5/16
00-224-3136$_{NP}$	1/2	9/16	8-9/16
00-224-3141$_{NP}$	5/8	11/16	10-5/32
00-288-9302$_{NP}$	5/8	3/4	10-9/32
00-222-1599$_{NP}$	3/4	13/16	11-3/4

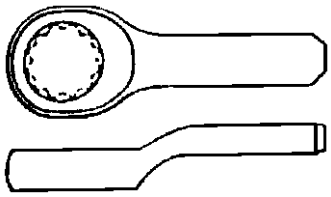
Half-moon (starter wrench). Polished double heads. 12 point. Chrome-Plated, forged Steel. Fed Spec GGG-W-636.



	1st End	2nd End	Lg
00-184-8631$_{NP}$	7/16	1/2	5-3/4

	1st End	2nd End	Lg
00-222-1596$_{NP}$	9/16	5/8	6-1/2

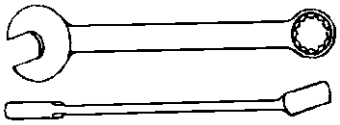
Single-head slugging wrench. One end with 12-point box, other end with slugging surface. Forged Steel. Fed Spec GGG-W-636.



	Size	Lg
00-174-1831$_{NP}$	1-1/4	6
00-174-1834$_{NP}$	1-1/2	6
00-222-1594$_{NP}$	1-5/8	7
00-222-1595$_{NP}$	1-11/16	7
00-222-1601$_{NP}$	1-7/8	7
00-224-3112$_{NP}$	2-3/8	8-7/16

WRENCH, BOX AND OPEN END COMBINATION

Combination wrench. Box-end offset 15 degrees, 12-point (wrenches 7/16 inch and smaller may be either 6 or 12 point). Identical wrench opening size on both ends. Polished heads, Chrome Plated. Fed Spec GGG-W-636.



	Size	Lg
00-288-9997$_{NP}$	1/4	3
00-142-5357	1/4	4
00-288-9671$_{NP}$	9/32	3-9/32
00-228-9503	5/16	3-1/4
00-278-0342$_{NP}$	11/32	3-1/4
00-228-9504$_{NP}$	3/8	4-3/16
00-228-9505$_{NP}$	7/16	5
00-935-7370	7/16	6
00-228-9506$_{NP}$	1/2	5-1/4
00-228-9507$_{NP}$	9/16	5-3/4
00-935-7372	9/16	7-1/8
00-228-9508$_{NP}$	5/8	6-1/8
00-228-9509$_{NP}$	11/16	7
00-228-9510$_{NP}$	3/4	8
00-228-9511$_{NP}$	13/16	10-1/4
00-228-9512$_{NP}$	7/8	10-1/4
00-228-9513$_{NP}$	15/16	12
00-228-9514$_{NP}$	1	12-1/2
00-228-9515$_{NP}$	1-1/16	14
00-228-9516$_{NP}$	1-1/8	14-1/2
00-228-9517$_{NP}$	1-1/4	16

WRENCH, DRAIN PLUG

Operates deck drain valves. NSN's 4510-00-273-1077 through 4510-00-273-1084. T-handle, 4-15/16 inches long, 27/64 inches square male drive-end. Galvanized Steel.

00-030-2738$_{NP}$

WRENCH, IMPACT, MANUAL

Steel, Chrome Plated. 5-3/8 inches long overall. Width 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, and 3/4 inches. Hexagon socket: 3/16, 7/32, 1/4, 5/16, and 3/8 inches. Hexagon drive each, with extra bit. Clutch drive: 19/64 and 3/8 inch; Phillips number: 2, 3, and 4 drive, each with extra bit. Number 4 long Phillips drive with extra bit; 11/16 inch screwdriver; 1/4, 5/16, and 3/8 inch screwdrivers, each with extra bit. 3 extra roll pins. Metal storage box. Non-Spec.

00-724-2145$_{NP}$

WRENCH, OPEN END

Fixed open-end wrenches. Forged Steel, except as noted. Wrench opening size and minimum length in inches shown below. Fed Spec GGG-W-636.

Double head engineer's wrench. 15 degree openings milled to close tolerance. Polished heads, Chrome or Nickel-Plated.

	Wrench-Sizes		Lg
00-277-4835$_{NP}$	5/32	3/16	2-1/2
00-293-2121$_{NP}$	3/16	1/4	3
00-228-9527$_{NP}$	3/16	1/4	3
00-277-2311$_{NP}$	1/4	5/16	3
00-277-2342$_{NP}$	3/8	7/16	4-1/8
00-187-7123$_{NP}$	7/16	1/2	5
00-187-7124$_{NP}$	1/2	9/16	5-3/8
00-277-4833$_{NP}$	1/2	9/16	7-3/4
00-187-7126$_{NP}$	9/16	5/8	6
00-277-9517$_{NP}$	9/16	3/4	6
00-277-8301$_{NP}$	5/8	11/16	7
00-224-3102$_{NP}$	5/8	3/4	7
00-277-8299$_{NP}$	11/16	3/4	7
00-187-7129$_{NP}$	3/4	13/16	8
00-187-7130$_{NP}$	13/16	7/8	8-1/4
00-187-7131$_{NP}$	7/8	15/16	9
00-277-7025$_{NP}$	15/16	1	10
00-187-7133$_{NP}$	1	1-1/8	10-3/4
00-187-7134$_{NP}$	1-1/16	1-1/4	11-3/4
00-277-2694$_{NP}$	1-1/8	1-1/4	11-3/4
00-184-8438$_{NP}$	1-1/8	1-5/16	12
00-277-9818$_{NP}$	1-1/2	1-3/4	16-1/2

Nonsparking, nonmagnetic, double head engineer's wrench. 15 degree opening. Mil Spec Mil-W-19928.

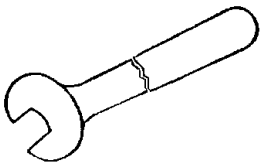
	Wrench-Sizes		Lg
00-066-0242$_{NP}$	5/16	11/32	3-1/2
00-184-8548$_{NP}$	7/8	15/16	9
00-184-8549$_{NP}$	1	1-1/8	10-1/2

Double-head ignition wrenches. Chrome and Nickel-Plated forged Steel, polished heads.

15 degree and 60 degree spearheads. 3 to 3-1/2 inches long.

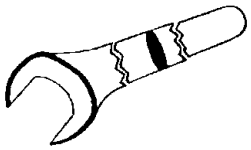
	Wrench-Sizes	
00-277-8308$_{NP}$	7/32	1/4
00-277-8311$_{NP}$	9/32	5/16
00-277-8313$_{NP}$	11/32	3/8

15 degree single head engineer's wrench. 1-1/2 inch and smaller wrenches with flared handles. Larger sizes with tapered handles. Fed Spec GGG-W-636.



	Size	Lg
00-277-1258$_{NP}$	5/8	6-1/4
00-277-1254$_{NP}$	15/16	9-1/8
00-277-1247$_{NP}$	1-5/16	11-7/8

30 degree head, 6-1/4 to 6-7/8 inches long.



1/4 inch thick head

	Size
00-203-4813$_{NP}$	15/16
00-203-4811$_{NP}$	1-1/16
00-203-4810$_{NP}$	1-1/8
00-203-4809$_{NP}$	1-3/16
00-203-4808$_{NP}$	1-1/4

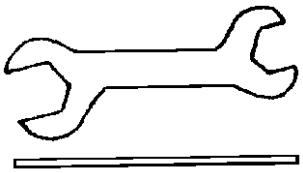
9/32 inches thick head, 7-5/8 inches long.

	Size
00-203-4807$_{NP}$	1-5/16
00-203-4806$_{NP}$	1-3/8
	Size
00-203-4804$_{NP}$	1-1/2
00-203-4802$_{NP}$	1-5/8

5/16 inches thick head, 8-1/2 inches long.

	Size
00-203-4801$_{NP}$	1-3/4
00-203-4800$_{NP}$	1-13/16
00-203-4799$_{NP}$	1-7/8
00-203-4797$_{NP}$	2

Double-headed thin Aluminum Alloy-heads 1/8 inches thick. Large head angle. 0-degrees. Small head angle 38 degrees. Wrenching surface sizes and overall length shown. With NAVORDSYSCOM Reference Number.



	Size	Lg	Ref No.
00-488-0440$_{NP}$	3/8	5	3000435
00-488-0441$_{NP}$	1/2	5	3000434

WRENCH, OPEN END BOX

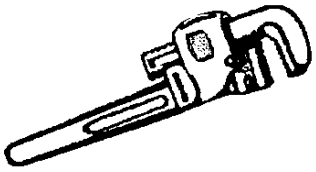
Flare-nut wrench. Single head, modified 12-point, open end wrench opening. Chrome Plated forged Steel, polished heads. Fed Spec GGG-W-636.

	Size	Lg
00-224-3156$_{NP}$	7/16	6-1/2
00-224-3157$_{NP}$	1/2	6-7/8
00-224-3158$_{NP}$	9/16	6-7/8
00-224-3159$_{NP}$	5/8	7-1/8
00-224-3160$_{NP}$	11/16	7-1/8
00-224-3161$_{NP}$	3/4	7-1/2
00-224-3164$_{NP}$	15/16	7-3/4
00-224-3103$_{NP}$	1	7-7/8
00-224-3104$_{NP}$*	1-1/16	7-7/8
00-224-3105$_{NP}$	1-1/8	7-7/8

* Ratcheting type.

WRENCH, PIPE

Heavy-duty, adjustable-jaw pipe wrenches. With hardened-Steel replaceable jaw insert. Size (opened-length) and pipe size capacity range, as noted. Fed Spec GGG-W-651.



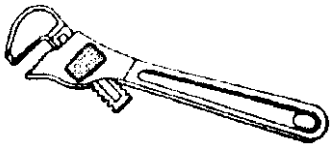
Drop-forged Steel, cast malleable Iron, or Steel.

	Size	Range
00-277-1483$_{NP}$	6	1/8 to 1/2
00-277-1484$_{NP}$	8	1/4 to 3/4
00-277-1485$_{NP}$	10	1/4 to 1
00-277-1486$_{NP}$	14	1/2 to 1-1/2
00-277-1461$_{NP}$	18	1 to 2
00-277-1462$_{NP}$	24	1-1/2 to 2-1/2
00-270-4309$_{NP}$	36	2-1/2 to 3-1/2

Forged Aluminum Alloy.

	Size	Range
00-277-1477$_{NP}$	10	1/4 to 1
00-277-1478$_{NP}$	14	1/2 to 1-1/2
00-277-1479$_{NP}$	18	1 to 2
00-277-1480$_{NP}$	24	1-1/2 to 2-1/2

Angle style adjustable-jaw pipe wrench. 25 degree jaw opening. For general purpose use, in confined quarters. Drop forged Steel. Fed Spec GGG-W-651.



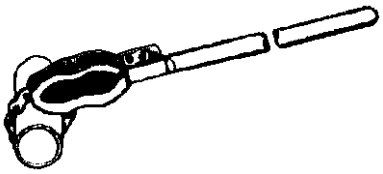
	Size	Range
00-269-7966$_{NP}$	10	1/4 to 1
00-269-7965$_{NP}$	14	1/2 to 1-1/2

All-purpose holding tool with, 19 inch chain. For plumbing, heating, and automotive work. Will not slip or mar work. Adjusts for ratcheting action.

9-1/2 inches long, 5.563 inch IPS capacity.

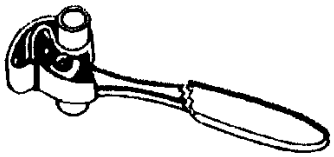
00-889-2050$_{NP}$

Chain wrench for pipe only. Steel handle with double-ended reversible jaws, and flat-link chain. Fed Spec GGG-W-651.



	Size	Range
00-240-1411$_{NP}$	22-1/2	3/4 to 4
00-240-1410$_{NP}$	43	1 to 6

Pipe strap wrench. One piece "I" beam handle with web strap. Will not damage finish of Nickel or Chrome Plated pipes and tubing. Fed Spec GGG-W-651.

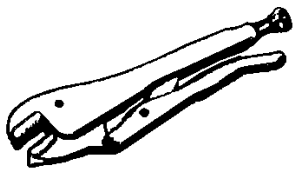


	Size	Range
00-242-3249	12	1/8 to 2
00-262-8491	18	1 to 6

WRENCH, PLIER

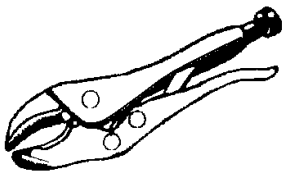
Locking plier-wrenches. Finger tip release unlocks adjustable jaws. Forged-Steel serrated jaws. Nominal size and max jaw opening (tip to tip) in inches. Fed Spec GGG-W-649.

Two straight jaws



	Size	Jaw Opening
00-277-4243$_{NP}$	7	1-1/2
00-277-4244$_{NP}$	8-1/2	1-3/4

Curved jaw with cutter



	Size	Jaw Opening
00-965-0604$_{NP}$	5-1/2	1-1/8
00-494-1910$_{NP}$	7	1-1/2
00-494-1911$_{NP}$	8-1/2	1-7/8

WRENCH, RATCHET

Double box-head ratchet wrenches. 6 or 12 point ratchet sockets allow short strokes in close working spaces. Cadmium, Chrome, or Nickel-Plated. Wrench opening sizes and minimum length shown below. Fed Spec GGG-W-1405.

Reversing mechanism in heads. Turns in right or left direction.

	Wrench	Size	Lg
00-831-1055$_{NP}$	1/4	5/16	3-3/4
00-831-1054$_{NP}$	3/8	7/16	5-1/4
00-831-1053$_{NP}$	1/2	9/16	6-1/2
00-831-1051$_{NP}$	5/8	3/4	7-3/4
00-831-1052$_{NP}$	11/16	7/8	8-5/8

For refrigeration and air conditioning work. 6 inches long tool with 1/4 inch square opening. 3/16 inch square opening through handle, and 1/2 inch hexagon opening. Chrome-Plated Steel. Fed Spec GGG-C-744.

00-221-7980$_{NP}$

Steel overall straight single head. 12 point internal wrenching surface. .440 inch head thickness.

	Size	Lg
00-777-2782	7/8	9

Steel overall straight single head. .312 inch head thickness. Hexagon single end internal wrenching surface. Reversible ratchet.

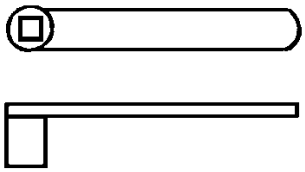
	Size	Lg
01-070-9208	1-1/4	16

Thin head ratchet wrenches. Reversing mechanism in handle. Malleable Iron and Steel. Black Oxide and phosphate, and lacquered finish. Square socket size and nominal length, in inches. Fed Spec GGG-W-653.

	Size	Lg
00-288-9999$_{NP}$	3/8	10
00-289-0000$_{NP}$	1/2	10
01-160-1311$_{NP}$	5/8	13

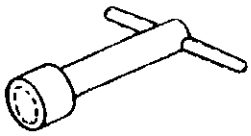
WRENCH, SOCKET

Single socket offset-square single end. Internal wrenching surface shape. Copper Alloy, 1-3/8 inch overall length. .231 inch offset height. .079 wrenching size.



00-133-2144$_{NP}$

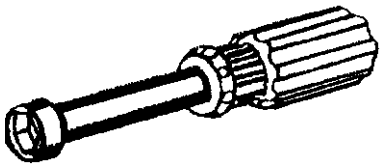
Single socket wrench with removable "T" handle. Socket size, shape, and length in inches, as noted. Fed Spec GGG-W-641.



	Size	Lg
00-227-7379$_{NP}$	25/64 hex	4-1/4
00-227-7382$_{NP}$	1/2 hex	5-1/4
00-227-7387$_{NP}$	3/4 hex	6-1/8
00-227-7393$_{NP}$	1-1/64 hex	7-3/4

Single-socket spinners (nut drivers). Plastic screwdriver handle. Chrome-Plated Steel shaft with hexagonal (6-point) socket opening. Size and minimum overall length noted below. Fed Spec GGG-W-641.

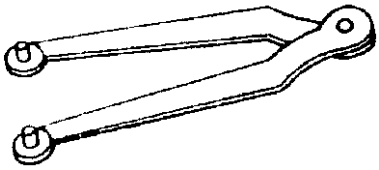
Conventional size with plain grip.



	Size	Lg
00-224-2599	3/16	6
00-277-1801	7/32	6
00-241-3188	1/4	6
00-224-2596	5/16	6
00-293-0796	11/32	6
00-596-1263	3/8	6-1/2
00-222-1499	7/16	7
00-294-9514	9/16	7

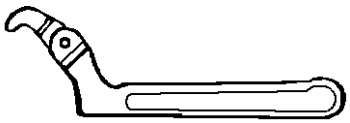
WRENCH, SPANNER

Adjustable face pin spanner wrench. Maximum capacity (Center to Center). Pin diameter and overall length as noted. Fed Spec GGG-W-665.



	C to C	Pin Dia	Lg
00-288-8746$_{NP}$	2	3/16	6-3/8
00-293-0798$_{NP}$	3	1/4	8-1/4
00-264-3777$_{NP}$	4	5/16	10-3/8

Adjustable hook wrench, with fixed pivot-point. Circle diameter range and hook thickness as noted. Fed Spec GGG-W-665.

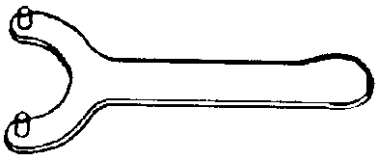


	Range	Thk
00-288-6468$_{NP}$	3/4 to 2	11/32
00-293-0406$_{NP}$	1-1/4 to 3	3/16
00-277-9075$_{NP}$	1-1/4 to 3	13/32
00-277-9076$_{NP}$	2 to 4-3/4	15/32
00-277-9077$_{NP}$	4-1/2 to 6-1/4	15/32

Nonsparking, nonmagnetic, adjustable hook wrench. 2-1/2 to 6 inch circle diameter range. 9/16 inches thick hook, 12 inches long. Beryllium-Copper. Mil Spec Mil-W-23514.

00-494-1989$_{NP}$ For 1-1/2 to 4 inch hose coupling

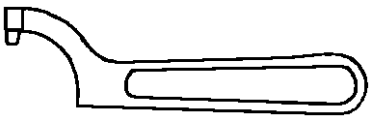
Nonadjustable face, pin spanner wrench. Single working end. 180 degree angle between pins. Pin diameter and overall length shown in inches. Fed Spec GGG-W-665.



	C to C	Pin Dia	Lg
00-152-2437$_{NP}$*	15/16	1/8	3-3/16

* Non Spec Item.

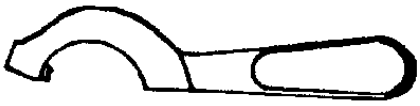
Nonadjustable, Pin-type spanner wrench. Fed Spec GGG-W-665.



	C to C/In.	Pin Dia/In.	Lg/In.
00-288-8743$_{NP}$	1-1/2	7/32	5
00-288-8744$_{NP}$	2-1/2	9/32	7

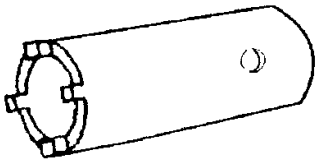
	C to C/In.	Pin Dia/In.	Lg/In.
00-277-9078$_{NP}$	3	5/16	8

Nonadjustable, iron pin type spanner wrench. Circle diameter, pin diameter, and overall length noted in inches.



	C to C/In.	Pin Dia/In.	Lg/In.
00-595-9183$_{NP}$	2-1/2	23/64	10-3/4

Tubular-type with 3/4 inch diameter handle hole. Black-lacquered Steel tubing. 4-15/16 inches long. 1.660 inch outside diameter, 1-3/8 inch opening diameter. Working end with 4-lugs, spaced 90 degrees apart on center. Lug widths 5/32 inches.

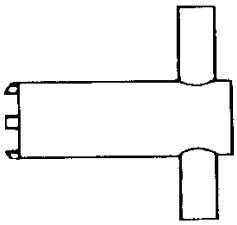


00-152-2418$_{NP}$

Tubular-type with removable handle. Steel tubing 2-1/2 inches long, opening diameter 43/64 inches. Lug width 1/8 inches. Handle hole diameter 1/4 minimum through 3/8 maximum.

00-469-1856$_{NP}$

Tubular lug-type. Steel composition with surface treatment. 2-1/2 inches long by 1-7/8 inches wide. 1-1/2 inch opening diameter, 90 degree angle between. 5/32 inch lugs. Handle is 8 inches long by 3/8 inches in diameter.



00-596-1353$_{NP}$

Tubular-type with integral drive handle. Chrome Nickel plated Steel tubing. 2-1/2 inches long. Working end with 4-lugs spaced 90 degrees apart on center.

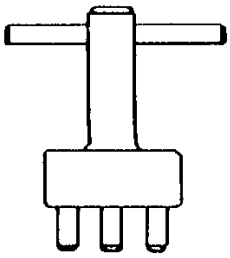
1/8 inch lug width, 7/64 inch lug length. 1-1/8 inch outside diameter, 7/8 inch inside diameter. 5 inch long handle.

00-596-1355$_{NP}$

5/32 inch lug width, 1/8 inch lug length. 1-5/8 inch outside diameter. 6 inch long handle.

00-596-1354$_{NP}$

Tubular pin-type. With 90 degree angle between 5/16 inch diameter pins on a 3.400 inch circle. Handle is 13-3/4 inches long.

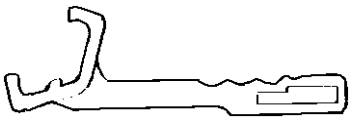


00-212-3862$_{NP}$

Universal hose coupling spanner wrench. For use on pin-lug, guard-lug, rocker-lug, and other type couplings. For 1 to 3 inch hoses. Steel or Aluminum-alloy. 1200 inches/pound torque capacity. 8 ounce weight. 11 inches long overall. Fed Spec GGG-W-665.

00-293-1602$_{NP}$

Universal hose coupling spanner wrench. Use on pin-lug, guard-lug, rocker-lug, Navy slot, and other couplings. For hoses 1-1/2 to 3-1/2 inches in diameter, 11 inch overall length.



00-018-1519$_{NP}$

WRENCH, SPUD CLOSET, INTERNAL, ADJUSTABLE

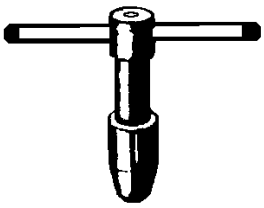
Steel, Cadmium Plated. Fits all sizes of closet spuds, sink strainers, and bath shoes.

00-511-1432$_{NP}$

WRENCH, TAP AND REAMER

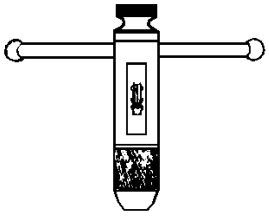
Adjustable tap and reamer wrenches. Hardened Steel jaws. Size and tap-holding capacity as shown below. Fed Spec GGG-W-680.

Solid body with sliding T-handle.



	Size	Range
00-277-4069$_{NP}$	1	0 to 1/4
00-289-0534$_{NP}$	2	1/4 to 1/2

Ratcheting body with sliding “T” handle.



	Size	Range
00-517-5347$_{NP}$	1	0 to 1/4

Straight type, with two handles. One handle: size 0 wrench with knurled adjusting screw and 3/32 inch diameter through hole.

	Size	Range
00-357-9168$_{NP}$	0	0 to 1/4
00-277-4063$_{NP}$	1	1/16 to 1/4
00-277-4064$_{NP}$	2	8 to 1/2
00-289-0539$_{NP}$	4	8 to 3/4
00-289-0537$_{NP}$	5	1/4 to 1-1/8

WRENCH, TORCH AND REGULATOR

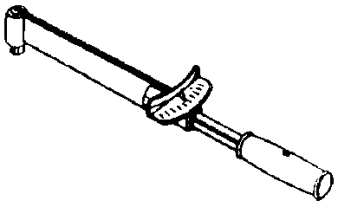
8-5/8 inches long torch and regulator wrench. 6 way wrench with boss or opening for acetylene cylinder valve. One end with 7/16, 11/16, and 1 inch openings; other end with 3/4, 7/8, and 1-1/8 inch wrench openings.

00-494-1929$_{NP}$

WRENCH, TORQUE

Torque wrench handles with square drive-tang. Measures or applies torque to bolts, nuts, and cap screws in mechanical assemblies. Chrome-Plated finish. Metal carrying case included. Torque capacity range and drive size shown below. Fed Spec GGG-W-686.

Deflecting beam with direct-read indicator plate. Plain head end drive. Measures in both directions.

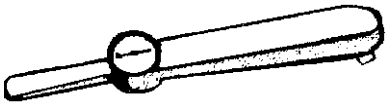


	In./lbs	Size
00-618-4433	0-10	1/4
00-900-1283	0-120	1/4
00-585-7706	0-120	3/8

	In./lbs	Size
00-853-4538	0-200	3/8
00-247-2536	0-300	1/2

	Ft/pounds	Size
00-247-2540	0-150	1/2

Rigid case with direct-reading indicator dial. Rigid frame end drive. Measures in both directions.



	In./lbs	Size
00-839-8139	0-30	1/4
00-585-8434	0-75	1/4
00-230-6380	0-150	3/8
00-776-1841	0-300	3/8
00-288-8865	0-600	3/8

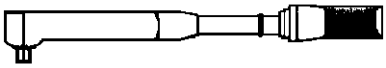
	Ft/lbs	Size
00-242-3264	0-50	3/8
00-113-4959	0-100	1/2
00-165-3930*	0-100	1/2
00-640-6364	0-175	1/2
00-640-6365	0-250	1/2
00-221-7983	0-600	3/4
00-555-1521	0-1000	1

* Visual signal.

Rigid case with indicating dial. Ratchet reversible head R-H torqueing. With memory indicator.

	In./lbs	Size
00-117-3428	0-75	1/4
00-228-0517	0-75	3/8
01-075-2597	0-150	3/8

Rigid frame with micrometer-adjustable presetting and audible (slip-clutch) signal. End drive, R-H torque measuring.



Plain head, nonratcheting.

	In./lbs	Size
01-034-5033*	100-1000	3/8

* Audible signal.

Reversible ratchet head.

	In./lbs	Size
01-092-3278*	30-200	3/8

* Audible signal.

Screwdriver type. Adjustable and nonmagnetic. Consists of a handle with a socket and a device for automatic release when preset torque is reached. Torque is indicated in RH and LH directions. Dial is graduated in 2 inch/pound increments. Mil Spec Mil-W-26497.

	In./lbs	Size
00-923-9620*	5-30	1/4
00-021-2041	5-36	1/4
00-943-0941	1-100	1/4

* 1 inch/pound increments.

Non-Spec type

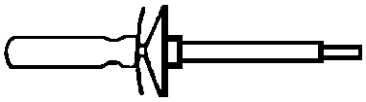
Micrometer end drive type. 6 inches long overall. Preset fixed torque indicating mechanism. Audible signal. Furnished with: 1 open end, head-size 1/4 inch hexagon; 1 open end, head size 5/16 inch hexagon.

	In./lbs	Size
00-169-5776$_{NP}$	8	5/16

Micrometer end drive type. 11-1/2 inches long overall. Preset-fixed torque indicating mechanism. Audible signal. Reversible ratchet. Insulated handle.

	In./lbs	Size
01-036-8942	525	3/8

Screwdriver type. 8-1/4 inches long overall. Square single end internal drive end shape. Visual dial indicating mechanism. 1 inch/pound graduations. With: Number 2 Phillips bit, 1/4 inch flat tip bit, and 1/4 inch square male adapter.



	In./lbs	Size
00-568-4742	0-25	1/4

WRENCH SET, BOX

12-point box-end wrenches in rolls. Deep double-offset each end, regular length. Chrome or Nickel-Plated forged Steel. Fed Spec GGG-W-636.

5-Piece set. Opening size: 3/8 by 7/16, 1/2 by 9/16, 5/8 by 11/16, 3/4 by 7/8, 15/16 by 1. Fabric roll.

00-293-3453

WRENCH SET, COMBINATION BOX AND OPEN END

Combination 15 degree offset box-end and open-end wrenches in rolls. Identical wrench opening size each end. 12-point box (wrenches 7/16 inches and smaller may be 6 to 12 point). Chrome or Nickel-Plated forged Steel, Plastic, or fiber rolls. Fed Spec GGG-W-636.

9-Piece set. Chrome Plated, 6-Point box opening, 15 degree offset. Sizes: 1/8, 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, and 3/8 inches. Fed Spec GGG-W-636.

00-148-9488

9-Piece set. Sizes and lengths noted in millimeters: 10 by 132.7, 11 by 136.3, 12 by 139.9, 13 by 145.5, 14 by 151.6, 15 by 155.3, 16 by 160, 17 by 162.3, and 18 by 170.6.

00-935-7333

12-Piece set. Sizes: 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch. Lengths from 3-1/4 to 12-1/2 inches.

00-148-7917

Non-Spec type

Combination 15 degree offset box-end. 12 point and open-end wrenches in rolls with individual pockets.

6-Piece set Sizes: 7/16, 1/2, 9/16, 5/8, 11/16, and 3/4 inches. Lengths from 5 to 8 inches.

00-148-9489

9 Piece set. Sizes and length noted in inches: 5/16 by 5-7/8, 11/32 by 6-1/4, 3/8 by 6-9/16, 7/16 by 7-3/32, 1/2 by 7-21/32, 9/16 by 8-5/16, 5/8 by 8-13/16, 11/16 by 9-1/4, 3/4 by 9-3/4.

00-935-7310

13 Piece set. 6 point flank drive. Sizes: 5/16, 11/32, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch wrenches.

01-161-1915

WRENCH SET, COMBINATION BOX AND OPEN END BOX

11 Wrenches. For tube-fittings and stuffing gland nuts. Non-distortion box and 30 degree angle open-end box heads with 12-point openings. Identical sizes each end. Chrome or Cadmium Plated Steel, polished heads. Fabric roll included. Sizes in inches: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 7/8, 15/16, 1, and 1-1/8. Lengths 5-1/4 to 12-3/4 inches. Fed Spec GGG-W-645.

00-895-9566

WRENCH SET, CROWFOOT, RATCHETING

29 piece set. Includes metal box with 2 hinged handles of malleable Iron and Steel. The following pieces are Steel: 5 multipurpose open ratchet heads; 20 sockets, Size: 1-1/32, 1-1/18, 1-1/4, 1-3/8, 1-7/16, 1-21/32, 1-25/32, 1-7/8, 1-15/16, 2-3/16, 2-1/4, 2-11/32, 2-15/32, 2-13/16, 2-31/32, 3-3/32, 3-9/32, 3-7/16, 3-9/16, and 3-3/4 inches. 3/8 and 1/2 inch square drive with standard wall, octagonal sockets. Fed Spec GGG-W-646.

00-293-0013$_{NP}$

WRENCH SET, OPEN END, FIXED

Fixed open-end wrenches in rolls. Polished double heads, Chrome, or Nickel-Plated Steel. Fabric or Plastic roll included. Fed Spec GGG-W-636.

Engineer's wrenches, 15 degree heads.

5 Piece set. 1st and 2nd end and length in inches. Sizes: 3/16 by 7/32 by 2-1/4, 1/4 by 9/32 by 3, 5/16 by 11/32 by 3-5/8, 3/8 by 7/16 by 4-1/8, and 13/32 by 15/32 by 4-1/8.

00-449-8128

5 Piece set. With single-head offset jewelers screwdriver type handle-wrenches, interchangeable. Sizes: 5/64, 3/32, 7/64, 1/8, and 5/32. With case. Non-Spec item.

00-829-7691

Ignition wrench sets.

8 Piece set. Ignition wrenches, double spear head. Two wrenches for each size. One 15 degrees by 60 degrees. The other 60 degrees by 15 degrees. Sizes: 13/16 by 15/64, 15/64 by 13/64, 7/32 by 1/4, 1/4 by 7/32, 9/32 by 5/16, 5/16 by 9/32, 11/32 by 3/8, 3/8 by 11/32 inches. Lengths 3 to 3-3/4 inches. Bright Chrome Plate. Suitable for hexagonal and square-headed bolts and nuts. Fed Spec GGG-W-636.

00-962-7580

6 Piece METRIC open end set. Drop forged Alloy Steel. Chrome-Plated, polished 15 degree heads. Set includes sizes: 6x8, 7x9, 10x11, 12x14, 13x15, and 17x19 MM in Plastic roll.

00-906-0168

WRENCH SET, RATCHET

11 nonreversible ratchet wrenches in vinyl roll. Heavy-duty Chrome-Vanadium forged Steel jaws, Chrome-Plated Steel handle. Set includes one each of the following sizes: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1 inch.

00-474-7227

WRENCH SET, SOCKET

Mechanics socket wrench sets in metal cases. Chrome or Nickel-Plated components in enameled sheet-Steel partitioned boxes. Fed Spec GGG-W-641.

1/4 inch SQUARE DRIVE

13 Piece set. Includes the following:(4) regular length 6-point (hex) sockets. Sizes: 3/16, 7/32, 1/4, and 9/32
(5) regular length 12-point sockets. Sizes: 5/16, 11/32, 3/8, 7/16, and 1/2
(1) reversible ratchet handle, 4-1/2 inches long.
(1) Spin type speeder handle, 6 inches long.
(1) universal joint
(1) solid extension bar, 2 inches long.

00-081-2305

14 Piece set. Includes the following:(7) Socket wrenches (6 point) 6, 7, 8, 9, 10, 1,1 and 12 MM
(4) Handles
(a.) 1/4 inch square drive reversible ratchet
(b) hinged spreader
(c) screwdriver grip
(d) tee
(1) Universal joint
(1) Bar extension, 2 inch.
(1) Bar extension, 6 inch.

01-067-5011

Nonmagnetic, nonsparking socket wrench set. 10 components in fitted case include:

(4) 6-point sockets, 3/16, 7/32, 1/4, and 9/32
(4) 12-point sockets, 5/16, 11/32, 3/8, and 7/16
(1) 4 inch reversible ratchet handle and a 4 inch extension bar. All 1/4 inch square drive.

00-542-2428

3/8 INCH SQUARE DRIVE

8 Piece set. Universal joint hex sockets. Sizes: 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, and 3/4. Fed Spec GGG-W-641.

00-935-7309$_{NP}$

13 Piece set. Single hexagon (6-point). Chrome Plated. Socket Sizes 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, and 1. Fiberboard box.

00-247-0748$_{NP}$

20 Piece set. Includes the following:(1) hinged handle, 8-1/2 inches long.
(1) reversible ratchet handle, 6 inches long.
(1) brace type speeder handle, 16 inches long.
(1) universal joint
(1) sliding ″T″ handle, 7 inches long.
(3) solid extension bars 3, 6, and 12 inches long.
(1) 12-point, 2-1/2 inch long socket.
(11) standard, 12-point sockets in millimeters. Sizes: 9,10,11,12,13,14,15,16,17,18, and 19.

00-935-7315$_{NP}$

23 Piece set. Includes the following:(1) hinged handle, 8-1/2 inches long.
(1) reversible ratchet handle, 6 inches long.
(1) brace-type speeder handle, 16 inches long.
(1) universal joint
(2) universal joint sockets, 1/2 and 9/16.
(2) solid extension bars, 5 and 12 inches long.
(8) regular 12-point sockets: 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, and 13/16
(7) deep 12-point sockets: 1/2, 9/16, 19/32, 5/8, 11/16, 3/4, and 13/16 inch sizes

00-322-6231$_{NP}$

1/2 INCH SQUARE DRIVE

20 Piece set. Includes the following:(13) regular 12-Point sockets. Sizes: 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1-1/16, 1-1/8, and 1-1/4
(3) solid extension bars: 2, 5, and 10 inches long
(2) hinged handles, 9 and 14-1/2 inches long.
(1) reversible ratchet handle, 9 inches long.
(1) universal joint

00-081-2307$_{NP}$

3/4 IN. SQUARE DRIVE

21 Piece Set. Includes the following:(1) hinged handle
(1) ratchet handle
(1) sliding ″T″ handle
(1) universal joint
(3) solid extensions 3, 8. and 16 inches long
(14) double hex regular length sockets. Sizes in inches: 7/8, 15/16, 1, 1-1/16, 1-1/8, 1-1/4, 1-5/16, 1-7/16, 1-1/2, 1-9/16, 1-5/8, 1-13/16, 1-7/8, and 2. Fed Spec GGG-W-641.

00-204-1999$_{NP}$

1 INCH SQUARE DRIVE

27 Piece set. Includes the following:(1) hinged handle
(1) ratchet handle
(1) sliding ″T″ handle
(2) extensions, 8 and 17 inches long
(22) double hex regular length sockets. Sizes in inches: 1-1/2, 1-5/8, 1-11/16, 1-3/4, 1-13/16, 1-7/8 1-15/16, 2, 2-1/8, 2-3/16, 2-1/4, 2-5/16, 2-3/8, 2-7/16, 2-1/2, 2-9/16, 2-5/8, 2-3/4, 2-13/16, 2-15/16, 3, and 3-1/8. Fed Spec GGG-W-641.

00-081-2309$_{NP}$

SPINNER TYPE (nut-drivers)

7 Piece nut-driver set in cotton duck roll. Conventional sizes (6 to 7 inches long). Plastic screwdriver type handle. Chrome Plated Steel shaft with 6 point (hex) socket opening. Set includes (sizes in inches): 3/16, 1/4, 5/16, 11/32, 3/8, 7/16, and 1/2. Fed Spec GGG-W-657.

00-540-6755

9 piece nut-driver set in cotton-duck roll. Conventional size (6 to 7 inches long). Plastic screwdriver handle. Chrome-Plated Steel shaft with 6 point hexagon socket opening. Set includes sizes: 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 7/16, 1/2, and 9/16 inches. Fed Spec GGG-W-657.

00-542-5799

11 piece nut-driver set in case. Consists of a Black torque amplifier handle and ten adapters. Color coded to size with hexagon socket opening. Size in inches: Blue 3/32, Red 1/8, Amber 5/32, Black 3/16, Brown 7/32, Red 1/4, Orange 9/32, Amber 5/16, Green 11/32, and Blue 3/8.

00-089-3663

13 piece nut-driver set in Plastic case. With hexagon opening. Width Across Flats sizes: 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, and 3/8 inches. Phillips screwdriver bits numbers 1 and 2. Extension blade 4 inches long, and regular handle 4 inches long.

00-165-4098

WRENCH SET, SOCKET HEAD SCREW SOCKET WRENCH ATTACHMENT

13 piece set. Includes the following:
(1) reversible ratchet handle, 1/4 inch square drive, 4 inches long.
(1) reversible ratchet handle, 1/2 inches square drive, 12 inches long.
(1) sliding ″T″ handle, 3/8 inch square drive, 7 inches long.
(1) short hexagon bit, with 1/4 inch square female drive, Size 5/32.
(1) short hexagon bit, with 1/4 inch square female drive, Size 7/32.
(2) 1/4 inch square female drive sockets. Sizes: 1/8 and 3/16 inches.
(2) 3/8 inch square female drive sockets. Sizes 1/4 and 5/16 inches.
(4) 1/2 inch square female drive sockets. Sizes: 3/8, 1/2, 9/16, and 5/8 inches. Fed Spec GGG-W-641.

00-752-9008

CLASS 5133

DRILL BITS, COUNTERBORES, AND COUNTERSINKS; HAND AND MACHINE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BIT SET, AUGER

Sets of the same type of auger bits, listed are contained in flexible roll of canvas. Plastic or artificial leather with tie tape, or buckle to facilitate secure fastening. Individual pocket for each bit. Fed Spec GGG-B-383.

7 piece set in roll. Included sizes: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch diameters.

00-293-2396

14 piece set in roll. Includes 13 auger bit sizes: 1/4 to 1 inch, in 1/16th inch increments plus one expansive bit. 7/8 to 3 inch hole cutting capacity.

00-595-8202

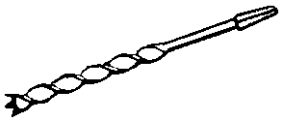
BIT SET, CENTER

6 piece Steel, flat round shank, centering bits. Flat head machine with brad point cutting ends. Bit cutting diameters range from 3/8 to 1 inch, in 1/8 inch increments. 1/4 inch Shank diameter.

00-441-3991

BIT, AUGER

Wood-boring auger bit. Tapered square shank fits any standard brace. Solid center, single-twist spiral. Spurred cutting-lips with screw-point. Tool Steel, polished finish. Fed Spec GGG-B-383.



	Dia	Lg
00-293-2901	1/4	7-1/2
00-293-2902	3/8	7-3/4
00-293-2900	1/2	8
00-293-2898	5/8	8-1/4
00-293-2905	3/4	8-1/2
00-293-2907	1	9

BIT, CENTER

Power wood-boring center bits. High-speed Steel bits with flat-head blade and brad-point. 1/4 inch flatted round shank fits power drills or drill presses. 6-1/2 inches long overall. Fed Spec GGG-B-383.

	Bit Size
00-865-4221	3/8
00-865-4222	1/2
00-865-4223	9/16
00-865-4224	5/8
00-865-4225	11/16
00-865-4226	3/4
00-865-4228	7/8
00-865-4229	1

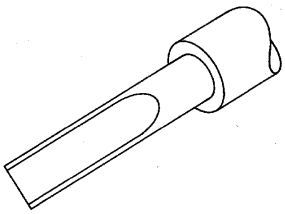
BIT, EXPANSIVE

Screw or gear-adjusting expansive bit with 2-cutters. Tapered-square shank fits any hand brace. Cutters graduated with 1/32 inch settings. Tempered tool Steel, polished finish. Hole size capacity as noted. Fed Spec GGG-B-383.

	Cuts
00-243-6912	5/8 to 1-3/4 in. holes
00-223-4987	7/8 to 3 in. holes

BIT, FORSTNER

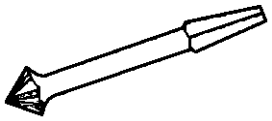
1/2 inch Steel, flat round shank, with circular rim cutting end. 5 inches long. Fed Spec GGG-B-383.



	Dia/In.
00-142-4962	1/2
00-142-4972	1-1/8

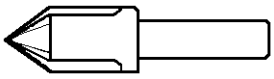
COUNTERSINK

Bistock-shank. Rose pattern countersink bit. Fits any standard brace. Designed for wood. Carbon Steel bit cuts 82 degree countersink. Nominal length 4 inches. Fed Spec GGG-C-613.



	Dia/In.
00-247-1253	3/4

Straight-shank, center reamer/countersink. For re-centering lathe work and screw head counter-sinking. High-Speed Steel bit cuts metals. About 2 to 2-1/2 inches long overall. Included angle and body diameter size indicated. Fed Spec GGG-C-613.



1/4 inch Shank Diameter

Straight Flute, pointed.

	Deg	Dia
00-255-4060	45	3/8
00-239-0785	60	3/8
00-293-3018	60	1/2
00-239-0786	82	3/8
00-293-3019	80	1/2
00-293-1902	100	3/8
00-255-4068	120	3/8

Spiral Flute, point end.

	Deg	Dia
00-243-2308	82	3/8
00-243-2309	100	3/8

3/8 inch Shank Diameter

	Deg	Dia
00-243-2326	60	1/2
00-243-2327	82	1/2
00-995-1870	100	1/2

Straight Flute, Blunt end.

Integral pilot, 7/16 inch body diameter.

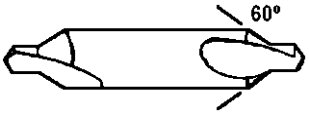
1/4 inch Shank Diameter

	Deg	Point Dia
00-540-6691	100	1/8
00-540-6690	100	5/32

COUNTERSINK AND DRILL SET

Plain, combined countersink and drill set, 5 components. High speed Steel. Plain-type center drill, double end cutter, 60 degree included angle. Fed Spec GGG-C-613.

CLASS 5133



Size No.	Drill Dia/In.	Body Dia/In.	O/A Lg/In.
1	3/64	1/8	1-1/4
2	5/64	3/16	1-7/8
3	7/64	1/4	2
4	1/8	5/16	2-1/8
5	3/16	7/16	2-3/4

00-585-0367

COUNTERSINK SET

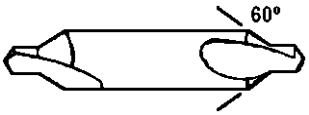
Fed Spec GGG-C-613.

Size No.	Drill Dia/In.	Body Dia/In.	O/A Lg/In.
1/2	1/2	1/2	3-7/8
5/8	1/2	5/8	4
3/4	1/2	3/4	4-1/8
7/8	1/2	7/8	4-1/4
1	1/2	1	4-3/8

00-529-4577

CUTTER, HOLE FORMING, DRIVE SHANK BOLT

Plain-type center drill. High speed Steel. Double end cutter, 60 degree included angle. Fed Spec GGG-C-613.



	Size No.	Drill Dia	Drill Lg	Body Dia	O/A Lg
00-240-7337	1	3/64	3/64	1/8	1-1/4
00-224-8624	2	5/64	5/64	3/16	1-7/8
00-555-3610	3	7/64	7/64	1/4	2
00-224-1965	4	1/8	1/8	5/16	2-1/8
00-224-1963	5	3/16	3/16	7/16	2-3/4
00-228-2323	6	7/32	7/32	1/2	3
00-224-8618	8	5/16	5/16	3/4	3-1/2

DRILL BLANK SET

High-speed Steel drill-blank sets. Extremely accurate drill-blanks can be used as plug gages, or machined into metal cutting tools. High-speed Steel, polished finish. Fitted into hinged metal case. Fed Spec GGG-D-647, plus series (0.002/-0.0000 inches).

Letter sizes, A to Z

00-529-5691 Set of 26

Fraction sizes: 1/16 to 1/2 inch by 64ths.

00-618-6903 Set of 29
Wire gage sizes No. 60 to 1.

00-529-5687 Set of 60

DRILL, TWIST

General purpose, Steel twist drills. For use with hand, pneumatic, or electric portable drills, and drilling machines. 2-flutes, RH cut. With points ground ready for service. Fed Spec GGG-D-751.

STANDARD TAPER WITH TANG SHANK

High-speed Steel. Friction-locking, regular-shank drills. Cut ferrous and non-ferrous metals.

Morse taper No. 1

	Dia	O/A Lg
00-189-9188	1/8	5-1/8
00-189-9187	9/64	5-3/8
00-189-9186	5/32	5-3/8
00-189-9189	3/16	5-3/4
00-189-9181	7/32	6
00-189-9183	15/64	6-1/8
00-234-5139	1/4	6-1/8
00-234-5140	17/64	6-1/4
00-189-9308	9/32	6-1/4
00-189-9309	19/64	6-3/8
00-189-9310	5/16	6-3/8
00-234-5141	21/64	6-1/2
00-189-9312	11/32	6-1/2
00-189-9313	23/64	6-3/4
00-189-9314	3/8	6-3/4
00-189-9315	25/64	7
00-189-9317	27/64	7-1/4
00-189-9318	7/16	7-1/4
00-189-9319	29/64	7-1/2

Morse taper No. 2

	Dia	O/A Lg
00-189-9321	31/64	8-1/4
00-189-9322	1/2	8-1/4
00-189-9323	33/64	8-1/2
00-189-9324	17/32	8-1/2
00-189-9325	35/64	8-3/4
00-189-9326	9/16	8-3/4
00-189-9327	37/64	8-3/4
00-228-1325	19/32	8-3/4
00-228-1326	39/64	8-3/4
00-228-1327	5/8	8-3/4
00-228-1328	41/64	9
00-228-1329	21/32	9
00-228-1330	43/64	9-1/4
00-228-1331	11/16	9-1/4
00-228-1332	45/64	9-1/2
00-228-1333	23/32	9-1/2
00-228-1334	47/64	9-3/4
00-228-1335	3/4	9-3/4
00-228-1336	49/64	9-7/8
00-228-1337	25/32	9-7/8

Morse taper No. 3

	Dia	O/A Lg
00-228-1339	13/16	10-3/4
00-228-1341	27/32	10-3/4
00-228-1343	7/8	10-3/4
00-228-1321	29/32	10-3/4
00-228-1345	15/16	10-3/4
00-228-1347	31/32	11
00-228-1349	1	11
00-228-1350	1-1/64	11-1/8
00-228-1351	1-1/32	11-1/8

Morse taper No. 4

	Dia	O/A Lg
00-228-1357	1-1/8	12-3/4
00-228-1360	1-11/64	13
00-228-1365	1-1/4	13-1/2
00-228-1373	1-3/8	14-1/2
00-228-1379	1-1/2	15

Morse taper No. 5

	Dia	O/A Lg
00-228-1403	2	17-3/8

STRAIGHT ROUND SHANK

Standard high-speed Steel twist drills. Shank fits conventional 3-jaw drill chucks. Drill cuts ferrous and non-ferrous metals. Fed Spec GGG-D-751.

FRACTIONAL SIZES

Jobber's (short) length.

	Dia	Lg
00-266-9233	1/64	3/4
00-266-9234	1/32	1-3/8
00-227-9645	3/64	1-3/4
00-227-9646	1/16	1-7/8
00-227-9647	5/64	2
00-010-4005*	3/32	2
00-227-9648	3/32	2-1/4
00-227-9649	7/64	2-5/8
00-227-9650	1/8	2-3/4
00-227-9651	9/64	2-7/8
00-227-9652	5/32	3-1/8
00-227-9653	11/64	3-1/4
00-227-9654	3/16	3-1/2
00-227-9471*	3/16	3-1/2
00-243-9612	13/64	3-5/8
00-227-9656	7/32	3-3/4
00-243-9611	15/64	3-7/8
00-227-9658	1/4	4
00-222-9469*	1/4	4
00-227-9659	17/64	4-1/8
00-227-9660	9/32	4-1/4
00-240-8443	19/64	4-3/8
00-227-9662	5/16	4-1/2
00-222-9470*	5/16	4-1/2
00-243-9613	21/64	4-5/8
00-227-9664	11/32	4-3/4
00-227-9665	23/64	4-7/8
00-227-9666	3/8	5
00-222-9467*	3/8	5
00-227-9667	25/64	5-1/8
00-227-9668	13/32	5-1/4
00-227-9669	27/64	5-3/8
00-227-9670	7/16	5-1/2
00-227-9671	29/64	5-5/8
00-227-9673	15/32	5-3/4
00-227-9674	31/64	5-7/8
00-227-9672	1/2	6
00-222-9466*	1/2	6

* Hardened Steel body for drilling. Cast Iron or non-ferrous materials.

Taper (long) lengths.

	Dia	Lg
00-262-2180	1/8	5-1/8
00-236-4048	3/16	5-3/4
00-236-4059	1/4	6-1/8
00-236-4069	5/16	6-3/8
00-232-8161	3/8	6-3/4
00-266-9462	17/32	8
00-266-9464	9/16	8-1/4
00-233-6455	19/32	8-3/4
00-266-9466	5/8	8-3/4
00-266-9467	21/32	9
00-266-9468	11/16	9-1/4
00-266-9470	23/32	9-1/2
00-266-9471	3/4	9-3/4

LETTER SIZES

Jobber-length letter drills. For size E (.250) use 1/4 inch drill, NIIN 00-227-9658. For size K (.281) use 9/32 inch drill, NIIN 00-227-9660. Fed Spec GGG-D-751.

Individual sizes

	Size	Dia	Lg
00-262-2191	A	.234	3-7/8
00-232-6398	B	.238	4
00-232-6399	C	.242	4
00-262-2179	D	.246	4
00-262-2192	F	.257	4-1/8
00-262-2193	G	.261	4-1/8
00-262-2194	H	.266	4-1/8
00-262-2157	I	.272	4-1/8
00-262-2158	J	.277	4-1/8
00-262-2160	L	.290	4-1/4
00-262-2161	M	.295	4-3/8
00-262-2162	N	.302	4-3/8
00-262-2163	O	.316	4-1/2
00-262-2164	P	.323	4-5/8
00-262-2165	Q	.332	4-3/4
00-262-2166	R	.339	4-3/4
00-262-2167	S	.348	4-7/8
00-262-2168	T	.358	4-7/8
00-262-2169	U	.368	5
00-262-2170	V	.377	5
00-262-2171	W	.386	5-1/8
00-262-2172	X	.397	5-1/8
00-262-2173	Y	.404	5-1/4
00-262-2174	Z	.413	5-1/4

WIRE GAGE SIZES

Notched point

Special-length wire gage drill.

	Size	Dia	Flute Lg	Lg
00-841-8702	1/8	.125	1-1/4	2-1/4
00-595-8850	30	.129	1-5/8	12
00-850-3292	5/32	.156	1-3/8	2-1/2
00-900-2063	3/16	.188	1-5/8	2-3/4
00-236-4053	7/32	.219	3-5/8	6
00-640-6361	1/4	.250	9	12

Jobber-length wire gage drills.

Individual sizes

	Size	Dia	Lg
00-224-4026	80	.014	3/4
00-224-4027	79	.015	3/4
00-224-4028	78	.016	7/8
00-224-4029	77	.018	7/8
00-266-9248	76	.020	7/8
00-266-9247	75	.021	1
00-266-9246	74	.023	1
00-266-9245	73	.024	1-1/8
00-266-9244	72	.025	1-1/8
00-266-9243	71	.026	1-1/4
00-266-9230	70	.028	1-1/4
00-262-2177	69	.029	1-3/8
00-266-9228	68	.031	1-3/8
00-262-2178	67	.032	1-3/8
00-236-4028	66	.033	1-3/8
00-233-6425	65	.035	1-1/2
00-262-2176	64	.036	1-1/2
00-262-2175	63	.037	1-1/2
00-236-4029	62	.038	1-1/2
00-266-9229	61	.039	1-5/8
00-189-9305	60	.040	1-5/8
00-189-9304	59	.041	1-5/8
00-189-9303	58	.042	1-5/8
00-189-9302	57	.043	1-3/4
00-189-9301	56	.047	1-3/4
00-189-9300	55	.052	1-7/8
00-189-9299	54	.055	1-7/8
00-189-9298	53	.060	1-7/8
00-189-9297	52	.064	1-7/8
00-189-9296	51	.067	2
00-189-9295	50	.070	2
00-189-9294	49	.073	2
00-189-9293	48	.076	2
00-189-9292	47	.079	2
00-189-9291	46	.081	2-1/8
00-189-9290	45	.082	2-1/8
00-189-9289	44	.086	2-1/8
00-189-9288	43	.089	2-1/4
00-189-9287	42	.094	2-1/4
00-189-9286	41	.096	2-3/8
00-189-9285	40	.098	2-3/8
00-189-9284	39	.100	2-3/8
00-189-9283	38	.102	2-1/2
00-189-9282	37	.104	2-1/2
00-189-9281	36	.107	2-1/2
00-189-9280	35	.110	2-5/8
00-189-9279	34	.111	2-5/8
00-189-9278	33	.113	2-5/8
00-189-9277	32	.116	2-3/4
00-189-9276	31	.120	2-3/4
00-189-9275	30	.129	2-3/4
00-189-9274	29	.136	2-7/8
00-189-9273	28	.141	2-7/8
00-189-9272	27	.144	3
00-189-9271	26	.147	3
00-189-9270	25	.150	3
00-189-9269	24	.152	3-1/8
00-189-9268	23	.154	3-1/8
00-189-9267	22	.157	3-1/8
00-189-9266	21	.159	3-1/4
00-189-9265	20	.161	3-1/4
00-189-9264	19	.166	3-1/4
00-189-9263	18	.170	3-1/4
00-189-9262	17	.173	3-3/8
00-189-9261	16	.177	3-3/8
00-189-9260	15	.180	3-3/8
00-189-9259	14	.182	3-3/8
00-189-9258	13	.185	3-1/2
00-189-9257	12	.189	3-1/2
00-189-9256	11	.191	3-1/2
00-189-9255	10	.194	3-5/8
00-189-9254	9	.196	3-5/8
00-189-9253	8	.199	3-5/8
00-189-9252	7	.201	3-5/8
00-189-9251	6	.204	3-3/4
00-189-9250	5	.206	3-3/4
00-189-9249	4	.209	3-3/4
00-189-9248	3	.213	3-3/4
00-189-9247	2	.221	3-7/8
00-189-9246	1	.228	3-7/8

Wire gage drills. High speed Steel, straight round shank. Double-fluted. Right hand cut. National Standard, NAS 907-80205.

SPLIT POINT TYPE

Hardness rating, 40 minimum to 53 maximum.

	Size	Dia	Flute/Lg	Lg
01-045-4946	42	.094	1-1/4	2-1/4
00-912-6032	40	.098	13/16	1-13/16
00-988-5655	40	.098	13/16	2-3/8
00-051-5749	40	.094	1-3/8	2-3/8
00-912-6031	30	.129	15/16	1-15/16
00-988-5664	30	.129	15/16	2-3/4
00-051-5748	30	.129	1-5/8	2-3/4
00-988-5665	29	.136	15/16	2-7/8
00-988-5673	21	.159	1-1/16	3-1/4
00-912-6030	21	.159	1-1/16	2-1/8
00-988-5674	20	.161	1-1/16	3-1/4
00-838-5300	20	.161	2-1/8	3-1/4
00-065-0980	11	.191	2-5/16	3-1/2
00-988-5683	11	.191	1-3/16	3-1/2
00-988-5684	10	.194	1-3/16	3-5/8
00-838-5245	10	.194	2-7/16	3-5/8
00-912-6029	9	.196	1-3/16	21/4

NAS 907-80205.

Hardness rating, 66 minimum to 67.5 maximum.

	Size	Dia	Flute/Lg	Lg
00-837-7595	1/16	.063	7/8	1-7/8
01-053-7932	5/64	.078	1	2
00-988-5695	1/8	.125	1-5/8	2-3/4
00-988-5696	9/64	.141	1-3/4	2-7/8
00-988-5697	5/32	.156	2	3-1/8
01-051-4114	13/64	.203	2-7/16	3-5/8
00-988-5701	7/32	.212	2-1/2	3-3/4
00-988-5702	15/64	.234	2-5/8	3-7/8
00-988-5703	1/4	.250	2-3/4	4

Non-Spec type twist drill

General purpose - 4-1/16 inch flute length. .4375 inch cutting diameter.

00-222-9468 7/16 in. dia. 5-1/2 in. lg.

DRILL SET, TWIST

Fractional size drill sets in metal cases. Quantity, sizes, and set number as indicated. Fed Spec GGG-D-751. 8-drills, sizes: 1/16 to 9/32 by 32nds. Jobber lengths.

00-293-0981 Set No. 2 B

8-drills, sizes: 1/16 to 1/2 by 16ths. Jobber lengths.

00-293-0982 Set No. 2 A

11-drills, sizes: 1/8 to 3/4 by 16ths. Jobber lengths.

00-278-0232 Set No. 2 A

13-drills, sizes: 1/16 to 1/4 by 64ths. Jobber lengths.

00-618-7783 Set No. 2 B

20-drills, wire gage. Sizes: 80 to 61. Diameters .0135 to .0390 in. Jobber lengths. Fitted into hinged metal case.

00-555-1528 Set No. 4

23-piece set. Includes: 15 jobber length drills, sizes: 1/16 to 1/2 by 32nds; 8 taper-length drills, size: 17/32 to 3/4 by 32nds.

00-278-0230

26-drills, letter sizes A to Z. Diameters .2340 to .4130 inches in jobber-lengths. Fitted into Plastic case.

00-540-4375 Set No. 5

29-drills, sizes: 1/64 to 1/2 by 64ths. Jobber lengths.

00-293-0983 Set No. 2

60-drills, straight shank, wire gage sizes, jobbers length, high speed Steel. Number 60 through number 1.

00-449-6775 Set No. 3

NAS 907-80205 Professional/Industrial Assoc Standard.

18-drills, sizes: 7/64 to 3/8 by 64ths. General purpose drills.

00-980-3422

43-drills, Cobalt, Oxide treated. Straight shank, jobbers length, short flute length. Number 1 through 43.

00-980-3423

SCREW GUIDE

Combination drill and countersink. Adjustable stop for setting 2 inch flathead screws flush, 1/8 or 1/4 inch below surface. 1/4 inch diameter shank.

	Bit/No.
00-865-4211	6
00-865-4210	8
00-865-4208	10
00-865-4209	12

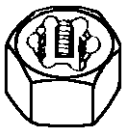
CLASS 5136

TAPS, DIES, AND COLLETS; HAND AND MACHINE

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

DIE, RETHREADING

Solid hex-nut rethreading dies. Hand wrenchable Carbon Tool Steel dies, for repair work. Dresses over bruised or rusty right-hand threads, Unified and American National series. Thread size listed below. Fed Spec GGG-D-296.



Coarse (UNC) thread.

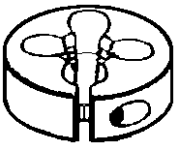
	Thd/Size
00-197-9552	1/4-20
00-237-8269	5/16-18
00-237-8270	3/8-16
00-197-9553	7/16-14
00-197-9554	1/2-13
00-197-9555	9/16-12
00-197-9556	5/8-11
00-197-9557	3/4-10
00-197-9558	7/8-9
00-197-9559	1-8
00-197-9562	1-1/8-7
00-197-9563	1-1/4-7
00-197-9564	1-3/8-6
00-197-9565	1-1/2-6

Fine (UNF) thread.

	Thd/Size
00-189-3120	1/4-28
00-239-8240	5/16-24
00-237-8272	3/8-24
00-237-8273	7/16-20
00-237-8274	1/2-20
00-197-9566	9/16-18
00-197-9567	5/8-18
00-197-9568	3/4-16
00-197-9569	7/8-14
00-197-9571	1-12
00-197-9570	1-1/8-12
00-197-9572	1-1/4-12
00-189-3128	1-1/2-12

DIE, THREAD CUTTING

Round split dies with internal adjusting screws. High-speed Steel dies fit hand diestocks of same diameter size. Cuts right-hand.Unified and American National threads. Fed Spec GGG-D-296.



13/16 inch outside diameter, 1/4 Inch thick High speed Steel. Machine screw thread size as noted.

Coarse UNC thread

	Thd/Size
00-239-2772	1-64
00-239-2773	2-56
00-239-2774	3-48
00-239-2775	4-40
00-239-2776	5-40
00-239-2777	6-32
00-239-2778	8-32
00-239-2779	10-24
00-239-2780	12-24

1-1/2 inch outside diameter, 1/2 inch thick. Fractional thread size as noted. High speed Steel. Right-hand threads

	Thd/Size
00-189-3203*	1/4-20
00-189-3216	5/16-18
00-189-3217	3/8-16
00-189-3218	7/16-14
00-189-3219	1/2-13

* Left hand thread.

Tool Steel. Left-hand threads.

	Thd/Size
00-224-1461	1/4-20
00-189-3204	5/16-18
00-189-3206	7/16-14
00-189-3207	1/2-13

2 inch outside diameter, 5/8 inch thick. High speed Steel, right-hand threads. Fractional thread size as noted.

	Thd/Size
00-224-1449	1/4-20
00-197-9304	7/16-14

2-1/2 inch outside diameter, 3/4 inch thick. Fractional thread size as noted.

	Thd/Size
00-189-3220	9/16-12
00-189-3221	5/8-11
00-189-3222	3/4-10
00-189-3210*	3/4-10
00-189-3223	7/8-9
00-189-3224	1-8

* Tool Steel. Left hand threads.

Fine (UNF) thread. Series B

13/16 inch outside diameter, 1/4 inch thick Machine screw thread size as noted.

	Thd/Size
00-239-2762	0-80
00-239-2763	1-72
00-239-2764	2-64
00-237-8263	3-56
00-239-2765	4-48
00-239-2766	5-44
00-239-2767	6-40
00-239-2768	8-36
00-239-2769	10-32
00-239-2770	12-28

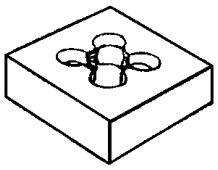
1-1/2 inch outside diameter, 1/2 inch thick. Fractional thread size as noted.

	Thd/Size
00-189-3194	1/4-28
00-189-3195	5/16-24
00-189-3196	3/8-24
00-189-3197	7/16-20
00-189-3198	1/2-20

2-1/2 inch outside diameter, 3/4 inch thick. Fractional thread size as noted.

	Thd/Size
00-189-3199	9/16-18
00-189-3200	5/8-18
00-189-3201	3/4-16
00-189-3238	7/8-14
00-820-8090	1-12

Solid square taper pipe dies. Cuts American Standard (NPT) right-hand threads. Carbon Tool Steel, smooth finish. Fed Spec GGG-T-581.



2 inches square, 1/2 inch thick.

	Thd/Size
00-189-3165	1/8-27

2-1/2 inches square, 3/4 inch thick.

	Thd/Size
00-189-3166	1/4-18
00-189-3167	3/8-18
00-189-3168	1/2-14
00-189-3169	3/4-14

DIESTOCK

Holds adjustable round split dies. Supplied with 3-adjusting screws, and 2-smooth or knurled handles. Size number noted below. Fed Spec GGG-D-296.

For 5/8 inch diameter dies, 5 to 6 inches long.

00-242-2974 No. 0

For 13/16 inch diameter dies, 6 to 8 inches long.

00-221-1236 No. 1

For 1 inch diameter dies, 9 to 12 inches long.

00-889-6603 No. 1A

For 1-1/2 inch diameter dies, 12 to 18 inches long.

00-224-7113 No. 2

For 2 inch diameter dies, 20 to 28 inches long.

00-180-0548 No. 2A

For 2-1/2 inch diameter dies, 22 to 32 inches long.

00-224-7114 No. 3

DIE AND TAP SET, THREAD CUTTING

General purpose screw threading sets. Use with diestocks and tap-reamer wrenches (See FSC 5120). Consists of: 1-round split die, 1-bottoming tap, 1-plug tap, and 1-taper tap for each thread size listed below. Each set furnished with a metal or wooden case. Arranged that components cannot come in contact with each other, thus preventing any damage to cutting edge and allowing for easy selection. Interior and exterior surfaces of case shall have a suitable protective moisture resistant coating. Fed Spec GGG-T-330.

80-piece set. Includes National Coarse (UNC) sizes: 1-64, 2-56, 3-48, 4-40, 6-32, 8-32, 10-24, 12-24, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 9/16-12, 5/8-11, 3/4-10, 7/8-9, 1-8. National Special (UNS) size: 1-1/16-11. RH threads. High speed Steel.

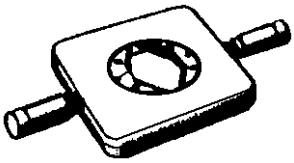
00-357-7494 Set No. 4

84-piece set. Includes National Fine (UNF) sizes: 0-80, 1-72, 2-64, 3-56, 4-48, 5-44, 6-40, 8-36, 10-32, 12-28, 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20, 9/16-18, 5/8-18, 3/4-16, 7/8-14, 1-12, and National Special (UNS) 1-1/16-16. RH threads. High speed Steel.

00-357-7504 Set No. 6

RESTORER, THREAD

Restores damaged external threads. Does not cut, but rolls thread back into shape. For right or left-hand standard screw, bolt, or pipe threads. Adjustable for 1/4 to 1 inch diameter, coarse and fine.



00-273-9200 2-3/4 in. swing

TAP, THREAD CUTTING

Regular, high-speed Steel. Ground thread taps. For general purpose machine and hand tapping. Cuts unified and American National right-hand threads. Standard point, straight flutes, straight squared shank. Machine screw or fractional thread size, and pitch diameter limit symbol shown below. Fed Spec GGG-T-0070.

PITCH DIAMETER LIMIT SYMBOLS FOR AMERICAN NATIONAL FORM THREAD SERIES

H-INDICATES HIGH OR ABOVE BASIC LIMITS

L-INDICATES LOW OR BELOW BASIC LIMITS

	MIN BASIC PLUS IN.	MAX BASIC PLUS IN.
H1	0.0000	0.0005
H2	0.0005	0.0010
H3	0.0010	0.0015
H4	0.0015	0.0020
H5	0.0020	0.0025
H6	0.0025	0.0030

L1 EQUALS BASIC TO BASIC -0.0005 INCH

Commercial Item Description (CID) A-A-624. STANDARD POINT TAPER. COARSE (UNC).

Pitch Diameter limit H1

	Thd/Size
00-189-7816	1-64
00-889-6619	2-65
00-203-7074	8-32

Pitch Diameter limit H2

	Thd/Size
00-820-8167	2-56
00-729-5687	3-48
00-729-5686	4-40
00-729-5685	5-40
00-821-1027	6-32
00-825-0332	8-32
00-729-5684	10-24
00-821-1030	12-24

STANDARD POINT PLUG, COARSE (UNC).

Pitch Diameter limit H1

	Thd/Size
00-189-7814	1-64
00-889-6610	2-56
00-516-3373	6-32
00-203-6506	8-32
00-203-6508	10-24

Pitch Diameter limit H2

	Thd/Size
00-228-1039	3-48
00-228-1040	4-40
00-580-7361	5-40
00-729-5695	6-32
00-729-5694	8-32
00-585-6760	10-24

STANDARD POINT BOTTOMING. COARSE (UNC).

Pitch Diameter limit H1

	Thd/Size
00-189-7812	1-64
00-889-6617	2-56
00-227-9455	6-32
00-203-6500	8-32
00-203-6501	10-24

Pitch Diameter limit H2

	Thd/Size
00-580-7152	3-48
00-729-5689	4-40
00-580-7351	5-40
00-580-7316	6-32
00-232-1974	8-32
00-580-7327	10-24

FINE (UNF) TAPER.

Pitch Diameter limit H1

	Thd/Size
00-189-7824	0-80
00-189-7825	1-72
00-189-7826	2-64
00-516-3370	10-32

Pitch Diameter limit H2

	Thd/Size
00-729-5677	3-56
00-729-5678	4-48
00-228-0989	5-44
00-729-5675	6-40
00-729-5698	8-36
00-821-1029	10-32
00-821-1031	12-28

FINE (UNF) PLUG.

Pitch Diameter limit H1

	Thd/Size
00-272-9760	0-80
00-272-9761	1-72
00-516-2950	8-36
00-729-5700	10-32

Pitch Diameter limit H2

	Thd/Size
00-262-3945	0-80
00-580-7323	3-56
00-228-1004	4-48
00-228-1005	5-44
00-228-1006	6-40
00-228-1007	8-36
00-228-1008	10-32

FINE (UNF) BOTTOMING.

Pitch Diameter limit H1

	Thd/Size
00-189-7818	0-80
00-203-6212	10-32
00-189-7819	1-72

Pitch Diameter limit H2

	Thd/Size
00-262-1484	2-64
00-729-5711	3-56
00-580-7330	4-48
00-580-7331	6-40
00-580-7332	8-36
00-580-7155	12-28
00-555-8906	10-32
00-580-7154	5-44

COURSE (UNC) PLUG. Fed Spec GGG-T-70B.

Pitch Diameter limit H2

	Thd/Size
00-221-7874	12-24

BOTTOMING

Pitch Diameter limit H2

	Thd/Size
00-580-7357	12-24

FINE (UNF) TAPER.

Pitch Diameter limit H3

	Thd/Size
00-228-0998	5/8-18

Pitch Diameter limit H5

	Thd/Size
00-729-5706	1-1/2-12

PLUG TAP

Pitch Diameter limit H1

	Thd/Size
00-889-6629	2-64

Pitch Diameter limit H2

	Thd/Size
00-228-1009	12-28

SPECIAL (UNS) PLUG TAP.

Pitch Diameter limit H4

	Thd/Size
00-580-7343	1-14

EXTRA FINE (UNEF).

Pitch Diameter limit H3, Plug

	Thd/Size
00-729-5703	1/4-32

12-PITCH (UN) TAPER.

Pitch Diameter limit H6

	Thd/Size
00-865-2179	1-3/4-12
00-865-2178	2-12

COARSE (UNC) PLUG. Fed Spec GGG-T-70.

Pitch Diameter limit H2

	Thd/Size
00-261-3263	5/16-18
00-261-3264	3/8-16

SPIRAL POINT PLUG. COARSE THREAD (UNC).

Pitch Diameter limit H1

	Thd/Size
00-261-3214	8-32
00-261-3259	1/4-20

Pitch Diameter limit H2

	Thd/Size
00-261-3246	.0-80
00-261-3262	1/4-20

SPIRAL POINT PLUG (UNF).

	Thd/Size
00-585-7901	10-32

BOTTOMING TAP.

Ground. High-speed Steel. Fractional inch sizes, for use in general hand and machine operations. Four straight flutes unless otherwise noted. Right-hand threads unless specified. Type of chamfer and thread size shown.

Pitch Diameter limit H1 (UNF) TAPER

	Thd/Size
00-203-6647	1/4-20
00-227-8609	1/4-28
00-865-2229	5/16-24
00-227-8611	3/8-24
00-227-8612	7/16-20
00-227-8613	1/2-20

Pitch Diameter limit H2 (UNC) Taper

	Thd/Size
00-203-6626	3/8-16

Pitch Diameter limit H2 (UNS) Taper

	Thd/Size
00-228-1024	1-14

Pitch Diameter limit H3 (UNC) Taper

	Thd/Size
00-555-9206	1/4-20
00-580-7333	5/16-18
00-555-9205	3/8-16
00-580-7335	7/16-14
00-580-7334	1/2-13
00-580-7169	9/16-12
00-729-5683	5/8-11
00-729-5682	3/4-10

Pitch Diameter limit H3 (UNF) Taper

	Thd/Size
00-580-7365	1/4-28
00-580-7364	5/16-24
00-555-9203	3/8-24
00-228-0995	7/16-20
00-228-0996	1/2-20
00-580-7170	9/16-18
00-580-7175	7/8-14
00-228-1001	1-1/4-12
00-729-5696	1-3/8-12

Pitch Diameter limit H4 (UNC) Taper

	Thd/Size
00-239-2174	7/8-9
00-228-1031	1-8
00-580-7177	1-12
00-228-1032	1-1/8-7
00-228-1033	1-1/4-7
00-228-1034	1-1/2-6

PLUG

Pitch Diameter limit H1 (UNC)

	Thd/Size
00-203-6510	1/4-20
00-203-6511	5/16-18

Pitch Diameter limit H1 (UNF)

	Thd/Size
00-227-8618	1/4-28
00-203-6220*	1/4-28
00-227-8619	5/16-24
00-227-8620	3/8-24
00-227-8621	7/16-20
00-227-8622	1/2-20
00-203-6226	*1/2-20

* Left-hand thread.

Pitch Diameter limit H2 (UNC)

	Thd/Size
00-203-6513	9/16-18
00-227-8625	7/8-14

Pitch Diameter limit H3 (UNC)

	Thd/Size
00-729-5693	1/4-20

	Thd/Size
00-276-1031	5/16-18
00-276-1032	3/8-16
00-729-5691	7/16-14
00-729-5692	1/2-13
00-729-5690	9/16-12
00-223-6228	5/8-11
00-729-5702	3/4-10

Pitch Diameter limit H2 (UNF)

	Thd/Size
00-580-7360	1/4-28
00-580-7359	5/16-24
00-555-8910	3/8-24
00-580-7182	7/16-20
00-580-7184	1/2-20
00-580-7186	9/16-18
00-254-4518	5/8-18

Pitch Diameter limit H4 (UNC)

	Thd/Size
00-729-5701	7/8-9
00-227-7260	1-8
00-221-7040	11/8-7
00-221-7041	11/4-7
00-889-6621	13/8-6

Pitch Diameter limit H4 (UNF)

	Thd/Size
00-228-1014	3/4-12
00-580-7342	3/4-16
00-580-7188	7/8-14
00-841-2837	1-12
00-865-2232	1-1/8-12

Pitch Diameter limit H5 (UNF)

	Thd/Size
00-228-1015	1-1/2-12

BOTTOMING

Pitch Diameter limit H1 (UNC)

	Thd/Size
00-227-8628	5/16-24
00-517-5561	1/4-20

Pitch Diameter limit H1 (UNF)

	Thd/Size
00-203-6213*	1/4-28
00-227-8627	1/4-28
00-203-6504	3/8-16
00-227-8629	3/8-24
00-203-6216*	3/8-24

* Left hand thread.

Pitch Diameter limit H2 (UNF)

	Thd/Size
00-227-8631	1/2-20
00-227-8633	3/4-16

Pitch Diameter limit H3 (UNC)

	Thd/Size
00-293-0711	1/4-20
00-293-0712	5/16-18
00-293-0715	3/8-16
00-580-7353	7/16-14
00-729-5688	1/2-13
00-729-5718	9/16-12
00-729-5717	5/8-11
00-729-5716	3/4-10

Pitch Diameter limit H3 (UNF)

	Thd/Size
00-580-7354	1/4-28
00-580-7355	5/16-24
00-729-5710	3/8-24
00-580-7156	7/16-20
00-580-7356	1/2-20
00-580-7158	9/16-18
00-262-2195	5/8-18
00-228-1023	3/4-16

Pitch Diameter limit H4 (UNC)

	Thd/Size
00-228-1054	7/8-9
00-729-5715	1-8
00-228-1055	11/8-7
00-228-1056	11/4-7
00-228-1057	11/2-6

Pitch Diameter limit H4 (UNF)

	Thd/Size
00-580-7162	3/4-16
00-580-7163	7/8-14
00-729-5709	1-1/8-12
00-228-1025	1-1/4-12
00-262-2200	1-3/8-12

American Standard taper NPT taps. High-speed Steel. Cuts right-hand threads, commercial ground. Straight, squared shank Plug type. Size and threads per inch shown.

2-1/8 inches overall length, four flutes.

00-889-5309 1/16-27
00-189-7805 1/8-27

2-7/16 inches overall length, four flutes.

00-189-7806 1/4-18

2-9/16 inches overall length, four flutes.

00-189-7807 3/8-18

2-19/32 inches overall length, four flutes.

00-889-5316 3/8-18

3-1/8 inches overall length, four flutes.

00-189-7808 1/2-14

3-1/4 inches overall length, five flutes.

00-237-8147 3/4-14

3-3/4 inches overall length, five flutes.

00-237-8148 1-11-1/2

4 inches overall length, five flutes.

00-237-8149* 1-1/4-11-1/2
* Taper chamfer type.

4-1/4 inches overall length, six flutes.

00-889-6976 1-1/2-11-1/2

4-1/2 inches overall length, seven flutes.

00-889-6977 2-11-1/2

For helical coil screw thread inserts. These are special roughing and finishing thread taps. To prepare drilled holes for the installation of helical coil screw thread inserts (refer FSC 5340). Taps are identified by nominal internal thread size, of the insert. Thread diameter of these taps will be larger than standard taps but the pitch will be the same. Refer to FSC 5180 for repair kits, which contain all necessary tooling for installing helical coil inserts. Order replacement taps according to insert internal thd size. NIIN will be followed by thread size. Spec Mil-T-21309.

Screw thread insert. High speed Steel. Plug chamfer type. 4 flutes. Mil-T-21309.

	STI
00-045-0596	6-32
00-825-7133	8-32
00-825-7132	10-24
00-825-7130	10-32
00-825-7126	1/4-20
00-825-7119	1/4-28
00-825-7111	5/16-18
00-825-7088	3/8-16
00-825-7090	3/8-24

Finishing, plug style. Sizes and threads per inch (UNF) shown. Mil-T-21309.

	Thd/Size
00-825-7093	7/16-20
00-876-8910	1/2-13

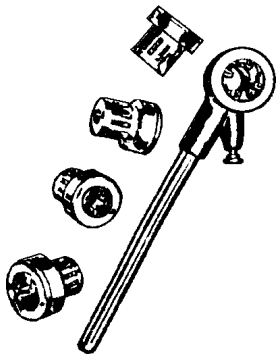
TAP SET, THREAD CUTTING

3-Piece Carbon Steel hand tap sets. Cut thread taps for Unified and American National Coarse (UNC) right hand threads. Set Includes: one taper, one plug, and one bottoming tap, same size. Fed Spec GGG-T-60.

	Thd/Size
00-293-3325	1/4-20
00-293-3324	5/16-18
00-293-3323	3/8-16
00-293-3322	7/16-14
00-293-3317	1/2-13

THREAD CUTTER, DIE HEAD, HAND

Pipe threading diestock with replaceable dieheads. Set includes handle, yoke with ratchet pawl, individual dieheads and non-adjustable, renewable dies for each size listed. Cuts R.H. American Standard taper pipe (NPT) threads. Fed Spec GGG-T-581.



6 - dies, sizes: 1/2-14, 3/4-14, 1-11-1/2, 1-1/4-11-1/2, 1-1/2-11-1/2, and 2-11-1/2.

00-826-1125

7 - dies, sizes: 1/8-27, 1/4-18, 3/8-18, 1/2-14, 3/4-14, 1-11-1/2, and 1-1/4-11-1/2.

00-889-6499

9 - dies, sizes: 1/8-27, 1/4-18, 3/8-18, 1/2-14, 3/4-14, 1-11-1/2, 1-1/4-11-1/2, 1-1/2-11-1/2, and 2-11-1/2.

00-081-1739

CLASS 5140
TOOL AND HARDWARE BOXES

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

BAG, LINEMAN'S TOOL, ROUND

Collapsible Canvas Duck bag for raising and lowering tools. 12 inches in diameter by 16-1/2 inches high. With heavy Leather bottom and 3/8 inch diameter rope handle. Fed Spec GGG-B-50.

00-288-7763

BAG, TOOL, ENVELOPE TYPE

Cotton Duck material. 10-1/8 inches high, 20-1/4 inches long. Size 4. Mil Spec Mil-B-43648/4.

00-772-4142

BAG, TOOL, SATCHEL

Cotton Duck and Leather. 1 compartment, Leather strap fastening closure, 2 harness Leather handles, rigid Steel frame mouth, with Leather reinforced bottom and sides. 24 inches long by 6 inches wide by 15 inches high. Mil Spec Mil-B-43663.

00-293-2379

Canvas Duck bag with 2 pockets, slide fastener, and 2 Cotton webbing handles. Used as component of various tool sets, kits, or equipment. Stores and protect the tools from damage and the elements. 19-1/2 inches long by 6 inches wide by 8-1/2 inches high. Mil Spec Mil-B-43663.

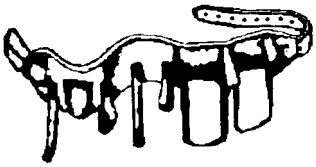
00-473-6256

Cotton Duck, with flap closure. Without sling. 14 inches long by 2 inches wide by 8 inches high.

00-540-2294

BELT, TOOL, REPAIRMAN'S

Canvas belt for electricians' tool kit. (Electrical Repair Party Lockers). Holds pliers, fuse puller, screwdriver, insulation tapes, twine, and adjustable open end wrench. NAVSHIP Drawing number 9000-S6202-713125 (pc 2, 4 inches wide).



	Waist Size/In.
00-391-1069	30 to 40

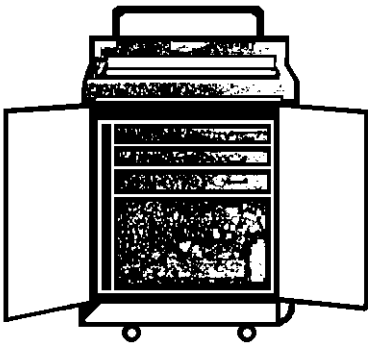
Leather belt with hammer loop, snap hook, and tape sling. 1-3/4 inches wide.

	Waist Size/In.
00-529-2517	34
00-529-2694	38
00-529-2691	44

CABINET, TOOL, MOBILE

Heavy gage Steel cabinets for rolling cabinet and tools to the job. Listed in order of drawer quantity. Fed Spec AA-C-45.

Enameled surface, 3-drawer, tilt and roll type. Stands level in upright position. Has two 10 inch diameter wheels and 3-point locking handle for gripping and trucking. 2 piano hinged full length doors; 1 with pegboard, other with 4 shelves. Large tool storage compartment. Integral keylock. 28 inches wide by 37 inches deep by 30 inches high. 37 inches maximum high working surface.

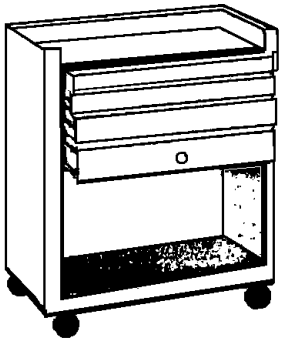


00-608-4757

Enameled surface, 3-drawers: 1 lower compartment, 2 fixed. 2 swivel wheels. 32 inches high by 26-1/2 inches wide by 18 inches deep. With key, lock, and 2 handles. Fed Spec AA-C-45.

00-870-4796

4-drawer, upright rolling type. Has 4 inch diameter casters with brakes: 2 fixed, 2-swivel. Bottom compartment, 26-3/8 inches wide by 31 inches high by 18 inches deep. Pin tumbler lock on either full front panel or compartment panel and drawers. 26-3/8 inches wide by 18 inches deep by 31 inches high overall. Fed Spec AA-C-45.



00-030-6617

5-drawer, upright rolling type. 2-fixed and 2-swivel type casters. Steel overall. Red with sliding door. 26-3/8 inches wide by 34 inches high by 18 inches deep. 3-drawers: 21-1/4 inches wide by 2-1/2 inches deep. 2-drawers: 21-1/4 inches wide by 4-1/2 inches deep. Closed compartment design. Special feature: Available in 4-colors: Gray, Red, Green, or Blue. As specified, hue may be Brown. Fed Spec AA-C-45.

01-010-4776

7-drawers. Steel, painted Brown. 29 inches wide by 34 inches high by 20 inches deep. Rolls on casters.

01-010-4775

8-drawers, Steel. 19 inches wide by 37-1/8 inches high. Rolls on casters. Fed Spec AA-C-45.

01-019-0802

CARRIER, TOOL

Leather and Cotton Duck holders for small tools. Slip-over belts, straps, etc. Fed Spec GGG-C-1520.

Cloth, Duck, Cotton. 1-pocket tool carrier. With double wire hook for attachment to belt. 8-1/2 inches long by 3-3/4 inches wide. Used for carrying small hand tools.

00-261-4994

Leather, 2-pocket tool carrier. Holds knife and pliers. With flap and belt tunnel loop. 8 inches long by 3 inches wide.

00-498-8898

Leather, 5-pocket tool carrier. Arranged horizontally in 2-rows. 3-compartments in back row, 2-compartments in front row, with slits through which a belt may be inserted. Snap hook and 2-Steel staples.

	Lg	W
00-735-7988	8-1/2	6-1/2
00-529-1889	9-1/4	8-1/2

Leather overall. 6 compartments, 3 in the back and 3 in the front. Has slit for belt to fit through. Special Feature: Has a snap hook for attaching a knife.

	Lg	W
00-927-8963	10	7

CASE, TWIST DRILL

Metal case for straight shank drill sets. Hinged cover raises drill-holder(s) to upright position. Marked with jobber length drill sizes. Fed Spec GGG-C-116.

For 29 fractional drills, sizes: 1/16 to 1/2 inches by 64ths. See NSN 5133-00-293-0983 for drill set.

00-277-8835

For 26 drills, A to Z range, marked with drill sizes.

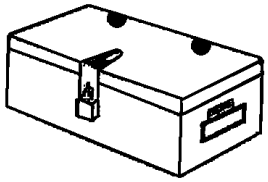
00-250-2529

For 60 wire gage drills, sizes 1 to 60. See NSN 5133-00-449-6775 for drill set.

00-277-8836

CHEST, TOOL KIT

Mechanics tool storage box. 18-gage Galvanized sheet Steel all welded or riveted construction. 10 inches wide by 10-5/8 inches long by 3-7/8 inches deep. Tote tray, butt-hinged lid, 2-end handles, and trunk latch device. 23 inches long by 11 inches wide by 9 in high overall. NAVSEA Drawing CV20-S9200-335182.



00-369-4927

POUCH, MECHANIC'S TOOLS

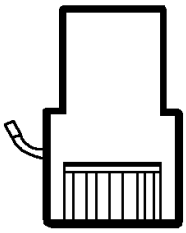
Mechanics' Olive Drab Cotton Duck cloth tool pouch. Two Cotton webbing handles. Zipper closure along the entire length of the top, extending 2 inches downward on each end. 4-tool pockets sewed to each inner side. 3-tool pockets with flap sewed to each outer side. Bottom is stiffened with synthetic composition board. Overall dimensions, excluding projections: 11-1/2 inches long by 5-1/4 inches wide by 7 inches high.

00-329-4306

ROLL, TOOLS AND ACCESSORIES

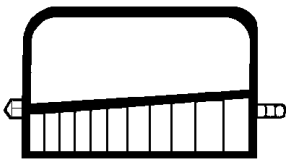
Cotton Duck material, with strap and buckle closure method. Mildew resistant and water repellent. Mil Spec Mil-R-45804.

11 pockets, without flap. 12-1/2 inches long by 7-5/8 inches wide. Pocket widths are: .937, .812(2), .875, 1.000, 1.125(3), 1.313, 1.438, and 1.562.



00-708-3431

9 pockets, with flap. 21-1/2 inches long by 12 inches wide. Pocket sizes: 6 inches high by 1-1/2 inches wide (3), 6 inches high by 2 inches wide (4), 6 inches high by 2-1/2 inches wide (1), and 6 inches high by 12 inches wide (1).



00-335-0085

Made of Canvas, 6 pockets, flap that secures with a snap fastener. Mildew resistant.

00-650-7328

Cotton Duck with flap and closure strap. 45 inches long by 36 inches wide. Used for damage control equipment for submarines. Consists of: (1) 30 inch wrecking bar, (2) hacksaw blades, 12 inches long/24 teeth per inch, (2) 12 inches long/32 teeth per inch, (2) 12 inches long/18 teeth per inch, (1) 3/8 inch cape chisel, (1) 7/8 inch cold chisel, (1) 7 inch vise grip clamp pliers, (1) 3-1/2 inch vise grip(wrench pliers), (1) 30 inch long bolt cutter - 1/2 inch capacity, (1) hacksaw frame - hard, (2) pair Rubber gloves (5000 volt electric work), (1) pair gloves - hot work, (1) ball peen hammer, (1) hatchet-half type C, (2) voltage testers, (1) roll friction tape, (1) 6 inch diagonal pliers - cutting, (1) 8 inch side cutters, (1) 6 inch gas pliers, (1) fuse puller 0 - 100A, (1) 3/8 inch diameter pin punch, (1) 1/4 inch diameter, (1) 1/8 inch diameter, (1) 12 inch flat tip screwdriver, (1) 8 inch, (1) 4 inch, (1)12-1/2 inch shears, (1) 12 inch adjustable wrench, (1) 8 inch, (1) 6 inch, (1) 14 inch pipe wrench, and (1) #3-6 Phillips head screwdriver.

01-167-2581

Plastic material. 12 pockets with a tape tie closure. Measures 19.750 inches long by 14.500 inches wide. Non Spec Item.

00-106-5671

TOOL BOX, PORTABLE

Steel, 4-5/16 inches long by 2-53/64 inches wide by 3/4 inches high.

00-448-3967

Portable Aluminum briefcase style, top carrying handle, 2 latch closure method, 3 panels for tool control. Tools can be mounted in holes or attached to panels. Accommodated pounds of tools shown below.

	Lg	W	H	Lbs
01-154-3870	18	6	11-1/2	20
01-154-3868	18	8-13/32	13-1/2	45
01-154-3869	22	8-13/32	16-1/2	60

Portable sheet Steel tool boxes and chests. All have full-length piano hinges, carrying handle(s), locking hardware, and baked Enameled finish, except as noted. Fed Spec GGG-T-558.

CARPENTER'S

Consists of: a body, lid, 2 drawers, 2 level brackets, saw block, hardware, and handle. Body and lid are fabricated from sheet Steel, 22 or more gage thick, Enameled finish. Pressed wood bottom protects edged tools. Each outside corner reinforced for added strength and protection. One handle at top of chest, 2nd handle on end. Furnished with one hasp and staple for padlock. 32-3/8 inches long by 8-3/8 inches wide by 9-1/2 inches high. Fed Spec GGG-T-558/4.

00-816-1791

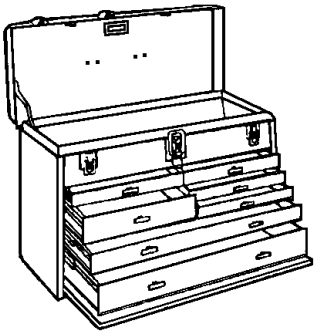
MACHINIST'S

Chest with tilt-top sliding drawers, and front locking panel. Felt lined top compartment and drawers. Front panel slides under bottom drawer. Hinged lid with bracket stop and top center handle. Pin tumbler lock with 2 keys. 22 compartments per drawer. 20 inches long by 8-1/2 inches wide by 13 inches high. Fed Spec GGG-T-558/7.

3-Drawer Chest

00-494-2015

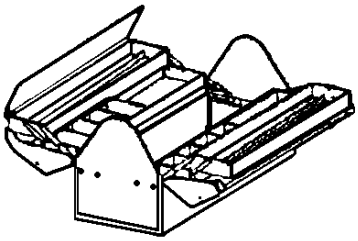
7-Drawer Chest



00-319-5079

MECHANIC'S

Steel, Enameled tool box. 4-cantilever trays, double cover, hip roof type, heavy duty handles, and reinforcing skids on bottom. Covers on 2 of the 4 trays. Padlock eye or hasp and 2 draw bolts or catches. Fed Spec GGG-T-558/2.

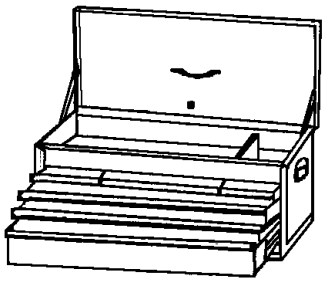


	Lg	W	H
00-289-8911	18	10-1/2	14
00-289-8910	22	10-1/2	14

General use. Steel Enameled, Epoxy treated tool box with tote tray. Without lock. Double cover hip roof type, two 5/16 inch diameter formed handles. 3-compartment tray, 1-3/4 inches deep.

	Lg	W	H
00-498-8772	21	8-1/2	7-3/8
00-473-6260	21	9-1/2	9-7/8

Tool chest with 6 drawers and tote tray. Hinged top cover and front locking panel lift up and out of the way. Folding brackets hold lid open. Tote tray fits 3-section tilt-in-top compartment. Top center and end drawers, 4-1/4 by 10-1/4 by 1 inches deep (minimum). 3-full-width drawers, two 1 inches deep, one 2-3/4 inches deep (minimum). 2 metal side handles for easy carrying. 26 inches long by 13 inches wide by 15 inches high overall.



00-388-3416

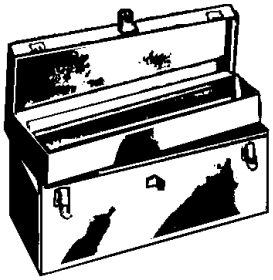
Tool chest with 9 drawers. Integral key locking device. 2 handles located on each end. 26 inches long, 14-3/4 inches wide, and 17-1/8 inches high. Steel material painted Red. GSA customer tool standardization economical replacement.

01-367-3936

Tool chest with 9 drawers. Integral key locking with tumbler type lock panel. Handles on left and right end surfaces. 31 inches long, 15 inches wide, and 17 inches high. Steel material treated with enamel.

00-104-0196

Steel, Enamel coated, with 3 compartment tote tray. 1 hasp and staple for padlock and 2 draw bolts. 1 handle on top. 22 by 8-1/2 by 9-1/2 inches high overall.



00-315-2758

Steel, Enamel coated. 1 hasp and staple for padlock. 1 handle each end. 38 inches long by 12 inches wide by 17 inches high overall. Fed Spec GGG-T-558/6.

00-226-9021

Steel, Enamel coated. 2 latch fasteners, with piano hinge and top folding carrying handle. 25-1/2 inches long by 6 inches wide by 4-1/2 inches high overall. Snap-On Tools, number: KRA-109. SPCC HX Quality control item.

00-902-3983

SHIPFITTER'S

Hip roof tool box with narrow tote tray. Reinforcing skids on bottom. Braced lid with chest type top handle, hasp and staple for padlock eye. Tray 3-1/16 inches wide by 2 inches deep overall. 18-1/2 inches long by 7-1/2 inches wide by 8 inches high.

00-587-5558

TOOL STORAGE BOXES

Heavy duty storage boxes for craftsmans tools. Heavy gage Steel, Olive Green Enamel finish overall. Lid fitted with butt-hinges, hasp, and staple.

Side handles with 90 degree stops. Fed Spec GGG-T-558/6. Marking and size as noted.

Electricians mate's. 24 inches long by 12 inches wide by 12 inches deep. 18 gage Steel, with 2 butt-hinges and 1 drop handle on top center.

00-226-9018

Motor Machinists mate's. 33 inches long by 14 inches wide by 12 inches deep. 16-gage Steel with 3 butt-hinges and 2 side handles.

00-226-9019

Red enamel Steel portable tool box. 9 drawers with top till. Integral key locking device. 2 handles; one on each end. Top chest. Camp Items. Dimensions in inches. Non-Spec Item.

	Lg/In.	W/In.	H/In.
01-244-5756	26.000	12.062	14.312
01-386-0784	26.000	14.750	20.750

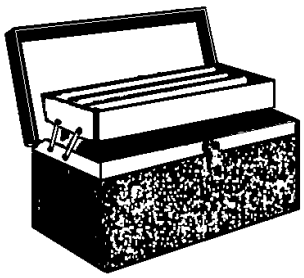
Painted Steel portable tool box. One removable tray. Top handle. Hasp and staple available for unprovided padlock. Dimensions in inches. Non-Spec Item.

	Lg/In.	W/In.	H/In.
01-081-7826	24.000	8.5000	9.750

UNIVERSAL -TYPE

Tool boxes with reinforced corners. 24-gage Steel. Continuous hinged lid with top center carrying handle, draw bolt and hasp, and staple. Fed Spec GGG-T-558/1.

2-compartment cantilever tray. 1-3/8 inch deep. Tray lifts up and out when lid is opened.



	Lg/In.	W/In.	H/In.
00-331-5496	19	7	7

3-compartment tote tray. Handled tray supported by brackets.

	Lg/In.	W/In.	H/In.
00-315-2747	16	7	7

TOOL RETAINER

Steel material 18 inches long and 3 inches wide. Used to hold round shank tools. Tools rest on foam block inside retainer.

	Qty/In.	Size/In.
00-124-5613	13	1/4
00-124-5618	17	3/8

CLASS 5180
SETS, KITS AND OUTFITS OF HAND TOOLS

NOTE: As non-plastic alternatives to plastic items currently in use are identified, information will be provided through shopping advisory messages and the Afloat Shopping Guide. To help you shop more "wisely", items recommended for shipboard use will be annotated with "NP" by the National Item Identification Number.

CHISEL AND PUNCH KIT, METALWORKING

7 piece kit includes: 4 punches, 3 chisels, and 1 kit bag. Punch sizes: 1/16, 1/8, 3/32, and PPC405A punch 1/16 inch. Chisel sizes 5/16, 3/16, and 5/32 inch.

00-375-7275

19 piece kit includes: Five hand-held cold, chisels; 13 punch drive pins; One solid center punch (With Special Feature: chisel gage); Solid center punch, 3-3/4 inches long by 5/16 inches in diameter, with 1/8 inch point; Drive pin punch, 4 inches long by 1/2 inch in diameter, with 7/32 inch point.

Chisels	Punch, Drive Pins	
Point Lg/W	Taper Dia/Lg	Dia/Lg
5 x 3/8	3/32 x 11/16	3/32 x 1-1/2-2-1/2
5-3/4 x 1/2	1/8 x 3/4	1/8 x 1-1/2-2-3/4
6 x 5/8	5/32 x 13/16	5/32 x 1-1/2-2-3/4
6 x 3/4	3/16 x 15/16	3/16 x 1-3/4-3
7-1/2 x 7/8	1/4 x 1	1/4 x 2-3-1/2
—	5/16 x 1	5/16 x 2-3-1/2

00-055-7042

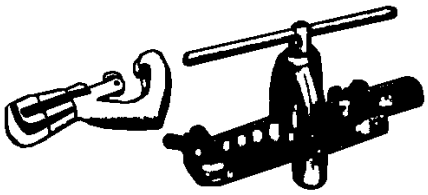
CLAMPING TOOL OUTFIT, STRAP BAND, HOSE

Designed for 5/8 inch wide by 1/32 inch thick strap. 100 feet long with 100 locking seals and with 2 pound mallet.

00-288-6567

CUTTER AND FLARING TOOL KIT, TUBE, HAND

Cutter has feed mechanism, closed flare cut off and a deburring tool. Cuts tubing with outside diameter of 1/8 inches through 1-1/8 inch. Fed Spec GGG-C-771. Flaring tool is screw actuated, swivel cone, and hinged die type. Double flaring adapter provided and accommodates 3/16 inches through 1/2 inch tubing. Capable for single flaring of: 1/8, 3/16, 1/4, 3/8, 1/2, and 3/4 inches. Can produce flare angle of 90 degrees. Cadmium Plated tubing not acceptable. Fed Spec GGG-F-451.



00-596-1038

PULLER KIT, UNIVERSAL

Mechanical means to pull apart pressed items.

Fed Spec GGG-P-781.

25 components

Consists of: Adapter, mechanical puller (2) 5120-00-034-7626; adapter, mechanical puller (2) 5120-00-034-7627; spacer, adapter puller (1) 5120-00-034-7631; spacer, adapter, puller (1) 5120-00-034-7632; spacer, adapter, puller (1) 5120-00-034-7633; spacer, adapter, puller (1) 5120-00-034-7634; legs, push puller (1) 5120-00-277-0632; legs, push puller (1) 5120-00-277-0633; puller attachment, mechanical (1) 5120-00-288-6755; puller attachment, mechanical (1) 5120-00-288-6756; puller, mechanical (1) 5120-00-288-7710; puller, mechanical (1) 5120-00-288-7711; puller, mechanical (1) 5120-00-288-7712; puller, mechanical (1) 5120-00-288-7713; puller, mechanical (1) 5120-00-288-7714; adapter, mechanical puller (2) 5120-00-316-9170; adapter, mechanical puller(2) 5120-00-316-9171; adapter, mechanical puller (2) 5120-00-316-9172; wrench, box (1) 5120-00-892-2258; wrench, box (1) 5120-00-892-2259.

00-033-5606

Mechanical gear and bearing puller kits with metal carrying case.

Fed Spec GGG-P-781.

26 components

Consists of: 2 pullers; single end grip sizes 3 and 5; one push-pull type puller, size 1; two external bearing puller attachments, sizes 2 and 3; 10 adapters, 2 of each size 1, 2, 4, 7, and 9; 1 pair of push-pull legs, 15-3/4 inches long; 3 spacer adapters, sizes 3, 4, and 5; one box wrench, 1 inch, 12-point single end, with 11 inch extension.

00-033-5607

28 components

One rod 5120-00-313-9497; one sliding hammer 5120-00-313-9498; one nut 5120-00-313-9499; one yoke 5120-00-313-9500; 3 pins 5120-00-313-9501; one cross-arm 5120-00-313-9502; 3 jaws 5120-00-313-9504; 3 jaws 5120-00-313-9505; 3 jaws 5120-00-313-9506; one jaw 5120-00-313-9508; 3 jaws 5120-00-340-2010; 3 jaws 5120-00-357-6278; one yoke 5120-00-357-9244.

00-313-9496

THREADING SET, PIPE

Set contains 5 rectangular two-piece collect type dies and 5 taps with NPT right-hand threads: Sizes 1/4-18, 3/8-18, 1/2-14, 3/4-14, and 1 11-1/2. Five pipe reamer sizes 1/4, 3/8, 1/2, 3/4, and 1 inch die stock with adjustable guide. 1 tap wrench. Fed Spec GGG-T-581.

00-752-9360

THREADING SET, SCREW

Fed Spec GGG-T-330.

Threading Set, Navigation, Size 1.

Contains: 2 each taper, plug and bottoming tap, for each NC thread series

shown below; One round adjustable split die, 13/16 inch outside diameter for each NC thread series shown below; Two drills for each size shown below; One die stock, for 13/16 inch outside diameter die; One tap wrench 0-1/4 inch hand tap, T-handle; One twist drill and drill rod gage; One screw pitch gage, for threads from 9 to 40 thread per inch, also 24, 32, and 40 pitch sizes; One case; and One reamer.

Taps and Dies NC/Thd Series	Drill Size No.	Decimal	Size No.	Decimal
4-40	43	.0890	17	.1730
6-32	36	.1065	16	.1770
8-32	29	.1360	9	.1960
10-24	27	.1440	1	.2280
12-24	25	.1495	—	—

00-752-9359

Threading Set (screw) Set number 0. Size 1.

Contains 1 each: taper, plug, and bottoming tap, for each NC thread series shown below; One 13/16 inch outside diameter round split die, for each NC thread series shown below; One straight-shank drill, for each drill size shown below; One die stock, for 13/16 inch outside diameter dies; One tap wrench for 0 to 1/4 inch tap capacity, with T-handle; One case; and One reamer.

Taps and Dies NC Thd Series	Drill Size No.	Decimal
3-48	47	.0785
5-40	38	.1015
8-32	29	.1360
10-24	25	.1495
12-24	16	.1770

00-752-9355

Set No. 1. Sizes 4 and 5.

Contains 1 each: taper, plug, and bottoming tap, for each NC thread series shown below; One split die, for each of the NC thread series outside diameters shown below; One drill for each of the drill sizes and shank sizes, as shown below; One die stock for 1-1/2 inches and 2-1/2 inch outside diameter dies; One tap wrench for 1/4 to 1/2 capacity, with T-handle; One tap wrench for 1/2 to 1 inch tap capacity, with straight handle; One case; and One reamer.

Taps and Dies NC Thd Series	Dies OD In.	Size	Drill Decimal	Shank
1/4-20	1-1/2	No. 7	.2010	Straight
5/16-18	1-1/2	No. F	.2570	Straight
3/8-16	1-1/2	5/16	.3125	Straight
7/16-14	1-1/2	No. U	.3680	Straight
1/2-13	1-1/2	27/64	.4219	Straight
9/16-12	2-1/2	31/64	.4843	Straight ASA
5/8-11	2-1/2	17/32	.5312	Morse Taper ASA
3/4-10	2-1/2	21/32	.6562	Morse Taper ASA
7/8-9	2-1/2	49/64	.7656	Morse Taper ASA
1-8	2-1/2	7/8	.8750	Morse Taper ASA

00-752-9356

Set No. 2.

Contains 1 each: taper, plug, and bottoming tap, for each NC thread series shown below; One round split die, with 3 inch outside diameter, for each NC thread series shown below; One Morse taper-shank drill, for each of the drill sizes shown below; One die stock for 3 inch outside diameter dies; One tap wrench for 1 to 2-1/2 inch tap capacity, with straight handle; and One case.

Taps and Dies NC Thd Series	Drill Size No.	Decimal
1-1/8-7	63/64	.9844
1-1/4-7	1-7/64	1.1094
1-1/2-6	1-11/32	1.3438

00-752-9357

Set no. 3. Size 4

Contains 1 each: taper, plug, and bottoming tap, for each NF thread series shown below; One round split die, 1-1/2 inch outside diameter, for each NF thread series shown below; One straight-shank drill ,for each of the drill sizes shown below; One die stock for 1-1/2 inch outside diameter dies; One tap wrench for 1/4 to 1/2 inch capacity, with T-handle; One case; and One reamer.

Taps and Dies NF Series	Drill Size No.	Decimal
1/4-28	3	.2130
5/16-24	1	.2720
3/8-24	Q	.3320
7/16-20	25/64	.3906
1/2-20	29/64	.4531

00-752-9358

Non-Spec type sets.

39 components, consists of: one plug tap and 1 inch solid round die, for the thread sizes shown below; One adjustable die stock; One adjustable handle, tap wrench; One T-handle, tap wrench; One screw pitch gage; and a screwdriver.

NC Thd Series	Taps and Dies NF Thd Series	NPT Thd Series
4-40	10-32	1/8-27
6-32	1/4-28	—
8-32	5/16-24	—
10-24	3/8-24	—
12-24	7/16-20	—
1/4-20	1/2-20	—
5/16-18	—	—
3/8-16	—	—
7/16-14	—	—
1/2-13	—	—

00-856-3471

Metric

27 components, with fitted case. Consists of: three Carbon Steel taps; one die as shown below and two each die stocks; and One tap holder.

Sizes 7, 8, 9, 10, 11, and 12 MM.

00-173-4890

TOOL KIT, AIR TUBING

7 Piece kit contains: 1 leak detector, 2 flaring tools, 2 wrenches, 1 file, and 1 instruction and order sheet. The complete kit is contained in a box.

00-343-2016

TOOL KIT, AUTOMOTIVE ELECTRICAL

12 components. Consists of: One thickness gage, one hand-held screw starter, one slip-joint pliers (5 inches long), one roll, tools and accessories. Mil-R-45804. Size 1. 11 pockets. One ignition wrench set, double head, open end with 15 and 60 degree heads.

Wrench Size

15 Deg/In.	60 Deg/In.	Lg/In.
13/64	15/64	3
15/64	13/64	3
7/32	1/4	3
1/4	7/32	3
9/32	5/16	3-1/2
5/16	9/32	3-1/2
11/32	3/8	3-3/4
3/8	11/32	3-3/4

00-422-8594

TOOL KIT, BLIND RIVET

Consists of: D-100-1 rivet tool; 3/32 nut plate rivet nose piece; 1/8 nose piece; universal nose piece (1/8, 5/32, 3/16); 1/4 nose piece; 1/4-20, 1/4-28, 5/16-18, 3/8-16 pull-up studs and driving anvils; 187 adapter for pulling heads; metal case (2-1/2 x 6-1/2 x 10); instruction sheet; and warranty card.

01-201-4979

TOOL KIT, ELECTRICAL CONTACT

Designed to crimp pins and socket contacts of AWG wire size 12 through 26, with or without turret head. Color coded positioners for ease of alignment with indenters. Mil Spec Mil-T-83507.

1-contents chart, 1-instruction sheet, 1-tool selection chart.

1 - M22520/1-01	crimp tool
1 - M22520/1-02	turret head
1 - M22520/1-03	turret head
1 - M22520/3-01	in service inspection gage
1 - 9/64 inch	hex wrench

00-921-5771

General purpose use. 15 components contained in tool case. 12-3/8 inches long by 8-3/16 inches wide by 3-1/4 inches high. Mil Spec Mil-M-83521/6.

Parts List:

(1 Set) Contains charts, instruction sheets, and tool selection chart.

1 ea	M83521/6-02	tool case assembly
1 ea	M22520/1-01	crimp tool frame
1 ea	M22520/1-02	turret head
1 ea	M22520/1-05	universal head
1 ea	M22520/2-01	crimp tool frame
1 ea	M22520/2-02	positioner
1 ea	M22520/2-03	positioner
1 ea	M22520/3-1	in service inspection gage
1 ea	74008	hex wrench, Allen
1 ea	45-174	wire stripper, hand, 16 - 26 AWG (or equal)
1 ea	M81969/17-05	installing tool
1 ea	M81969/17-04	installing tool
1 ea	M81969/17-03	installing tool
1 ea	M81969/19-09	removal tool
1 ea	M81969/19-11	removal tool
1 ea	M81969/19-10	removal tool

00-079-3400

TOOL KIT, ELECTRICAL REPAIR

Kit consists of: a bag, belt, hacksaw frame and blade, chisel, gloves, hammer, indicator, tape, lantern, matting, pliers, fuse puller, screwdrivers, wire strippers, twine, wrench knife with 3 inch blade and hardwood handle, fuses, and voltage tester. For shipboard repair party lockers.

00-391-1087

TOOL KIT, ELECTRICIAN'S

Canvas tool roll. Kit consists of: extension blade, screwdriver handles, nut driver blades, pliers, tapered reamers, screwdriver blades, and an adjustable wrench.

00-650-7821

TOOL KIT, ELECTRONIC SYSTEM

Consists of the following components: handles, extensions, Bristol spline; Allen hexagonal socket screw key bits; Phillips and slotted screwdriver blades; reamer; diagonal, chain nose, needle nose, and other pliers; adjustable wrench; electronic snips; adjustable wire and cutter stripper; electronic knife; mini-driver kit; offset ratchet screwdriver set; 4 - way socket tool; screwdriver hexagonal socket; nutdrivers; amplifier torque handle; and a tool case.

01-046-4980

End item ID PRC 400A.Consists of 22 components.

Supply Items: One awl, scratch 5120-00-133-3092; Three drill stands 3439-00-280-2350.

Non-supply items: one screwdriver handle, 1119-0004; four screwdriver blades, 1100-0091, 1100-0092, 1100-0093, 1100-0094; two Phillips blades, 1100-0096, 1100-0097; three Allen wrenches, 1100-0098, 1100-0099, 1100-0100; five socket wrenches, 1100-0106, 100-0107, 100-0108, 1100-0109, 1100-0110; and five open end wrenches, 1100-0111, 1100-0112, 1100-0113, 1100-0114, 100-0115.

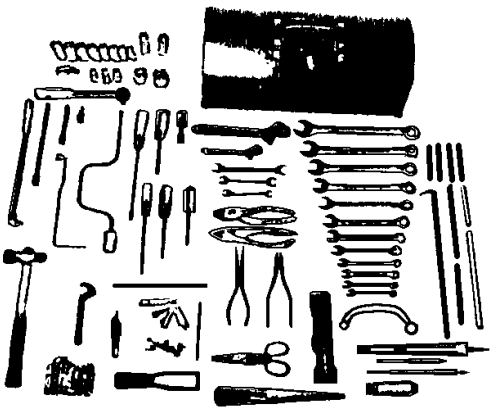
00-168-2134

Consists of the following 15 components: Diagonal cutting pliers, flat nose pliers, needle nose pliers, round nose pliers, long nose pliers, magnifier, clamp curved heat sink, solder roll, solder dispenser pack, 45 degree mirror, serrated tweezer, Oxide remover (Red and Grey), package of 5 mini heat sinks and soldering iron with tip.

00-333-3266

TOOL KIT, GENERAL MECHANIC'S

Tools for skilled workers to work on machinery, motors, etc. Kit contains 83 pieces. Contents: a pry bar; paint brush; cold chisel; American and Swiss pattern files; flashlight; thickness gage; gap setting gage; machinists hammer, wood file handle; Allen wrench set; pocket and putty knives; pliers set; aligning drive pin and solid center punches; screwdrivers; screw starter; metal cutting shears; socket wrench sockets and handles; machinists Steel rule; adjustable open-end wrench; box wrench; crowfoot wrench; fixed open-end wrench set; spanner wrench; combination box and open-end wrench set; a padlock; and a portable tool box.



00-177-7033

39 components, with canvas case. Consists of: One T - handle; one regular handle; nine regular nut drivers; one magnetic nut driver; nine hex screwdrivers; nine Bristol multiple spline screwdrivers; four slotted screwdrivers; three Phillips screwdrivers; one reamer; and one extension blade.

01-034-8231

TOOL KIT, GENERAL OFFICE REPAIR

Contains: 1 set of miniature screw drivers; 2 regular size Phillips and flat tip screwdrivers;16 foot tape measure; 13 ounce head claw hammer; 1 retractable blade utility knife; 8-1/2 inch long shears; 1 pair 6-1/2 inch slip joint pliers; 1 pair, 6-5/8 inch long chain nose side cutting pliers; 1 pair of tweezers; 6 inch Adjustable wrench; and 1 set of Allen wrenches.

01-336-7141

TOOL KIT, MODULE REPAIR

Used in the repair of different size printed circuit boards. Module repair kit. Consists of: one SX 200 solder extraction system; one PM75 miniature machining system; one S15 lap reflow soldering system; one TP15 thermal parting system; one HP150 environmental probe system; one VT100 vacuum cleaning and handling system; one TW15 resistance tweezer heating system; one T515 thermal strip system; one CT conductive tweezer heating system; one pro-vise; one hot cubby system with cleaning unit; and one conforming unit.

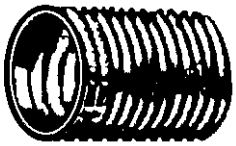
00-152-9257

TOOL KIT, SCREW THREAD INSERT

SLIMSERTS (SR SERIES) REPAIR KITS

Standard thin-wall inserts, both locking and free-running, per Mil-I-45932/1. All necessary tools including: step drill, tap, 4 point wrench, 6 point wrench, swage tool, and removal tool.

Instructions are provided in each repair kit. Select repair kit according to required internal thread size. Use for replacement of same size inserts with damaged internal threads or damaged tap holes which contained no inserts. Refer to FSC 5340 for individual thin-wall insert spares.



	Internal Thd/Size	Quantity Non-locking 4 Point	Self-locking 6 Point	Rosan Kit Part No.
00-177-8963	10-24UNC	40	40	K4-194-194L
00-177-8967	1/4-20UNC	40	40	K4-250-250L
00-157-1102	5/16-18UNC	20	20	K4-318-318L
00-157-1103	3/8-16UNC	12	12	K4-376-376L
00-157-1104	1/2-13UNC	10	10	K4-503-503L
00-157-1105	5/8-11UNC	5	5	K4-621-621L
00-177-8968	10-32UNF	40	40	K4-192-192L
00-178-0046	1/4-28UNF	40	40	K4-258-258L
00-177-8962	5/16-24UNF	20	20	K4-314-314L
00-157-1108	3/8-24UNF	12	12	K4-374-374L
00-157-1110	7/16-20UNF	12	12	K4-430-430L
00-157-1228	1/2-20UNF	10	10	K4-500-500L

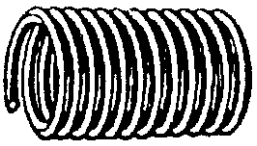
SLIMSERTS (SRW SERIES) REPAIR KITS

Oversize thin-wall inserts, both locking and free-running types, per Mil-I-45932/3. All necessary tools, and instructions are provided in each repair kit. Select repair kit according to required internal thread size. Used for repair of damaged tapped holes which contained standard Mil-I-45932/1. Thin wall inserts or Mil-I-8846 helical coil wire inserts. Refer to FSC 5340 for individual thin wall insert spares.

	Internal Thd/Size	Rosan Kit Part No.
00-126-1772	10-24UNC	K4SRW 194-194L
00-126-1766	1/4-20UNC	K4SRW 250-250L
00-126-1761	5/16-18UNC	K4SRW 318-318L
00-126-1750	3/8-16UNC	K4SRW 376-376L
00-126-1773	1/2-13UNC	K4SRW 503-503L
00-126-2797	10-32UNF	K4SRW 192-192L
00-126-1769	1/4-28UNF	K4SRW 258-258L
00-126-1765	5/16-24UNF	K4SRW 314-314L
00-126-1701	7/16-20UNF	K4SRW 430-430L
00-126-1774	1/2-20UNF	K4SRW 500-500L

THREAD REPAIR KITS, HELI - COIL

Both free running and screw lock inserts of 1-1/2 and 2 nominal diameter lengths, per Mil-I-8846. All necessary tools, and instructions are provided in each kit. Select repair kit according to required internal thread size. Used for replacement of same size inserts when the tapped holes which contained no inserts. Refer to FSC 5340 for individual Heli-Coil wire insert spares, and FSC's 5120, 5136 and 5220 for replacement tools and taps.



	UNC Thd/Size	Heli-Coil Repair Kit Part No.
00-054-7506	4-40	4131-04-1
00-054-7524	5-40	4131-05-1
00-054-7507	6-32	4131-06-1
00-935-0730	8-32	4131-2-1
00-935-0731	10-24	4131-3-1
00-054-7526	12-24	4131-1-1
00-935-0732	1/4-20	4131-4-1
00-935-0733	5/16-18	4131-5-1
00-935-0734	3/8-16	4131-6-1
00-054-7503	7/16-14	4131-7-1
00-051-5024	1/2-13	4131-8-1
00-059-4829	9/16-12	4131-9-1
00-054-7514	5/8-11	4131-10-1
00-051-5025	3/4-10	4131-12-1
00-054-7515	7/8-9	4131-14-1
00-051-5026	1-8	4131-16-1

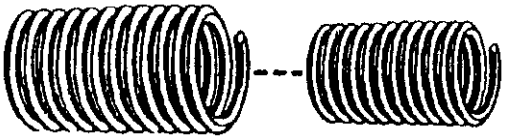
	UNF Thd/Size	Heli-Coil Repair Kit Part No.
00-054-7525	6-40	4132-06-1
00-935-0735	10-32	4132-3-1
00-935-0736	1/4-28	4132-4-1
00-935-0737	5/16-24	4132-5-1
00-935-0738	3/8-24	4132-6-1
00-935-0739	7/16-20	4132-7-1
00-054-7505	1/2-20	4132-8-1
00-054-7516	9/16-18	4132-9-1
00-054-7512	5/8-18	4132-10-1
00-054-7513	3/4-16	4132-12-1
00-054-7519	7/8-14	4132-14-1
00-054-7520	1-12	4132-161-1
00-054-7521	1-14	4132-16-1
00-054-7522	1-1/8-12	4132-18-1
00-054-7523	1-1/4-12	4132-20-1

14 Component Kit: 12 inserts, 1 tap, and 1 inserter.

	UNC Thd/Size	Heli-Coil Repair Kit Part No.
00-760-2597	1/4-20	4951-4
00-760-2599	3/8-16	4951-5
00-760-2598	5/16-18	4951-6
00-760-2600	7/16-14	4951-7
00-760-2601	1/2-13	4951-8
00-760-2602	5/8-11	4951-10

TWINSERTS INSERT REPAIR KIT

Special insert consisting of, 2 separate coil inserts. The outer insert is free running. The inner insert is either free-running or thread locking. Select repair kit according to internal thread size. A quantity of inserts, of 1-1/2 nominal diameter length, all necessary tools, and instructions are provided in each kit. Used primarily to repair Heli-Coil insert installations. Where the tapped threads have been damaged to allow use or the original size screw.



	UNC Thd/Size	Heli-Coil Repair Kit Part No.
00-832-4906	8-32	4146-2-1
00-832-4907	10-24	4146-3-1
00-832-4908	1/4-20	4146-4-1
00-089-8132	5/16-18	4146-5-1
00-832-4910	3/8-16	4146-6-1

	UNF Thd/Size	Heli-Coil Repair Kit Part No.
00-832-4911	10-32	4147-3-1
00-832-4912	1/4-28	4147-4-1
00-832-4913	5/16-24	4147-5-1
00-832-4914	3/8-24	4147-6-1
00-832-4915	7/16-20	4147-7-1

TOOL KIT, TEST SET

Comprised of: one case; one ratchet; one extension; one screwdriver handle; 12 Allen hex type adapters; two slotted head adapters; two Phillips-head adapters; and one adapter, 1/4 inch square drive.

00-465-3858

TOOL KIT, TUNE UP

Used for: Detroit Diesel Engine application: 53, 71, and 92.

Comprised of: one, J24790-2A, carrying case; seven injector timing gages: J1853 1.460, J26888 1.466, J24236 1.470, J29065 1.480, J1242 1.484, J29066 1.490, J9595 1.496; seven injector rack gages: J24889 .345, J24882 .385, J23190 .454, J33156 .465, J25559 .570, J29063 .594, J25560 .636; one, J21100-D, push rod adjusting wrench set; one, J9708-01, valve lash feeler gage set; one, J8932-01, fuel line nut socket; one, J25558, throttle delay pin gage; one, J5345-12, Spanner nut socket; one, J5407, governor gap gage (.170); one, J23478, governor gap gage (200); one, J3172, feeler gage set (.0015 to .015); one, J4657-5, adjusting wrench 3/8 by 3/8 inch; and one, J4756-6, adjusting wrench 7/16 by 7/16 inch.

00-785-3895

10 piece, kit consists of: one 5CP midget pliers; one ea: FB303, FB305, FB316B gages; one, DS806, open end wrench; one, HB5, ignition point file; one,MD18A, distributor adjusting tool; one, SS5A, screw starter; one, SSD2, screw starter; and a C111C Vinyl-fabric kit bag.

00-892-4950

TOOL SET, AIR COMPRESSOR

Consists of: one piston rod installing tool assembly; piston rod packing removal tool; pulley puller; first stage liner setter; second stage liner setter; first stage liner puller assembly; and a second stage liner puller assembly.

01-075-1220

TORQUE SCREWDRIVER KIT

Micrometer scale calibration of all units. End item ID TS-100; 2 ounce increments. Kit includes: hexagon keys: .028, .035, .050, 1/16, and 5/64; sockets: 3/32, 1/4, and 5/16; screwdriver: .080, .100, .134, and .185; Phillips 0 and 1; adapters HW-18 and HW-19; with carrying case.

01-007-8999

NIIN Cross Reference Index

NIIN	Page No.
00-001-3956	1-134
00-003-0706	1-51
00-003-5919	1-113
00-003-6293	1-61
00-003-8324	1-155
00-003-8601	1-33
00-004-8282	1-153
00-005-5513	1-115
00-005-8054	1-190
00-006-0429	1-101
00-006-2587	1-55
00-006-7906	1-125
00-006-9373	1-118
00-007-2199	1-117
00-007-2324	1-26
00-008-0705	1-184
00-008-4860	1-25
00-008-6037	1-61
00-008-8818	1-122
00-008-9832	1-140
00-008-9834	1-140
00-008-9853	1-122
00-008-9854	1-122
00-008-9855	1-122
00-008-9856	1-122
00-008-9857	1-122
00-009-0369	1-115
00-009-2132	1-134
00-009-2133	1-134
00-009-2334	1-31
00-009-3386	1-122
00-009-3393	1-134
00-009-3743	1-204
00-009-5044	1-182
00-009-5217	1-122
00-009-7238	1-122
00-009-8259	1-133
00-010-3867	1-135
00-010-4005	1-214
00-010-5602	1-146
00-011-2304	1-134
00-011-2578	1-134
00-011-3175	1-134
00-011-3176	1-135
00-011-3177	1-135
00-011-3178	1-135
00-011-3179	1-135
00-011-4627	1-134
00-011-8538	1-134
00-012-3571	1-78
00-012-4013	1-201
00-012-4016	1-201
00-013-6969	1-129
00-013-6970	1-129
00-013-7445	1-94
00-013-7464	1-94
00-014-4303	1-134
00-014-4615	1-132
00-014-6699	1-61
00-015-3078	1-77
00-016-6382	1-204
00-016-6483	1-53
00-016-7582	1-204
00-016-7657	1-184
00-017-3921	1-184
00-017-8234	1-117
00-018-0529	1-190
00-018-0575	1-190
00-018-0952	1-172
00-018-1519	1-209
00-018-2141	1-77
00-018-2142	1-77
00-018-2162	1-106
00-018-7602	1-65
00-018-9566	1-135
00-019-1506	1-55
00-019-4233	1-40
00-019-4234	1-40
00-019-4237	1-40
00-019-4239	1-40
00-019-4318	1-41
00-019-4327	1-41
00-019-4328	1-40
00-019-4339	1-41
00-019-4343	1-41
00-019-4383	1-41
00-019-4384	1-34
00-019-4792	1-121
00-019-5232	1-181
00-020-2733	1-100
00-020-2734	1-100
00-020-4270	1-120
00-020-9078	1-23
00-021-2041	1-210
00-021-2410	1-41
00-021-8295	1-21
00-022-2518	1-84
00-022-2521	1-84
00-022-2522	1-84
00-022-2800	1-131
00-022-2946	1-81
00-022-3082	1-73
00-022-9794	1-200
00-023-4276	1-42
00-023-4277	1-41
00-023-4278	1-42
00-023-4279	1-42
00-023-4280	1-42
00-023-4281	1-42
00-023-4282	1-42
00-024-3971	1-120
00-024-9528	1-195
00-024-9531	1-194
00-024-9681	1-172
00-025-1092	1-132
00-025-3364	1-146
00-026-4718	1-30
00-027-1364	1-29
00-028-7021	1-112
00-028-9089	1-172
00-030-2738	1-206
00-030-6582	1-74
00-030-6617	1-223
00-030-7942	1-196
00-031-7634	1-91
00-032-1517	1-140
00-033-2801	1-26
00-033-5606	1-227
00-033-5607	1-227
00-034-1865	1-27
00-034-7626	1-227
00-034-7627	1-227
00-034-7631	1-227
00-034-7632	1-227
00-034-7633	1-227
00-034-7634	1-227
00-039-5702	1-99
00-040-8453	1-82
00-042-7882	1-63
00-042-8988	1-135
00-043-3750	1-134
00-044-1718	1-203
00-045-0596	1-220
00-045-3575	1-3
00-045-5278	1-121
00-045-6527	1-33
00-048-1788	1-129
00-050-4203	1-130
00-050-4205	1-130
00-050-4207	1-130
00-050-4208	1-129
00-050-8868	1-58
00-050-8871	1-58
00-050-8872	1-58
00-051-3858	1-183
00-051-4670	1-107
00-051-4678	1-116
00-051-4712	1-108
00-051-5024	1-230
00-051-5025	1-230
00-051-5026	1-230
00-051-5209	1-115
00-051-5542	1-106
00-051-5748	1-215
00-051-5749	1-215
00-051-7122	1-58
00-051-8568	1-117
00-052-1581	1-18
00-052-3423	1-123
00-052-3776	1-83
00-052-4834	1-117
00-052-7072	1-66
00-052-8228	1-109
00-053-0379	1-118
00-053-0380	1-129
00-053-0418	1-118
00-053-1808	1-193
00-053-1919	1-135
00-053-4577	1-107
00-053-5738	1-62
00-054-3830	1-108
00-054-7503	1-230
00-054-7505	1-231
00-054-7506	1-230
00-054-7507	1-230
00-054-7512	1-231
00-054-7513	1-231
00-054-7514	1-230
00-054-7515	1-230
00-054-7516	1-231
00-054-7519	1-231
00-054-7520	1-231
00-054-7521	1-231
00-054-7522	1-231
00-054-7523	1-231
00-054-7524	1-230
00-054-7525	1-231
00-054-7526	1-230
00-054-7650	1-118
00-054-7713	1-154
00-055-1642	1-137
00-055-2167	1-41
00-055-2172	1-40
00-055-5114	1-154
00-055-7042	1-227
00-056-3237	1-203
00-056-3935	1-188
00-056-8479	1-151
00-057-0664	1-129
00-057-5167	1-33
00-057-5555	1-135
00-057-6456	1-117

NIIN Cross Reference Index

NIIN	Page No.
00-057-8802	1-24
00-058-3509	1-146
00-058-3630	1-147
00-058-3737	1-18
00-059-4829	1-230
00-059-5995	1-50
00-059-5996	1-50
00-059-6377	1-15
00-059-6711	1-195
00-060-2004	1-198
00-060-2590	1-26
00-060-5754	1-115
00-060-6423	1-181
00-060-6995	1-190
00-061-0412	1-133
00-061-0414	1-133
00-061-2082	1-109
00-061-4454	1-94
00-061-7716	1-140
00-061-7717	1-140
00-061-8540	1-187
00-061-8541	1-187
00-061-8542	1-187
00-061-8543	1-187
00-061-8544	1-187
00-061-8545	1-187
00-061-8546	1-187
00-062-0813	1-199
00-062-1291	1-125
00-062-5413	1-200
00-062-5661	1-161
00-062-7780	1-66
00-062-8381	1-25
00-062-9481	1-107
00-063-3037	1-179
00-064-4470	1-26
00-064-8247	1-27
00-064-8265	1-25
00-065-0980	1-215
00-065-4903	1-189
00-065-5088	1-66
00-066-0242	1-206
00-066-0495	1-75
00-066-0735	1-116
00-066-4396	1-77
00-066-4759	1-105
00-066-6034	1-79
00-067-0454	1-107
00-067-6375	1-101
00-067-7650	1-124
00-067-9801	1-134
00-068-7201	1-27
00-068-7906	1-61
00-068-7907	1-61
00-069-2034	1-90
00-069-3592	1-27
00-069-5815	1-32
00-070-6918	1-150
00-070-6920	1-150
00-071-4464	1-58
00-071-4475	1-58
00-071-5184	1-66
00-071-8018	1-25
	1-27
00-071-8244	1-125
00-072-0331	1-49
00-072-0369	1-51
00-073-3164	1-139
00-073-3209	1-100
00-073-3212	1-100
00-073-6356	1-23
00-076-3261	1-30
00-076-3270	1-203
00-077-1269	1-25
00-079-3400	1-229
00-079-4598	1-190
00-079-4599	1-190
00-079-4600	1-190
00-079-4601	1-198
00-079-4602	1-198
00-079-8814	1-113
00-079-9461	1-198
00-080-3090	1-123
00-080-4203	1-107
00-080-5799	1-121
00-080-8811	1-25
00-080-9807	1-62
00-080-9818	1-55
00-081-1739	1-221
00-081-2305	1-211
00-081-2307	1-211
00-081-2309	1-211
00-081-5436	1-25
00-081-5893	1-116
00-081-9675	1-26
00-082-0655	1-67
00-082-0656	1-67
00-082-1811	1-186
00-082-5963	1-56
00-082-5987	1-116
00-082-5995	1-116
00-082-8526	1-202
00-083-0042	1-175
00-083-8773	1-127
00-084-9394	1-86
00-086-9540	1-146
00-087-0697	1-202
00-087-1469	1-99
00-087-1470	1-99
00-087-1644	1-100
00-087-1645	1-100
00-087-4106	1-193
00-087-9122	1-108
00-088-3736	1-129
00-088-4554	1-114
00-088-8803	1-127
00-088-8805	1-127
00-088-8807	1-127
00-088-9393	1-195
00-089-0874	1-195
00-089-2022	1-107
00-089-3663	1-211
00-089-7615	1-87
00-089-7963	1-81
00-089-8132	1-231
00-089-9177	1-107
00-090-0465	1-125
00-090-0832	1-114
00-090-1337	1-40
00-092-3883	1-140
00-093-5751	1-100
00-096-2668	1-72
00-096-8563	1-153
00-097-4136	1-205
00-098-4326	1-164
00-099-6939	1-86
00-103-1978	1-114
00-103-2497	1-19
00-103-2498	1-19
00-103-2499	1-19
00-103-2500	1-19
00-103-9743	1-200
00-104-0196	1-225
00-104-6259	1-108
00-104-8732	1-80
00-104-9084	1-66
00-105-3212	1-100
00-105-3812	1-57
00-105-3813	1-57
00-105-3814	1-57
00-105-3815	1-57
00-105-8238	1-26
00-105-9948	1-32
00-106-1823	1-25
	1-27
	1-27
00-106-2050	1-154
00-106-2051	1-154
00-106-4416	1-129
00-106-4417	1-118
00-106-5671	1-224
00-106-7359	1-101
00-106-7360	1-101
00-106-7381	1-98
00-106-7383	1-98
00-106-9341	1-61
00-106-9342	1-61
00-106-9361	1-61
00-106-9402	1-61
00-106-9407	1-61
00-106-9409	1-61
00-106-9411	1-61
00-106-9459	1-56
00-106-9472	1-56
00-106-9474	1-56
00-107-7706	1-107
00-109-3857	1-27
00-111-7785	1-126
00-112-0171	1-74
00-112-9599	1-191
00-113-0575	1-134
00-113-4959	1-210
00-113-8007	1-24
00-113-8290	1-79
00-114-4049	1-132
00-115-0013	1-26
00-115-2356	1-164
00-115-2357	1-164
00-115-2358	1-164
00-115-2594	1-58
00-115-2944	1-79
00-115-4094	1-25
00-115-5148	1-18
00-116-3894	1-52
00-116-6208	1-21
00-116-7692	1-203
00-116-7841	1-191
00-117-2423	1-26
00-117-3428	1-210
00-117-3959	1-115
00-117-4550	1-137
00-118-6501	1-137
00-118-8885	1-99
00-118-8895	1-99
00-118-8897	1-99
00-119-0511	1-116
00-119-9854	1-129
00-121-7487	1-115
00-122-1681	1-77
00-122-6474	1-24
00-122-7037	1-13
00-124-3423	1-27

NIIN Cross Reference Index

NIIN	Page No.
00-124-5613	1-226
00-124-5618	1-226
00-125-2640	1-116
00-125-4770	1-115
00-125-8571	1-23
00-125-8751	1-77
00-126-1701	1-230
00-126-1750	1-230
00-126-1761	1-230
00-126-1765	1-230
00-126-1766	1-230
00-126-1769	1-230
00-126-1772	1-230
00-126-1773	1-230
00-126-1774	1-230
00-126-2076	1-193
00-126-2797	1-230
00-126-3554	1-92
00-127-4616	1-25
00-127-4633	1-25
00-128-7982	1-1
00-129-6049	1-55
00-130-5189	1-25
	1-27
00-130-6801	1-115
00-132-0396	1-190
00-132-0870	1-41
00-132-0871	1-40
00-132-0872	1-40
00-132-1331	1-31
00-132-1724	1-25
00-132-1863	1-164
00-132-5218	1-190
00-132-5451	1-190
00-132-5808	1-190
00-132-6328	1-190
00-132-6708	1-31
00-132-6913	1-184
00-132-9162	1-66
00-132-9163	1-66
00-132-9171	1-63
00-132-9173	1-63
00-132-9179	1-67
00-132-9180	1-67
00-132-9181	1-67
00-132-9192	1-67
00-132-9194	1-67
00-132-9195	1-67
00-132-9196	1-67
00-132-9199	1-67
00-132-9200	1-67
00-132-9201	1-67
00-132-9202	1-67
00-132-9203	1-67
00-132-9215	1-67
00-132-9948	1-120
00-133-0097	1-198
00-133-0098	1-198
00-133-0144	1-198
00-133-0351	1-198
00-133-0673	1-120
00-133-2144	1-208
00-133-3092	1-229
00-133-9264	1-108
00-134-8886	1-129
00-134-9201	1-33
00-134-9202	1-34
00-137-9140	1-190
00-138-2075	1-153
00-138-7118	1-79
00-139-3885	1-114
00-140-3731	1-108
00-140-3856	1-93
00-140-4484	1-120
00-140-7066	1-114
00-141-1909	1-80
00-141-2529	1-63
00-141-3272	1-53
00-141-7152	1-61
00-141-7218	1-53
00-141-8258	1-157
00-141-8311	1-104
00-142-1003	1-134
00-142-1193	1-136
00-142-1195	1-136
00-142-1196	1-136
00-142-1197	1-136
00-142-1203	1-137
00-142-1204	1-136
00-142-1219	1-93
00-142-1238	1-91
00-142-1505	1-135
00-142-1831	1-135
00-142-1958	1-123
00-142-1960	1-123
00-142-2155	1-133
00-142-2167	1-134
00-142-2690	1-135
00-142-3010	1-98
00-142-4949	1-71
00-142-4962	1-213
00-142-4972	1-213
00-142-4999	1-176
00-142-5010	1-176
00-142-5015	1-176
00-142-5164	1-120
00-142-5207	1-120
00-142-5357	1-206
00-142-6115	1-62
00-142-6341	1-57
00-142-6342	1-57
00-142-6485	1-57
00-142-6486	1-57
00-143-3830	1-103
00-143-3883	1-132
00-143-4353	1-75
00-143-4391	1-82
00-144-4948	1-127
00-144-5207	1-181
00-145-5721	1-66
00-146-6557	1-198
00-146-6558	1-198
00-148-4905	1-123
00-148-7917	1-210
00-148-9488	1-210
00-148-9489	1-210
00-148-9844	1-198
00-148-9942	1-17
00-149-5574	1-65
00-149-5583	1-55
00-149-5584	1-55
00-149-5619	1-56
00-149-8183	1-40
00-149-8186	1-35
00-149-8196	1-35
00-149-8197	1-35
00-149-8201	1-35
00-150-7163	1-46
00-150-7164	1-46
00-151-9772	1-72
00-151-9778	1-72
00-152-2418	1-209
00-152-2432	1-123
00-152-2437	1-208
00-152-9257	1-230
00-156-0049	1-168
00-156-0052	1-168
00-156-0059	1-169
00-156-0062	1-170
00-156-0063	1-170
00-156-0065	1-170
00-156-0131	1-169
00-156-0215	1-168
00-156-0969	1-182
00-156-0981	1-182
00-157-1102	1-230
00-157-1103	1-230
00-157-1104	1-230
00-157-1105	1-230
00-157-1108	1-230
00-157-1110	1-230
00-157-1228	1-230
00-157-3138	1-190
00-159-0009	1-132
00-160-1262	1-65
00-160-8282	1-25
00-160-8283	1-25
00-160-8285	1-25
00-160-8286	1-26
00-160-8296	1-25
00-161-6909	1-178
00-161-6912	1-178
00-162-2202	1-178
00-162-2203	1-177
00-162-2205	1-172
00-162-2207	1-178
00-162-5427	1-65
00-162-5428	1-65
00-162-5429	1-65
00-162-5430	1-65
00-162-5431	1-65
00-162-5432	1-65
00-162-9668	1-65
00-163-0800	1-64
00-163-4348	1-34
00-165-3910	1-184
00-165-3912	1-184
00-165-3930	1-210
00-165-4098	1-211
00-165-4186	1-32
00-165-5605	1-56
00-165-5607	1-56
00-165-5629	1-55
00-165-6019	1-58
00-166-5888	1-108
00-166-5892	1-107
00-166-9835	1-108
00-167-4725	1-107
00-167-4726	1-107
00-168-2134	1-229
00-168-3444	1-107
00-169-0816	1-66
00-169-5776	1-210
00-169-8275	1-159
00-169-9296	1-65
00-169-9297	1-65
00-169-9298	1-65
00-170-7886	1-46
00-171-4427	1-55
00-171-4506	1-55
00-171-4512	1-56
00-171-4912	1-67

NIIN Cross Reference Index

NIIN	Page No.
00-171-9816	1-152
00-171-9819	1-153
00-172-0001	1-130
00-172-0010	1-129
00-172-0015	1-130
00-172-0022	1-129
00-172-0025	1-130
00-172-0028	1-130
00-172-0031	1-130
00-172-0034	1-130
00-172-0040	1-129
00-172-0041	1-130
00-172-0042	1-130
00-172-0043	1-129
00-172-0044	1-129
00-172-0045	1-130
00-172-0046	1-130
00-172-0047	1-130
00-172-0049	1-129
00-172-0058	1-130
00-172-1835	1-134
00-172-1971	1-27
00-172-3540	1-122
00-172-3544	1-122
00-172-5291	1-46
00-172-5292	1-46
00-173-1884	1-115
00-173-4890	1-228
00-174-0339	1-143
00-174-0468	1-54
00-174-1232	1-61
00-174-1365	1-81
00-174-1831	1-206
00-174-1834	1-206
00-174-1854	1-47
00-174-1858	1-47
00-174-5610	1-26
00-174-5937	1-131
00-174-5939	1-131
00-174-5941	1-131
00-174-5943	1-131
00-174-6747	1-51
00-176-7910	1-37
00-176-7911	1-37
00-176-7912	1-37
00-176-7913	1-37
00-177-1721	1-107
00-177-5945	1-112
00-177-6870	1-192
00-177-6966	1-198
00-177-6967	1-190
00-177-7028	1-190
00-177-7029	1-198
00-177-7033	1-230
00-177-7095	1-198
00-177-7285	1-164
00-177-7286	1-179
00-177-8962	1-230
00-177-8963	1-230
00-177-8967	1-230
00-177-8968	1-230
00-178-0046	1-230
00-178-0392	1-191
00-179-0768	1-56
00-179-6829	1-27
00-180-0548	1-218
00-180-0681	1-205
00-180-0705	1-200
00-180-0706	1-200
00-180-0727	1-200
00-180-0728	1-200
00-180-0729	1-200
00-180-0730	1-200
00-180-0777	1-185
00-180-0778	1-185
00-180-0779	1-185
00-180-0780	1-186
00-180-0798	1-200
00-180-0831	1-173
00-180-0876	1-203
00-180-0881	1-203
00-180-0897	1-183
00-180-0905	1-183
00-180-0907	1-183
00-180-0908	1-183
00-180-0909	1-183
00-180-0915	1-174
00-180-0920	1-174
00-180-0921	1-174
00-180-0922	1-174
00-180-0923	1-174
00-180-0924	1-174
00-180-0925	1-174
00-180-0926	1-174
00-180-0927	1-174
00-180-0933	1-174
00-180-0934	1-174
00-180-0935	1-174
00-180-0937	1-174
00-180-0938	1-174
00-180-0939	1-174
00-180-0941	1-174
00-180-0942	1-174
00-180-0943	1-174
00-180-0944	1-174
00-180-0945	1-174
00-180-0949	1-174
00-180-1018	1-202
00-180-1019	1-202
00-180-1020	1-202
00-180-2101	1-26
00-180-2166	1-26
00-180-2892	1-167
00-180-2936	1-184
00-180-2949	1-186
00-180-2951	1-186
00-181-2852	1-23
	1-23
00-181-2856	1-23
00-181-6755	1-184
00-181-6759	1-184
00-181-6764	1-184
00-181-8830	1-81
00-181-8910	1-154
00-181-8911	1-154
00-181-8912	1-154
00-181-8920	1-154
00-181-8934	1-152
00-181-8935	1-152
00-181-8937	1-152
00-181-9140	1-109
00-182-4848	1-21
00-182-9021	1-133
00-183-6991	1-155
00-183-6995	1-155
00-184-3476	1-55
00-184-8383	1-184
00-184-8384	1-184
00-184-8397	1-184
00-184-8398	1-184
00-184-8400	1-184
00-184-8403	1-184
00-184-8405	1-184
00-184-8410	1-184
00-184-8438	1-206
00-184-8548	1-206
00-184-8549	1-206
00-184-8631	1-206
00-184-9107	1-149
00-184-9108	1-149
00-184-9185	1-155
00-184-9186	1-155
00-184-9403	1-194
00-184-9407	1-173
00-184-9553	1-57
00-184-9557	1-57
00-184-9558	1-57
00-184-9807	1-61
00-184-9818	1-66
00-184-9819	1-66
00-185-0222	1-57
00-185-0476	1-65
00-185-0481	1-65
00-185-0482	1-65
00-185-0487	1-65
00-185-0488	1-65
00-185-0489	1-65
00-185-0490	1-65
00-186-3024	1-119
00-186-3541	1-150
00-186-3542	1-145
00-186-4203	1-175
00-186-4204	1-175
00-186-4205	1-175
00-186-4206	1-175
00-186-4214	1-175
00-186-4215	1-175
00-186-6687	1-175
00-186-6697	1-175
00-186-7105	1-168
00-186-7107	1-165
00-186-7115	1-165
00-186-7783	1-132
00-186-8167	1-165
00-186-8169	1-165
00-186-8170	1-165
00-186-9381	1-56
00-186-9495	1-113
00-186-9963	1-127
00-186-9980	1-127
00-187-0087	1-113
00-187-0088	1-113
00-187-0486	1-133
00-187-0489	1-133
00-187-0840	1-113
00-187-1016	1-188
00-187-1033	1-187
00-187-1034	1-187
00-187-2628	1-39
00-187-2629	1-39
00-187-2630	1-39
00-187-2631	1-39
00-187-2632	1-39
00-187-2633	1-39
00-187-2634	1-39
00-187-2636	1-39
00-187-2637	1-39
00-187-3588	1-136
00-187-3593	1-136
00-187-3600	1-136
00-187-4102	1-108
00-187-4191	1-135

NIIN Cross Reference Index

NIIN	Page No.
00-187-4210	1-135
00-187-4231	1-135
00-187-4232	1-135
00-187-4279	1-108
00-187-4283	1-108
00-187-7123	1-206
00-187-7124	1-206
00-187-7126	1-206
00-187-7129	1-206
00-187-7130	1-206
00-187-7131	1-206
00-187-7133	1-206
00-187-7134	1-206
00-187-7568	1-121
00-187-7570	1-121
00-187-7571	1-121
00-187-7609	1-121
00-187-7612	1-121
00-187-7613	1-121
00-187-7614	1-121
00-187-7616	1-121
00-187-7617	1-121
00-187-7618	1-121
00-187-7647	1-121
00-187-7648	1-121
00-187-7651	1-121
00-187-7652	1-121
00-187-7654	1-121
00-188-1182	1-205
00-188-2524	1-166
00-188-3239	1-193
00-188-3509	1-135
00-188-6986	1-33
00-188-8245	1-145
00-188-8247	1-150
00-188-8248	1-150
00-188-8262	1-155
00-188-8450	1-201
00-189-2588	1-141
00-189-2592	1-141
00-189-2595	1-141
00-189-2619	1-141
00-189-2624	1-141
00-189-2634	1-141
00-189-2729	1-134
00-189-2733	1-134
00-189-2736	1-134
00-189-2737	1-134
00-189-2738	1-134
00-189-2739	1-134
00-189-3029	1-135
00-189-3030	1-135
00-189-3031	1-135
00-189-3032	1-135
00-189-3033	1-135
00-189-3034	1-135
00-189-3036	1-135
00-189-3037	1-136
00-189-3039	1-136
00-189-3040	1-136
00-189-3041	1-136
00-189-3042	1-136
00-189-3045	1-136
00-189-3120	1-217
00-189-3128	1-217
00-189-3165	1-217
00-189-3166	1-218
00-189-3167	1-218
00-189-3168	1-218
00-189-3169	1-218
00-189-3194	1-217
00-189-3195	1-217
00-189-3196	1-217
00-189-3197	1-217
00-189-3198	1-217
00-189-3199	1-217
00-189-3200	1-217
00-189-3201	1-217
00-189-3203	1-217
00-189-3204	1-217
00-189-3206	1-217
00-189-3207	1-217
00-189-3210	1-217
00-189-3216	1-217
00-189-3217	1-217
00-189-3218	1-217
00-189-3219	1-217
00-189-3220	1-217
00-189-3221	1-217
00-189-3222	1-217
00-189-3223	1-217
00-189-3224	1-217
00-189-3238	1-217
00-189-4887	1-150
00-189-7383	1-9
00-189-7805	1-220
00-189-7806	1-220
00-189-7807	1-220
00-189-7808	1-220
00-189-7812	1-218
00-189-7814	1-218
00-189-7816	1-218
00-189-7818	1-219
00-189-7819	1-219
00-189-7824	1-218
00-189-7825	1-218
00-189-7826	1-218
00-189-7895	1-184
00-189-7896	1-184
00-189-7898	1-184
00-189-7913	1-203
00-189-7914	1-203
00-189-7917	1-203
00-189-7920	1-202
00-189-7922	1-202
00-189-7924	1-203
00-189-7927	1-203
00-189-7931	1-203
00-189-7932	1-203
00-189-7934	1-203
00-189-7935	1-203
00-189-7946	1-203
00-189-7985	1-203
00-189-8609	1-202
00-189-8610	1-202
00-189-9181	1-214
00-189-9183	1-214
00-189-9186	1-214
00-189-9187	1-214
00-189-9188	1-214
00-189-9189	1-214
00-189-9246	1-215
00-189-9247	1-215
00-189-9248	1-215
00-189-9249	1-215
00-189-9250	1-215
00-189-9251	1-215
00-189-9252	1-215
00-189-9253	1-215
00-189-9254	1-215
00-189-9255	1-215
00-189-9256	1-215
00-189-9257	1-215
00-189-9258	1-215
00-189-9259	1-215
00-189-9260	1-215
00-189-9261	1-215
00-189-9262	1-215
00-189-9263	1-215
00-189-9264	1-215
00-189-9265	1-215
00-189-9266	1-215
00-189-9267	1-215
00-189-9268	1-215
00-189-9269	1-215
00-189-9270	1-215
00-189-9271	1-215
00-189-9272	1-215
00-189-9273	1-215
00-189-9274	1-215
00-189-9275	1-215
00-189-9276	1-215
00-189-9277	1-215
00-189-9278	1-215
00-189-9279	1-215
00-189-9280	1-215
00-189-9281	1-215
00-189-9282	1-215
00-189-9283	1-215
00-189-9284	1-215
00-189-9285	1-215
00-189-9286	1-215
00-189-9287	1-215
00-189-9288	1-215
00-189-9289	1-215
00-189-9290	1-215
00-189-9291	1-215
00-189-9292	1-215
00-189-9293	1-215
00-189-9294	1-215
00-189-9295	1-215
00-189-9296	1-215
00-189-9297	1-215
00-189-9298	1-215
00-189-9299	1-215
00-189-9300	1-215
00-189-9301	1-215
00-189-9302	1-215
00-189-9303	1-215
00-189-9304	1-215
00-189-9305	1-215
00-189-9308	1-214
00-189-9309	1-214
00-189-9310	1-214
00-189-9312	1-214
00-189-9313	1-214
00-189-9314	1-214
00-189-9315	1-214
00-189-9317	1-214
00-189-9318	1-214
00-189-9319	1-214
00-189-9321	1-214
00-189-9322	1-214
00-189-9323	1-214
00-189-9324	1-214
00-189-9325	1-214
00-189-9326	1-214
00-189-9327	1-214
00-190-5164	1-161
00-190-5568	1-125
00-190-5570	1-125
00-190-6432	1-83

NIIN Cross Reference Index

NIIN	Page No.
00-191-0091	1-56
00-191-5244	1-94
00-193-0875	1-119
00-193-2709	1-132
00-193-2710	1-132
00-193-2711	1-132
00-193-2713	1-132
00-193-2714	1-132
00-193-2715	1-132
00-193-2716	1-132
00-193-2717	1-132
00-193-2719	1-132
00-193-5012	1-171
00-193-6972	1-130
00-194-0204	1-118
00-194-0205	1-118
00-194-0206	1-118
00-194-0209	1-118
00-194-0215	1-118
00-194-0216	1-118
00-194-1217	1-57
00-194-1645	1-188
00-194-1648	1-188
00-194-8911	1-108
00-196-0881	1-119
00-196-0884	1-119
00-196-0886	1-119
00-196-0887	1-119
00-196-0888	1-119
00-196-0892	1-119
00-196-0930	1-119
00-196-0936	1-119
00-196-0938	1-119
00-196-0939	1-119
00-196-0940	1-119
00-196-0951	1-119
00-196-1468	1-132
00-196-1487	1-132
00-196-1541	1-132
00-196-1963	1-132
00-196-1964	1-132
00-196-1965	1-132
00-196-1967	1-132
00-196-1971	1-132
00-196-1972	1-132
00-196-1973	1-132
00-196-1974	1-132
00-196-1975	1-132
00-196-1976	1-132
00-196-1980	1-132
00-196-1981	1-132
00-196-1982	1-132
00-196-1983	1-132
00-196-1984	1-132
00-196-1985	1-132
00-196-1989	1-132
00-196-1990	1-132
00-196-1991	1-132
00-196-1993	1-132
00-196-1994	1-132
00-196-1996	1-132
00-196-1998	1-132
00-196-1999	1-132
00-196-2000	1-132
00-196-2002	1-132
00-196-2003	1-132
00-196-2006	1-132
00-196-2007	1-132
00-196-2010	1-132
00-196-2014	1-132
00-196-2015	1-132
00-196-2017	1-132
00-196-2022	1-132
00-196-2024	1-132
00-196-2028	1-132
00-196-2029	1-132
00-196-2031	1-132
00-196-2035	1-132
00-196-9580	1-113
00-196-9581	1-113
00-196-9584	1-113
00-196-9585	1-113
00-196-9589	1-113
00-197-2919	1-128
00-197-4862	1-108
00-197-4984	1-144
00-197-5344	1-189
00-197-7913	1-25
00-197-9304	1-217
00-197-9490	1-197
	1-197
00-197-9497	1-164
00-197-9499	1-164
00-197-9552	1-217
00-197-9553	1-217
00-197-9554	1-217
00-197-9555	1-217
00-197-9556	1-217
00-197-9557	1-217
00-197-9558	1-217
00-197-9559	1-217
00-197-9562	1-217
00-197-9563	1-217
00-197-9564	1-217
00-197-9565	1-217
00-197-9566	1-217
00-197-9567	1-217
00-197-9568	1-217
00-197-9569	1-217
00-197-9570	1-217
00-197-9571	1-217
00-197-9572	1-217
00-198-5390	1-191
00-198-5391	1-191
00-198-5392	1-191
00-198-5398	1-191
00-198-5400	1-191
00-198-5401	1-191
00-198-5404	1-191
00-198-5406	1-191
00-198-5407	1-191
00-198-5409	1-191
00-198-5410	1-191
00-198-5413	1-191
00-199-7768	1-203
00-199-7769	1-203
00-199-7772	1-202
00-200-0485	1-134
00-200-0538	1-78
00-200-0565	1-106
00-200-1355	1-157
00-200-1841	1-157
00-200-2096	1-161
00-201-3351	1-24
00-202-1924	1-62
00-202-2087	1-57
00-202-3339	1-67
00-202-6371	1-154
00-202-6446	1-119
00-202-6491	1-119
00-202-6492	1-119
00-202-7686	1-93
00-202-7688	1-93
00-202-7702	1-93
00-202-7703	1-94
00-202-7769	1-121
00-202-7858	1-72
00-202-7863	1-79
00-202-8182	1-90
00-202-8341	1-135
00-202-8470	1-113
00-202-8792	1-120
00-202-8880	1-139
00-202-8967	1-121
00-202-8972	1-120
00-202-9915	1-121
00-203-0153	1-135
00-203-0177	1-123
00-203-0178	1-123
00-203-0217	1-72
	1-72
	1-73
	1-75
00-203-0565	1-69
00-203-1038	1-92
00-203-1586	1-24
00-203-2658	1-134
00-203-2661	1-134
00-203-2662	1-134
00-203-2707	1-89
00-203-2709	1-89
00-203-2721	1-92
00-203-3029	1-107
00-203-3129	1-121
00-203-3131	1-121
00-203-3168	1-119
00-203-3171	1-99
00-203-3420	1-117
00-203-3550	1-117
00-203-3553	1-116
00-203-3558	1-116
00-203-3631	1-112
00-203-3709	1-135
00-203-3804	1-83
	1-84
00-203-3831	1-134
00-203-3912	1-104
00-203-3920	1-104
00-203-4552	1-169
00-203-4553	1-169
00-203-4554	1-169
00-203-4556	1-169
00-203-4645	1-169
00-203-4647	1-169
00-203-4656	1-187
00-203-4692	1-169
00-203-4714	1-169
00-203-4731	1-169
00-203-4751	1-169
00-203-4781	1-169
00-203-4797	1-207
00-203-4799	1-207
00-203-4800	1-207
00-203-4801	1-207
00-203-4802	1-207
00-203-4804	1-207
00-203-4806	1-207
00-203-4807	1-207
00-203-4808	1-207
00-203-4809	1-207
00-203-4810	1-207
00-203-4811	1-207

NIIN Cross Reference Index

NIIN	Page No.
00-203-4813	1-207
00-203-4854	1-168
00-203-4855	1-168
00-203-4935	1-168
00-203-4936	1-168
00-203-4941	1-168
00-203-4948	1-169
00-203-4950	1-168
00-203-5486	1-168
00-203-6212	1-219
00-203-6213	1-220
00-203-6216	1-220
00-203-6220	1-219
00-203-6226	1-219
00-203-6406	1-129
00-203-6431	1-183
00-203-6436	1-183
00-203-6439	1-183
00-203-6499	1-177
00-203-6500	1-218
00-203-6501	1-218
00-203-6504	1-220
00-203-6506	1-218
00-203-6508	1-218
00-203-6510	1-219
00-203-6511	1-219
00-203-6513	1-219
00-203-6626	1-219
00-203-6647	1-219
00-203-7007	1-114
00-203-7074	1-218
00-203-7092	1-84
00-203-7626	1-137
00-203-8310	1-176
00-203-8338	1-121
00-203-8347	1-121
00-203-8350	1-121
00-203-9642	1-177
00-203-9758	1-169
00-203-9774	1-169
00-203-9804	1-169
00-203-9805	1-169
00-203-9806	1-169
00-204-0616	1-168
00-204-0719	1-170
00-204-0720	1-170
00-204-0722	1-170
00-204-0723	1-170
00-204-0725	1-170
00-204-0726	1-170
00-204-1993	1-119
00-204-1999	1-211
00-204-2685	1-170
00-204-3491	1-120
00-204-3855	1-34
00-204-3856	1-34
00-204-3858	1-34
00-204-3859	1-34
00-205-4015	1-57
00-208-7495	1-27
00-211-7310	1-64
00-212-3862	1-209
00-212-4992	1-111
00-212-6331	1-118
00-214-2888	1-75
00-215-8010	1-121
00-216-5421	1-90
00-216-6132	1-137
00-216-6146	1-137
00-216-6151	1-137
00-216-6152	1-137
00-217-2431	1-116
00-217-2433	1-112
00-217-5914	1-79
00-217-7443	1-137
00-217-7462	1-137
00-218-0779	1-81
00-221-0233	1-173
	1-176
00-221-0235	1-176
00-221-0766	1-65
00-221-0768	1-65
00-221-0771	1-65
00-221-0772	1-65
00-221-0777	1-65
00-221-0778	1-65
00-221-1047	1-167
00-221-1049	1-166
00-221-1072	1-197
00-221-1075	1-164
00-221-1076	1-164
00-221-1083	1-177
00-221-1085	1-177
00-221-1087	1-177
00-221-1117	1-205
00-221-1119	1-205
00-221-1146	1-197
00-221-1147	1-197
00-221-1148	1-197
00-221-1149	1-197
00-221-1150	1-197
00-221-1151	1-197
00-221-1188	1-164
00-221-1236	1-218
00-221-1372	1-165
00-221-1498	1-173
00-221-1499	1-173
00-221-1503	1-173
00-221-1536	1-192
00-221-1538	1-172
00-221-1542	1-182
00-221-1597	1-187
00-221-2126	1-120
00-221-2127	1-120
00-221-2128	1-120
00-221-2129	1-120
00-221-2130	1-120
00-221-2392	1-138
00-221-2397	1-138
00-221-2398	1-138
00-221-2399	1-138
00-221-2728	1-192
00-221-2731	1-192
00-221-4993	1-126
00-221-4994	1-126
00-221-5012	1-126
00-221-6215	1-127
00-221-6220	1-126
00-221-6231	1-126
00-221-7040	1-220
00-221-7041	1-220
00-221-7063	1-201
00-221-7097	1-200
00-221-7874	1-219
00-221-7957	1-189
00-221-7958	1-189
00-221-7959	1-189
00-221-7960	1-189
00-221-7966	1-189
00-221-7980	1-208
00-221-7983	1-210
00-221-8036	1-191
00-221-8121	1-165
00-221-8132	1-165
00-221-8133	1-165
00-221-8763	1-104
00-222-0457	1-171
00-222-1403	1-184
00-222-1499	1-208
00-222-1534	1-188
00-222-1535	1-188
00-222-1594	1-206
00-222-1595	1-206
00-222-1596	1-206
00-222-1599	1-206
00-222-1601	1-206
00-222-1612	1-183
00-222-1794	1-113
00-222-1819	1-118
00-222-1837	1-132
00-222-1838	1-132
00-222-1839	1-132
00-222-1840	1-132
00-222-1842	1-132
00-222-1843	1-132
00-222-1844	1-132
00-222-1862	1-141
00-222-1866	1-141
00-222-1912	1-134
00-222-2117	1-165
00-222-2118	1-165
00-222-2119	1-165
00-222-2120	1-165
00-222-2127	1-165
00-222-2128	1-164
00-222-2220	1-192
00-222-2232	1-193
00-222-2675	1-161
00-222-2708	1-173
00-222-2975	1-159
00-222-3241	1-183
00-222-3336	1-189
00-222-3792	1-40
00-222-4144	1-39
00-222-4284	1-198
00-222-4400	1-166
00-222-4401	1-166
00-222-4455	1-172
00-222-4479	1-56
00-222-4481	1-56
00-222-4482	1-56
00-222-4490	1-56
00-222-4491	1-56
00-222-4492	1-56
00-222-4493	1-56
00-222-4494	1-56
00-222-4522	1-166
00-222-5346	1-58
00-222-5347	1-58
00-222-8852	1-199
00-222-8866	1-199
00-222-9466	1-214
00-222-9467	1-214
00-222-9468	1-215
00-222-9469	1-214
00-222-9470	1-214
00-223-0070	1-109
00-223-0989	1-197
00-223-1014	1-197
00-223-1015	1-197
00-223-1016	1-197
00-223-1018	1-197

NIIN Cross Reference Index

NIIN	Page No.
00-223-1079	1-165
00-223-1084	1-165
00-223-1087	1-164
00-223-1103	1-165
00-223-1945	1-205
00-223-1951	1-205
00-223-4972	1-164
	1-171
00-223-4987	1-213
00-223-5379	1-171
00-223-6228	1-220
00-223-6281	1-167
00-223-6370	1-178
00-223-6371	1-178
00-223-6731	1-133
00-223-6837	1-193
00-223-6838	1-193
00-223-6971	1-182
00-223-6986	1-203
00-223-7074	1-118
00-223-7218	1-182
00-223-7396	1-195
00-223-7397	1-195
00-223-7398	1-195
00-223-7782	1-172
00-223-8827	1-172
00-223-8829	1-54
00-223-8846	1-193
00-223-8860	1-186
00-223-8862	1-187
00-223-8870	1-205
00-223-8921	1-186
00-223-8927	1-187
00-223-8928	1-187
00-223-8972	1-161
00-223-8973	1-161
00-223-9255	1-122
00-223-9480	1-204
00-223-9482	1-204
00-223-9533	1-192
00-223-9556	1-186
00-223-9557	1-186
00-223-9558	1-186
00-223-9559	1-186
00-223-9952	1-185
00-224-0544	1-119
00-224-0545	1-119
00-224-0546	1-119
00-224-0550	1-119
00-224-1372	1-182
00-224-1389	1-182
00-224-1390	1-184
00-224-1393	1-182
00-224-1449	1-217
00-224-1461	1-217
00-224-1532	1-173
00-224-1533	1-193
00-224-1540	1-194
00-224-1541	1-194
00-224-1567	1-195
00-224-1963	1-214
00-224-1965	1-214
00-224-2205	1-145
00-224-2251	1-25
00-224-2482	1-191
00-224-2496	1-191
00-224-2504	1-191
00-224-2510	1-191
00-224-2596	1-208
00-224-2599	1-208
00-224-2647	1-53
00-224-3102	1-206
00-224-3103	1-207
00-224-3104	1-207
00-224-3105	1-207
00-224-3112	1-206
00-224-3135	1-206
00-224-3136	1-206
00-224-3141	1-206
00-224-3146	1-206
00-224-3148	1-206
00-224-3156	1-207
00-224-3157	1-207
00-224-3158	1-207
00-224-3159	1-207
00-224-3160	1-207
00-224-3161	1-207
00-224-3164	1-207
00-224-3596	1-39
00-224-3730	1-40
00-224-3732	1-40
00-224-3755	1-40
00-224-3763	1-40
00-224-3767	1-40
00-224-3771	1-40
00-224-3776	1-40
00-224-4026	1-215
00-224-4027	1-215
00-224-4028	1-215
00-224-4029	1-215
00-224-4111	1-187
00-224-4113	1-188
00-224-4130	1-187
00-224-4141	1-188
00-224-4659	1-191
00-224-4748	1-204
00-224-6634	1-190
00-224-7053	1-167
00-224-7055	1-166
00-224-7056	1-166
00-224-7057	1-166
00-224-7058	1-167
00-224-7113	1-218
00-224-7114	1-218
00-224-7288	1-184
00-224-7362	1-203
00-224-7370	1-199
00-224-7375	1-199
	1-200
00-224-7446	1-197
00-224-7777	1-162
00-224-7911	1-173
00-224-8357	1-27
00-224-8358	1-27
00-224-8549	1-89
00-224-8618	1-214
00-224-8624	1-214
00-224-8924	1-42
00-224-8925	1-41
00-224-8949	1-185
00-224-8950	1-185
00-224-9215	1-204
00-224-9219	1-181
00-224-9326	1-201
00-224-9428	1-58
00-224-9432	1-58
00-224-9440	1-192
00-224-9453	1-196
00-224-9456	1-196
00-224-9486	1-205
00-224-9487	1-205
00-224-9728	1-201
00-224-9926	1-177
00-224-9928	1-177
00-225-1955	1-47
00-225-6225	1-73
00-225-8596	1-112
00-226-4667	1-147
00-226-5024	1-62
00-226-5606	1-183
00-226-9018	1-225
00-226-9019	1-225
00-226-9021	1-225
00-227-5037	1-165
00-227-5563	1-50
00-227-6702	1-202
00-227-6703	1-202
00-227-6704	1-202
00-227-6705	1-202
00-227-7097	1-194
00-227-7260	1-220
00-227-7291	1-181
00-227-7293	1-199
00-227-7334	1-199
00-227-7356	1-199
00-227-7377	1-199
00-227-7379	1-208
00-227-7382	1-208
00-227-7387	1-208
00-227-7393	1-208
00-227-7500	1-46
00-227-7520	1-46
00-227-7521	1-46
00-227-8074	1-185
00-227-8079	1-185
00-227-8088	1-181
00-227-8095	1-181
00-227-8103	1-181
00-227-8104	1-181
00-227-8105	1-185
00-227-8107	1-185
00-227-8609	1-219
00-227-8611	1-219
00-227-8612	1-219
00-227-8613	1-219
00-227-8618	1-219
00-227-8619	1-219
00-227-8620	1-219
00-227-8621	1-219
00-227-8622	1-219
00-227-8625	1-219
00-227-8627	1-220
00-227-8628	1-220
00-227-8629	1-220
00-227-8631	1-220
00-227-8633	1-220
00-227-9455	1-218
00-227-9471	1-214
00-227-9645	1-214
00-227-9646	1-214
00-227-9647	1-214
00-227-9648	1-214
00-227-9649	1-214
00-227-9650	1-214
00-227-9651	1-214
00-227-9652	1-214
00-227-9653	1-214
00-227-9654	1-214
00-227-9656	1-214
00-227-9658	1-214
	1-215
00-227-9659	1-214

NIIN Cross Reference Index

NIIN	Page No.
00-227-9660	1-214
	1-215
00-227-9662	1-214
00-227-9664	1-214
00-227-9665	1-214
00-227-9666	1-214
00-227-9667	1-214
00-227-9668	1-214
00-227-9669	1-214
00-227-9670	1-214
00-227-9671	1-214
00-227-9672	1-214
00-227-9673	1-214
00-227-9674	1-214
00-228-0517	1-210
00-228-0826	1-134
00-228-0985	1-89
00-228-0989	1-218
00-228-0995	1-219
00-228-0996	1-219
00-228-0998	1-219
00-228-1001	1-219
00-228-1004	1-219
00-228-1005	1-219
00-228-1006	1-219
00-228-1007	1-219
00-228-1008	1-219
00-228-1009	1-219
00-228-1014	1-220
00-228-1015	1-220
00-228-1023	1-220
00-228-1024	1-219
00-228-1025	1-220
00-228-1031	1-219
00-228-1032	1-219
00-228-1033	1-219
00-228-1034	1-219
00-228-1039	1-218
00-228-1040	1-218
00-228-1054	1-220
00-228-1055	1-220
00-228-1056	1-220
00-228-1057	1-220
00-228-1106	1-129
00-228-1254	1-25
00-228-1321	1-214
00-228-1325	1-214
00-228-1326	1-214
00-228-1327	1-214
00-228-1328	1-214
00-228-1329	1-214
00-228-1330	1-214
00-228-1331	1-214
00-228-1332	1-214
00-228-1333	1-214
00-228-1334	1-214
00-228-1335	1-214
00-228-1336	1-214
00-228-1337	1-214
00-228-1339	1-214
00-228-1341	1-214
00-228-1343	1-214
00-228-1345	1-214
00-228-1347	1-214
00-228-1349	1-214
00-228-1350	1-214
00-228-1351	1-214
00-228-1357	1-214
00-228-1360	1-214
00-228-1365	1-214
00-228-1373	1-214
00-228-1379	1-214
00-228-1403	1-214
00-228-2323	1-214
00-228-3161	1-171
00-228-5223	1-40
00-228-5228	1-40
00-228-5294	1-40
00-228-5295	1-40
00-228-5296	1-40
00-228-5297	1-40
00-228-5298	1-40
00-228-7009	1-175
00-228-9503	1-206
00-228-9504	1-206
00-228-9505	1-206
00-228-9506	1-206
00-228-9507	1-206
00-228-9508	1-206
00-228-9509	1-206
00-228-9510	1-206
00-228-9511	1-206
00-228-9512	1-206
00-228-9513	1-206
00-228-9514	1-206
00-228-9515	1-206
00-228-9516	1-206
00-228-9517	1-206
00-228-9527	1-206
00-228-9933	1-56
00-228-9943	1-56
00-228-9944	1-56
00-228-9951	1-56
00-228-9952	1-56
00-228-9963	1-56
00-228-9964	1-56
00-228-9974	1-56
00-228-9975	1-56
00-229-0662	1-103
00-229-2772	1-184
00-229-2773	1-184
00-230-1996	1-132
00-230-6380	1-210
00-230-6385	1-189
00-230-6478	1-106
00-230-6481	1-106
00-230-6482	1-106
00-230-6520	1-106
00-230-6545	1-106
00-230-6546	1-106
00-230-6574	1-106
00-230-6577	1-104
00-230-7843	1-187
00-230-7855	1-188
00-231-2253	1-45
00-231-2386	1-119
00-231-2400	1-119
00-231-2402	1-119
00-231-2403	1-119
00-231-2404	1-119
00-231-2411	1-119
00-231-2412	1-119
00-231-2413	1-119
00-231-2414	1-119
00-231-2415	1-119
00-231-2416	1-119
00-231-2424	1-119
00-231-2425	1-119
00-231-2426	1-119
00-231-2428	1-119
00-231-2429	1-119
00-231-2572	1-61
00-231-2581	1-61
00-231-4009	1-127
00-231-4010	1-127
00-231-5868	1-62
00-231-5870	1-62
00-231-5878	1-62
00-231-5886	1-62
00-231-9001	1-61
00-231-9005	1-61
00-231-9007	1-61
00-231-9009	1-61
00-231-9012	1-61
00-231-9014	1-61
00-231-9021	1-61
00-232-1974	1-218
00-232-2496	1-26
00-232-5681	1-203
00-232-5706	1-202
00-232-5959	1-25
00-232-5975	1-25
00-232-6329	1-175
00-232-6343	1-175
00-232-6398	1-215
00-232-6399	1-215
00-232-8161	1-215
00-233-3657	1-174
00-233-5984	1-62
00-233-5987	1-62
00-233-6425	1-215
00-233-6455	1-215
00-233-6555	1-61
00-233-6829	1-190
00-233-7683	1-168
00-233-7749	1-170
00-233-9110	1-164
00-233-9126	1-27
00-233-9565	1-63
00-233-9566	1-63
00-233-9567	1-63
00-233-9568	1-63
00-233-9578	1-63
00-233-9580	1-63
00-233-9581	1-63
00-233-9687	1-170
00-233-9710	1-174
00-233-9711	1-174
00-233-9712	1-174
00-233-9713	1-174
00-233-9714	1-174
00-233-9716	1-174
00-233-9717	1-174
00-233-9718	1-174
00-233-9721	1-174
00-233-9722	1-174
00-234-1927	1-165
00-234-1944	1-165
00-234-1949	1-165
00-234-1956	1-168
00-234-2526	1-105
00-234-5139	1-214
00-234-5140	1-214
00-234-5141	1-214
00-234-6245	1-65
00-234-6522	1-169
00-234-6524	1-169
00-234-6526	1-169
00-234-6528	1-169
00-234-6529	1-169
00-234-6531	1-168
00-234-6532	1-168

NIIN Cross Reference Index

NIIN	Page No.
00-234-6534	1-168
00-234-6537	1-168
00-234-6539	1-168
00-234-6544	1-168
00-234-6545	1-169
00-234-6548	1-169
00-234-6549	1-169
00-234-6550	1-169
00-234-6551	1-169
00-234-6552	1-169
00-234-6553	1-169
00-234-6554	1-169
00-234-6555	1-169
00-234-6556	1-169
00-234-6557	1-169
00-234-6559	1-169
00-234-6560	1-169
00-234-6562	1-169
00-234-6563	1-169
00-234-6566	1-169
00-234-6567	1-169
00-234-6569	1-169
00-234-6570	1-169
00-234-6763	1-61
00-234-8739	1-182
00-234-8740	1-182
00-234-8741	1-182
00-234-8742	1-182
00-234-8743	1-182
00-234-8744	1-182
00-234-8910	1-199
00-234-8912	1-199
	1-200
00-234-8913	1-199
	1-200
00-234-9709	1-35
00-235-1482	1-127
00-235-1499	1-136
00-235-4080	1-130
00-235-4120	1-106
00-235-4138	1-107
00-235-5458	1-108
00-235-5807	1-202
00-235-5809	1-202
00-235-5822	1-202
00-235-5869	1-202
00-235-5870	1-203
00-235-5878	1-202
00-235-5879	1-202
00-236-2041	1-165
00-236-2046	1-168
00-236-2047	1-168
00-236-2127	1-199
00-236-2132	1-199
00-236-2140	1-199
00-236-2261	1-184
00-236-2262	1-202
00-236-2263	1-202
00-236-2264	1-202
00-236-3242	1-199
00-236-3272	1-165
00-236-3273	1-165
00-236-4028	1-215
00-236-4029	1-215
00-236-4048	1-215
00-236-4053	1-215
00-236-4059	1-215
00-236-4069	1-215
00-236-7590	1-189
00-237-0977	1-202
00-237-0978	1-202
00-237-0982	1-203
00-237-0984	1-203
00-237-3593	1-104
00-237-4956	1-197
	1-197
00-237-4969	1-189
00-237-4973	1-202
00-237-6063	1-23
00-237-6985	1-199
00-237-6995	1-196
00-237-8095	1-176
00-237-8147	1-220
00-237-8148	1-220
00-237-8149	1-220
00-237-8172	1-199
00-237-8173	1-199
00-237-8174	1-199
00-237-8263	1-217
00-237-8269	1-217
00-237-8270	1-217
00-237-8272	1-217
00-237-8273	1-217
00-237-8274	1-217
00-237-8573	1-178
00-237-8702	1-177
00-237-8741	1-63
00-238-1638	1-33
00-238-3472	1-58
00-238-5350	1-123
00-238-6855	1-58
00-238-7696	1-178
00-238-7732	1-61
00-238-7734	1-61
00-238-9060	1-2
00-238-9649	1-170
00-238-9658	1-169
00-238-9660	1-169
00-238-9664	1-169
00-238-9666	1-169
00-238-9667	1-169
00-238-9959	1-81
00-239-0016	1-202
00-239-0017	1-202
00-239-0018	1-202
00-239-0021	1-203
00-239-0189	1-114
00-239-0644	1-170
00-239-0785	1-213
00-239-0786	1-213
00-239-2174	1-219
00-239-2762	1-217
00-239-2763	1-217
00-239-2764	1-217
00-239-2765	1-217
00-239-2766	1-217
00-239-2767	1-217
00-239-2768	1-217
00-239-2769	1-217
00-239-2770	1-217
00-239-2772	1-217
00-239-2773	1-217
00-239-2774	1-217
00-239-2775	1-217
00-239-2776	1-217
00-239-2777	1-217
00-239-2778	1-217
00-239-2779	1-217
00-239-2780	1-217
00-239-3269	1-170
00-239-5093	1-26
00-239-7538	1-169
00-239-7556	1-169
00-239-7590	1-170
00-239-7602	1-170
00-239-7614	1-170
00-239-7739	1-170
00-239-8240	1-217
00-239-8250	1-194
00-239-8251	1-194
00-239-8252	1-194
00-239-8253	1-173
00-239-8254	1-194
00-240-0152	1-182
00-240-0153	1-182
00-240-0154	1-182
00-240-0155	1-182
00-240-0156	1-182
00-240-1410	1-207
00-240-1411	1-207
00-240-1414	1-205
00-240-1418	1-189
00-240-1532	1-185
00-240-2019	1-61
00-240-2061	1-21
00-240-2142	1-61
00-240-2146	1-61
00-240-2154	1-61
00-240-2160	1-61
00-240-2161	1-61
00-240-2164	1-61
00-240-2185	1-61
00-240-3094	1-177
00-240-3096	1-188
00-240-5215	1-185
00-240-5217	1-185
00-240-5219	1-185
00-240-5220	1-185
00-240-5221	1-185
00-240-5222	1-185
00-240-5223	1-185
00-240-5232	1-200
	1-201
00-240-5268	1-191
00-240-5274	1-191
00-240-5277	1-191
00-240-5292	1-191
00-240-5300	1-191
00-240-5328	1-205
00-240-5330	1-205
00-240-5336	1-205
00-240-5364	1-189
00-240-5396	1-189
00-240-5530	1-75
00-240-5537	1-74
00-240-5538	1-119
00-240-5540	1-119
00-240-5905	1-113
00-240-5943	1-172
00-240-6031	1-163
00-240-6051	1-182
00-240-6082	1-197
00-240-6083	1-197
00-240-6104	1-197
00-240-6141	1-168
00-240-6213	1-194
00-240-6217	1-195
00-240-7070	1-171
00-240-7073	1-171
00-240-7337	1-214
00-240-7561	1-182
00-240-7661	1-177

NIIN Cross Reference Index

NIIN	Page No.
00-240-8443	1-214
00-240-8702	1-181
00-240-8703	1-181
00-240-8705	1-185
00-240-8716	1-199
	1-200
00-240-8894	1-196
00-240-8898	1-197
00-241-2582	1-164
00-241-3143	1-189
00-241-3170	1-200
00-241-3179	1-191
00-241-3180	1-191
00-241-3181	1-191
00-241-3185	1-202
00-241-3186	1-202
00-241-3188	1-208
00-241-5856	1-103
00-241-7675	1-169
00-241-8439	1-61
00-241-9132	1-169
00-241-9133	1-169
00-241-9134	1-169
00-241-9135	1-169
00-241-9138	1-169
00-241-9140	1-169
00-241-9143	1-169
00-241-9145	1-168
00-241-9146	1-168
00-241-9147	1-168
00-241-9148	1-168
00-241-9149	1-168
00-241-9150	1-168
00-241-9151	1-168
00-241-9152	1-168
00-241-9153	1-168
00-241-9156	1-168
00-241-9158	1-168
00-241-9159	1-168
00-241-9160	1-169
00-241-9163	1-169
00-241-9164	1-169
00-241-9165	1-169
00-241-9166	1-169
00-241-9167	1-170
00-242-0762	1-182
00-242-0763	1-196
00-242-0764	1-197
00-242-1118	1-185
00-242-2511	1-17
00-242-2512	1-17
00-242-2828	1-173
00-242-2974	1-218
00-242-3057	1-173
00-242-3137	1-185
00-242-3242	1-119
00-242-3249	1-207
00-242-3254	1-205
00-242-3256	1-189
00-242-3264	1-210
00-242-3268	1-200
00-242-3330	1-202
00-242-3345	1-202
00-242-3349	1-203
00-242-3351	1-202
00-242-3352	1-202
00-242-3354	1-202
00-242-3433	1-197
00-242-3435	1-197
00-242-3457	1-165
00-242-3789	1-189
00-242-3791	1-189
00-242-3908	1-188
00-242-3915	1-187
00-242-3968	1-92
00-242-4064	1-152
00-242-4100	1-161
00-242-4357	1-94
00-242-4358	1-94
00-242-4359	1-94
00-242-4360	1-94
00-242-4361	1-94
00-242-5384	1-169
00-242-5385	1-169
00-242-5386	1-169
00-242-5387	1-169
00-242-5575	1-65
00-242-5966	1-197
00-242-6666	1-23
00-242-7410	1-21
	1-191
00-242-7411	1-191
00-242-7618	1-21
00-242-7619	1-21
00-242-8179	1-168
00-242-8185	1-169
00-243-0865	1-163
00-243-0938	1-169
00-243-1349	1-205
00-243-1554	1-62
00-243-1645	1-174
00-243-1648	1-174
00-243-1674	1-203
00-243-1676	1-203
00-243-1686	1-204
00-243-1689	1-185
00-243-1691	1-185
00-243-1693	1-185
00-243-1697	1-185
00-243-2003	1-175
00-243-2004	1-175
00-243-2005	1-175
00-243-2006	1-175
00-243-2007	1-175
00-243-2308	1-213
00-243-2309	1-213
00-243-2326	1-213
00-243-2327	1-213
00-243-2362	1-18
00-243-2508	1-170
00-243-2735	1-161
00-243-2776	1-196
00-243-2951	1-188
00-243-2957	1-187
00-243-3152	1-62
00-243-3156	1-62
00-243-3296	1-198
00-243-3589	1-56
00-243-3632	1-186
00-243-4438	1-63
00-243-4439	1-63
00-243-4440	1-63
00-243-4441	1-63
00-243-4442	1-63
00-243-4443	1-63
00-243-4444	1-63
00-243-4445	1-63
00-243-4632	1-159
00-243-6911	1-163
00-243-6912	1-213
00-243-7249	1-26
00-243-7325	1-185
00-243-7326	1-185
00-243-7337	1-203
00-243-7339	1-203
00-243-7340	1-203
00-243-7341	1-203
00-243-7342	1-203
00-243-7343	1-203
00-243-7348	1-203
00-243-7350	1-203
00-243-7965	1-169
00-243-8099	1-170
00-243-8100	1-170
00-243-8757	1-164
00-243-9072	1-205
00-243-9611	1-214
00-243-9612	1-214
00-243-9613	1-214
00-243-9769	1-145
00-244-0764	1-77
00-244-1331	1-1
00-244-1335	1-1
00-244-4860	1-159
00-245-3014	1-170
00-245-3015	1-170
	1-170
00-245-3016	1-170
	1-170
00-245-4177	1-170
00-245-9476	1-94
00-245-9486	1-94
00-245-9497	1-94
00-245-9542	1-178
00-246-0113	1-26
00-246-0165	1-26
00-246-0564	1-33
00-246-0565	1-33
00-246-0566	1-33
00-246-0688	1-61
00-246-0975	1-179
00-246-2311	1-192
00-246-4350	1-204
00-246-5192	1-2
00-246-6134	1-61
00-247-0519	1-139
00-247-0748	1-211
00-247-0864	1-204
00-247-0867	1-204
00-247-0868	1-204
00-247-1253	1-213
00-247-1370	1-93
00-247-2536	1-210
00-247-2540	1-210
00-247-2896	1-186
00-247-5177	1-193
00-247-7432	1-45
00-247-9224	1-61
00-248-0866	1-161
00-248-3918	1-118
00-248-5263	1-31
00-249-1071	1-189
00-249-1076	1-189
00-249-2848	1-168
00-249-2849	1-168
00-249-2850	1-168
00-249-2858	1-168
00-249-2987	1-65
00-249-2988	1-65
00-249-2992	1-65
00-249-3873	1-126
00-249-3882	1-126

NIIN Cross Reference Index

NIIN	Page No.
00-249-3885	1-126
00-249-3890	1-126
00-249-3917	1-126
00-249-3921	1-126
00-249-3957	1-126
00-249-3959	1-126
00-249-3961	1-126
00-249-3968	1-126
00-249-3969	1-126
00-249-3970	1-126
00-249-3972	1-126
00-249-3973	1-126
00-249-3974	1-127
00-249-3976	1-127
00-249-3977	1-127
00-249-3978	1-127
00-249-3979	1-127
00-249-3980	1-127
00-249-3981	1-127
00-249-7492	1-183
00-249-7494	1-183
00-250-0789	1-40
00-250-2474	1-21
00-250-2525	1-173
	1-176
00-250-2529	1-224
00-250-3911	1-187
00-250-5576	1-182
00-250-6512	1-168
00-250-7902	1-130
00-250-7927	1-127
00-250-8038	1-158
00-250-8053	1-172
00-250-8748	1-37
00-250-8749	1-37
00-250-8750	1-37
00-250-8751	1-37
00-250-9137	1-203
00-250-9987	1-26
00-251-1527	1-186
00-251-2267	1-187
00-251-4489	1-187
00-251-6478	1-162
00-251-6481	1-177
00-251-6977	1-105
00-251-9503	1-190
00-252-3154	1-90
00-252-3508	1-131
00-252-3767	1-91
00-252-3771	1-91
00-252-3776	1-91
00-252-3778	1-91
00-252-4015	1-168
00-252-6888	1-91
00-252-6889	1-90
00-252-6890	1-90
00-252-7720	1-204
00-253-0857	1-91
00-253-2478	1-158
00-253-3152	1-175
00-253-3154	1-175
00-253-3156	1-175
00-253-3158	1-175
00-253-3160	1-175
00-253-3170	1-175
00-253-3172	1-175
00-253-3176	1-175
00-253-3178	1-175
00-253-3190	1-175
00-253-3496	1-121
00-253-5751	1-126
00-253-9653	1-63
00-254-3468	1-171
00-254-3469	1-171
00-254-4518	1-220
00-254-4612	1-183
00-254-5033	1-33
00-254-5828	1-138
00-254-5957	1-107
00-254-6211	1-127
00-254-6225	1-127
00-254-6228	1-127
00-254-6238	1-139
00-254-6241	1-139
00-254-6243	1-139
00-254-6424	1-129
00-254-6447	1-129
00-254-6449	1-129
00-254-6450	1-129
00-254-6626	1-188
00-254-6635	1-171
00-255-0232	1-75
00-255-0234	1-75
00-255-0420	1-176
00-255-1096	1-200
00-255-1476	1-187
00-255-2690	1-129
00-255-4060	1-213
00-255-4068	1-213
00-255-4458	1-183
00-255-6541	1-175
00-255-6557	1-175
00-255-6579	1-175
00-255-6600	1-175
00-255-8760	1-69
00-255-9332	1-29
00-255-9333	1-29
00-256-0651	1-197
00-256-2150	1-193
00-256-3843	1-125
00-256-4305	1-130
00-256-6543	1-152
00-256-8552	1-130
00-256-8553	1-130
00-256-8554	1-131
00-256-8555	1-131
00-256-8556	1-131
00-256-8557	1-131
00-256-8558	1-131
00-256-8559	1-131
00-256-8560	1-131
00-256-8561	1-131
00-256-8563	1-131
00-256-8835	1-90
00-256-9014	1-200
00-256-9259	1-197
00-257-0727	1-27
00-257-2120	1-139
00-257-2124	1-139
00-257-2144	1-139
00-257-2146	1-139
00-257-2147	1-139
00-257-2148	1-139
00-257-2150	1-139
00-257-2151	1-139
00-257-2163	1-140
00-257-2215	1-89
00-257-5390	1-62
00-260-1645	1-175
00-260-1664	1-175
00-260-1665	1-175
00-260-1668	1-175
00-260-1671	1-175
00-260-1702	1-175
00-260-1705	1-175
00-260-1706	1-175
00-260-1707	1-175
00-260-1708	1-175
00-260-1717	1-175
00-260-1721	1-175
00-260-1727	1-175
00-260-1728	1-175
00-260-4837	1-199
00-260-8267	1-119
00-260-8270	1-119
00-260-8284	1-120
00-260-8285	1-120
00-260-8286	1-120
00-260-8288	1-120
00-260-8289	1-120
00-260-8290	1-120
00-261-3214	1-219
00-261-3246	1-219
00-261-3259	1-219
00-261-3262	1-219
00-261-3263	1-219
00-261-3264	1-219
00-261-4994	1-224
00-261-8415	1-162
00-262-1484	1-219
00-262-1548	1-56
00-262-1551	1-56
00-262-1573	1-63
00-262-1597	1-67
00-262-1791	1-67
00-262-1890	1-67
00-262-1891	1-67
00-262-1894	1-67
00-262-1896	1-67
00-262-1897	1-67
00-262-2019	1-61
00-262-2048	1-67
00-262-2049	1-67
00-262-2051	1-67
00-262-2066	1-64
00-262-2067	1-64
00-262-2068	1-64
00-262-2069	1-64
00-262-2070	1-64
00-262-2071	1-64
00-262-2074	1-64
00-262-2076	1-64
00-262-2078	1-64
00-262-2079	1-64
00-262-2082	1-64
00-262-2157	1-215
00-262-2158	1-215
00-262-2160	1-215
00-262-2161	1-215
00-262-2162	1-215
00-262-2163	1-215
00-262-2164	1-215
00-262-2165	1-215
00-262-2166	1-215
00-262-2167	1-215
00-262-2168	1-215
00-262-2169	1-215
00-262-2170	1-215
00-262-2171	1-215
00-262-2172	1-215
00-262-2173	1-215
00-262-2174	1-215

NIIN Cross Reference Index

NIIN	Page No.
00-262-2175	1-215
00-262-2176	1-215
00-262-2177	1-215
00-262-2178	1-215
00-262-2179	1-215
00-262-2180	1-215
00-262-2191	1-215
00-262-2192	1-215
00-262-2193	1-215
00-262-2194	1-215
00-262-2195	1-220
00-262-2200	1-220
00-262-2597	1-32
00-262-2652	1-32
00-262-2743	1-32
00-262-3945	1-219
00-262-4182	1-31
00-262-4190	1-31
00-262-4192	1-31
00-262-4417	1-15
00-262-4426	1-2
00-262-6875	1-149
00-262-6877	1-149
00-262-7070	1-71
00-262-7071	1-71
00-262-7091	1-83
	1-84
00-262-7092	1-83
	1-84
00-262-7098	1-84
00-262-7099	1-84
00-262-7178	1-89
00-262-8491	1-207
00-262-8868	1-159
00-263-0341	1-171
00-263-0342	1-171
00-263-0349	1-171
00-263-3041	1-50
00-263-3042	1-53
00-263-4978	1-127
00-263-4983	1-127
00-263-5264	1-139
00-263-6460	1-140
00-263-6465	1-140
00-263-6472	1-140
00-263-9886	1-157
00-264-3777	1-208
00-264-3793	1-205
00-264-3794	1-205
00-264-3795	1-205
00-264-3796	1-205
00-264-4735	1-51
00-264-4762	1-51
00-264-4764	1-51
00-264-4767	1-52
00-264-4774	1-52
00-264-4859	1-18
00-264-5577	1-45
00-264-5578	1-45
00-264-5580	1-46
00-264-5807	1-35
00-264-5818	1-35
00-264-6499	1-66
00-264-6502	1-66
00-264-9125	1-132
00-264-9126	1-132
00-264-9128	1-132
00-264-9129	1-132
00-264-9151	1-122
00-264-9153	1-122
00-264-9154	1-122
00-264-9155	1-122
00-264-9156	1-122
00-264-9157	1-122
00-264-9158	1-122
00-264-9171	1-137
00-264-9209	1-132
00-264-9573	1-34
00-265-7102	1-33
00-265-7462	1-187
00-266-0058	1-67
00-266-0062	1-67
00-266-0063	1-67
00-266-0064	1-67
00-266-0065	1-67
00-266-0066	1-67
00-266-0067	1-67
00-266-0070	1-67
00-266-0071	1-67
00-266-0074	1-67
00-266-0085	1-67
00-266-0086	1-67
00-266-0531	1-113
00-266-0533	1-113
00-266-0534	1-113
00-266-0535	1-113
00-266-0536	1-113
00-266-0538	1-113
00-266-0541	1-113
00-266-0543	1-113
00-266-0545	1-114
00-266-2417	1-113
00-266-7023	1-188
00-266-7408	1-64
00-266-7413	1-64
00-266-7415	1-64
00-266-7463	1-18
00-266-8301	1-117
00-266-9159	1-159
00-266-9182	1-159
00-266-9228	1-215
00-266-9229	1-215
00-266-9230	1-215
00-266-9233	1-214
00-266-9234	1-214
00-266-9243	1-215
00-266-9244	1-215
00-266-9245	1-215
00-266-9246	1-215
00-266-9247	1-215
00-266-9248	1-215
00-266-9462	1-215
00-266-9464	1-215
00-266-9466	1-215
00-266-9467	1-215
00-266-9468	1-215
00-266-9470	1-215
00-266-9471	1-215
00-266-9515	1-146
00-266-9518	1-146
00-266-9565	1-33
00-267-1994	1-16
00-267-1995	1-16
00-267-7024	1-63
00-267-7111	1-63
00-268-1235	1-175
00-268-1253	1-175
00-268-1258	1-175
00-268-1309	1-175
00-268-1310	1-175
00-268-1311	1-175
00-268-3579	1-193
00-268-4224	1-178
00-268-7479	1-119
00-268-9152	1-149
00-268-9154	1-149
00-268-9157	1-149
00-268-9218	1-45
00-268-9219	1-45
00-268-9220	1-45
00-268-9251	1-2
00-268-9252	1-2
00-268-9377	1-40
00-268-9378	1-40
00-268-9380	1-40
00-268-9381	1-40
00-268-9382	1-40
00-268-9720	1-78
00-268-9730	1-71
00-268-9786	1-159
00-269-0847	1-3
00-269-0848	1-3
00-269-1098	1-15
00-269-1100	1-15
00-269-2189	1-109
00-269-3760	1-121
00-269-7912	1-83
	1-84
00-269-7965	1-207
00-269-7966	1-207
00-269-7971	1-204
00-269-9343	1-57
00-269-9369	1-57
00-269-9460	1-87
00-269-9610	1-34
00-269-9761	1-63
00-269-9764	1-63
00-269-9771	1-67
00-269-9772	1-67
00-269-9775	1-67
00-270-0258	1-89
00-270-0718	1-161
00-270-1040	1-162
00-270-1044	1-162
00-270-1654	1-56
00-270-3855	1-120
00-270-3886	1-134
00-270-3891	1-134
00-270-3916	1-119
00-270-3917	1-119
00-270-3918	1-119
00-270-3919	1-119
00-270-3920	1-119
00-270-3921	1-119
00-270-3922	1-119
00-270-4309	1-207
00-270-4415	1-86
00-270-4512	1-72
00-270-4515	1-81
00-270-4606	1-114
00-270-4613	1-113
00-270-4621	1-113
00-270-5468	1-61
00-270-5480	1-65
00-270-5482	1-65
00-270-5483	1-65
00-270-5484	1-65
00-270-5485	1-65
00-270-5486	1-65
00-270-6047	1-31
00-270-8245	1-61
00-270-8636	1-57

NIIN Cross Reference Index

NIIN	Page No.
00-270-8639	1-57
00-270-8695	1-67
00-270-8708	1-67
00-270-8709	1-67
00-271-1914	1-61
00-271-9943	1-165
00-272-2227	1-2
00-272-2353	1-3
00-272-2355	1-3
00-272-2699	1-163
00-272-3332	1-143
00-272-3333	1-143
00-272-3335	1-143
00-272-3346	1-143
00-272-3347	1-143
00-272-7744	1-64
00-272-7745	1-67
00-272-7749	1-63
00-272-7750	1-63
00-272-8794	1-57
00-272-8798	1-57
00-272-8800	1-57
00-272-8802	1-57
00-272-8812	1-55
00-272-8835	1-65
00-272-8836	1-65
00-272-8848	1-57
00-272-8849	1-57
00-272-9760	1-219
00-272-9761	1-219
00-272-9769	1-40
00-272-9773	1-40
00-272-9774	1-40
00-272-9775	1-40
00-272-9776	1-40
00-272-9778	1-40
00-272-9780	1-40
00-272-9782	1-40
00-272-9784	1-40
00-272-9785	1-40
00-272-9786	1-40
00-272-9787	1-40
00-272-9788	1-40
00-272-9859	1-40
00-272-9860	1-40
00-272-9863	1-40
00-272-9984	1-53
00-272-9986	1-53
00-272-9987	1-53
00-273-0001	1-197
00-273-0083	1-182
00-273-0084	1-182
00-273-0085	1-182
00-273-0122	1-170
00-273-0126	1-178
00-273-0127	1-177
	1-178
00-273-0128	1-178
00-273-0684	1-3
00-273-0685	1-3
00-273-0686	1-3
00-273-0687	1-3
00-273-0688	1-3
00-273-0690	1-3
00-273-1051	1-108
00-273-1077	1-90
	1-206
00-273-1078	1-90
00-273-1079	1-90
00-273-1080	1-90
00-273-1084	1-206
00-273-1086	1-90
00-273-1095	1-92
00-273-1096	1-92
00-273-1104	1-90
00-273-1105	1-92
00-273-1202	1-89
00-273-2552	1-29
00-273-2903	1-57
00-273-2904	1-57
00-273-3073	1-63
00-273-3074	1-63
00-273-3075	1-63
00-273-3076	1-63
00-273-3078	1-63
00-273-3079	1-63
00-273-3080	1-63
00-273-3081	1-63
00-273-3084	1-67
00-273-3611	1-67
00-273-3653	1-159
00-273-7948	1-99
00-273-9147	1-3
00-273-9200	1-218
00-273-9208	1-185
00-273-9275	1-65
00-273-9279	1-67
00-273-9886	1-104
00-274-1154	1-107
00-274-3033	1-55
00-274-3472	1-64
00-274-3477	1-57
00-274-3481	1-57
00-274-3482	1-56
00-274-3647	1-144
00-274-4504	1-113
00-274-5699	1-158
00-274-5713	1-159
00-274-5816	1-78
00-274-5818	1-78
00-274-5828	1-120
00-274-7120	1-120
00-274-9653	1-206
00-274-9655	1-206
00-274-9658	1-206
00-275-1231	1-29
00-275-2961	1-53
00-275-2962	1-53
00-275-3155	1-79
00-275-3156	1-79
00-275-3157	1-79
00-275-3177	1-85
00-275-7900	1-159
00-276-1031	1-220
00-276-1032	1-220
00-276-7838	1-90
00-276-8926	1-78
00-276-8929	1-77
00-276-8929	1-78
00-276-8940	1-85
00-276-8941	1-85
00-276-9041	1-143
00-277-0632	1-227
00-277-0633	1-227
00-277-1247	1-207
00-277-1254	1-207
00-277-1258	1-207
00-277-1461	1-207
00-277-1462	1-207
00-277-1463	1-202
00-277-1464	1-202
00-277-1465	1-203
00-277-1477	1-207
00-277-1478	1-207
00-277-1479	1-207
00-277-1480	1-207
00-277-1483	1-207
00-277-1484	1-207
00-277-1485	1-207
00-277-1486	1-207
00-277-1645	1-93
00-277-1714	1-146
00-277-1715	1-146
00-277-1717	1-146
00-277-1801	1-208
00-277-1873	1-119
00-277-1896	1-119
00-277-2311	1-206
00-277-2342	1-206
00-277-2466	1-98
00-277-2467	1-98
00-277-2468	1-98
00-277-2469	1-98
00-277-2470	1-98
00-277-2471	1-98
00-277-2472	1-98
00-277-2473	1-98
00-277-2474	1-98
00-277-2549	1-121
00-277-2550	1-121
00-277-2690	1-177
00-277-2694	1-206
00-277-3364	1-206
00-277-3374	1-74
00-277-3375	1-74
00-277-3376	1-71
00-277-3377	1-71
00-277-3378	1-71
00-277-3379	1-111
00-277-3380	1-111
00-277-3381	1-111
00-277-3382	1-111
00-277-3383	1-111
00-277-3549	1-39
00-277-3550	1-39
00-277-3555	1-39
00-277-3556	1-39
00-277-3557	1-39
00-277-3566	1-39
00-277-3568	1-39
00-277-3954	1-97
00-277-3955	1-97
00-277-3956	1-97
00-277-3957	1-97
00-277-3960	1-97
00-277-4023	1-99
00-277-4026	1-99
00-277-4027	1-98
00-277-4029	1-98
00-277-4030	1-98
00-277-4032	1-98
00-277-4033	1-99
00-277-4034	1-99
00-277-4063	1-209
00-277-4064	1-209
00-277-4069	1-209
00-277-4243	1-208
00-277-4244	1-208
00-277-4252	1-202
00-277-4266	1-3
00-277-4533	1-99
00-277-4543	1-99

NIIN Cross Reference Index

NIIN	Page No.
00-277-4587	1-164
00-277-4588	1-164
00-277-4589	1-164
00-277-4590	1-164
00-277-4591	1-164
00-277-4592	1-164
00-277-4596	1-99
00-277-4597	1-99
00-277-4602	1-99
00-277-4606	1-99
00-277-4608	1-99
00-277-4613	1-99
00-277-4623	1-99
00-277-4624	1-99
00-277-4651	1-99
00-277-4652	1-99
00-277-4653	1-99
00-277-4654	1-99
00-277-4655	1-99
00-277-4656	1-99
00-277-4657	1-99
00-277-4663	1-99
00-277-4833	1-206
00-277-4835	1-206
00-277-5077	1-132
00-277-5081	1-132
00-277-5083	1-132
00-277-5084	1-132
00-277-5104	1-140
00-277-5288	1-138
00-277-5357	1-138
00-277-5466	1-98
00-277-5467	1-98
00-277-5468	1-98
00-277-5469	1-98
00-277-5472	1-98
00-277-5473	1-98
00-277-5524	1-99
00-277-5525	1-99
00-277-5542	1-126
00-277-5543	1-126
00-277-5546	1-126
00-277-5553	1-126
00-277-5678	1-123
00-277-5679	1-123
00-277-5680	1-125
00-277-5781	1-206
00-277-5784	1-3
00-277-5785	1-3
00-277-5787	1-3
00-277-5850	1-121
00-277-6068	1-98
00-277-6069	1-98
00-277-6078	1-97
00-277-6080	1-97
00-277-6084	1-97
00-277-6086	1-97
00-277-6087	1-97
00-277-6088	1-97
00-277-6099	1-98
00-277-6100	1-98
00-277-6101	1-98
00-277-6119	1-99
00-277-6126	1-98
00-277-6127	1-98
00-277-6159	1-124
00-277-6371	1-132
00-277-6671	1-39
00-277-6673	1-39
00-277-6674	1-39
00-277-6675	1-39
00-277-6837	1-133
00-277-6948	1-120
00-277-6988	1-133
00-277-7025	1-206
00-277-7132	1-120
00-277-7152	1-93
00-277-7225	1-102
00-277-7246	1-100
00-277-7448	1-99
00-277-7449	1-98
00-277-7450	1-99
00-277-7451	1-98
00-277-7452	1-99
00-277-7453	1-99
00-277-7454	1-99
00-277-7455	1-98
00-277-7581	1-99
00-277-7739	1-97
00-277-7741	1-97
00-277-7905	1-113
00-277-8269	1-127
00-277-8270	1-127
00-277-8274	1-127
00-277-8299	1-206
00-277-8301	1-206
00-277-8308	1-207
00-277-8311	1-207
00-277-8313	1-207
00-277-8702	1-97
00-277-8703	1-97
00-277-8704	1-97
00-277-8705	1-97
00-277-8706	1-97
00-277-8707	1-97
00-277-8708	1-97
00-277-8709	1-97
00-277-8710	1-97
00-277-8711	1-97
00-277-8712	1-97
00-277-8713	1-97
00-277-8714	1-97
00-277-8715	1-97
00-277-8835	1-224
00-277-8836	1-224
00-277-9028	1-107
00-277-9075	1-208
00-277-9076	1-208
00-277-9077	1-208
00-277-9078	1-209
00-277-9386	1-118
00-277-9387	1-121
00-277-9517	1-206
00-277-9818	1-206
00-277-9844	1-92
00-277-9848	1-149
00-277-9849	1-149
00-277-9853	1-149
00-277-9856	1-149
00-278-0230	1-216
00-278-0232	1-216
00-278-0325	1-198
00-278-0326	1-198
00-278-0327	1-198
00-278-0340	1-205
00-278-0341	1-205
00-278-0342	1-206
00-278-0350	1-195
00-278-0351	1-195
00-278-0352	1-195
00-278-0375	1-118
00-278-0417	1-121
00-278-0422	1-121
00-278-0678	1-138
00-278-0698	1-65
00-278-0699	1-64
00-278-0700	1-64
00-278-0701	1-64
00-278-0703	1-64
00-278-0712	1-64
00-278-0714	1-64
00-278-0924	1-39
00-278-1092	1-107
00-278-1103	1-106
00-278-1109	1-106
00-278-1112	1-106
00-278-1113	1-106
00-278-1264	1-197
	1-197
00-278-1267	1-199
00-278-1268	1-199
00-278-1269	1-199
00-278-1270	1-199
00-278-1273	1-199
00-278-1276	1-199
00-278-1283	1-199
00-278-1323	1-106
00-278-2097	1-98
00-278-2198	1-99
00-278-2213	1-98
00-278-2214	1-99
00-278-2215	1-99
00-278-2216	1-99
00-278-2217	1-99
00-278-2423	1-184
00-278-2513	1-121
00-278-2523	1-120
00-278-2546	1-121
00-278-2607	1-138
00-278-2648	1-121
00-278-3167	1-119
00-278-3281	1-99
00-278-3292	1-99
00-278-3294	1-99
00-278-3297	1-99
00-278-3300	1-99
00-278-3302	1-99
00-278-3305	1-99
00-278-3314	1-99
00-278-3317	1-99
00-278-3320	1-99
00-278-3437	1-135
00-278-3462	1-135
00-278-3722	1-132
00-278-3905	1-118
00-278-4357	1-113
00-278-4574	1-113
00-278-4575	1-113
00-278-4824	1-126
00-278-4889	1-106
00-278-4890	1-106
00-278-4891	1-106
00-278-4900	1-106
00-278-4971	1-98
00-278-4973	1-98
00-278-4974	1-98
00-278-4975	1-98
00-278-4976	1-98
00-278-4996	1-135
00-278-4997	1-135
00-278-4998	1-135
00-278-5000	1-135

NIIN Cross Reference Index

NIIN	Page No.
00-278-5006	1-120
00-278-5346	1-97
00-278-5348	1-97
00-278-5349	1-97
00-278-5350	1-97
00-278-5351	1-97
00-278-5651	1-130
00-278-5652	1-130
00-278-5686	1-116
00-278-5784	1-98
00-278-6430	1-98
00-278-7591	1-205
00-278-7859	1-99
00-278-7865	1-99
00-278-8479	1-99
00-278-8487	1-99
00-278-8498	1-99
00-278-8717	1-133
00-278-8761	1-138
00-278-8764	1-138
00-278-8765	1-138
00-278-8829	1-134
00-278-9095	1-120
00-278-9197	1-121
00-278-9200	1-121
00-278-9211	1-121
00-278-9376	1-140
00-278-9549	1-94
00-278-9874	1-145
00-278-9877	1-145
00-278-9925	1-184
00-278-9926	1-193
00-279-0020	1-98
00-279-0985	1-135
00-279-4475	1-64
00-279-4476	1-64
00-279-4477	1-65
00-280-2350	1-229
00-280-3453	1-64
00-282-2509	1-67
00-282-2512	1-67
00-282-4885	1-65
00-282-6225	1-56
00-284-0132	1-39
00-285-1576	1-30
00-285-3705	1-56
00-285-4733	1-30
00-285-9901	1-58
00-286-5433	1-65
00-286-5434	1-30
00-286-7611	1-57
00-286-7612	1-57
00-286-7717	1-57
00-287-0276	1-134
00-287-0289	1-134
00-287-0290	1-134
00-287-0420	1-141
00-287-0421	1-141
00-287-0422	1-141
00-287-0547	1-113
00-287-0706	1-135
00-287-1391	1-139
00-287-1537	1-134
00-287-1701	1-140
00-287-1703	1-140
00-287-2041	1-150
00-287-2042	1-150
00-287-2046	1-150
00-287-2047	1-150
00-287-2129	1-200
	1-201
00-287-2130	1-200
	1-201
00-287-2299	1-147
00-287-2502	1-199
00-287-2503	1-199
00-287-2504	1-199
00-287-2505	1-199
00-287-2512	1-183
00-287-2599	1-146
00-287-2840	1-149
00-287-3317	1-151
00-287-3318	1-151
00-287-3323	1-151
00-287-3324	1-151
00-287-3325	1-151
00-287-3327	1-151
00-287-3328	1-151
00-287-3613	1-15
00-287-3740	1-77
00-287-3741	1-77
	1-78
00-287-4045	1-155
00-287-4268	1-143
00-287-4448	1-185
00-287-4527	1-206
00-287-4528	1-188
00-287-5342	1-151
00-287-5617	1-144
00-287-6232	1-18
00-287-9643	1-2
00-287-9644	1-2
00-287-9702	1-1
00-288-1511	1-157
00-288-2665	1-26
00-288-4048	1-31
00-288-6468	1-208
00-288-6520	1-167
00-288-6521	1-167
00-288-6560	1-188
00-288-6564	1-188
00-288-6567	1-227
00-288-6573	1-171
00-288-6578	1-190
00-288-6678	1-147
00-288-6755	1-227
00-288-6756	1-227
00-288-7679	1-185
00-288-7710	1-196
	1-227
00-288-7711	1-196
	1-227
00-288-7712	1-227
00-288-7713	1-196
	1-227
00-288-7714	1-227
00-288-7763	1-223
00-288-7769	1-192
00-288-7781	1-181
00-288-7783	1-204
00-288-7785	1-181
00-288-7786	1-181
00-288-7787	1-181
00-288-7789	1-181
00-288-7803	1-199
00-288-8155	1-202
00-288-8371	1-152
00-288-8383	1-153
00-288-8716	1-186
00-288-8722	1-166
00-288-8728	1-198
00-288-8732	1-200
00-288-8737	1-174
00-288-8739	1-201
00-288-8743	1-208
00-288-8744	1-208
00-288-8746	1-208
00-288-8802	1-141
00-288-8816	1-72
00-288-8865	1-210
00-288-9180	1-186
00-288-9182	1-186
00-288-9204	1-151
00-288-9300	1-166
00-288-9302	1-206
00-288-9325	1-87
00-288-9420	1-128
00-288-9422	1-128
00-288-9671	1-206
00-288-9685	1-204
00-288-9707	1-187
00-288-9710	1-200
	1-201
00-288-9717	1-195
00-288-9754	1-108
00-288-9840	1-107
00-288-9865	1-106
00-288-9867	1-108
00-288-9870	1-107
00-288-9873	1-106
00-288-9875	1-106
00-288-9878	1-108
00-288-9928	1-113
00-288-9938	1-113
00-288-9997	1-206
00-288-9999	1-208
00-289-0000	1-208
00-289-0001	1-167
00-289-0002	1-167
00-289-0003	1-167
00-289-0004	1-167
00-289-0005	1-168
00-289-0006	1-168
00-289-0007	1-168
00-289-0008	1-168
00-289-0010	1-175
00-289-0360	1-113
00-289-0368	1-114
00-289-0379	1-114
00-289-0383	1-113
00-289-0531	1-178
00-289-0534	1-209
00-289-0537	1-209
00-289-0539	1-209
00-289-0593	1-135
00-289-0595	1-135
00-289-0756	1-103
00-289-0782	1-133
00-289-1011	1-175
00-289-1020	1-144
00-289-1254	1-114
00-289-1305	1-71
00-289-1409	1-104
00-289-1686	1-121
00-289-1891	1-77
00-289-1891	1-78
00-289-1892	1-77
	1-78
00-289-1930	1-114
00-289-2046	1-111
00-289-2047	1-111
00-289-2048	1-111

NIIN Cross Reference Index

NIIN	Page No.
00-289-2049	1-111
00-289-2050	1-111
00-289-2245	1-155
00-289-2537	1-98
00-289-2615	1-107
00-289-2618	1-107
00-289-2781	1-98
00-289-2785	1-98
00-289-2792	1-98
00-289-2824	1-117
00-289-2848	1-97
00-289-2851	1-97
00-289-2854	1-97
00-289-2870	1-139
00-289-2875	1-139
00-289-3257	1-112
00-289-3306	1-108
00-289-3429	1-105
00-289-3436	1-99
00-289-3437	1-99
00-289-3439	1-99
00-289-4240	1-125
00-289-4241	1-125
00-289-4242	1-124
00-289-4247	1-125
00-289-4254	1-104
00-289-4258	1-104
00-289-4383	1-144
00-289-4513	1-99
00-289-4514	1-99
00-289-4611	1-102
00-289-4612	1-102
00-289-4619	1-140
00-289-4716	1-113
00-289-5091	1-141
00-289-5176	1-135
00-289-5221	1-106
00-289-5222	1-106
00-289-5241	1-129
00-289-5484	1-113
00-289-5506	1-141
00-289-6230	1-129
00-289-7990	1-104
00-289-7991	1-104
00-289-7993	1-99
00-289-7994	1-99
00-289-7995	1-99
00-289-8004	1-99
00-289-8005	1-99
00-289-8006	1-99
00-289-8007	1-99
00-289-8045	1-92
00-289-8133	1-131
00-289-8134	1-131
00-289-8192	1-123
00-289-8493	1-122
00-289-8523	1-25
00-289-8616	1-61
00-289-8617	1-61
00-289-8618	1-138
00-289-8619	1-138
00-289-8622	1-138
00-289-8623	1-138
00-289-8626	1-135
00-289-8627	1-135
00-289-8633	1-120
00-289-8634	1-120
00-289-8659	1-177
00-289-8910	1-225
00-289-8911	1-225
00-289-9197	1-106
00-289-9199	1-106
00-289-9200	1-106
00-289-9201	1-106
00-289-9202	1-106
00-289-9657	1-164
	1-164
	1-171
00-289-9662	1-199
00-290-1388	1-65
00-290-3766	1-176
00-290-5810	1-61
00-290-8392	1-16
00-291-5565	1-153
00-292-6919	1-21
00-292-9920	1-61
00-293-0008	1-205
00-293-0013	1-210
00-293-0019	1-182
00-293-0025	1-164
00-293-0031	1-205
00-293-0032	1-193
00-293-0045	1-194
00-293-0046	1-194
00-293-0048	1-194
00-293-0076	1-190
00-293-0078	1-190
00-293-0080	1-191
00-293-0089	1-177
00-293-0090	1-176
00-293-0094	1-203
00-293-0097	1-185
00-293-0103	1-174
00-293-0105	1-174
00-293-0106	1-174
00-293-0107	1-174
00-293-0108	1-174
00-293-0109	1-174
00-293-0110	1-205
00-293-0149	1-204
00-293-0186	1-195
00-293-0272	1-46
00-293-0314	1-199
00-293-0318	1-203
00-293-0319	1-203
00-293-0350	1-174
00-293-0406	1-208
00-293-0417	1-174
00-293-0418	1-174
00-293-0420	1-174
00-293-0448	1-196
00-293-0460	1-166
00-293-0556	1-165
00-293-0665	1-182
00-293-0711	1-220
00-293-0712	1-220
00-293-0715	1-220
00-293-0791	1-197
00-293-0792	1-197
00-293-0793	1-197
00-293-0796	1-208
00-293-0798	1-208
00-293-0808	1-185
00-293-0887	1-187
00-293-0981	1-215
00-293-0982	1-215
00-293-0983	1-216
	1-224
00-293-1136	1-192
00-293-1143	1-163
00-293-1408	1-197
00-293-1429	1-196
00-293-1439	1-205
00-293-1476	1-191
00-293-1585	1-172
00-293-1602	1-209
00-293-1608	1-199
00-293-1623	1-45
00-293-1737	1-45
00-293-1902	1-213
00-293-1904	1-168
00-293-1905	1-168
00-293-1957	1-164
00-293-1958	1-164
00-293-2057	1-182
00-293-2081	1-181
00-293-2121	1-206
00-293-2193	1-188
00-293-2224	1-191
00-293-2319	1-184
00-293-2336	1-163
00-293-2339	1-163
00-293-2379	1-223
00-293-2384	1-182
00-293-2396	1-213
00-293-2494	1-164
00-293-2495	1-164
00-293-2513	1-195
00-293-2865	1-163
00-293-2866	1-163
	1-173
00-293-2885	1-189
00-293-2898	1-213
00-293-2900	1-213
00-293-2901	1-213
00-293-2902	1-213
00-293-2905	1-213
00-293-2907	1-213
00-293-2925	1-196
00-293-2997	1-186
00-293-2999	1-186
00-293-3003	1-186
00-293-3018	1-213
00-293-3019	1-213
00-293-3112	1-203
00-293-3159	1-199
00-293-3171	1-199
00-293-3178	1-199
00-293-3208	1-184
00-293-3209	1-173
00-293-3210	1-173
00-293-3309	1-199
00-293-3311	1-199
00-293-3317	1-220
00-293-3322	1-220
00-293-3323	1-220
00-293-3324	1-220
00-293-3325	1-220
00-293-3330	1-201
00-293-3336	1-201
00-293-3341	1-193
00-293-3385	1-165
00-293-3397	1-192
00-293-3398	1-192
00-293-3399	1-192
00-293-3402	1-167
00-293-3410	1-168
00-293-3411	1-168
00-293-3412	1-204
00-293-3428	1-169
00-293-3435	1-176
00-293-3444	1-178

NIIN Cross Reference Index

NIIN	Page No.
00-293-3453	1-210
00-293-3466	1-197
00-293-3478	1-194
00-293-3480	1-194
00-293-3481	1-194
00-293-3485	1-194
00-293-3486	1-193
00-293-3509	1-197
	1-197
00-293-3510	1-197
	1-197
00-293-3512	1-197
	1-197
00-293-3559	1-42
00-293-3560	1-41
00-293-3561	1-41
00-293-7165	1-124
00-293-7182	1-123
00-293-7184	1-123
00-293-7997	1-104
00-293-8152	1-157
00-293-8154	1-158
00-293-9199	1-178
00-294-4605	1-192
00-294-5104	1-157
00-294-5108	1-157
00-294-6191	1-33
00-294-6897	1-157
00-294-9514	1-208
00-295-1637	1-24
00-297-5741	1-56
00-298-6831	1-27
00-300-6991	1-90
00-300-6992	1-90
00-300-6994	1-93
00-300-6995	1-90
00-300-6996	1-93
00-300-6998	1-90
	1-93
00-300-6999	1-93
00-300-7000	1-93
00-300-7926	1-138
00-301-1076	1-199
00-301-1078	1-196
00-301-5114	1-100
00-305-2275	1-186
00-305-2306	1-195
00-306-9527	1-69
00-306-9547	1-31
00-307-2745	1-161
00-307-4699	1-72
00-307-9536	1-41
00-307-9541	1-41
00-308-3809	1-198
00-309-3005	1-41
00-311-6150	1-41
00-311-6182	1-41
00-311-6183	1-41
00-313-0680	1-126
00-313-1048	1-27
00-313-7703	1-161
00-313-9496	1-227
00-313-9497	1-227
00-313-9498	1-227
00-313-9499	1-227
00-313-9500	1-227
00-313-9501	1-227
00-313-9502	1-227
00-313-9504	1-227
00-313-9505	1-227
00-313-9506	1-227
00-313-9508	1-227
00-315-2747	1-226
00-315-2758	1-225
00-316-0109	1-26
00-316-2484	1-66
00-316-9170	1-227
00-316-9171	1-227
00-316-9172	1-227
00-317-2732	1-33
00-317-3800	1-94
00-317-4811	1-25
00-318-7740	1-41
00-319-5079	1-225
00-320-9832	1-41
00-320-9847	1-41
00-320-9848	1-46
00-322-6231	1-211
00-322-8457	1-113
00-324-5633	1-41
00-325-3181	1-89
00-329-4306	1-224
00-330-5869	1-197
00-331-5496	1-225
00-333-3266	1-229
00-333-5475	1-92
00-333-5541	1-161
00-333-9809	1-181
00-335-0085	1-224
00-335-3036	1-39
00-335-3037	1-39
00-335-3038	1-39
00-335-3039	1-39
00-335-3040	1-39
00-335-3041	1-39
00-335-3042	1-39
00-335-3043	1-39
00-335-3044	1-39
00-335-3045	1-39
00-335-3046	1-39
00-335-3047	1-39
00-337-6466	1-33
00-337-6753	1-135
00-338-2705	1-21
00-340-2010	1-227
00-340-3276	1-176
00-343-2016	1-228
00-343-7024	1-141
00-343-7247	1-135
00-344-9900	1-171
00-345-5289	1-163
	1-173
00-346-2221	1-109
00-346-3003	1-120
00-346-7538	1-34
00-347-6184	1-130
00-348-8176	1-122
00-348-8177	1-122
00-348-8178	1-122
00-348-8179	1-122
00-348-8180	1-122
00-348-8203	1-122
00-350-9160	1-25
00-351-2199	1-136
00-351-2299	1-15
00-351-2322	1-19
00-351-2323	1-19
00-351-2545	1-26
00-351-7316	1-109
00-355-4843	1-16
00-355-4844	1-16
00-355-4845	1-16
00-355-4862	1-71
00-355-4920	1-54
00-355-4926	1-54
00-356-3924	1-158
00-357-0983	1-17
00-357-5593	1-165
00-357-5753	1-197
00-357-5754	1-197
00-357-5853	1-186
00-357-6065	1-198
00-357-6278	1-227
00-357-7175	1-200
00-357-7494	1-218
00-357-7504	1-218
00-357-9168	1-209
00-357-9244	1-227
00-359-3872	1-135
00-359-6478	1-163
00-363-3914	1-193
00-363-4199	1-109
00-363-5631	1-27
00-364-3035	1-92
00-364-3452	1-100
00-364-5005	1-47
00-366-1187	1-137
00-368-2880	1-3
00-368-4787	1-15
00-368-4788	1-16
00-368-4792	1-18
00-368-4795	1-18
00-368-7551	1-52
00-369-2955	1-64
00-369-2997	1-64
00-369-3692	1-65
00-369-3719	1-65
00-369-3894	1-65
00-369-3905	1-65
00-369-3909	1-65
00-369-3911	1-65
00-369-3921	1-64
00-369-3962	1-65
00-369-3963	1-65
00-369-3973	1-65
00-369-3988	1-65
00-369-3992	1-65
00-369-3993	1-65
00-369-4033	1-65
00-369-4045	1-65
00-369-4456	1-52
00-369-4531	1-77
00-369-4567	1-16
00-369-4571	1-18
00-369-4692	1-123
00-369-4927	1-224
00-370-1116	1-57
00-370-1241	1-198
00-372-0233	1-73
00-372-0233	1-73
	1-74
00-372-0585	1-77
	1-78
00-372-0665	1-80
00-372-0691	1-93
00-372-0693	1-90
00-372-0772	1-93
00-372-0774	1-93
00-372-0775	1-90
00-372-0777	1-90
00-372-0789	1-90
00-372-0790	1-90

NIIN Cross Reference Index

NIIN	Page No.
00-372-0791	1-93
00-372-0793	1-122
00-372-0853	1-73
00-372-0854	1-73
00-372-0864	1-74
00-372-0866	1-71
00-372-3480	1-31
00-373-0902	1-65
00-373-0927	1-65
00-373-0939	1-64
00-373-0968	1-65
00-373-0997	1-65
00-373-0998	1-65
00-373-1121	1-64
00-373-1123	1-64
00-373-1128	1-64
00-373-1316	1-65
00-373-1317	1-65
00-373-1327	1-65
00-373-1691	1-170
00-374-6946	1-112
00-374-6947	1-112
00-374-6948	1-112
00-374-6950	1-112
00-374-6951	1-112
00-374-6953	1-112
00-374-6954	1-117
00-374-6960	1-112
00-375-6803	1-112
00-375-7275	1-227
00-376-5619	1-125
00-377-1162	1-65
00-377-1163	1-65
00-377-1170	1-65
00-377-1171	1-65
00-377-1327	1-65
00-377-1406	1-65
00-377-6521	1-74
00-377-8597	1-1
00-379-2815	1-27
00-382-9159	1-54
00-383-4560	1-137
00-385-8828	1-24
00-385-8831	1-24
00-385-8855	1-24
00-388-3416	1-225
00-388-9878	1-103
00-390-8586	1-190
00-391-0101	1-186
00-391-1069	1-223
00-391-1087	1-229
00-391-1220	1-29
00-391-3771	1-113
00-391-3782	1-144
00-391-5500	1-73
00-391-5767	1-102
00-391-5899	1-147
00-391-8422	1-137
00-392-2943	1-74
00-392-4697	1-27
00-393-0335	1-29
00-396-0162	1-114
00-396-1040	1-159
00-397-3169	1-116
00-398-4930	1-108
00-399-5235	1-27
00-399-6224	1-77
00-400-6558	1-117
00-400-6559	1-107
00-401-6176	1-42
00-401-8231	1-107
00-401-8581	1-66
00-401-9299	1-106
00-402-4404	1-128
00-403-0901	1-109
00-403-2087	1-35
00-403-3291	1-24
00-403-4555	1-194
00-403-5321	1-31
00-403-6410	1-101
00-404-3061	1-26
00-404-5838	1-40
00-404-7277	1-108
00-406-3309	1-107
00-407-0558	1-115
00-407-6627	1-121
00-408-1434	1-195
00-409-5202	1-198
00-409-5206	1-198
00-409-6328	1-153
00-409-8810	1-101
00-409-8812	1-101
00-410-3125	1-63
00-410-4496	1-148
00-411-5438	1-115
00-411-5597	1-115
00-413-4529	1-72
00-415-1362	1-107
00-416-4450	1-26
00-417-1120	1-146
00-417-7258	1-31
00-418-0160	1-149
00-419-0456	1-149
00-419-3024	1-149
00-419-5826	1-149
00-419-5827	1-149
00-419-9323	1-24
00-419-9372	1-134
00-420-4494	1-116
00-420-4495	1-107
00-420-4636	1-107
00-420-5626	1-24
00-420-8670	1-117
00-421-0000	1-201
00-421-1321	1-107
00-421-1357	1-117
00-421-1358	1-117
00-422-8594	1-229
00-422-9494	1-147
00-423-0720	1-169
00-423-1001	1-108
00-423-6728	1-205
00-424-2694	1-99
00-424-4019	1-115
00-424-5867	1-114
00-424-5871	1-114
00-426-0392	1-31
00-427-0534	1-23
00-431-5536	1-66
00-431-5537	1-66
00-431-5538	1-66
00-431-5539	1-66
00-431-5540	1-66
00-431-6518	1-80
00-431-6519	1-80
00-431-7880	1-23
00-431-9117	1-25
00-432-1204	1-115
00-432-1293	1-139
00-432-3044	1-98
00-432-3049	1-98
00-432-3055	1-98
00-432-3127	1-99
00-432-3163	1-98
00-432-3164	1-98
00-432-7195	1-148
00-432-9211	1-158
00-432-9581	1-148
00-432-9582	1-148
00-432-9583	1-148
00-432-9616	1-112
00-433-3375	1-138
00-433-3376	1-138
00-433-3377	1-138
00-433-3564	1-25
00-435-4268	1-123
00-436-2855	1-107
00-436-3067	1-25
00-439-1722	1-113
00-439-6021	1-113
00-439-8988	1-191
00-440-0229	1-115
00-440-2072	1-108
00-440-8008	1-193
00-441-3991	1-213
00-443-3526	1-74
00-443-4195	1-167
00-443-4773	1-99
00-444-1795	1-94
00-444-7247	1-148
00-445-4416	1-101
00-446-3499	1-154
00-446-6602	1-115
00-446-8370	1-148
00-446-8371	1-148
00-448-3927	1-190
00-448-3967	1-224
00-449-6775	1-216
	1-224
00-449-6907	1-165
00-449-7313	1-174
00-449-8083	1-205
00-449-8084	1-205
00-449-8128	1-211
00-450-9156	1-107
00-450-9371	1-130
00-451-5181	1-98
00-451-6380	1-24
00-453-6187	1-132
00-454-4352	1-93
00-454-7606	1-152
00-455-0192	1-99
00-455-0195	1-98
00-455-0197	1-98
00-455-2129	1-101
00-455-5458	1-40
00-455-5461	1-40
00-456-2076	1-106
00-457-2957	1-59
00-457-6470	1-147
00-460-2374	1-154
00-460-2448	1-104
00-460-2517	1-26
00-460-7198	1-34
00-460-7641	1-32
00-460-7642	1-32
00-460-7650	1-32
00-460-7651	1-32
00-460-7660	1-32
00-461-3767	1-102
00-461-4466	1-152
00-465-1904	1-75

NIIN Cross Reference Index

NIIN	Page No.
00-465-1905	1-74
00-465-1906	1-74
00-465-1907	1-32
00-465-1908	1-32
00-465-1914	1-32
00-465-3858	1-231
00-467-5104	1-184
00-467-5127	1-202
00-467-5137	1-184
00-467-5143	1-184
00-469-1853	1-145
00-469-1856	1-209
00-469-7725	1-149
00-470-6755	1-79
00-471-8593	1-99
00-471-9336	1-61
00-472-2328	1-179
00-472-2607	1-189
00-472-2611	1-117
00-473-2000	1-34
00-473-5931	1-174
00-473-6256	1-223
00-473-6260	1-225
00-473-6476	1-205
00-473-8357	1-113
00-474-7227	1-211
00-475-0142	1-16
00-475-4826	1-119
00-476-0283	1-112
00-476-0463	1-40
00-477-1917	1-59
00-477-6602	1-124
00-481-6686	1-147
00-482-2441	1-154
00-482-4654	1-25
00-482-6369	1-153
00-482-8906	1-147
00-482-8907	1-147
00-482-8908	1-148
00-483-0675	1-149
00-483-0676	1-149
00-483-0677	1-149
00-483-0678	1-147
00-483-0679	1-147
00-483-0680	1-147
00-483-0681	1-147
00-483-0682	1-147
00-483-0692	1-145
00-483-0693	1-145
00-483-0695	1-150
00-483-0697	1-150
00-483-0698	1-150
00-483-0699	1-150
00-483-4831	1-116
00-483-8383	1-184
00-484-3439	1-91
00-484-7472	1-25
00-484-8482	1-150
00-485-3010	1-2
00-485-9188	1-91
00-485-9279	1-116
00-488-0259	1-32
00-488-0440	1-207
00-488-0441	1-207
00-489-5314	1-147
00-489-5348	1-147
00-489-6303	1-123
00-490-6257	1-128
00-491-4980	1-106
00-491-9516	1-191
00-492-8109	1-25
	1-27
00-494-0833	1-50
00-494-0834	1-50
00-494-0904	1-123
00-494-1863	1-202
00-494-1889	1-183
00-494-1895	1-183
00-494-1910	1-208
00-494-1911	1-208
00-494-1929	1-209
00-494-1989	1-208
00-494-2015	1-225
00-494-2522	1-73
00-494-3271	1-123
00-494-3272	1-123
00-494-3273	1-123
00-495-6213	1-149
00-495-6228	1-150
00-495-6229	1-145
00-495-6233	1-145
00-495-6234	1-145
00-497-1677	1-149
00-497-1681	1-150
00-497-1684	1-150
00-497-1686	1-150
00-497-4281	1-116
00-497-6683	1-25
00-498-7365	1-198
00-498-8772	1-225
00-498-8898	1-224
00-504-7492	1-107
00-504-8682	1-25
00-506-2472	1-116
00-506-2683	1-112
00-506-9092	1-193
00-507-0005	1-127
00-507-4159	1-107
00-508-9755	1-181
00-511-1432	1-209
00-511-3544	1-21
00-513-7849	1-112
00-513-7850	1-112
00-513-7851	1-112
00-515-5663	1-153
00-516-2950	1-219
00-516-3120	1-196
00-516-3162	1-40
00-516-3370	1-218
00-516-3373	1-218
00-516-3812	1-170
00-516-3815	1-175
00-516-3822	1-169
00-516-4368	1-42
00-516-4483	1-87
00-516-4517	1-86
00-516-4522	1-40
00-516-4523	1-87
00-516-4527	1-87
00-516-4529	1-86
00-516-4531	1-86
00-516-4572	1-39
00-516-4728	1-86
00-516-4831	1-99
00-516-8405	1-55
00-517-1249	1-25
00-517-1280	1-159
00-517-5347	1-209
00-517-5561	1-220
00-517-5734	1-39
00-517-5805	1-39
00-517-6018	1-41
00-517-6075	1-46
00-517-7808	1-185
00-518-4431	1-24
00-519-7916	1-61
00-519-7946	1-61
00-524-6924	1-164
	1-172
00-524-7924	1-136
00-527-9089	1-62
00-528-0357	1-24
00-528-0898	1-23
00-528-1945	1-24
00-528-2891	1-189
00-528-2892	1-189
00-528-3100	1-46
00-528-3113	1-46
00-528-3762	1-28
00-528-3763	1-24
	1-27
00-528-3765	1-24
	1-27
00-528-3767	1-24
	1-27
00-528-3768	1-24
	1-27
00-528-3770	1-24
	1-27
00-528-3771	1-24
	1-27
00-528-3786	1-28
00-528-3787	1-24
	1-28
00-528-3788	1-24
	1-28
00-528-3794	1-28
00-528-3796	1-24
	1-28
00-528-3797	1-24
	1-28
00-528-3798	1-28
00-528-3799	1-24
	1-28
00-528-3805	1-24
	1-28
00-528-3807	1-28
00-528-3824	1-28
00-528-3825	1-24
	1-28
00-528-3838	1-28
00-528-3882	1-31
00-528-4219	1-24
	1-27
00-528-4228	1-24
	1-27
00-528-4230	1-24
00-528-4231	1-27
00-528-4234	1-24
	1-27
00-528-4255	1-24
	1-27
00-528-4256	1-24
	1-27
00-528-4258	1-24
	1-27
00-528-4260	1-24
	1-27
00-528-4261	1-24
	1-27
00-528-4264	1-24
	1-27

NIIN Cross Reference Index

NIIN	Page No.
00-528-4267	1-24
	1-27
00-528-4269	1-24
	1-27
00-528-4271	1-24
	1-27
00-528-4273	1-24
	1-27
00-528-4279	1-24
	1-27
00-528-4281	1-24
	1-27
00-528-4283	1-24
	1-27
00-528-4286	1-24
	1-27
00-528-4287	1-24
	1-27
00-528-4441	1-24
	1-27
00-528-4450	1-24
	1-27
00-528-4451	1-24
00-528-4452	1-24
	1-27
00-528-4457	1-24
	1-27
00-528-4458	1-24
	1-27
00-528-4461	1-24
	1-27
00-528-4516	1-28
00-528-4519	1-28
00-528-4521	1-28
00-528-4522	1-24
	1-28
00-528-4526	1-28
00-528-4527	1-28
00-528-4529	1-24
	1-28
00-528-4532	1-28
00-528-4592	1-24
	1-27
00-528-4607	1-24
00-528-4610	1-28
00-528-4611	1-28
00-528-4612	1-24
	1-28
00-528-4615	1-24
00-528-4616	1-28
00-528-4619	1-28
00-528-4620	1-28
00-528-4622	1-28
00-528-4623	1-24
	1-28
00-528-4624	1-24
	1-28
00-528-4625	1-24
	1-28
00-528-4626	1-24
	1-28
00-528-4627	1-25
	1-28
00-528-4628	1-25
00-528-4631	1-25
	1-28
00-528-4632	1-28
00-528-4634	1-24
	1-27
00-528-4635	1-24
	1-27
00-528-4636	1-24
	1-27
00-528-4639	1-28
00-528-4641	1-25
	1-28
00-528-4734	1-25
	1-28
00-528-4737	1-25
	1-28
00-528-4751	1-24
	1-27
00-528-4752	1-24
	1-27
00-528-4753	1-24
	1-27
00-528-4754	1-24
	1-27
00-528-4755	1-27
00-528-4756	1-24
	1-27
00-528-6756	1-25
00-528-6819	1-26
00-528-8375	1-26
00-529-0344	1-25
00-529-0345	1-25
00-529-0346	1-25
00-529-0349	1-25
00-529-0350	1-25
00-529-0354	1-25
00-529-0389	1-25
00-529-0391	1-25
00-529-0393	1-25
00-529-0394	1-25
00-529-0467	1-25
00-529-0469	1-25
00-529-0471	1-25
00-529-0472	1-25
00-529-0476	1-25
00-529-0481	1-25
00-529-0482	1-25
00-529-0487	1-25
00-529-1063	1-26
00-529-1475	1-191
00-529-1889	1-224
00-529-2014	1-175
00-529-2517	1-223
00-529-2553	1-192
00-529-2691	1-223
00-529-2694	1-223
00-529-3101	1-199
00-529-3206	1-169
00-529-4577	1-214
00-529-4693	1-46
00-529-5092	1-166
00-529-5478	1-46
00-529-5687	1-214
00-529-5691	1-214
00-529-6136	1-33
00-530-0698	1-62
00-530-1757	1-172
00-531-2813	1-61
00-533-5746	1-128
00-533-8143	1-112
00-535-6483	1-152
00-535-8345	1-77
00-536-0338	1-139
00-537-1531	1-27
00-537-2000	1-171
00-537-3375	1-195
00-540-0563	1-199
00-540-0623	1-84
	1-85
00-540-0754	1-204
00-540-1268	1-124
00-540-1291	1-45
00-540-1368	1-106
00-540-1416	1-186
00-540-1603	1-45
00-540-1701	1-108
00-540-1711	1-89
00-540-1860	1-174
00-540-1962	1-106
00-540-2294	1-223
00-540-2381	1-148
00-540-2421	1-85
00-540-2422	1-85
00-540-2427	1-85
00-540-2612	1-114
00-540-4032	1-121
00-540-4273	1-186
00-540-4375	1-216
00-540-5004	1-10
00-540-5005	1-10
00-540-5174	1-107
00-540-5786	1-174
00-540-5787	1-174
00-540-5788	1-174
00-540-6145	1-118
00-540-6183	1-109
00-540-6434	1-107
00-540-6460	1-15
00-540-6654	1-15
00-540-6690	1-213
00-540-6691	1-213
00-540-6719	1-138
00-540-6755	1-211
00-540-8998	1-35
00-541-0371	1-150
00-541-0372	1-150
00-541-1206	1-120
00-541-1313	1-106
00-541-1465	1-135
00-541-1579	1-133
00-541-1808	1-189
00-541-3199	1-131
00-541-4074	1-184
00-541-4075	1-184
00-541-4252	1-117
00-541-4253	1-117
00-541-4961	1-175
00-541-4962	1-175
00-541-5167	1-99
00-541-5169	1-99
00-541-5170	1-99
00-541-5171	1-100
00-541-5692	1-149
00-541-5693	1-149
00-541-5694	1-149
00-541-5695	1-149
00-541-5696	1-149
00-541-5697	1-149
00-541-5699	1-149
00-541-6228	1-73
00-541-6603	1-116
00-541-6605	1-117
00-541-6606	1-117
00-541-6607	1-117
00-541-6608	1-117
00-541-6617	1-98
00-541-6618	1-98
00-541-6619	1-98

NIIN Cross Reference Index

NIIN	Page No.
00-541-6620	1-98
00-541-6730	1-166
00-541-6731	1-195
00-541-6732	1-193
00-541-7189	1-106
00-541-7398	1-79
00-541-7567	1-144
00-541-7697	1-174
00-541-7698	1-174
00-541-7699	1-174
00-541-7704	1-197
00-541-7725	1-138
00-541-7747	1-121
00-541-7749	1-135
00-541-7999	1-170
00-541-8018	1-120
00-541-8287	1-136
00-541-8296	1-120
00-541-8444	1-189
00-541-8859	1-107
00-541-9089	1-139
00-541-9105	1-116
00-541-9281	1-106
00-542-0191	1-8
00-542-0192	1-7
00-542-0193	1-7
00-542-0195	1-4
00-542-0198	1-5
00-542-0200	1-5
00-542-0201	1-5
00-542-0202	1-4
00-542-0203	1-4
00-542-0205	1-5
00-542-0206	1-4
00-542-0207	1-4
00-542-0208	1-4
00-542-0209	1-5
00-542-0211	1-10
00-542-0213	1-10
00-542-0214	1-10
00-542-0219	1-8
00-542-0248	1-11
00-542-0249	1-4
00-542-0396	1-34
00-542-0454	1-34
00-542-2255	1-57
00-542-2256	1-57
00-542-2258	1-57
00-542-2281	1-199
00-542-2383	1-57
00-542-2386	1-57
00-542-2397	1-57
00-542-2428	1-211
00-542-2447	1-40
00-542-2780	1-62
00-542-2807	1-117
00-542-2903	1-97
00-542-2904	1-97
00-542-2905	1-97
00-542-2906	1-97
00-542-2907	1-97
00-542-2908	1-97
00-542-2909	1-97
00-542-2910	1-97
00-542-2911	1-97
00-542-2912	1-97
00-542-2913	1-97
00-542-2914	1-97
00-542-2915	1-97
00-542-2916	1-97
00-542-2918	1-97
00-542-3178	1-64
00-542-3179	1-64
00-542-3180	1-64
00-542-3181	1-64
00-542-3185	1-64
00-542-3284	1-113
00-542-3307	1-61
00-542-3308	1-61
00-542-3359	1-137
00-542-3362	1-137
00-542-3438	1-199
00-542-4171	1-195
00-542-4323	1-100
00-542-4324	1-100
00-542-4336	1-117
00-542-4487	1-178
00-542-4917	1-94
00-542-4994	1-135
00-542-5100	1-122
00-542-5101	1-122
00-542-5102	1-122
00-542-5103	1-122
00-542-5104	1-122
00-542-5105	1-122
00-542-5106	1-122
00-542-5107	1-122
00-542-5108	1-122
00-542-5109	1-122
00-542-5110	1-122
00-542-5111	1-122
00-542-5112	1-122
00-542-5141	1-127
00-542-5142	1-127
00-542-5143	1-127
00-542-5144	1-127
00-542-5145	1-127
00-542-5146	1-127
00-542-5147	1-128
00-542-5148	1-127
00-542-5149	1-127
00-542-5151	1-127
00-542-5152	1-127
00-542-5153	1-127
00-542-5154	1-127
00-542-5155	1-127
00-542-5164	1-127
00-542-5189	1-141
00-542-5190	1-141
00-542-5191	1-141
00-542-5192	1-141
00-542-5193	1-141
00-542-5194	1-141
00-542-5195	1-141
00-542-5220	1-128
00-542-5221	1-126
00-542-5222	1-126
00-542-5223	1-126
00-542-5224	1-126
00-542-5225	1-126
00-542-5226	1-126
00-542-5227	1-126
00-542-5228	1-126
00-542-5229	1-126
00-542-5231	1-126
00-542-5232	1-126
00-542-5246	1-139
00-542-5247	1-140
00-542-5248	1-140
00-542-5250	1-139
00-542-5251	1-139
00-542-5252	1-139
00-542-5253	1-139
00-542-5254	1-140
00-542-5255	1-140
00-542-5256	1-140
00-542-5257	1-140
00-542-5261	1-140
00-542-5262	1-140
00-542-5291	1-132
00-542-5292	1-132
00-542-5294	1-132
00-542-5308	1-136
00-542-5309	1-136
00-542-5310	1-136
00-542-5311	1-136
00-542-5312	1-136
00-542-5313	1-136
00-542-5314	1-136
00-542-5316	1-136
00-542-5331	1-140
00-542-5335	1-140
00-542-5347	1-139
00-542-5348	1-140
00-542-5358	1-139
00-542-5361	1-139
00-542-5382	1-139
00-542-5395	1-139
00-542-5401	1-140
00-542-5799	1-211
00-543-3592	1-17
00-543-3593	1-17
00-543-3594	1-17
00-543-3596	1-17
00-543-3597	1-17
00-543-8660	1-117
00-545-0791	1-118
00-545-3396	1-31
00-545-4268	1-198
00-546-4736	1-119
00-547-0951	1-117
00-548-3820	1-46
00-549-5678	1-17
00-549-5679	1-15
00-551-0757	1-152
00-551-0758	1-153
00-551-1094	1-153
00-551-2951	1-129
00-551-3343	1-61
00-551-8804	1-61
00-552-4291	1-47
00-552-9309	1-31
00-554-0694	1-21
00-554-2990	1-145
00-554-3519	1-4
00-554-3523	1-5
00-554-3524	1-4
00-554-3525	1-4
00-554-3526	1-5
00-554-3527	1-5
00-554-3528	1-5
00-554-3531	1-5
00-554-3533	1-5
00-554-4039	1-10
00-554-4059	1-9
00-554-4060	1-10
00-554-4067	1-10
00-554-6190	1-4
00-554-6191	1-4
00-554-6193	1-4
00-554-6194	1-10
00-554-6196	1-10

NIIN Cross Reference Index

NIIN	Page No.
00-554-6198	1-10
00-554-6202	1-5
00-554-6203	1-5
00-554-6205	1-4
00-554-6210	1-5
00-554-6211	1-5
00-554-6214	1-5
00-554-6215	1-5
00-554-6216	1-5
00-554-6778	1-159
00-554-6887	1-10
00-554-6903	1-10
00-554-6904	1-10
00-554-6909	1-13
00-554-6910	1-12
00-554-6911	1-12
00-554-6923	1-9
00-554-6924	1-10
00-554-6925	1-10
00-554-6931	1-4
00-554-6932	1-4
00-554-6938	1-10
00-554-6941	1-10
00-554-6942	1-10
00-554-7126	1-122
00-554-7286	1-175
00-554-7398	1-138
00-554-7830	1-117
00-554-7831	1-117
00-554-7832	1-117
00-554-7833	1-117
00-554-8015	1-134
00-554-8018	1-134
00-554-8029	1-106
00-554-8052	1-108
00-554-8084	1-106
00-554-8085	1-106
00-554-8086	1-106
00-554-8087	1-106
00-554-8088	1-106
00-554-8089	1-106
00-554-8391	1-144
00-554-8699	1-40
00-554-8700	1-40
00-554-8701	1-40
00-554-8702	1-40
00-554-8713	1-149
00-554-9203	1-191
00-554-9362	1-102
00-555-0934	1-99
00-555-1152	1-117
00-555-1352	1-121
00-555-1521	1-210
00-555-1528	1-216
00-555-2074	1-186
00-555-2353	1-203
00-555-2639	1-191
00-555-2658	1-55
00-555-2840	1-21
00-555-2842	1-21
00-555-3499	1-107
00-555-3610	1-214
00-555-4629	1-34
00-555-6378	1-4
00-555-6379	1-4
00-555-6381	1-5
00-555-6382	1-5
00-555-6383	1-4
00-555-6384	1-4
00-555-6385	1-5
00-555-6386	1-5
00-555-8497	1-174
00-555-8639	1-61
00-555-8837	1-72
00-555-8868	1-171
00-555-8906	1-219
00-555-8910	1-220
00-555-9203	1-219
00-555-9205	1-219
00-555-9206	1-219
00-555-9359	1-163
	1-170
00-555-9500	1-178
00-555-9510	1-55
00-555-9761	1-143
00-559-3244	1-82
00-559-4659	1-16
00-560-6682	1-152
00-560-7732	1-61
00-561-1002	1-161
00-561-1544	1-119
00-561-1960	1-25
00-563-2388	1-157
00-563-2389	1-157
00-564-1338	1-172
00-564-1413	1-101
00-564-3217	1-107
00-565-7526	1-25
00-567-9211	1-25
00-568-2200	1-112
00-568-2258	1-116
00-568-4742	1-210
00-569-9447	1-25
00-570-6896	1-176
00-570-9017	1-167
00-571-5892	1-148
00-573-1416	1-116
00-574-4943	1-107
00-574-6558	1-108
00-575-6234	1-56
00-577-4139	1-80
00-577-4228	1-30
00-580-0334	1-200
00-580-0626	1-24
00-580-2070	1-113
00-580-2120	1-138
00-580-2359	1-185
00-580-2958	1-91
00-580-6422	1-146
00-580-6618	1-107
00-580-6782	1-67
00-580-6783	1-67
00-580-6785	1-67
00-580-6786	1-67
00-580-6787	1-67
00-580-6791	1-67
00-580-6792	1-67
00-580-6793	1-67
00-580-6794	1-67
00-580-6795	1-67
00-580-6797	1-67
00-580-6944	1-107
00-580-7152	1-218
00-580-7154	1-219
00-580-7155	1-219
00-580-7156	1-220
00-580-7158	1-220
00-580-7162	1-220
00-580-7163	1-220
00-580-7169	1-219
00-580-7170	1-219
00-580-7175	1-219
00-580-7177	1-219
00-580-7182	1-220
00-580-7184	1-220
00-580-7186	1-220
00-580-7188	1-220
00-580-7316	1-218
00-580-7323	1-219
00-580-7327	1-218
00-580-7330	1-219
00-580-7331	1-219
00-580-7332	1-219
00-580-7333	1-219
00-580-7334	1-219
00-580-7335	1-219
00-580-7342	1-220
00-580-7343	1-219
00-580-7351	1-218
00-580-7353	1-220
00-580-7354	1-220
00-580-7355	1-220
00-580-7356	1-220
00-580-7357	1-219
00-580-7359	1-220
00-580-7360	1-220
00-580-7361	1-218
00-580-7364	1-219
00-580-7365	1-219
00-580-7408	1-122
00-580-7417	1-119
00-580-7471	1-138
00-580-8171	1-114
00-580-9154	1-99
00-585-0367	1-214
00-585-0469	1-124
00-585-2260	1-91
00-585-2289	1-104
00-585-2383	1-188
00-585-6208	1-108
00-585-6210	1-116
00-585-6212	1-116
00-585-6305	1-89
00-585-6749	1-135
00-585-6760	1-218
00-585-7293	1-106
00-585-7566	1-151
00-585-7567	1-150
00-585-7706	1-209
00-585-7901	1-219
00-585-8425	1-164
00-585-8426	1-164
00-585-8427	1-164
00-585-8428	1-164
00-585-8429	1-164
00-585-8430	1-164
00-585-8432	1-164
00-585-8433	1-164
00-585-8434	1-210
00-585-8621	1-121
00-585-8769	1-120
00-585-8770	1-120
00-587-0494	1-25
	1-27
00-587-5558	1-225
00-588-2587	1-116
00-588-2597	1-116
00-588-2687	1-114
00-592-0158	1-117
00-592-1014	1-116
00-595-0792	1-139
00-595-0922	1-94

NIIN Cross Reference Index

NIIN	Page No.
00-595-1088	1-106
00-595-1089	1-106
00-595-1278	1-119
00-595-1279	1-119
00-595-1280	1-120
00-595-1281	1-119
00-595-1282	1-119
00-595-1283	1-120
00-595-1284	1-120
00-595-1285	1-119
00-595-1785	1-91
00-595-2612	1-135
00-595-2785	1-99
00-595-2943	1-124
00-595-3102	1-138
00-595-3970	1-139
00-595-3972	1-139
00-595-3978	1-126
00-595-3986	1-127
00-595-3987	1-127
00-595-3988	1-127
00-595-4359	1-112
00-595-4607	1-111
00-595-8197	1-182
00-595-8202	1-213
00-595-8213	1-184
00-595-8229	1-167
00-595-8267	1-166
00-595-8279	1-186
00-595-8284	1-161
00-595-8295	1-170
00-595-8316	1-170
00-595-8317	1-170
00-595-8325	1-171
00-595-8396	1-190
00-595-8400	1-172
00-595-8402	1-21
	1-172
00-595-8403	1-172
00-595-8406	1-172
00-595-8467	1-205
00-595-8850	1-215
00-595-9183	1-209
00-595-9244	1-191
00-595-9295	1-175
00-595-9305	1-196
00-595-9463	1-197
00-595-9471	1-197
00-595-9490	1-173
00-595-9497	1-174
00-595-9498	1-174
00-595-9499	1-174
00-595-9519	1-193
00-595-9532	1-194
00-595-9551	1-195
00-595-9552	1-195
00-595-9555	1-195
00-596-0808	1-177
00-596-0828	1-200
00-596-0836	1-202
00-596-0861	1-199
00-596-0864	1-199
00-596-0865	1-199
00-596-0866	1-199
00-596-0930	1-203
00-596-0934	1-203
00-596-0938	1-203
00-596-0940	1-203
00-596-1029	1-163
00-596-1038	1-227
00-596-1071	1-186
00-596-1075	1-186
00-596-1106	1-194
00-596-1199	1-203
00-596-1210	1-204
00-596-1236	1-191
00-596-1263	1-208
00-596-1353	1-209
00-596-1354	1-209
00-596-1355	1-209
00-596-1543	1-201
00-596-4053	1-183
00-596-7164	1-173
00-596-8502	1-199
00-596-8508	1-203
00-596-8511	1-203
00-596-8556	1-206
00-596-8622	1-202
00-596-8653	1-199
00-596-9155	1-166
00-596-9156	1-166
00-596-9162	1-166
00-596-9313	1-184
00-596-9323	1-168
00-596-9364	1-199
00-596-9369	1-176
00-596-9370	1-177
	1-177
00-596-9371	1-177
	1-177
00-596-9591	1-201
00-596-9604	1-174
00-596-9703	1-177
00-600-1762	1-124
00-601-0986	1-74
00-602-3898	1-111
00-602-4845	1-194
00-603-8081	1-33
00-603-9257	1-105
00-604-4988	1-75
00-604-7942	1-99
00-604-7953	1-135
00-604-7978	1-99
00-604-7989	1-99
00-604-8027	1-99
00-604-8050	1-99
00-604-8221	1-99
00-604-8328	1-99
00-606-3825	1-120
00-606-7141	1-45
00-607-0088	1-27
00-608-1777	1-111
00-608-2589	1-124
00-608-2590	1-124
00-608-4757	1-223
00-609-0165	1-55
00-609-7456	1-153
00-609-8026	1-52
00-610-1888	1-186
00-610-1960	1-41
00-610-3385	1-108
00-611-2548	1-107
00-611-7136	1-34
00-612-1071	1-16
00-613-1859	1-116
00-616-5407	1-1
00-616-5408	1-1
00-616-5409	1-1
00-616-5410	1-1
00-616-5412	1-1
00-616-5426	1-1
00-617-6921	1-121
00-618-0261	1-61
00-618-2073	1-26
00-618-2700	1-173
00-618-3572	1-120
00-618-3726	1-64
00-618-4227	1-120
00-618-4433	1-209
00-618-4913	1-181
00-618-5370	1-129
00-618-5625	1-24
00-618-6007	1-40
00-618-6623	1-34
00-618-6901	1-192
00-618-6902	1-193
	1-193
00-618-6903	1-214
00-618-7378	1-117
00-618-7621	1-138
00-618-7783	1-216
00-618-8290	1-103
00-618-8485	1-117
00-618-8593	1-135
00-618-9001	1-152
00-618-9069	1-120
00-620-1345	1-167
00-620-1432	1-198
00-624-1933	1-46
00-624-4057	1-108
00-624-4058	1-108
00-624-4059	1-108
00-624-4060	1-107
00-624-8065	1-195
00-627-0500	1-34
00-627-4324	1-139
00-627-9603	1-54
00-627-9848	1-109
00-628-0020	1-117
00-628-5633	1-75
00-629-2697	1-34
00-629-6258	1-186
00-629-8199	1-82
00-630-0092	1-27
00-630-0310	1-125
00-630-4873	1-62
00-630-4875	1-62
00-631-6821	1-32
00-632-3421	1-121
00-633-4398	1-120
00-638-0049	1-18
00-638-1168	1-18
00-639-9907	1-106
00-640-0632	1-120
00-640-0830	1-128
00-640-1051	1-127
00-640-3095	1-25
00-640-3172	1-43
00-640-3174	1-43
00-640-3176	1-43
00-640-3177	1-43
00-640-3241	1-43
00-640-3243	1-43
00-640-3259	1-43
00-640-3313	1-43
00-640-3314	1-43
00-640-5419	1-165
00-640-5423	1-165
00-640-5424	1-165
00-640-6241	1-129
00-640-6245	1-129
00-640-6246	1-129

NIIN Cross Reference Index

NIIN	Page No.
00-640-6344	1-98
00-640-6345	1-98
00-640-6346	1-98
00-640-6347	1-203
00-640-6353	1-195
00-640-6356	1-194
00-640-6361	1-215
00-640-6364	1-210
00-640-6365	1-210
00-640-6477	1-99
00-640-6481	1-99
00-640-6484	1-98
00-640-6500	1-98
00-640-6506	1-98
00-640-6725	1-182
00-640-6731	1-182
00-640-6823	1-131
00-640-6824	1-131
00-640-6825	1-131
00-640-6827	1-131
00-640-6829	1-131
00-640-6831	1-131
00-640-6832	1-131
00-640-6833	1-131
00-640-6834	1-131
00-640-6835	1-131
00-640-6836	1-131
00-640-6837	1-131
00-640-6854	1-131
00-640-6855	1-131
00-640-6856	1-131
00-641-4406	1-109
00-641-6183	1-58
00-641-6184	1-58
00-641-6185	1-58
00-641-8898	1-61
00-641-8899	1-61
00-641-8900	1-61
00-647-3311	1-120
00-650-4666	1-144
00-650-7328	1-224
00-650-7821	1-229
00-654-9021	1-100
00-656-1125	1-62
00-664-6655	1-153
00-670-0653	1-98
00-670-0753	1-98
00-670-3293	1-183
00-673-1885	1-193
00-674-8311	1-112
00-676-7936	1-107
00-677-1289	1-113
00-678-0285	1-137
00-678-1161	1-27
00-678-9458	1-115
00-679-4459	1-192
00-679-5655	1-184
00-682-7920	1-107
00-683-8586	1-115
00-683-8597	1-203
00-683-8602	1-203
00-683-8830	1-106
00-683-9339	1-128
00-684-0260	1-106
00-684-0738	1-125
00-684-0880	1-143
00-684-3576	1-128
00-684-3796	1-140
00-684-3920	1-174
00-684-4041	1-138
00-684-4064	1-114
00-684-4065	1-113
00-684-4343	1-120
00-684-5074	1-98
00-684-6551	1-125
00-684-6911	1-133
00-684-6912	1-133
00-684-6915	1-133
00-684-6916	1-133
00-684-6917	1-115
00-684-6922	1-128
00-684-7157	1-136
00-684-7441	1-116
00-684-7451	1-136
00-689-5688	1-53
00-689-6844	1-108
00-690-5218	1-153
00-690-5373	1-8
	1-11
	1-13
	1-13
00-690-5395	1-5
00-690-7801	1-92
00-690-8044	1-194
00-691-5441	1-114
00-691-5442	1-114
00-691-5460	1-114
00-694-1410	1-79
00-696-4768	1-192
00-698-4035	1-113
00-698-7966	1-168
00-701-2800	1-10
00-701-4378	1-15
00-701-7737	1-138
00-702-4067	1-34
00-702-5003	1-55
00-702-5214	1-104
00-702-5377	1-133
00-702-7942	1-26
00-703-4391	1-117
00-703-4402	1-91
00-705-4877	1-24
00-708-3431	1-224
00-708-3507	1-108
00-709-0441	1-108
00-709-2778	1-114
00-709-7518	1-117
00-709-7520	1-116
00-710-2074	1-62
00-710-5571	1-115
00-715-2761	1-137
00-716-3575	1-59
00-716-7716	1-100
00-716-7717	1-108
00-717-1621	1-108
00-717-1701	1-108
00-718-2621	1-113
00-718-4075	1-159
00-718-8195	1-25
00-719-6061	1-173
00-720-0167	1-120
00-720-0182	1-113
00-720-0233	1-136
00-720-0234	1-136
00-720-0461	1-138
00-720-0692	1-118
00-720-0711	1-163
00-720-0890	1-124
00-720-1096	1-106
00-720-1274	1-120
00-720-1508	1-120
00-720-1810	1-140
00-720-1815	1-72
00-720-1908	1-181
00-720-2007	1-114
00-720-3852	1-130
00-720-3913	1-114
00-720-4171	1-66
00-720-4407	1-140
00-720-4464	1-124
00-720-4467	1-56
00-720-4488	1-143
00-720-4782	1-175
00-720-4849	1-158
00-720-4969	1-199
00-720-4984	1-140
00-722-1207	1-140
00-722-1371	1-114
00-722-3461	1-124
00-722-4094	1-157
00-722-4722	1-107
00-722-4723	1-107
00-722-4891	1-134
00-722-7212	1-128
00-722-7214	1-128
00-722-8995	1-53
00-723-3549	1-51
00-723-6833	1-186
00-723-7397	1-105
00-724-1998	1-119
00-724-2145	1-206
00-724-3767	1-181
00-725-3338	1-56
00-725-3594	1-114
00-725-4351	1-128
00-725-4507	1-147
00-725-4513	1-13
00-725-4514	1-13
00-725-4515	1-12
00-725-4519	1-13
00-725-8402	1-56
00-725-9234	1-74
00-726-3831	1-23
00-726-7896	1-21
00-726-9346	1-121
00-726-9347	1-121
00-727-1727	1-94
00-727-5458	1-13
00-727-7491	1-120
00-727-9795	1-129
00-728-0996	1-24
00-729-5334	1-105
00-729-5338	1-105
00-729-5675	1-218
00-729-5677	1-218
00-729-5678	1-218
00-729-5682	1-219
00-729-5683	1-219
00-729-5684	1-218
00-729-5685	1-218
00-729-5686	1-218
00-729-5687	1-218
00-729-5688	1-220
00-729-5689	1-218
00-729-5690	1-220
00-729-5691	1-220
00-729-5692	1-220
00-729-5693	1-219
00-729-5694	1-218
00-729-5695	1-218
00-729-5696	1-219
00-729-5698	1-218

NIIN Cross Reference Index

NIIN	Page No.
00-729-5700	1-219
00-729-5701	1-220
00-729-5702	1-220
00-729-5703	1-219
00-729-5706	1-219
00-729-5709	1-220
00-729-5710	1-220
00-729-5711	1-219
00-729-5715	1-220
00-729-5716	1-220
00-729-5717	1-220
00-729-5718	1-220
00-729-5736	1-125
00-729-6392	1-191
00-730-4917	1-55
00-730-7310	1-106
00-730-7361	1-108
00-731-2862	1-183
00-734-5774	1-132
00-735-4534	1-11
00-735-4548	1-6
	1-7
00-735-4549	1-6
	1-7
00-735-4550	1-12
00-735-4551	1-12
00-735-4556	1-11
00-735-4558	1-9
00-735-4559	1-9
00-735-4562	1-8
	1-11
	1-13
	1-13
00-735-4563	1-11
	1-13
	1-13
00-735-4564	1-13
00-735-4565	1-5
00-735-4567	1-6
00-735-4568	1-6
00-735-4569	1-6
00-735-4571	1-6
00-735-4572	1-6
00-735-4573	1-6
00-735-4575	1-6
	1-7
00-735-4578	1-6
	1-7
00-735-7988	1-224
00-740-2580	1-113
00-740-3650	1-27
00-741-6835	1-25
00-745-7786	1-139
00-752-8878	1-61
00-752-8879	1-61
00-752-8880	1-61
00-752-9008	1-212
00-752-9030	1-197
00-752-9040	1-143
00-752-9065	1-90
00-752-9343	1-72
00-752-9355	1-228
00-752-9356	1-228
00-752-9357	1-228
00-752-9358	1-228
00-752-9359	1-228
00-752-9360	1-227
00-752-9636	1-191
00-752-9655	1-134
00-752-9715	1-87
00-752-9809	1-152
00-752-9952	1-106
00-753-1108	1-66
00-753-1109	1-66
00-753-1110	1-66
00-753-1111	1-66
00-753-1113	1-66
00-753-2863	1-4
00-753-2865	1-4
00-753-2867	1-4
00-753-2886	1-61
00-753-2887	1-61
00-753-2888	1-61
00-753-3751	1-13
00-753-3875	1-10
	1-11
00-753-3911	1-17
00-753-3912	1-17
00-753-3913	1-17
00-753-3914	1-17
00-753-3977	1-3
00-753-4217	1-12
00-753-4219	1-11
00-753-6555	1-62
00-754-0152	1-118
00-754-1499	1-176
00-755-7237	1-125
00-756-1145	1-94
00-756-1155	1-194
00-756-1156	1-194
00-756-1195	1-196
00-756-1943	1-125
00-756-8412	1-25
00-756-8416	1-25
00-756-9687	1-24
00-757-5497	1-55
00-758-6653	1-185
00-759-2975	1-123
00-759-3290	1-81
	1-82
00-760-2597	1-231
00-760-2598	1-231
00-760-2599	1-231
00-760-2600	1-231
00-760-2601	1-231
00-760-2602	1-231
00-761-1732	1-202
00-761-1981	1-154
00-761-2015	1-203
00-762-6428	1-66
00-762-7092	1-47
00-764-4801	1-174
00-764-5222	1-166
00-764-6610	1-6
	1-6
	1-7
	1-7
	1-9
00-764-8058	1-199
00-764-8059	1-199
00-764-8097	1-199
00-764-8770	1-133
00-765-4144	1-163
00-766-9028	1-123
00-766-9029	1-124
00-767-7582	1-181
00-767-9126	1-34
00-770-0267	1-102
00-770-0268	1-84
00-770-0269	1-84
00-770-0270	1-82
00-770-4262	1-34
00-770-8373	1-6
	1-7
00-770-8374	1-6
	1-7
00-770-8378	1-12
00-770-8379	1-13
00-770-8380	1-13
00-770-8382	1-8
	1-11
00-770-8383	1-11
00-770-8384	1-11
00-770-8385	1-6
	1-7
00-770-8387	1-5
00-770-8388	1-5
	1-6
	1-7
00-770-8389	1-5
	1-6
	1-7
00-770-8390	1-10
00-770-8391	1-12
00-770-8392	1-13
00-770-8393	1-13
	1-13
00-770-8394	1-13
	1-13
00-770-8395	1-12
00-770-8396	1-12
00-771-2302	1-13
	1-13
00-771-3732	1-167
00-771-4730	1-154
00-771-9424	1-116
00-771-9428	1-106
00-772-2466	1-185
00-772-4142	1-223
00-772-9259	1-10
00-773-3791	1-193
00-773-8026	1-191
00-775-0127	1-72
00-775-6980	1-202
00-776-0657	1-73
00-776-1841	1-210
00-777-2782	1-208
00-777-5744	1-54
00-778-1241	1-27
00-778-7336	1-159
00-778-7422	1-159
00-778-8899	1-63
00-778-8967	1-65
00-779-5763	1-159
00-780-5223	1-127
00-781-0819	1-195
00-781-6089	1-133
00-781-6318	1-84
00-781-6390	1-35
00-781-7891	1-190
00-781-8960	1-26
00-782-3038	1-17
00-782-3039	1-17
00-782-3040	1-17
00-782-3041	1-17
00-782-3042	1-17
00-782-5125	1-69
00-782-5431	1-57
00-782-6560	1-152
00-785-1162	1-161
00-785-3895	1-231
00-785-8151	1-203

NIIN Cross Reference Index

NIIN	Page No.
00-786-3782	1-189
	1-199
00-788-4700	1-24
00-788-5407	1-202
00-788-7406	1-25
00-789-0093	1-198
00-789-0637	1-25
00-789-1058	1-59
00-789-1151	1-25
00-789-4863	1-108
00-792-8984	1-100
00-793-1036	1-25
00-793-2732	1-136
00-793-9809	1-112
00-793-9811	1-112
00-794-2280	1-128
00-796-0334	1-119
00-797-2488	1-106
00-797-2992	1-203
00-797-2994	1-203
00-799-6002	1-127
00-800-2585	1-138
00-800-4788	1-134
00-801-0952	1-35
00-801-0953	1-35
00-801-1048	1-13
00-801-5342	1-64
00-802-1833	1-13
	1-13
00-802-1834	1-13
00-802-1835	1-13
	1-13
00-802-1836	1-13
00-802-1837	1-13
00-802-1838	1-12
00-802-1858	1-12
00-802-1859	1-6
	1-7
00-802-2818	1-114
00-802-2938	1-10
00-802-8314	1-19
00-802-8383	1-19
00-803-2326	1-12
00-803-3301	1-105
00-803-5839	1-85
00-803-6339	1-178
00-803-6444	1-162
00-803-7157	1-107
00-803-9672	1-107
00-803-9701	1-107
00-804-1933	1-128
00-804-2307	1-64
00-804-2308	1-64
00-804-2719	1-56
00-804-7488	1-148
00-805-1061	1-24
00-805-1404	1-135
00-805-5097	1-136
00-805-7536	1-115
00-805-8336	1-18
00-805-8383	1-77
	1-78
00-806-1000	1-169
00-806-5902	1-115
00-806-7968	1-126
00-806-9551	1-173
00-807-4197	1-1
00-808-1581	1-35
00-808-1806	1-32
00-808-2144	1-31
00-808-7703	1-25
00-808-7920	1-122
	1-122
00-809-4063	1-15
00-809-7167	1-52
00-809-7702	1-25
00-809-8802	1-107
00-809-9427	1-113
00-810-4499	1-134
00-810-4503	1-97
00-810-4504	1-97
00-810-4505	1-97
00-810-4506	1-97
00-810-4507	1-97
00-810-5861	1-21
00-810-8982	1-175
00-811-2144	1-25
00-811-7028	1-25
00-812-1175	1-114
00-812-2431	1-24
00-812-2588	1-99
00-812-5036	1-136
00-812-7495	1-114
00-813-1286	1-172
00-813-5709	1-2
00-813-7478	1-21
00-813-9002	1-53
00-813-9050	1-108
00-813-9872	1-99
00-814-1101	1-16
00-814-5781	1-67
00-814-5790	1-67
00-814-5825	1-67
00-814-5827	1-67
00-814-5831	1-67
00-814-5847	1-67
00-814-5851	1-67
00-814-6919	1-24
00-814-6920	1-24
00-814-6921	1-24
00-814-6929	1-24
00-815-4791	1-1
00-815-4792	1-1
00-815-6354	1-107
00-815-6491	1-122
00-816-1791	1-225
00-816-3819	1-83
00-816-4489	1-153
00-816-4569	1-25
00-816-4793	1-115
00-816-4949	1-98
00-817-1891	1-134
00-817-6578	1-119
00-817-7781	1-106
00-818-8926	1-27
00-818-9947	1-125
00-818-9948	1-125
00-820-2995	1-198
00-820-5145	1-51
00-820-8090	1-217
00-820-8167	1-218
00-821-0251	1-120
00-821-0808	1-1
00-821-1027	1-218
00-821-1029	1-218
00-821-1030	1-218
00-821-1031	1-218
00-821-8404	1-64
00-822-2250	1-51
00-822-6537	1-122
00-822-6539	1-122
00-822-7655	1-122
00-822-7656	1-122
00-822-7657	1-122
00-822-9120	1-126
00-823-8634	1-11
	1-13
	1-13
00-824-8096	1-105
00-824-9856	1-34
00-825-0332	1-218
00-825-0894	1-26
00-825-1460	1-120
00-825-3021	1-125
00-825-5894	1-99
00-825-7088	1-220
00-825-7090	1-220
00-825-7093	1-220
00-825-7111	1-220
00-825-7119	1-220
00-825-7126	1-220
00-825-7130	1-220
00-825-7132	1-220
00-825-7133	1-220
00-825-7304	1-133
00-826-1125	1-221
00-826-2190	1-144
00-826-3453	1-103
00-826-3897	1-125
00-826-4278	1-114
00-826-4782	1-103
00-826-6007	1-191
00-826-7650	1-25
00-827-2967	1-191
00-827-3937	1-33
00-827-5445	1-35
00-827-9291	1-113
00-828-4460	1-25
	1-27
00-828-8799	1-133
00-828-8800	1-133
00-829-3036	1-99
00-829-7691	1-211
00-831-1051	1-208
00-831-1052	1-208
00-831-1053	1-208
00-831-1054	1-208
00-831-1055	1-208
00-832-4308	1-27
00-832-4906	1-231
00-832-4907	1-231
00-832-4908	1-231
00-832-4910	1-231
00-832-4911	1-231
00-832-4912	1-231
00-832-4913	1-231
00-832-4914	1-231
00-832-4915	1-231
00-832-6221	1-198
00-833-0289	1-127
00-833-0291	1-127
00-833-1325	1-27
00-833-9800	1-136
00-834-0507	1-27
00-834-0708	1-61
00-834-3594	1-150
00-834-5035	1-115
00-834-6187	1-135
00-834-7854	1-77
00-834-9560	1-133
00-835-1646	1-35
00-836-3498	1-113

NIIN Cross Reference Index

NIIN	Page No.
00-836-7189	1-107
00-836-7807	1-113
00-837-0685	1-129
00-837-0990	1-167
00-837-2459	1-119
00-837-3649	1-56
00-837-7073	1-113
00-837-7595	1-215
00-838-2184	1-107
00-838-3533	1-63
00-838-5245	1-215
00-838-5300	1-215
00-838-9889	1-120
00-839-5843	1-133
00-839-8139	1-210
00-840-3358	1-183
00-840-4938	1-73
00-840-8721	1-139
00-840-9344	1-25
00-841-1390	1-5
	1-6
	1-7
	1-8
00-841-2837	1-220
00-841-8702	1-215
00-841-9968	1-150
00-842-0065	1-125
00-842-0067	1-125
00-842-1138	1-116
00-842-1139	1-116
00-842-2198	1-116
00-842-2199	1-116
00-842-2200	1-117
00-842-2201	1-117
00-842-2202	1-116
00-842-3162	1-127
00-842-6484	1-113
00-843-0269	1-117
00-843-1505	1-136
00-843-2790	1-72
00-843-8393	1-25
00-844-3483	1-116
00-844-3591	1-26
00-845-1096	1-143
00-845-3032	1-108
00-845-4983	1-114
00-845-5322	1-30
00-845-9150	1-19
00-846-0956	1-109
00-846-9210	1-98
00-847-0035	1-128
00-847-1710	1-107
00-848-7283	1-116
00-849-0871	1-97
00-849-1033	1-25
00-849-1141	1-187
00-849-1220	1-143
00-849-1356	1-26
00-850-3292	1-215
00-850-3828	1-140
00-850-6313	1-198
00-851-1940	1-113
00-851-4247	1-200
00-851-7021	1-34
00-852-6227	1-112
00-853-4538	1-210
00-855-2144	1-62
00-856-3471	1-228
00-857-1729	1-107
00-857-1730	1-107
00-857-1731	1-107
00-857-1732	1-107
00-857-1733	1-107
00-857-1734	1-107
00-857-1736	1-107
00-859-6594	1-73
00-860-6971	1-25
00-861-1814	1-115
00-861-2334	1-25
00-863-4943	1-203
00-863-4944	1-203
00-863-8546	1-64
00-864-9036	1-63
00-865-2178	1-219
00-865-2179	1-219
00-865-2229	1-219
00-865-2232	1-220
00-865-2470	1-27
00-865-2701	1-27
00-865-2759	1-147
00-865-4208	1-216
00-865-4209	1-216
00-865-4210	1-216
00-865-4211	1-216
00-865-4221	1-213
00-865-4222	1-213
00-865-4223	1-213
00-865-4224	1-213
00-865-4225	1-213
00-865-4226	1-213
00-865-4228	1-213
00-865-4229	1-213
00-865-9251	1-113
00-866-1393	1-25
00-866-1829	1-133
00-866-6131	1-26
00-867-5515	1-181
00-867-5517	1-181
00-868-1589	1-54
00-868-5779	1-105
00-869-6418	1-24
00-869-7945	1-21
00-870-4796	1-223
00-870-6928	1-200
00-871-5882	1-204
00-871-6729	1-120
00-872-1411	1-32
00-872-4869	1-191
00-872-5980	1-106
00-873-3885	1-133
00-873-3998	1-189
00-873-4006	1-189
00-875-8059	1-55
00-875-8264	1-133
00-876-8910	1-220
00-877-5305	1-66
00-877-6298	1-120
00-877-7408	1-99
00-877-7417	1-99
00-877-9876	1-118
00-878-0387	1-144
00-878-0397	1-144
00-878-0398	1-144
00-878-0402	1-144
00-878-0405	1-144
00-878-2158	1-32
00-878-2882	1-32
00-878-5932	1-190
00-878-6157	1-25
00-878-6519	1-173
00-878-8583	1-131
00-878-8693	1-64
00-878-9819	1-57
00-879-2128	1-49
00-879-2133	1-49
00-879-2137	1-51
00-879-3547	1-203
00-879-4998	1-193
00-879-5398	1-112
00-880-0743	1-25
	1-27
00-880-1273	1-112
00-880-1310	1-41
00-880-1311	1-41
00-880-1312	1-41
00-880-1316	1-33
00-880-3539	1-120
00-880-4560	1-197
00-880-4565	1-197
00-880-4570	1-197
00-880-4574	1-197
00-880-4583	1-197
00-880-4592	1-137
00-880-4604	1-197
00-880-6448	1-4
00-880-7011	1-125
00-881-0049	1-31
00-881-0992	1-150
00-881-5536	1-116
00-882-0008	1-47
00-882-0013	1-151
00-882-1215	1-46
00-882-1219	1-47
00-882-1228	1-47
00-882-1230	1-47
00-882-1738	1-107
00-882-5322	1-55
00-883-0888	1-24
	1-28
00-883-1159	1-27
00-883-3003	1-197
00-883-9038	1-105
00-885-7570	1-94
00-885-9442	1-133
00-886-3802	1-151
00-886-6251	1-57
00-886-8203	1-139
00-888-5826	1-183
00-888-5827	1-183
00-888-5829	1-183
00-888-5831	1-183
00-888-6075	1-107
00-888-8000	1-184
00-888-8007	1-206
00-889-1796	1-203
00-889-2050	1-207
00-889-2162	1-191
00-889-2163	1-191
00-889-2197	1-122
00-889-2468	1-129
00-889-2473	1-117
00-889-2474	1-117
00-889-2475	1-117
00-889-2476	1-117
00-889-2478	1-117
00-889-2492	1-72
00-889-5309	1-220
00-889-5316	1-220
00-889-5779	1-153
00-889-6499	1-221
00-889-6603	1-218
00-889-6610	1-218

NIIN Cross Reference Index

NIIN	Page No.
00-889-6617	1-218
00-889-6619	1-218
00-889-6621	1-220
00-889-6629	1-219
00-889-6976	1-220
00-889-6977	1-220
00-890-4727	1-25
00-890-5014	1-108
00-891-3461	1-5
00-891-4894	1-146
00-891-9967	1-128
00-892-2258	1-227
00-892-2259	1-227
00-892-3943	1-57
00-892-4028	1-62
00-892-4372	1-53
00-892-4373	1-53
00-892-4374	1-53
00-892-4375	1-53
00-892-4379	1-54
00-892-4380	1-54
00-892-4556	1-51
00-892-4557	1-51
00-892-4559	1-50
00-892-4560	1-50
00-892-4561	1-50
00-892-4677	1-42
00-892-4950	1-231
00-892-5071	1-172
00-892-5485	1-187
00-892-5488	1-149
00-892-5494	1-73
00-892-5596	1-129
00-892-5663	1-122
00-892-5698	1-145
00-892-5744	1-187
00-892-5844	1-164
00-892-5847	1-176
00-892-5850	1-90
00-892-5913	1-97
00-892-5914	1-97
00-892-5931	1-200
00-892-6263	1-187
00-892-6270	1-124
00-893-5429	1-108
00-893-5686	1-192
00-893-8622	1-98
00-893-8623	1-98
00-893-8624	1-98
00-893-8626	1-98
00-893-8627	1-98
00-893-8628	1-98
00-893-8629	1-98
00-893-8631	1-98
00-894-1033	1-2
00-895-2954	1-33
00-895-7076	1-2
00-895-9566	1-210
00-897-5591	1-115
00-897-5930	1-116
00-898-5108	1-107
00-898-5282	1-148
00-899-4510	1-64
00-899-4758	1-113
00-899-4888	1-25
00-900-0733	1-133
00-900-1283	1-209
00-900-1685	1-35
00-900-2063	1-215
00-900-2856	1-31
00-900-3296	1-113
00-900-6097	1-187
00-900-6109	1-187
00-900-6110	1-187
00-900-6113	1-187
00-900-6118	1-187
00-900-8737	1-33
00-901-0826	1-111
00-901-4458	1-57
00-902-3983	1-225
00-902-6689	1-24
00-902-8991	1-127
00-903-3755	1-148
00-903-6378	1-93
00-903-8545	1-189
00-903-8546	1-189
00-903-8552	1-189
00-903-8553	1-189
00-903-8555	1-189
00-904-6699	1-15
00-904-8172	1-116
00-905-5446	1-80
00-905-6728	1-199
00-905-6729	1-199
00-905-6730	1-199
00-905-9524	1-112
00-906-0168	1-211
00-906-1459	1-144
00-906-1675	1-115
00-907-8076	1-35
00-908-3193	1-120
00-908-3194	1-120
00-908-3195	1-120
00-908-6292	1-120
00-908-6293	1-120
00-908-6294	1-120
00-909-8627	1-120
00-910-2549	1-31
00-910-2550	1-31
00-910-2551	1-31
00-910-2553	1-31
00-910-2554	1-31
00-910-8373	1-158
00-911-7127	1-113
00-912-1085	1-192
00-912-5778	1-5
00-912-6029	1-215
00-912-6030	1-215
00-912-6031	1-215
00-912-6032	1-215
00-912-6172	1-5
00-912-6668	1-79
00-912-6748	1-5
00-913-1065	1-77
00-913-4750	1-32
00-913-5843	1-199
00-913-5967	1-116
00-913-6500	1-111
00-913-7330	1-121
00-914-3690	1-5
00-914-3691	1-5
00-914-8390	1-32
00-914-9851	1-134
00-915-4587	1-190
00-916-2940	1-107
00-916-3368	1-130
00-916-8342	1-65
00-918-3606	1-27
00-918-8506	1-158
00-919-1217	1-89
00-919-3443	1-62
00-919-4651	1-134
00-919-7367	1-116
00-919-9096	1-24
00-920-5391	1-23
00-921-5771	1-229
00-922-5122	1-103
00-922-6915	1-21
00-922-6917	1-21
00-922-6920	1-21
00-922-6921	1-21
00-922-6922	1-21
00-923-9620	1-210
00-924-0578	1-149
00-925-4752	1-133
00-926-0617	1-66
00-926-0619	1-66
00-926-0620	1-66
00-926-0644	1-66
00-926-1081	1-49
00-926-1180	1-99
00-926-1196	1-99
00-926-1197	1-99
00-926-1199	1-99
00-926-1201	1-99
00-926-3709	1-49
00-926-3710	1-49
00-926-3712	1-49
00-926-3713	1-49
00-926-3716	1-50
00-926-3718	1-50
00-926-3721	1-50
00-926-3727	1-50
00-926-3728	1-49
00-926-3734	1-50
00-926-3737	1-49
00-926-4143	1-99
00-926-4148	1-99
00-926-4150	1-99
00-926-4177	1-99
00-926-4277	1-109
00-926-5175	1-183
00-926-9459	1-78
00-926-9461	1-78
00-926-9462	1-78
00-926-9463	1-78
00-926-9464	1-78
00-926-9465	1-78
00-926-9466	1-78
00-926-9467	1-78
00-926-9468	1-78
00-926-9469	1-78
00-926-9470	1-78
00-926-9471	1-78
00-926-9472	1-78
00-926-9473	1-78
00-926-9474	1-78
00-926-9475	1-78
00-926-9476	1-78
00-926-9477	1-78
00-926-9478	1-78
00-926-9479	1-78
00-926-9622	1-138
00-927-1063	1-164
00-927-5561	1-90
00-927-8963	1-224
00-928-3438	1-61
00-928-4506	1-124
00-928-6571	1-117
00-929-1092	1-106
00-929-1105	1-108
00-929-1107	1-117

NIIN Cross Reference Index

NIIN	Page No.
00-929-1191	1-5
00-929-3399	1-118
00-929-3464	1-139
00-929-5705	1-118
00-929-6211	1-115
00-930-1638	1-34
00-930-3250	1-120
00-930-4513	1-107
00-930-4515	1-107
00-930-7503	1-198
00-930-7504	1-190
00-931-0975	1-118
00-931-4610	1-122
00-931-8793	1-62
00-932-4753	1-131
00-933-1462	1-107
00-933-1463	1-107
00-933-5356	1-24
00-933-5878	1-107
00-933-8979	1-201
00-934-0295	1-56
00-934-8026	1-112
00-935-0730	1-230
00-935-0731	1-230
00-935-0732	1-230
00-935-0733	1-230
00-935-0734	1-230
00-935-0735	1-231
00-935-0736	1-231
00-935-0737	1-231
00-935-0738	1-231
00-935-0739	1-231
00-935-0772	1-191
00-935-0890	1-173
00-935-1656	1-72
00-935-1669	1-71
00-935-4612	1-203
00-935-4641	1-191
00-935-4660	1-177
00-935-5432	1-73
00-935-5433	1-73
00-935-5528	1-77
00-935-7309	1-211
00-935-7310	1-210
00-935-7311	1-202
00-935-7313	1-202
00-935-7315	1-211
00-935-7333	1-210
00-935-7340	1-192
00-935-7370	1-206
00-935-7372	1-206
00-935-7410	1-202
00-935-7420	1-203
00-935-7474	1-203
00-935-7487	1-202
00-935-7490	1-202
00-935-9382	1-116
00-935-9490	1-114
00-936-2173	1-125
00-936-2174	1-125
00-937-0229	1-115
00-937-0234	1-116
00-937-6012	1-19
00-938-5758	1-27
00-939-8492	1-120
00-940-8383	1-69
00-941-2707	1-175
00-941-8593	1-151
00-942-9147	1-113
00-943-0941	1-210
00-943-1031	1-26
00-943-1676	1-35
00-944-4268	1-196
00-944-4485	1-24
00-945-7790	1-90
00-945-8055	1-165
00-946-0436	1-61
00-946-2700	1-152
00-946-2970	1-26
00-947-2735	1-24
00-947-4290	1-114
00-947-6308	1-148
00-948-9003	1-117
00-948-9314	1-118
00-948-9623	1-118
00-949-5580	1-90
00-949-5581	1-90
00-949-8694	1-133
00-950-0087	1-115
00-950-2956	1-49
00-950-2960	1-49
00-950-2961	1-50
00-951-5426	1-56
00-952-0038	1-117
00-952-0108	1-191
00-952-3507	1-187
00-953-6440	1-29
00-954-1269	1-204
00-954-1270	1-204
00-954-1281	1-135
00-954-2641	1-106
00-955-6537	1-80
00-956-2871	1-56
00-956-4103	1-40
00-956-4109	1-40
00-956-4754	1-62
00-957-5655	1-145
00-957-7882	1-122
00-957-7910	1-11
00-958-7093	1-67
00-958-8038	1-67
00-958-8039	1-67
00-958-8040	1-67
00-959-3815	1-119
00-960-4568	1-111
00-960-4569	1-111
00-961-1973	1-123
00-961-3488	1-170
00-961-9174	1-97
00-961-9175	1-97
00-961-9205	1-25
00-962-2739	1-146
00-962-2984	1-26
00-962-7580	1-211
00-964-0260	1-29
00-964-0261	1-29
00-964-0262	1-29
00-964-0263	1-29
00-964-0264	1-29
00-964-1006	1-24
00-965-0288	1-158
00-965-0326	1-187
	1-190
00-965-0595	1-77
00-965-0603	1-187
00-965-0604	1-208
00-965-0878	1-167
00-965-0879	1-182
00-965-1211	1-145
00-966-5695	1-135
00-967-4828	1-147
00-967-8763	1-25
00-967-8997	1-108
00-968-1350	1-62
00-968-1351	1-62
00-968-1352	1-62
	1-62
00-968-1353	1-62
00-968-1356	1-61
00-968-1357	1-61
00-968-1358	1-61
00-969-0071	1-183
00-970-3952	1-24
00-970-8947	1-192
00-971-3567	1-151
00-972-0874	1-35
00-972-5789	1-130
00-974-1875	1-62
00-975-2885	1-107
00-977-3255	1-122
00-977-8774	1-116
00-978-7206	1-148
00-979-4040	1-86
00-980-0502	1-27
00-980-3422	1-216
00-980-3423	1-216
00-980-7721	1-155
00-982-1360	1-116
00-982-5113	1-40
00-982-9736	1-117
00-983-2873	1-27
00-983-9169	1-106
00-984-0220	1-50
00-984-0223	1-49
00-984-0224	1-50
00-984-0247	1-191
00-984-3405	1-41
00-984-3800	1-49
00-984-4997	1-120
00-985-1293	1-106
00-986-5899	1-161
00-987-9073	1-112
00-988-2894	1-39
00-988-2895	1-39
00-988-3181	1-55
00-988-5655	1-215
00-988-5664	1-215
00-988-5665	1-215
00-988-5673	1-215
00-988-5674	1-215
00-988-5683	1-215
00-988-5684	1-215
00-988-5695	1-215
00-988-5696	1-215
00-988-5697	1-215
00-988-5701	1-215
00-988-5702	1-215
00-988-5703	1-215
00-989-3167	1-138
00-989-3550	1-119
00-989-4589	1-72
00-989-6263	1-24
00-989-6479	1-108
00-989-7459	1-131
00-990-2096	1-135
00-990-5555	1-124
00-990-6078	1-120
00-990-6108	1-112
00-991-1907	1-205
00-993-0579	1-24
00-993-3967	1-24
00-993-5036	1-97

NIIN Cross Reference Index

NIIN	Page No.
00-995-1559	1-113
00-995-1870	1-213
00-996-9654	1-40
00-996-9656	1-40
00-997-2858	1-200
00-997-4237	1-177
00-998-4418	1-83
00-998-7291	1-26
00-999-3106	1-5
00-999-8994	1-106
01-003-1056	1-19
01-003-1064	1-108
01-003-4178	1-31
01-003-5530	1-153
01-004-2718	1-191
01-004-8348	1-118
01-005-4874	1-69
01-006-3855	1-58
01-007-1940	1-108
01-007-5232	1-115
01-007-5494	1-32
01-007-8999	1-231
01-007-9167	1-35
01-008-7577	1-34
01-008-7578	1-34
01-008-7580	1-34
01-008-7639	1-39
01-009-1056	1-15
01-009-6257	1-41
01-009-6258	1-41
01-009-9520	1-123
01-010-0997	1-137
01-010-0998	1-137
01-010-0999	1-137
01-010-1000	1-137
01-010-1001	1-137
01-010-1002	1-137
01-010-1003	1-137
01-010-4483	1-181
01-010-4775	1-223
01-010-4776	1-223
01-010-6123	1-137
01-010-6290	1-115
01-010-6291	1-114
01-012-5020	1-183
01-012-5660	1-116
01-012-6806	1-97
01-013-0312	1-129
01-013-3459	1-46
01-014-9032	1-46
01-015-5194	1-86
01-015-6762	1-80
01-015-7518	1-124
01-015-8426	1-46
01-017-1200	1-155
01-017-4340	1-25
01-017-5123	1-116
01-017-8313	1-124
01-017-8590	1-37
01-018-2127	1-37
01-018-4220	1-45
01-018-4221	1-45
01-018-4224	1-45
01-018-4227	1-46
01-018-6550	1-107
01-018-8956	1-192
01-019-0802	1-223
01-019-1772	1-179
01-019-8081	1-198
01-019-8976	1-107
01-019-9156	1-102
01-020-3812	1-144
01-020-4709	1-155
01-021-1586	1-107
01-021-5663	1-107
01-021-6334	1-59
01-021-6339	1-66
01-021-6340	1-66
01-021-9700	1-186
01-022-1541	1-85
01-022-2102	1-57
01-022-3151	1-117
01-022-3152	1-136
01-022-3153	1-136
01-022-3163	1-66
01-022-3164	1-66
01-022-4452	1-105
01-022-4455	1-109
01-022-5667	1-66
01-022-7901	1-158
01-022-8501	1-86
01-023-0241	1-39
01-023-6105	1-39
01-023-7259	1-100
01-023-7330	1-148
01-023-7726	1-116
01-023-7729	1-141
01-023-7776	1-131
01-024-0910	1-117
01-024-0911	1-118
01-024-7127	1-129
01-024-8613	1-131
01-025-0341	1-155
01-025-1415	1-82
01-025-4005	1-23
01-025-9583	1-97
01-026-1387	1-42
01-026-1854	1-58
01-026-3302	1-25
01-026-6161	1-107
01-026-7466	1-126
01-026-9141	1-129
01-026-9144	1-118
01-026-9147	1-118
01-026-9149	1-118
	1-118
01-026-9151	1-118
01-026-9152	1-118
01-026-9154	1-118
01-026-9156	1-107
01-026-9158	1-107
01-027-2212	1-154
01-027-2296	1-101
01-027-2653	1-118
01-027-8920	1-154
01-028-0937	1-193
01-028-1350	1-107
01-028-1442	1-158
01-028-3837	1-62
01-028-3840	1-62
01-028-3841	1-62
01-028-3843	1-62
01-028-7102	1-194
01-028-7145	1-35
01-028-7493	1-161
01-029-2857	1-135
01-029-4127	1-59
01-029-4157	1-2
01-029-5401	1-105
01-029-8736	1-79
01-030-4942	1-148
01-030-7179	1-137
01-031-1094	1-84
01-031-2839	1-111
01-031-5900	1-126
01-031-6180	1-113
01-031-7120	1-102
01-031-9694	1-37
01-032-5696	1-150
01-032-6017	1-118
01-032-7496	1-188
01-033-0597	1-25
	1-27
01-033-2134	1-201
01-033-6240	1-2
	1-6
	1-7
01-033-6395	1-41
01-033-7237	1-146
01-033-7238	1-146
01-033-8751	1-41
01-034-5033	1-210
01-034-6884	1-201
01-034-8231	1-230
01-035-6601	1-107
01-036-4035	1-95
01-036-7331	1-139
01-036-8942	1-210
01-037-0893	1-138
01-037-2495	1-32
01-037-4884	1-133
01-037-5773	1-32
01-037-6265	1-71
01-037-7268	1-32
01-038-1746	1-27
01-038-6001	1-75
01-038-7429	1-106
01-038-7682	1-93
01-039-1860	1-79
01-039-1870	1-80
01-039-1876	1-80
01-039-3494	1-32
01-040-5532	1-129
01-040-8943	1-171
01-041-3168	1-79
01-041-4924	1-42
01-041-5028	1-41
01-041-6792	1-41
01-041-7219	1-131
01-041-8434	1-42
01-042-0892	1-41
01-042-3186	1-131
01-042-9681	1-131
01-043-1518	1-46
01-043-5999	1-127
01-044-3175	1-56
01-044-3699	1-26
01-044-3738	1-42
01-044-5749	1-35
01-044-7232	1-129
01-045-0316	1-32
01-045-0317	1-32
01-045-0321	1-42
01-045-1817	1-34
01-045-2619	1-26
01-045-4946	1-215
01-045-9154	1-41
01-045-9724	1-6
	1-7
01-046-0355	1-41
01-046-0356	1-41
01-046-4980	1-229

NIIN Cross Reference Index

NIIN	Page No.
01-046-5079	1-191
01-046-6807	1-139
01-046-7053	1-42
01-046-7064	1-42
01-047-3091	1-42
01-048-0636	1-108
01-048-1232	1-103
01-048-4454	1-23
01-048-5451	1-46
01-048-5620	1-41
01-048-9400	1-85
01-048-9515	1-87
01-048-9516	1-87
01-048-9517	1-87
01-048-9518	1-82
01-049-0975	1-82
01-049-0977	1-84
01-049-0978	1-84
01-049-0979	1-82
01-049-0981	1-87
01-049-0983	1-87
01-049-0984	1-87
01-049-0985	1-82
01-049-0986	1-81
01-049-0987	1-82
01-049-0989	1-81
01-049-3696	1-117
01-049-9419	1-24
01-050-0794	1-32
01-050-0817	1-47
01-050-7870	1-41
01-051-0328	1-93
01-051-1390	1-41
01-051-1391	1-41
01-051-1960	1-23
01-051-2566	1-42
01-051-4114	1-215
01-052-9700	1-104
01-053-2557	1-54
01-053-3392	1-41
01-053-7932	1-215
01-054-3762	1-137
01-055-7882	1-109
01-055-8347	1-85
01-056-0883	1-73
01-056-8343	1-73
01-056-9580	1-92
01-056-9586	1-132
01-057-1002	1-35
01-057-1985	1-125
01-057-4138	1-155
01-058-4993	1-147
01-058-9728	1-151
01-059-1099	1-99
01-060-8915	1-157
01-061-1504	1-151
01-061-2568	1-108
01-061-2584	1-120
01-061-2587	1-25
01-061-2948	1-147
01-061-3177	1-107
01-061-4150	1-120
01-061-4977	1-25
01-061-5705	1-74
01-061-6627	1-25
01-062-4535	1-23
01-063-1899	1-93
01-063-4004	1-192
01-063-5996	1-83
01-063-7414	1-31
01-064-2626	1-19
01-064-2627	1-15
01-064-5895	1-101
01-064-7927	1-131
01-065-0832	1-26
01-065-2211	1-188
01-065-7552	1-116
01-065-9037	1-188
01-065-9650	1-35
01-066-3266	1-82
01-067-1569	1-108
01-067-3933	1-122
01-067-5011	1-211
01-067-6472	1-107
01-067-8254	1-23
01-069-7849	1-74
01-069-9176	1-32
01-070-9109	1-23
01-070-9110	1-23
01-070-9208	1-208
01-071-2993	1-186
01-071-3531	1-61
01-071-4296	1-91
01-071-4961	1-17
01-071-5356	1-188
01-072-7987	1-188
01-073-5950	1-45
01-073-6062	1-126
01-073-6183	1-150
01-074-0337	1-108
01-074-0793	1-23
01-074-1522	1-45
01-074-3408	1-79
01-074-3409	1-79
01-074-5046	1-147
01-074-6036	1-134
01-074-6573	1-181
01-074-8361	1-154
01-074-8390	1-86
01-074-8873	1-108
01-074-9983	1-33
01-075-0761	1-164
01-075-0762	1-164
01-075-0763	1-164
01-075-1200	1-203
01-075-1220	1-231
01-075-2106	1-107
01-075-2597	1-210
01-075-5071	1-139
01-075-7324	1-73
01-075-7325	1-73
01-076-1515	1-117
01-076-3289	1-73
01-076-9359	1-139
01-077-1603	1-80
01-077-4893	1-130
01-077-8773	1-77
01-078-0652	1-94
01-078-6125	1-35
01-078-8351	1-35
01-079-2822	1-35
01-079-7461	1-103
01-080-0062	1-150
01-080-0105	1-103
01-080-3261	1-89
01-080-6399	1-132
01-080-6420	1-42
01-081-0322	1-79
01-081-7826	1-225
01-082-2171	1-13
01-082-2548	1-39
01-083-3399	1-82
01-083-6480	1-8
	1-11
01-083-9317	1-173
01-084-7923	1-8
01-084-7924	1-8
01-084-7926	1-8
01-084-7927	1-8
01-084-7928	1-8
01-084-7929	1-8
01-084-7930	1-8
01-084-7931	1-8
01-084-7932	1-8
01-084-7933	1-8
01-084-7934	1-8
01-084-7935	1-8
01-084-7936	1-8
01-084-7948	1-8
01-085-3344	1-151
01-085-3346	1-150
01-085-3721	1-84
01-085-8963	1-8
01-085-8964	1-8
01-086-4724	1-8
01-086-7670	1-86
01-087-8886	1-117
01-088-1603	1-84
01-088-2952	1-66
01-088-3444	1-146
01-088-3491	1-57
01-088-4318	1-178
01-088-4319	1-193
01-088-4320	1-173
01-089-1240	1-173
01-089-2601	1-8
	1-11
01-089-2602	1-11
01-089-2603	1-8
	1-11
01-089-3772	1-8
	1-11
01-089-3773	1-8
	1-11
01-089-3858	1-23
01-090-5870	1-179
01-090-5872	1-166
01-090-8358	1-105
01-092-1692	1-107
01-092-1904	1-121
01-092-3278	1-210
01-092-4155	1-93
01-092-5652	1-71
01-093-1079	1-13
01-093-1080	1-11
01-093-1551	1-9
01-093-1552	1-8
01-093-7289	1-154
01-094-2568	1-13
01-094-2863	1-9
01-097-0758	1-23
01-097-0762	1-164
01-097-0977	1-114
01-097-4520	1-188
01-097-7966	1-6
	1-7
01-097-8113	1-11
	1-13
01-098-1194	1-109
01-098-3864	1-46
01-098-5322	1-24
01-098-6488	1-42

NIIN Cross Reference Index

NIIN	Page No.
01-098-6876	1-41
01-098-7327	1-56
01-099-2285	1-39
01-099-2286	1-39
01-099-2287	1-39
01-099-2288	1-39
01-099-2289	1-39
01-099-2290	1-39
01-099-2291	1-39
01-099-2292	1-39
01-099-2692	1-65
01-100-3023	1-39
01-102-8534	1-46
01-102-9973	1-46
01-103-7295	1-124
01-103-7896	1-13
01-103-8475	1-82
01-103-8804	1-6
	1-7
01-103-8882	1-6
	1-7
01-104-0611	1-151
01-104-0786	1-42
01-104-1052	1-5
01-104-1108	1-5
01-104-1150	1-42
01-104-1197	1-40
01-104-4965	1-6
	1-7
01-104-4966	1-6
	1-7
01-105-7341	1-66
01-106-0796	1-122
01-106-2805	1-12
01-106-4054	1-161
01-106-6753	1-13
01-106-6754	1-6
01-106-9651	1-117
01-107-2000	1-116
01-108-4530	1-6
	1-7
01-108-4531	1-9
01-108-4534	1-9
01-108-4713	1-45
01-108-4714	1-45
01-108-4715	1-45
01-108-4716	1-45
01-108-4717	1-45
01-108-4718	1-45
01-108-6555	1-32
01-108-7746	1-135
01-108-8676	1-40
01-109-5518	1-6
	1-7
01-111-1425	1-93
01-111-5671	1-26
01-111-7770	1-26
01-112-1097	1-71
01-112-3867	1-93
01-112-5789	1-93
01-112-6239	1-66
01-113-5973	1-66
01-113-7869	1-93
01-114-3884	1-122
01-114-3895	1-66
01-114-4580	1-23
01-114-6672	1-144
01-115-5157	1-107
01-115-7371	1-107
01-115-7372	1-105
	1-107
01-115-7437	1-131
01-115-8347	1-89
01-116-3734	1-124
01-116-3735	1-124
01-117-0624	1-8
01-117-3695	1-159
01-117-7490	1-25
01-118-1751	1-108
01-119-2159	1-61
01-119-2315	1-81
01-119-4535	1-66
01-119-8104	1-108
01-119-9009	1-147
01-119-9058	1-61
01-119-9923	1-89
01-120-2876	1-111
01-120-7303	1-15
01-120-8721	1-184
01-120-9349	1-90
01-120-9481	1-64
01-121-0512	1-80
01-121-0873	1-107
01-122-1683	1-27
01-122-2172	1-121
01-122-3686	1-24
01-122-4293	1-139
01-122-4471	1-37
01-122-6730	1-161
01-123-2194	1-80
01-123-3007	1-8
	1-11
01-123-3020	1-93
01-123-3836	1-124
01-123-8675	1-8
	1-11
01-124-2755	1-27
01-124-3766	1-123
01-124-3806	1-79
01-124-8201	1-66
01-124-9999	1-106
01-126-0203	1-139
01-126-9171	1-103
01-127-5856	1-102
01-127-6741	1-27
01-127-7210	1-25
01-127-8698	1-66
01-127-8730	1-81
01-127-9488	1-66
01-128-2506	1-23
01-128-4720	1-91
01-128-6152	1-64
01-129-5592	1-120
01-130-5468	1-102
01-130-8756	1-155
01-130-9846	1-8
01-131-0247	1-73
01-131-0249	1-73
01-131-2742	1-147
01-131-5999	1-23
01-131-6720	1-13
01-133-4713	1-158
01-134-8784	1-6
	1-7
01-134-8839	1-121
01-137-3327	1-93
01-137-4624	1-27
01-137-7168	1-66
01-137-7169	1-66
01-138-2014	1-89
01-138-7539	1-35
01-139-4296	1-58
01-139-4961	1-15
01-139-9483	1-82
01-140-0282	1-87
01-140-4853	1-141
01-140-9212	1-25
01-140-9950	1-13
01-141-5085	1-25
01-142-0456	1-66
01-142-2630	1-73
01-142-2982	1-25
01-142-3595	1-13
01-142-6230	1-39
01-142-6231	1-39
01-142-7904	1-120
01-143-1406	1-103
01-143-9083	1-31
01-144-1824	1-23
01-144-9216	1-93
01-145-4658	1-56
01-146-6953	1-34
01-146-7063	1-137
01-147-1091	1-72
01-147-1359	1-24
01-147-6410	1-25
01-147-8546	1-26
01-148-2792	1-26
01-149-5744	1-45
01-149-7838	1-23
01-150-3807	1-159
01-151-8907	1-161
01-152-7902	1-159
01-154-2071	1-151
01-154-3868	1-224
01-154-3869	1-224
01-154-3870	1-224
01-154-6389	1-42
01-154-9503	1-69
01-156-4835	1-115
01-157-7960	1-117
01-158-4071	1-27
01-158-5089	1-1
01-158-8417	1-112
01-159-0832	1-113
01-160-1311	1-208
01-160-2398	1-54
01-160-5618	1-83
01-160-5794	1-124
01-160-5795	1-124
01-161-1915	1-210
01-162-0139	1-124
01-162-4128	1-123
01-162-4371	1-23
01-162-4372	1-23
01-162-4373	1-23
01-162-6353	1-112
01-163-6014	1-64
01-165-1475	1-25
01-165-1476	1-25
01-165-8865	1-87
01-165-8866	1-87
01-166-3719	1-66
01-166-9450	1-59
01-167-2581	1-224
01-167-6283	1-66
01-168-1967	1-23
01-168-2044	1-162
01-168-4430	1-15
01-168-6218	1-15
01-168-8226	1-12
01-168-8895	1-41

NIIN Cross Reference Index

NIIN	Page No.
01-169-4665	1-128
01-169-8436	1-69
01-171-4202	1-102
01-172-6706	1-24
01-172-7574	1-80
01-173-1161	1-146
01-173-4676	1-161
01-173-8665	1-16
01-176-5990	1-13
01-177-0987	1-123
01-178-2154	1-66
01-180-6064	1-125
01-180-6357	1-94
01-180-7251	1-123
01-181-8792	1-39
01-181-9598	1-132
01-183-4632	1-35
01-184-3881	1-66
01-184-9371	1-150
01-186-1017	1-119
01-188-1871	1-24
01-190-0393	1-108
01-190-2744	1-137
01-192-4393	1-113
01-192-4729	1-119
01-192-4963	1-193
01-192-9670	1-23
01-193-7390	1-138
01-193-8966	1-45
01-194-0176	1-23
01-194-6626	1-42
01-195-2148	1-42
01-196-7440	1-150
01-198-5595	1-137
01-198-6560	1-26
01-199-0077	1-86
01-199-3121	1-112
01-200-2809	1-106
01-200-2816	1-106
01-200-2819	1-106
01-200-2820	1-106
01-200-4295	1-105
01-200-5121	1-173
01-200-8695	1-27
01-201-1228	1-105
01-201-4979	1-229
01-202-7014	1-56
01-203-1007	1-61
01-204-0638	1-159
01-204-2827	1-82
01-205-7893	1-72
01-206-1077	1-82
01-208-0865	1-46
01-209-3181	1-69
01-209-3832	1-66
01-209-6553	1-39
01-209-7478	1-66
01-210-0319	1-98
01-210-0905	1-59
01-210-2739	1-25
01-211-8445	1-120
01-212-2432	1-198
01-212-7595	1-27
01-213-0002	1-102
01-214-1520	1-25
01-214-4268	1-26
01-214-8929	1-128
01-215-1455	1-150
01-216-1092	1-101
01-216-3406	1-47
01-216-3743	1-59
01-216-6812	1-25
01-218-6699	1-25
01-220-5816	1-80
01-220-6648	1-73
01-221-8871	1-109
01-223-3692	1-108
01-223-3730	1-159
01-223-7312	1-85
01-224-0351	1-85
01-224-4195	1-85
01-224-4197	1-85
01-224-4198	1-85
01-224-6336	1-82
01-225-5805	1-146
01-225-9712	1-58
01-226-1073	1-83
01-226-8472	1-105
01-227-6034	1-79
01-227-7503	1-80
01-228-0984	1-127
01-228-1028	1-143
01-228-1054	1-108
01-228-4286	1-106
01-228-7622	1-132
01-230-0960	1-140
01-230-6892	1-82
01-230-6894	1-82
01-230-6895	1-82
01-231-3605	1-42
01-231-7066	1-25
01-231-7168	1-73
01-231-9906	1-73
01-231-9907	1-73
01-232-2902	1-24
01-232-4837	1-41
01-232-8410	1-41
01-232-8411	1-41
01-234-3281	1-66
01-235-0823	1-82
01-237-3208	1-4
	1-19
01-237-4056	1-3
01-237-7089	1-3
01-238-0933	1-4
01-238-0934	1-3
	1-3
01-238-0937	1-3
01-238-8945	1-66
01-239-3653	1-58
01-239-3678	1-25
01-239-7501	1-113
01-240-4661	1-82
01-241-4371	1-177
01-241-4373	1-178
01-241-4375	1-176
01-243-1954	1-84
01-243-3630	1-41
01-243-6484	1-161
01-244-0111	1-82
01-244-5756	1-225
01-245-3663	1-109
01-246-2812	1-151
01-246-5293	1-69
01-246-5401	1-86
01-246-5403	1-86
01-246-5407	1-82
01-246-5408	1-82
01-246-5409	1-82
01-246-5411	1-83
01-246-5412	1-83
01-246-5413	1-83
01-246-5414	1-83
01-246-6113	1-181
01-247-2349	1-85
01-247-5511	1-79
01-247-7532	1-3
01-247-9616	1-3
01-247-9618	1-3
01-248-1496	1-27
01-248-8822	1-105
01-249-2563	1-82
01-249-2572	1-83
01-249-2573	1-83
01-249-2577	1-83
01-250-2970	1-92
01-250-4235	1-162
01-250-4236	1-162
01-250-4237	1-162
01-250-6455	1-105
01-251-9403	1-85
01-253-7376	1-161
01-254-0191	1-107
01-254-1195	1-159
01-254-4912	1-105
01-256-0264	1-152
01-256-3403	1-42
01-256-3616	1-25
01-256-8301	1-79
01-257-7788	1-66
01-258-1245	1-83
01-258-5118	1-119
01-258-5125	1-26
01-258-7241	1-119
01-259-2498	1-58
01-260-6236	1-85
01-261-3044	1-79
01-263-3063	1-112
01-263-3116	1-23
01-264-3871	1-73
01-265-3993	1-24
01-266-1491	1-161
01-267-0640	1-161
01-267-4280	1-26
01-267-6226	1-62
01-268-0568	1-83
01-269-4171	1-86
01-269-7319	1-59
01-271-0159	1-25
01-271-0742	1-43
01-271-3754	1-26
01-272-1876	1-85
01-272-1877	1-85
01-272-7604	1-26
01-272-8384	1-59
01-272-8385	1-59
01-273-4727	1-73
01-273-7871	1-42
01-274-3720	1-42
01-275-0583	1-23
01-275-9740	1-43
01-275-9741	1-43
01-278-8257	1-192
01-279-9332	1-172
01-280-3228	1-69
01-282-6968	1-27
01-283-3040	1-106
01-284-7726	1-162
01-286-1841	1-85
01-286-1842	1-82
01-286-1843	1-85
01-288-1952	1-23

NIIN Cross Reference Index

NIIN	Page No.
01-289-3021	1-191
01-289-4310	1-198
01-291-4386	1-42
01-293-1959	1-23
01-293-8544	1-26
01-296-1800	1-161
01-296-6859	1-91
	1-92
01-297-5986	1-81
	1-81
	1-81
	1-81
	1-82
	1-82
	1-82
	1-82
	1-82
	1-82
	1-84
	1-87
	1-87
	1-87
	1-87
	1-87
	1-87
01-298-1344	1-92
01-300-3148	1-42
01-300-9401	1-86
01-300-9402	1-86
01-300-9403	1-86
01-300-9416	1-86
01-300-9417	1-86
01-300-9418	1-86
01-300-9419	1-83
01-301-8013	1-27
01-302-3516	1-23
01-302-3711	1-69
01-302-6043	1-64
01-302-9683	1-81
01-305-4769	1-46
01-306-7827	1-71
01-306-7834	1-10
01-307-2489	1-66
01-311-6917	1-85
01-313-4096	1-192
01-313-4097	1-192
01-314-1814	1-173
01-316-1082	1-25
01-316-7423	1-94
01-317-1461	1-78
01-317-2805	1-78
01-318-0717	1-42
01-319-0749	1-23
01-320-8223	1-102
01-320-8238	1-55
01-320-8239	1-55
01-322-2123	1-106
01-322-2124	1-106
01-322-5115	1-66
01-322-6409	1-82
01-324-8208	1-31
01-325-6379	1-93
01-327-2021	1-79
01-327-2022	1-79
01-327-2023	1-79
01-327-4148	1-85
01-327-4149	1-85
01-327-4150	1-85
01-329-5024	1-93
01-329-5025	1-93
01-330-9936	1-58
01-331-2880	1-105
01-335-0696	1-181
01-335-1418	1-165
01-335-1419	1-165
01-335-1420	1-165
01-335-1590	1-168
01-336-4192	1-168
01-336-4193	1-168
01-336-7141	1-230
01-337-7289	1-23
01-339-1571	1-62
01-341-4284	1-24
01-341-7448	1-157
	1-157
01-342-3196	1-166
01-345-2629	1-24
01-345-2630	1-24
01-345-8917	1-23
01-346-1996	1-82
01-346-5339	1-172
	1-179
01-346-5341	1-172
01-346-7918	1-23
01-348-3833	1-23
01-348-4490	1-79
01-348-4491	1-79
01-348-7365	1-79
01-352-2309	1-23
01-355-9202	1-108
01-358-2530	1-92
01-358-2905	1-87
01-358-2906	1-87
01-361-4042	1-87
01-363-2569	1-94
01-363-4159	1-97
01-364-2169	1-83
01-364-2994	1-83
01-367-3795	1-199
01-367-3801	1-199
01-367-3878	1-174
01-367-3936	1-225
01-367-4647	1-174
01-367-4650	1-174
01-375-7243	1-105
01-375-7280	1-23
01-376-1728	1-77
01-377-3155	1-23
01-377-6999	1-24
01-378-4842	1-64
01-382-2063	1-26
01-382-9136	1-162
01-385-7354	1-179
01-386-0784	1-225
01-386-1441	1-3
01-386-9355	1-51
01-386-9364	1-51
01-392-7059	1-69
01-392-8703	1-108
01-409-0980	1-82
01-433-9039	1-23
	1-23
01-442-9990	1-144
01-926-9460	1-78
90-287-3613	1-15

Please take a minute to provide feedback regarding this catalog.
Your comments are important and help to provide a quality product for you.

(Upon completion, tear off the card at the perfs, fold in half, seal with tape and mail.)

DLIS QUALITY FEEDBACK CARD (CATALOG)

DLIS Account No.			Submission Date
Product Name/Number/Edition/Date			Page/Ref/Ident/Etc.
Component ❒ Air Force ❒ Navy ❒ DoD ❒ Coast Guard ❒ Army ❒ Marines ❒ Civilian ❒ Other	Name:		Phone (DSN or Comm):
	Organization:		
	Address:		
	City/State/Zip:		
	Requisition/Voucher No.	Distribution Rating _____ Product Rating _____	Poor (1) → Excellent (10)

Would you like to see the existing three sections of the Afloat Shopping Guide (ASG) merged into one book? YES _____ NO _____

Quality Problem

__ Received wrong catalog	__ Catalogs received late	__ Incorrect position
__ Received incorrect quantities	__ Border info incorrect	__ Obscure/missing data
__ Received in poor condition	__ Height/depth incorrect	__ Inconsistent data

Description of Quality Problem(s):

Comments:

.

FOR DLIS USE ONLY			CUSTOMER ASSISTANCE: 1-888-352-9333 or DSN 932-4725
Control Number	**Received By/Date**	**Reply Date**	This card does not replace existing procedures for submitting requisitions or requesting automatic distribution.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO 1267 BATTLE CREEK MI

POSTAGE WILL BE PAID BY ADDRESSEE

DLIS-VSM

DEFENSE LOGISTICS INFORMATION SERVICE
74 WASHINGTON AVE N STE 7
BATTLE CREEK MI 49017-9915

Fold Here

Fold Here

Seal With Tape Only

Produced by:

DLIS

ELECTRONIC DOCUMENTS/PRODUCTS BRANCH
DEFENSE LOGISTICS INFORMATION SERVICE
74 WASHINGTON AVE N
BATTLE CREEK MI 49017-3084

Telephone: DSN 932-4690
Commercial (616) 961-4690

FAX: DSN 932-4983
Commercial: (616) 961-4983