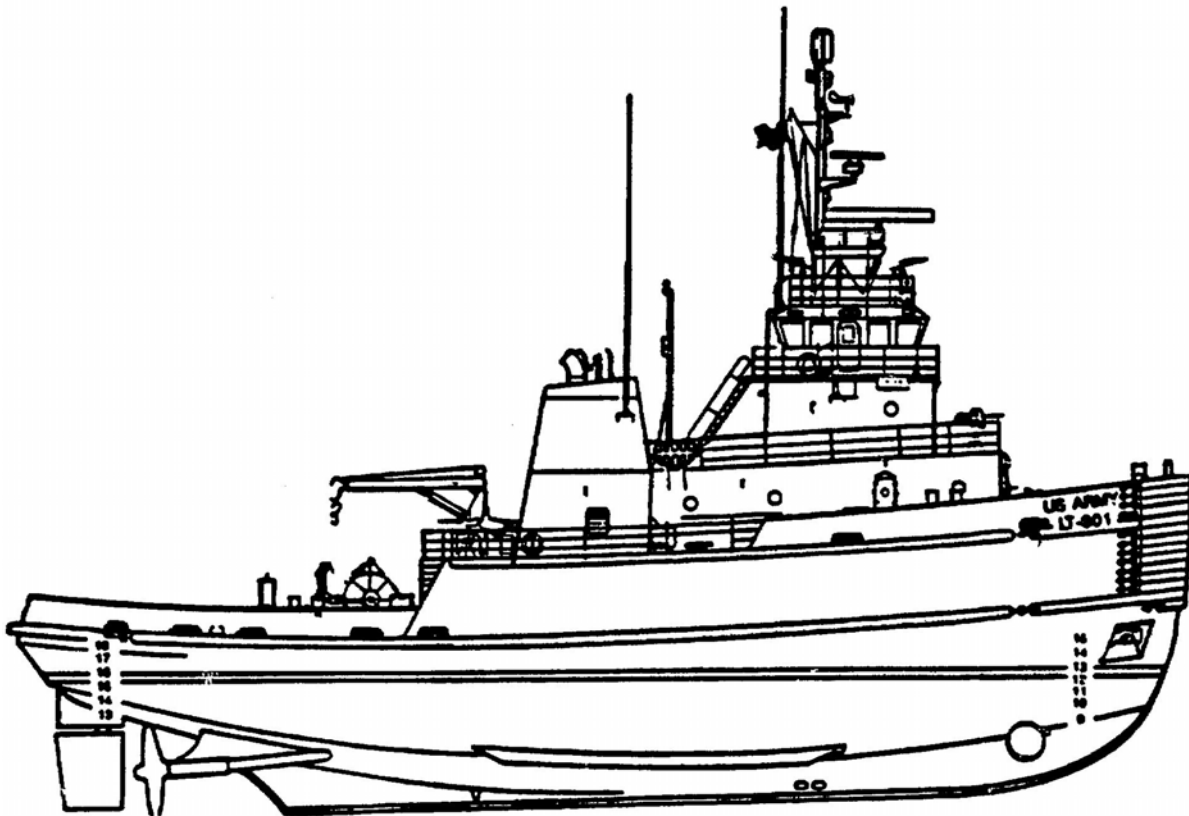


**TECHNICAL MANUAL
OPERATOR'S MANUAL
FOR
INLAND
AND
COASTAL
LARGE TUG (LT)
NSN 1925-01-247-7110**

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Original	0	26 May 1992
Change	1	15 January 1993
Change	2	28 February 1994
Change	3	28 December 1994
Change	4	30 December 1996
Change	5	30 November 2003.

Page No.	Change No.	Page No.	Change No.
Cover	0	B-72	3
A/(B blank)	5	B-73	4
a	0	B-74	0
b	5	B-75	0
c/(d blank)	0	B-76	2
i	5	B-77	0
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3-1 through 3-14	0	B-79	3
3-15	2	B-80	4
3-16 through A-4	0	B-81 and B-82	1
B-1	3	B-83	0
B-2	0	B-84	4
B-3	0	B-85	0
B-4	3	B-86	4
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B-8	1	B-88	3
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B-36	0	B-95	3
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B-40	0	B-103	0
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B-46 through B-49	3	B-113 through B-115	3
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B-54	3	C-1/(C-2 blank)	0
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B-69	0		
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CHANGE

NO. 5

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for
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i and I

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B-115 and B-116

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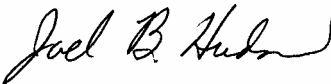
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LARGE TUG (LT)
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i and ii
B-15 through B-18
B-21 through B-26
B-31 and B-32
B-65 through B-68
B-73 and B-74
B-77 through B-80
B-83 through B-86
B-101 and B-102
B-105 and B-106
D-1 and D-2

Insert pages

i and ii
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B-21 through B-26
B-31 and B-32
B-65 through B-68
B-73 and B-74
B-77 through B-80
B-83 through B-86
B-101 and B-102
B-105 and B-106
D-1 and D-2

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B-101 and B-102
B-105 and B-106
B-113/(B-114 blank)
D-1 and D-2

Insert pages

B-1 through B-4
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B-101 and B-102
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D-1 and D-2

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Insert pages

i and ii
3-15 and 3-16
B-75 and B-76

i and ii
3-15 and 3-16
B-75 and B-76

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B7 and B-8

B-13 and B-14

B-57 through B-60

B-63 and B-64

B-81 and B-82

B-103 and B-104

Insert pages

B-7 and B-8

B-13 and B-14

B-57 through B-60

B-63 and B-64

B-81 and B-82

B-103 and B-104

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INTRODUCTION

This manual is divided into two volumes:

Volume 1, TM 55-1925-207-10-1 consists of Chapters 1 and 2,
Volume 2, TM 55-1925-207-10-2 consists of Chapter 3 through Appendixes A through E.

The Appendixes in Volume 2 are applicable to both volumes.

WARNING

MODIFICATION HAZARD

Unauthorized modifications, alterations or installations to this equipment are prohibited and are in violation of AR 750-10. Any such unauthorized modifications, alterations or installations could result in death, injury or damage to the equipment.

HIGH PRESSURE HYDRAULIC SYSTEM HAZARDS

Hydraulic systems can cause serious injuries if high pressure lines or equipment fail.

Never work on hydraulic systems or equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment, and who can give first aid. A second person should stand by controls to turn off hydraulic pumps in an emergency.

MOVING MACHINERY HAZARDS

Be very careful when operating or working near moving machinery. Running engine, rotating shafts, and other moving parts could cause personal injury or death.

ELECTRICAL HAZARDS

Do not be misled by the term "low voltage." Potentials as low as 50 volts may cause death under adverse conditions. Be careful not to contact 115-Vac input connections when installing operating equipment. Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through the body.

FLAMMABLE LIQUID AND COMBUSTIBLE VAPOR HAZARDS

Gasoline, fuel oil, lubricating oil, grease, paint, paint thinner, cleaning solvents and other combustible liquids present a serious fire hazard. Always store combustible liquids in approved containers and in designated compartments or deck storage locations. Ensure exhaust and ventilation fans are operating while using cleaning solvents or paint products. Never store or charge batteries in a confined space without ventilation or near operating electrical equipment.

When refueling and defueling the vessel, ensure appropriate signs are posted in visible locations and warnings are announced over the vessel's public address system. Smoking, welding and any operation which involves open flames must be prohibited throughout the vessel.

CAUSTIC AND CORROSIVE CHEMICAL HAZARDS

Battery acid and water purification chemicals such as bromine and chlorine can cause serious burns to eyes or exposed areas of skin. Always wear eye protection and protective clothing when working with caustic and corrosive chemicals. If chemical accidentally contacts skin or eyes, immediately flush with large quantities of water and seek medical attention.

COMPRESSED AIR HAZARDS

High pressure compressed air tanks, piping systems and air operated devices possess potential for serious injury to eyes and exposed areas of skin due to escaping air pressure.

ELECTROMAGNETIC RADIATION HAZARDS

Electromagnetic radiation from the searchlight, radar, and radio antennas has the potential for serious radiation burns. Do not stand in the path of radiation emissions.

HIGH TEMPERATURE FLUID HAZARD

Hot fluids such as engine coolants, hot water, engine lubrication oil, and hot hydraulic fluid possess the potential for serious burns to personnel.

HIGH INTENSITY LIGHT HAZARDS

High intensity light from the searchlight and other flood lights possess the potential to shatter lens covers creating a danger from flying glass.

Never stand directly in front of the searchlight or other powerful lights. Allow elements and bulbs to cool prior to performing maintenance. If elements and bulbs must be replaced while hot, wear protective gloves.

HALON FIRE SUPPRESSANT HAZARDS

All personnel must immediately evacuate spaces when HALON fire suppressant systems are activated. HALON displaces oxygen to smother combustion. It can cause death by suffocation if personnel do not evacuate within 25 seconds after activating handle is pulled.

FM-200 FIRE SUPPRESSANT HAZARDS

In the event the FM-200 system electric horns/strobes or the warning lights (amber strobes) are activated always leave the protected space immediately. FM-200 is being released within 60 seconds.

FIRE SUPPRESSANT HAZARDS

Fire suppressant chemicals displace oxygen and can cause suffocation. Immediately evacuate areas where they will be used.

For Artificial Respiration, refer to FM 21-11.

TECHNICAL MANUAL
NO. 55-1925-207-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 26 May 1992

OPERATOR'S MANUAL
for
INLAND AND COASTAL LARGE TUG (LT)

NSN 1925-01-247-7110

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**CHAPTER 3
MAINTENANCE INSTRUCTIONS**

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SECTION I.

LUBRICATION INSTRUCTIONS

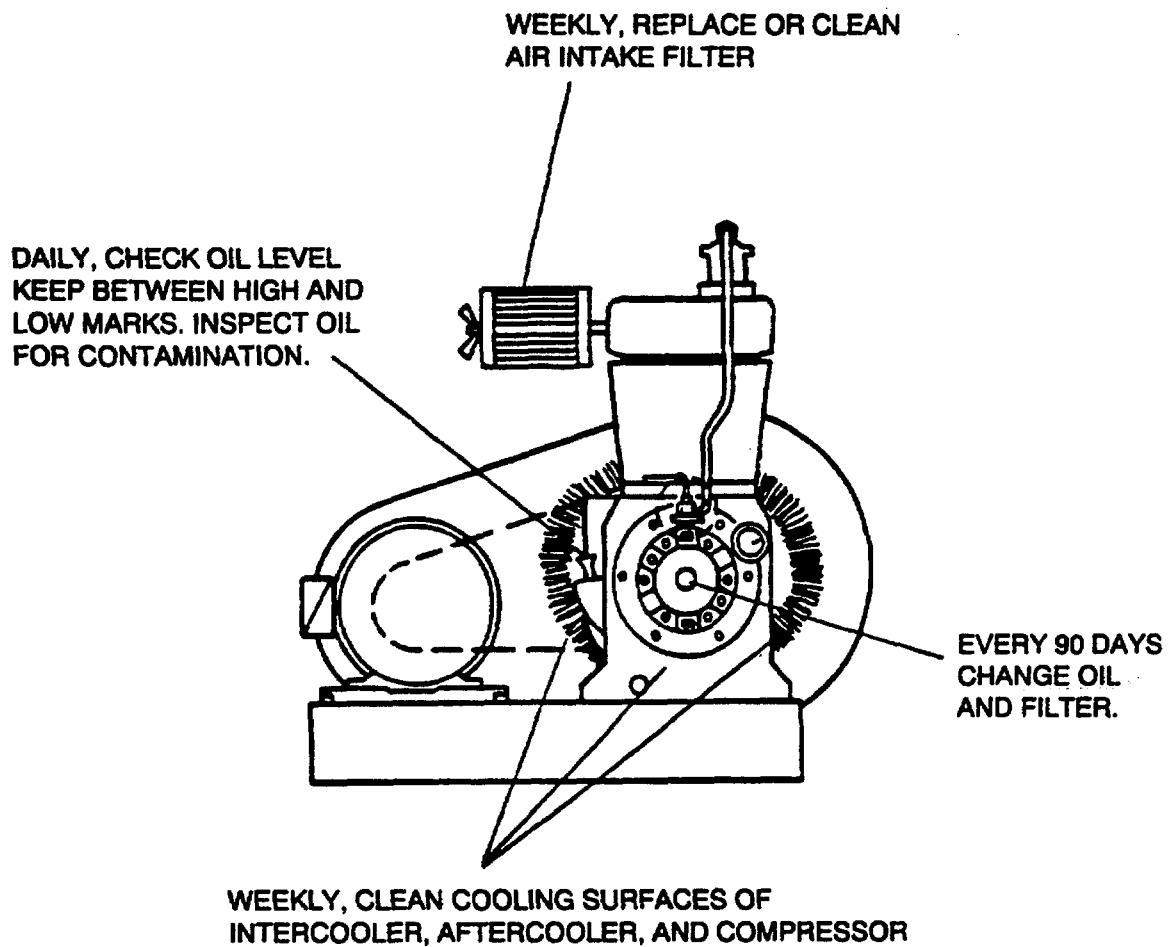
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3-1. General. Lubrication is an essential part of the preventive maintenance program. Performance of these operator lubrication instructions are mandatory.

For lubrication instructions for equipment not covered, refer to LO 55-1925-207-12.

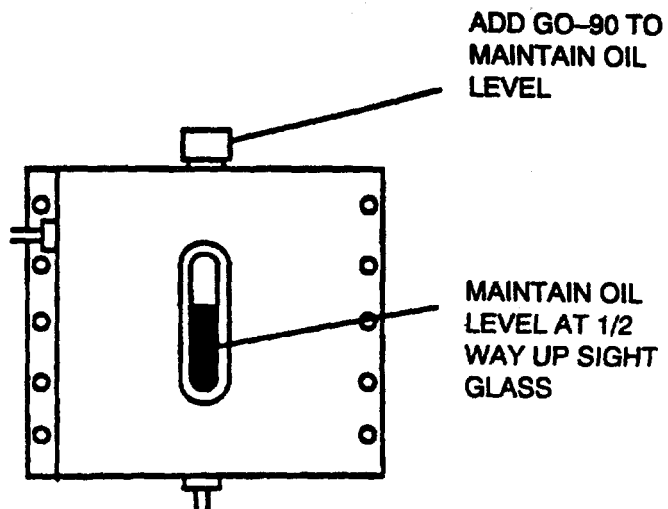
3-2. Air compressor.

LUBE IT!



NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-3. Bow Thruster.

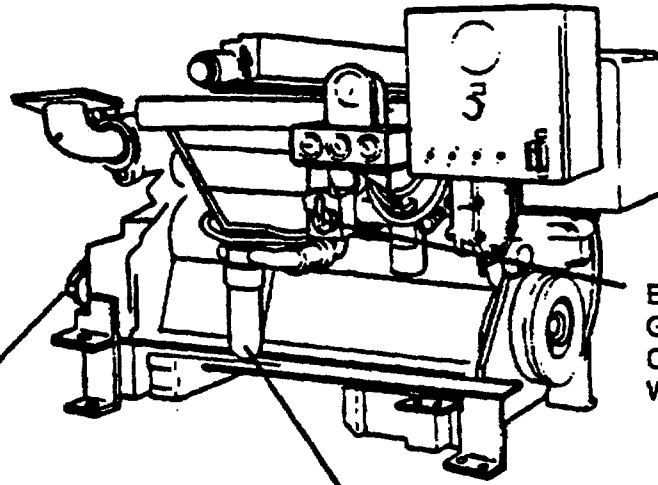


NOTE

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3-4. Bow Thruster Engine

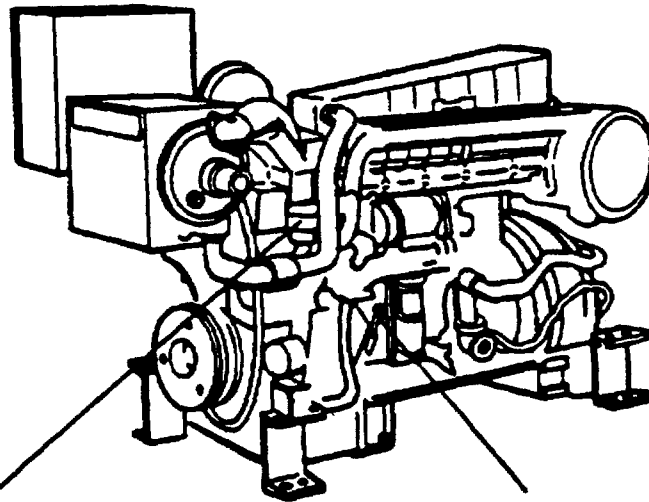
LUBE IT



EVERY SIX MONTHS,
GREASE GOVERNOR
CONTROL LINKAGE
WITH GGP.

GREASE FITTINGS. USE GREASE GUN
TO LUBE FOUR PLACES WITH GGP
EVERY SIX MONTHS

DAILY, CHECK AIR STARTER OILER OIL LEVEL. CUP
MUST BE AT LEAST 1/2 FULL. ADD OE/HDO-10 AS
REQUIRED. EMPTY WATER COLLECTOR JAR.

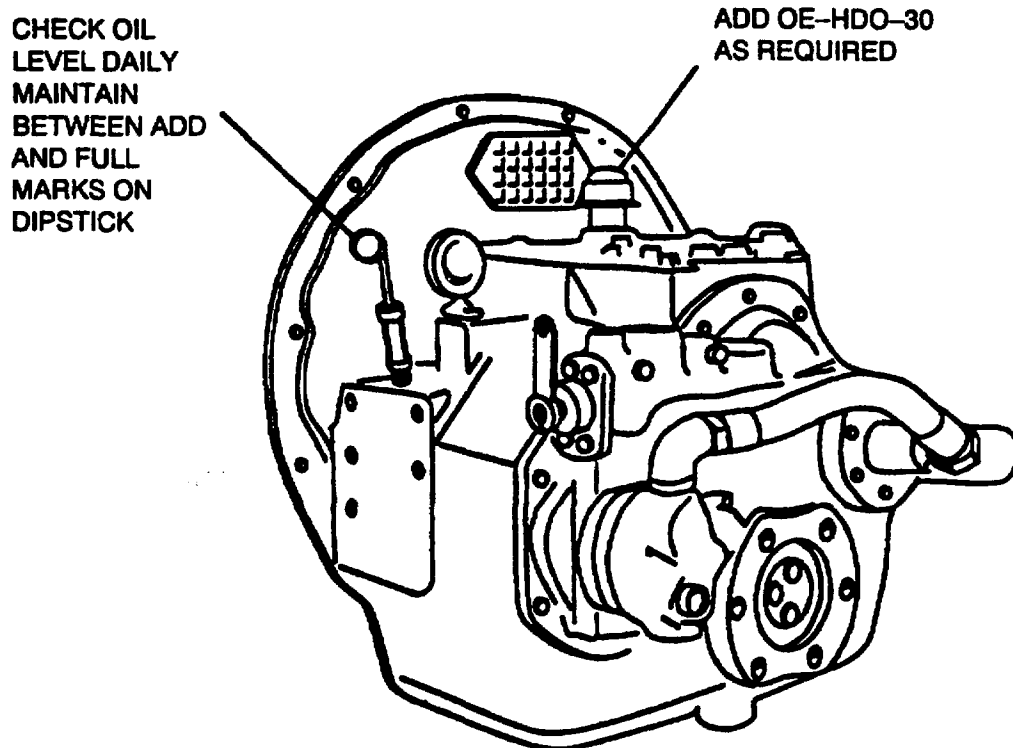


OIL FILL CAP, ADD
OE/HDO-30 AS REQUIRED

DAILY, CHECK OIL
LEVEL ON DIPSTICK

NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-4. Bow Thruster Engine - continued.



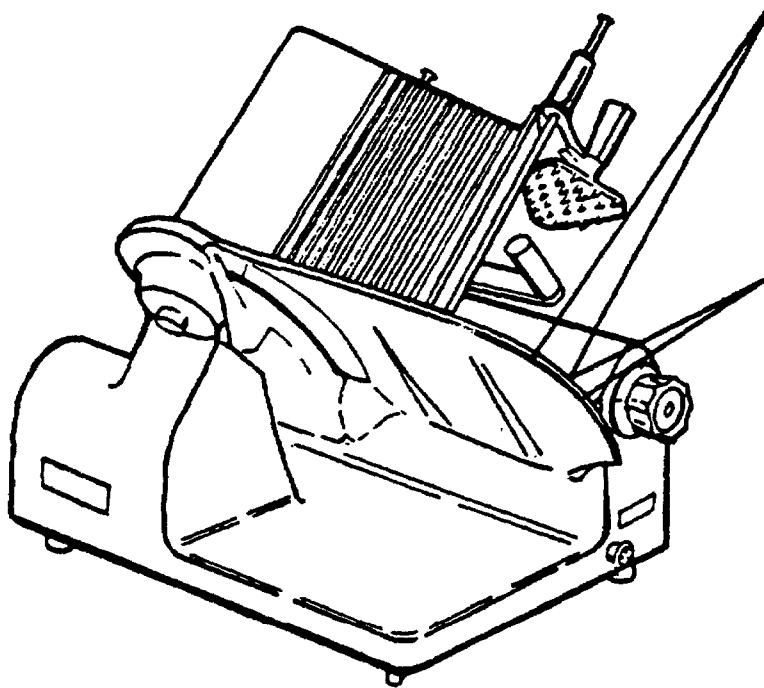
NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-5. Cathodic Protection system.

There are no lubrication requirements for the cathodic protection system.

3-6. Commissary Equipment

a. Meat Slicer



UPPER AND LOWER
CARRIAGE SLIDE
RODS SHOULD BE
LUBRICATED WITH
FOOD PROCESSING
EQUIPMENT OIL
(DOD-L-24651)
(WEEKLY)

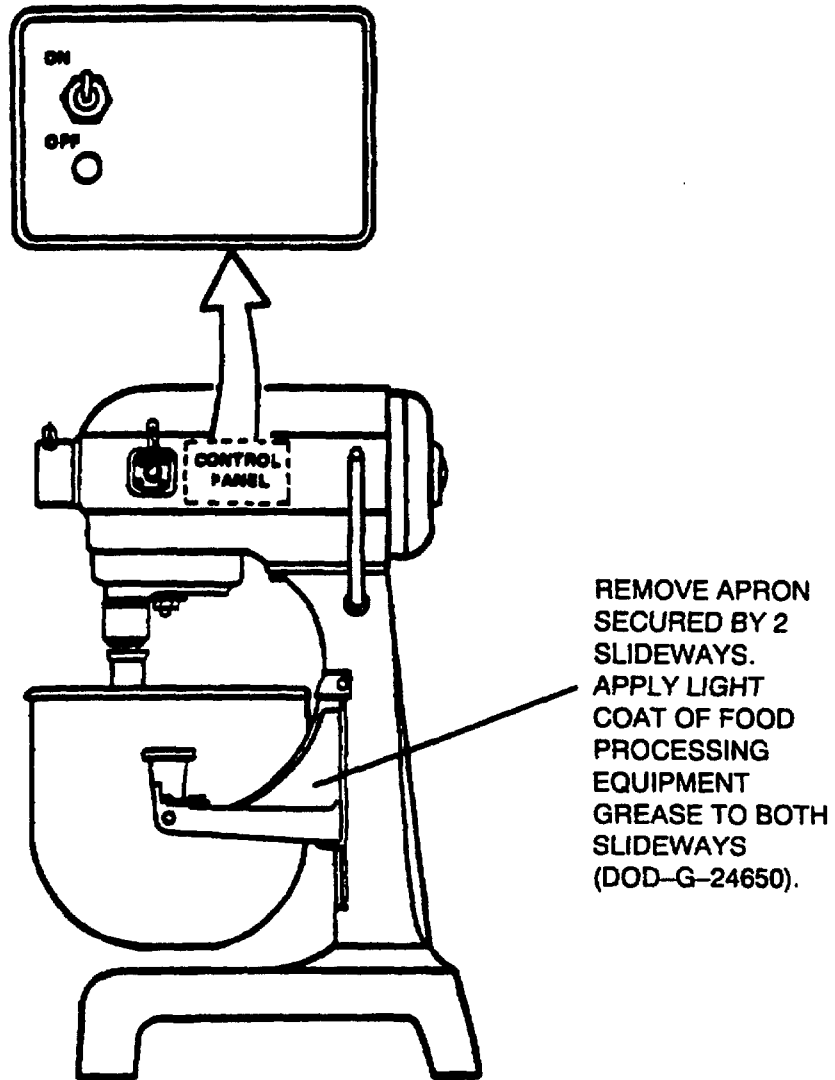
TURN INDEX FULLY
COUNTERCLOCKWISE &
LIGHTLY LUBRICATE
WITH FOOD
PROCESSING
EQUIPMENT OIL
(DOD-L-24651)
(OCCASIONALLY)

NOTE

THESE LUBRICATION INSRUCTIONS ARE MANDATORY

3-6. Commissary Equipment - continued.

b. Mixer

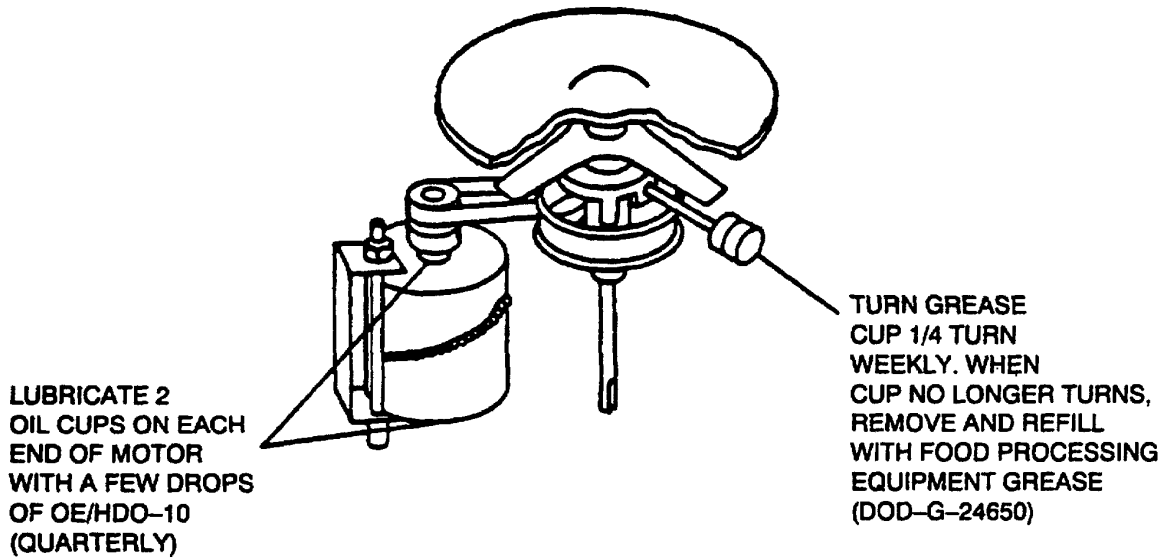


NOTE

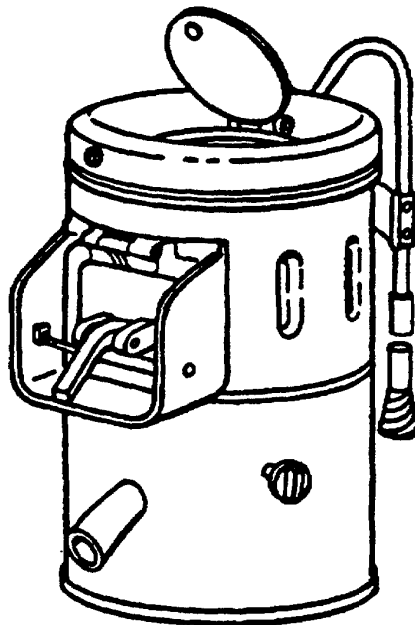
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-6. Commissary Equipment- continued.

c. Peeler.



TO EXPOSE AREAS TO BE LUBRICATED, TURN PEELER ON SIDE AND REMOVE BASE

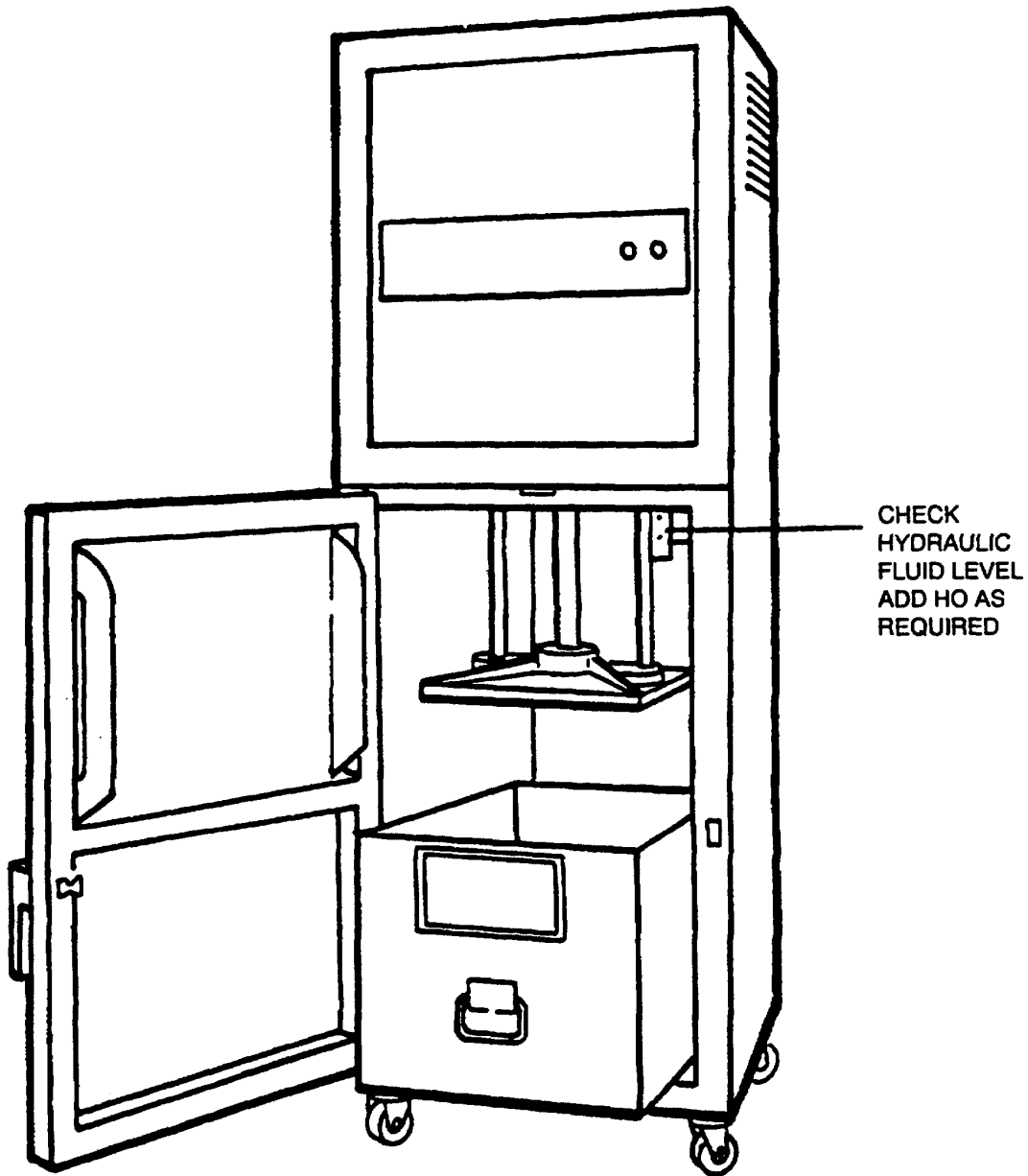


NOTE

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3-6 Commissary Equipment - continued.

b. Trash Compactor

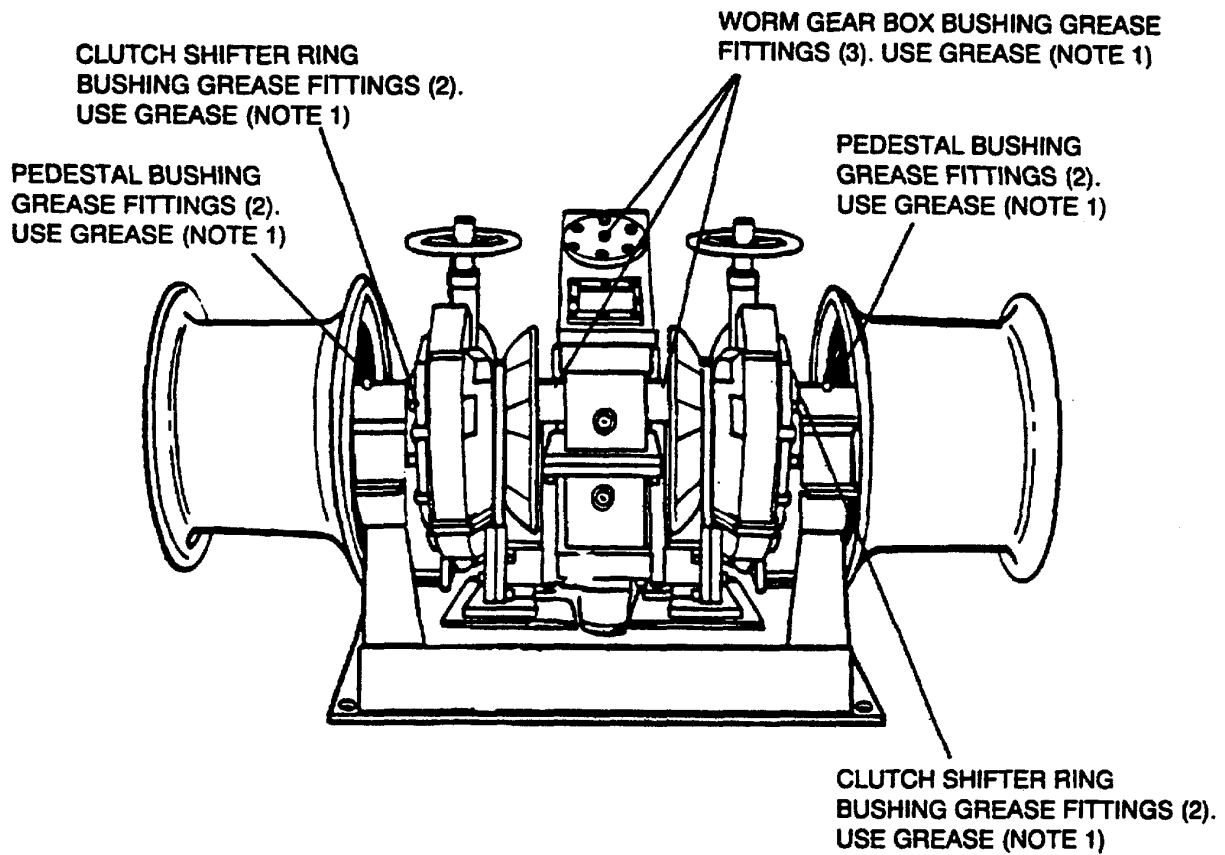


NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems.

a. Anchor Windlass.



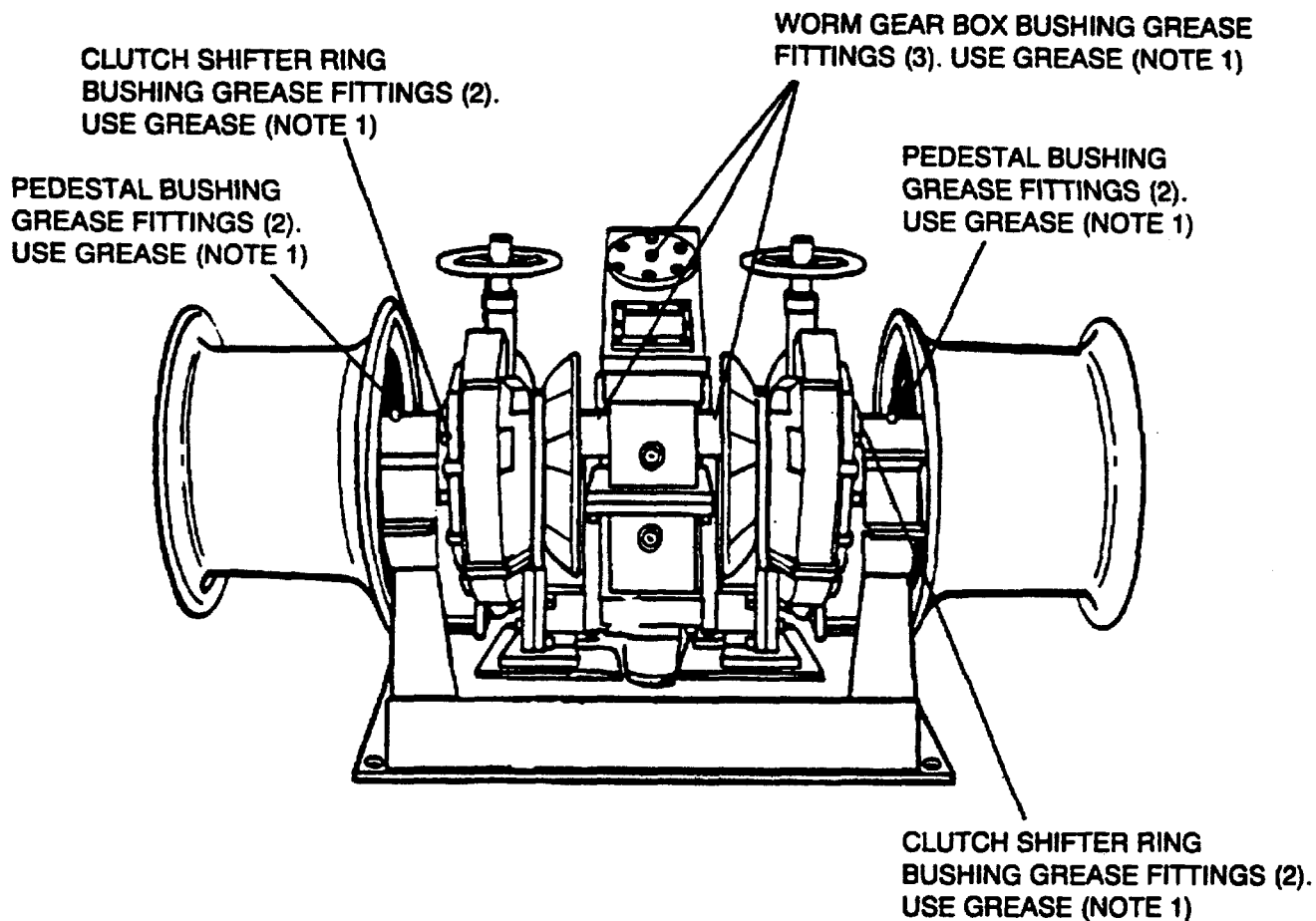
NOTE 1: USE GREASE (DOD-G-24508A) IN GREASE GUN AND APPLY TWO STROKES AT EACH FITTING MONTHLY

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems.

a. Anchor Windlass - continued.



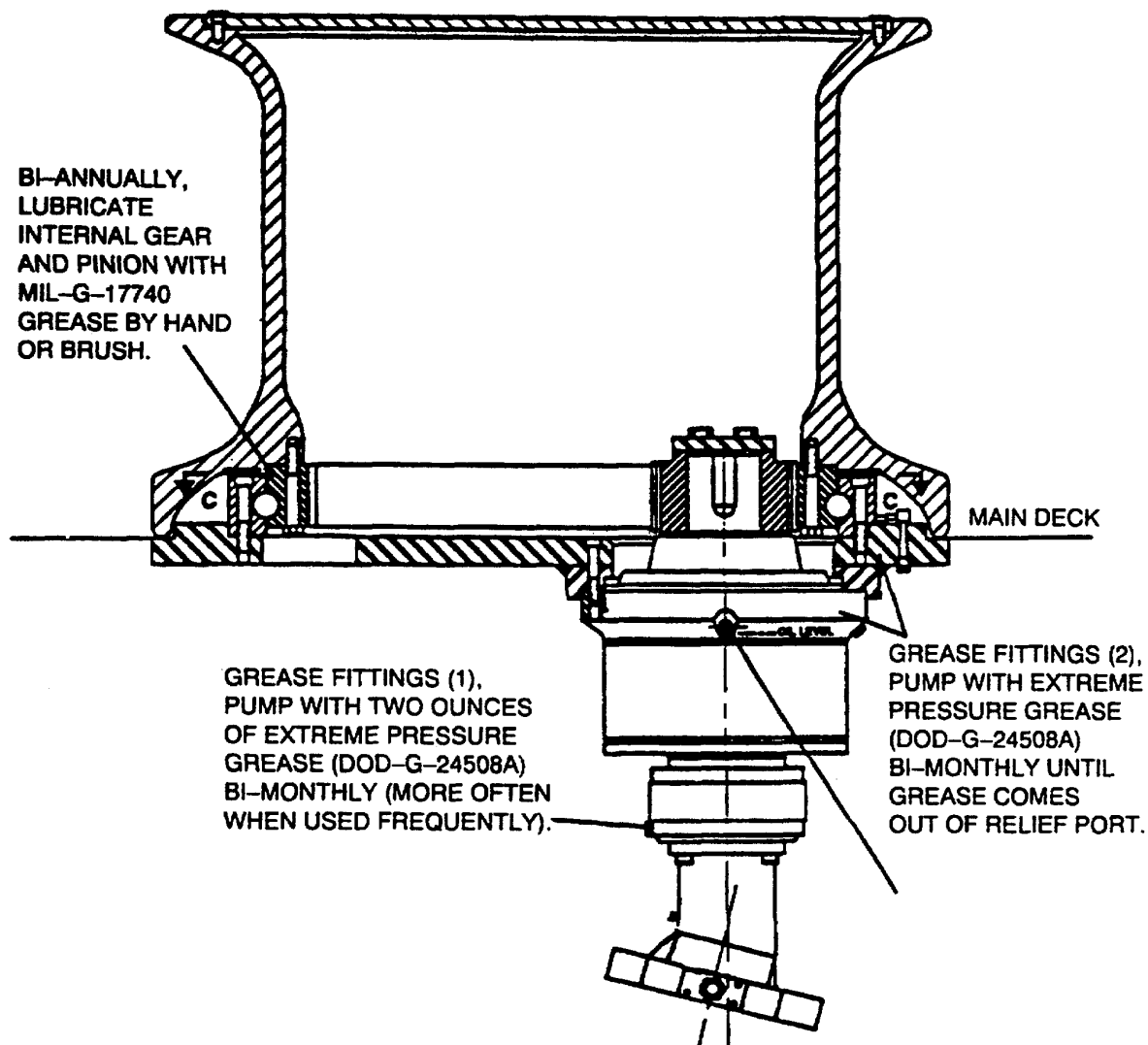
NOTE 1: USE GREASE (DOD-G-24508A) IN GREASE GUN AND APPLY TWO STROKES AT EACH FITTING MONTHLY

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems.- continued

b Capstan.

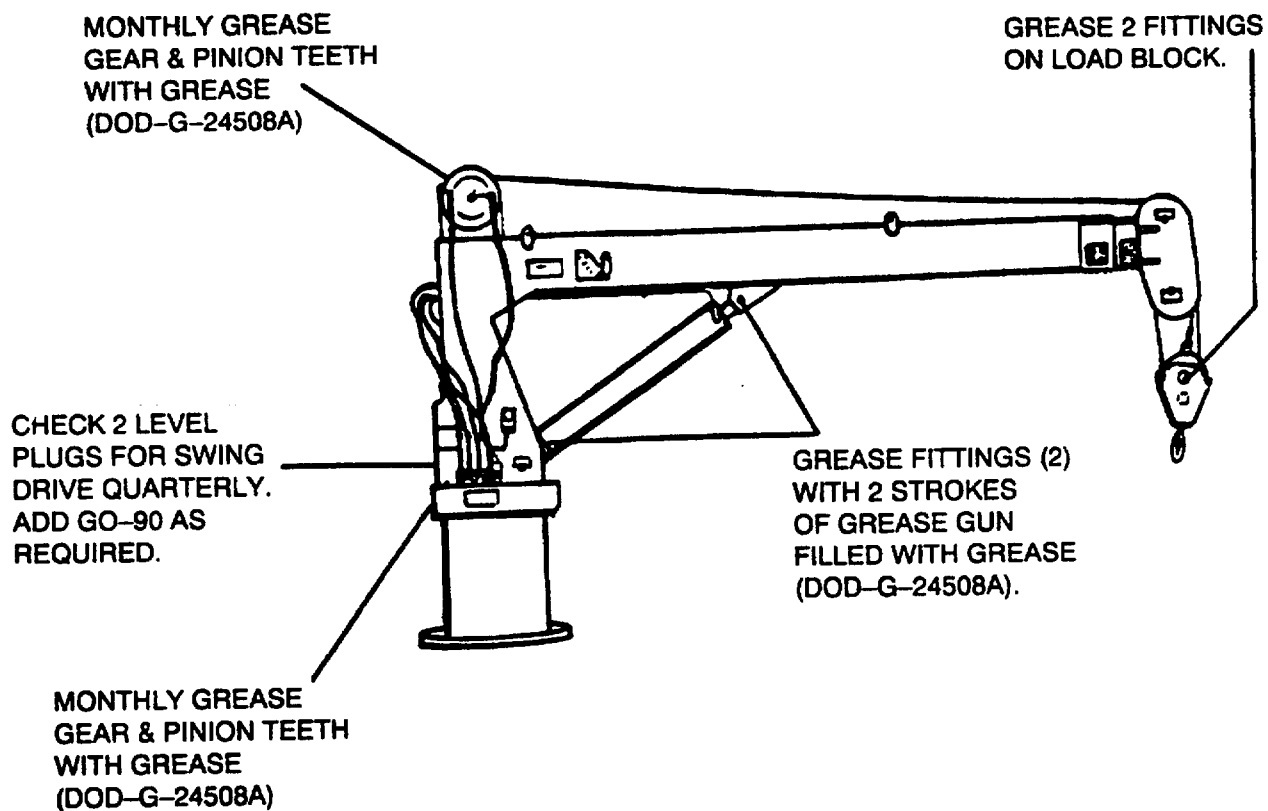


NOTE

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3-7. Deck Machinery and Hydraulic Systems.- continued

c Crane.

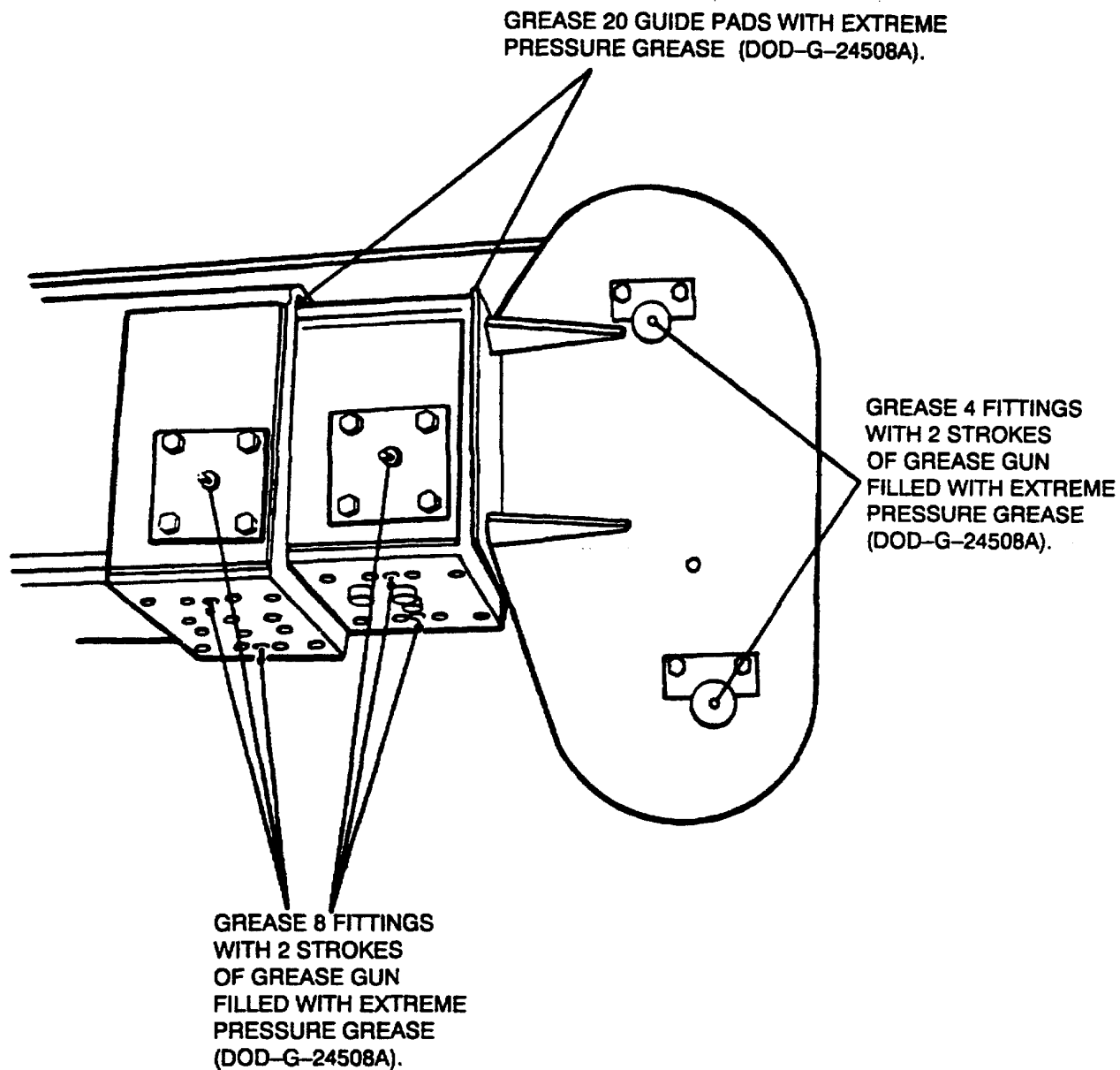


NOTE

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3-7. Deck Machinery and Hydraulic Systems.- continued

c Crane.- continued..



NOTE

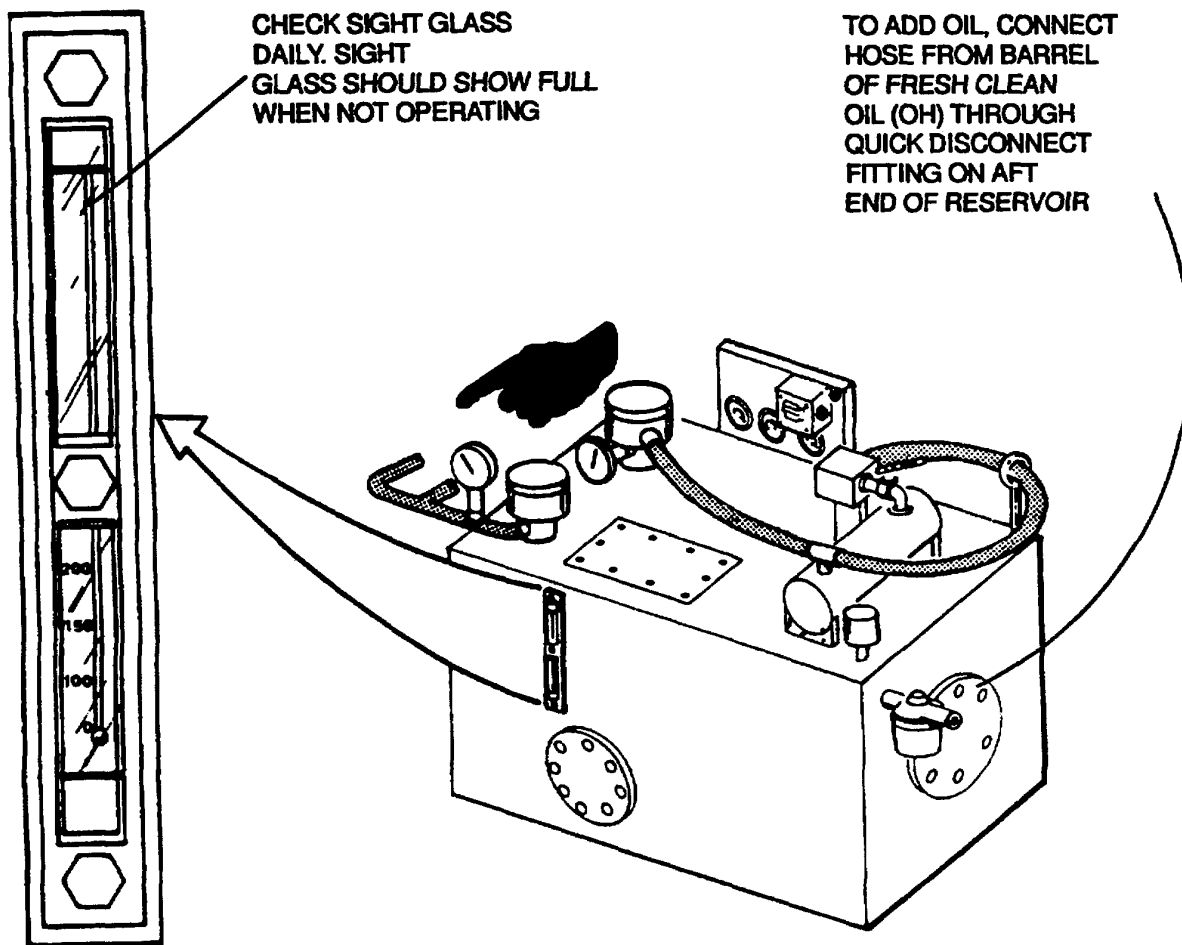
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems.- continued

d Tow pins.

There are not lubrication requirement for the tow pins

e Tow Winch Hydraulic Oil Sump.

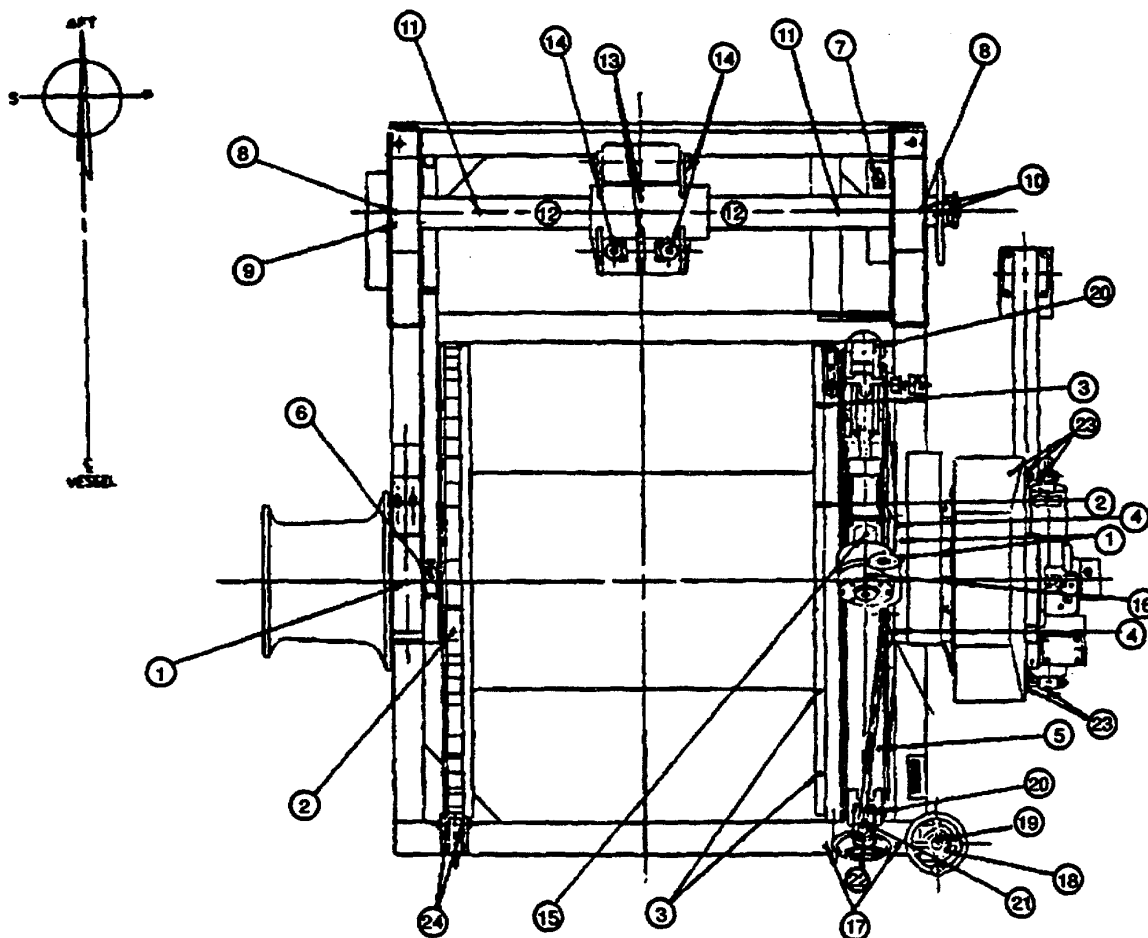


NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems.- continued

f Tow Winch



SYMBOL ● INDICATES PLACE OF APPLICATION IN VIEW

SYMBOL ○ INDICATES PLACE OF APPLICATION IN VIEW BUT ACCESSIBLE UNDER

NOTES:

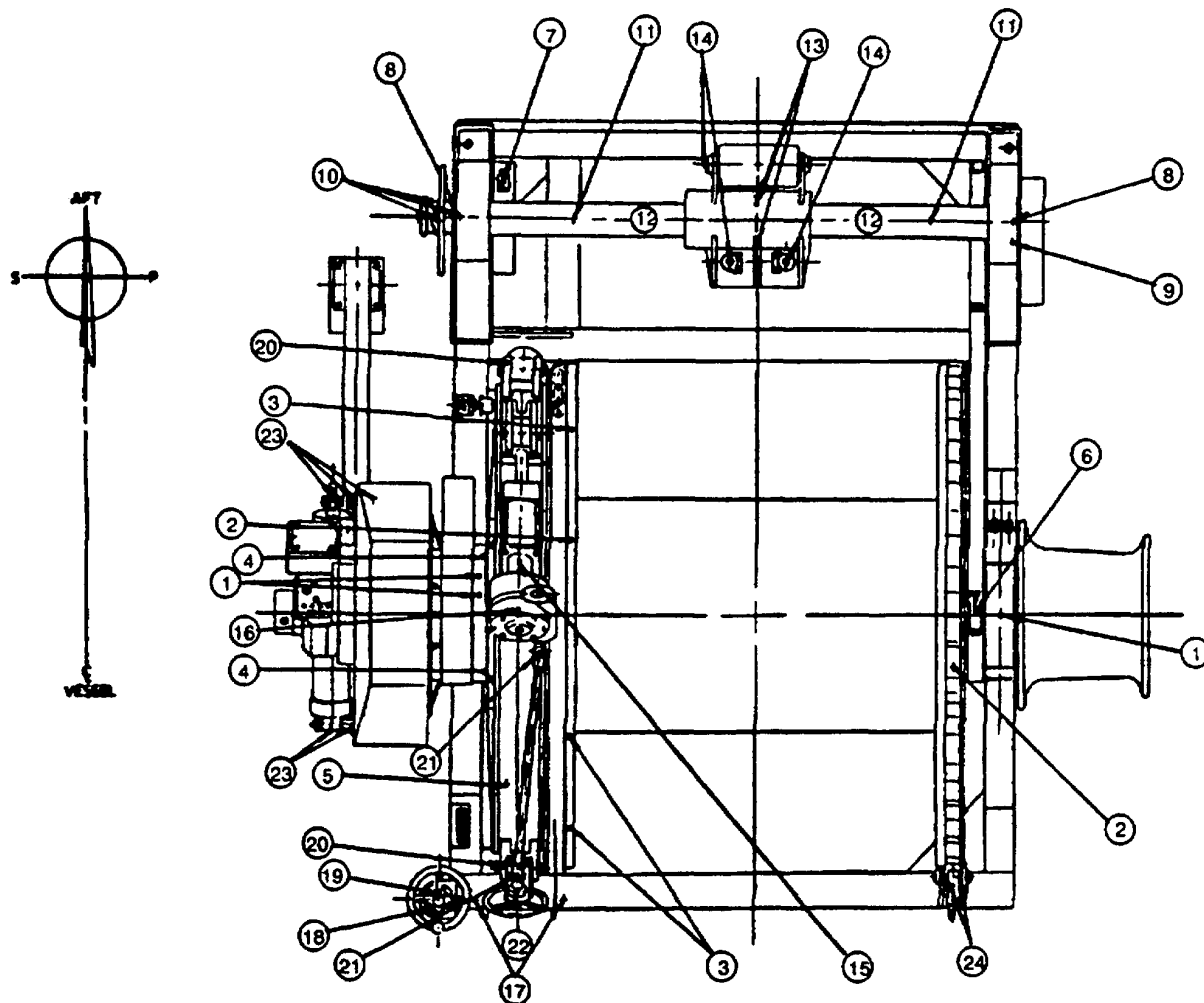
1. NUMBER OF POINTS IS FOR BOTH TOWING MACHINES WHICH ARE ESSENTIALLY SYMMETRICAL BUT OPPOSITE HAND.
2. FREQUENCY OF APPLICATION IS BASED ON FAIRLY CONSTANT OPERATION. FOR LONG PERIODS AT LEAST ONE REVOLUTION OF THE DRUM, EITHER BY HAND OR UNDER POWER SO THAT THE GEAR AND BEARING SURFACES CAN BE RE-COATED WITH LUBRICANT

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems - continued.

f. Tow Winch - continued.



SYMBOL • INDICATES PLACE OF APPLICATION IN VIEW

SYMBOL + INDICATES PLACE OF APPLICATION IN VIEW BUT ACCESSIBLE UNDER

NOTES:

1. NUMBER OF POINTS IS FOR BOTH TOWING MACHINES WHICH ARE ESSENTIALLY SYMMETRICAL BUT OPPOSITE HAND
2. "FREQUENCY" OF APPLICATION IS BASED ON FAIRLY CONSTANT OPERATION. FOR LONG PERIODS OF INACTIVITY THE MACHINE SHOULD BE ROTATED FOR AT LEAST ONE REVOLUTION OF THE DRUM, EITHER BY HAND OR UNDER POWER SO THAT THE GEAR AND BEARING SURFACES CAN BE RE-COATED WITH LUBRICANT.

NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

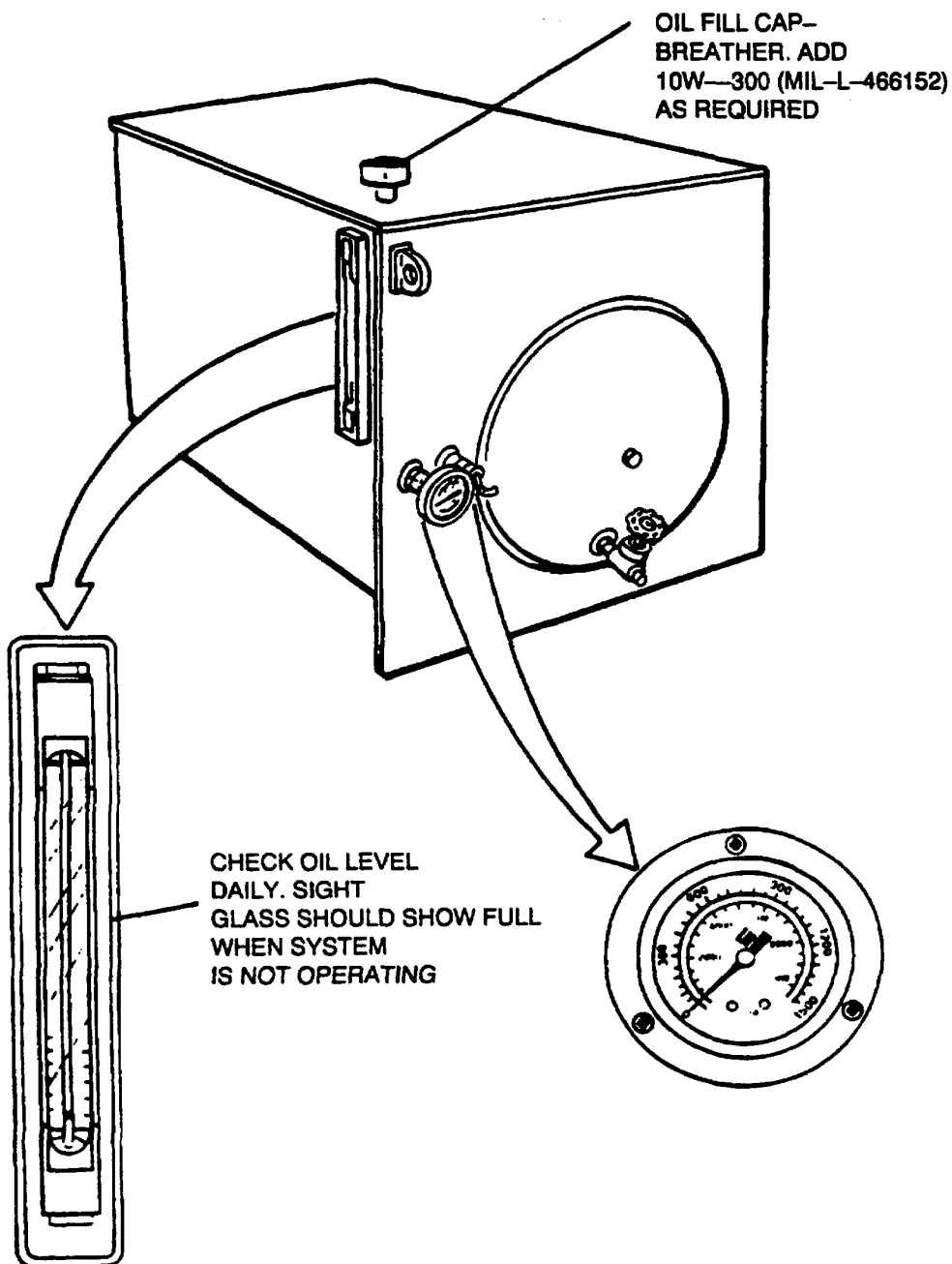
3-7. Deck Machinery and Hydraulic Systems - continued.

f. Tow Winch - continued.

NO.	PART LUBRICATED	NO. PTS.	METHOD	LUBRICANT	MILITARY SPECIFICATION	FREQUENCY OF APPLICATION
1	DRUM SHAFT BEARINGS	6	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
2	DRUM BEARINGS	4	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
3	PLANETARY GEAR	6	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
4	HUB MEMBER BEARING	4	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
5	PLANETARY GEAR TRAIN	2	PADDLE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
6	SPOOLING DEVICE CHAIN DRIVE	2	BRUSH	GRADE NO. 5 ADHESIVE LUBRICANT	DOD--24508A	BI-YEARLY
7	DIAMOND SHAFT CHAIN DRIVE	2	BRUSH	GRADE NO. 5 ADHESIVE LUBRICANT	MIL-C-18458A	BI-YEARLY
8	DIAMOND SHAFT BEARINGS	4	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
9	SPOOLING DEVICE INTERMEDIATE SHAFT OUTBOARD BEARING	2	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
10	SPOOLING DEVICE CLUTCH HANDWHEEL AND HUB	6	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	DAILY WHEN OPERATING
11	DIAMOND SHAFT	2	BRUSH	EXTREME PRESSURE GREASE	DOD-C-24508A	DAILY WHEN OPERATING
12	SPOOLING DEVICE SLIDE SHAFT	2	BRUSH	EXTREME PRESSURE GREASE	DOD-C-24508A	DAILY WHEN OPERATING
13	SPOOLING DEVICE CARRIAGE	6	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	DAILY WHEN OPERATING
14	SPOOLING DEVICE ROLLERS	8	OIL CAN	OIL SAE 30	MIL-L-2105-C	WEEKLY
15	CLUTCH-BRAKE COMPRESSOR	2	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
16	CLUTCH-BRAKE COMPRESSOR GEAR REDUCER	2	BATH	GEAR OIL SAE 60 EP	MIL-L-2105-C	MAINTAIN LEVEL
17	AUXILIARY BRAKE INTERMEDIATE SHAFT BEARING	4	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
18	AUXILIARY BRAKE HANDWHEEL	2	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
19	AUXILIARY BRAKE TRUNNION	2	OIL CAN	OIL SAE 30	MIL-L-2105-C	WEEKLY
20	CLUTCH-BRAKE BAND ATTACHMENT LINES	4	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	WEEKLY
21	CLUTCH-BRAKE HANDWHEEL DRIVE SHAFT UNIVERSAL JOINTS	4	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
22	CLUTCH-BRAKE COMPRESSOR HANDWHEEL	2	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	MONTHLY
23	HYDRAULIC MOTOR BRAKE	10	PRESSURE	EXTREME PRESSURE GREASE	DOD-C-24508A	WEEKLY
24	MECHANICAL DOG PIN	2	OIL CAN	OIL SAE 30	MIL-L-2105-C	WEEKLY

3-7. Deck Machinery and Hydraulic Systems - continued.

g. Central Hydraulic Power Pack.



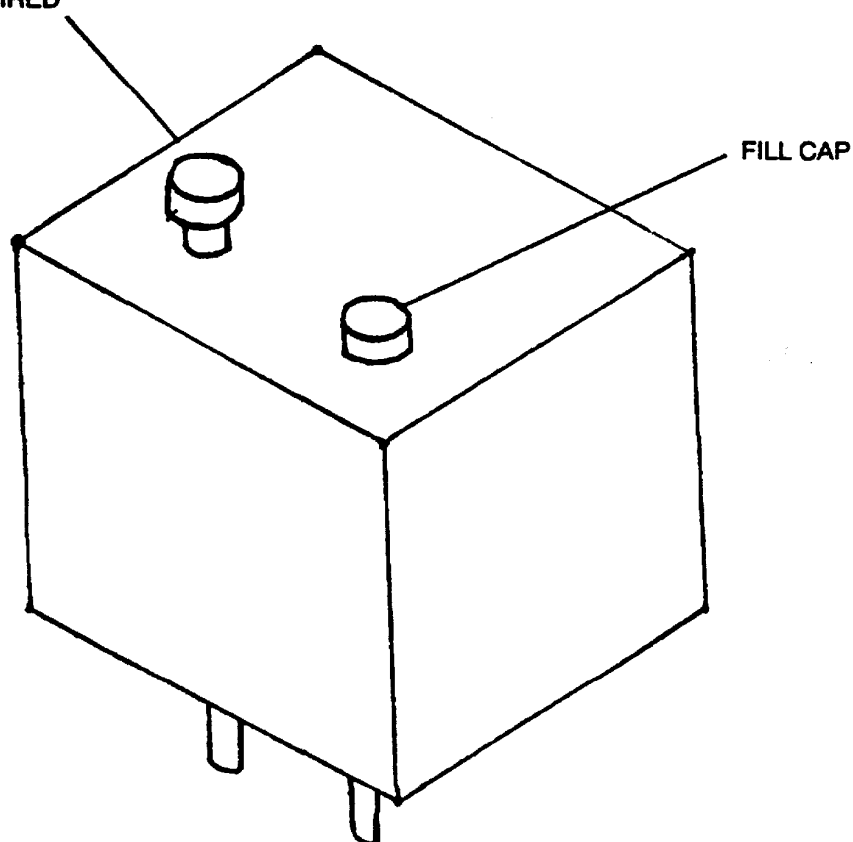
NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-7. Deck Machinery and Hydraulic Systems - continued.

g. Sliding Hydraulic Watertight Doors.

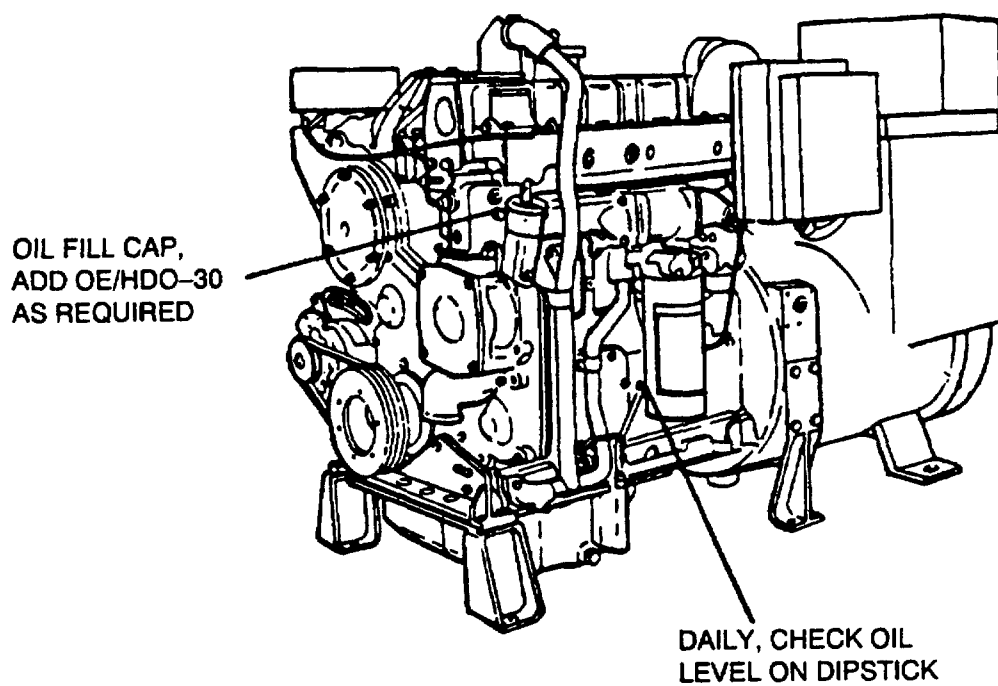
**CHECK OIL LEVEL
ON DIPSTICK
MONTHLY. FILL
WITH OH (MIL-H-
6083) AS REQUIRED**



NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-8. Emergency Generator



NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-9. Fuel Oil Filter/Coalescer

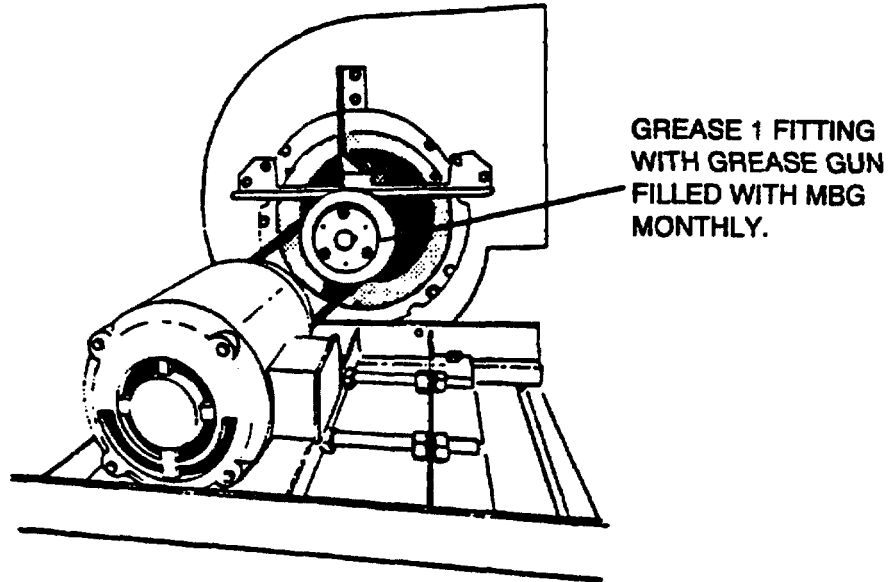
There are no lubrication requirements for the fuel oil filter/coalescer.

3-10. HALON 1301 Systems.

There are no lubrication requirements for the HALON 1301 systems.

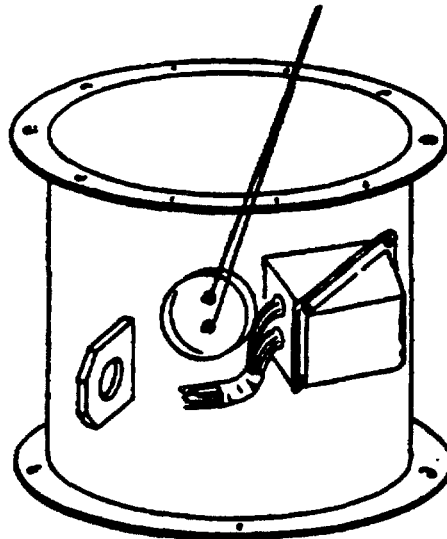
3-11. Heating, Ventilation, and Air Conditioning System.

a. Fan Coil Units.



b. Vaneaxial Fans.

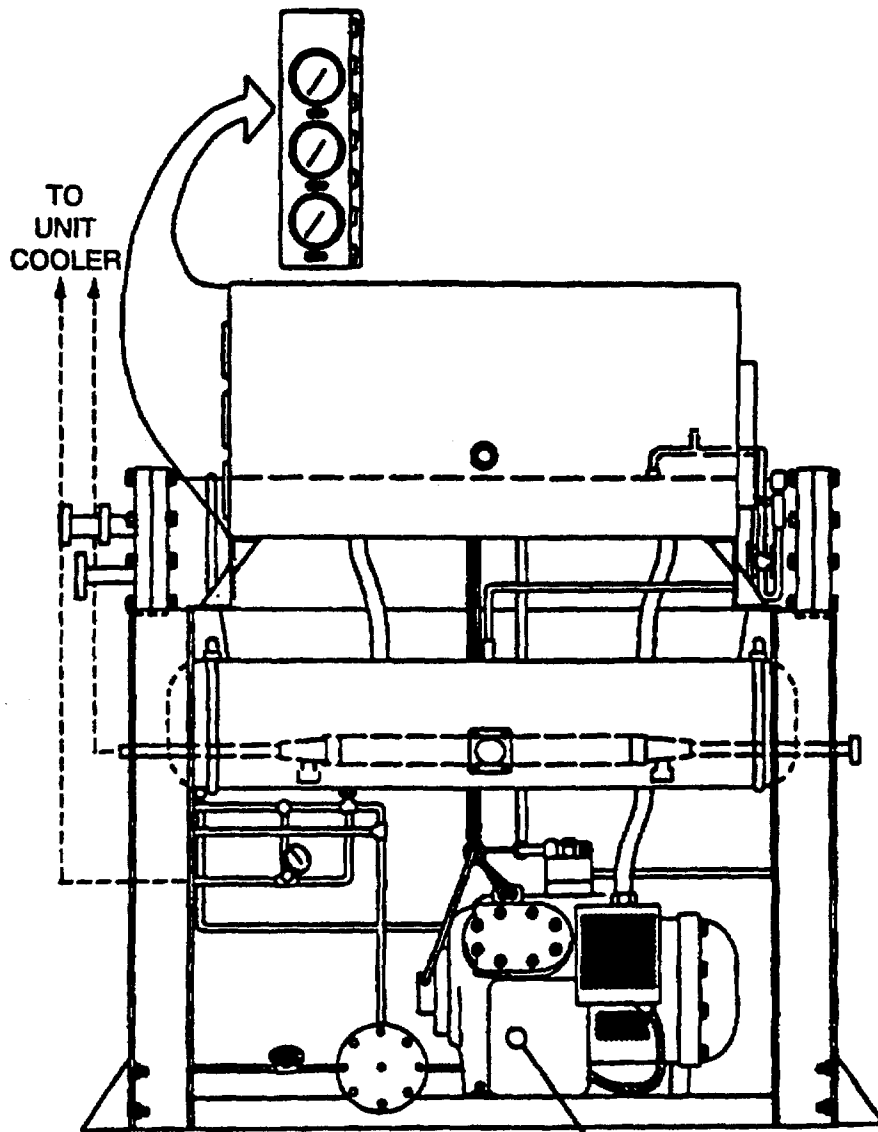
GREASE 2 FITTINGS WITH GREASE GUN
FILLED WITH MBG EVERY SIX MONTHS



NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-11. Heating, Ventilation, and Air Conditioning System - continued.

c. Air Conditioning Condensing Unit.



CHECK OIL LEVEL DAILY,
SHOULD BE APPROXIMATELY
1/2 FULL WHEN OPERATING

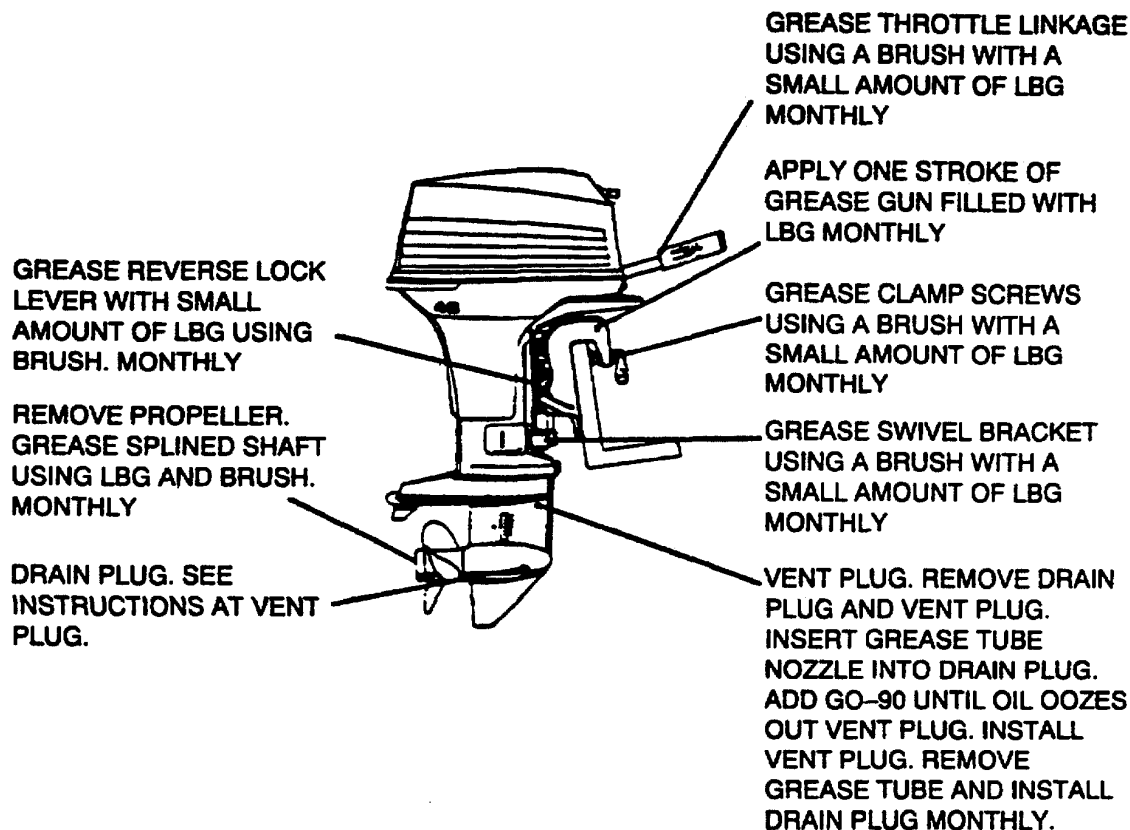
WARNING

TO ADD OR REMOVE OIL REFER TO UNIT MAINTENANCE.
SEVERE PERSONAL INJURY COULD RESULT.

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-12. Liferaft/Workboat.

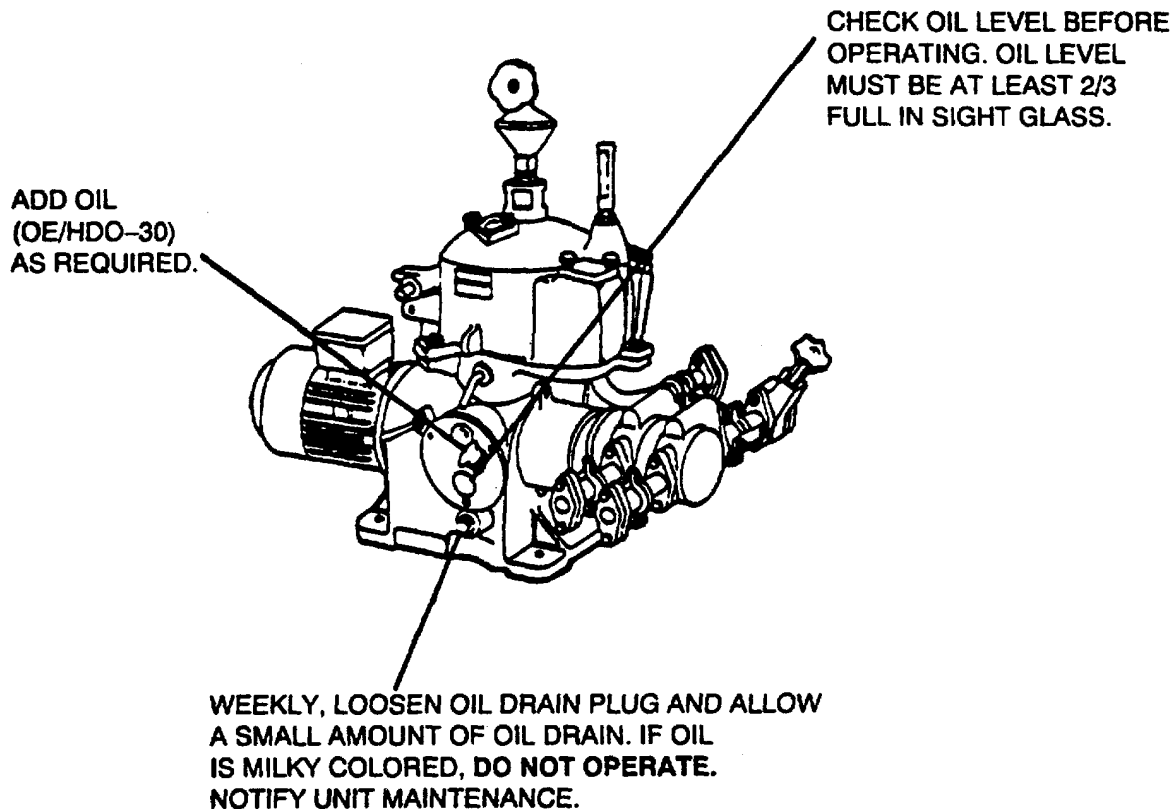


NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-13. Lube Oil Purifier.

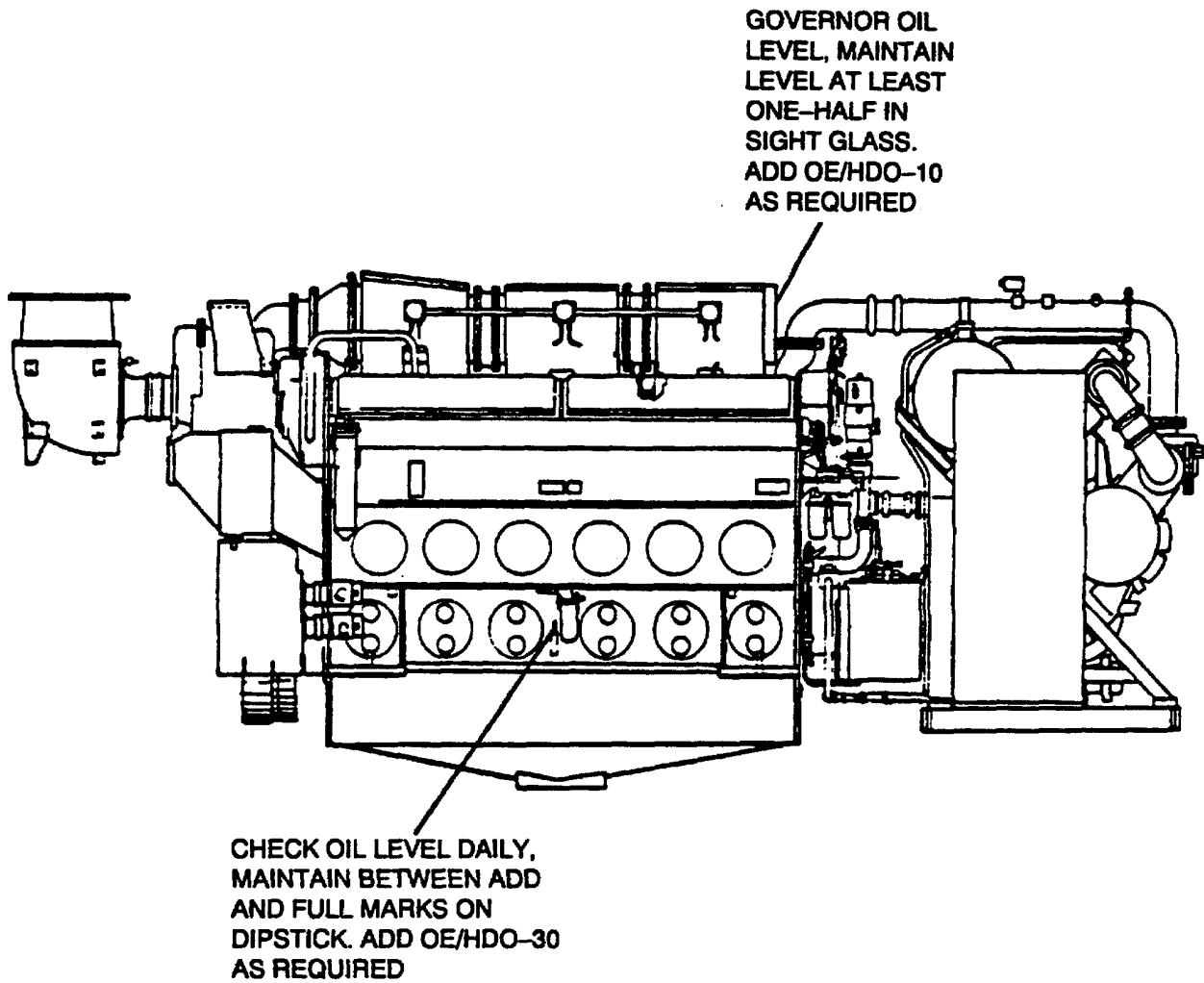
LUBE IT!



NOTE

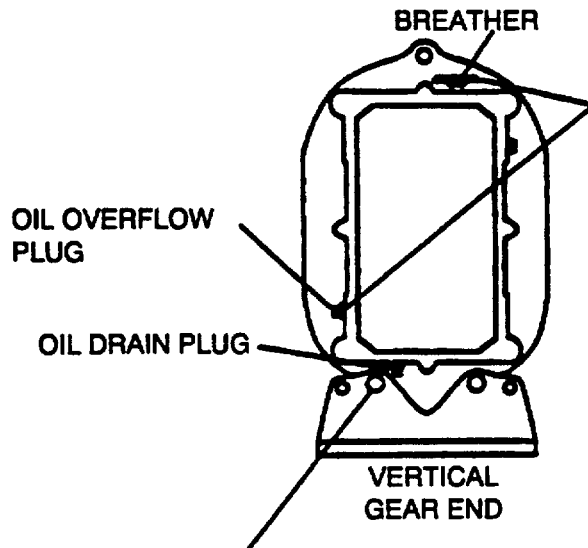
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-14. Main Engine.



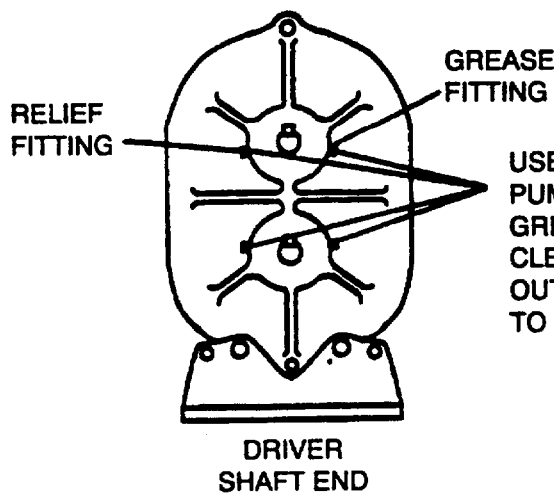
NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-15. Marine Sanitation Device.



TO ADD OIL (OE/HDO-40), REMOVE BREATHER, REMOVE OIL OVERFLOW PLUG, ADD OIL UNTIL OIL FLOWS OUT OVERFLOW. WAIT UNTIL NO MORE OIL COMES OUT OVERFLOW, THEN INSTALL OIL OVERFLOW PLUG AND BREATHER (AS REQUIRED)

TO DRAIN OIL, REMOVE BREATHER OIL OVERFLOW PLUG AND OIL DRAIN PLUG. WHEN OIL HAS DRAINED, REINSTALL OIL DRAIN PLUG. REFILL IN ACCORDANCE WITH DIRECTION AT RIGHT (SEMI-ANNUALLY)



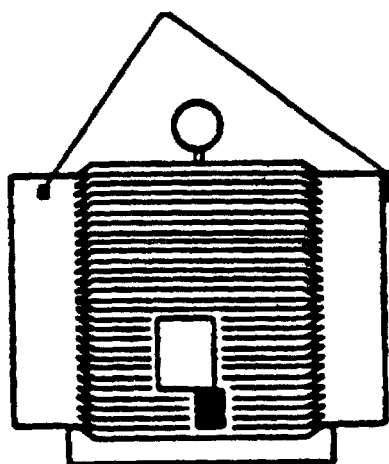
USE GREASE GUN TO PUMP GGP INTO EACH GREASE FITTING UNTIL CLEAN GREASE COMES OUT OF RELIEF FITTING TO LEFT (MONTHLY)

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-15. Marine Sanitation Device - continued.

**USE GREASE GUN WITH MPG.
APPLY 1 TO 2 FULL STROKES
TO BOTH FITTINGS**



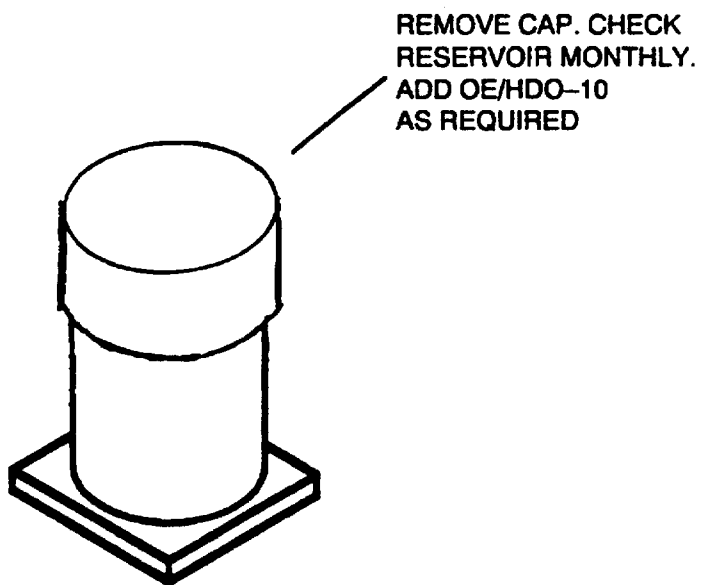
**NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY**

3-16. Oil Water Separator.

There are no lubrication requirements for the oil water separator.

3-17. Propeller Shaft, Coupling, Brakes, and Seals.

Air Line Lubricator.



NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

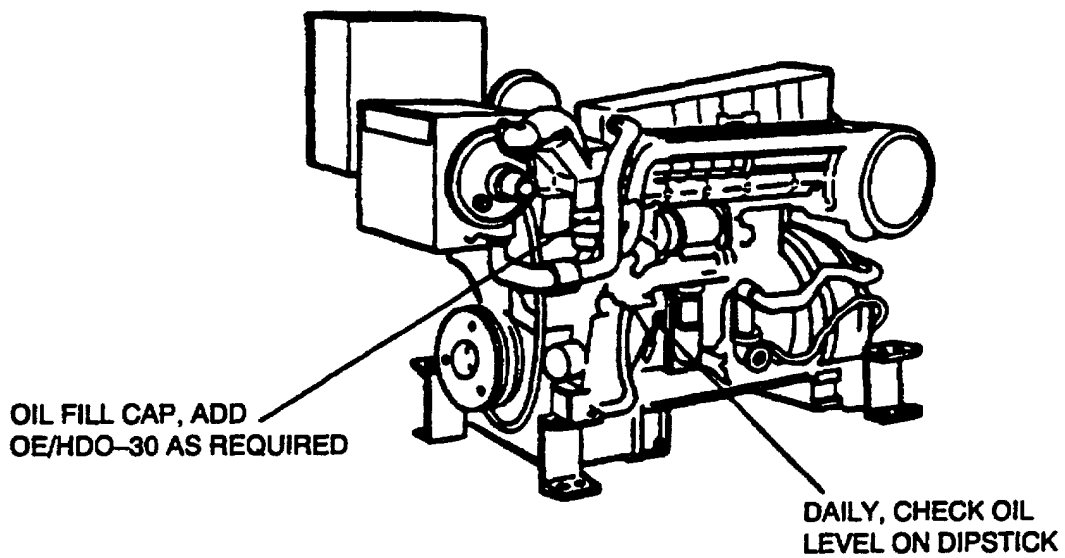
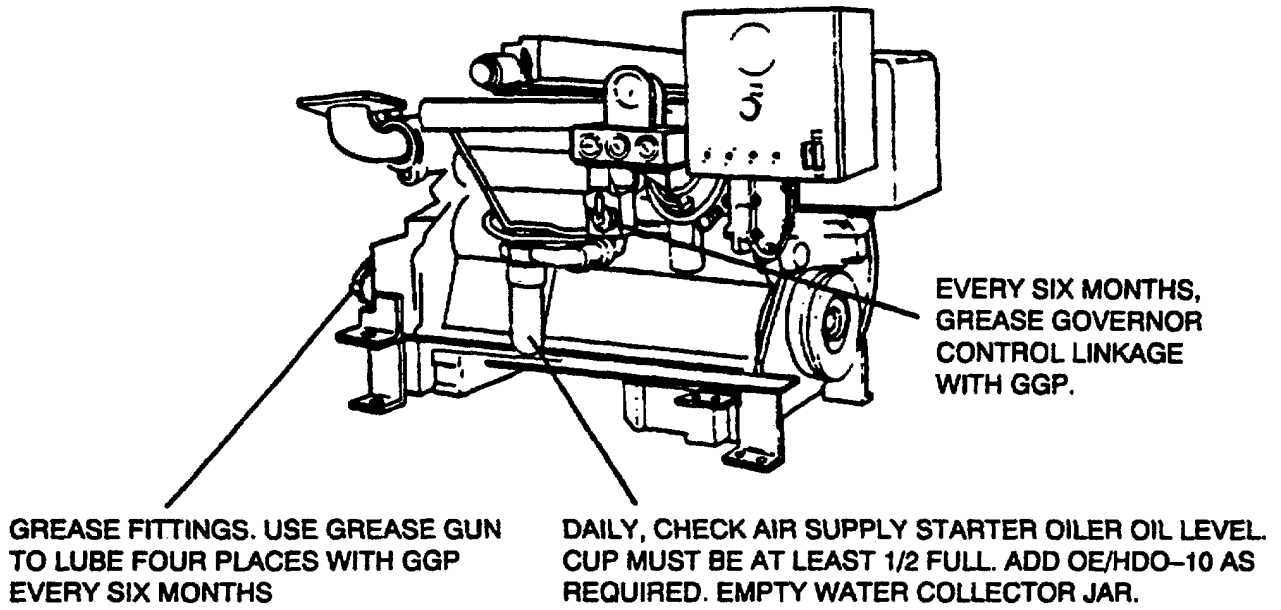
3-18. Propulsion Controls.

There are no lubrication requirements for the propulsion control system.

3-19. Propulsion Monitor.

There are no lubrication requirements for the propulsion monitor.

3-20. Pump Drive Engine.

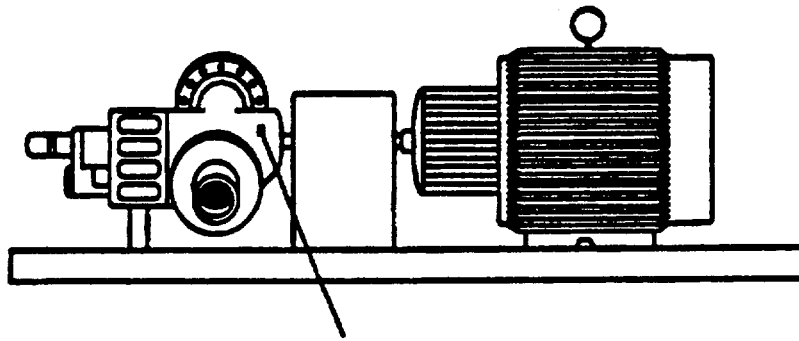
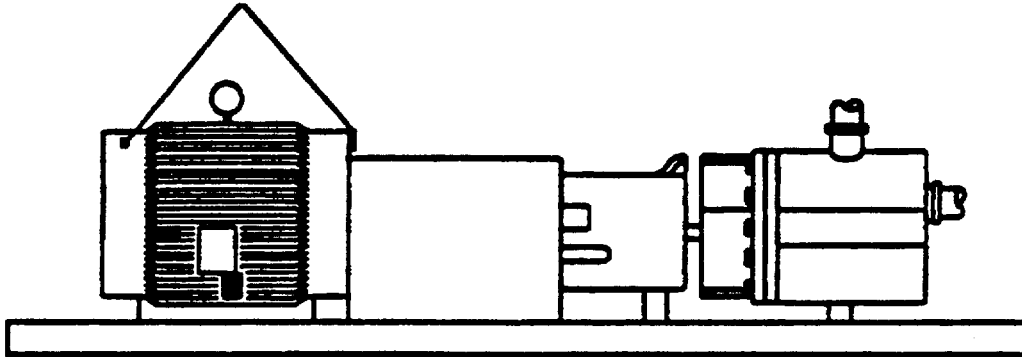


NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-21. Pumps.

GREASE 2 FITTINGS WITH 1 TO 2 STROKES
OF GREASE GUN WITH MPG

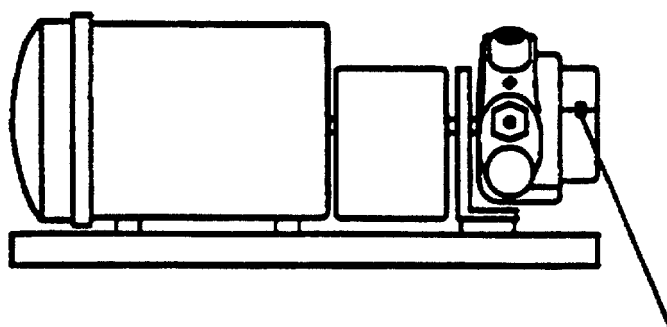


GREASE 1 FITTING WITH 1 TO 2 STROKES
OF GREASE GUN FILLED WITH GGP

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-21. Pumps - continued.

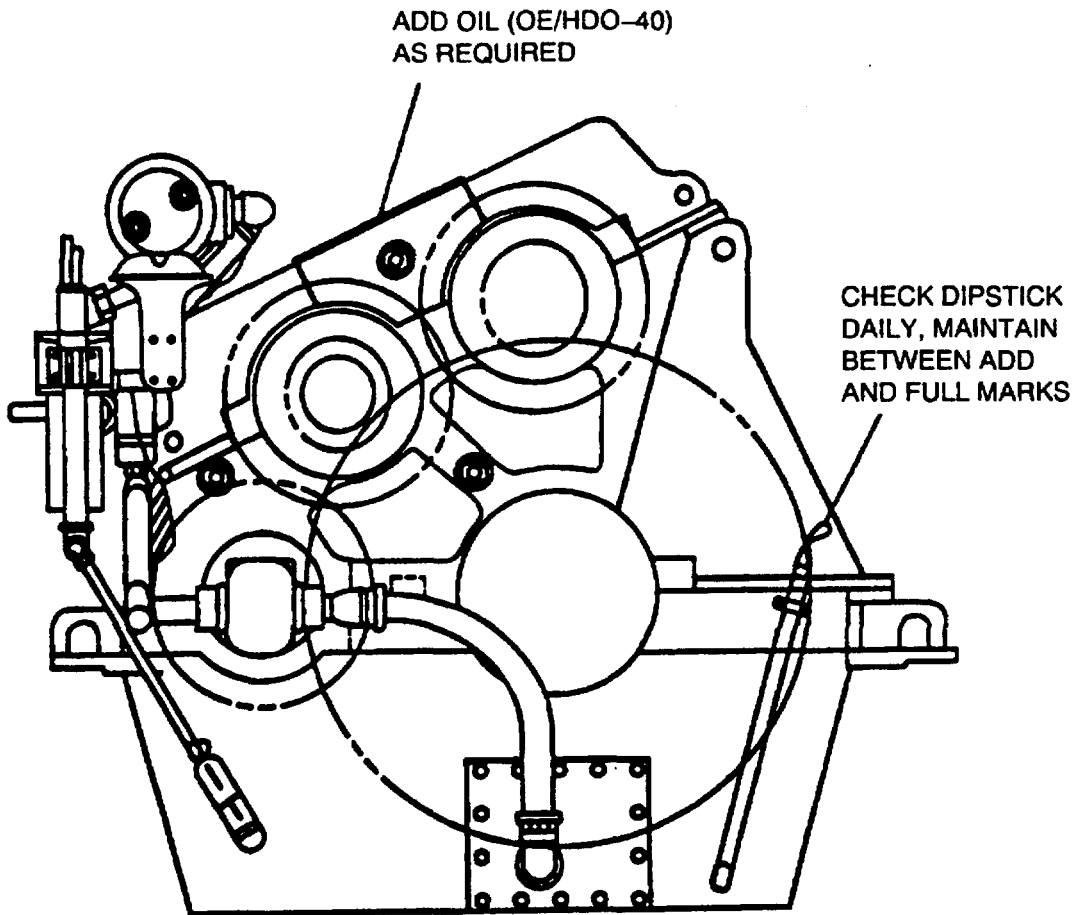


GREASE 1 FITTING WITH
1 TO 2 STROKES OF
GREASE GUN FILLED
WITH GGP

NOTE

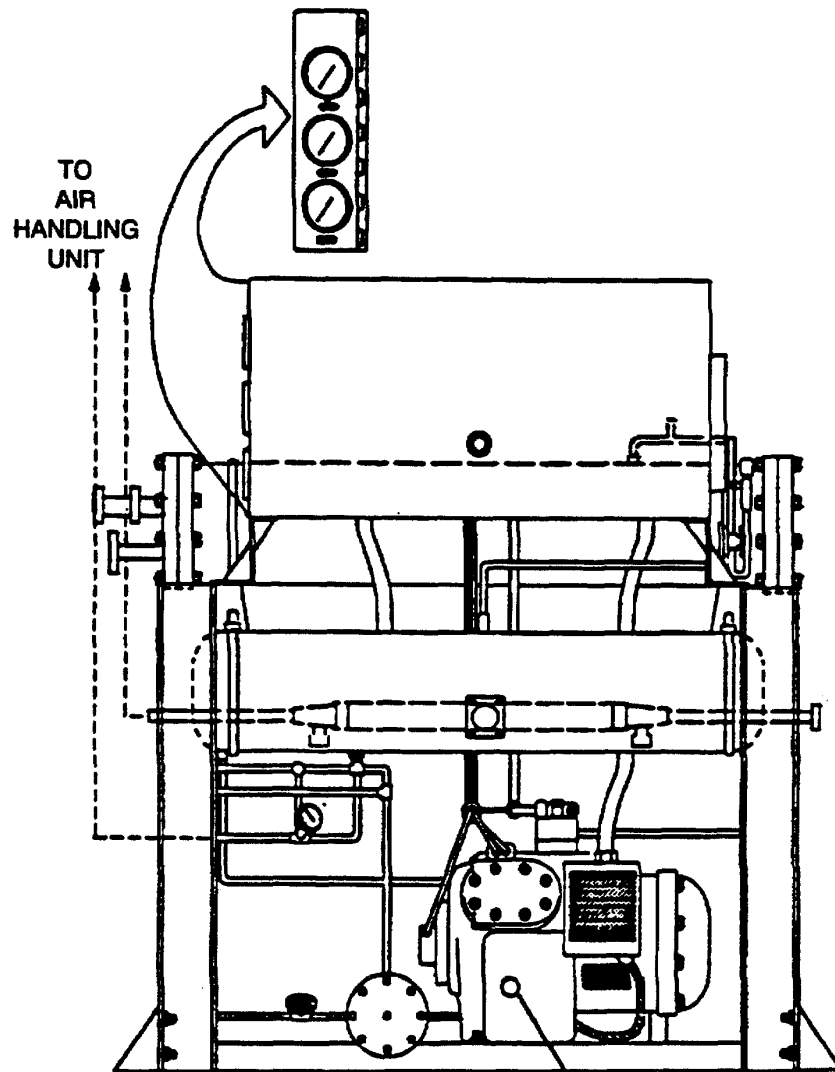
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-22. Reduction Gear.



NOTE
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-23. Refrigeration Machinery.



CHECK OIL LEVEL DAILY,
SHOULD BE APPROMIXATLEY
1/2 FULL WHEN OPERATING

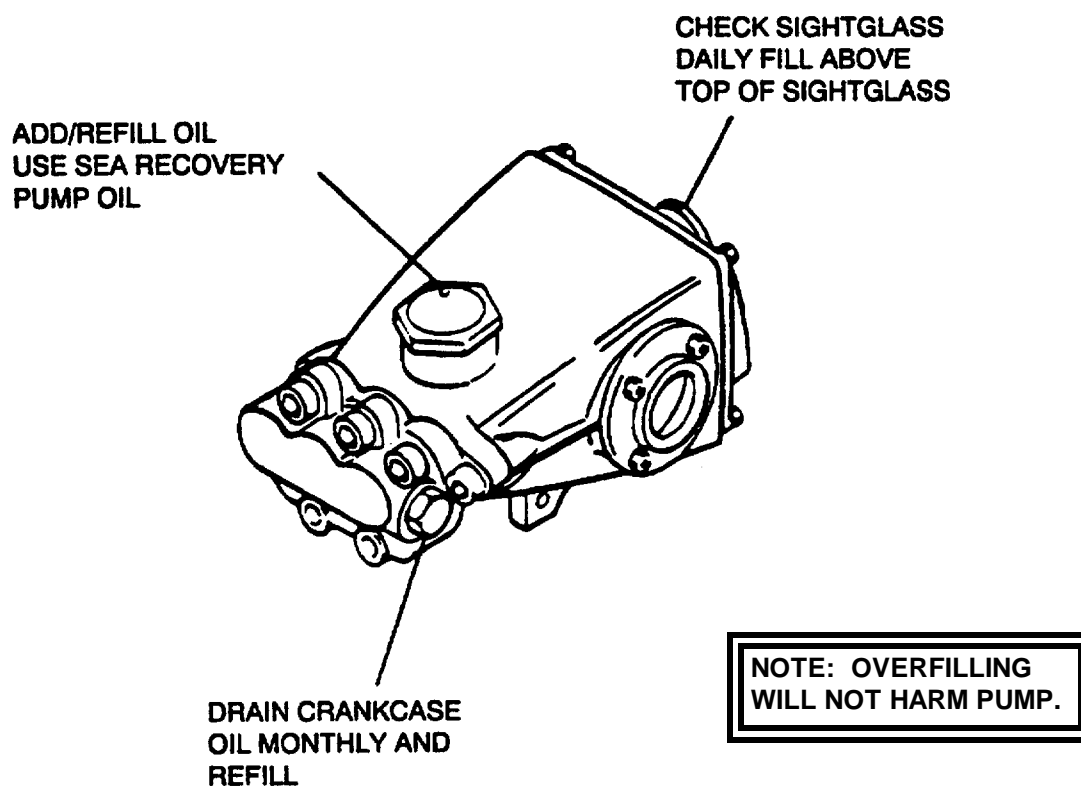
WARNING

TO ADD OR REMOVE OIL REFER TO UNIT MAINTENANCE.
SEVERE PERSONAL INJURY COULD RESULT.

NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

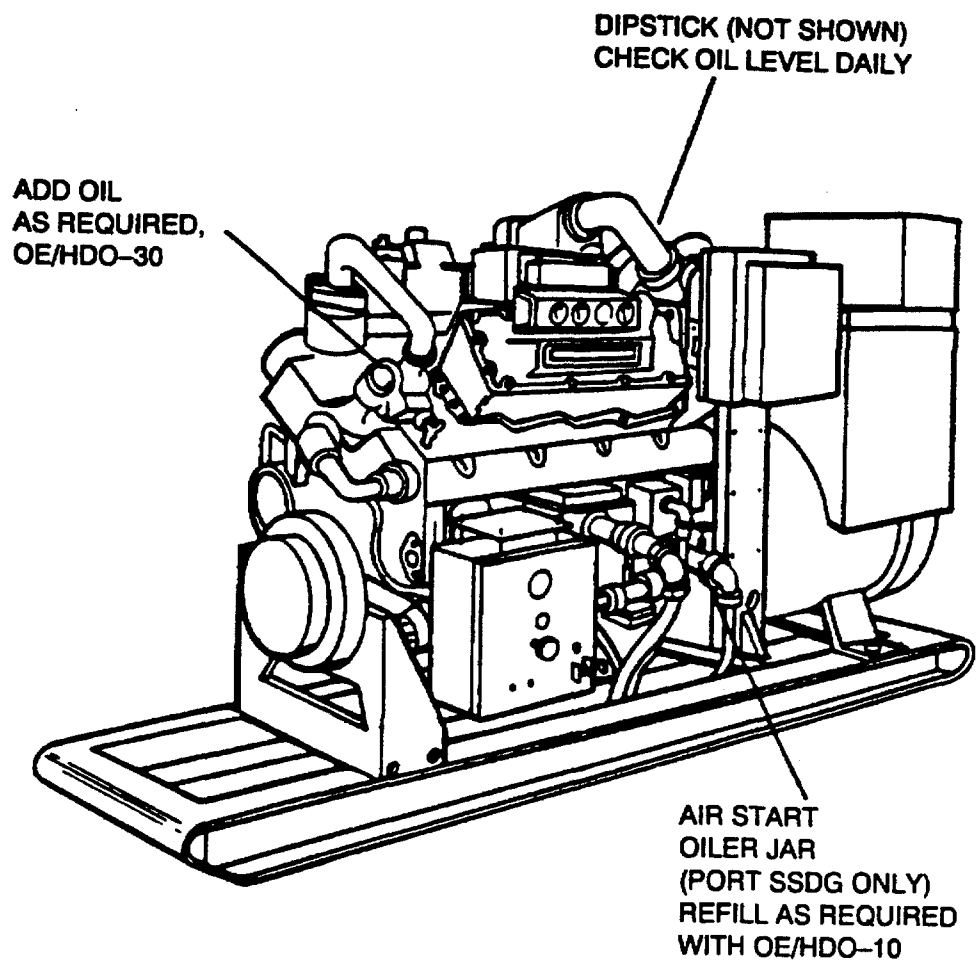
3-24. Reverse Osmosis Watermaker.



NOTE

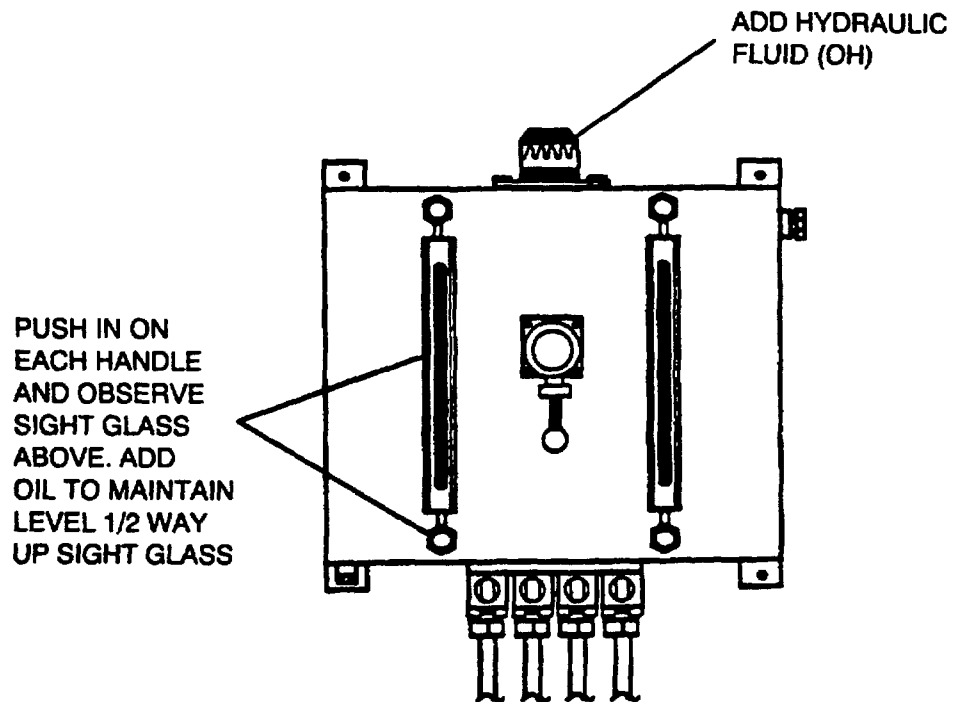
THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

3-25. Ship's Service Diesel Generator.



NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY



NOTE

THESE LUBRICATION INSTRUCTIONS ARE MANDATORY

SECTION II. TROUBLESHOOTING PROCEDURES

3-27. Malfunctions. When a malfunction occurs, check to ensure that proper operating procedures, as specified in Chapter 2, were followed. If the malfunction is not corrected, refer the malfunction to unit maintenance for troubleshooting.

SECTION III. MAINTENANCE PROCEDURES

3-28. Maintenance Actions. All maintenance actions, except for operator preventive maintenance checks and services (see Table 2-2) are contained in the appropriate Unit, Intermediate Direct Support, and Intermediate General Support maintenance manual. Refer maintenance problems to unit maintenance for assistance.

**APPENDIX A
REFERENCES**

A-1. Scope This appendix lists all forms, field manuals, technical manuals, and miscellaneous publications referenced in this manual.

A-2. Forms.

Recommended Changes to Publications and Blank Forms.....	DA Form 2028-2
Equipment Inspection and Maintenance Work Sheet.....	DA Form 2404
Harbor Boat Deck Department Log for Class A & B Vessels.....	DA Form 4640
Harbor Boat Engine Department Log Class A & C-1 Vessels	DA Form 4993
Quality Deficiency Report	SF 368

A-3. Field Manuals.

NBC Decontamination	FM 3-5
First Aid for Soldiers	FM 21-11
Watercraft Operator Handbook	FM 55-501

A-4. Technical Manuals.

Lubrication Order for Inland and Coastal Large Tug (LT)	LO 55-1925-207-12
Operator's and Organizational Maintenance Manual for Facsimile Recorder- Reproducer RD-605/UXH	TM 11-5815-621-12
Operator's and Organizational Maintenance Manual for Radio Set AN/PRC-129	TM 11-5820-999-12
Operator's and Organizational Maintenance Manual for Electronic Equipment Installation Kit MK-2453/G	TM 11-5820-1000-12
Operator's and Organizational Maintenance Manual for Telegraph Terminal AN/SGC- 14	TM 11-5820-1001-12
Operator's and Organizational Maintenance Manual for Communications Modem MD- 1255/URC	TM 11-5820-1002-12
Operator's and Organizational Maintenance Manual for Radio Transmitter T- 1527/URC	TM 11-5820-1003-12
Operator's and Organizational Maintenance Manual for Receiver-Transmitter RT- 1588/SR	TM 11-5820-1004-12
Operator's and Organizational Maintenance Manual for Power Supply PP-8236/URC	TM 11-5820-1005-12
Operator's and Organizational Maintenance Manual for Radio Frequency Amplifier AM-7387/URC	TM 11-5820-1006-12
Operator's and Organizational Maintenance Manual for Radio Receiver R-2414/SRQ.....	TM 11-5820-1007-12
Operator's and Organizational Maintenance Manual for Radio Receiver R-2408/URC	TM 11-58201008-12

Operator's and Organizational Maintenance Manual for Receiver-Transmitter RT- 1600/U	TM 11-5820-1009-12
Operator's and Organizational Maintenance Manual for Interface Unit J-4795/U	TM 11-5820-1013-12
Operator's and Organizational Maintenance Manual for High Frequency Radio System	TM 11-5820-1044-12
Operator's and Organizational Maintenance Manual for Radio Set AN/SRD-26	TM 11-5825-284-12
Operator's and Organizational Maintenance Manual for Radar Set AN/SPS-64(V)16 ...	TM 11-5840-369-12
Operator's and Organizational Maintenance Manual for Radar Set AN/SPS-64(V)17 ...	TM 11-5840-370-12
Operator's and Organizational Maintenance Manual for Interswitch Unit SA- 2308/SPS-64(V)	TM 11-5840-371-12
Operator's and Organizational Maintenance Manual for Sound Measuring Set AN/SON- 20	TM 11-5840-374-12
Operator's and Organizational Maintenance Manual for Radar System	TM 11-5840-375-12
Operator's and Organizational Maintenance Manual for Sonar Sounding Set AN/SON- 21	TM 11-5845-201-12
Operator's and Organizational Maintenance Manual for Antenna Coupler CU-2417/URC	TM 11-5845-381-12
Operator's and Organizational Maintenance Manual for Alarm Signal Generator SG- 1319/SCN	TM 11-6320-226-12
Marine Equipment Characteristics and Data	TM 55-500
Shipboard Damage Assessment and Repair for Coastal and Inland Large Tug (LT) ...	TM 55-1925-207-SDC
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions Including Repair Parts and Special Tools list for the Inland and Coastal Large Tug (LT).....	TM 55-1925-20724&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Main Propulsion Engine (GM12-645F7B)	TM 55-1925-208-24
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Generator Set, Ship's Service (3408B)	TM 55-1925-209-24
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Generator Set, Emergency (3304)	TM 55-1925-210-24
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Engine Set, Pump Drive (3306B)	TM 55-1925-211-24
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Engine Set, Bow Thruster (3306B)	TM 55-1925-212-24
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Lube Oil Purification System	TM 55-1925-213-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Bow Thruster (S-152-2)	TM 55-1925-214-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Steering Gear System	TM 55-1925-215-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Pumps	TM 55-1925-216-24&P

Unit. Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Reverse Osmosis Fresh Water Desalinators	TM 55 1925 217-- 24&P
Unit. Intermediate Direct Support. and Intermediate General Support Maintenance Instructions for Fuel Oil Coalescer	TM 55-1925--218--24&P
Unit. Intermediate Direct Support. and Intermediate General Support Maintenance Instructions for Marine Sanitation System	TM 55-1925-219-24&P
Unit. Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Oil Water Separator	TM 55-1925-220-24&P
Unit, Intermediate Direct Support. and Intermediate General Support Maintenance Instructions for Air Compressor	TM 55-1925-221-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Propulsion Controls	TM 55-1925-222-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Main Reduction Gear	TM 55-1925-223-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Environmental Control System	TM 55-1925-224-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Engine Room Monitoring System	TM 55-1925-225-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Commissary Equipment	TM 55-1925-226-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Fire Fighting System	TM 55-1925-227-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Propulsion Shaft Couplings, Brakes, and Seals	TM 55-1925- 228-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Deck Machinery and Hydraulic System	TM 55-1925-229-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Cathodic Protection System	TM 55-1925-230-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Refrigeration Machinery	TM 55-125-231-24&P
Unit, Intermediate Direct Support, and Intermediate General Support Maintenance Instructions for Life Raft/Morkboat and Outboard Motor	TM 55-1925-232-24&P

A-5. Technical Bulletins.

Painting of Vessels	TB 43-0144
Warranty Procedures for Inland and Coastal Large Tug (LT)	TB 55-1925-207-24

A-6. Miscellaneous Publications.

Army Medical Department Expendable Items	CTA 8-100
Expendable/Durable Items	CTA 50-970
Army Regulation (Check List)	AR 56-9
US Navy towing Manual	SL740-AA-MAN-010
Consolidated Index of Army Publications and Blank Forms	DA Pam 25-30
The Army Maintenance Management System (TAMMS)	DA Pam 738-750
Navigation Rules, International-Inland	COMDINST 16672.2
Soldier's Manual of Common Tasks (Skill Level 1)	STP 21-1

APPENDIX B

COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS
SECTION I. INTRODUCTION

B-1. Scope. This appendix lists components of the end and basic issue items for the Large Tug (LT) to help you to inventory items required for safe and efficient operation.

B-2 General. The components of the End Item (COEI) and Basic Issue Items(BII) Lists are divided into the following sections:

a. Section II. Components of End Item. The basic COEI listing is for informational purposes only, and is not authority to requisition replacements. These items are part of the end item. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. A listing of On-Board-Spares shall appear in the same format as required for the Basic COEI listing. When ON-Board-Spares apply, there shall be a break in text of their listing and the new heading "On-Board-Spares" shall be used. This manual is your authorization to request/requisition replacement On-Board-Spares.

b. Section III. Basic Issue Items. These are the minimum essential items required to place the LT in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with LT in operation and whenever it is transferred between property accounts. The illustrations will assist you with hard to identify items. This manual is your authority to request/requisition replacement BII, based on TOE/MTOE authorization of the end item.

B-3 Explanation of Columns. The following provides an explanation of columns found in the tabular listings:

a. Column (1)- Illustration Number (Illus Number). This column indicates the number of the illustration in which the item is shown.

b. Column (2)- National Stock Number. Indicates the National Stock Number assigned to the item and will be used for requisitioning purposes

c. Column (3)- Description. Indicates the Federal Item Name, and , if required, a minimum description to identify and locate the item. The last line for each item indicates the CAGEC (in parentheses) followed by the part number.

d. Column (4)- Unit of measure(U/M). Indicates the measure in performing the actual operational/maintenance function. This measure is expressed by a two character alphabetical abbreviation (e.g., ea., in, pr)

e. Column(5)- Quantity Required (Qty Rqr). Indicates the quantity of the item authorized to be used with/on the equipment.

Section II. COMPONENTS OF END ITEM

Part 1

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	281501-2937011	ENGINE, MARINE (72915) R12-645F7B		EA	1
	2815-01-254-3508	ENGINE, MARINE (72915) L12- GENERATOR, SHIP SERVICE (11083) 4W9129 GENERATOR SET, EMERG (11083) 1W3887 ENGINE SET, PUMP DRIVE (11083) 3306B DTIA ENGINE SET, BOW THUSTER (11083) 3306B DTIA WBE OIL, LUBRICATION (80871) DTB 2-DO066 BOW, THRUSRER (32862) SK0042 STEERING GEAR (NO195) 1-2-6M200-2ESCM FUEL OIL AND LUBE D12 TRANSFER PUMP (07524) XSB1 PUMP, SEWAGE DISCHARGE (18930) 2X2R-615 1/4 CD4M PUMP, BILGE AND BALLAST (18930) 2X1 1/2-10A16 112		EA	1
	4310-01-151-5213	PUMP, FIRE AND GENERAL SERVICE (04579) 2X2 1/2X9-413		EA	1
	4310-01482-3420	PUMP, POTABLE WATER (45496) 10-10705 COMPRESSOR, AIR (49576) QR-25		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 1**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable U/M On Code	(5) Qty Rqr
	7310-01-316-3984	RANGE, ELECTRIC (34931) 325-1M	EA	1
		DEEP FAT FRYER (34931) F-28M	EA	1
	7310-01-104 0920	GRIDDLE (34931) LG-34M-1	EA	1
	7310-01-189-4427	TOASTER, ELECTRIC (78770) BTM 4CB	EA	1
		DISPENSER, MILK (12884) SK-2	EA	1
		REFRIGERATOR (16599) CV20	EA	1
		FREEZER (16599) FV20	EA	1
		7320-01-234-2145 DISH WASHER (28873) WM-5H	EA	1
		FOOD, WASTE, DISPOSER (28873) FD2-75	EA	1
	7320-00-804 G095	MACHINE, FOOD MIXING (28873) A200	EA	1
		SLICER (28873) 1612	EA	1
		DRINK, DISPENSER (53214) E27-3	EA	1
		PACKER, POLLUTION (53W0) 1600SS	EA	1
		LATHE (7R992) EN5810	EA	1
		ICE, MAKER (61633) GS6A	EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 1**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	1940-01-015-7346	COFFEE, MAKER () L1360		EA	1
		SWAGE, SYSTEM (78482) MODEL M3		EA	1
		FOAM BRANCH PIPE AND TURRET (99789) VK65/M65		EA	1
		PUMP, FOAM (58923) 2F75-17		EA	
		TOWING MACHINE, DOUBLE (81728) E333-3870		EA	1
		CAPSTAN, ASSEMBLY (81782) E353-3918		EA	1
		CRANE (70433) AMD-774		EA	1
		WINCH (08302) YMD-5320		EA	1
		PUMP, SUBMERSIBLE (96046) 75B		EA	1
		REFRIGERATION, MACHINE (10855) 90DF400014		EA	1
		LIFE BOAT ASSEMBLY (80064) 0902-028-6010MK6		EA	2
		BOAT, WORK (38130) 1-B44100		EA	1
		MACHINE, GRINDING (12280) 184-UPA-Y		EA	1
		MACHINE, WELDING, ARC (40608) 330ST		EA	1
		REVERSE OSMOSIS, WATER MAKER (1 BZ02) 9504010100		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 1**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code	(5) U/M Qty Rqr
		PUMP, PORTABLE, ENGINE DRIVE (96046) XPE 5101	EA	1
		AIR CONDITIONING, PLANT (10855) 90DF400004-1	EA	1
		MARINE RECEIVER MODEL 1511 ()	EA	1
		INDICATOR, DIGITAL DEPTH ()	EA	1
		EXCITER, MSR 6700 ()	EA	1
		BATTERY, STANDARD, RPX ()	EA	3
		PORTABLE RADIO AND CHARGER RPX-150(EA	3
		CHARGER, BATTERY ()	EA	1
		RADAR, DUAR SYSTEM ()	EA	1
		EMERGENCY LIFEBOAT TRANSCEIVER 403A ()	EA	1
		AMPLIFIER MSR6606, INTERFACE UNIT ()	EA	1
		RECEIVER MSR5050 ()	EA	1
		FSK MODEM, MODEL 1280A ()	EA	1
		RADIOTELEPHONE MR 370-14A ALARM GENERATORS ()	EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 1**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	Qty Rqr
		SYNTHESIZED SSB MODEL 6100 RADIOTELEPHONE ()		EA	1
		FAX TR-1, MARINE ()		EA	1
		RF-S00 B/C ADOPTIVE ARQ TERMINAL ()		EA	1
		MSR 4030 1KW AUTOMATIC ANTENNA COUPLER ()		EA	1
		MSR1020 AMPLIFIER/ MSR6212 POWER SUPPLY ()		EA	1
		4005A AUTOMATIC DIRECTION FINDER RECEIVER/INDICATOR ()		EA	1
		INSTALLATION KIT MK2453/W		EA	1
		AN/URC-80 (v) 3 RADIO SET		EA	1
		VHF ANTENNA		EA	1
		WIND SPEED AND DIRECTION INDICATOR		EA	1
		RAYTHEON DUAL RADAR DUAL RAYTHEON SYSTEM		EA	1
		RAYTHEON ISOLATION TRANSFORMER		EA	1
		RAYTHEON RADAR POWER DISTRIBUTION PANEL		EA	1
		RAYTHEON DOPPLER SPEED LOG		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 1**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5820-01-057-6447	AN/SRD AUTOMATIC RADIO DIRECTION FINDER		EA	1
		AN/URC-92 RADIO SET		EA	1
		AS-3287/URE-92 ANTENNA		EA	3
		KY-65 SECURITY EQUIPMENT URC		EA	1
		AN/SQN SONAR SOUNDING SET		EA	1
		ANNVRC-46 RADIO SET		EA	1
		COMPUTER W/PRINTER AND NECESSARY SOFTWARE		EA	1
		AS-1729NRC ANTENNA		EA	1
		KY-57 SECURITY EQUIPMENT (VRC-46)		EA	1
		MK27 MOD/GYRO COMPASS		EA	1
		AN/APX-72 TRANSPONDER		EA	1
		TS-1843 TEST SET		EA	1
		AS-177B/UPX ANTENNA ASSEMBLY		EA	1
		KIT-1AIT SEC (APX72) COMPUTER		EA	1
		WEATHER FACSIMILE AUXILIARY RECEIVER/ TRANSMITTER		EA	1
		HF RADIO TELEPHONE DISTRESS FREQUENCY WATCH RECEIVER		EA	1
		COMPASS MAGNETIC W/ BINNACLE		EA	1
		LS-519A INTERCOMMUNICATION SET		EA	1

Section II. COMPONENTS OF END ITEM - CONTINUED

Part 1

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and part Number	Usable On Code	(4) U/M	(5) Qty Rqr
		AN/UGC-74B (v) 3		EA	1
		TERMINAL COMMUNICATION			
		KG-84 SECURITY EQUIPMENT		EA	1
		(TELETYPE)			
		EMERGENCY POSITION			
		INDICATOR RADIO BECON			
		[EPIRB] [AIEGORY]			
		406 MHZ 121.5 MHZ		EA	1
	5810-00-434-3644	TSECIKY57 COMSEC EQUIPMENT			
		FOR THE ANNRC 46 RADIO,			
		LIN: S01373			
	581 0-01 -236-5245	TSEC/KY 65 COMSEC EQUIPMENT			
		FOR THE ANIURC 92 RADIO,			
		LIN: C52382			
	5810-01-220-7409	TSEC/KG84C COMSEC EQUIPMENT			
		FOR THE ANIUGC TELETYPEWRITER			
		LIN: G51797			
	5810-00-061-3386	KIT 1A/TSEC COMSEC EQUIPMENT			
		FOR THE AN/APX 721FF,			
		LIN: X22266			
	1001-00-322-9715	50 CALIBER MACHINE GUN,			
		LIN: L91975			
	1010-00-179-6647	M203 40MM GRENADE LAUNCHER,			
		LIN: L44595			
	1005-01-118-2640	9MM PISTOL, UN: P98152			
	1005-01-128-0036	M16 A2 RIFLE, LIN: R95035			

Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5342-01-342-0466	ANODE, CORROSION (0BAL3) A10356		EA	8
	2530-01-339-3467	VALVE, BRAKE PNEUMATIC (0A0L9) F011-120		EA	1
	2920-01-340-0330	GENERATOR, ENGINE (11083) 7G7889		EA	1
	4330-01-339-0490	FILTER, ELEMENT, FLUID (72915) 9080820		EA	8
	5330-01-342-5528	RETAINER, PACKING (62854) 01-400-0120		EA	1
	5330-01-342-5527	RETAINER, PACKING (62854) 01-400-0140		EA	1
	6135-01-343-1592	BATTERY, NONRECHARGEABLE (55841) D100AB10		EA	1
	3120-00-795-4916	BEARING HALF, SLEEVE (72915) 8253825		EA	1
	3120-00-363-5831	BEARING HALF, SLEEVE (72915) 8071176		EA	24
	3120-00-795-4915	BEARING HALF, SLEEVE (72915) 8237900		EA	1
	3120-00-477-9914	BEARING HALF, SLEEVE (72915) 8261195		EA	1
	3120-01-353-4524	PARTS KIT, BEARING (0UDU7) PK933		EA	1
	3110-01-339-9525	BEARING, BALL, ANNULAR (9Z144) 068-1905-647		EA	1
	3110-01-339-9525	BEARING, BALL (9Z144) 068-1905-647		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	3110-01-144-1557	BEARING, BALL, ANNULAR (07524) 903405		EA	2
	3110-00-555-5362	BEARING, BALL, ANNULAR (52676) 5303H		EA	1
		BEARING, BALL, INBOARD (18930) 2X2R-6/5 1/4-120		EA	1
		BEARING, BALL, OUTBOARD (18930) 2X1 1/2-10A/6-1/2121		EA	1
		BEARING, BALL, OUTBOARD (18930) 2X2 R-6/5 1/4-121		EA	1
	3120-00-168-6358	BEARING, IDLER GEAR (72915) 8418334		EA	1
		BEARING, INBOARD (18930) 6X4/16-120		EA	1
		BEARING, OUTBOARD (18930) 6X4/16-121		EA	1
	3030-01-141-5087	BELT, V (96906) PE-2151		EA	1
	4140-01-343-7133	BLOWER, POSITIVE (51729) 865-102-020		EA	1
	7310-01-242-2316	BOWL, BEVERAGE DISPENSER (53214) 1288		EA	2
	4330-01-340-5988	FILTER ELEMENT, FLUID (1BZ02) 0803004773		EA	1
	4610-01-022-9970	CARTRIDGE, CHEMICAL (08576) 9540-01		EA	2
		CARTRIDGE, FUSE 1 AMP (0B356) 270-1273		EA	2
		CARTRIDGE, FUSE 8 AMP (0B356) 270-1254		EA	2

**Section II. COMPONENTS OF THE END ITEM – CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5345-00-881-8375	DISK, ABRASIVE (58536) A-A-1016		EA	3
	4730-01-248-7942	AIR DRIER AND COOLER PIPELINE (0A0L9) 06008-1120		EA	1
	2940-01-339-0492	FILTER ELEMENT, INTAKE AIR (72915) 8470903		EA	18
	2940-01-342-8735	FILTER ELEMENT, FLUID (05779) 925042		EA	2
	4330-01-340-4101	ELEMENT, FILTER, FLUID (1BZ02) 0801130257		EA	6
	4330-01-340-4100	ELEMENT, FILTER, FLUID (1BZ02) 0801060157		EA	6
	4730-01-340-7129	STRAINER (1BZ02) 0421061239-3		EA	1
	5330-00-366-3510	FELT, MECHANICAL, PRE (72915) 8055158		EA	1
	2940-00-029-0388	FILTER ELEMENT, FLUID (11083) IR0739		EA	9
	4330-00-983-0998	FILTER ELEMENT, FLUID (90005) 045800-10		EA	1
	4330-00-872-1779	FILTER ELEMENT, FLUID (87405) GNG-220		EA	1
	2910-00-989-3388	FILTER ELEMENT, FLUID (11083) 9M2341		EA	1
	4330-01-203-1250	FILTER ELEMENT, FLUID (11083) 4N5834		EA	1
	2940-00-922-2050	FILTER ELEMENT, FLUID (72915) 8322064		EA	2
	2940-00-922-2053	FILTER ELEMENT, FLUID (72915) 8340000		EA	1
	4330-00-008-7371	FILTER ELEMENT, FLUID (72915) 8423132		EA	24

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4330-01-340-5985	FILTER, FLUID (1BZ02) 9504010120.		EA	1
		CHLORINATOR (78482) 91-600-000		EA	1
	2910-01-132-6317	COCK, DRAIN (72915) 1036471		EA	1
		COMPRESSOR (88233) 06008-1120-94921		EA	1
		CONDENSING UNIT (88233) 06008-1120-94822		EA	1
		CONTROL STATION KIT (88233) B732-910-1		EA	1
	2930-01-209-5141	COOLER, LUBRICATING (11083) 3N3270		EA	2
	7310-01-343-2236	COVER, BOWL, BEVERAGE (53214) 1996		EA	1
	2815-01-343-5832	CYL HEAD, DIESEL (72915) 9561588		EA	1
	2815-01-342-9119	POWER UNIT, DIESEL (72915) 9579090		EA	1
	5355-01-367-0556	WINDOW, DIAL (63269) 1500A-15		EA	1
	5331-01-342-0911	O-RING (63629) 1500A-15		EA	1
	4310-01-341-0468	DIAPHRAGM, PUMP, SPECIAL (52837) M-4/00-63		EA	2
	2940-00-125-9544	FILTER ELEMENT, FLUID (64829) PER69		EA	1
	2940-01-254-1546	FILTER ELEMENT, FLUID (11083) 4N1981		EA	4
	4330-01-247-7670	FILTER ELEMENT, FLUID (70255) H-48		EA	1

Section II. COMPONENTS OF END ITEM – CONTINUED
Part 2 ON-BOARD SPARES

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4130-01-320-9204	CORE, FILTER-DRIER (70255) W-48		EA	1
	2910-01-346-6362	FILTER ELEMENT, FLUID (55883) IDP1P2299		EA	4
	2910-01-051-2341	FILTER ELEMENT, FLUID (11083) 4N5823		EA	4
	2940-00-029-0388	FILTER ELEMENT, FLUID (81321) PER 67		EA	1
	2940-00-083-8741	FILTER ELEMENT, FLUID (08300) C12		EA	52
	2940-01-107-9531	FILTER ELEMENT, INTAKE (11083) 4N0015		EA	4
	2940-00-976-9010	FILTER ELEMENT, INTAKE (11083) 4L9851		EA	1
	5930-01-347-0620	SWITCH, LIQUID LEVEL (61397) MLS-3320-33-211		EA	1
	4330-04-342-2457	PARTS KIT, FLUID PRESSURE (2P293) 174176		EA	1
	2910-01-339-7959	PUMP, ENGINE PRIMING, HAND (11083) 4W9838		EA	1
	2910-01-340-0392	PUMP, ENGINE PRIMING, HAND (11083) 8N5251		FA	1
	5920-01-134-1494	FUSE (10855) HY10FJO04		EA	1
	5920-00-050-4968	FUSE, CARTRIDGE (71424) RL20		EA	10
	5920-01-342-8844	FUSE, CARTRIDGE (81782) E333-3903-N		EA	1
	5920-01-342-8843	FUSE, CARTRIDGE (81782) D100AF10		EA	1
	5920-00-065-1735	FUSE, CARTRIDGE (71400) KTK15		EA	3

**Section II. COMPONENTS OF END ITEM-- CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code	(5) Qty Rqr
	5920-00-518-3208	FUSE, CARTRIDGE (92731) P8-C1-B30	EA	2
	5920-01-149-9738	FUSE CARTRIDGE (92731) P8-C2-B50 (Deleted)	EA	6
		FUSE, 50 AMP (89357) 50518-17	EA	16
	5920-01-227-2341	FUSE, CARTRIDGE (71400) FNM-2	EA	3
	5920-00-064-2374	FUSE, CARTRIDGE (71424) ATM 15	EA	3
		FUSE, CARTRIDGE (27192) MSL 1.2	EA	1
		FUSE, CARTRIDGE (27192) KLDR 2.5	EA	2
	5920-01-343-0294	FUSE, CARTRIDGE (71400) FNQ-R-5	EA	16
	5920-01-334-7385	FUSE, CARTRIDGE (71400) FNQ-R-1/2	EA	4
	5920-00-577-4716	FUSE, CARTRIDGE (71400) FNQ-1	EA	2
	5920-01-256-5830	FUSE, CARTRIDGE (71400) FNQ 1-1/2	EA	2
	5920-00-280-5038	FUSE, CARTRIDGE (81349) FO3B250V1/2AS (14040-017)	EA	2
	5920-00-280-3537	FUSE, CARTRIDGE (81349) FO3A250V1AS	EA	1
	5920-01-381-8290	FUSE, CARTRIDGE (71400) MSL 6/10	EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description Cagec and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5920-01-343-0293	FUSE, CARTRIDGE (75915) KLDR 6/10		EA	4
	5920-00-280-5038	FUSE, CARTRIDGE (81349) MIL-F-15160/3		EA	2
		FUSE, CARTRIDGE (19857) AAJ3		EA	2
	2990-01-121-2653	PIPE, EXHAUST (23862) 720722		EA	1
	5330-01-342-7790	GASKET (76588) TG-8.0-911-B-0		EA	1
	5331-01-207-7233	O-RING (73124) ST260Z6B		EA	2
	5930-01-343-7790	SWITCH, TOGGLE (09353) 7203A		EA	1
	5330-01-183-6647	GASKET (73124) ST262Z5B		EA	2
	5331-01-239-7911	GASKET (73124) ST266Z5B		EA	4
	5330-01-228-6171	GASKET (92021) MP-14-13		EA	1
	5330-01-205-9858	GASKET (92021) MP-14-14		EA	2
	5330-01-146-1695	GASKET (28353) 506-A-13		EA	3
	5330-01-351-7678	GASKET (28353) 508-13		EA	3
	5330-01-351-7678	GASKET (28353) 508-13		EA	1
		GASKET (08576) 0344-00		EA	1
	5830-01-342-7789	GASKET (53214) 2010		EA	3
	5330-00-612-3917	GASKET (02066) 1013		EA	3

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5330-01-365-5783	GASKET (63269) S1-4-009-4		EA	1
	5330-01-342-2553	GASKET (81100) 202-7		EA	1
	5330-01-295-4681	GASKET (96151) 9135-2		EA	1
	5330-01-342-2554	GASKET (81100) 205-7		EA	1
		GASKET (76588) G1.5-761		EA	2
		GASKET (76588) G2.5-851		EA	1
		GASKET (76588) G3.0-851		EA	1
	5330-01-343-2669	GASKET (58923) D11-121		EA	2
	5330-00-366-2130	GASKET (72915) 8082104		EA	1
	5330-01-269-7282	GASKET (72915) 8268756		EA	2
	5330-00-137-6706	GASKET (72915) 8272140		EA	1
	5330-00-366-2131	GASKET (72915) 8088673		EA	2
	5330-00-012-3692	GASKET (21444) 235158		EA	2
	5330-00-178-8600	GASKET (07524) 382901		EA	2
	5330-01-342-2556	GASKET (81100) 211-7		EA	1
	5330-00-010-4910	GASKET (72915) 8312916		EA	2

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable U/M On Code	(5) Qty Rqr
		GASKET (91643) 507100-0400-22W7	EA	2
	5330-01-342-2551	GASKET (81100) 101-7	EA	1
	5331-01-342-2539	O-RING (81100) 104-7	EA	1
	5330-01-342-2552	GASKET (81100) 102-7	EA	1
	5330-01-058-6949	GASKET AND PREFORMED (70255) X11983-1	EA	1
	5330-01-275-2150	GASKET KIT (72915) 3278364	EA	2
	5330-01-167-4235	GASKET KIT (23233) PK679	EA	1
	5330-00-856-1558	GASKET SET (72915) 8261167	EA	1
	5330-01-342-5443	GASKET, AIR VALVE (52837) 04-2600-52	EA	1
		GASKET, BEARING COVER (18930) 2X 1/2-10A/6-1/2126	EA	1
		GASKET, BEARING COVER (18930) 2X2R-6/5 1/4-126	EA	1
	5330-01-340-2039	GASKET (52837) M-4/00-60P	EA	2
		GASKET, REAR COVER (18930) 2X2R-6/5 1/4-107	EA	1
	5330-01-340-8236	GASKET, REAR COVER (18930) AH107	EA	1
		GASKET, REAR COVER	EA	1
	5330-00-540-2508	GASKET (63705) 20-22031-2	EA	2
	5330-00-824-4781	GASKET (72915) 8209776	EA	2

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) Q/M	(5) Qty Rqr
	5330-00-121-2653	GASKET (87405) 050973 (Deleted)		EA	1
	6685-01-340-7799	INDICATOR, TEMPERATURE (72915) 9086874		EA	1
	3030-01-339-8132	GRINDER DRIVE, BELT, V (72915) 9310380		EA	1
	5325-00-121-8475	GROMMET, SPECIAL (90005) 050976		EA	1
	2940-00-192-7417	INDICATOR, FILTER (11083) 7S0687		EA	1
	2910-01-342-6817	INJECTOR ASSEMBLY, FUEL (72915) 5229335		EA	12
	4820-01-306-4571	VALVE, LINEAR, DIRECTIONAL (88233) 41462-1000		EA	1
	3120-01-339-8990	PARTS KIT, BEARING (72915) 8455083		EA	1
	3040-01-313-2844	PARTS KIT, LINEAR (0A0L9) B732-949		EA	1
	3120-01-339-0861	PARTS KIT, BEARING (72915) 8455081		EA	1
	6240-01-344-7134	LAMP, INCANDESCENT (63269) 1500A-12		EA	3
	6240-01-316-4651	LAMP, INCANDESCENT (95405) INX3528		EA	2
	6240-00-014-2306	LAMP, INCANDESCENT G (00303) 81		EA	1
	6240-01-345-4099	LAMP, INCANDESCENT (62607) 04-6677-20150-97		EA	2
		LIGHTING FIXTURE, BRACKET (72736) 04-6677-201509		EA	9

Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	6210-00-160-0340	LIGHT, INDICATOR (75456) S14		EA	2
	6625-01-286-4825	METER GP (11083) 4W5556		EA	1
	6645-01-126-3969	METER, TIME TOTALIZING (11083) 4N6657		EA	1
	5330-01-343-8789	PARTS KIT, SEAL (77640) SK000092		EA	1
	6105-01-275-2146	MOTOR, AIR START (72915) 8377435		EA	2
	2990-01-338-3244	STARTER, ENGINE, AIR (11083) 4N4730		EA	1
	6105-01-343-4317	MOTOR, ALTERNATING CURRENT (05472) 143TC		EA	1
	6105-01-598-1586	MOTOR, ALTERNATING CURRENT (53214) 1336		EA	1
	6105-01-343-4493	MOTOR, ALTERNATING (05472) 143T		EA	1
	6105-00-569-9590	MOTOR, ALTERNATING (39433) 879-010855S00-0		EA	1
	2910-01-292-5254	NOZZLE, FUEL INJECTION (11083) 4W7018		EA	8
	2910-01-169-9758	NOZZLE, FUEL INJECTION (11083) 8N7005		EA	6
	2940-01-339-7968	FILTER, FLUID (11083) 5N9410		EA	1
	2815-01-289-8355	OIL PUMP ASSEMBLY, E (11083) 4N8734		EA	1
		OIL SEAL, INBOARD (18930) 6X4/16-118		EA	1
	5330-01-340-8155	SEAL, PLAIN (18930) 3Z118		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
		PACKING (18930) 6X4/16-113		EA	1
		PACKING MATERIAL (91643) 507100-0200-21X7		EA	2
		PACKING RING (91643) 507100-0200-19P2		EA	2
		PACKING TEFLON (73680) 8764V		EA	1
	5330-00-171-7174	PACKING WITH RETAINING (83259) 600-001-3-8		EA	1
	5330-00-067-5742	PACKING WITH RETAINING (59211) 460-215-20		EA	1
	5330-00-612-3916	PACKING, PREFORMED (53214) 1012		EA	1
	5331-00-725-9798	O-RING (25184) 737-70 (Deleted)		EA	24
	2910-00-106-1809	STRAINER (08300) FGIB		EA	5
	5330-01-178-8601	PACKING, PREFORMED (07524) 701965		EA	2
	5331-01-424-4278	O-RING (62854) 93-120 ITEM 18		EA	1
	5331-01-424-4279	O-RING (62854) 93-120 ITEM 19		EA	1
		PACKING, PREFORMED (96151)15127		EA	1
	5331-01-339-0716	O-RING (72915) 8417454		EA	4
	5331-01-342-3535	O-RING (OSYN4) H-45112-3-1017		EA	4

**Section II. COMPONENTS OF END ITEM – CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5330-00-929-9478	PACKING, PREFORMED (72915) 8309544		EA	2
	5331-01-171-4825	O-RING (02697) 2-008		EA	1
	5331-01-344-3815	O-RING (77640) 032200-90		EA	2
	5331-00-494-2763	O-RING (11083) 6J2419		EA	1
	5331-01-340-8183	O-RING (1BZ02) 0421061239-2		EA	1
	5330-00-178-8602	PACKING, PREFORMED (07524) 711940		EA	2
	5331-01-161-6045	O-RING (92435) 6000-18		EA	5
	5331-01-340-2036	O-RING (52837) M-4/00-20JH (Deleted) (Deleted)		EA	7
	5330-01-351-1264	PACKING MATERIAL (0SYN4) C1065-00250A		EA	7
	5330-01-341-6765	PACKING, PREFORMED (83130) PLD-H6080D-6		EA	15
	5330-01-351-1265	PACKING MATERIAL (0SYN4) C1065-00312-A		EA	2
	5330-01-342-5716	PACKING, PREFORMED (0SYN4) C1065-00375-A		EA	1
	5331-01-283-3545	O-RING (30263) B-122-A-2.50-15		EA	4
	5330-00-050-1224	PACKING, PREFORMED (81168) 11-115		EA	3

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code	(5) Qty Rqr
	5330-01-012-2728	PACKING, PREFORMED (28353) 568-333	EA	1
	5331-00-562-7236	PACKING, PREFORMED (02697) 2-223-N674-70 (Deleted)	EA	1
	5331-00-599-2934	O-RING (74684) HS3113D112	EA	1
	5330-00-483-1672	PACKING, PREFORMED (05163) Z-119-N674-70	EA	1
	5331-00-405-6024	O-RING (02697) 2-026-N674-70	EA	1
	5331-01-239-7911	O-RING (73124) ST266-Z-5-B	EA	2
	5331-00-007-6143	O-RING (02697) 2-023-N602-70	EA	7
	5330-00-167-5110	O-RING (07482) J221P121	EA	2
	5331-00-166-0993	O-RING (81349) M83248-1-017	EA	2
	5330-00-562-7236	PACKING, PREFORMED (02687) 2-223-N674-70	EA	1
	5330-01-148-9716	PACKING, PREFORMED (05163) B568-122 (Deleted)	EA	1
	5331-00-483-1672	O-RING (02697) 2-119N674-70	EA	1
	5331-00-178-8605	O-RING (07524) 711941	EA	2
	5330-01-179-2860	O-RING (45543) 114-78-00-00	EA	5

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
		All data on page B-23 deleted.		

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
		PACKING, PREFORMED (1BZ02) 0702051531-14		EA	2
	5331-01-340-5560	O-RING (18930) 2X11/2-10A/6		EA	1
		PACKING, PREFORMED (18930) 2X2R-6/5 1/4-113		EA	2
	5331-00-606-8994	O-RING (04579) 364-0417-457 (Deleted)		EA	1
	5331-01-342-0910	O-RING (21444) 926908		EA	2
	5331-00-944-8281	O-RING (11083) 3D2824		EA	1
	5331-01-138-7111	O-RING (73124) ST264-Z-5-B		EA	1
	5331-01-278-6711	O-RING (54035) 990-002-006		EA	1
	5331-01-340-8184	O-RING (1BZ02) 0713020599-3		EA	1
	5330-01-312-5939	PACKING, PREFORMED (51040) V72350		EA	2
	5331-01-313-5719	O-RING (0A0L9) H136-54		EA	2
	5331-00-613-6522	PACKING, PREFORMED (11083) 4M8303		EA	1
	5331-01-342-2546	O-RING (81100) 211-16 (Deleted)		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable U/M On Code	(5) Qty Rqr
	5330-00-126-5191	PACKING, PREFORMED (92021) SP17-9 (Deleted) (Deleted)	EA	1
	5331-01-283-3545	O-RING (30263) B-122-A-2.50-15	EA	4
	2530-01-342-0627	PART KIT, DISK BRAKE (81782) PK938	EA	3
	5330-00-050-1224	O-RING (81168) 11-115 (Deleted)	EA	1
	5331-01-342-2545	O-RING (81100) 205-16	EA	1
	5331-01-342-2544	O-RING (81100) 202-13	EA	1
	5331-01-342-2540	O-RING (81100) 101-13	EA	1
	5331-01-342-2542	O-RING (81100) 104-13	EA	1
	5330-01-342-2541	PACKING, PREFORMED (81100) 102-13	EA	1
	5330-01-342-2543	O-RING (81100) 201-19	EA	1
		PACKING, PREFORMED, A (18930) 6X4/16-131	EA	1
	5331-01-340-2035	O-RING (52837) M-4/00-60U	EA	2
	5330-01-022-8879	PACKING, PREFORMED (08302) 10052	EA	2

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5331-01-298-4748	O-RING (08302) 24776		EA	4
		PACKING, PREFORMED (30397) 2-114		EA	5
	5331-00-725-9798	PACKING, PREFORMED (25184) 737-70		EA	24
		(Deleted)			
		(Deleted)			
		PACKING, TEFLON (31737) 7368013		EA	1
		(Deleted)			
	4130-01-130-2238	PARTS KIT, DEHYDRATOR (70255) X10574-1		EA	1
	4320-00-119-3802	PARTS KIT, ROTARY PUMP (45396) 14010242		EA	1
	4320-01-275-5257	PARTS KIT, SEAL REPL (08302) 61690		EA	1
	5330-01-312-3869	PARTS KIT, SEAL REPL (23233) PK931		EA	1
	2920-01-352-3752	SPARK PLUG (0B231) QL78C		EA	1
		PRINTED CIRCUIT BOARD (73396) 05-10200-001		EA	3
		PRINTED CIRCUIT BOARD (73396) 05-09509-000		EA	5

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable U/M On Code	(5) Qty Rqr
		PRINTED CIRCUIT BOARD (73396) 05-10200-000A	EA	3
		PUMP (76122) MP-110 X 1-1/2	EA	1
	2910-01-340-0393	PUMP, ENGINE PRIMING, HAND (11083) 8N3365	EA	1
	2920-01-021-1845	PUMP, ENGINE PRIMING, HAND (11083) 4W0788	EA	1
	4320-01-339-7884	PUMP, CENTRIFUGAL (72915) 9336390	EA	2
	4320-01-339-5152	PUMP, CENTRIFUGAL (72915) 8269664	EA	2
	4320-01-202-5611	PUMP CENTRIFUGAL (11083) 7N6208	EA	1
	4320-01-202-5611	PUMP, CENTRIFUGAL (11083) 7N6208	EA	2
	4320-01-202-5609	PUMP, CENTRIFUGAL (11083) 5N9357	EA	1
	2930-01-216-9420	PUMP, COOLING (11083) 2W8001	EA	1
	2930-01-199-8071	PUMP, COOLING SYSTEM (11083) 4N1951	EA	1
	2910-01-268-2316	PUMP, FUEL (72915) 8410219	EA	1
	2910-01-289-2257	PUMP, FUEL, METERING (11083) 4N1101	EA	1
	7310-01-170-3504	IMPELLER, BEVERAGE (53214) 1161	EA	1
	4320-00-366-2974	PUMP, OIL LUBRICATING (72915) 8084556	EA	1
	4320-01-163-3545	PUMP, RECIPROCATING (11083) 1 W1 695	EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4320-01-103-8054	PUMP, ROTARY (88758) 34401		EA	1
	6220-01-347-4800	RECEIVING LIGHT UNIT (63269) 1500A-5		EA	1
	5330-01-295-4720	RETAINER, PACKING (96151) 7362		EA	1
	5325-00-454-0458	RING, RETAINING (90005) 572946		EA	2
	5325-00-804-2784	RING, RETAINING (82366) 1-223225		EA	2
	5330-01-037-6369	RUBBER SHEET, SOLID (81349) MIL-G-1149		EA	1
	5330-01-178-1586	SEAL (96151) 14559-006		EA	4
	5330-00-178-8574	SEAL (07524) 331934		EA	1
	5330-01-343-2647	SEAL,PLAIN (62854) 01-4050490		EA	1
	5330-01-178-1589	SEAL (96151) 9050		EA	1
	5330-00-545-3145	SEAL (72915) 8228321		EA	1
	5330-01-177-7960	SEAL (96151) 9049-1		EA	1
	4320-00-704-3552	SEAL ASSEMBLY, SHAFT (58923) G14-229		EA	1
	5330-01-339-8819	SEAL, PLAIN ENCASED (04579) 712-6321-653		EA	1
	5330-01-342-3532	SEAL, PLAIN ENCASED (04579) 712-3585-773		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4320-01-340-2109	SEAL (07524) 332920		EA	1
	4320-01-320-5906	SEAL (45396) 14032695		EA	1
	5330-00-146-7307	SEAL, OIL (04579) 712-6322-653		EA	1
		SEAL, OIL, INBOARD (18930) 2X2R-6/5 1/4-118		EA	1
	5325-00-804-2784	RING, RETAINING (60145) 1-223225		EA	1
	5330-01-340-5558	SEAL, PLAIN (18930) 2Z129		EA	1
		SEAL, OIL, OUTBOARD (18930) 2X2R-6/5 1/4-129		EA	1
	5330-01-219-7048	SEAL, PLAIN (96151) 9121-1		EA	1
	5330-01-295-4662	SEAL, PLAIN (96151) 9057-9		EA	1
		SEAL, PLAIN (96151) 15127		EA	1
	5330-01-096-0912	SEAL, SPECIAL (11083) 7J0204		EA	2
	5330-01-315-2121	SEAL, PLAIN (9V902) 308778		EA	1
	5330-01-342-7544	RUBBER STRIP (10855) 99SR0116126000		EA	10
	3040-01-454-9300	PART KIT GEAR BOX (64462) 641013		EA	1
	4820-01-342-8637	VALVE SHUTTLE (88233) N164-2003		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4810-01-342-0574	VALVE, SOLENOID (63269) 1500A-10		EA	1
	4810-01-342-0573	VALVE, SOLENOID (63269) M018A43		EA	1
		SOLENOID VALVE (76093) 18A43		EA	1
	2920-01-142-3174	SPARK PLUG (0B231) RN3C (Deleted)		EA	4
	2990-01-291-1794	STARTER, ENGINE AIR (11083) 6N4147		EA	1
	2990-00-891-8441	STARTER, ENGINE, AIR (64104) 701101		EA	2
	2920-01-340-0400	MOTOR, ENGINE (11083) 9L5065 (Deleted)		EA	1
	2910-00-106-1809	STRAINER (08300) FG1B		EA	4
	6630-01-024-0119	COMPARATOR, COLOR (08576) 5719		EA	2
	6220-01-347-4799	THROWING LIGHT UNIT (63269) 1500A-4		EA	1
	4710-01-344-1697	TUBING, NONMETALLIC (53214) 2011		EA	1
	4820-00-596-3712	PISTON, VALVE (53214) 1010		EA	1
	4820-01-342-2474	VALVE, FLOW CONTROL (88233) V500P8SB		EA	1

Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4820-01-347-8390	VALVE, BALL (21444) 2905090		EA	2
	4820-01-349-8555	VALVE, REGULATING, TEMP. (21444) 916647		EA	2
	4820-01-296-5700	VALVE, BALL (08576) 3035-13		EA	1
	4820-01-342-2966	VALVE, LINEAR, DIRECTIONAL (0A0L9) F041-0004		EA	1
	4820-01-348-1602	VALVE, LINEAR, DIRECTIONAL (21444) 916620		EA	2
	4820-01-348-7415	VALVE, LINEAR, DIRECTIONAL (21444) 2907331		EA	2
	4820-01-348-7357	VALVE, FLOW CONTROL (09990) F800		EA	2
	4820-01-248-8880	VALVE, LINEAR, DIRECT (88233) M000-20362		EA	1
	4820-01-248-5111	VALVE, LINEAR, DIRECT (0A0L9) FO1-111 ITEM 5		EA	1
	4820-01-248-8879	VALVE, LINEAR, DIRECT (88233) M000-20287		EA	1
	4820-01-306-4571	VALVE, LINEAR, DIRECT (88233) 41462-1000 (Deleted)		EA	1
	4820-01-347-6074	VALVE, REGULATING, FLUID (21444) 2905178		EA	2
	4820-01-347-8384	VALVE, SAFETY RELIEF (21444) 916322		EA	2
	4820-01-342-2474	VALVE, FLOW CONTROL (88233) V500P8SB		EA	1

**Section II. COMPONENTS OF END ITEM - CONTINUED
Part 2 ON-BOARD SPARES**

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4820-01-342-0576	VALVE, SHUTTLE (88233) 3650-9001		EA	1
	4820-01-444-6777	VALVE, REGULATING, TEMP. (72915) 9566855		EA	1
	5310-01-161-5997	WASHER, KEY (53214) 1734		EA	1
	5342-01-342-0466	ANODE, CORROSION PREVENTATIVE (0BAL3) A10356		EA	8

Section III. BASIC ISSUE ITEMS

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code J/M	(5) Qty Rqr
	5120-00-132-399	ADAPTER, METRIC, CONVERSION SET, (FOR CONVERTING STANDARD SOCKET 6 OR 12 PT BOX WRENCH OR SOCKET) (95021) VM820	EA	1
	4940-01-320-5391	AGITATOR, PAINT, SHAKER 112 HP MOTOR ACCEPTS 1, 2, AND 5 GAL CANS (39428) 3467K5	EA	1
		METER, 4 GAS MONITORING, MSA (40912) Passport Model 5210L-C-P, 804645 The Following Items Are Required For These Meters:	EA	2
		PROBE TUBE (40912) 800333	EA	2
		SAMPUNG LINE (40912) 497335	EA	2
		REPLACEMENT FILTERS (40912) 801582	EA	4
		CALIBRATION KIT, Model RP (40912) 467895	EA	2
		CALIBRATION GAS, 60% LEL, 60PPM CO2, (40212) 478191	EA	2
		CALIBRATION GAS, 10 PPM H2S (40912) 467898	EA	2
		REMOTE ALARM (49012) 800363	EA	2
		CARRYING CASE (40912) 636552	EA	2
		CARRYING CASE INSERT (40912) 803822	EA	2
	4210-00-372-0864	APPLICATOR, NOZZLE, FOG, 4' (PARTS KIT) CONSISTS OF ITEMS 25 TO 31, 33, & 34, PER BUSHINGS DWG 810-1385834 (00912) 2070-US-0-1-03-006	EA	2
	421000-372-0865	APPLICATORS, NOZZLE, 10 FEET, HEAD TYPE/WATER-FOG TH SZ, 1" - 1 1/2" W/INLET TUBE (00912) 2070-US-0-1-03-004	EA	2
	2040-00-222-3729	ANCHOR SEA 36 X 70 (81340) MM1562	EA	1
	9920-00-680-1738	ASH RECEIVER, TOBACCO, AMBER, 8" ROUND (81348) AA-A-710	EA	8
	9920-00-286-8600	ASH RECEIVER, TOBACCO, CLEAR, 4 1/2" (81348) AA-A-710	EA	12
	9920-00-113-9745	ASH RECEIVER, TOBACCO, WAL MTD, 4" DIA (72314) 91103504	EA	4
	5120-00-595-8162	AUGER, PIPE & SEWER, HAND, HEAVY DUTY, 1 1/2" X 50' LONG, TYPE 4, CLASS 2, STYLE 8 (81348) GGG-A-821	EA	1

Section III. BASIC ISSUE ITEMS- CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code (4) U/M	(5) Qty Rqr
	5120-00-2734-083	AUGER, PIPE & SEWER, 1/4" X 25' LG, TYPE 4, CLASS 1 (81348) GGG-A-821	EA	1
	4240-00-022-2946	AURAL PROTECTOR, SOUND, TYPE 2 (81349) MIL-P-38268	EA	12
	4210-00-142-4949	AXE, PICK HEAD, 6 LBS, TYPE 2 (81348) GGG-A-926	EA	6
	6605-00-240-5599	AZIMUTH CIRCLE, MK4MOD1 W/SPIRIT LEVEL, W CARRYING CASE (81349) MILC228 (LIN BO7626)	EA	2
	8105-01-0700721	BAG POLY SIZED TO FIT TRASH COMPACTOR (53820) 1600 POLY BAG	EA	50
	7520-00-935-7135	BALLPOINT PEN BLACK INK, FINE POINT (83421) 7520-00-9357135	DZ	4
	5120-00-224-1393	BAR, GOOSENECK CLAW, 3/4 DIA, 24 IN LONG, TYPE 5, CLASS 1, STYLE A, SIZE 3 (55719) NPB124	EA	3
	5120-00-224-1372	BAR, PRY, OFFSET, 3/4 DIA, 26 IN LONG, TYPE 3, SIZE 3 (81348) GGGB101	EA	2
	5120-00-224-1386	BAR, PRY, OFFSET, 3/8 DIA, 30 IN LONG, TYPE 3, SIZE 4 (19207) TDAX1D	EA	2
	5120-00-224-1390	BAR, WRECKING, PINCH POINT 1-1/4 IN X 5 FT (81348) GGGB101	EA	3
	5120-00-293-0665	BAR, WRECKING, 30 IN, SIZE 4, TYPE 5, CLASS 1, STYLE A (57068) 55130	EA	3
	5120-00-242-0762	BAR, WRECKING, 36 IN, SIZE 5 TYPE 5, CLASS 1, STYLE A (57068) 55136	EA	3
	6660-00-075-6666	BAROMETER, ANEROID WEATHER IND GROUP, 0 TO 3500 FT ALT (59310) 2237MB	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7520-00-281-5911	BASKET, WASTE PAPER ROUND, GRAY, METAL (58536) A-A-182		EA	24
	6140-01-025-052	BATTERY (FOR NAVIGATION LIGHT TOWING) (28763) 4065-0163		EA	20
	6140-00635-3824	BATTERY FLLER, JUG TYPE (72853) 74-4		EA	2
	614000-295-1760	BATTERY, DRY STORAGE 12V U/D PORTABLE MEGAPHONE, TYPE BB253U (81349) MILB15072		EA	2
	6135-00-930-0030	BATTERY, NONRECHARGEABLE (80058) BA3030U BED, MATTRESS		PG EA	4 24
	6350.00-256-9062	BELL, SHIP, 30 LBS 1 1-1/2 DIA DECK AND BULKHEAD (18349) MILB674		EA	1
	5120-00-234-8743	BENDER, TUBE, EXTERNAL COIL SPRING, 1/2 IN OD TUBING, TYPE H (30327) 102F		EA	1
	51200-234-8739	BENDER, TUBE, EXTERNAL COIL SPRING, 1/4 IN OD TUBING TYPE 4 (81348) GGGB191		EA	1
	5120-00-234-8741	BENDER, TUBE, EXTERNAL COIL SPRING, 3/8 IN OD TUBING TYPE 4 (30327) 102F		EA	1
	5120-00-234-8740	BENDER, TUBE, EXTERNAL COIL SPRING, 5/16 IN OD TUBING TYPE 4 (30327) 102F		EA	1
	5120-00-234-8744	BENDER, TUBE, EXTERNAL COIL SPRING, 5/8 IN OD TUBING, TYPE 4 (30327) 102F		EA	1

Section III. BASIC-ISSUE ITEMS-CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) UIM	(5) Qty Rqr
	5120-00-234-8742	BENDER, TUBE, EXTERNAL COIL SPRING, 7/16 IN OD TUBING TYPE 4 (30327) 102F		EA	1
	5120-00-808-6191	BENDER, TUBE, HAND,MULTIPLE SIZE, LEVER ACTUATED, TYPE 1, CLASS 2, SIZE 3 (81348) GGGB-191 (LIN B61026)		EA	1
	6650-00-530-0974	BINOCULAR 7 X 50, TYPE M17A1 (81349) B13656 TYPE M17A1 (LIN B67218)		EA	3
	5110-00-277-4590	BLADES HAND, HACKSAW HIGH-SPEED STEEL, 12 IN LONG, 18 TEETH PER INCH, TYPE 1, CLASS 2, GRADE A, BD-10-EA (81348) GGG-B-451		EA	10
	5110-00-277-4591	BLADES, HAND, HACKSAW HIGH-SPEED STEEL, 12 IN LONG, 24 TEETH PER INCH, BD-10-EA (31348) GGG-B-451		EA	10
	6545-00-911-1300	BLANKET SET, MEDICAL, FEDERAL SUP CAT, C-6545-IL, VOL 2 (33333) NO. REF. (LIN B72636)		SE	4
	7210-00-715-7985	BLANKET, BED, WOOL, TYPE 1, GRADE A OR B, SIZE 3,66 IN X 90 IN (81349) MIL-B-844		EA	42
	3940-00-988-3884	BLOCK, TACKLE, SNATCH, 6 IN SHEAVE 4000 LBS, STEEL SHELL 112 IN WIRE ROPE (71110) 4084H		EA	2
	681040-598-7316	BLEACH (58536) A-A-1427		BX	1
	3940-00-269-4762	BLOCK, TACKLE SNATCH STEEL SHELL 1 IN WIRE ROPE		EA	2

Section III. BASIC ISSUE ITEMS –CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code (4) U/M	(5) Qty Rqr
	3940-00-988-3884	BLOCK. TACKLE, SNATCH, 6 IN SHEAVE, 4000 LBS, STEEL SHELL, 112 IN WIRE ROPE (71110) 4084H	EA	2
	3940-00-820-5145	BLOCK, TACKLE, 4 112 IN SINGLE SHEAVE, 4800 LBS, IRON & STEEL SHELL, 1 IN FIBROUS ROPE, TYPE 3, STYLE 2 (81348) GGG-B490	EA	2
	3940-00-8924560	BLOCK, TACKLE, 3-1/2" DOUBLE SHEAVE, 3300 LBS, IRON & STEEL SHELL, 3/4" FIBROUS ROPE, TYPE 2, BRONZE BEARING, 9 CHAIN SHACKLE (81348) GGG-B490	EA	2
	3940-00-068-9173	BLOCK, TACKLE, 4-1/2" DOUBLE SHEAVE, 5100 LBS, IRON & STEEL SHELL, 1' FIBROUS ROPE, TYPE 2 (81348) GGG-B-490	EA	2
	3940-01-026-0056	BLOCK, TACKLE, 6 IN TRIPLE SHEAVE, 25000 LBS, STEEL OVERALL, 3/4 IN WIRE ROPE (79257) 613	EA	2
	4140-01-039-9845	BLOWER, VENTILATING, PORTABLE (98905) GE-V-B	EA	2
		BOOK MARINE FIRE PREVENTION DEPT OF COMM (50064) US GPO NO 1980-0-322-018	EA	1
		BOOK MODERN TOWING (BY S. BLANK) 1989 ISN 0-87033-372-0	EA	1
		BOOK US NAVY TOWING MANUAL REV-1 (5M907)	EA	1
	7610-0-263-9714	BOOK, MODERN ENGRS MANUAL, VOL 1, LATEST YEAR PUB DATE (33333) NO REF	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code (4) U/M	(5) Qty Rqr
	7610-00-263-9715	BOOK, MODERN ENGRS MANUAL, VOL 2, LATEST YEAR PUB DATE (33333) NO REF	EA	1
	7610-00-263-9737	BOOK. AMERICAN ELEC HANDBOOK, INSTR FOR ELECTRICIANS, 1 VOL (33333) NO REF	EA	1
	7610-00-244-8719	BOOK, MODERN SEAMANSHIP, INSTR FOR SEAMANSHIP, 1 VOL (33333) NO REF	EA	1
	4720-00-277-7225	HOSE ASSEMBLY, AIR DUCT (80064) 53801-607819	EA	1
	7195-00-224-5190	BOARD, BULLETIN, TYPE A, 28 X 42" (81349) MIL-F-902	EA	1
	719500-224-5191	BOARD, BULLETIN, TYPE B, 23 X 33 (81349) MIL-F-902	EA	2
	7330-004078-5706	BOARD, FOOD CHOPPING AND SLICING, 15 X 20 X 3/4" (81348) LLL-B-568	EA	1
	5306-01-151-1684	BOLT, SPECIAL, PLATE SHACKLE (97403) 13226E2128	EA	1
		BOOK CODE OF FEDERAL REGULATIONS TITLES 69-2346-4749()	EA	1
	7330-00-685-5013	BOWL SET, FOOD MIXING, 3 PC STAINLESS STEEL (81348) RR-B-1242	SE	1
	7350-00-251-8746	BOWL, EATING, PLASTIC 5-3W4 DIA, 2-916' DEEP, CLASS 2, ITEM 4 (81348) L-T-48	DZ	4
	7330-00-205-3198	BOWL, FOOD MIXING, STAINLESS STEEL, 1 112 QT 4 IN DIA 3 1/2 IN DEEP, SIZE B, BX - 6 EA (81348) RR-B-1242	BX	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7330-00-205-4337	BOWL, FOOD MIXING, STAINLESS STEEL, 3 QT, 9 3/4" DIA, 3 7/8" DEEP, SIZE C, BX-6EA (81348) RR-B-1242		BX	1
	7330-00-262-2323	BOWL, FOOD MIXING, STAINLESS STEEL, 5 QT, 11" DIA, 4-7/8" DEEP (81348) RR-B-1242		EA	2
	7330-00-241-8168	BOWL, FOOD MIXING, STAINLESS STEEL 7-1/2 GAL, 21-3/4" DIA, 8-3/4. DEEP (81349) MIL-B-2054 (LIN: B12331)		EA	2
	514040-587-5558	BOX, TOOL TYPE 3, CLASS 2 (81348) GGG-T-558/3		EA	1
	4240-01-297-5986	REATHING APPARATUS, OXYGEN GENERATING (2J495) 120320		EA	7
	7920-00-267-2967	BROOM PUSH, RATTAN (NO HANDLE) (81348) H-B-71		EA	4
	7920-00-29148305	BROOM, UPRIGHT, CORN HANDLE NOT DETACHABLE TYPE 2 (81348) H-B-0051		EA	8
	8020-00-559-0438	BRUSH PAINT, 1 IN (81348) H-B-491		EA	4
	8020-00-359-0369	BRUSH PAINT, 2 IN (81348) H-B-491		EA	4
	3020-00-178-5305	BRUSH PAINT, 4 IN (81348) H-B-491		EA	4
	7920-00-240-8358	BRUSH, DUSTING BAKERY TYPE 1, CLASS 2, STYLE 1 (81348) H-B-0190		EA	2
	7920-00-185-7277	BRUSH, DUSTING BEN LACQUERED BLOCK HANDLE FOR COURSE BRUSHING (45092) 378		EA	8

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	8020-00-174-4770	BRUSH PAINT FLAT 3 IN MEDIUM GRADE NYLON BRISTLE (81348) H-B-420		EA	4
	7920-00-240-5800	BRUSH, SANITARY TYPE 1 CLASS 2, DUTY A (81348) H-B-00481		EA	6
	7920-00-240-7171	BRUSH, SCRUB, DECK (NO HANDLE) 2 3/4 IN X 9 3/4 IN TYPE 1 (81348) H-B-531		EA	4
	7920-00-240-7174	BRUSH, SCRUB, FLOOR, HAND 1 3/4 IN X 6" PALMETTO FIBER (81348) H-B-1490-5		EA	2
	7520-00-223-8000	BRUSH, STENCIL 314 IN X 1 IN (81348) H-B00621		EA	2
	7920-00-291-5815	BRUSH, WIRE, CURVED HANDLE (81348) HB178		EA	2
	5130-00-293-0263	BRUSH, WIRE ROTARY WHEEL 1/2 IN AR BO, 6 IN OD, TYPE 3 CLASS 1, STYLE A (81348) H-B-771		EA	2
	7920-00-248-8501	BRUSH, WIRE, SCRATCH 7112 IN X 2 1/4 IN TYPE 4 CLASS 1 (81348) 7920-00-248-8501		EA	4
		BULB (FOR NAVIGATION LIGHT TOWING) (28763) HO60-0086		EA	2
	7910-00-680-8296	BUFFER FLOOR ELECTRICAL		EA	1
	7330-00-550-7592	BUTCHER'S STEEL, 10 IN BLADE TYPE 12 GRADE C (81348) GGG-C-746			
	2090-00-782-4038	CABINET, RULING, FOUR DRAWER W/COMBINATION LOCK (80064) 805-1638842		EA	3

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7125-00-132-8973	CABINET, KEY, 75 KEY, STEEL, GRAY, TYPE 2. CLASS A (81348) AA-C30		EA	4
	NO NSN	CABLE ASSY, RETRIEVING WIRE (1/2" X 200') PER US ARMY DRAWING (97403) 13226E6327-1		EA	5
	6150-01-182-4816	CABLE ASSY, PWR, ELEC, 50 FT (81348) J-C-1270		EA	4
		CABLE ASSY, TOWING BRIDLE (1-5/8 IN X 100 IN) PER US ARMY DRAWING (97403) 13226E6327-5		EA	10
	NO NSN	CABLE ASSY, TOWING BRIDLE (1 5/8" X 600') PER US ARMY DWG (97403) 13226E6327-2		EA	5
	NO NSN	CABLE, SHORE POWER, 75 FT LG, WITH PLUG AND RECEPTACLE		EA	2
	5210-00-229-3051	CALIPER, INSIDE, SPRING, RECT LEG 6" TYPE 1, CLASS 1, STYLE A (81348) GGG-C-95		EA	1
	5210-00-221-1921	CALIPER, MICROMETER, INSIDE, ROD & SLEEVE, .2" TO 12". TYPE 2, CLASS 2 (81348) GGG-C-105		EA	1
	5210-00-229-3054	CALIPER, OUTSIDE, ADJ SCREW, THREAD, 0" TO 6", TYPE 2, CLASS 5 (57163) 179		EA	1
	5120-00-554-7134	CALIPER SET MICROMETER OUTSIDE 0 IN - 6 IN TYPE 1 CLASS 1 STYLE A (81348) GGG-C-105 (LIN: C79665)		SE	1
	5120-00-287-3336	CALIPER SET, OUTSIDE 6-9 IN (81348) GGG-C-105 (LIN: C78569)		SE	1

Section III. BASIC ISSUE ITEMS - CONTINUED I

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7240-00-160-0441	CAN, ASH & GARBAGE, W/O COVER, GALVANIZED STEEL. 24GAL (58536) A-A-1069		EA	3
	7240-00-282-8411	CAN, FLAMMABLE WASTE, FOOT OPERATED, 6 GAL (58536) A-A-1674		EA	8
	7240-00-160-0440	CAN, GARBAGE, W/O COVER, GALVANIZED STEEL. 32 GAL (58536) A-A-1069		EA	2
	7330-00-634-4501	CANISTER, FOOD STORAGE, FLOOR, 8 IN HIGH, 7 5/8 IN DIA 6 LB CAP TYPE 3, CLASS C (58536) A-A-60		EA	1
	7930-00-266-7450	CANISTER, FOOD STORAGE, SUGAR 8 IN HIGH 7 5/8 IN DIA 10 LBS CAP 3, CLASS D (58536) A-A-860		EA	1
	7330-00-266-7449	CANISTER, FOOD STORAGE, TEA, 5 3/5 IN HIGH, 6 IN DIA 1 1/2 LBS CAP (58536) A-A-860		EA	1
	4200-00-174-1365	CANISTER, OXYGEN GENERATING (Deleted)		EA	63
	8415-00-121-5830	CAP, FOOD HANDLERS, WHITE DISPOSABLE (3F842) C100		BX	1
		CLEANER VALVE GUIDE (72915) 8141439		EA	1
	5120-00-529-4124	CARRIER, STORAGE BATTERY, TYPE 2,CLASS A, SIZE 20 (58536) A-A-50460		EA	2

Section II. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	NO NSN	CASE, CARRYING; THREADING SET, PIPE (39428) 2568A68		EA	1
	NO NSN	CHAIN, TOWING BRIDLE AND WEIGHT 1 1/2" X 90' STUDDED CHAIN (DILOCK) EA END OF CHAIN TO BE FITTED WITH OBLONG LINK STRENGTH EQUAL TO CHAIN STRENGTH		EA	7
	5110-00-222-2128	CHISEL, CAPE, HAND, NORMAL-DUTY, 6-1/2 X 3/8, TYPE 1, STYLE A (80372) 41G1238		EA	1
	5130-00-203-6424	CHISEL, POWER HAMMER, SCALING, 1-1/4" X 9" RD SHANK, TYPE 15, CLASS A (81348) GGG-C-330		EA	2
	6645-01-282-1928	CHRONOMETER WITH BOX (54121) MO-2		EA	2
	5120-00-203-6431	CLAMP, C, MEDIUM, 9 X 2-1/4" (81348) GGG-C-406		EA	4
	5120-00-529-3744	CLAMP, 'C', HEAVY 4-1/2" TO 2-3/4" (81348) GGG-C-406		EA	4
	5120-00-180-0909	CLAMP, C, LIGHT 6" OPENING, 2-3/4" DP (81348) GGG-C-406		EA	4
	7910-00-551-6854	CLEANER, VACUUM AC/DC, 120V, 60HZ, SINGLE PHASE, INDUSTRIAL TYPE (81348) W-C-421		EA	2
	6605-00-825-5618	CLINOMETER, SHIP, HEEL, TYPE 1, CLASS A (80064) MILC20061CTYPE1		EA	2
	6605-00-818-3897	CLINOMETER, SHIP, TRIM, TYPE 2 (81349) MILC20061TYPE2		EA	2
	4030-00-243-4448	CLIP, WIRE ROPE 1/2 IN		EA	50

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4030-00-243-4441	CLIP, WIRE ROPE 5/8 IN		EA	50
	7520-00-240-5503	CLIP BOARD, FILE 9 IN & 17 IN		EA	4
	6645-01-229-7499	CLOCK, MARINE, MECHANICAL, 8 DAY, SWEEP SECOND HAND, TYPE B (81349) MIL-C-119DTYPEA		EA	14
	7310-00-144-4707	COFFEE MAKER, PERCOLATOR, SIZE 30, TYPE 2, 115V, 60HZ, ALUMINUM, AUTO HI/LO (81349) MIL-C-28515		EA	3
	7310-00-505-0191	COFFEE MAKER, PERCOLATOR, SIZE 80, TYPE II 110V MIN. 120V MAX 60HZ, SINGLE PHASE, AUTO HULO STEEL, CORROSION RESISTING (81349) MIL-C-28515		EA	1
	7330-00-680-2762	COLANDER, ALUMINUM 11 QT, STYLE 2 (58536) A-A-469		EA	1
	8030-00-616-7694	COMPOUND ANTI-SEIZE (PIPE JOINT AND THREAD) (18876) 9995535		LB	2
	8030-00-231-2345	COMPOUND CORROSION PREVENTIVE (19203) 945011		GL	10
	8030-00-064-3657	CONDITIONER, PAINT BRUSH 6 1/2 IN DIA X 14 IN HIGH BRUSH CAPACITY (00343) PROTEXM BRUSH CONDITIONER		EA	4
	4020-00-240-2164	CORD, COTTON 1/4 IN 200 FT COIL (81348) MILL1145		CL	2
	4020-00-240-2160	CORD, COTTON 5/16 IN 1200 FT COIL 18 STRANDS 5/16 INCH DIA 27 FT LB 8 (81348) TC571		CL	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7240-00-161-1147	COVER, ASH & GARBAGE CAN, 24 GAL (58536) A-A-1069		EA	3
	7240-00-161-1143	COVER, ASH & GARBAGE CAN, 32 GAL (81348) RR-C-82		EA	2
	7210-00-883-8492	COVER, MATTRESS, SIZED TO FIT MATTRESS (83421) 721040-83-492		EA	46
	7290-00-130-3271	COVER, IRONING BOARD 16 X 54 IN, HEAT RESISTANT (58536) A-A-1805		EA	1
	7350-00-935-4635	CRUET, CONDIMENT 6 OZ 24 PER BOX (81348) DD-T-101		BX	1
	7350-00-689-5383	CUP, DRINKING, GLASS 12 OZ, TYPE II, STYLE B (58536) A-A-1061		BX	1
	7350-00-823-7563	CUP, DRINKING, GLASS 10 1/2 OZ (81348) DD-T-90		DZ	4
	7350-00-823-7394	CUP, DRINKING, GLASS, WHITE, 6 1/2 OZ (81348) DD-T-90		DZ	4
	7230-00-849-9839	CURTAIN, SHOWER, PLASTIC, 36" X 72 (83421) 7230-00-849-9839		EA	12
	5180-00-596-1038	CUTTER AND FLARING TOOL KIT, 1/8" TO 1-1/8" CUT RANGE 3/16" TO 3/4" SWAGING TYPE 2, CLASS 1 (81348) GGG-C-771		KT	1
	5110-00-188-2524	CUTTER, BOLT, RIGID, CUPPER, 36" LONG, TYPE 2, CLASS 4 (81348) GGG-C-740		EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5110-00-288-8722	CUTTER, CIRCLE, GASKET (81348) GGG-C-00748		EA	1
	5110-00-293-0460	CUTTER, PIPE, WHEEL TYPE, CUTS 1/8" TO 2" DIA, TYPE 1, CLASS 1, STYLE B (81348) GGG-C-771		EA	1
	5110-00-221-1049	CUTTER, PIPE, WHEEL TYPE, CUTS 2" TO 4", TYPE 1, CLASS 1, STYLE B (81348) GGG-C-71		EA	1
	5110-00-529-5092	CUTTER, PIPE, WHEEL TYPE, CUTS 4 IN TO 6 IN DIA TYPE 1, CLASS 1, STYLE B (81348) GGG-C-771		EA	1
	5110-00-224-7058	CUTTER, WIRE, ROPE, HAND OPERATED, HYDRAULIC, CUTS 0 TO 1-1/8" DIA, TYPE 1, CLASS 1, SIZE 2 (81348) GGG-C-800 (LIN: F65304)		EA	1
	8120-00-268-3360	CYLINDER, ACETYLENE GAS (81349) MIL-C-3701 (LIN: F67400)		EA	3
	8120-00-357-7992	CYLINDER, OXYGEN (81348) C901/1-15 (LIN: F69455)		EA	3
	4240-01-252-0086	CYLINDER, COMPOSITE, AIR MASK, 30 MIN (55799) 473579 (Deleted)		EA	4

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
		(Deleted)			
		(Deleted)			
		(Deleted)			
	5510-00-260-8973	DAMAGE CONTROL KIT PLUG, WOOD, SOFT, 10 EA, 8" LG END, 4" SM END, 10" LONG (80064) S8800-461043		EA	10
	5510-00-260-8953	DAMAGE CONTROL KIT PLUG, WOOD, SOFT, 20 EA, 1- LG END, 0" SM END, S LONG (80064) 803-461043		EA	20
	5510-00-260-8949	DAMAGE CONTROL KIT PLUG, WOOD, SOFT, 20 EA, 10" LG END, SM END, 12 LONG (80064) S8800-461043		EA	20
	5510-00-260-8958	DAMAGE CONTROL KIT PLUG, WOOD, SOFT, 20 EA, 2" LG END, 0" SM END, 4" LONG (80064) S8800-461043		EA	20

Section III. BASIC ISSUE ITEMS- CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5510-00-260-8962	DAMAGE CONTROL KIT PLUG, WOOD, SOFT 20 EA, 3" LG END, 0" SM END, 8" LONG (80064) 803-461043		EA	20
	5510-00-260-8966	DAMAGE CONTROL KIT PLUG, WOOD, SOFT 20 EA, 5" LG END, 3" SM END, 10" LONG (80064) 803-461043		EA	20
	5510-00-260-8969	DAMAGE CONTROL KIT PLUG, WOOD, SOFT 20 EA, 7" LG END, 3" SM END, 10" LONG (80064) 803-461043 (Deleted)		EA	20
	5510-00-268-3476	DAMAGE CONTROL KIT WEDGE, TAPERED, H/WOOD, 10 EA, 1-1/2" THK, 2" WIDE, 12" LONG (80064) S8800-461043		EA	10
	5510-00-268-3475	DAMAGE CONTROL KIT WEDGE, TAPERED, H/WOOD, 10 EA, 1 1/2" THK 3" WIDE, 12" LONG (80064) S8800-461043		EA	10
	5510-00-268-3479	DAMAGE CONTROL KIT WEDGE, TAPERED, H/WOOD, 10 EA, 2" THK, 2" WIDE, 8" LONG (80064) S8800-461043		EA	10

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5510-00-268-3481	DAMAGE CONTROL KIT WEDGE, TAPERED, H/WOOD, 10 EA, 3" THK, 3" WIDE, 12" LONG (80064) 803-461043		EA	10
	5510-00-268-3485	DAMAGE CONTROL KIT WEDGE, TAPERED, H/WOOD, 10 EA, 4" THK, 2" WIDE, 8" LONG (80064) S8800-461043 (Deleted)		EA	10
	6665-00-903-4767	DETECTOR KIT, CHEMICAL AGENT, ABC M18A2, SUP MAN-665-94-CL-E14 (81361) E-77-2092		EA	1
	4940-01-014-6037	DETECTOR, LEAK, REFRIG, ELECTRONIC (16734) TIF5000		EA	1
	7930-00-926-5230	DETERGENT GENERAL PURPOSE		BX	1
	6830-00-729-4377	DICHLORODIFLUOROMET BOTTLE FREON 12 (81348) BB-F-1421		LB	10
	5180-00-856-3471	DIE AND TAP SET, THREAD CUTTING, CARBON STEEL, ADJ DIE STOCK (84729) ACE614		EA	1
	5110-00-289-0007	DIE SET, METAL STAMPING, LETTER, A THRU Z. PERIOD AND AMPERSAND, 1/4" SIZE, TYPE 2, GRADE A (95683) 411843		EA	1
	5110-00-289-0003	DIE SET, METAL STAMPING, NUMERAL, 0 THRU 8, 1/4 IN SIZE, TYPE 1, GRADE A (81348) GGGD280		EA	1

Section III. BASIC-ISSUE ITEMS CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5136-00-357-7504	DIE AND TAP SET, THREAD CUTTING NF TYPE 1, NO. 6 SET (81348) GGG-T-30 (LIN: G09044)		SE	1
	5136-00-357-7494	DIE AND TAP SET, THREAD CUTTING W/CASE, 8 THRU 64 THREAD (NC) PER INCH, TYPE 1, SET NO. 4 (81348) GGG-T-330 (LIN: GO9044)		SE	1
	7330-00-272-2488	DIPPER, KITCHEN STAINLESS STEEL, 1 PT, 8" HANDLE, SIZE 1 (58536) A-A-1 077		EA	1
	7330-00-272-2489	DIPPER, KITCHEN, STAINLESS STEEL, 1/2 QT, 12 IN HANDLE (58536) A-A-1077		EA	2
	7350-00-823-7398	DISH, EATING 5-9/16 DIA (81348) DD-T-90		DZ	4
	7330-00-190-5190	DISHPAN, ROUND, STAINLESS STEEL, 20 QT (81348) RR-D-450		EA	1
	7930-00-985-6905	DISHWASHERING, COMPOUND, MACHINE 25 LB DRUM (58536) A-A-684		EA	2
	7930-00-880-4454	DISHWASHING, COMPOUND HAND LIQUID, 1 GAL (83421) 7930-00-880-4454		GAL	4
	5345-00-880-8377	DISK, ABRASIVE, NO 36 GRIT SIZE (81348) P-D-455		EA	8
	5345-00-880-4378	DISK, ABRASIVE, NO 24 GRIT SIZE CLOSED COAT, 1/2 IN ARBOR (81348) P-D-455		EA	8
	5345-00-881-8375	DISK, ABRASIVE, NO. 60 GRIT SIZE CLOSED COAT, 1/2 IN ARBOR (81348) P-D-455		EA	8

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code U/M	(5) Qty Rqr
	6840-00-810-6396	DISINFECTANT, FOOD SERVICE POWDER, TWELVE 4.77 OZ POUCHES PER BOX (81349) MIL-D-11309	BX	12
	7310-00-345-4903	DISPENSER MILK REFRIGERATED 10 GAL (81348) 00-0-450 (UN: G18510)	EA	1
	7350-00-205-0928	DISPENSER, PAPER NAPKINS, STAINLESS STEEL, 125 CAPACITY (81348) RR-D-500	EA	4
	4510-00-585-6305	DISPENSER, PAPER TOWEL STEEL CABINET, TYPE 3 (58536) A-A-2380TY3 DISPENSING PUMP AIR POWERED (39428) 4257KL	EA EA	22 1
	7350-00-641-6050	DISPENSER, SUGAR, 12 OZ GLASS BODY STAINLESS STEEL CAP WITH FLIP OPENING	EA	6
	7350-00-715-1369	DISPENSER, TOOTHPICK STAINLESS STEEL 300 CAP (58536) A-A-1054	EA	2
	8105-00-655-8285	DISPOSABLE LINER POLY FITS WASTE PAPER BASKET (250 PER BOX) (58536) A-A-1668	BX	4
	8105-00-183-9769	DISPOSABLE LINER POLY FITS 20-32 GAL CANS (125 PER BOX) (58536) AA1668	BX	10
	5210-00-266-7038	DIVIDER, MECHANIC'S, SOLID NUT, ADJ., 4" TYPE A, CLASS 2 (19200) 7902227	EA	1
	7330-00-205-3155	DOUBLE BOILER, ALUMINUM, HEAVY DUTY,.11 QT (58536) A-A-551	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Pal Number	Usable On Code (4) U/M	(5) Qty Rqr
	7330-00-205-3154	DOUBLE BOILER, DOMESTIC, ALUMINUM, 3 QT (58536) A-A 552	EA	2
	7330-00-984-4065	DOUBLE BOILER, INSTITUTIONAL 5 1/2 QT (58536) A-A 551	EA	2
	6675-00-286-0602	DRAFTING INSTRUMENT NAVIGATION (81349) MIL-N-634	SE	2
	5120-00-223-9952	DRESSER, ABRASIVE WHEEL, HAND, 1-1/4" DIA, SIZE 0 (81348) GGG-D-631	EA	1
	5130-00-473-6224	DRILL, ELECTRIC, PORTABLE, AC/DC, 115V 3/8" CAP, CLASS C, STYLE 1 (81348) W-D-61	EA	1
	5130-00-889-1840	DRILL, ELECTRIC, PORTABLE, AC/DC, 115V, TYPE 2, PHASE 1, 1/4 IN, STR DRIVE REVERSIBLE, SHOCKPROOF (81348) WD00661	EA	1
	5130-00-293-1849	DRILL, ELECTRIC, PORTABLE, AC/DC, 115V TYPE 3 CLASS A 650 RPM, 1/2 IN CAP, HEAVY DUTY (61348) W-D-661 (LIN: G57056)	EA	1
	5130-00-89-9002	DRILL PRESS, ELECTRIC, 1/2ICAP (81348) WD00661 (LIN: G56782)	EA	1
	5133-00-293-0983	DRILL SET, TWIST, SET#2 STR SHORT SHANK, SET OF 29, FRAC SIZES 1/16" TO 1/2", BY 64THS (81348) GGG-D-751 (LIN: G61714)	EA	2
	5133-00-445-06775	DRILL SET, TWIST, SET #3, MORSE TAPER SH, 60 PCS WITH CASE, WIRE GAGE SIZES 1-60 TYPE C (81348) GGG-D-751	SE	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part. Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5133-00-293-1161	DRILL SET, TWIST 1/2 IN TO 1 IN (81348) GGG-D-751		SE	2
	NO NSN	DRINK DISPENSER (53214) E27-3		EA	1
	NO NSN	DRYER, AUTOMATIC (53800) 110.86860100		EA	1
	6850-00-285-8011	DRYCLEANING SOLVENT SO-2, DR-55 GAL P-D-680 TYPE 11 (81348) P-P-680		DR	2
	7290-00-224-8308	DUSTPAN STEEL, TYPE 2, CLASS 2, SIZE 12 (58536) A-A-300		EA	12
	4320-00-256-8206	EDUCTOR, BILGE 4 (EJECTOR, JET) (80064) 5000S4823-2501		EA	2
	7330-00-243-3408	EGG BEATER, HANDCRANK, DOUBLE BEATERS, HEAVY DUTY, TYPE 1 (58536) A-A464		EA	2
	3439-00-262-2652	ELECTRODE, WELDING 6011, 3/32 X 12 (28835) E6011-3-32		LB	50
	3439-00-262-2670	ELECTRODE, WELDING 6010, 1/X 14 (36232) FLEETWELDS		LB	50
	3439-00-853-2719	ELECTRODE, WELDING 7018, 3/16 X 14, CN = 50 LBS (81349) MIL-E-22200/1		CN	1
	4240-01-116-9888	EMERGENCY ESCAPE BREATHING DEVICE (EEBD) 1 PER BUNK, 3-EOS, 1 FWB AUX MACHINERY SPACE, 1 AFT AUX MACHINERY SPACE.		EA	27

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code (4) LUM	(5) Qty Rqr
		ENSEMBLE US NAVY FIREFIGHTERS CONTAINING THE FOLLOWING ITEMS	EA	7
	8415-01-300-6557	COVERALL, MEDIUM	EA	2
	8415-01-300-6558	COVERALL, LARGE	EA	4
	8415-01-300-6559	COVERALL, EXTRA LARGE	EA	1
	8415-01-335-7902	GLOVES, MEDIUM	EA	2
	8415-01-335-7903	GLOVES, LARGE	EA	3
	8415-01-335-7904	GLOVES, EXTRA LARGE	EA	2
	8415-01-271-8069	HELMET	EA	7
	8430-00-753-5935	BOOTS SIZE 8	EA	1
	8430-00-753-5940	BOOTS SIZE 10	EA	5
	8430-00-753-5942	BOOTS SIE 12	EA	1
	5130-00-596-1062	ETCHER, ELECTRIC (81349) MIL-E-3118	EA	1
	4210-00-889-2491	EXTINGUISHER, FIRE (58536) A-A-393	EA	14
	5120-00-240-5223	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 1, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-D-936	EA	1
	5120-00-240-5221	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 3, DRILL STYLE, TYPE 1, CLASS L, STYLE A (81348) GGG-E-936	EA	1
	5120-00-240-5222	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 4, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code U/M	(5) Qty Rqr
	5120-00-240-5219	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 5, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936	EA	1
	5120-00-240-5220	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 6, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936	EA	1
	5120-00-240-5217	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 7, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936	EA	1
	5120-00 240-5215	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 9, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936	EA	1
	5120-00-242-1118	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE B, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-3-936	EA	1
	5120-00-240-5216	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 10, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5120-00-223-6954	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 11, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936		EA	1
	5120-00-223-6955	EXTRACTOR, SCREW, TAPERED, SPIRAL FLUTES, SIZE 12, DRILL STYLE, TYPE 1, CLASS 1, STYLE A (81348) GGG-E-936		EA	1
	4240-00-240-5140	FACESHIELD INDUSTRIAL, AMBER, K18 PLASTIC VISOR (81349) MIL-S-3126		EA	5
	4240-00-542-2048	FACESHIELD, INDUSTRIAL, CLEAR, K11 PLASTIC VISOR (81348) L-F-36		EA	5
	2040-00-821-0808	FENDER, MARINE 16 IN X 36 IN		EA	6
	2040-00-123-7982	FENDER, MARINE 32 IN X 50 IN		EA	6
	5120-00-223-8921	FID, 12 IN (81349) MIL-F-3113		EA	2
	5120-00-223-8860	FID, 18 LONG, TYPE 1, STYLE A (81349) MIL-F-3113		EA	2
	5110-00-204-2685	RLE SET, HAND, SWISS PATTERN, 12 ASSORTED NEEDLE FILES 6-1/4" LG, CUT #2, TYPE 18, CLASSES 1 - 12 (81348) GGG-F-331		SE	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5120-01-276-0544	FINGER, MECHANICAL (11083) 6V4950			
	8345-00-375-0221	FLAG SET - SEMAPHORE M113 (81349) MIL-F-40055		EA	1
	8345-00-262-2419	FLAG, IDENTIFICATION VESSEL, T.C. TYPE 1, CLASS 2 NYLON & WOOL, 1A, RECTANGULAR, FLY-3.000 FT HOIST-2.000 FT LAUNCHFLAG (81349) MIL-F-2692		EA	2
	8345-00-656-1446	FLAG, NATIONAL, UNION JACK 1'10" X 2'8" (81348) DDD-F-416		EA	2
	8345-00-245-2040	FLAG, NATIONAL, UNITED STATES 1'6" X 2'2" (81348) DDD-F-416		EA	2
	8345-00-935-0464	FLAG, SIGNAL, "A" INTN'L CODE SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0465	FLAG, SIGNAL, "B" INTN'L CODE SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0466	FLAG, SIGNAL, "C" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus. Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	8345-00-926-0467	FLAG, SIGNAL, "D" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0468	FLAG, SIGNAL, "E" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0469	FLAG, SIGNAL, "F" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0470	FLAG, SIGNAL, "G" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0471	FLAG, SIGNAL, "H" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0472	FLAG, SIGNAL, "I" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0473	FLAG, SIGNAL, "J" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0474	FLAG, SIGNAL, "K" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	8345-00-935-0475	FLAG, SIGNAL, "L" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0476	FLAG, SIGNAL "M" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0477	FLAG, SIGNAL, "N" INTNL CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0478	FLAG, SIGNAL, "O" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0479	FLAG, SIGNAL, "P" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0480	FLAG, SIGNAL, "Q" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0481	FLAG, SIGNAL, "R" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0482	FLAG, SIGNAL, "S", INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	8345-00-926-0483	FLAG, SIGNAL "T" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0484	FLAG, SIGNAL, "U" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0485	FLAG, SIGNAL, "V" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0486	FLAG, SIGNAL, "W" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-926-0487	FLAG, SIGNAL, "X" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0488	FLAG, SIGNAL, "Y" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	8345-00-935-0489	FLAG, SIGNAL, "T" INTN'L CODE, SIZE 8 (81349) MIL-F-2692		EA	1
	6230-00-264-8261	FLASHLIGHT, WATERTIGHT, 2 CELL, TYPE 1, STYLE 2 (21108) MX-991/U		EA	14
	6230-00-269-3032	FLASHLIGHT (80058) MX-992/U		EA	7

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7290-00-148-7068	FLATIRON, ELEC, STEAM AND DRY (58536) A-A632		EA	1
	2040-01-151-1686	FLOUNDER PLATE 4 HOLE PER US ARMY DWG 13226E2131 (97403) 13226E2131		EA	6
	3439-01-236-9572	FLUX, SOLDERING (27911) 40026		EA	5
	3439-00-255-4580	FLUX WELDING GAS (70279) SC-609		LB	5
	9150-01-237-7467	FOOD PROCESSING EQUIPMENT OIL (81349) DOD-L-24651		QT	1
	9150-01-209-4868	FOOD PROCESSING EQUIPMENT GREASE (81349) DOD-G-24650		LB	1
	7330-00-810-1937	FOOD TURNER, 4 1/2 SLOTTED BLADE (58536) A-A-1076		EA	1
	7330-00-205-0617	FOOD TURNER, HAMBURGER, 3 X 4 2" BLADE (5853) A-A-1640		EA	1
	7330-00-634-1995	FOOD TURNER, CAKE, 7-1/2" SOLID BLADE (58536) A-A-1640		EA	2
	5120-00-849-1141	FORCE CUP, PLUMBERS BALL SHAPED, TYPE II (81348) ZZF566B		EA	1

Section III. BASIC ISSUE ITEMS—CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	7340-00-223-7791	FORK FOOD PREPARATION, 15" LONG 2 TINES, STAINLESS STEEL (81349) MIL-U-10815		EA	2
	7340-00-223-7792	FORK FOOD PREPARATION, 21" LONG 1 TINE, STAINLESS STEEL (81349) MIL-U-10815		EA	2
	7340-00-241-81691	FORK, TABLE, PLAIN, GRES 4 TINES 24 TO BOX (81348) RR-F450		BX	2
	NO NSN	COVERALL, ANTIEXPOSURE (64249) 327 Local Purchase, GSA Contract GS-07F-4206A		EA	11
	5110-00-289-9657	FRAME, HAND, HACKSAW, FOR 10" TO 12" BLADE TYPE 1, CLASS 1, STYLE 1 (81348) GGF671		EA	4
	6830-00-770-7888	FREON #12, 50 LBS CONTAINERS (81348) BB-F-1421		EA	2
	7240-00-404-9793	FUNNEL, PLASTIC, 1 QT (58536) A-A-1663		EA	2
	7240-00-144-5995	FUNNEL, STEEL W/STRAINER 1 GAL (82378) 631		EA	1
	7240-00-230-2416	FUNNEL, W/SPOUT 1/2 QT CAP (81348) RRF800		EA	1
	7240-00-230-2393	FUNNEL, W/SPOUT AND STRAINER GALVANIZED STEEL, 1 PT, TYPE 1 (58536) A-A-1066		EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	5210-00-473-9350	GAGE SET, TELESCOPING (81348) GGG-G-17		SE	1
	6685-00-251-1360	GAUGE, PRESSURE DIAL (38508) C233A		EA	1
	7930-00-664-6910	GLASS CLEANER TYPE 1 CLASS 1 (58536) A-A-40		EA	1
	7350-00-170-8330	GLASS, WATER, 10 OZ 72 PER BOX (58536) A-A-1061		BX	1
	8415-00-634-4658	GLOVES, LEATHER GUNN CUT, REG SIZE (58536) A-A-50021		PR	16
	8415-00-266-8677	GLOVES, CHEMICAL PROTECTION (81348) ZZ-G-381 (LIN: J69160)		PR	2
	8415-00-268-7860	GLOVES, WELDERS, GUNN CUT, REG SIZE (58536) A-A-50022 (LIN: J67379)		PR	2
	8415-01-267-9661	GLOVES, ANTI-FLASH		PR	29
	4240-00-052-3776	GOGGLES, INDUSTRIAL PLASTIC, SAFETY TYPE (58536) A-A-1110		PR	8
	2040-00-238-9060	GRAPNEL, MARINE 5 PRONG (81349) MIL-G-613 LIN: J76126		EA	1
	4930-00-223-3389	GREASE GUN, HAND 28 OZ (57733) 7584		EA	1
	9150-00-117-2928	GREASE GN = 5 LB DOD-G-24508A (81349) DOD-G-24508		CN	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code (4) U/M	(5) Qty Rqr
	9150-00-180-6382	GREASE, MBG CN - 61 2 LBS MIL-G24139 (81349) MIL-G-24139	CN	1
	9150-00-190-0905	GREASE, AUTO AND ARTILLERY 6 1/2 LBS SYMBOL GAA (98308) BRAYCOTES 610	CN	6
	9150-00-663-9795	GREASE, BALL AND ROLLER BEARING 6.5 LBS CAN (81349) MIL-18709	CN	5
	9150-00-235-5512	GREASE, BALL AND ROLLER CN IS 1402 (73219) 18901	CN	2
	9150-00-235-5555	GREASE, GENERAL PURPOSE CN - 6.5 LBS GGP (07950) ROYCO49B GREASE LITIUM BASE LBG (81348) MIL-G28349A	CN	1
	9150-00-530-6814	GREASE, WIRE ROPE, EXPOSED 35 LBS CAN (07950) ROYCO58R	CN	6
	3415-00-517-7754	GRINDER, BENCH MOUNTED ELECTRIC TYPE 1, SIZE 7, (81349) MIL-G-80260 (LIN: J89168)		
	4930-00-289-5419	GUN, FLUID, DIRECT DELIVERY 25.8 OZ (81348) GGG0591	EA	1
	4020-00-240-2161	HALYARD, COTTON BRAIDED 2400 FT ROLL CLASS 1 1/4 IN DI (81349) MILH226	RL	2
	5120-00-203-4656	HAMMER, HAND, DOUBLE-FACE, 2-1/2 LBS (81348) GGG-H-86	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	5120-00-903-9303	HAMMER, HAND, NONSPARKING AND NON- MAGNETIC, 2-1/2 LBS, FIBERGLASS HANDLE, CLASS 2 (58536) A-A-2476 (Deleted)	EA	2
	5120-00-224-4111	HAMMER, HAND, SCALING, BOILER PICK 1 LB, TYPE 6 (81348) GGG-H-86	EA	4
	5120-00-255-1476	HAMMER, HAND, SHIP'S MAUL, 5 LBS, TYPE 12 (58536) A-A-1285	EA	1
	5120-00-194-1648	HAMMER, HAND, COPPER, SOFT HD, BARREL HD 2 LBS, TYPE 2, CLASS 1 (81348) GGG-H-33	EA	1
	5120-00-224-4121	HAMMER, HAND, COPPER, SOFT HEAD, BARREL HD SHAPED, 1 LBS, TYPE 2, CLASS 1 (81348) GGG-H-33	EA	1
	5120-00-230-7843	HAMMER, HAND, DOUBLE- FACED SLEDGE, 20 LBS (81348) GGG-H-86	EA	2

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQD
	5120-00-240-3096	HAMMER-BRUSH, WELDERS CHISEL HEAD W/2 EXTRA BRUSHES, TYPE 4, STYLE D (00741) 1329-0280		EA	2
	5120-00-224-4130	HAMMER, HAND, SLEDGE, BLACKSMITHS CROSS-PEEN, 12 LBS, TYPE 10, CLASS 2 (81348) GGG-H-86		EA	2
	5120-00-242-3915	HAMMER, HAND, SLEDGE, BLACKSMITHS CROSS-PEEN, 3 LBS, TYPE 10, CLASS 2 (81348) GGG-H-86		EA	2
	5130-00-190-6442	HAMMER, PNEUMATIC, PORTABLE, SCALING, TYPE 1, STYLE A (81348) OO-H-116		EA	2
	7920-00-267-1218	HANDLE, MOP, WOOD, 54 IN LONG TYPE 2, CLASS 1 (81348) NN-H-101		EA	4
	7920-00-141-5452	HANDLE, WOOD, FOR USE WITH RATTAN PUSHBROOM, SQUEEGEE AND DECK SCRUB BRUSH TYPE 2 (81348) NN-H-104		EA	8
	4240-00-022-2522	HARNESS SAFETY		EA	4
	5110-00-228-3161	HATCHET, HALF (81348) GGG-H-131		EA	2
	8415-00-935-3139	HELMET, CONSTRUCTION, WHITE (81348) GGGH142		EA	6
	8415-00-935-3136	HELMET, SAFETY CONSTRUCTION, BLUE (58536) A-A-2269		EA	15

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	3940-00-150-7108	HOIST, WIRE ROPE, HAND 3/4 TON 10 FT (93601) 3000-30M	EA	2
	3950-00-2354236	HOIST, CHAIN, HAND-OPERATED, HOOK SPNSN 1 2 TON (81349) MIL-H-904 (LIN: K37466)	EA	2
	3950-00-965-0096	HOIST, CHAIN, HAND-OPERATED, HOOK SPNSN 2 TON CAPACITY, CLASS 2, TYPE C (81349) MIL-H-904 (LIN: K36952)	EA	2
	3950-00-235-4235	HOIST, CHAIN, HAND-OPERATED, HOOK SPNSN 3/4 TON CAPACITY, LEVER- OPERATED CLASS 1, TYPE H, STYLE 1 (81349) MILH904CLASS1TYPE1 STYLE1 (LIN: K37055)	EA	2
	5210-00-138-5333	HOLDER, DIAL INDICATOR, MAGNETIC (57163) 657T	EA	1
	5210-00-390-5446	HOLDER, DIAL TEST INDICATOR (96168) MODEL200	EA	1
	8415-01-268-3473	HOOD, ANTIFLASH (64067) 8415-01-268-3473	EA	29
	2040-00-268-9250	HOOK, BOAT, 10' (21530) H389	EA	2
	7230-00-252-3394	HOOK, SHOWER CURTAIN SUSPENSION 100 PER BOX (26821) L946	BX	12
		HOSE ASSY, NON-METALLIC OILY WATER DISCHARGE RUBBER WRAPPED 1/2 IN BY 50 FT	EA	3

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQD
		HOSE ASSY, NON-METALLIC SEWAGE DISCHARGE RUBBER WRAPPED 2 IN BY 50 FT WITH/BRONZE FITTINGS		EA	3
	4720-00-293-7874	HOSE ASSEMBLY, NONMETALLIC, AIR, RUBBER WRAPPED, 112", CLASS 1 (81348) ZZ-H-500		EA	8
	4210-00-595-1838	HOSE ASSEMBLY, NONMETALLIC, WATER 3/4 ID 50' LG (04024) 5100-185		LG	3
	4210-01-248-8822	HOSE ASSEMBLY, NONMETALLIC (81348) M2406-150		EA	3
	4210-01-131-0247	HOSE, ASSY, NONMETALLIC, FIRE, RUBBER INTERBRAIDED 2 1/2 IN X 50 FT (81349) MIL-H-24606		EA	4
	4310-01-131-0249	HOSE ASSY, FIRE, ORANGE, 1-1/2 IN. X 50 FT		EA	7
	4210-00-230-6572	HOSE ASSY, RUBBER WATER, 4 IN, TYPE 1, CLASS B, SIZE 4 (81348) ZZH451		EA	4
	NO NSN	HOSE, DISPENSING PUMP 8' LONG (39428) 4257K<2		EA	2
	9150-00-985-7234	HYDRAULIC FLUID CM = 5 GAL (81349)MIL-H-46001 (Deleted)		CN	5

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	9150-00-985-7233	HYDRUALC FLUID OH, DR = 55 GAL, MIL-H-17672 (73277) HYDRAULIC OIL 680		
	5210-00-277-8840	INDICATOR DIAL, 1 1/2 IN DIA, 0-100 DIAL MARKINGS, MUSHROOM AND BALL CONTACT POINT, TYPE 3, STYLE B (81349) MIL-1-18422 (LIN: K75475)	EA	1
	6665-00-292-9945	INDICATOR, COMBUST GAS TYPE 2, CLASS 1 (81349) MIL-I-2703 (LIN: E57351)	EA	2
	4940-01-268-2200	INDICATOR POINT SET (11083) 6V4060		
	6685-01-306-2881	INDICATOR, VACUUM (07295) 14526		
	5210-00-377-6525	INDICATOR DIAL, 2-3/16" DIA., 0-50-0 MARKINGS, REGULAR CONE & MUSHROOM CONTACT POINTS, TYPE 3, STYLE B (81349) MIL-I-18422	EA	1
		INFLATABLE LIFERAFT HYDRASTATIC RELEASE USE G HAMMER H20 W/WEAK LINK	EA	2
	1940-01-015-7346	INFLATABLE 25 PERSON LIFERAFT MARK 6 US NAVY	EA	2
	7280-00-663-7300	IRONING BOARD 16 IN X 54 IN (58536) A-A-297	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	8415-00-268-8263	JACKET, WELDERS, MED (81348) KK-C-450	EA	1
	5120-01-087-3616	KEY SET, SOCKET HEAD (METRIC) (55719) AWM110CK	EA	1
	5120-00-935-4641	KEY SET, SOCKET HEAD SCREW, 20 PIECE, TYPE 1, CLASS 1 (81348) GGG-K-275	SE	1
	6545-00-656-1094	KIT, FIRST AID (SHIP) 25-30 PERSON SERV NO. 3 (04024) 6170-9	EA	2
	6545-00-656-1093	KIT, FIRST AID (LIFEBOAT) 8-12 PERSON SERV NO. 2 (04024) 6170-8	EA	2
	4730-00-470-6625	KIT, FITTING, COPPER TUBING (30327) 51025	EA	1
	NO NSN	KIT, RUNNING GEAR (TO MAKE WELDER PORTABLE) C/O 2 EA. AXLES, 4 EA CASTERS (40608) 040-874	EA	1
	NO NSN	KIT, SANITIZER CHLORINE, IODINE, QUATERNARY AMMONIA	EA	1
	1095-00-392-2980	KIT, SERVICE, LINE, THROWING DEVICE (75324) GR52CK	KT	1
	NO NSN	KIT, WELDING ACCESS, C/O, ELECTRODECABLE MIN, 35 FT LONG: 1 EA GROUND CABLE W/CLAMPS, MIN. 30 FT LONG: 1 EA WELDING HELMET (40608) 040 052	KT	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	7340-00-197-1271	KNIFE, BONING 6 IN CARBON STEEL BLADE PLASTIC HANDLE (4Y739) 6447M	EA	2
	7340-00-488-7950	KNIFE, COOKS, 12" CARBON STEEL BLADE PLASTIC HANDLE (81348) GGG-C-746 TYPE111	EA	2
	7340-00-223-7939	KNIFE, PARING, 3-112" HI-CARBON BLADE PLASTIC HANDLE (10266) CU8137	EA	2
	7340-00-406-6531	KNIFE, SLICING, 12" CORROSION RESISTING PLASTIC HANDLE (81348) GGG-C-746	EA	2
	7340-00-291-0625	KNIFE, STEAK, FOOD PREP, 10 LONG (81348) GGG-C-746	EA	2
	7340-00-060-6057	KNIFE, STEAK, TABLE 24 PER BX (81348) RR-F-450	BX	2
	7340-00-241-8170	KNIFE, TABLE CRES 24 TO BOX (81348) RR-F-450	BX	2
	2090-00-242-2511	LADDER, JACOBS (53711) 804-5959234-15FT	EA	2
	5440-00-221-0346	LADDER, EXTENSION, WOOD (97452) AT7245 (LIN: L34506)	EA	1
	5440-00-514-4485	LADDER, STEP, ALUMINUM, 6 FT, TYPE 1 (81348) RR-S-720	EA	2

Section III. BASIC ISSUE ITEMS CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	7330-00-685-5330	LADLE, KITCHEN, 12 OZ (58536) A-A-1956	EA	1
	7363-00-680-0865	LADLE, KITCHEN, 4 OZ (58536) A-A-1956	EA	2
	7330-00-248-1153	LADLE, KITCHEN, 8 OZ STAINLESS STEEL, W/O POURING UP (58536) A-A-1956	EA	2
	5120-00-289-0502	LAPPER, POPPET VALVE GRADE A (00988) 400	EA	1
	6240-00-143-3124	LAMP, INCANDESCENT, 100 WATT (08108) 100A120V	EA	36
	5850-00-358-3718	LAMP, INCANDESCENT 12V ALDISLAMP (80063) M438	EA	2
	6240-00-143-3119	LAMP, INCANDESCENT 60 WATT (58536) A-A-1584	EA	36
	4240-00-022-2521	LANYARD, SAFETY SHOCK ABSORBING	EA	4
	4240-00-084-2518	LANYARD WORKING	EA	4
	4240-00-710-2074	LANYARD, DISTRESS MARKER LIGHT, YELLOW POLYETHYLENE 1/4 IN DIA, 3 STRAND	RL	1
		LATHE (7R992) EN5810	EA	1
	8010-00-239-5737	LEAD, WHITE (PASTE IN OIL) TYPE B, CN = 5 LB (81348) TT-2-251	CN	1
	6220-00-376-1538	LENS, CLEAR (FOR NAVIGATION LIGHT TOWING) (28763) 8086-0089	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQD
	6220-00-376-1486	LENS, GREEN (FOR NAVIGATION LIGHT TOWING) (28763) 8086-0087		EA	1
	6220-00-376-1483	LENS, RED (FOR NAVIGATION LIGHT TOWING) (28763) 8086-0M86		EA	1
	4220-00-200-0538	LIFE PRESERVER, WITH COLLAR WITH REFLECTOR TAPE, ORANGE		EA	30
	4220-00-276-8926	LIFE PRESERVER, VEST (WORK VEST) (81349) MILL17633		EA	10
	1940-01-015-7346	LIFEBOAT ASSEMBLY (80064) 0902-028-601 0MK6		EA	2
	5120-00-239-8686	LIFTER, VALVE SPRING SIZE 2, TYPE 1 (81348) GGG-L-350		EA	1
	6230-00-808-4466	LIGHT, BERTH (81349) MIL-F-1637711/17		EA	23
	6230-00-152-2870	LIGHT, DESK, CHART TABLE (W/FILTER ASSY MIL-STD-1 6721) (81349) M1 6377/15-148.2		EA	1
	6530-01-042-8131	LITTER, RIGID, STOKES (89875) 20748S		EA	2
	6530-01-187-0104	LITTER, MED. EVAC, SAR (Deleted)		EA	1
	6260-01-086-8077	LIGHT, SURVIVAL PERSONNEL CHEMILUMINESCENE		EA	62

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	4010-00-106-9472	LINK, CHAIN 1 IN DETACHABLE HIGH STRENGTH, WITH HAIR PIN, USN BUSHIP PLAN 52603-921790, MIL-L-2710A, TYPE 1, CLASS 3	EA	4
	4010-00-106-9468	LINK, CHAIN 1 112 IN DETACHABLE HIGH STRENGTH, WITH HAIR PIN, USN BUSHIP PLAN 312603-921790 MIL-L-2710A, TYPE 1 CLASS 3	EA	7
	2090-00-9564016	LOCKER, HAND GRENADE ALUMINUM 26 1/8" X 15116" (80064) 805-1363770	EA	1
	2040-00-823-4298	LOCKER, PYROTECHNIC (80064) 805-1360275REVBRH	EA	1
	2090-00-243-2362	LOCKER, SAFE, NO. 7 (81349) MIL-F-243	EA	3
	4930-00-253-2478	LUBRICATING GUN, HAND, 140Z (81349) MIL-G-3859	EA	3
	4930-00-640-4081	LUBRICATING GUN, HAND, 9 OZ (10001) 404081	EA	3
	9150-01-178-4726	LUBRICATING OIL, (81349) MIL-L-2104	QT	10
	9150-00-458-0075	LUBRICATING OIL, GENERAL 16 OZ CN (81348) VV-L-800	CN	2
	9150-00-186-6699	LUBRICATING, OIL (81349) MIL-L-46152	QT	10
	9150-00-256-6411	LUBRICATING, OIL 10W-30 CN - 5 GAL (81349) MIL-L-46152	CN	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	9150-01-035-5393	LUBRICATING, OIL CN = 5 GAL, GO-80/90 (81349) MIL-L-2105	CN	1
	9150-00-166-6688	LUBRICATING, OIL CN = 5 GAL, OE/HDO-10 (81349) MIL-L-2104	CN	1
	9150-00-188-9858	LUBRICATING, OIL CN = 5 GAL, OE/HDO-30 (81349) MIL-L-2104	CN	1
	9150-00-188-9862	LUBRICATING, OIL OE/HDO-40; DR = 55 GAL (81349) MIL-L-2104	DR	1
	5120-00-691-1165	MANDREL SET, HAND (USED TO ASSEMBLE SWIVEL NUT FITTINGS TO HOSES) (01276) 1568	EA	1
	1370-01-078-0591	MARKER, LOCATION MARINE MK 58 MODI BOBIE 1370-L580	EA	2
	4020-00-240-2185	MARLINE, HEMP TYPE 4, CLASS 1, 20 LBS COIL (81348) TR650	CL	2
	5120-00-224-9443	MARLINESPIKE, 14", PLAIN, WIRE ROPE TYPE, W/EYE, TYPE 1 (81349) MIL-M-15926	EA	2
	5120-00-221-2731	MARLINESPIKE, 8", WIRE ROPE TYPE, W/EYE, TYPE 1 (81349) MIL-M-15926	EA	2
	7330-00-205-3093	MASHER, POTATO, HAND (58536) A-A-395	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	7510-00-266-6712	MASKING TAPE 1 IN FED SPEC PPP.T-42 (58536) A-A-883	RO	6
	7510-00-266-6710	MASKING TAPE 2 IN FED SPEC PPP.T-42 (58536) A-A-883	RO	6
	7510-00-266-6707	MASKING TAPE 3 IN FED SPEC PPP.T-42 (58536) A-A-883	RO	6
	4240-01-248-8035	MASK, OXYGEN MSA ULTRALIGHT W/CASE (55799) 484934	EA	2
	7220-00-267-4630	MATTING, FLOOR SAFETY Y RUBBER OR VINYL, BLUE, NONSLIP H BOARD, FIRE RESISTANT 36 IN X 25 YDS (81349) MIL-M-15562	RO	1
	7210-01-244-9735	MATTRESS, BED (81349) MIL-M-18351	EA	22
	7240-00-233-6025	MEASURE, LIQUID, RIGID SPOUT, 4 QT, TYPE 1, CLASS A (58536) A-A-1607	EA	1
	7240-00-255-5996	MEASURE, LIQUID, W/FLEXIBLE SPOUT, 8 QT, TYPE 2, CLASS B (58536) A-A-1607	EA	1
	7240-00-233-6013	MEASURE, LIQUID, FLEXIBLE SPOUT, 1 QT, TYPE 1, CLASS B (56232) 281639	EA	1
	7240-00-255-8113	MEASURE, LIQUID, W/FLEXIBLE SPOUT, 2 QT, TYPE 1, CLASS B (74640) N202	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	7330-00-272-7876	MEASURING SET, SPOON CRES (4 SPOONS) (58536) A-A-1954	EA	2
	8465-0238-3344	MEGAPHONE, HAND, 18" (81349) MIL-M-1263	EA	1
	NO NSN	MICROWAVE OVEN 1.6 CU FT CAP (OBDN7) R-5K81	EA	2
	5120-00-278-9926	MIRROR, INSPECTION, RECTANGULAR GLASS 1-114" X 1-1/2" 11" OVERALL LENGTH, TYPE 2, CLASS 3 (55719) GA52A	EA	1
	5120-00-6186902	MIRROR, INSPECTION, RECTANGULAR GLASS 1-3/4" X 2-5/8", 18: OVERALL LENGTH, PLUNGER ACTUATED ANGLE ADJUSTMENT, TYPE 1, CLASS 3, SIZE 2 (55719) GA51 A	EA	1
	6830-00-174-9677	MONOCHLORODIFLUGOROM CY - 10 LB (18873) FREON 22	CY	1
	6625-00-649-0411	MULTIMETER M38985	EA	1
	6625-01-265-000	MULTIMETER, ANIPSM45A (89536) 27/FMW/ACCE (LIN: M60449)	EA	2
	5180-00-93514642	MULTIPLIER KIT, TORQUE (3200 FT LB) (72915) 9551713	KT	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) (5) QTY RQD
	6230-01-181-9893	NAVIGATION LIGHT, (28763) FA-249 LENSE, Red (28763) 886-0002 LENSE, Green (28763) 886-0003 LENSE, Clear (28763) 886-0001	EA	5
			EA	2
			EA	2
			EA	2
	5315-00-753-3885	NAIL COMMON, 16 D PG.5LB (81348) FF-N-105	PG	5
	5315-00-753-3882	NAIL COMMON 8 D PG =5 LB (81348) FF-N-105	PG	5
	8540-000-285-7001	NAPKIN, TABLE, PAPER BX. 10,000 (81348) UU-N-001650	BX	1
	5130-01-083-5949	NEEDLE SET (FOR SCALER, NEEDLE TYPE) (56632) 50303	EA	3
	4210-00-274-8445	NOZZLE, FIRE HOSE, WATER 3 POSITION, 2 112 IN THREADED CONNECTION (81349) MIL-N-12314	EA	AR
	4210-00-225-6225	NOZZLE, FIRE HOSE, FOAM, 3 POSITION, 1-112 THREADED CONNECTION (81349) MILN12279	EA	AR
	NO NSN	NUT, STEEL, HEX SHACKLE BOLT HEAVY DUTY, GALVANIZED 2.250-4 1/2 UNC-2A SPECIFICIATION: ASTM A563	EA	50
	6625-00-141-3558	OHMETER 0-1000 MEG OHMS RESIST (07239) 212159	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) J/M	(5) QTY RQD
	4930-00-262-8868	OILER, HAND, FLEX SPOUT, 1 PT (72798)328		EA	2
	4930-00-266-9182	OILER, HAND, 8 OZ (72798) 14A		EA	2
	9150-00-598-2911	OIL, REF LUBRICATING RCO-4 VV-L-825 (81348) VV-L-825		QT	1
	7330-00-205-3151	OPENER, CAN, MANUAL, TABLE MOUNTED, TYPE 3, GRADE A (81390) 2		EA	2
	7330-00-272-2590	OPENER, CAN, ELCL PORTABLE (81349) MIL-O-40155 (LIN: N18703) (Deleted)		EA	1
	7290-00-633-9124	PAD, IRONING BOARD, 16" X 54" X 3/8 THICK (58536) A-A-1806		EA	1
	5340-00-582-2742	PADLOCK, KEYED (96906) MS35647-2		EA	24
	7920-00-823-9818	PAD, METAL POLISH (NEVER DULL) CN - 2 LB (81349) MIL-1-22590		CN	2
	7920-0-045-2940	PAD SCOURING (27293) 7447		BX	1
	7240-00-160-0455	PAIL. UTILITY, METAL, HEAVY WEIGHT, 3 112 GAL (58536) A-A-1273		EA	8
	7330-00-244-4549	PAN, MUFFIN, 12 CUPS ALUMINUM, HEAVY DUTY, STYLE A (58536) A-A-387		EA	2
	7330-00-8236883	PAN, PIE, ALUMINUM, 9" STYLE A (58536) A-A-390		EA	4
	7330-00-205-3164	PAN, BAKING AND ROASTING, 13-1/4"X 9-1/4 X 2-114" (58536) A-A-388		EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQD
	7330-00-205-3166	PAN, BAKING AND ROASTING, 18" X 12 X 2 1/2 (58536) A-A-388		EA	1
	7330286-8069	PAN, BAKING AND ROASTING 24 IN X 18 IN X 4 1/2 IN. (95027) C36793B		EA	2
	733000-234-7401	PAN, BAKING AND ROASTING, 24 1/2 X 12" X 3 (81349) MIL-P-3852		EA	1
	7330-00-6338905	PAN, BAKING SHEET (58536) A-A-388		EA	2
	7330-00-255-5995	PAN, BREAD, FOUR-PAN SET (58536) A-A-422		SE	1
	7330-00-205-3150	PAN, CAKE, ROUND, 12 PER BOX, 9" DIA X 1-11/2 DEEP (58536) A-A-1073		BX	1
	7330-00-238-3805	PAN, FRYING, 12, DIA (58536) A-A-423		EA	2
	7330-00-246-2402	PAN, FRYING, 6' DIA (58536) A-A-423		EA	2
	7330-00-954 6015	PAN, FRYING, 8", W/O COVER CAST IRON (70866) AP4150		EA	2
	7330-00-244-4549	PAN, MUFFIN, 12 CUPS, ALUMINUM, HEAVY DUTY, STYLE A (58536) A-A-387 (Deleted) (Deleted)		EA	2
	6665-00-0508529	PAPER CHEMICAL AGENT DETERMINATION (81361) D5-67-266		BK	6

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	4310-00-289-5967	PAPER COMPUTER PRINTER (81348) UMP-546	BX	2
	7530-00-145-0416	PAPER COMPUTER PRINTER (950 SETS)	BX	2
	8540-00-530-3770	PAPER, TOILET 96 ROLLS TO BOX (58536) A-A-697	BX	1
	6850-00-001-4194	PASTE, WATER INDICATING (65093) SAR-GEL	TU	6
	7330-00-238-8316	PEELER, POTATO, HAND (85812) W8079	EA	1
	7510-00-281-5234	PENCIL, WRITING #2 (83421) 7510-00-281-5234	DZ	6
	8345-00-935-0537	PENNANT, SIGNAL, ANSWER 1ST REPEATER INTN'L CODE, SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0538	PENNANT, SIGNAL, ANSWER 2ND REPEATER INTN'L CODE, SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0540	PENNANT, SIGNAL, ANSWER 3RD REPEATER INTN'L CODE, SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0534	PENNANT, SIGNAL, ANSWER INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0504	PENNANT, SIGNAL, "0" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0496	PENNANT, SIGNAL, "1" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-926-6022	PENNANT, SIGNAL, "2" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	8345-00-935-0497	PENNANT, SIGNAL, "3" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0498	PENNANT, SIGNAL, "4" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0499	PENNANT, SIGNAL, "5" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0500	PENNANT, SIGNAL, "6" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0501	PENNANT, SIGNAL, "7" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0502	PENNANT, SIGNAL, "8" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	8345-00-935-0503	PENNANT, SIGNAL, "9" NUMERIC INTN'L CODE SIZE 6 (81349) MIL-F-2692	EA	1
	5980-01-134-2068	PHOTO-CELL (FOR NAVIGATION LIGHT TOWING) (28763) 9001 0317	EA	2
		PIN, COTTER, PRONG 1/2 IN X 6 IN PLAIN STEEL FINISH (FITS BRIDLE AND RIDER SOCKET PIN) (39428) 98311A656	EA	2
		PIN COTTER PRONG 1/4 IN X 4 IN PLAIN STEEL FINISH (FITS PLATE SHACKLE BOLT) (39428) 98311A558	EA	10

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
		PIN, COTTER, PRONG, 3(16 IN X 3 IN PLAIN STEEL FINISH (FITS RETRIEVING WIRE SOCKET PIN) (39426) 98315A520	EA	50
	7210-00-205-3205	PIN, DRIFT 1/2 IN X 16 IN STEEL PILLOW, BED, TYPE 1, SIZE 3 (83421) 7210-00-205-3205	EA EA	2 25
	7210-00-231-2373	PILLOW CASE, BED, TYPE 1 CLASS 4 (83421) 7210-00-231-2373 (LIN: N93293)	EA	50
	7350-00-1954763	PITCHER, SYRUP, GLASS 14 OZ BODY CHROME TOP (80064) 417826	EA	4
	7350-00-249-5165	PITCHER, WATER, 2 QT STAINLESS STEEL STYLE A, SIZE 2 (58536) A-A-424	EA	4
	7350-00-823-7396	PLATE, DINNER, GLASS, WHITE, 9 IN DIA (81348) DD-T-90	DZ	4
	2040-01-151-1683	PLATE, SHACKLE PER US ARMY DWG (97403) 13226E2127	EA	19
	5120-00-943-9929	PLIERS, BATTERY TERMINAL SPREADER & REAMER, PLIER TYPE, 7-12 LONG (WRENCH, PLIER) (70786) 20	EA	2
	5120-00-239-8251	PLIERS, LINEMAN'S, W/SIDE CUTTERS, 8" LONG, PLAIN HANDLE, TYPE 9, CLASS 1, STYLE A (81348) GGGP471TYPE9CLASS1 STYLEA	EA	2
	NO NSN	PLIERS, LOCKING, HOLDING CLAMP, 11" (39428) 5105A19	EA	2
	6515-00-137-6345	PLUG, EAR, HEARING, PROTECTION UNIVERAL SIZE, VIINYL FOAM, DISPOSABLE 400 PER BOX (89875) 4375	BX	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) J/M/R/Q/D	(5) QTY
	7910-00-224-7985	POLISHER, FLOOR ELEC. W/5 BRUSHES (81348) OOP-570 (LIN: P16391)		EA	1
	7910-266-7137	POLISH, METAL (58536) A-A-105		EA	2
	7330-00-205-4146	POT, COOKING, W/COVER 14 QT (58536) A-A-555		EA	2
	7330-773-3941	POT, COOKING W/COVER 9 QT		EA	2
	7360-00-245-1224	POT, COOKING W/COVER 6 QT ALUMINUM (81349) MIL-C-1588		EA	2
	7930-00-205-0442	POWDER, SCOURING 14 OZ CN (58536) A-A-47		CN	36
	4940-00-360-2752	PRESS, HYDRAULIC, PORTABLE (07505) S71 (Deleted)		EA	1
	6675-00-191-1516	PROTRACTOR, MECHANICAL (81349) MILP288		EA	2
	6675-00-191-1514	PROTRACTOR, PLASTIC 3 ARM TYPE 2 (81349) MIL-P-288		EA	1
	6675-00-183-6485	PROTRACTOR SEMI-CIRCULAR 6"		EA	2
	6830-00-584-3041	PROPANE, 14 OZ DISPOSABLE CYUNDER TYPE 2 (81348) BBG110		EA	4
	6685-00-826-1662	PSYCHROMETER TYPE 5 (48620) U430		EA	1
	5830-00-965-9033	PUBLIC ADDRESS SET (80058) ANP105A (LIN: P84187)		EA	1
	5120-00-224-9456	PULLER, FUSE, 1/2" AND 1-114" DIA. TYPE 1, SIZE 2 (99993) 17P6TYPE1		EA	3

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE	(5) QTY U/MRQD
	5120-00-224-9453	PULLER, FUSE, 1/4" AND 1/2' DIA. TYPE 1, SIZE 1 (30119) 34-001	EA	3
	5120-00-243-2776	PULLER, FUSE, 1" AND 2-1/2' DIA., TYPE 1, SIZE 3 (99051) 196	EA	3
	5120-00-595-9305	PULLER, MECHANICAL, DOUBLE-END GRIP TWO JAW, EXTERNAL, 8" SPREAD, TYPE 1, CLASS 1, STYLE B SIZE 2 (81348) GGG-P-781	EA	1
	5120-00-595-9304	PULLER, MECHANICAL DOUBLE-END GRIP TWO JAW, EXTERNAL, 6" SPREAD, 3- REACH, TYPE 1, CLASS 1, STYLE B (81348) GGG-P-781 (LIN: P87790)	EA	1
	5120-00-288-7710	PULLER, MECHANICAL, GEAR AND BEARING, 0" TO 7" SPREAD, 5-1/8" REACH, TYPE 1, CLASS 1 (81348) GGGP781TYPE1 CLASS1 STYLEA	EA	1
	5120-00-215-1880	PULLER, MECHANICAL, GEAR AND BEARING, 21-3/4" REACH, 9" SPREAD, SINGLE END GRIP, TWO JAW, EXTERNAL, TYPE 1, CLASS 1 (45225)1005	EA	1
	5120-00-288-7711	PULLER, MECHANICAL, SINGLE END GRIP, TWO JAW, EXTERNAL, 0" TO 12" SPREAD, 10-5/8" REACH, TYPE 1, CLASS 1 (81348) GGG-P-781	EA	1
		PUMP OIL, MARINE GRADE 40 WT MARINE HYD OIL WIANTIWEAR RUST INHIBITORS, SEA RECOVERY PUMP OIL (1 BZ02) SRCPO	CN	5
	4320-00-986-7312	PUMP UNIT, CENTRIFUGAL (31425) 11810-0003	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE	(5) QTY RQD
	4320-00-437-0046	PUMP UNIT, CENTRIFUGAL, ELEC, SUBMERSIBLE (39428) 4327K4 (Deleted)	EA	2
	4310-00-289-5967	PUMP UNIT, VACUUM, RTRY, 115V AC, 13 CFM (TO PULL VACUUM ON AIR CONDITIONING & REFRIGERATION SYSTEMS) (08288) MS54310-1	EA	1
	4930-00-263-9886	PUMP, DISPENSING, HAND DRIVEN, 20 GAL PER 100 STROKES (61178) F152	EA	1
	5110-004497313	PUNCH SET, CUTTING, DOUBLE BOW, 7 HOLLOW PUNCHES SIZES 1/4" TO 5/8" DIA (55719) PGHS8A	SE	2
	5120-00-883-3003	PUNCH SET, DRIVE, PIN, SET OF 9, SIZES 1-9, TYPE 8, CLASS A, STYLE 1 (81348) GGG-P-831	EA	2
	6685-01-122-1292	PYROMETER GROUP (11083) 6V70706V3073-8T485-6V9129-8T45- (Deleted)	EA	1
	NO NSN	RECORDER, VIDEO CASSETTE (OBDN7) VC-A105U	EA	1
	NO NSN	REFRIGERATOR 2.1 CU FT CAP (2B427) SSD2CK	EA	5
	7920-00-205-1711	RAG, WIPING, 50 LB BALE (81348) DDDR-30 (Deleted)	BE	6
	4730-00-542-3359	REPAIR KIT, PIPE, EMG C40 F/11 N/SUP ITEMS: EMGR PIPE REPAIR (81349) MILR178828	EA	6

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
		REPAIR KIT, PIPE, EMG BOTTLE, IQ, HARDNER, 4 EA KT		
		REPAIR KIT, PIPE, EMG CAN, EPOXY, RESIN 4EAKT		
		REPAIR KIT, PIPE, EMG CLOTH, ABRASIVE 1EAKT		
		REPAIR KIT, PIPE, EMG GOGGLES 2EAKT		
		REPAIR KIT, PIPE, EMG INSTRUCTION SHEET 1 EA KT		
		REPAIR KIT, PIPE, EMG PADDLE, WOODEN 4EAKT		
		REPAIR KIT, PIPE, EMG ROLL, IMPREGND CLOTH, 1 EA KT		
		REPAIR KIT, PIPE, EMG ROLL, PAPER, THIN 1 EA KT		
		REPAIR KIT, PIPE, EMG ROLL, PVC FILM 1 EA KT		
	4730-00-542-3362	REPAIR KIT, ENGR C/O F13 NONSUP ITEMS: ENGR PIPE REPAIR (81349) MIL-R-17882 ASSEMBLY 2	KT	6
		REPAIR KIT, ENGR CAN, PASTE, HARDENER 4EAKT		
		REPAIR KIT, ENGR CAN, PASTE, RESIN 4 EA KIT		
		REPAIR KIT. PIPE, EMG ROLL, STRING 1 EA KT		
		REPAIR KIT, PIPE, EMG ROLL, WOVEN CLOTH 1 EA KT		
	5120-00-850-6313	RETRIEVING TOOL, MAGNETIC, FLEXIBLE, INSULATED, 33"LONG, TYPE 2, CLASS 2, STYLE B (81348) GGG-F00360	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	5120-00-5454268	RETRIEVING TOOL, MAGNETIC, TELESCOPE, 26" TO 27-1/2' MAX LG. TYPE 2, CLASS 1 (81348) GGGF-O360	EA	1
	4240-00-629-8199	RESPIRATOR AIR FILTERING 20 PER BOX (D2607) GT-99993005-7	BX	4
	4220-00-275-3157	RING BUOY, UFESAVING 30 IN. OD (81349) MIL-R-16847 (LIN: R9806)	EA	8
	4020-00-530-0698	RING RETRIEVING UNE MIL-R-24049 I IN. CIRCLE ORANGE POLYPROPYLENE	EA	1
	5120-00-017-2849	RIVETER, BLIND, HAND (10054)200	EA	1
	3439-00-246-0564	ROD, WELDING 1/16 X 36 (31505) AWSA5.5-80RG60 062	LB	50
	3439-00-268-9668	ROD, WELDING 1/8 X 36 (81348) QQ-R-571	LB	50
	3439-00-247-2978	ROD WELDING 1/8 X 36 (08588) 241	LB	50
	3439-00-246-0566	ROD, WELDING 1/8 X 36 (81349) MIL-R-908	LB	50
	3439-00-246-0565	ROD, WELDING, 3/32 X 36 (31505) AWSA5.2-8RG600093	LB	50
	3439-00-262-7565	ROD, WELDING 3/32 X 36 CO= 10 LB (81348) QQ-R-571	LB	50
	8020-00-689-5379	ROLLER KIT, PAINT, 9" C/O: ROLLER, COVER, TRAY AND EXTENSIONS (81348) H-R-550	EA	4
	8020-00-753-4915	ROLLER, PAINT 9 INCH, DYNEL (81348) H-R-550	EA	8
	7330-00-153-9749	ROLLING PIN (s8536) A-A-2368	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	NO NSN	ROPE, NYLON 10" CIRC X 200' LG ONE END 8 FT EYE SPLICE BITTER END WHIPPED	EA	2
	NO NSN	ROPE, NYLON 6" CIRC X 200' LG ONE END 6 FT EYE SPLICE BITTER END WHIPPED	EA	6
	NO NSN	ROPE, NYLON 8" CIRC X 200' LG ONE END 6-8 FT EYE SPLICE, BITTER END WHIPPED	EA	6
	5330-00-641-3051	RUBBER SHEET, SOLID 1/16" TYPE 1, CLASS 1 (81349) MIL-G-1149	EA	1
	5330-00-729-5103	RUBBER SHEET, SOLID 1/8" TYPE 1, CLASS 1 (81349) MIL-G-1149	EA	1
	6675-00-191-1507	RULE PARALLEL, NAVIGATORS, 12 IN (81348) GG-P-118	EA	1
	5210-00-501-6280	RULE, MULTIPLE FOLD, STEEL, 6' EXTENDED, TYPE 3, CLASS 2 (81348) GGG-R-791	EA	1
	6675-00-191-1509	RULE, PARALLEL, 18" NAVIGATORS, FOLDING (81348) GG-P-118	EA	1
	7510-00-161-6215	RULER, WOOD, 12" LG (58536) A-A-355	EA	6
	7510-00-161-6217	RULER, WOOD, 18 IN LG (58536) A-A-355	EA	2
	5130-00-340-0719	SANDER, DISC, PNEU (13797) 21HR-550	EA	3
	5130-00-596-9728	SANDER, DISC, ELCL PORTABLE 115V AC/DC, PAD DIA 7 IN, TYPE 2 CLASS 2, HEAVY DUTY, SP FEAT FUNGUS RESISTANT (81348) OO-S-90 (LIN: S32323)	EA	3
	7330-00-240-2137	SAUCEPAN, W/COVER 7-1/2 QT SIZE 3 (81349) MIL-S-40044	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	7330-00-240-2134	SAUCEPAN, W/COVER 2 QT SIZE 1 (58536) A-A1980	EA	2
	5130-00-089-3353	SAW, CIRCULAR, ELEC, PORTABLE 115V AC/DC, TYPE 1 SIZE 7 SAW, CHAIN 12 IN OO9EQ SERIES (1C418) 7120	EA	1
	5130-00-089-3353	SAW, CIRCULAR, ELEC, PORTABLE 115V AC/DC, TYPE 1, SIZE 7 (58241) 3034-90 (LIN: S360-15)	EA	1
	5130-00-343-8945	SAW, CIRCULAR, PNEUMATIC, PORTABLE, WITH 6 BLADES, 3 EA 44 TEETH & 3 EA 60 'TEETH (03990) 7468E	EA	1
	5130-00-889-7745	SAW, ELECTRIC, RECIPROCATING 115V AC (80318) 61	EA	1
	NO NSN	SCALE, BAKERS 8 LB CAP (17087) 1002TB	EA	1
	5130-00-288-6577	SCALER, AND CHIPPING TOOL ELECTRIC (58536) A-A-2351 (LIN: S50386)	EA	2
	5130-00-965-9876	SCALER, PNEUMATIC, PORTABLE, NEEDLE TYPE (81349) MIL-S-23492	EA	3
	7330-00-153-9760	SCOOP, KITCHEN, STAINLESS STEEL, 7-7/8" X 5-1/4" (09647) 943-7532	EA	2
	7330-00-680-2636	SCRAPER, BAKERS RUBBER BLADE, WOOD HANDLE (58536) A-A-277	DZ	1
	5110-00-240-3094	SCRAPER, SHIP, ALL METAL, 15" LONG ANGLE-BENT END, TYPE 1, CLASS A (81348) GGG-S-116	EA	4

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	6605-00-244-7735	SEXTANT MARINE, RING OF ARC -5 TO 145 DEG. W/CASE AND POLAROID FILTERS, TYPE A (81349) MIL SW387 TYPE A (LIN: 586703)	EA	3
	4030-00-282-4885	SHACKLE, ANCHOR W/SCREW PIN 5/16 IN, 3/8 IN PIN DIA (39428) 3558T46	EA	10
	NO NSN	SHACKLE, ANCHOR W/SCREW PIN, 1 3/8" 1 1/12" PIN DIA (39428) 3558T57	EA	10
	NO NSN	SHACKLE, ANCHOR W/SCREW PIN, 3/16" 1/4" PIN DIA (39428) 3558T44	EA	10
	4030-01-099-2692	SHACKLE, ANCHOR W/SCREW PIN, 5/8" 3/4" PIN DIA (39428) 3558T51	EA	10
	4030-00-185-0490	SHACKLE, ANCHOR W/SCREW PIN, 7/16" 1/2" PIN DIA (78998) H102	EA	10
	4030-01-158-2131	SHACKLE, ANCHOR W/SCREW PIN, 7/8" 1" PIN DIA (39428) 3558T53	EA	10
	NO NSN	SHACKLE, CHAIN W/SCREW PIN, 1 3/4" 2 " PIN DIA (39428) 3560T58	EA	10
	7350-00-240-7068	SHAKER, PEPPER (58536) A-A-1826	EA	2
	7350-00-680-2630	SHAKER, SALT AND PEPPER, GLASS BODY STAINLESS STEEL TOP 2 OZ (88009) X608	EA	10
	7350-00-240-7069	SHAKER, SALT, 9 CU IN CAP TYPE 8 (58536) A-A-1826	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	8345-00-174-0453	SHAPE DAY, MARITIME, BALL, BLACK (81349) MIL-S-29108 (LIN: F78962)	EA	3
	8345-01-101-1101	SHAPE, DAY, MARITIME, DIAMOND, BLACK, PER USOG RQMTS (81349) MIL-S-29134	EA	2
	7330-00-798-7356	SHARPENER, KNIFE, WALL MOUNTED (66715) 86MM177	EA	1
	7520-00-162-6178	SHARPENER, PENCIL, MANUAL (58536) A-A-427	EA	5
	5110-00-293-0089	SHEARS, METAL CUTTING, STR CUT, 2-1/2" TO 3-1/2" CUT, 12-1/2" OVERALL LENGTH, TYPE 2, CLASS 1, STYLE B (70786) 012	EA	2
	5110-00-221-1087	SHEARS, METAL CTG, COMBINATION CUT, 12-1/2 IN OVERALL LENGTH, 2-3/4 IN TO 3-1/2 CUT, TYPE 2 CLASS 3 (81348) GGG-291	EA	2
	5110-00-221-1083	SHEARS, METAL CTG, STRAIGHT CUT, 16, OVERALL LENGTH, 2-1/4" TO 3-1/2"CUT, TYPE 2, CLASS 1, STYLE A (81348) GGG-S-291	EA	2
	5110-00-161-6909	SHEARS. STRAIGHT TRIMMERS, 9", 1 BEVEL/1 SHARP PT. TYPE 1, CLASS 1, STYLE A DESIGN 2 (81348) GGG-S00278	EA	2
	7210-01-119-6416	SHEET, BED COTTON, FLAT, WHITE, 66 IN. BY 102 IN. (58536) A-A-1433	DZ	8
	8135-00-838-0122	SHEET, PLASTIC FOOD WRAP ROLLED, 15" WIDTH, CLASS 7 RO - 5000 FT (81348) L-P-370	RO	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	7330-00-184-0089	SIFTER, FLOUR 1-1/2 QT (81348) RR-S-345	EA	1
	5850-00-407-6671	SIGNAL, LAMP EQUIPMENT (80063) SE11 LIN: T51340 (Deleted)	EA	1
	1370-00-629-2336	SIGNAL, ILLUMINATION (19203) 9797968	EA	12
	6850-00-177-5094	SILICONE COMPOUND, 2 OZ PER TUBE (81349) MIL-S-8660	TU	10
	1680-01-226-5300	SLING ASSY RESCUE LITTER	EA	2
	8415-00-261-6437	SLEEVES, CAP AND BIB, WLDRS, MED (81348) KK-C-450	EA	1
	7930-00-579-8592	SOAP, LAUNDRY, 100 LB DRUM (81348) P-S-1792	DR	1
	8520-00-129-0803	SOAP, TOILET, 40Z CAKE, HAND (58536) A-A-51	BX	1
	5120-01-113-8078	SOCKET SET, SOCKET WRENCH (METRIC) (80204) B107.5	SE	1
	3439-00-188-6987	SOLDER, LEAD ALLOY ACID CORE (81348) QQ-S-571	SL	1
	3439-00-188-6988	SOLDER, LEAD ALLOY, ROSIN CORE, 1 LB (81348) 1QQ-S-571	LB	2
	3439-00-596-1718	SOLDER, SILVER (80009) 006-0664-00	EA	5
	3439-00-930-1638	SOLDERING GUN, ELCL, TRIGGER OPERATED (11103) 450K4	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	NO NSN	SOUND WASTE (TRASH) COMPACTOR (53820) 1600 SS	EA	1
	7330-00-684-8740	SPATULA, STEEL, 14 BLADE (81348) GGG-C-746	EA	2
	7330-00-254-4791	SPATULA, STEEL 8 IN SPRING-TEMPERED BLADE (81348) GGG-C-746	EA	2
	7340-00-223-7800	SPOON, BASTING 21" LONG (81349) MIL-U-10815	EA	2
	7340-00-241-8171	SPOON, DESSERT, 24 TO BOX 7" LONG (81348) RR-F450	BX	2
	7340-00-240-7080	SPOON, FOOD SERVICE 15' LONG TYPE 1 (58536) A-A-1082	EA	4
	7340-00-205-3340	SPOON, ICED TEA 24 TO BOX 6' LONG (81348) RR-F450	BX	2
	7340-00-205-1421	SPOON, SLOTTED SERVICE, 15" LONG TYPE 2 (58536) A-A-1 082	EA	2
	7340-00-235-5023	SPOON, SOUP (58536) A-A-1808	DZ	2
	7340-00-205-3341	SPOON, TABLE, CRES 24 TO BOX (81348) RR-F450	BX	2
	7240-00-177-6154	SPOUT, FLEXIBLE (09647) 838A7511	EA	2
	4940-00-066-4254	SPRAY OUTFIT, PAINT AIR (62729) 4017S	EA	1
	NO NSN	SPRAYER, INSECTICIDE HAND, 2 GAL (3333)	EA	1
	7920-00-267-4639	SQUEEGEE, WINDOW, 8" LG (81348) ZZS666	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	7520-00-243-1780	STAPLER, PAPER FASTENING HEAVY DUTY (81348) GG-S-745	EA	3
	7510-00-272-9410	STAPLES PAPER FASTENER HEAVY DUTY, 1/2 IN X 1/2 IN 5000 UNIT BOX (02809) S.F. 13 1/2	BX	2
	7520-00-298-7043	STENCIL SET, MARKING 1 IN BRASS INTERLOCKING LETTERS (58536) A-A-130	SE	1
	7520-00-298-7044	STENCIL SET, MARKING 2" BRASS INTERLOCKING LETTERS (58536) A-A-130	SE	1
	7520-00-272-9683	STENCIL SET, MARKING 3" BRASS INTERLOCKING LETTERS (58536) A-A-130	SE	1
	7520-00-269-9012	STENCIL SET, MARKING 4" METAL LETTERS (58536) A-A-130	SE	1
	5345-00-190-5528	STONE, SHARPENING RECTANGULAR, 8" X 2" X 1", ALUMINUM OXIDE, MEDIUM GRIT, TYPE 2, STYLE 1 (81348) SS-S-736	EA	2
	7110-00-634-8596	STOOL, REVOLVING WOOD (81348) AA-S-700	EA	2
	6645-00-250-4680	STOPWATCH 60 SECOND DIAL TYPE 1, CLASS 2 (81059) 358	EA	2
	4220-01-251-6466	SURVIVAL SUIT, COLD WEATHER, ADULT (63806) ISS-590	EA	30
	NO NSN	SWITCH, ON/OFF (FOR NAVIGATION LIGHT TOWING) (28763) 9015-0181	EA	1
	NO NSN	TACHOMETER, HAND (89554) DT-25	EA	1

Section III. BASIC ISSUE ITEMS- CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	8030-00-889-4535	TAPE, ANTISEIZE, 1/2 IN X 260 IN (81349) MIL-T-27730	EA	6
	5640-00-409-4265	TAPE, DUCT, RO = 180 FT (58536) A-A-2232	RO	4
	5970-00-185-8531	TAPE, ELECTRICAL INSULATION 81 1/2 FT PER RO (81348) HH-I-510	RO	12
	5210-00-234-6745	TAPE, MEASURING, 50 FEET STEEL, GEN PURPOSE, TYPE 2, CLASS B, STYLE 3, CASE V (81348) GGG-T-106	EA	4
	5210-00-526-0752	TAPE, MEASURING, TANK LEVEL GAGE, 50' LONG, BRASS PLUMB BOB, GLARE FREE (37163) 14075	EA	2
	NO NSN	TELEVISION, COLOR 21" (OBDN7) 20RV79	EA	1
	6630-00-074-0394	TEST KIT, CHROMATE (71881) 121	EA	1
	6630-00-531-1968	TEST KIT, OIL CONDITION (81349) MILT19467	EA	1
	NO NSN	TEST KIT, SANITIZER (93255) ICQ-260	SE	1
	4940-01-035-3782	TEST STAND, LASH ADJUSTER (72915) 8267432		
	6630-00-247-2968	TESTER, ANTIFREEZE, SOLUTION FLT TYP W/THERMOMETER, 60 TO 180 F (72853) 460	EA	2
	6630-00-171-5126	TESTER, BATTERY, ELECTROLITE SOLN, SPECIFIC GRAVITY RANGE 1.1 TO 1.35, CLASS 1, STYLE B (81348) GG-T-258	EA	2
	6630-01-275-2247	TESTER, BATTERY, LOAD (11083) 6V4930	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	4910-00-728-8227	TESTER, PRESSURE RADIATOR (78225) ST255	EA	1
	6630-01-067-3827	TEST SET KIT, PORTABLE WATER COOLER COMPARATOR	EA	1
	6685-00-444-6500	THERMOMETER, POCKET, DIAL, BIMETALLIC, 0-200 DEG F (28480) 0440-0004	EA	2
	6685-00-641-0189	THERMOMETER, SELF-INDICATING, HEAT 140 TO 200 DEG F TYPE 1 (59310) 5939	EA	2
	6685-00-255-9977	THERMOMETER, WET & DRY BULB MTD EXTERIOR OF PILOT HS (59310) 5522	EA	2
	NO NSN	THREADING SET, PIPE 1" TO 2 (39428) 2536A74	EA	1
	4030-00-266-0066	THIMBLE, WIRE ROPE 1/2 IN TOW GRLKA	EA	20
	4030-00-270-8708	THIMBLE WIRE ROPE 5/8 IN TOW GRLKA	EA	20
	5180-00-422-4975	THREADING SET, SCREW, W/CASE, RH THREAD 26 PCS SIZES 1/4 IN - 28 TO 1 IN - 12 NF, TYPE 1 (81348) GGG-T-330 (LIN: W17462)	KT	1
	5180-00-448-2362	THREADING SET, SCREW 1/4 IN - 2 TO 1 IN - 8 NC TYPE 1 (81348) GGG-T-330 (LIN: W17051)	KT	1
	5180-00-357-7514	THREADING SET, PIPE 1/8 IN TO 1 IN TYPE 1, CLASS 1 (81348) GGG-T-581	KT	1
	8135-00-846-8409	TIE STRIP, BAG, 250 PER BD (33333) NO REF	BD	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code	(5) U/M	(5) Qty Rqr
	4910-01-332-6932	TIMING INDICATOR (11083) 8T5300		EA	1
	6645-01-127-5415	TIMING INDICATOR GROUP (11083) 5P4165		EA	1
	7310-00-272-7891	TOASTER, ELCL, AUTOMATIC 4 SLICE 115V 60HZ SINGLE PHASE (81348) W-T-550 (LIN: W24065)		EA	2
	7330-00-616-0997	TONGS, FOOD-SERVING 12 LONG (64067) 7330-00-616-0997		EA	4
	5180-00-392-2895	TOOL KIT, ELECTRICIANS (80064) 9000S6504-73721		EA	1
	5180-00-391-1087	TOOL KIT, ELECTRICAL REPAIR (80244) 5180-00-391-1087		KT	1
	5120-00-691-1165	TOOL KIT, HYDRAULIC HOSE (00624)5168		EA	1
	5180-00-699-5273	TOOL KIT, MASTER MECHANIC'S (50980) SC5180-90-CL-NOS (LIN: W45060)		KT	1
	5180-00-293-2875	TOOL KIT, CARPENTER (81336) ENG6350-010 (LIN: W34648)		KT	1
	5180-00-629-9783	TOOL KIT, GENERAL MECHANICS RAIL AND MARINE (81996) SM55-4-5180S02 (LIN: W39032)		KT	5
	5280-00-511-1950	TOOL KIT, MACHINIST (19204) SC5280-95-CLA02 (LIN: W44512)		SE	1
	5280-00-278-9919	TOOL SET, MEASURING, MACHINIST (19204) SC5280-95-CLA01 (LIN: M20190)		SE	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	5180-00-356-4614	TOOL KIT, RADIO TK-61/SR (80063) 6R38188-3 (LIN: W30127)	EA	1
	5180-00-596-1474	TOOL KIT, SERVICE, REFRIGERATION (50980) SC 5180-00-97-CL (LIN: W51362)	KT	1
	5180-00-754-0061	TOOL KIT, WELDER C/O ELECTRODECABLE MIN. 15 FT LONG: 1 EA GROUND CABLE W/CLAMPS MIN. 30 FT LONG: 1 EA WELDING HELMET (81996) SC5180-00-97-CL (LIN: W58075)	KT	2
	3439-00-542-0531	TORCH, KIT SOLDERING, LP GAS (61112) LP-9990	EA	1
	3433-00-357-8116	TORCH, OUTFIT, CUTTING AND WELDING WITH SETS AND SUPPLY ITEMS (50980) SC3433-90-CL-NO (LIN: W67566)	EA	1
	8450-00-291-0392	TOWELS, PAPER BX = 2400 (58536) A-A-696	BX	1
	7920-00-823-9773	TOWELS, PAPER MACHINERY TYPE 6 (83421) 7920-00-823-9773	MX	7
	7350-00-195-7334	TRAY, MESS, CRES, 6 COMPARTMENTS STEEL, 6 COMP, 1" DEEP, 11-5/8" W, 15-1/2" LG (81349) MIL-T-46	EA	24
	6675-00-190-5867	TRIANGLE, DRAFTING, PLASTIC, 30 TO 60 DEGREE, 10", TYPE 1 (58536) A-A-843	EA	2
	6675-00-190-5856	TRIANGLE, DRAFTING, PLASTIC, 45 X 45 DEGREE, 4", TYPE 1 (81336) PD392	EA	2
	6675-00-190-5862	TRIANGLE, DRAFTING, PLASTIC, 45 X 45 DEGREE, 8", TYPE 1 (81348) GG-T-671	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	3920-01-113-3517	TRUCK, HAND 2 WHEEL 500 LBS CAPACITY TYPE 3 CLASS 2 SIZE B (LIN: X48777)	EA	1
	4710-00-277-4026	TUBING, COPPER, 1/2 IN (81349) MIL-T-24107	FT	25
	4710-00-277-2049	TUBING, COPPER 1/4 IN (81349) MIL-T-24107	FT	25
	4710-00-277-4027	TUBING, COPPER 3/8 IN (81346) ASTMB688753750DX	FT	25
	4710-00-277-4030	TUBING, COPPER 5/16 IN (81346) MIL-T-24107	FT	25
	7350-01-201-2477	TUMBLER, DRINKING, 10 OZ, GLASS (91867) 2911K	DZ	2
	7430-00-267-3457	TYPEWRITER, ELEC CARRIAGE, RADIO INTERF SUPPRESSED, ELITE TYPE, 110V AC, 13 IN (80244) 54T4798-10	EA	1
	7430-01-049-1764	TYPEWRITER, ELEC, PORTABLE (93525) 7000-13	EA	1
	NO NSN	VACUUM PUMP, HAND OPERATED (72915)8470956	EA	1
	6730-00-116-1618	VIEWER, STILL PICTURE (81349) MIL-V-80240 (LIN: Y03820)	EA	1
	5120-00-243-9072	WISE, BENCH AND PIPE, 5 IN JAW 6 IN OPENING, TYPE 4 (81348) GGG 4 410 (LIN: Y07094)	EA	1
	5120-00-293-0110	WISE, BENCH AND PIPE, 6 IN JAW WIDTH AND OPENING, 1/4 IN TO 6 IN PIPE RANGE, TYPE 4 (81348) GGG-V-410 (LIN: Y07094)	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	5120-00-288-6518	WISE, PIPE, HINGED-JAW, 1/8B TO 41/2" CAP, TYPE 1, CLASS 2 (03914) 76-167	EA	1
	5120-00-224-7088	WISE, RIGGER WIRE SPRING, STOW IN TOW GR LKR	EA	1
	4020-00-241-8886	TWINE, FIBROUS, 5 PLY BALL (81346) T-T-891	EA	1
		VOLT/OHM-AMMETER, CLAMP ON (58935) DSA-2003	EA	1
		WASHER, LOCK (53214) 2012	EA	1
		KIT, BURN DRESSING (OSVY5) AWK-1 Consisting of:		
	6510-01-239-9781	DRESSING, 8 IN. X 18 IN.	EA	2
	6510-01-243-5894	DRESSING, 4 IN. X 16 IN.	EA	1
	6510-01-242-2271	BLANKET, 72 IN. X 60 IN.	EA	1
	6510-01-243-5897	DRESSING, 4 IN. X 4 IN.	EA	4
		DRESSING, FACE MASK, 12 IN. X 16 IN.	EA	1
		TOPICAL DRESSING, (25 UNITS PER)	EA	1
		(Deleted)		
		(Deleted)		
		(Deleted)		
	4110-00-782-5125	WATER COOLER WALL MTD (81348) 00-D-00566	EA	5
		(Deleted)		
		WASHING MACHINE, ELECTRIC HEAVY DUTY (53800) 110 8180100	EA	1
	7240-00-857-2279	WASTE RECEPTACLE, TRASH CAN, W, COVER, POLYETHYLENE PLASTIC, 24 GAL (58536) A-A-235	EA	2
	3431-00-620-5999	WELD MACHINE, ELECTRIC 300 AMP WLEADS (99787) 425ACDGG	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	6605-00-273-6935	WEIGHT, SOUNDING 9 LBS (81349) MILS3717	EA	1
	8465-00.-28803	WHISTLE, PLASTIC, BALL, W/LANYARD LIFE JACKET (83421) 8465-00-254-8803 (Deleted)	EA	51
		WIRE, SAFETY LOCK, STAINLESS STEEL 020 DIA MIL-W-6715 (39428) 8860K61	EA	5
	5120-00-203-4832	WRENCH, BASIN INTERCHANGEABLE JAW TYPE 7	EA	1
	5130-00-234 4881	WRENCH, IMPACT, PNEUMATIC 3/8 IN DRIVE (81348) cOW-891 (LIN: W00771)	EA	1
	5130-00-184-1427	WRENCH, IMPACT, PNEUMATIC 3/4 DRIVE (81340) 00-W-891 LIN: Y67067	EA	1
	5120-00-449-8083	WRENCH, OPEN END, ADJUSTABLE, 9-112 TO 10-112" LG, 1-118" JAW OPENING, SIZE 10 (81348) GGG-W-631	EA	3
	5120-00-264-3795	WRENCH, OPEN END, ADJUSTABLE, 5-112" TO 6-1/2", JAW OPENING, SIZE 6 (58536) A-A-2344	EA	3
	5120-00-264-3796	WRENCH, OPEN END, ADJUSTABLE, 11 -12" TO 12-12J, 1-5/16" JAW OPENING, SIZE 12 (81348) GGGW-631	EA	3
	5120-449-084	WRENCH, OPEN END, ADJUSTABLE, 23-1/2 TO 25" LG, 2-7/16" JAW OPENING, SIZE 24 (81348) GGG-W-631	EA	2
	5120-00-277-1480	WRENCH, PIPE, ADJ, HEAVY DUTY ALUMINUM HANDLE, 24" LONG, 1-112" TO 2-1/2" CAP, TYPE 2, CLASS C (81348) GGG-W-651	EA	3

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	5120-00-270-4310	WRENCH, PIPE, ADJ, HEAVY DUTY, 48" LONG, 5" CAP, TYPE 2, CLASS A (81348) GGG-W-651	EA	1
	5120-01-081-1922	WRENCH, PIPE (11083) 2P8250	EA	2
	5120-00-277-1477	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 10" LONG, 1/4" TO 1" CAP, TYPE 2, CLASS C (81348) GGG-W-651	EA	3
	5120-00-277-1479	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 18" LONG, 1 -TO 2" CAP, TYPE 2, CLASS C (81348) GGG-W-651	EA	3
	5120-00-277-1481	WRENCH, PIPE, ADJ, HEAVY DUTY, ALUMINUM HANDLE, 36" LONG, 2-1/2 TO 3-1/2 CAP, TYPE 2, CLASS C (81348) GGG-W-651	EA	3
	5120-00-277-1478	WRENCH, PIPE, ADJ. HEAVY DUTY, ALUMINUM HANDLE, 14" LONG, 1/2" TO 1-1 /2" CAP, TYPE 2, CLASS C (81348) GGG-W-651	EA	3
	5120-00-240-1411	WRENCH, PIPE, CHAIN 3/4 TO 4 IN SIZE PIPE 32 IN LONG TYPE 3, CLASS A (81348) GGG-W-651	EA	1
	5120-00-242-3249	WRENCH PIPE, STRAP 12 LONG, 1/8 IN TO 2 IN PIPE TYPE (81348) GGG-W-651	EA	1
	5120-01-046-4979	WRENCH, SET, COMB (METRIC) (55719) GOEXM714K	SE	1
	5120-00-081-2308	WRENCH SET, SOCKET, 3/4 IN SQAURE DRIVE, 12 POINT, 15/16 TO 2 3/8 IN (81348) GGG-W-641 (LIN: Y76335)	SE	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
	5130-00-357-5135	WRENCH SET, SOCKET, 3/4 IN SQUARE DRIVE, 6 POINT 9/16 TO 1 1/2 IN (81348) GGG-W-660 (LIN: Y75239)	SE	1
	5120-00-322-6231	WRENCH SET, SOCKET 3/8 SQUARE DRIVE 23 PIECES (81348)M GGG-W-641	SE	1
	5120-00-081-2309	WRENCH SET, SOCKET, 1" DRIVE 12 PT, TYPE 2, CLASS 2, STYLE A (81348) GGG-W-641	SE	1
	5120-00-293-0406	WRENCH, SPANNER, FIXED PIVOT PT ADJUSTABLE HOOK, 1-1/4" TO 3" DIA, TYPE 1, CLASS 1 (81348) GGG-W-665	EA	10
	5120-00-474-7227	WRENCH SET, RATCHET 11 WRENCHS, SIZES 3/8 IN THRU 1 IN VINYL ROLL (80244) 5120-00-474-7227	SE	1
	5120-00-449-8245	WRENCH, TAP & REAMER, STRAIGHT HANDLE 25-31 IN LONG, 1/2 TO 1 1/4 IN TAPS, TYPE 2, SIZE 8 (26232) 7 1-2	EA	1
	5120-00-289-0539	WRENCH, TAP & REAMER, STRAIGHT HANDLE, 15-16 IN LONG, 0.164 IN TO 3/4 IN TAPS, TYPE 2, SIZE 4 (26232) 6	EA	1
	5120-00-277-4063	WRENCH, TAP & REAMER, STRAIGHT HANDLE, 5/8 IN LONG, 1/16 TO 1/4 IN TAPS, 1/8 TO 1/4 IN REAMERS, TYPE 2, SIZE 1 (57163) 91A	EA	1

Section II. BASIC ISSUE ITEMS- CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
	5120-00-277-4065	WRENCH, TAP & REAMER, STRAIGHT HANDLE, HAND REAMER, 1/2-1 IN TAPS, 3/8-1/2 IN REAMERS, TYPE 2, SIZE 7 (81348) GGG-W-680	EA	1
	5120-00494-1929	WRENCH, TORCH & REG 6 WRENCHES 8-5/8 IN LONG, SIZES 7/16 IN THRU 1 IN (80244) 5120-00-494-1929	EA	1
	5120-0-555-1521	WRENCH, TORQUE 0-1000 FT LB (55719) TQ1 003A	EA	1
	5120-00-288-8865	WRENCH, TORQUE 0-600 IN-LB (58536) A-A-2411	EA	1
	5120-00-555-1523	WRENCH, TORQUE, 0-350 FT-LB, 3/4"DR (55719) TE352A (LIN: Y85240)	EA	1
	5120-00-542-5577	WRENCH, TORQUE, 100-500 FT LB, 3/4" DR (47805) 6017F (LIN: Y84966)	EA	1
	5120-00-221-7981	WRENCH, TORQUE, 1 1/2 IN DR, 0-200F LBS, TYPE 2, CLASS 2, STYLE B (81348) GGG-W-00686 (LIN: Y85788)	EA	1
	5120-00-221-7983	WRENCH, TORQUE, 3/4" DR, 0 TO 600 FT LBS, TYPE 2, CLASS 1 (58536) A-A-2411 (LIN: Y85377)	EA	1
	5120-00-640-6365	WRENCH, TORQUE, 0-250 FT LBS, 1/2" SQ MALE DRIVE, TYPE 2, CLASS 1, STYLE A (58536) A-A-2411	EA	1
	NO NSN	WRENCH, TORQUE, KIT EXHAUST MANIFOLD TORQUE TOOL (72915) 8463511 (Deleted)	KT	1

Section II. BASIC ISSUE ITEMS - CONTINUED

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	(4) USABLE ON CODE U/M	(5) QTY RQD
		(Deleted)		
	7920-00-579-8484	WRINGER AND BUCKET, MOP 16 QT (81348) RR-M-1075	EA	4
		AR 385-11 IONIZING RADIATION PROTECTION (LICENSING, CONTROL, TRANSPORTATION, DISPOSAL, AND RADIATION SAFETY	EA	1
		AR 385-15 WATER SAFETY	EA	1
		AR 385-30 SAFETY COLOR CODE MARKING AND SIGNS	EA	1
		AR 385-32 PROTECTIVE CLOTHING AND EQUIPMENT	EA	1
		AR 385-40 MARINE CASUALTIES	EA	1
		AR 385-40 ACCIDENT REPORTING AND RECORDS	EA	1
		AR 40-5 PREVENTIVE MEDICINE	EA	1
		AR 56-9 WATERCRAFT	EA	1
		AR 750-1 ARMY MATERIAL MAINTENANCE POLICY AND RETAIL MAINTENANCE OPERATIONS	EA	1
		COMDINST 16672.2B NAVIGATION RULES, INTERNATIONAL-INLAND	EA	2
		FM 20-11-1 MILITARY DIVING (VOLUME 1)	EA	1
		FM 21-11 FIRST AID FOR SOLDIERS	EA	1
		FM 55-501 MARINE CREWMAN'S HANDBOOK	EA	1
		LO 55-1925-207-12 LUBRICATION ORDER FOR INLAND AND COASTAL TUG (LT)	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
		SHIP'S MEDICINE CHEST AND FIRST AID AT SEA (PUBLISHED BY U.S. PUBLIC HEALTH SERVICE. MAY BE OBTAINED FROM SUPERINTENDENT OF DOCUMENTS, GOVERNMENT PRINTING OFFICE)		EA	1
		TB 43-0142 SAFETY INSPECTION AND TESTING OF LIFTING DEVICES		EA	1
		TB 43-0144 PAINTING OF VESSELS		EA	1
		TB 43-0153 WATER SUPPLY AFLOAT		EA	1
		TB 5-4200-200-10 HAND PORTABLE FIRE EXTINGUISHERS APPROVED FOR ARMY USERS		EA	1
		TB 55-1925-207-24 WARRANTY PROCEDURES FOR INLAND AND COASTAL LARGE TUG (LT)		EA	2
		TB MED 501 OCCUPATIONAL AND ENVIRONMENTAL HEALTH: HEARING CONSERVATION		EA	1
		TB MED 502 OCCUPATIONAL AND ENVIRONMENTAL HEALTH: RESPIRATORY PROTECTION PROGRAM		EA	1
		TM 11-5815-621-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR FACSIMILE RECORDER-REPRODUCER RD-605/UXH		EA	1
		TM 11-5820-999-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADIO SET AN/PRC-129		EA	1
		TM 11-5820-1000-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR ELECTRONIC EQUIPMENT INSTALLATION KIT MK- 2453/G		EA	1
		TM 11 5820-1001-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR TELEGRAPH TERMINAL ANISGC-14		EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
		TM 11-5820-1002-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR COMMUNICATIONS MODE MMD-1255/URC		EA	1
		TM 11-5820-1003-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADIO TRANSMITTER T-1527/URC		EA	1
		TM 11-5820-1004-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RECEIVER-TRANSMITTER RT-1588/SRQ		EA	1
		TM 11-5820-1005-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR POWER SUPPLY PP-8236/URC		EA	1
		TM 11-5820-1006-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADIO FREQUENCY AMPLIFIER AM-7387/URC		EA	1
		TM 11-5820-1007-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADIO RECEIVER R-2414/SRA		EA	1
		TM 11-5820-1008-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADIO RECEIVER R-2408/URC		EA	1
		TM 11-5820-1009-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RECEIVER-TRANSMITTER RT-1600/U		EA	1
		TM 11-5820-1013-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR INTERFACE UNIT J-4795/U		EA	1
		TM 11-5820-1044-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR HIGH FREQUENCY RADIO SYSTEM		EA	1
		TM 11-5825-284-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADIO SET AN/SRT-26		EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code (4) U/M	(5) Qty Rqr
		TM 11-5825-381-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR ANTENNA COUPLER CU/2417/URC	EA	1
		TM 11-584069-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADAR SET AN/SPS-64(V)16	EA	1
		TM 11840-70-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADAR SET ANISPS-64(V)17	EA	1
		TM 11-840-71-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR INTERSWITCH UNIT SA-2308/SPS64 (V)	EA	1
		TM 11-5840-74-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR SOUND MEASURING SET AN/SQN-20	EA	1
		TM 11840375-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR RADAR SYSTEM	EA	1
		TM 11-845-201-12 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR SONAR SOUNDING SET AN/SQN-21	EA	1
		TM 1 1-6320-226-2 OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL FOR ALARM SIGNAL GENERATOR SG-1319/SCN	EA	1
		TM 5805-7 WELDING: DESIGN, PROCEDURES AND INSPECTION	EA	1
		TM 55-1925-207-10 OPERATOR'S MANUAL FOR INLAND AND COASTAL LARGE TUG	EA	2
		TM 55-1925-207-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND GENERAL SUPPORT MAINT. INSTRUC. INCLUDING RPSTL AND SPECIAL TOOLS LIST FOR THE INLAND AND COASTAL LT	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
		TM 55-1925-207-SDC SHIPBOARD DAMAGE ASSESSMENT AND REPAIR FOR COASTAL AND INLAND LARGE TUG (LT)	EA	1
		TM 55-1925-208-24 UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR MAIN PROPULSION ENGINE (GM12-645F7B)	EA	1
		TM 55-1925-209-24 UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR GENERATOR SET, SHIP'S SERVICE (3408B)	EA	1
		TM 55-1925-210-24 UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR GENERATOR SET, EMERGENCY (3304)	EA	1
		TM 55-1925-211-24 UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR ENGINE SET, PUMP DRIVE (3306B)	EA	1
		TM 55-1925-212-24 UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR ENGINE SET, BOW THRUSTER (3306B)	EA	1
		TM 55-1925-213-24 UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR LUBE OIL PURIFICATION SYSTEM	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
		TM 55-1925-214-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR BOW THRUSTER (S-152-2)	EA	2
		TM 55-1925-215-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR ENGINE SET, PUMP DRIVE (3306B)	EA	2
		TM 5-1925-216-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR PUMPS	EA	2
		TM 55-1925-217-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR REVERSE OSMOSIS FRESH WATER DESALINATOR	EA	2
		TM 55-1925-218-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR FUEL OIL COALESCER	EA	2
		TM 55-1925-219-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR MARINE SANITATION SYSTEM	EA	2
		TM 55-1925-220-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR OIL WATER SEPARATOR	EA	2
		TM 55-1925-221-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR AIR COMPRESSOR	EA	2

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
		TM 55-1925-222-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR PROPULSION CONTROLS	EA	1
		TM 55-1925-223-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR MAIN REDUCTION GEAR	EA	1
		TM 55-1925-224-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR ENVIRONMENTAL CONTROL SYSTEM	EA	1
		TM 55-1925-225-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR ENGINE ROOM MONITORING SYSTEM	EA	1
		TM 55-1925-226-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR COMMISSARY EQUIPMENT	EA	2
		TM 55-1925-227-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR FIRE FIGHTING SYSTEM	EA	1
		TM 55-1925-228-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR SHAFT COUPLINGS, BRAKES, AND SEALS	EA	1
		TM 55-1925-229-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR DECK MACHINERY AND HYDRAULIC SYSTEM	EA	1

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	(4) Usable On Code U/M	(5) Qty Rqr
		TM 55-1925-230-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR CATHODIC PROTECTION SYSTEM	EA	2
		TM 55-1925-231-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR REFRIGERATION MACHINERY	EA	2
		TM 55-1925-232-24&P UNIT, INTERMEDIATE DIRECT SUPPORT, AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE INSTRUCTIONS FOR MAIN LIFE RAFT/ WORK BOAT AND OUTBOARD MOTOR	EA	2
		TM 55-500 MARINE EQUIPMENT CHARACTERISTICS AND DATA	EA	1
		TM 55-503 MARINE SALVAGE AND HULL REPAIR	EA	1
		TM 9-237 OPERATOR'S MANUAL FOR WELDING THEORY AND APPLICATION	EA	1
	6350-01-264-6795	ALARM, SMOKE, AUTOMATIC (5)6914) 2001	EA	6
	4210-01-081-0419	REDUCER, HOSE (87475) 30766	EA	2
	8415-00-082-6108	APRON, UTILITY (81349) MIL-A-41829	EA	1
	6840-01-267-4346	FUNGICIDE, (EYE AND FACE WASH FOUNTAIN) (6M644) C2128	BX	2
	8465-01-316-5706	BAG, FIREMAN'S UTILITY (5)8536) A-A-50374	EA	7
	6135-00-100-0413	BATTERY, NONRECHARGEABLE (09823) BA-802/U	EA	6
	2040-01-162-3206	RACK, STOWAGE, ONE HOLE (5)3711) 515-SK8126	EA	27

Section III. BASIC ISSUE ITEMS - CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4240-00-238-9959	TRAINING Kit, CANISTER (5)5799) 454013		EA	2
	8405-01-286-6336	COVERALLS, MEN'S, SIZE 36 SHORT (81349) MIL-C-24945		EA	16
	8405-01-286-6337	COVERALLS, MEN'S, SIZE 36 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6338	COVERALLS, MEN'S, SIZE 38 SHORT (81349) MIL-C-24945		EA	16
	8405-01-286-6339	COVERALLS, MEN'S, SIZE 38 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6340	COVERALLS, MEWS, SIZE 38 LONG (81349) MIL-C-24945		EA	16
	8405-01-286-6341	COVERALLS, MEN'S, SIZE 40 SHORT (81349) MIL-C-24945		EA	16
	8405-01-286-6342	COVERALLS, MEN'S, SIZE 40 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6343	COVERALLS, MEN'S, SIZE 40 LONG (81349) MIL-C-24945		EA	16
	8405-01-286-6344	COVERALLS, MEN'S, SIZE 42 SHORT (81349) MIL-C-24945		EA	16
	8405-01-286-6345	COVERALLS, MEN'S, SIZE 42 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6346	COVERALLS, MEN'S, SIZE 42 LONG (81349) MIL-C-24945		EA	16
	8405-01-286-6347	COVERALLS, MEN'S, SIZE 44 SHORT (81349) MIL-C-24945		EA	16
	8405-01-286-6348	COVERALLS, MEN'S, SIZE 44 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6349	COVERALLS, MEN'S, SIZE 44 LONG (81349) MIL-C-24945		EA	16
	8405-01-286-6350	COVERALLS, MEN'S, SIZE 46 SHORT (81349) MIL-C-24945		EA	16

Section III. BASIC ISSUE ITEMS – CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	8405-01-286-6351	COVERALLS, MEN'S, SIZE 46 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6352	COVERALLS, MEN'S, SIZE 46 LONG (81349) MIL-C-24945		EA	16
	8405-01-286-6353	COVERALLS, MEN'S, SIZE 48 REGULAR (81349) MIL-C-24945		EA	16
	8405-01-286-6354	COVERALLS, MEN'S, SIZE 48 LONG (81349) MIL-C-24945		EA	16
	4320-00-256-8206	EJECTOR, JET (80064) 5000S4823-2501		EA	1
	4220-01-116-9889	BREATHING APPARATUS, OXYGEN GENERATING (2J495) 802300-XX		EA	1
	4210-00-776-0657	HOSE ASSEMBLY, NONMETALLIC (25472) 47-60-4071		EA	1
	6230-00-269-3034	FLASHLIGHT (80058) MX-992/U		EA	7
	6545-01-155-1598	LITTER SUPPORT SET, (04624) G-0SR-4-8/82 LITTER		EA	2
	4820-00-540-2381	VALVE, FOOT (20266) 315F-N		EA	1
	4240-01-258-1245	FOUNTAIN, EYE AND FACE WASH (84583) 1245		EA	2
	4240-00-190-6432	GOGGLES, INDUSTRIAL (81348) GGG-G-421		EA	2
	5180-00-391-1087	KIT, ELECTRICAL REPAIR (80244) 5180-00-391-1087		EA	1
	4010-00-285-9901	WIRE ROPE ASSEMBLY, SINGLE LEG		EA	7
	6230-01-143-4778	LIGHT, MARKER, DISTRESS (63607) SN-TD		EA	6
	4020-01-344-0552	FIBER ROPE ASSEMBLY, SINGLE LEG (0GU87) NIS-G-0213		EA	4
	4210-00-288-6857	NOZZLE, FIRE HOSE (52659) 13-03390		EA	8

Section III. BASIC ISSUE ITEMS – CONTINUED

(1) Illus Number	(2) National Stock Number	(3) Description CAGEC and Part Number	Usable On Code	(4) U/M	(5) Qty Rqr
	4320-01-186-3377	PUMP UNIT, CENTRIFUGAL (03950) P-250PNP-MOD-1		EA	1
	2040-00-288-2866	RATGUARD, SHIP (81349) MIL-G-2767		EA	6
	4020-00-289-8616	ROPE, FIBEROUS (81348) T-R-605		RL	1
	2090-00-058-3737	SHORE, DAMAGE CONTROL (81349) MIL-S-23965 MODEL 3 – 5		EA	6
	2090-00-052-1581	SHORE, DAMAGE CONTROL (81349) MIL-S-23965 MODEL 6 – 11		EA	6
	6530-00-783-7600	LITTER, SEMIRIGID, POLELESS (81349) MILL16815		EA	1
	4210-00-725-9234	HOSE ASSEMBLY, NONMETALLIC (96400) 592223		EA	1
	9390-01-078-8660	TAPE, REFLECTIVE (94960) 3150-3X50YD		RL	1
	4210-01-038-6001	TRIPLE VALVE, WATER (20266) BG 104		EA	1
	5120-00-277-9076	WRENCH, SPANNER (33287) J4749		EA	1
	5120-01-295-1378	PULLER ATTACHMENT (11083) CV6983		EA	1
	4710-01-289-0596	TUBE, METALLIC (11083) 8T3198		EA	1
	5120-01-289-0093	SCREW (11083) 8T3199		EA	1
	5310-00-275-9335	NUT, PLAIN, HEX (11083) 1B4206		EA	1
	5310-00-431-7244	WASHER, FLAT (11083) 255658		EA	1
	NONE	WRENCH, FUEL LINE (11083) 5P5145		EA	1

APPENDIX C
ADDITIONAL AUTHORIZATION LIST

Not Applicable

**APPENDIX D
EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST**

Section I. INTRODUCTION

D-1. Scope. This appendix lists expendable/durable supplies and materials you will need to operate and maintain the Large Tug (LT). This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

D-2. Explanation of Columns

a. Column(1) - Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use the cleaning compound, item 5, App. D").

b. Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item.

- C - Operator/Crew
- O - Organizational Maintenance
- F - Direct Support Maintenance

H - General Support Maintenance

c. Column (3) - National Stock Number. This is the National Stock Number assigned to the item; use it to request or requisition the item.

d. Column (4) -Description. Indicates the Federal item Name and, if required, a description to identify the item. The last line for each item indicates the Federal Supply Code for manufacturer (FSCM) in parentheses followed by the part number.

e. Column () Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two character alphabetical abbreviation (e.g., ea, in, pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) National stock Number	(4) Description	(5) U/M
1			(Deleted)	
2	C	7520-00-935-7135	BALLPOINT PEN BLACK INK, FINE POINT (83421) 7520-00-935-7135	DZ
3	C	6135-00-930-0030	BATTERY, NONRECHARGEABLE (80058) BA30308	2 PG

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NUMBER	(2) LEVEL	(3) National stock Number	(4) Description	(5) U/M
4	C	5110-00-277-4590	BLADES, HAND, HACKSAW HIGH-SPEED STEEL, 12"LG .18 TEETH PER INCH,TYPE 1, CLASS 2, GRADE A, BD-10 EA (81348) GGG-B-451	BD
5	C	5110-00-277-4591	BLADES, HAND, HACKSAW HIGH-SPEED STEEL, 12" LG, .24 TEETH PER INCH,BD-10 EA (81348) GGG-B-451	BD
6	C	7920-00-267-2967	BROOM, PUSH, RATTAN (NO HANDLE) (81348) H-B-71	EA
7	C	7920-00-291-8305	BROOM, UPRIGHT, CORN HANDLE NOT DETACHABLE, TYPE 2 (81348) H-B-0051	EA
8	C	8020-00-559-0438	BRUSH, PAINT, 1" (81348) H-B-491	EA
9	C	8020-00-559-0389	BRUSH, PAINT, 2" (81348) H-B-491	EA
10	C	8020-00-178-8305	BRUSH, PAINT, 4" (81348) H-B-419	EA
11	C	7920-00-240-6358	BRUSH, DUSTING, BAKERY BENCH TYPE 1, CLASS 2, STYLE 1 (81348) H-B-00190	EA
12	C	7920-00-165-7277	BRUSH, DUSTING, BENCH LACQUERED BLOCK HANDLE, FOR COARSE BRUSHING (45092) 378	EA
13	C	8020-00-597-4770	BRUSH, PAINT, FLAT 3 IN MEDIUM GRADE NYLON BRISTLE (81348) H-B-420	EA
14	C	7920-00-772-5800	BRUSH, SANITARY TYPE 1, CLASS 2, DUTY A (81348) H-B-00481	EA
15	C	7920-00-240-7171	BRUSH, SCRUB, DECK (NO HANDLE) 2-3/4" X 9-3/4", TYPE 1 (81348) H-B-531	EA
16	C	7920-00-240-7174	BRUSH, SCRUB, FLOOR, HAND 1-3/4" X 6', PALMETTO FIBER (81348) HB1490-5	EA

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
17	C	7520-00-223-8000	BRUSH, STENCIL 314"X 1" (81348) H-B-00621	EA
18	C	7920-00-291-5815	BRUSH, WIRE, CURVED HANDLE TYPE 2, CLASS 1 (81348) HB178	EA
19	C	5130-00-293-0263	BRUSH, WIRE, ROTARY WHEEL 1/2 IN ARBOR, 6 IN OD, TYPE 3, CLASS 1, STYLE A (81348) H-B-771	EA
20	C	7920-00-246-8501	BRUSH, WIRE, SCRATCH 7-1/2" x 2-1/4", TYPE 4, CLASS 1 (83421) 7920-00-246-8501	EA
21	C	NO NSN	BULB (FOR NAVIGATION LIGHT TOWING) (28763) 4060-0086	EA
22	C	8415-00-121-5830	CAP, FOOD HANDLERS DISPOSABLE, WHITE (3F842) C-100	BX
23	C	7520-00-240-5503	CLIPBOARD, FILE, 9" X 17" (83421) 7320-00-240-5503	EA
24	C	8030-00-616-7694	COMPOUND, ANTISEIZE (PIPE JOINT & THREAD) (18876) 9995535	LB
25	C	8030-00-231-2345	COMPOUND, CORROSION PREVENTATIVE (19203) 945011	GL
26	C	8020-00-664-3657	CONDITIONER, PAINT BRUSH 6 1/2" DIA X 14" H, 6 BRUSH CAPACITY (00343) PROTEXEMBRUSHCONDITIONER	EA
27	C	4020-00-240-2164	CORD, COTTON, 1/4" 200FT COIL (81349) MILL1145	CL
28	C	4020-00-240-2160	CORD, COTTON.5/16 1200 FT COIL 18 STRANDS, 5/16 IN DIA. 27 FT LB B (81348) TC571	CL
29	C	6830-00-729-4377	DICHLORODIFLUOROMET BOTTLE, FREON 12 (81348) BB-F-1421	LB

Section II .EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
30	C	7930-00-985-6905	DISHWASHING COMPOUND, MACHINE 25LB DRUM (5)8536) A-A-684	EA
31	C	7930-00-880-4454	DISHWASHING, COMPOUND, HAND LIQUID, 1 GAL (83421) 7930-00-880-4454	BX
32	C	6840-00-810-6396	DISINFECTANT, FOOD SERVICE POWDER, TWELVE 4.77 OZ POUCHES PER BOX (81349) MIL-D-11309	BX
33	C	5345-00-881-8378	DISK, ABRASIVE, NO. 24 GRIT SIZE CLOSED COAT, 1/2" ARBOR (81348) P-D-455	EA
34	C	5345-00-881-8377	DISK, ABRASIVE, NO. 36 GRIT SIZE CLOSED COAT, 1/2" ARBOR (81348) P-D-455	EA
35	C	5345-00-881-8375	DISK, ABRASIVE, NO. 60 GRIT SIZE CLOSED COAT, 1/2" ARBOR (81348) P-D-455	EA
36	C	8105-00-655-8285	DISPOSABLE LINER, POLY FITS WASTEPAPER BASKET (250 PER BOX) (5)8536) A-A-1668	BX
37	C	8105-00-183-9769	DISPOSAL LINER, POLY FITS 20 - 3 GAL CANS (125 PER BOX) (5)8536) A-A-1668	BX
38	C	6850-00-285-8011	DRY CLEANING SOLVENT SD-2, DR = 55 GAL, P-D-680 TYPE II (81348) P-D-680	DR
39	C	3439-00-262-2670	ELECTRODE, WELDING, 6010, 1/X14 (36232) FLEETWELD5	LB
40	C	3439-00-262-2652	ELECTRODE, WELDING; 6011, 3/32 X 12 (28835) E6011-3-32	LB
41	C	3439-00-853-2719	ELECTRODE, WELDING 7018, 3/16 X 14, CN = 50 LBS (81349) MIL-E-22200/1	CN
42	C	3439-01-236-9572	FLUX, SOLDERING (27911) 40026	EA

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
43	C	3439-00-255-4580	FLUX, WELDING, GAS (70279) SC-609	LB
44	C	9150-01-237-7467	FOOD PROCESSING EQMT OIL (81349) DOD-L-24651	GL
45	C	9150-01-209-6868	FOOD PROCESSING EQMT GREASE DOD-G-24650 (81349) DOD-G-24650	LB
46	C	9150-00-117-2928	GREASE, CN = 5 LB DOD-G-24508A (81349) DOD-G-24508	CN
47	C	9150-00-180-6382	GREASE, MBG CN = 6-1/2 LB MIL-G-24139 (81349) MIL-G-24139	CN
48	C	9150-00-190-0905	GREASE, AUTO & ARTILLERY 6-1/2 LBS SYMBOL GAA (98308) BRAYCOTE610	CN
49	C	9150-00-663-9795	GREASE, BALL & ROLLER BEARING 6.5LB CAN (81349) MIL-G-18709	CN
50	C	9150-01-095-5512	GREASE, BALL AND ROLLER CN IS 14 OZ (73219) 18901	CN
51	C	9150-00-235-5555	GREASE, GENERAL PURPOSE CN = 6.5LB, GGP (07950) ROYCO49B	CN
52	C	NO NSN	GREASE, LITIUM BASE LBG MIL-G-28349A, (81348) LBG	CN
53	C	9150-00-530-6814	GREASE, WIRE ROPE, EXPOSED 35LBS CAN (07950) ROYCO58R	CN
54	C	4020-00-240-2161	HALYARD, COTTON BRAIDED, 2400 FT RL CLASS 1, 1/4" DIA (81349) MILH226	RL
55	C	7920-00-267-1218	HANDLE, MOP, WOOD, 54" LONG TYPE 2, CLASS 1 (81348) NN-H-101	EA

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
56	C	7920-00-141-5452	HANDLE, WOOD, FOR USE WITH RATTAN PUSH BROOM, SQUEEGEE & DECK SCRUB BRUSH TYPE 2 (81348) NN-H-104	EA
57	C	7230-00-252-3394	HOOK, SHOWER CURTAIN, SUSPENSION 100 PER BOX (26821) L946	BX
58	C	9150-00-895-7234	HYDRAULIC FLUID CM5 GAL (81349) MIL-H-46001	CN
59	C	9150-00-985-7234	HYDRAULIC FLUID HO CN5 GAL (29700) NATOR21100TH	CN
60	C	9150-00-985-7233	HYDRAULIC FLUID OH, DR55 GAL, MIL-H-17672 (73277) HYDRAULICOIL680	DR
61	C	6240-00-143-3124	LAMP, INCANDESCENT, 100 WATT (08108) 100A120V	EA
62	C	5850-00-356-3718	LAMP, INCANDESCENT, 12V, ALDIS LAMP (80063) M438	EA
63	C	6240-00-143-3119	LAMP, INCANDESCENT, 60 WATT (5)8536) A-A-1584	EA
64	C	8010-00-239-5737	LEAD, WHITE (PASTE IN OIL) TYPE B, CN5 LB (81348) TT-W-251	CN
65	C	6220-00-376-1538	LENS, CLEAR (FOR NAVIGATION LIGHT TOWING) (28763) 8086-0089	EA
66	C	6220-00-376-1486	LENS, GREEN (FOR NAVIGATION LIGHT TOWING) (28763) 8086-0087	EA
67	C	6220-00-376-1483	LENS, RED (FOR NAVIGATION LIGHT TOWING) (28763) 8086-0086	EA
68	C	9150-01-178-4726	LUBRICATING OIL (81349) MIL-L-2104	QT
69	C	9150-00-458-0075	LUBRICATING OIL, GENERAL 16 OZ CN (81348) VV-L-800	CN

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
70	C	9150-00-186-6699	LUBRICATING, OIL (81349) MIL-L-46152	QT
71	C	9150-00-256-6411	LUBRICATING, OIL 10W-30 CN = 5 GAL (81349) MIL-L-46152	CN
72	C	9150-01-035-5393	LUBRICATING, OIL CN = 5 GAL, GO-80/90 (81349) MIL-L-2105	CN
73	C	9150-00-186-6668	LUBRICATING, OIL CN = 5 GAL, OE/HDO-10 (81349) MIL-L-2104	CN
74	C	9150-00-188-9858	LUBRICATING, OIL CN = 5 GAL, OE/HDO-30 (81349) MIL-L-2104	CN
75	C	9150-00-188-9862	LUBRICATING, OIL OE/HDO-40; DR = 55 GAL (81349) MILL2104	DR
76	C	7510-00-266-6712	MASKING TAPE 1" SPEC PPP-T = 42 (5)8536). A-A-883	RO
77	C	751000266-6710	MASKING TAPE 2" FED SPEC PPP-T-42 (5)8536) A-A-883	RO
78	C	⁷ 510-00-266-6707	MASKING TAPE 3" FED SPEC PPP-T-42 (5)8536) A-A-883	RO
79	C	⁶ 830-00-174-9677	MONOCHLORODIFLUOROM CY = 10 LB (18873) FREON22	CY
80	C	⁵ 31 5-00-753-3885	NAIL, COMMON, 16D PG = 5 LB (81348) FF-N-105	PG
81	C	5315-00-753-3882	NAIL, COMMON, 8D PG = 5 LB (81348) FF-N-105	PG
82	C	8540-00-285-7001	NAPKIN, TABLE, PAPER BX = 10, 000 (81348) UU-N-001650	BX

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
83	C	9150-00-598-2911	OIL, REF LUBRICATING, RCO-4 VV-L-825 (81348) VV-L-825	QT
84	C	7920-00-823-9818	PAD, METAL POLISH (NEVER DULL) CN=2 LB (81349) MIL-I-22590	CN
85	C	6665-00-050-8529	PAPER, CHEMICAL AGENT DETERMINATION (81361) D5-67-266	BK
86	C	8540-00-530-3770	PAPER, TOILET 96 ROLLS TO BOX (5)8536) A-A-697	BX
87	C	6850-00-001-4194	PASTE, WATER INDICATING (65093) SAR-GEL	TU
88	C	7510-00-281-5234	PENCIL, WRITING, #2 (83421) 7510-00-281-5234	DZ
89	C	NO NSN	PIN, COTTER, PRONG, 1/2" X 6" PLAIN STEEL FINISH (FITS BRIDLE AND UNDER RIDER SOCKET PIN) (39428) 98311A656	EA
90	C	NO NSN	PIN, COTTER, PRONG, 1/4" X 4" PLAIN STEEL FINISH (FITS PLATE SHACKLE BOLT) (39428) 98311A558	EA
91	C	NO NSN	PIN, COTTER, PRONG, 3/16" X 3" PLAIN STEEL FINISH (FITS RETRIEVING WIRE SOCKET PIN) (39428) 98315A520	EA
92	C	6515-00-137-6345	PLUG, EAR, HEARING PROTECTION UNIVERSAL SIZE, VINYL FOAM, DISPOSABLE, 400 PER BOX (89875) 4-375	BX
93	C	7930-00-205-0442	POWDER, SCOURING 14 OZ CN (5)8536) A-A-47	CN
94	C	6830-00-584-3041	PROPANE, 14 OZ DISPOSABLE CYLINDER TYPE 2 (81348) BBG-110	EA

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
95	C	NO NSN	PUMP OIL, MARINE GRADE 40WT MARINE HYD OIL W/ANTI WEAR RUST INHIBITORS, SEA RECOVERY PUMP OIL (1BZ02) SRC PO	CN
96	C	7920-00-205-1711	RAG, WIPING, 50LB BALE (81348) DDD-R-30	BE
97	C	4240-00-629-8199	RESPIRATOR, AIR FILTERING 20 PER BOX (D2607) GT-999-3005-7	BX
98	C	3439-00-246-0564	ROD, WELDING, 1/16 X 36 (31505) AWSA5.5-80 RG60 0.062	LB
99	C	3439-00-268-9668	ROD, WELDING, 1/8 X 36 (81348) QQ-R-571	LB
100	C	3439-00-247-2978	ROD, WELDING, 1/8 X 36 (08588) 241	LB
101	C	3439-00-246-0566	ROD, WELDING, 1/8 X 36 (81349) MIL-R-908	LB
102	C	3439-00-246-0565	ROD, WELDING, 3/32 X 36 (31505) AWSA5.2-80 RG60 0.093	LB
103	C	3439-00-262-7565	ROD, WELDING, 3/32 X 36 CO = 10 LB (81348) QQ-R-571	CO
104	C	6850-00-177-5094	SILICONE COMPOUND, 2 OX PER TU (81349) MIL-S-8660	TU
105	C	7930-00-579-8532	SOAP, LAUNDRY, 100 LB DRUM (81348) P-S-1792	DR
106	C	8520-00-129-0803	SOAP, TOILET, 4 OZ CAKE, HAND (5)8536) A-A-51	BX
107	C	3439-00-188-6987	SOLDER, LEAD ALLOY, ACID CORE (81348) QQ-S-571	SL
108	C	3439-00-188-6988	SOLDER, LEAD ALLOY, ROSIN CORE, 1 LB (81348) QQ-S-571	LB
109	C	3439-00-596-1718	SOLDER, SILVER (80009) 006-0664-00	EA
110	C	7510-00-272-9410	STAPLES, PAPER FASTENING HEAVY DUTY, 1/2" X 1/2", 5000 UNIT BOX (02809) S.F.-13 1/2	BX

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description	(5) U/M
111	C	8030-00-889-3535	TAPE, ANTISEIZE 1/2" X 260" (81349) MIL-T-27730	EA
112	C	5640-00-409-4265	TAPE, DUCT, RO = 180 FT (5)8536) A-A-2232	RO
113	C	5970-00-185-8531	TAPE, ELECTRICAL INSULATION 82-1/2 FT PER RO (81348) HH-I-510	RO
114	C	8135-00-846-8409	TIE, STRIP, BAG, 250 PER BD (33333) NO REF	BD
115	C	8540-00-291-0392	TOWELS, PAPER, BX = 2400 (5)8536) A-A-696	BX
116	C	7920-00-823-9773	TOWELS, PAPER MACHINERY, WIPING TYPE 6 (83421) 7920-00-823-9773	MX
117	C	4710-00-277-4026	TUBING, COPPER, 1/2" (81349) MIL-T-24107	FT
118	C	4710-00-277-2049	TUBING, COPPER, 1/4" (81349) MIL-T-24107	FT
119	C	4710-00-277-4027	TUBING, COPPER, 3/8" (81346) ASTMB68B753750DX	FT
120	C	4710-00-277-4030	TUBING, COPPER, 5/16" (81349) MIL-T-24107	FT
121	C	4020-00-241-8886	TWINE, FIBROUS, 5-PLY BALL (81348) T-T-891	EA
122	C	6850-00-001-4194	WATER INDICATOR, PASTE (65093) SAR-GEL	EA
123	C	NO NSN	WIRE, SAFETY LOCK, STAINLESS STEEL .020 DIA, MIL-W-6713 (39428) 8860K61	EA

APPENDIX E

STOWAGE AND SIGN GUIDE
FOR COMPONENTS OF END ITEM, BASIC ISSUE ITEMS,
AND APPLICABLE ADDITIONAL AUTHORIZATION LIST ITEMS

E-1. Scope. This appendix shows the locations for the stowage of equipment and material required to be carried on the Large Tug (LT).

E-2. General. The illustrations on the following pages show the decals, stencils, and metal signs used on the vessel. Most of these signs provide operational information. Some are cautions or information you need to operate the vessel safely. Table E-1 list the locations of the signs.

Table E-1. Sign Locations

Figure	Location
E-1	Engine room near oily bilge pump. AMS II on each bilge and ballast pump motor controller.
E-2	Engine room near valve SD-8.
E-3	Sanitary spaces on bulkhead near each toilet.
E-4	Engine room, AMS I, and paint locker on bulkhead near each HALON alarm siren.
E-5	On bulkhead near each sound powered telephone.
E-6	ASM II on bulkhead near HALON cylinders.
E-7	Boatswain's store room on bulkhead near HALON cylinders.
E-8	Engine Room.
E-9	AMS I near bow thruster engine.
E-10	AMS I on air compressor motor controllers.
E-11	EOS on bulkhead near switchboard.
E-12	Engine room near SSDG No. 1.
E-13	Engine room near SSDG No. 2.
E-14	Emergency diesel generator room near diesel.
E-15	AMS I near pump drive engine.
E-16	Engine room near oily water separator.
E-17	Engine room near oily water separator.
E-18	AMS I near AFFF pump.
E-19	Engine room near stern tube seal.
E-20	EOS on control panel.
E-21	01 level near tow winch control panel.
E-22	Engine room near central hydraulic control panel.
E-23	AMS II on refrigeration unit.
E-24	AMS II on air conditioning unit.
E-25	AMS I near MSD unit.
E-26	AMS II near fire pump motor controllers.
E-27	AMS II on reverse osmosis unit.
E-28	Engine room near lube oil purifier.
E-29	AMS I on marine sanitation device.
E-30	Main deck near capstain controls.
E-31	AMS II near potable water pump motor controllers.
E-32	01 level near anchor windlass controls.
E-33	01 level near crane controls
E-34	AMS I near hot potable water re-circulating pump motor controller.

THE FEDERAL WATER POLLUTION CONTROL ACT PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON NAVIGABLE WATERS OF THE UNITED STATES OR THE WATERS OF THE CONTIGUOUS ZONE IF SUCH DISCHARGE CAUSES A FILM OR SHEEN UPON OR DISCOLORATION OF THE SURFACE OF THE WATER OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THE WATER. VIOLATORS ARE SUBJECT TO A PENALTY OF \$5000.

Figure E-1

**PUMP HOLDING TANK
CONTENTS OUT AT AUTH-
ORIZED PUMP OUT STATIONS
OR BEYOND RESTRICTED
WATERS ONLY. CAUTION
DO NOT OPEN THE VALVE
CONNECTING THE DISCHARGE
PUMP TO THE OVERBOARD
DISCHARGE IN RESTRICTED
WATERS.**

Figure E-2

NOTICE: THIS VESSEL IS EQUIPPED WITH A SEWAGE TREATMENT SYSTEM. DO NOT INTRODUCE GREASE OR DISINFECTANTS SUCH AS PINE SOL INTO THE TOILETS OR OTHER DRAINS LEADING TO THE SEWAGE PLANT.

Figure E-3

**WHEN ALARM SOUNDS
VACATE AT ONCE
FIRE EXTINGUISHING
AGENT BEING RELEASED.**

FIGURE E-4

- | | | | |
|----|-----------------|----|----------------------|
| 1 | PLTHS TOP | 11 | OFFICER S.R. #2 |
| 2 | PILOTHOUSE | 12 | EMER GEN ROOM |
| 3 | PORT BRDG WING | 13 | AFT CONTROL & GUNNER |
| 4 | STBD BRDG WING | 14 | D.C. LOCKER |
| 5 | FWD GUNNER STA | 15 | CREW MESS |
| 6 | D.C. CENTER | 16 | GALLEY |
| 7 | FOREDECK | 17 | FANTAIL |
| 8 | CH ENG S.R. | 18 | BOW THRUSTER |
| 9 | CAPTAIN'S S.R. | 19 | E.O.S. |
| 10 | OFFICER S.R. #1 | 20 | EMERG STRNG GR. |

for Telephone System

Figure E-5

HALON 1301 FIRE SUPPRESSION SYSTEM OPERATION

ENGINE ROOM & AUX. MACHINERY ROOM NO. 1

GENERAL

This Halon 1301 Fire Suppression System is operated by manual means only. If a fire is discovered, do not delay in manually operating the system. The effectiveness of Halon 1301 Agent is significantly increased by controlling the fire in its early stages.

WARNING

Alert and evacuate personnel from fire hazard area immediately on detection of fire and where possible prior to actuation of system.

SECURE AREA

1. Close Fire Damper in 01 Level Vent Plenum Port and Stbd.
2. Place Canvas Covers on to 02 Level Vent Plenum Exhaust Louvers.
3. Secure AMS I Supply and Exhaust Watertight Covers Located 01 Level Port FR-45, Stbd FR-51.
4. Close AMS II Sliding Watertight door.

MANUAL OPERATION

REMOTE: Remote manual fire suppression system operation is performed as follows:

1. At remote station in the Vestibule, Main Deck.
 - A. Break glass and pull handle of Valve Control Pull Box.
 - B. Immediately break glass and pull handle of Cylinder Control Pull Box.

Alarm sounds 60 seconds prior to gas discharge, warning personnel to evacuate space.

LOCAL: Local manual fire suppression system operation is performed as follows:

1. Proceed to C02 supply cylinder in AMS II.
 - A. Open Control Valve by removing locking pin and operating lever of control head mounted on Control Valve.
 - B. Discharge cylinders by removing locking pin and operating lever of control head mounted on C02 Cylinders.
 - C. If desired, discharge delay may be by-passed by removing locking pin and operating lever of control head mounted on Discharge Delay.

CAUTION: Do not enter hazard area in which fire has been extinguished with an open flame or lighted cigarette as the possible presence of inflammable vapors may cause re-ignition or explosion.

For deep seated hazards, the hazard space should be kept tightly closed for 30 to 60 minutes after discharge of the Halon 1301 Agent. Be sure fire is completely extinguished before ventilating area thoroughly or ensure self-contained breathing apparatus is being used.

Figure E-6. (Sheet 1 of 2)

ENGINE ROOM & AUX. MACHINERY ROOM NO. 1 (Continued)

- C. If desired, discharge delay may be by-passed by removing locking pin and operating lever of control head mounted on Discharge Delay.

CAUTION: Do not enter hazard area in which fire has been extinguished with an open flame or lighted cigarette as the possible presence of inflammable vapors may cause re-ignition or explosion.

For deep seated hazards, the hazard space should be kept tightly closed for 30 to 60 minute after discharge of the Halon 1301 Agent. Be sure fire is completely extinguished before ventilating area thoroughly or ensure self-contained breathing apparatus is being used.

Figure E-6 (sheet 2 of 2)

HALON 1301 FIRE SUPPRESSION SYSTEM**PAINT LOCKER****WARNING**

Alert and evacuate personnel from fire hazard area immediately on detection of fire and where possible prior to actuation of system.

SECURE AREA

Close 3 Fire Dampers.

LOCAL: Local manual fire suppression system operation is performed as follows:

1. Discharge cylinder by removing locking pin and operating lever of control head mounted on Cylinder.
2. If desired, discharge delay may be by-passed by removing locking pin and operating lever of control head mounted on Discharge Delay.

CAUTION: Do not enter hazard area in which fire has been extinguished with an open flame or lighted cigarette as the possible presence of inflammable vapors may cause re-ignition or explosion.

For deep seated hazards, the hazard space should be kept tightly closed for 30 to 60 minutes after discharge of the Halon 1301 Agent. Be sure fire is completely extinguished before ventilating area. Before permitting anyone to enter the space, ventilate area thoroughly or ensure self-contained breathing apparatus is being used.

Figure E-7.

MAIN PROPULSION ENGINES

1. Ensure Port and Starboard main engine and reduction gear lube oil sumps and fresh water cooling systems are at the proper operating levels.
2. Ensure Port and Starboard main engine governor oil levels are at the proper operating levels.
3. Open Port and Starboard main engine air box drains to remove any oil that may have accumulated. Close drains.
4. Check intake air filters for dirt and obstructions.
5. Ensure power is available to the reduction gear cooling pumps, main engine prelube pumps, and main engine control panels.
6. Align main engine pre-lube systems by opening valves LO-47 and LO-48 and prelube engines for 5 minutes if engines have been shut down for 12 hours or longer. Do not exceed 5 minutes with valves open as oil will enter valve seats.
7. Align cooling water system by opening valves FWC-2, FWC-4, FWC-14, FWC-16, for port main engine reduction gear and FWC-3, FWC-1, FWC-15 and FWC-13 for stbd main engine and reduction gear. Start reduction gear cooling pumps.
8. Ensure adequate supply of fuel oil is available in day tanks and open valves FO-15, FO-20, and FO-35 for Stbd main engine taking suction from and returning to Stbd day tank or valves FO-13, FO-14, FO-20, FO-34, and FO-33 for Stbd main engine taking suction from and returning to the Port day tank. Open valves FO-13, FO-19, and FO-33 for Port main engine taking suction from and returning to Port day tank or valves FO-15, FO-14, FO-19, FO-34, and FO-35 for Port main engine taking suction from and returning to Stbd day tank.
9. Ensure that diesel starting air receivers are charged and that starting air system to Port and Stbd main engines are lined up by opening valves CA-1, CA-2, CA-1, CA-12, CA-8, and CA-9.
10. Ensure that propulsion control air receiver is charged, air dryer is running, and propulsion control system is set up for normal operation with propulsion control from EOS station and Port and Stbd main engine throttles in the neutral position.
11. Ensure that alarms are cleared on local control panels.
12. Blow down cylinders to remove accumulated moisture by opening indicator cocks and rotate engine slowly (engine may be rotated by manually depressing starting solenoid valve while throttling air with engine mounted ball valve). Close indicator cocks after completion.
13. Momentarily press engine start push-button on engine control cabinet to start turbo oil pump (allow turbo oil pump to run at least 60 seconds before starting engine).

Figure E-8. (Sheet 1 of 2)

MAIN PROPULSION ENGINES (continued)

14. Start engine by depressing the start button on the local control panel or by pressing the remote start button in the EOS. Release start button after engine starts.
15. After engine starts, observe local or remote instrumentation to verify proper engine and reaction gear operation
16. See propulsion control instructions for operating main propulsion controls, engaging clutches, and cooling shaft seals.
17. To secure engines, remove load and allow temperatures to cool, approximately 3 - 5 minutes if engine has been under load.
18. Depress engine stop button on local control panel or remote panel in the EOS (in an emergency situation, engines may be shut down by tripping the overspeed trip lever).
19. Secure reduction gear cooling pumps.

Figure E-8. (Sheet 2 of 2)

BOW THRUSTER ENGINE

1. Ensure engine sump, marine gear sump, bow thruster lube oil system, and jacket water cooling levels are at the proper operating levels.
2. Line up fuel oil system to allow engine to take suction from and return to Port day tank by opening valves FO-30, FO-13, and FO-33 or Stbd tank by opening valves FO-30, FO-14, FO-15, FO-34, and FO35.
3. Line up cooling system by opening valves ASW-18, ASW-17, ASW-21, ASW-22, and AE-28.
4. Ensure that diesel starting air receivers are charged and that starting air system to bow thruster engine is lined up by opening valves CA-5, CA-4, CA-3, CA-11, CA-12, CA-1, and CA-2.
5. Ensure oiler on air starting system is at proper level.
6. Ensure that propulsion control air receiver is charged and propulsion control system is set up for normal operation. Transfer switch at the EOS station shall be in the remote position with pilothouse having control and bow thruster throttle in the neutral position.
7. Ensure that 24V control power is available to engine.
8. Release engine lockout switch.
9. Turn start switch to run position and start engine by lifting the start button on the local control panel or by pressing the remote start button in the pilothouse. Release start button after engine starts (observe illumination of remote run light in pilothouse when starting remotely).
10. After engine starts, observe local or remote diesel engine instrumentation to verify proper engine operation.
11. Allow engine to warm up until all temperatures and pressures have stabilized.
12. Speed and direction of bow thruster rotation shall be controlled by moving the bow thruster throttle at any of the four bow thruster control stations in the desired thrust direction. (See Propulsion Control System Instructions.)
13. To secure engine, remove load and allow temperatures to cool approximately 3 - 5 minutes if engine has been under load.
14. Stop engine by depressing the stop button on the local control panel or by depressing the remote stop button in the pilothouse. Release stop button after engine stops (observe extinguishing of remote run light in pilothouse when stopping remotely). When stopping remotely, hold stop button down until run light extinguishes.
15. To operate engine in local manual control, lift on hand throttle to change from air control position and engage teeth in manual position. Rotate handle CCW to increase speed. Engine may be stopped by pushing lever CW past idle.

Figure E-9.

AIR COMPRESSORS

1. Ensure oil level in compressor crankcase is at the proper operating level.
2. Ensure power is available to automatic moisture separators and air compressor control panels.
3. Manually drain moisture from system by depressing the override button on the moisture separators. During automatic operation the moisture separator will automatically open and close at a pre-determined rate and duration.
4. Line up compressed air system by opening valves CA-1, CA-2, CA-11, CA-1 2, CA- 3, and CA-4. Other valves in system shall be opened as desired.
5. Place air compressor motor controllers in the automatic mode and start compressors. In the automatic mode, compressors will cycle ON and OFF at 225 psi and 250 psi.
6. To manually operate compressors, place motor controllers in the manual mode and control compressor operation manually by depressing the start/stop pushbuttons.

CAUTION: Do not leave compressors unattended in manual mode as pressure switches will not function.

7. After compressors are running, verify power operation by observing compressor oil pressure and system pressure.

Figure E-10.

SWITCHBOARD

SHORE POWER

To connect shore power:

- 1) Ensure that shore power breaker is open.
- 2) Connect shore power cable to plug. MN DK, FR 21
- 3) Check for proper phase rotation.
- 4) Open all other breakers feeding 1S and 2S buses (i.e., SSDG No. 1, No. 1, EDG, Feedback).
- 5) Close Shore Power breaker.

SINGLE GENERATOR OPERATION

- 1) Start SSDG No. 1 or No. 2 (see operating instructions).
- 2) Adjust voltage to 450V, frequency to 60 HZ.
- 3) Open all other breakers feeding 1S and 2S buses (shore power, EDG feedback and other SSDG, if running).
- 4) Close generator breaker.
- 5) Adjust voltage and frequency as required.

PARALLEL OPERATION

NOTE: SSDG No. 1 is set with synchronous governor.
SSDG No. 2 is set with 3% droop governor.

- 1) Apply single SSDG to 1 S/2S bus (see above).
- 2) Start second SSDG, adjust voltage and frequency to match on-line SSDG.
- 3) Turn synchroscope to incoming SSDG.
- 4) Adjust speed of incoming SSDG until synchroscope moves slowly clockwise (FAST)
- 5) When synchroscope is just before 1200 position, and synchronizing lamps are off, close breaker of incoming SSDG.
- 6) Adjust speed of droop SSDG (No. 2) as load changes to maintain equal loads on both SSDGs.

Figure E-11. (Sheet 1 of 3)

SWITCHBOARD (continued)**SPLIT BUS OPERATION**

1. In case of emergency, 1S and 2S buses may be fed separately. Open bus fire switch and follow steps for single generator operation for each SSDG.

CAUTION: UNDER NO CIRCUMSTANCES SHOULD AN ATTEMPT BE MADE TO CLOSE THE BUS TIE SWITCH WHILE BOTH 1 S AND 2S BUSES ARE ENERGIZED.

EDG OPERATION**NORMAL MODE****Manual Run:**

1. Start EDG (see operating instruction).
2. Open Main Bus Tie Breaker
NOTE: For push-button operation of motorized Main Bus Tie Breaker, mode switch must be in "Hand or Auto" and door on breaker closed.
3. Close ECG breaker.

STAND BY (Normal at-set condition):

- 1) Place MODE switch to "AUTO".
- 2) Place EDG engine control switch to auto start (see operating instruction).
- 3) Ensure that EDG engine is set up for STAND BY operation (see operating instructions).
- 4) Upon loss of power from main switchboard:

EDG will start, the main bus tie circuit breaker will open, and the EDG breaker will close, automatically.

FEEDBACK MODE

With EDG running and breaker closed:

- 1) Ensure that no power is fed to the main switchboard (i.e. SSDG No. 1, SSDG No. 2, and shore power breakers are open).
- 2) Insert key and turn to feedback position.
- 3) Close main bus tie breaker and either 1 S/E or 2S/E breaker on main switchboard.

Figure E-11. (Sheet 2 of 3)

SWITCHBOARD (continued)

SAFETY INTERLOCKS:

SSDB #1 or #2 or Shore Power Feeding Main Switchboard with Main Bus Tie Closed and Feedback Switch in Normal Position

CLOSED

1. SSDG #1 Circuit Breaker
2. SSDB #2 Circuit Breaker
3. Shore Power Circuit Breaker
4. Shore Power Circuit Breaker
5. Main Bus Tie Circuit Breaker (ESWBD)
6. 1S/E Bus Tie Circuit Breaker
7. 2S/E Bus Tie Circuit Breaker

CANNOT CLOSE

- Shore Power Circuit Breaker
- Shore Power Circuit Breaker
- SSDG #1 Circuit Breaker
- SSDG #2 Circuit Breaker
- EDG Circuit Breaker
- 2S/# Bus Tie Circuit Breaker
- 1 S/E Bus Tie Circuit Breaker

EDG Running With Feedback Switch in Normal Position

- | | | |
|----|---------------------|--------------------------------------|
| 8. | EDG Circuit Breaker | Main Bus Tie Circuit Breaker (ESWBD) |
|----|---------------------|--------------------------------------|

EDG Running with Feedback Switch in Feedback Position

- | | | |
|-----|--|-----------------------------|
| 9. | EDG & Main Bus Tie Circuit Breaker (ESWBD) | SSDG #1 Circuit Breaker |
| 10. | EDG & Main Bus Tie Circuit Breaker (ESWBD) | SSDG #2 Circuit Breaker |
| 11. | EDG & Main Bus Tie Circuit Breaker (ESWBD) | Shore Power Circuit Breaker |

Figure E-11. (Sheet 3 of 3)

NO. 1 DIESEL GENERATOR SET

1. Ensure engine sump and jacket water cooling levels are at the proper operating levels.
2. Line up fuel oil system to allow engine to take suction from and return to stbd day tank by opening valves FO-15, FO-21 and FO-35 or port day tank by opening valves FO-13, FO-14, FO-21, FO-34, and FO-33.
3. Line up cooling system by opening valves FWC-9 and FWC-11.
4. Prime fuel oil system on engine, if necessary, with engine-mounted handpump.
5. Ensure battery charger is energized and batteries are charged.
6. Start engine by depressing start button on local control panel or remotely in the EOS. Release start button after engine starts. For remote start, local switch must be in run position.
7. After engine starts, observe local or remote diesel engine instrumentation to verify proper engine operation.
8. Allow engine to warm up until all temperatures and pressures have stabilized.
9. See switchboard operating instructions for placing generator on-line.
10. To secure engine, remove load (see switchboard operating instructions).
11. Allow temperatures to cool. approximately 3 - 5 minutes if engine has been under load.
12. Depress engine stop button on local control panel or remotely in EOS. In EOS, stop button must be held down until run light goes out.

Figure E-12.

NO. 2 DIESEL GENERATOR SET

1. Ensure engine sump and jacket water cooling levels are at the proper operating levels.
2. Line up fuel oil system to allow engine to take suction from and return to port day tank by opening valves FO-13, FO-22, and FO-33 or stbd day tank by opening valves FO-15, FO-14, FO-34, and FO-35.
3. Line up cooling system by opening valves FWC-10 and FWC-12.
4. Prime fuel oil system on engine if necessary, with engine-mounted hand pump.
5. Ensure that diesel starting air receivers are charged and that starting air system to generator is lined up by opening valves CA-7, CA-4, and CA-3.
6. Ensure oiler on air starting system is at proper level.
7. Start engine by depressing start button on local control panel or remotely in the EOS. Release start button after engine starts.
8. After engine starts, observe local or remote diesel engine instrumentation to verify proper engine operation.
9. Allow engine to warm up until all temperatures and pressures have stabilized.
10. See switchboard operating instructions for placing generator on-line.
11. To secure engine, remove load (see switchboard operating instructions).
12. Allow temperatures to cool approximately 3 - 5 minutes if engine has been under load.
13. Depress engine stop button on local control panel or remotely in EOS.

Figure E-13.

EMERGENCY DIESEL GENERATOR**MANUAL START:**

1. Ensure engine and jacket water cooling levels are at the proper operating levels.
2. Line up fuel system to allow engine to take suction from and return to EDG day tank by opening valve FO-32.
3. Prime fuel oil system on engine, if necessary, with engine-mounted hand pump.
4. Ensure battery charger is energized and batteries are charged.
5. Place generator mode switch in the OFF position.
6. Reset ALL shutoff devices.
7. Turn mode switch to the start position.
8. After engine starts, observe local instrumentation to verify proper engine operation.
9. Allow engine to warm up until all temperatures and pressures have stabilized.
10. See switchboard operating instructions for placing generator on-line.
11. To secure engine, remove load (see switchboard operating instructions).
12. Allow temperatures to cool approximately 3 - 5 minutes if engine has been under load.
13. Place engine mode switch in the stop position.

AUTOMATIC START:

1. Ensure steps 1 - 6 above are performed.
2. Place mode switch to the auto position.
3. See switchboard operating instructions for automatic start sequence.

Figure E-14.

PUMP DRIVE ENGINE

1. Ensure engine sump and jacket water cooling levels are at the proper operating levels.
2. Line up fuel oil system to allow engine to take suction from and return to port day tank by opening valves FO-31, FO-13, and FO-33 or stbd day tank by opening valves FO-31, FO-14, FO-15, FO-34, and FO-35.
3. Line up cooling system by opening valves ASW-17, ASW-19, ASW-20, ASW-22, and AE-28.
4. Ensure that diesel-starting air receivers are charged and that starting air system to pump drive engine is lined up by opening valves CA-6, CA-4, CA-3, CA- 12, CA-1, CA-2, and CA-1.
5. Ensure oiler on air starting system is at proper level.
6. Ensure that fire fighting pump is declutched from engine and that tow winch hydraulic system is properly aligned by opening valves TH-1, TH-26, and TH-27 and closing TH-2, TH-3, and TH-4. Ensure tow winch hydraulic reservoir is at the proper level.
7. Ensure that 24V control power is available to engine.
8. Release engine lock-out switch.
9. Start engine by lifting start button on local control panel. Release start button after engine starts.
10. After engine starts, observe local or remote diesel engine instrumentation to verify proper engine operation.
11. Allow engine to warm up until all temperatures and pressures have stabilized.
12. Adjust engine speed as required by moving governor control handle.
13. To secure engine, remove load and allow temperatures to cool approximately 3 - 5 minutes if engine has been under load.
14. Depress engine stop button on local control panel.
15. For remote operation: Follow steps 1-7 above. Place local engine control switch in run position. Engine may be started and stopped from EOS.

Figure E-15.

OILY WATER SEPARATOR

Sigma S1-3 .5T-OWS

START-UP

1. Set valves as follows:

V1	Inlet Check	Automatic
V1A	Inlet Bypass	Closed
V2	Oil Disk, Check	Automatic
V2A	Oil Dish, Isolation	Opened
V3	Backflush Inlet Solenoid	Auto a/Man. Bypass
V4	Effluent Discharge	Automatic
V5	Recirculate	Automatic
V7	Pressure relief 15psi	Preset/Auto
V8	Isolation/Flow Control	4gpm/Opened
V14	Sample Petcock	Closed

2. Open OWS Discharge OB17.
3. Open Effluent Discharge valve OB10.
4. Open OWS Suction OB15, OB16.
5. Open bilge inlet OB16.
6. Purge all air from inlet piping by backflushing manually.

MANUAL BACKFLUSH:

- 1) Switch OWS "OFF".
 - 2) Close the oil discharge isolation valve (V2A).
 - 3) Open inlet bypass valve (V1A).
 - 4) Open backflush inlet solenoid valve (V3).
7. After the separator and piping are water-filled, return valves to original positions outlined in step 1.

OPERATION: (Switching positions during operation)

8. Switch systems to "MAN". The system will now operate continuously, independent of any liquid level switches. If oil concentration exceeds 15PPM, unit will recirculate to suction.

Figure E-16.

OILY BILGE SYSTEM**MODES OF OPERATION:**

1. Primary drainage of bilge pockets to oily waste storage tank is through oily bilge transfer pump.
VALVE LINE-UP: Open OB14, OB8, OB17, and approximate bilge pocket valve.
2. Transfer from drain tank to storage tank.
VALVE LINE-UP: Open OB7, OB14, OB8, and OB17.
3. Oily/Water separation is normally from storage tank only.
VALVE LINE-UP: Open OB16, OB15, and OB10.

OPERATION OF PUMP:

- Ensure built-in reservoir is filled with 10-weight motor oil.
- Turn on air supply to pump.
- Monitor pump discharge pressure gauge and duplex suction pressure gauge.
- Turn off air supply to secure pump.

Figure E-17.

FIRE FIGHTING/AFFF SYSTEM**FIRE FIGHTING**

1. Align the fire fighting system to allow the diesel-driven fire fighting pump to take suction from the forward sea chest and discharge up to the fire monitors by opening valves AE-8 and FM-1. Individual supply valves to fire monitors, FM- 60, FM-61, and FM-62, may be opened as required.
2. Follow steps 1-12 of pump drive engine operating instructions.
3. Clutch in fire fighting pump and observe fire fighting pump discharge pressure gauge. Engine RPM shall be set at 2200 when discharging from two monitors.
4. To secure system, declutch fire fighting pump and follow steps 13-15 of pump drive engine operating instructions.

AFFF

1. Ensure AFFF tank is at the proper operating level.
2. Line up system to allow the AFFF pump to take suction from the AFFF storage tank and discharge to the in-line foam proportioner by opening valve FM-84.
3. Ensure power is available to the AFFF pump motor controller.
4. Follow steps 1-3 of fire fighting operating instructions.
5. Start AFFF pump by depressing start button on AFFF pump motor controller.
6. Observe system duplex pressure gauge at the foam proportioner. AFFF concentrate supply pressure should be approximately 5 psi higher than the fire fighting supply pressure.
7. To secure system, depress stop button on the AFFF pump motor controller and allow fire fighting pump to continue discharging out of the monitors to flush system of remaining AFFF concentrate.
8. Upon completion of flushing system, approximately 2-3 minutes, declutch fire fighting pump and follow steps 13-15 of pump drive engine operating instructions.

Figure E-18.

STERN TUBE SEAL**NORMAL OPERATIONS**

1. Stern tube seal operates without operator adjustment. During normal operations, a continuous sea waterflush to the seal cavity must be maintained at a pressure of about 10 PSIG.
2. Valves GS-42 and GS-43 should always be open.

EMERGENCY OPERATIONS

1. To prevent uncontrolled leakage, the shaft must be stopped and the inflatable seal pressurized. Connect hose from reducing station (CA-31) to quick disconnect for seal and pressurize to 25 psi.
2. See John Crane Technical Manual for instructions to convert sealing arrangement to a stuffing box in case of emergency.

Figure E-19.

PROPULSION CONTROL SYSTEM

START UP & STATION TRANSFER:

1. Ensure Compressed Air System is fully charged and in the automatic mode; see Air Compressor Operating Instructions.
2. Line up Compressed Air System to feed the control air reservoir and control air lines from the reservoir to supply the control air dryer.
3. Energize control air dryer.
4. Ensure all control station throttles are in the center neutral position.
5. Place the EOS command transfer valve in the EOS position. Control air pressure will be shown on the local gauge mounted on the EOS control console indicating that the local station has control.
6. To transfer control from the local EOS station to any of the remote stations, place the command transfer switch in the remote position and pull up on any of the remote station transfer switches until indication of control air pressure is seen on the applicable remote control air pressure gauge. At this time, all other command stations are disabled. Transfer of command from the EOS to remote stations may only be initiated from the EOS and the EOS station may regain control at any time by placing the command transfer switch back in the EOS position.
7. To transfer command from one remote station to another, lift up on the station transfer switch at the desired station until control air is indicated on the control air gauge.

MAIN ENGINE THROTTLE CONTROL:

1. Ensure that engine throttles at the active station are in the neutral center position, or the start interlock feature of the control system will prevent engines from starting.
2. Start main engines. (See Main Engines Operating Instructions.)
3. Position throttle levers from the center detent position to either the 20 degrees ahead or astern position for clutch selection. Continued lever movement in the selected clutch quadrant will increase engine speed.
4. To change reduction gear ration, main engine throttles at the active station must be in the central neutral position.

BOW THRUSTER THROTTLE CONTROL:

1. Ensure that bow thruster throttle lever controls (located at remote operating stations only) are in the neutral center detent position.
2. Start bow thruster engine. (See Bow Thruster Operating Instructions.)

Figure E-20. (Sheet 1 of 2)

3. Position throttle levers from the center detent position to either the 20 degrees port or starboard position for clutch selection. Continued lever movement in the selected clutch quadrant will increase engine speed.
4. Emergency Towing - If brake failure occurs, as the last resort, the dog may be engaged with the drum stopped for emergency towing.
 - a. Engage the dog in the ratchet teeth.
 - b. Loosen clutch-brake slowly while drum turns slightly and all load is transferred to the dog.
 - c. Re-tighten clutch-brake.

WARNING

Never engage the dog while the drum is rotating in the payout direction. This could break the dog and could cause serious injury to personnel in the vicinity.

5. Emergency Release of Towline - Release the clutch-brake and auxiliary brake and allow towline to pull off the drum.
6. Gypsy Head Use - Loosen clutch-brake to allow free rotation of the shaft. Tighten auxiliary brake. Operate machine as in HEAVE or PAYOUT mode.

Figure E-20. (Sheet 2 of 2)

TOW WINCH

1. Normal Operation - Start pump drive engine with hydraulic system aligned for normal operation. (See Pump Drive Engine Operation Instructions.)
Back-up Operation - Align valves in accordance with Central Hydraulic System Operating Instructions. Start both motorized hydraulic system pumps. (See Central Hydraulic System Operating Instructions.)
2. Energize tow winch control panel.

MODES OF OPERATION

1. Payout or Heave. Normal and Low Speed Ranges- Set the clutch brake and release the auxiliary brake. With the control lever in NEUTRAL position, push the speed range selector knob into the desired position, up for low speed, down for normal speed. Push the control lever in the PAYOUT or HEAVE direction. The machine will run at a speed proportional to the lever movement.

CAUTION

Do not exceed 80 FPM Payout speed while powering with the hydraulic motor. Overhauling the motor will cause cavitation and severe mechanical damage.

The tug speed must be carefully controlled while powering out the line because the tug can easily overpower the towing machine motor.

2. Free Spooling - With the towline under light tension and the hydraulic motor in its stopped and braked condition and the auxiliary brake released, slowly release the clutch-brake compressor until the line begins to pull out.

The towline may be pulled out at a speed of up to 400 ft./min. (approximately 4 knots). Tension can be maintained on the rope by adjusting the clutch-brake compressor to achieve a slight braking action on the rotating drum.

CAUTION

Since this procedure produces heat in the clutch-brake band, it must be carefully observed so as not to smoke the brake lining. If the band overheats, release the clutch-brake compressor and/or slow down the tug.

In the event of overheat and subsequent tightening of the clutch-brake, the clutch-brake may freeze to the drum surface if left tight for long periods of time. Loosen the clutch-brake at the earliest opportunity to assure that it does not stick.

Check the tug speed before tightening the clutch-brake. Severe shock loading can occur if the clutch-brake is tightened while the line is being pulled out at full speed. The speed should be minimal when the clutch-brake is tightened.

Figure E-21.

CENTRAL HYDRAULIC SYSTEM

1. Ensure power is available to hydraulic power unit control panel and main circuit breaker on control panel face is closed.
2. Check reservoir level and ensure it is at the proper operating level.
3. Place mode selector switch in the "ON" position for local control or "REMOTE" for remote control from the EOS.
4. Select pump P1, P2, or both on pump selector switch. Simultaneous operation of both pumps is only required when the central hydraulic system is cross-connected to the towing winch hydraulic system. When cross-connecting to the towing winch hydraulic system, open valves TH-1, TH-2, TH-3, and TH-4 and close valves TH-26 and TH-27.
5. Press local or remote start button to start pump or pumps. When pump selector switch is set for both pumps there is a preset time delay to stagger pump startup.

NOTE: When operating both pumps simultaneously for extended periods of time, pay close attention to reservoir temperature as this mode of operation may cause excessive oil temperatures.

6. Once pump or pumps have started, observe local instrumentation to verify proper operation and observe return filter pressure gauge. When it exceeds 20 psig with one pump running, the elements must be changed.
7. To secure power unit, remove load from system and depress local or remote stop button.

Figure E-22.

REFRIGERATION**STARTUP:**

1. Ensure crankcase heater has been energized at least twenty-four (24) hours prior to startup.
2. Line up valves for pulldown or holding mode as indicated in valve lineup and indicators table. Line up General Service System and supply SW to the condenser.
3. Apply power to unit coolers in chill box and freeze room.
4. Open compressor suction valve approximately one full turn.
5. Start compressor by placing main disconnect switch in the ON position. Immediately continue to open compressor suction valve; open slowly to prevent rapid pumping down.
6. Monitor compressor operation for about five (5) minutes. If there is no sign of liquid refrigerant returning to the compressor, open suction valve wide. If there is evidence of liquid refrigerant returning to the compressor, throttle suction valve until proper suction is obtained.
7. Change over from pulldown to holding mode, secure one unit in accordance with securing instructions, and open interconnecting valves RFSS-13 and RFSS-20.

SECURING:

1. Close dehydrator inlet valve. Let compressor run until it cuts out on suction pressure switch.
2. TURN-OFF main disconnect switch.
3. Close compressor suction valve.

NOTE: Control power (110v) must be left on to keep heater energized.

REFRIGERATION VALVE LINEUP & INDICATORS

CONDENSING UNIT #1	CONDENSING UNIT#2	POSITION OR READING			
		TURN-OFF MODE (BOTH UNITS)	PULLDOWN MODE (BOTH UNITS)	HOLDING MODE	
				OPERATING unit	NON-OPERATING UNIT
GS38	GS39	Shut	Open	Open	Shut
GS67	GS68	Shut	Open	Open	Shut
GS48	GS49	Shut	Open	Open	Shut
GS82	GS71	Shut	Shut	Shut	Shut
Compressor Discharge Valve		Open	Open	Open	Open
Compressor Suction Valve		Shut	Open	Open	Shut
Condenser Outlet Valve		Shut	Open	Open	Shut
RFSS-13		Shut	Shut	Open	N/A
Dehydrator Outlet Valve		Shut	Open	Open	Shut
Dehydrator Bypass Valve		Shut	Shut	Shut	Shut
Dehydrator Inlet Valve		Shut	Open	Open	Shut
Refrigerant Pressure Gauge Valve		Open	Open	Open	Open
Oil Pressure Gauge Valve		Shut	Open	Shut	Shut
RFSS-8	RFSS-9	Shut	Open	Open	Shut
RFSS-11	RFSS-12	Shut	Open	Open	Shut
RFSS-14	RFSS-15	Shut	Open	Open	Shut
RFSS-19		Shut	Open	Open	Shut
RFSS-16		Shut	Shut	Open	Shut
RFSS-18		Shut	Shut	Open	Shut
RFSS-17		Shut	Open	Shut	N/A
RFSS-10		Shut	Open	Open	N/A
Relief Valve Bypass Valve (Equalizing Line)		Shut	Open	Open	Shut
Purge Valve		Shut	Shut	Shut	Shut
Charge and Drain Valve		Shut	Shut	Shut	Shut
RFSS-20		Shut	Shut	Open	N/A
RFSS-53	RFSS-52	Shut	Open	Open	Shut
Disch. Pressure Gauge		N/A	120/130 psig	120/130 psig	N/A
Suction Pressure Gauge		N/A	2.4 psig to 2.3 in/hg	2.4 psig to 2.3 in/hg	N/A
Oil Pressure Gauge		N/A	NOTE 1	NOTE 1	N/A
Evaporator Press. N/A Regulator		21 to 28	21 to 28 psig	N/A psig	

Figure E-23. (Sheet 2 of 3)

REFRIGERATION VALVE LINEUP & INDICATORS (Continued)

CONDENSING UNIT #1	CONDENSING UNIT#2	POSITION OR READING			
		TURN-OFF MODE BOTH UNITS)	PULLDOWN MODE (BOTH UNITS)	HOLDING MODE	
				OPERATING UNIT	NON-OPERATING UNIT
Inlet Water Temperature		N/A	85 F Design	85 F Design	N/A
Outlet Water Temperature		N/A	3 F Design	92.3 F Design	N/A
Suction Gas Temperature		N/A	-15 to -25 F	-15 to -25 F	N/A
Liquid Line Temperature		N/A	100 to 110 F	100 to 110F	N/A
Liquid Level Indicator		1/8 to 1/2	1/8 or Slightly low	18 or Slightly lower	1/8 to .1/2
Oil Level Indicator		1/4 to 3/4	1/4 to 3/4	1/4 to 3/4	1/4 to 3/4
Moisture Indicator		Blue	Blue	Blue	Blue

NOTE: Oil pressure should be 16 to 22 psig above suction pressure.

Figure E-23. (Sheet 3 of 3)

AIR CONDITIONING PLANT**STARTUP:**

1. Ensure crankcase heater has been energized at least twenty-four (24) hours prior to startup.
2. Line up valves for normal or single unit mode as indicated in valve lineup and indicators table. Line up General Service System and supply SW to the condenser.
3. Apply power to fan coil unit R1-25-2 and RO1-32-2.
4. Open compressor suction valve approximately one full turn.
5. Start compressor by placing main disconnect switch in the ON position. Immediately continue to open compressor suction valve; open slowly to prevent rapid pumping down. Observe suction pressure to maintain greater than 5 in Hg.
6. Monitor compressor operation for about five (5) minutes. If there is no sign of liquid refrigerant returning to the compressor, open suction valve wide. If there is evidence of liquid refrigerant returning to the compressor, throttle suction valve until proper suction is obtained.
7. Change over from normal to single unit mode, secure one unit in accordance with securing instructions, and open interconnecting valves RFAC-39 and RFAC- 41.
8. Change over from single unit to normal mode, shut interconnecting valves RFAC-39 and RFAC-41, and start another unit in accordance with startup instructions.

SECURING:

1. Close dehydrator inlet valve. Let compressor run until it cuts out on suction pressure switch
2. TURN-OFF main disconnect switch.
3. Close compressor suction valve.

NOTE: Control power (110v) must be left on to keep heater energized.

Figure E-24. (Sheet 1 of 4)

AIR CONDITIONING VALVE LINEUP & INDICATORS

CONDENSING UNIT #1	CONDENSING UNIT#2	POSITION OR READING			
		TURN-OFF MODE BOTH UNITS)	PULLDOWN MODE (BOTH UNITS)	HOLDING MODE	
				OPERATING UNIT	NON-OPERATING UNIT
GS33	GS34	Shut	Open	Open	Shut
GS69	GS70	Shut	Open	Open	Shut
GS36	GS37	Shut	Open	Open	Shut
GS83	GS72	Shut	Shut	Shut	Shut
Compressor Discharge Valve		Open	Open	Open	Open
Compressor Suction Valve		Shut	Open	Open	Shut
Condenser Outlet Valve		Shut	Open	Open	Shut
RFAC-39		Shut	Shut	Open	N/A
Dehydrator Outlet Valve		Shut	Open	Open	Shut
Dehydrator Bypass Valve		Shut	Shut	Shut	Shut
Dehydrator Inlet Valve		Shut	Open	Open	Shut
Refrigerant Pressure Gauge Valve		Open	Open	Open	Open
Oil Pressure Gauge Valve		Shut	Open	Open	Shut
RFAC-30	RFAC-31	Shut	Open	Open	N/A
RFAC-29	RFAC-58	Shut	Open	Open	N/A
RFAC-37	RFAC-33	Shut	Open	Open	N/A
RFAC-36	RFAC-32	Shut	Open	Open	N/A
RFAC-42	RFAC35	Shut	Open	Open	N/A
RFAC-38	RFAC-34	Shut	Open	Open	N/A
_____	RFAC-56	Shut	Open	Open	N/A
_____	RFAC-49	Shut	Open	Open	N/A
Relief Valve Bypass Valve (Equalizing Line)		Shut	Open	Open	Shut
Purge Valve	Shut	Shut	Shut	Shut	
Charge and Drain Valve		Shut	Shut	Shut	Shut
RFAC-41 Shut		Shut	Open	N/A	
RFAC-55	RFAC-54	Shut	Open	Open	Shut
Disch. Pressure Gauge		N/A	120 to 130 psig 130 psig	120 to	N/A
Suction Pressure Gauge		N/A	1 to 3 in/hg	1 to 3 in/hg	N/A
Oil Pressure Gauge		N/A	Note 1	Note 1	N/A
Inlet Water Temperature		N/A	85 F Design	85 F Design	N/A
Outlet Water Temperature		N/A	92.3 F Design	92.3 F Design	N/A

Figure E24. (Sheet 2 of 3)

AIR CONDITIONING VALVE LINEUP & INDICATORS (Continued)

CONDENSING UNIT #1	CONDENSING UNIT#2	POSITION OR READING			
		TURN-OFF MODE BOTH UNITS)	PULLDOWN MODE (BOTH UNITS)	HOLDING MODE	
				OPERATING UNIT	NON-OPERATING UNIT
Suction Gas Temperature	N/A	N/A	25 to 15 F	25 to 15 F	N/A
Liquid Line Temperature	N/A	N/A	100 to 110 F	100 to 100 F	N/A
Liquid Level Indicator	1/8 to 1/2	1/8 to 1/2	1/8 or Slightly low	18 or Slightly lower	1/8 to.1/2
Oil Level Indicator	1/4 to 3/4	1/4 to 3/4	1/4 to 3/4	1/4 to 3/4	1/4 to 3/4
Moisture Indicator	Blue	Blue	Blue	Blue	Blue

NOTE 1: Oil pressure should be 16 to 22 psig above suction pressure.

Figure E-24. (Sheet 3 of 3)

SEWAGE COLLECTION, HOLDING AND TRANSFER (CHT) SYSTEM

The CHT system has the following modes of operation:

- a) Directly Overboard
- b) Through the Marine Sanitation Device (MSD) to Overboard
- c) To the Sewage Holding Tank

DIRECTLY OVERBOARD

1. To direct sewage drains directly overboard, close SD-3 (sewage drain to holding tank) and SD-1 (sewage inlet to MSD) and open valves SD-2 and SD-13 (sewage overboard discharging).

THROUGH THE MARINE SANITATION DEVICF (MSD) TO OVERBOARD

1. To direct sewage drains to the MSD, close valves SD-3 (sewage drain to holding tank), SD-2, and SD-13 (sewage overboard discharge) and open SD-1 (sewage inlet to MSD).
2. See MSD operating instruction for MSD discharge overboard.

TO THE SEWAGE HOLDING TANK

1. To direct sewage drains to the sewage holding tank for eventual discharge overboard or to shore connections, close valves SD-1 (sewage inlet to MSD), SD-2, and SD-13 (sewage overboard discharge) and open valve SD-3 (sewage drain to holding tank).

NOTE: The tank level indicating system will sound an alarm when tank is at the 95% full condition.

2. To discharge sewage from holding tank to overboard, align system by opening valves as follows:

#1 Sewage Discharge Pump: SD-5, SD-7, SD-8, andSD-13

#2 Sewage Discharge Pump: SD-4, SD-6, SD-8, and SD-13

NOTE: When discharging sewage overboard from holding, tank pumping may be enhanced by leading plumbing drains to the holding tank for dilution of sewage.

3. Ensure power is available to #1 and #2 sewage discharge pump motor controllers.
4. Start either pump by depressing start button and observe pump discharge pressure gage and local tank level indicator meter.
5. To secure pump, depress stop button on motor controller.

Figure E-25. (Sheet 1 of 2)

SEWAGE COLLECTION, HOLDING AND TRANSFER (CHT SYSTEM (continued))

6. To discharge sewage from holding tank to Port or Stbd shore connection, align system by opening valves as follows:
 - #1 Sewage Discharge Pump To Port Conn.: SD-5, SD-7, and SD-10
 - #1 Sewage Discharge Pump To Stbd Conn.: SD-5 SD-7, and SD-10
 - #2 Sewage Discharge Pump to Port Conn.: SD-4, SD-6, and SD-10
 - #2 Sewage Discharge Pump To Stbd Conn.: SD-4, SD-6, and SD-11
7. Ensure that shore connection chosen is properly connected to a suitable collection tank.
8. Follow steps 3-5 above for start/stop of discharge pumps.

Figure E-25. (Sheet 2 of 2)

FIREMAIN/WDCM/GENERAL SERVICE SYSTEM

At all times, one pump shall be aligned for general service and one for standby firemain.

FIREMAIN

1. Align firemain for #1 or #2 fire and general service pump supply by opening valves as follows:

#1 Fire & General Service Pump: AE-27, FM-2, FM-3, FM-6, and FM-16

#2 Fire & General Service Pump: AE-27, FM-2, FM-3, FM-7, and FM-14

NOTE: Valve alignment of standby fire pump for firemain service shall be maintained at all times when pump is set for remote control; Standby pump shall be determined by pilothouse indicator.

Individual fire station valves shall be opened as required.

2. Ensure power is available to motor controller of pump selected for use on firemain.
3. Place motor controller in either the local or remote position and start pump by depressing start button. Remote start/stop control is from pilothouse and EOS.
4. To secure system, depress local or remote stop button as required. Remote start and stop of fire pump may be verified by indicating light at the remote start/stop station.
5. As a backup to the fire and general service pumps, the diesel-driven fire fighting pump may be used to feed fire main. Open valves AE-28, FM-1, and FM-13. Individual fire station valves shall be opened as required.
6. See fire fighting system operating instructions to start/stop diesel-driven firefighting pump.

WDCM

1. Align the WDCM system for #1 or #2 fire and general service pump supply by opening valves as follows:

#1 Fire & General Service Pump: AE-27, FM-2, FM-3, FM-6, FM-16, & WDCM-11

#2 Fire & General Service Pump: AE-27, FM-2, FM-3, FM-7, FM-14, & WDCM-11

2. Follow steps 2-6 of firemain instructions to start/stop fire and general service pumps or diesel-driven fire fighting pump.

Figure E-26. (Sheet 1 of 2)

FIREMAIN/WDCM/GENERAL SERVICE SYSTEM (continued)

3. When using the diesel-driven fire fighting pump to feed the WDCM system, open valves AE-28, FM-1, FM-13, and WDCM-11.

GENERAL SERVICE SYSTEM

1. Align general service system for #1 or #2 fire and general service pump supply by opening valves as follows:

#1 Fire and General Service Pump: AE-27, FM-2, FM-3, FM-6, FM-17, FM-9, and GS- 12

#2 Fire and General Service Pump: AE-27, FM-2, FM-3, FM-7, FM-15, FM-9, and GS- 12

Individual component supplies and overboards shall be opened as required.

2. Follow steps 2-4 of firemain instructions to start/stop fire and general service pumps.
3. Ensure that pressure reducing station is set for 60 psi.

EMERGENCY BILGE SUCTION

1. The engine room bilge area is fitted with an emergency bilge suction which is led directly to the suction side of the fire and general service pump No. 1 for discharge overboard.
2. Align system for #1 fire and general service pump suction by opening valves as follows:
#1 Fire and General Service Pump: FM-4, FM-6, FM-8, and FM-31
3. Follow steps 2-4 of firemain instructions to start/stop fire and general service pumps.

Figure E-26. (Sheet 2 of 2)

REVERSE OSMOSIS DESALINATION SYSTEM**STARTUP PROCEDURE**

The following instructions must be carried out each time the Sea Recovery system is started. Failure to follow the procedures exactly could lead to system failure and cause damage to the components.

1. Close the chemical circulation pump valve (40).
2. Close the membrane clean valve (32).
3. Close the system store & rinse valve (31).
4. Position the media filter backflush valve (3) to the full up (normal filter) position by gently lifting and twisting, counterclockwise, the handle.
5. Position the system brine & rinse/clean & store valve (39) towards the thru- hull overboard fitting (20) (normal operating brine discharge position).
6. Position the system filter/clean valve (33) towards the prefilter (6) (normal operating position).
7. Open the back pressure regulator valve (18) fully (turn full counterclockwise).
CAUTION: Ensure that the feed water pressure does not exceed 45 psi. If 45 psi is exceeded, adjust the ship's sea water supply line pressure to maximum 45 - minimum 30 psi.
8. Open the system feed water supply line shutoff valve (30) fully.
9. Switch the electrical power source (47) to the system ON. **DO NOT** push the salinity controller START switch at this time.
10. Start the system by depressing the START switch (SW-1) momentarily for approximately 2 seconds.
11. The GPM feed water flow meter (8) will allow observation of the water passing through it. Refer to manual for proper feed flow into the system. To bleed the air from the Multi Media Filter (4) and Prefilters (5 & 6), open the air bleed valve located at the top of the respective housing until water displaces all of the air.
12. Slowly increase the system operating pressure by turning the back pressure regulator valve (18) clockwise until 600 psi is achieved.

PERMANENT DAMAGE TO THE R.O. MEMBRANE ELEMENT WILL RESULT IF PRODUCT WATER FLOW SPECIFICATIONS ARE EXCEEDED.

Figure E-27. (Sheet 1 of 3)

REVERSE OSMOSIS DESALINATION SYSTEM (continued)**STARTUP PROCEDURE**

13. As 600 psi is achieved (full sea water salinity use), the system will begin to pass product water through the R.O. membrane elements (16) (without pressure applied, water passes over, not through, the R.O. membrane elements). With 600 psi applied, product water will continue passing through the membranes and on into the GPM product water flow meter (22), the salinity probe (23), the three-way diversion valve (24), and back to the feed source (20).
14. Determine that water has been introduced into the three-way diversion actuator valve (24). This can be assured by a noticeable flow through the GPM product flow meter (22).
15. The system running, properly interconnected and pressurized, may not produce "potable" water for up to 30 minutes. The salinity of the product water diminishes gradually, until the quality of the product water reaches the factory microhm setting at which time the unpotable (red) water light will go out, and the actuator valve (24) will energize to the 'potable" (good water) position. This allows product water to pass into the post filtration components (25), and in turn, into the product water storage tank (44).
16. Adjust the back pressure regulator valve (18) clockwise slowly until either 850 psi is achieved at the high pressure gauge (sea water feed source only) or 42 GPM of product water flow is achieved, whichever occurs first. Do not produce a greater than 42 GPM of product water and do not operate the system above 850 psi.

Figure E-27. (Sheet 2 of 3)

REVERSE OSMOSIS DESALINATION SYSTEM (continued)**SHUTDOWN PROCEDURE**

1. Release the pressure on the system by turning the back pressure regulator valve (18) counterclockwise fully open.
2. Ensure that the emergency bypass switch (SW-5), located on the main printed circuit board, is "OFF" so that high salinity product water produced in the first few minutes after the next startup will not contaminate the product storage tank.
3. Momentarily depress the STOP switch (SW-2) on the salinity controller (36) to shut down the system. Check to make sure that the high pressure pump (11) has stopped rotating, and the POWER light is off.
4. Place the system operation mode switch (SW-3), located on the front of the controller panel, in the "OFF" (center) position.
5. Immediately after stopping the system, close the system inlet feed shutoff valve (30).
(By closing the inlet valve (30) immediately after system shutdown, siphoning will not occur prior to the next startup.)
6. Turn off the electrical power source (47) (circuit breaker) to the system.

Figure E-27. (Sheet 3 of 3)

LUBE OIL PURIFIER

1. Ensure oil level in gear chamber is in the upper third of sight glass.
2. Release break and verify that bowl turns easily by hand.
3. Ensure power is available to purifier control panel and main circuit breaker on control panel is closed.
4. Line up lube oil system to allow purifier to take suction from No. 1 or No. 2 main engines by opening the following valves:
No. 1 Main Engine LO-23, LO-24, LO-29, and LO-31
No. 2 Main Engine LO-25, LO-26, LO-30, and LO-32
5. Start purifier by depressing start button and allow bowl to reach rated speed, approximately 3-4 minutes. Once bowl has reached rated speed, motor start light will extinguish and motor run light will illuminate.
6. Fill bowl with seal water and adjust needle valve to obtain the proper amount of make-up water, 1-3 drops/second max.
7. Open shut-off valve in suction line of purifier to feed dirty oil to heater.
8. Once heater is full, as determined by opening pet cock on heater outlet, energize heater.
9. After sufficient warm-up time, close control power switch and solenoid valve will open, feeding dirty oil to purifier. Rate of dirty oil flow to purifier is controlled by throttling suction line valve.
10. To secure purifier, shut off power to oil heater, stop dirty oil supply, stop seal water supply, shut off control power, switch off motor, and apply break.
11. Open drain cock and clean bowl if necessary.

Figure E-28.

MARINE SANITATION DEVICE

START UP PROCEDURE

1. Close all air and water valves on unit.
2. Fill media tank with water until water in wet well sight glass reaches a level 1/2 way up.
3. Valve Settings - All valves must be either fully opened or fully closed.

<u>Valve</u>	<u>Function</u>	<u>Position</u>
Wet Well Suction	Pump Suction from Wet Well	Open
Media Tank Drain	Pump Suction from Media Tank	Closed
Air Lift	Compressed Air Discharge Air Lift	Open
Air Scour	Compressed Air Discharge to Air Scour	Closed

4. Open overboard discharge line valve, SD-13.
5. Open sewage supply line valve into media tank, SD-1.
6. Control Settings

<u>Pushbutton</u>	<u>Position</u>
Blower	On
Pump	Auto

7. Bleed air out-of centrifugal pump casing.
8. Gradually add more water to media tank and check for proper cycling of pump.
9. Charge the downstream feed tube of the tablet chlorinator.

Figure E-29. (Sheet 1 of 2)

MARINE SANITATION DEVICE (continued)**SHORT-TERM LAY-UP**

1. If the crew will be off of vessel for 2 weeks or less, electrical power should be left on. Leave the system on-line with the blower running.

LONG-TERM LAY-UP/SHUTDOWN

1. There should be no flow into the MSD unit.
2. Remove Dry Tablet Chlorinator feed tube and store properly.
3. Laundry bleach containing a 5-1/4% solution of sodium hypochlorite may be used to disinfect the Media Tank. Six gallons of bleach is required for each 1000 gallons of water held in the Media Tank. Laundry bleach may be flushed into the Media Tank from a toilet.
4. Pump water held in Wet Well overboard. Isolate Wet Well.
5. Air scour Media Tank for 2 hours and pump contents into a suitable receiving facility.
6. Refill Media Tank with water. Air scour for 30 minutes and pump water overboard.
7. Add antifreeze to Media Tank if water must be left in tank. Air scour and antifreeze test to assure water will not freeze; Approximately one gallon of antifreeze is required for each gallon of water remaining in the Media Tank.
8. Shut off electrical power to system.
9. Inlet and discharge piping to the blower should be plugged. The blower casing should be filled with oil (20W or 30W).
10. Drain pump casing.
11. Pack motor and machinery bearings with grease.
12. Drain all piping, fittings, and traps containing water.

Figure E-29. (Sheet 2 of 2)

CAPSTAN

1. Pressurize central hydraulic system as described on motorized hydraulic power unit operating instructions.
2. Stroke directional control valve by pulling or pushing the handle in the desired heave or payout direction.
3. Control speed by throttling the directional control valve.
4. As a back-up to the motorized hydraulic power unit, the diesel-engine-driven hydraulic pump may be used. See towing winch hydraulic system operating instructions.

Figure E-30.

COLD POTABLE WATER SYSTEM**OPERATION:**Cold Potable Water Service

1. Ensure power is available to #1 and #2 potable water pump motor controllers.
2. Ensure sufficient water is available in potable water storage tanks and align potable water system to allow pumps to take suction from port or stbd potable water tank and discharge to the hydropneumatic tank by opening valves as follows:

#1 Pump - PW-14 (Port Tank Suction), PW-15 (Stbd Tank Suction), PW-16, PW-76, PW-18, and PW-78.

#2 Pump - PW-14 (Port Tank Suction), PW-15 (Stbd Tank Suction), PW-17, PW-77, PW-18, and PW-78.

All other valves in cold potable water system shall be opened as required to serve individual components and spaces.

3. Place either #1 or #2 pump motor controller in the auto position. In the automatic mode, the starting and stopping of the selected pump is controlled by a pressure switch mounted on the hydro-pneumatic tank and set to start pump at 40 psi and stop at 60 psi. In the manual mode, the start/stop control is done manually by depressing the start/stop push buttons.

CAUTION: Do not leave pumps unattended in the manual mode as pressure switch will not function. Normal operation is with one pump only in the auto mode.

4. To secure system, place motor controllers in the manual mode and depress stop button.

Bromination

1. To brominate water being discharged from the reverse osmosis units, open valves PW-85, PW-86, PW-37, PW-38, PW-2, PW-12 (Port Potable Water Tank Fill), and PW-13 (Stbd Potable Water Tank Fill).
2. To recirculate water from port or starboard potable water tank, open valves PW-84, PW-37, PW-38, PW-12 (Port Potable Water Tank Fill), and PW-13 (Stbd Potable Water Tank Fill).

NOTE: When recirculating water from potable water tanks, cold potable water system shall be fully charged.

Figure E-31.

ANCHOR WINDLASS**OPERATION:**Powered Wildcats

1. Activate central hydraulic system (see motorized hydraulic power unit operating instructions).
2. Select speed range, LSHT or HSLT.
3. Engage Dog Clutch.
 - a. Insert special tool in nearest slot in clutch shifting ring.
 - b. Loosen both wing nuts on face of shifting ring.
 - c. Push forward (50 movement of clutch shifter ring is required to fully engage or disengage Dogs).
4. Release band brake.
5. Remove chain stoppers if set.
6. Operate control lever for desired speed and direction.

Gypsy Heads Only

1. Engage band brake and set chain stoppers.
2. Disengage Dog clutch.
3. Select speed range.
4. Activate central hydraulic system.
5. Operate control lever for desired speed and direction.

Free Wheeling

1. Remove chain stoppers.
2. Disengage Dog clutch.
3. Release band brake to allow anchor to free fall. Manipulate brake to retard or stop the anchor as desired.

CAUTION: During free falling, carefully observe speed to prevent chain from "Jumping the Cat" due to centrifugal force. Apply brake slowly or chain may jump a link.

LSHT - Low Speed High Torque (For Heavy Loads)

HSLT - High Speed Low Torque (For Normal Loads and Speeds)

Figure E-32.

CARGO CRANE

PRE-START CHECKS

1. Make sure that unit has been properly lubricated and serviced.
2. Make sure Boom is not lashed down.
3. Make sure that all controls are in the neutral center position.
4. Make sure the wire rope is not frayed or damaged.
5. Ensure work area around crane is clear of personnel and equipment.
6. Do not attempt to lift loads which exceed load chart ratings.

OPERATION

1. Energize central hydraulic system (see central hydraulic system operating instructions).
 - a) Swing Operation: To swing crane to the right, pull control lever backward. To swing the crane to the left, push the control lever forward.
 - b) Telescope Operation: To extend the Boom, push the control lever forward. To retract the Boom, pull the control lever back.
 - c) Winch Operation: To lower the hook, push the control lever forward. To hoist the hook, pull the control lever back.
 - d) Main Boom Operation: To lower the Main Boom, push the control lever forward. To raise the Main Boom, pull the control lever back.

NOTE: All control levers are attached to the crane spindle. Control levers are spring-centered proportional control. When levers are released, they will automatically return to the neutral position. Moving the levers progressively farther from the neutral position in either direction will increase the rate at which the controlled function operates.

Figure E-33.

HOT POTABLE WATER SYSTEM

1. Align the hot potable water system to allow #1 and #2 hot water heaters to be fed from the cold potable water system and to feed the hot potable water distribution lines, including the hot water recirculating pump, by opening valves PW-78, PW-79, PW-80, PW-81, PW-82, PW-42, PW-43, and PW-44. All other valves serving various component and spaces shall be opened as required.
2. With hot water heaters at the proper operating level, energize heaters by closing circuit breakers on main switchboard in the EOS.
3. Ensure power is available to the hot potable water recirc pump motor controller and start pump by depressing start button.
4. To secure system, depress stop button on the hot potable water motor controller and open circuit breakers feeding the hot water heaters.

Figure E-34.

E-49/(E-50 blank)

APPENDIX F
ON-VEHICLE EQUIPMENT LOADING PLAN
INLAND AND COASTAL LARGE TUG (LT)

(Not Applicable)

APPENDIX G
SOUNDING TABLES

<u>Tank</u>	<u>Table</u>
Fuel Oil Tank No. 1P Sounding Table	G-1
Fuel Oil Tank No. 1S Sounding Table	G-2
Fuel Oil Tank No. 2C Sounding Table	G-3
Fuel Oil Tank No. 2P Sounding Table	G-4
Fuel Oil Tank No. 2S Sounding Table	G-5
Fuel Oil Tank No. 3C Sounding Table	G-6
Fuel Oil Tank No. 4P Sounding Table	G-7
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Port Fuel Oil Day Tank Sounding Table	G-9
Starboard Fuel Oil Day Tank Sounding Table	G-10
Oil Water Drain Tank Sounding Table	G-11
Oil Waste Storage Tank Sounding Table.....	G-12
Lube Oil Storage Tank Sounding Table	G-13
Port Potable Water Tank Sounding Table	G-14
Starboard Potable Water Tank Sounding Table.....	G-15
Ballast Water Tank No. 1 Sounding Table	G-16
Ballast Water Tank No. 2P Sounding Table	G-17
Ballast Water Tank No: 2S Sounding Table	G-18
Sewage Holding Tank Sounding Table.....	G-19

G-1. Scope. This appendix contains sounding tables for the LT. Sounding tables provide a means estimating the gallons of fluid contained in the tank from the depth of fluid (sounding) in the tank.

G-2. Using the Tables. To estimate the fluid contained in a tank, follow the procedures below:

- a. Sound the tank to obtain the measurement of fluid level.
- b. Using the table of contents for this appendix, find the appropriate table.
- c. Using the appropriate table, find the measurement in feet in the left hand column and read across the table to the right until under the measurement in inches. This is the approximate amount of fluid contained in the tank.

**Table G-1. Fuel Oil Tank No. 1P Sounding Table.
CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING**

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	37.48	51.40	65.32	84.81	105.60	126.40	152.75	180.39	208.04	241.03	275.28	309.53
1	348.76	389.16	429.56	474.79	521.15	567.52	618.60	670.78	722.97	779.75	837.62	895.48
2	957.52	1020.54	1083.56	1150.43	1218.21	1285.99	1357.52	1429.93	1502.34	1578.41	1655.34	1732.27
3	1812.82	1894.23	1975.64	2060.55	2146.29	2232.03	2321.18	2411.14	2501.10	2594.32	2688.29	2782.26
4	2879.14	2976.70	3074.26	3174.33	3275.00	3375.67	3478.57	3582.00	3685.42	3790.84	3896.72	4002.61
5	4110.30	4218.42	4326.53	4436.29	4546.42	4656.56	4762.47	4867.38	4972.30	5069.89	5165.76	5261.63
6	5354.32	5446.26	5538.20	5631.39	5724.86	5818.34	5913.05	6008.04	6103.04	6199.28	6295.80	6392.32
7	6490.08	6588.12	6686.17	6785.45	6885.01	6984.58	7085.38	7186.48	7287.57	7389.89	7492.50	7595.12
8	7698.97	7803.10	7907.24	8012.61	8118.27	8223.93	8330.79	8437.95	8545.10	8653.41	8761.99	8870.58
9	8980.29	9090.27	9200.24	9311.11	9422.17							

Table G-2. Fuel Oil Tank No. 1S Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	37.49	51.40	65.32	84.81	105.61	126.40	152.75	180.39	208.04	241.03	275.28	309.53
1	348.76	389.16	429.56	474.79	521.15	567.52	618.60	670.78	722.97	779.75	837.62	895.48
2	957.52	1020.54	1083.56	1150.43	1218.21	1285.99	1357.52	1429.93	1502.34	1578.41	1655.34	1732.27
3	1812.82	1894.23	1975.64	2060.55	2146.29	2232.03	2321.18	2411.14	2501.10	594.32	2688.29	2782.26
4	2879.14	2976.70	3074.26	3174.33	3275.00	3375.67	3478.57	3582.00	3685.42	3790.84	3896.72	4002.61
5	4110.30	4218.42	4326.53	4436.29	4546.42	4656.56	4762.47	4867.38	4972.30	5069.89	5165.76	5261.63
6	5354.32	5446.26	5538.20	5631.39	5724.86	5818.34	6913.05	6008.04	6103.05	6199.38	6295.80	6392.32
7	6490.08	6588.12	6686.17	6785.45	6885.01	6984.58	7085.39	7186.48	7287. 57	7389.89	7492.51	7595.12
8	7698.97	7803.10	7907.24	8012.61	8118.27	8223.93	8330.80	8437.95	8545.10	8653.41	8761.99	8870.58
9	8980.29	9090.27	9200.24	9311.11	9422.18							

Table G-3. Fuel Oil Tank No. 2C Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	24.08	33.73	54.53	81.20	107.87	152.79	207.67	262.55	341.78	434.79	527.80	645.89
1	778.68	911.46	1064.98	1231.08	1397.19	1569.79	1746.48	1923.17	2100.42	2278.04	2455.66	2633.27
2	2810.89	2988.51	3166.13	3343.75	3521.36	3698.98	3876.60	4054.22	4231.83	4409.45	4587.07	4761.69
3	4942.30	5119.92	5297.54	5475.16	5652.78	5830.39	6008.01	6185.63	6363.25	6540.87	6718.48	6896.10
4	7073.72	7251.34	7428.96	7606.57	7784.19	7961.81	8139.43	8317.04	8494.66	8672.28	8819.89	9027.51
5	9205.13	9382.75	9560.37	9737.98	9915.60	10093.18	10270.72	10448.26	10614.94	10769.58	10924.23	11057.51
6	11166.40	11275.26	11363.10	11426.04	11488.99	11532.73	11552.96	11573.19				

Table G-4. Fuel Oil Tank No. 2P Sounding Table.
CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	18.14	34.30	50.46	72.74	103.93	135.12	173.13	221.07	269.00	323.93	389.03	454.13
1	526.36	608.99	691.62	781.42	881.67	981.91	1089.22	1206.81	1324.40	1447.74	1579.46	1711.17
2	1846.31	1986.43	2126.55	2268.91	2414.54	2560.18	2707.50	2857.26	3007.03	3158.28	3311.70	3465.13
3	3620.01	3777.02	3934.03	4090.39	4245.80	4401.21	4542.66	4663.75	4784.83	4883.14	4965.51	5042.89
4	5103.42	5139.39	5175.36	5200.20	5208.79							

Table G-5. Fuel Oil Tank No. 2S Sounding Table.
CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	18.14	34.30	50.46	72.74	103.93	135.12	173.13	221.07	269.01	323.93	389.03	454.13
1	526.36	608.99	691.62	781.42	881.67	981.91	1089.22	1206.81	1324.40	1447.74	1579.46	1711.17
2	1846.31	1986.43	2126.55	2268.91	2414.54	2560.18	2707.50	2857.26	3007.03	3158.28	3311.70	3465.13
3	3620.01	3777.02	3934.03	4090.39	4245.80	4401.21	4542.66	4663.75	4784.83	4883.14	4965.51	5042.89
4	5103.42	5139.39	5175.36	5200.20	5208.79							

Table G-6. Fuel Oil Tank No. 3C Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	44.56	54.09	64.16	76.96	89.72	103.03	119.05	135.08	151.63	170.90	190.16	209.96
1	232.47	254.98	278.02	303.77	329.52	355.82	384.86	413.91	443.59	476.52	509.44	543.20
2	581.18	619.15	658.15	702.36	746.57	791.99	843.54	895.09	947.93	1007.23	1066.54	1127.04
3	1193.57	1260.09	1327.69	1400.70	1473.70	1547.70	1626.70	1705.69	1785.54	1869.73	1953.92	2038.79
4	2127.13	2215.47	2304.27	2395.43	2486.58	2578.00	2670.75	2763.50	2856.37	2949.88	3043.38	3136.90
5	3230.50	3324.09	3417.68	3511.28	3604.87	3698.46	3792.06	3885.65	3979.24	4072.84	4166.43	4260.02
6	4353.62	4447.21	4540.81	4634.40	4727.99	4821.58	4915.18	5008.77	5102.37	5195.96	5289.55	5383.15
7	5476.74	5570.33	5663.93	5757.52	5851.11	5944.71	6038.30	6131.89	6225.49	6319.08	6412.67	6506.27
8	6599.86	6693.46	6787.05	6880.64	6974.24	7067.83	7161.42	7255.02	7348.61	7442.21	7535.80	7629.39
9	7722.98	7816.58	7910.17	8003.76	8097.35	8190.95	8284.54	8378.14	8471.73	8565.33	8658.92	8752.51
10	8846.11	8939.70	9033.29	9126.89								

Table G-7. Fuel Oil Tank No. 4P Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	0.04	0.07	0.13	0.39	0.65	1.00	1.92	2.84	3.86	5.55	7.24	9.10
1	12.16	15.21	18.53	23.77	29.01	34.51	41.87	49.22	56.97	67.44	77.91	88.81
2	102.69	116.57	130.95	148.71	166.48	184.84	207.25	229.66	252.60	279.24	305.88	333.05
3	363.96	394.86	426.28	461.22	496.16	531.56	570.17	608.77	647.81	689.87	731.93	774.40
4	819.63	864.86	910.49	958.80	1007.11	1055.80	1107.11	1158.42	1210.10	1264.41	1318.71	1373.39
5	1430.68	1487.98	1545.63	1605.80	1665.96	1726.46	1789.29	1852.11	1915.24	1980.51	2015.78	2111.33
6	2178.83	2246.34	2314.12	2383.76	2453.40	2523.30	2594.98	2666.65	2738.42	2810.83	2883.24	2955.69
7	3028.36	3101.04	3173.75	3246.70	3319.65	3392.63	3465.84	3539.05	3612.30	3685.79	3759.27	3832.78
8	3906.54	3980.29	4054.07	4128.09	4202.11	4276.16	4350.46	4424.74	4499.06	4573.62	4648.18	4722.77
9	4797.60	4872.42	4947.28	5022.37	5097.46	5172.59	5247.96	5323.32	5398.71	5474.34	5549.97	5625.63
10	5701.50	5777.36	5853.23	5929.21	6005.19	6081.17	6157.17	6233.16	6309.15	6385.14	6461.13	6537.13
11	6613.12	6689.11	6765.10	6841.10	6917.09	6993.08	7069.08	7145.07	7221.05	7296.96	7372.86	7448.33
12	7520.79	7593.25	7664.07	7723.47	7782.86	7838.87	7871.35	7903.83	7933.06	7939.76	7946.46	

Table G-8. Fuel Oil Tank No. 4 Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	0.04	0.07	0.13	0.39	0.65	1.00	1.92	2.84	3.86	5.55	7.24	9.10
1	12.16	15.21	18.53	23.77	29.01	34.51	41.87	49.22	56.97	67.44	77.1	88.81
2	102.69	116.57	130.95	148.71	166.48	184.84	207.25	229.66	252.60	279.24	305.88	333.05
3	363.96	394.86	426.28	461.22	496.16	531.56	570.16	608.77	647.81	689.87	731.93	774.40
4	819.63	864.86	910.49	958.80	1007.11	1055.80	1107.11	1158.42	1210.10	1264.41	1318.71	1373.39
5	1430.68	1487.97	1545.63	1605.79	1665.96	1726.46	1789.29	1852.11	1915.24	1980.51	2045.78	2111.33
6	2178.83	2246.34	2314.12	2383.76	2453.40	2523.30	2594.98	2666.65	2738.42	2810.83	2883.24	2955.69
7	3028.36	3101.04	3173.75	3246.70	3319.64	3392.62	3465.84	3539.05	3612.30	3685.79	3759.27	3832.78
8	3906.54	3980.29	4054.07	4128.09	4202.11	4276.16	4350.46	4424.74	4499.06	4573.62	4648.18	4722.77
9	4797.59	4872.42	4947.28	5022.37	5097.46	5172.59	5247.96	5323.32	5398.71	5474.34	5549.97	5625.63
10	5701.50	5777.36	5853.23	5929.21	6005.19	6081.17	6157.16	6233.16	6309.15	6385.14	6461.13	6537.13
11	6613.12	6689.11	6765.10	6841.10	6917.09	6993.08	7145.07	7145.07	7221.05	7296.96	7372.86	7448.33
12	7520.79	7593.25	7664.07	7723.47	7782.86	7838.87	7871.35	7903.83	7933.06	7939.76	7946.46	

Table G-9. Port Fuel Oil DayTank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	6.51	11.14	17.46	26.25	35.04	44.17	53.78	63.40	74.08	86.32	98.55	113.17
1	131.22	149.28	167.96	187.56	207.15	227.37	248.50	269.63	291.39	314.06	336.72	360.02
2	384.23	408.43	433.27	459.01	484.75	511.12	538.40	565.68	593.59	622.41	651.23	680.60
3	710.77	740.94	771.41	802.31	833.21	864.19	895.28	926.38	957.47	988.59	1019.68	1050.79
4	1081.90	1113.01	1144.12	1175.24	1206.35	1237.47	1268.59	1299.71	1330.83	1361.95	1393.08	1424.21
5	1455.34	1486.47	1517.60	1548.73	1579.87	1611.01	1642.15	1673.29	1704.43	1735.58	1766.72	1797.87
6	1829.02	1860.17	1891.32	1922.48	1953.63	1984.79	2015.95	2047.11	2078.28	2109.44	2140.61	2171.78
7	2202.95	2234.12	226.29	2296.47	2327.64	2358.82	2390.00	2421.18	2452.37	2483.55	2514.74	2545.93
8	2577.12	2608.30	2639.49	2670.68	2701.87	2733.06	2764.25	2795.44	2826.63	2857.82	2889.01	2920.20
9	2951.39	2982.58	3013.78	304.97	3076.16	3107.35	3138.55	3169.74	3200.94	3232.13	3263.32	3294.52
10	3325.71	3356.91	3388.10	3419.30	3450.49	3481.69	3512.89	3544.08	3575.38	3606.48	3637.68	3668.88
11	3700.07	3731.27	3762.47	3793.67	3824.86	3856.06	3887.26	3918.46	3949.66	3980.85	4012.05	4043.25
12	4074.45	4105.65	5136.85	4168.04	4199.24	4229.86	4259.64	4289.42	4312.01	4324.24	4336.47	4344.00

Table G-10. Starboard Fuel Oil DayTank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	6.51	11.14	17.46	26.25	35.04	44.17	53.78	63.40	74.08	86.32	98.55	113.17
1	131.22.	149.28	167.96	187.56	207.15	227.37	248.50	269.63	291.39	314.06	336.72	360.02
2	384.23	408.43	433.27	459.01	484.75	511.12	538.40	565.68	593.59	622.41	651.23	680.60
3	710.77	740.94	771.41	802.31	833.21	864.19	895.28	926.38	957.47	988.59	1019.68	1050.79
4	1081.90	1113.01	1144.12	1175.24	1206.35	1237.47	1268.59	1299.71	1330.83	1361.95	1393.08	1424.21
5	1455.34	1486.47	1517.60	1548.73	1579.87	1611.01	1642.15	1673.29	1704.43	1735.58	1766.72	1797.87
6	1829.02	1860.17	1891.32	1922.48	1953.63	984.79	2015.95	2047.11	2078.28	2109.44	2140.61	2171.78
7	2202.95	2234.12	2265.29	2296.47	2327.64	2358.82	2390.00	2421.18	2452.37	2483.55	2514.74	2545.93
8	2577.12	260.30	2639.49	2670.68	2701.87	2733.06	2764.25	2795.44	2826.63	2857.82	2889.01	2920.20
9	2951.39	2982.58	3013.78	3044.97	3076.16	3107.36	3138.55	3169.74	3200.94	3232.13	3263.32	3294.52
10	3325.71	3356.91	3388.10	3419.30	3450.4	3481.69	3512.89	3544.08	3575.38	3606.48	3637.68	3668.88
11	3700.07	3731.27	3762.47	3793.67	3824.87	3856.06	3887.26	3918.46	3949.66	3980.85	4012.05	4043.25
12	4074.45	4105.65	4136.85	4168.04	4199.24	4229.86	4259.64	4289.42	4312.01	4324.24	4336.47	4344.00

Table G-11. Oily Waste Drain Tank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	9.09	11.04	13.65	16.38	19.12	22.44	25.96	29.48	33.52	37.82	42.12	46.88
1	51.97	57.07	62.67	68.81	74.94	81.67	89.29	96.90	104.82	113.44	122.05	130.70
2	139.50	148.29	157.09	165.88	174.68	183.47	192.27	201.06	209.86	218.65	227.45	236.24
3	245.04	253.83	262.63	271.42	280.22	289.01	297.81	306.60	315.40	324.19	332.99	341.78
4	350.58	359.37	368.17	376.96	385.76	394.55	403.35	412.14	420.94	429.73	438.53	447.32
5	456.12	464.91	473.71	482.50	491.25	500.01	508.76	513.22				

Table G-12. Oily Waste Storage Tank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	9.84	15.07	23.04	31.00	39.12	47.76	56.40	65.19	74.50	83.81	93.28	103.26
1	113.25	123.39	134.05	144.70	155.51	166.85	178.18	189.66	201.66	213.56	225.83	238.50
2	251.18	264.01	277.36	290.70	304.18	318.06	331.95	345.90	360.04	374.18	338.36	402.68
3	417.00	431.36	445.86	460.35	474.89	489.56	504.23	518.94	533.78	548.63	563.52	578.54
4	593.57	608.63	623.83	639.03	654.27	669.64	685.02	700.43	715.98	731.54	747.13	762.85
5	778.58	794.35	810.25	826.16	842.10	858.18	874.26	890.38	906.64	922.89	939.19	955.62
6	972.05	988.52	1005.13	1021.74	1038.39	1055.17	1071.96	1088.78	1105.74	1122.70	1139.70	1156.81
7	1173.98	1191.15	1208.46	1225.78	1243.13	1260.62	1278.11	1295.64	1313.30	1330.97	1348.67	1366.51
8	1384.35	1402.23	1420.25	1438.27	1456.32	1474.52	1492.71	1510.94	1529.1	1547.68	1566.09	1589.64
9	1603.18	1621.77	1640.49	1659.21	1677.97	1696.87	1715.77	1734.70	1753.78	1772.85	1791.97	1811.21
10	1830.47	1849.75	1869.17	1888.59	1908.03	1927.55	1947.07	1966.58	1986.11	2005.64	2025.17	2044.69
11	2064.22	2083.75	2103.28	2122.80	2142.33	2161.86	2181.39	2200.91	2220.44	2239.97	2259.50	2279.02
12	2298.55	2318.08	2337.61	2357.13	2376.65	2396.13	2415.61	2434.26	2450.09	2465.93	2479.39	2484.84
13	2490.28	2494.62	2495.20									

Table G-13. Lube Oil Storage Tank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	9.84	15.07	23.04	31.00	39.12	47.76	56.40	65.19	74.50	83.81	93.28	103.26
1	113.25	123.39	134.05	144.70	155.51	166.84	178.18	189.66	201.66	213.67	225.83	238.50
2	251.18	264.01	277.36	290.70	304.18	318.06	331.95	345.90	360.04	374.18	338.36	402.68
3	417.00	431.36	445.86	460.35	474.88	489.56	504.23	518.94	533.78	548.63	563.52	578.54
4	593.56	608.63	623.83	639.03	654.27	669.64	685.02	700.43	715.98	731.53	747.13	762.85
5	778.58	794.35	810.25	826.16	842.10	858.18	874.26	890.38	906.64	922.89	939.19	955.62
6	972.05	988.52	1005.13	1021.74	1038.39	1055.17	1071.96	1088.78	1105.74	1122.70	1139.70	1156.84
7	1173.97	1191.15	1208.46	1225.78	1243.13	1260.62	1278.11	1295.64	1313.30	1330.97	1348.67	1366.51
8	1384.35	1402.23	1420.25	1438.27	1456.32	1474.52	1492.71	1510.94	1529.31	1547.68	1566.09	1584.64
9	1603.18	1621.77	1640.49	1659.21	1677.97	1696.87	1715.77	1734.70	1753.78	1772.85	1991.97	1811.21
10	1830.46	1849.75	1869.17	1888.59	1908.03	1927.55	1947.06	1966.58	1986.11	2005.64	2025.17	2044.69
11	2064.22	2083.75	2103.27	2122.80	2142.33	2161.86	2181.39	2200.91	2220.44	2239.97	2259.50	2279.02
12	2298.55	2318.08	2337.60	2357.13	2376.65	2396.13	2415.61	2434.26	2450.09	2465.93	2479.39	2484.84
13	2490.28	2494.62	2495.20									

Table G-14. Port Potable Water Tank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	46.80	93.59	140.39	187.19	233.98	280.78	327.58	374.37	421.17	467.97	514.76	561.56
1	608.36	655.15	701.95	748.75	795.54	842.34	889.14	935.93	982.73	1029.53	1076.32	1123.12
2	1169.92	1216.71	1263.51	1310.31	1357.10	1403.90	1450.70	1497.49	1544.29	1591.09	1637.88	1684.68
3	1731.48	1778.27	1825.07	1871.87	1918.66	1965.46	2012.26	2059.05	2105.85	2152.65	2199.44	2246.24
4	2293.04	2339.83	2386.63	2433.43	2480.23	2527.02	2573.82	2620.61	2667.41	2714.21	2761.00	2807.80
5	2854.60	2901.39	2948.19	2994.99	3041.79	3088.58	3135.38	3182.18	3228.97	3275.77	3322.57	3369.36
6	3416.16	3462.96	3509.75	3556.55	3603.35	3650.14	3694.34	3738.54	3782.74	3808.72	3834.70	3860.68
7	3864.23											

Table G-15. Starboard Potable Water Tank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT .	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	46.80	93.59	140.39	187.19	233.98	280.78	327.58	374.37	421.17	467.97	514.76	561.56
1	608.36	655.15	701.95	748.75	795.54	842.34	889.14	935.98	982.73	1029.53	1076.32	1123.12
2	1169.92	1216.71	1263.51	1310.31	1357.10	1403.90	1450.70	1497.49	1544.29	1591.09	1637.88	1684.68
3	1731.48	1778.27	1825.07	1871.87	1918.66	1965.46	2012.26	2059.05	2105.85	2152.65	2199.44	2246.24
4	2293.04	2339.83	2386.64	2433.43	2480.23	2527.02	2573.82	2620.61	2667.41	2714.21	2761.00	2807.80
5	2854.60	2901.40	2948.19	2994.99	3041.79	3088.58	3135.38	3182.18	3228.97	3275.77	3322.57	3369.36
6	3416.16	3462.96	3509.75	3556.55	3603.35	3650.14	3694.34	3728.54	3782.74	3808.72	3834.70	3860.68
7	3864.23											

Table G-16. Ballast Water Tank No. 1 Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	4.10	5.01	5.93	7.47	9.06	10.66	12.44	14.67	16.90	19.12	21.96	25.06
1	28.17	31.35	35.44	39.53	43.62	48.13	53.14	58.15	63.17	69.13	75.27	81.40
2	87.82	95.18	102.54	109.91	117.96	126.45	134.94	143.44	153.08	162.73'	172.37	182.50
3	193.42	204.33	215.25	227.17	239.40	251.64	264.06	277.63	291.21	304.78	318.95	333.67
4	348.38	363.09	378.94	394.90	410.85	427.20	444.48	461.76	479.04	497.26	515.91	531.56
5	553.30	573.33	593.37	613.41	634.08	655.53	676.99	698.44	720.97	743.72	766.47	789.48
6	813.43	837.37	861.32	886.01	911.19	936.38	961.56	987.93	1014.32	1040.70	1067.52	1095.06
7	1122.61	1150.15	1178.54	1207.21	1235.87	1264.69	1294.45	1324.21	1353.97	1381.29	1415.12	1452.15
8	1489.66	1528.12	1566.59	1604.46	1640.62	1676.78	1710.26	1735.93	1761.60	1787.53	1814.25	1840.97
9	1867.97	1895.81	1923.65	1951.77	1980.74	2009.71	2038.96	2069.07	2099.18	2129.58	2160.84	2192.10
10	2223.65	2256.07	2288.49	2321.21	2354.80	2388.39	2422.29	2457.06	2491.83	2526.92	2562.94	2598.96
11	2635.34	2672.73	2710.12	2747.90	2786.83	2825.75	2865.10	2905.72	2946.34	2987.44	3029.93	3072.41
12	3115.42	3159.95	3204.48	3249.57	3296.30	3343.02	3390.28	3439.11	3487.94	3537.35	3855.42	3639.49
13	3691.24	3744.92	3798.60	3852.99	3909.41	3965.84	4022.99	4082.25	4141.51	4201.51	4263.62	4325.73
14	4388.58	4453.54	4518.51	4584.21	4652.03	4719.84	4788.39	4859.06	4929.73	5001.14	5074.66	5148.18
15	5222.44	5298.81	5375.19	5452.29	5531.52	5610.75	5690.71	5772.79	5854.87	5937.68	6022.61	6107.54
16	6193.21	6280.99	6368.77	6457.29	6547.93	6638.56	6729.94	6823.42	6916.91	7011.13	7107.47	7203.81
17	7300.89	7400.08	7499.28	7599.20	7701.21	7803.23	7905.90	8010.47	8115.04	8220.13	8326.74	8433.36
18	8540.37	8648.51	8756.65	8865.08	8974.29	9083.50	9192.87	9302.70	9412.53	9522.42	9632.46	9742.51
19	9852.54	9962.54	10072.5	10182.49	10292.38	10402.26	10512.11	10621.88	10731.64	10840.35	10945.99	11051.63
20	11153.39	11243.87	11334.34	11419.65	11489.94	11560.22	11624.20	11699.85	11715.50	11755.90	11781.05	11806.20
21.	11827.41	11837.17	11846.94	11855.02	11858.23							

Table G-17. Ballast Water Tank No. 2P Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	33.35	36.40	39.67	42.93	46.36	49.96	53.56	57.38	61.41	65.45	69.73	74.26
1	78.80	83.59	88.64	93.69	99.01	104.61	110.20	116.08	122.24	128.40	134.85	141.60
2	148.35	155.34	162.57	169.80	177.28	185.01	192.74	200.82	209.25	217.68	226.63	236.09
3	245.55	255.76	266.72	277.67	289.61	302.54	315.47	329.64	345.06	360.48	377.29	395.48
4	413.68	433.68	455.50	477.32	501.13	526.95	552.77	580.92	611.41	641.90	674.84	710.24
5	745.64	783.75	824.57	865.40	909.15	955.83	1002.51	1052.39	1105.48	1158.56	1214.86	1274.38
6	1333.90	1396.63	1462.57	1528.51	1597.44	1669.35	1741.26	1815.76	1892.85	1969.95	2049.33	3120.98
7	2212.63	2296.05	2381.24	2466.43	2553.16	2641.43	2729.70	2819.13	2909.171	3000.29	3091.93	3184.62
8	3277.32	3370.88	3465.29	3559.70	3654.89	3750.87	3846.84	3942.93	4039.12	4135.32	4231.22	4326.82
9	4422.43	4517.72	4612.70	4707.68								

Table G-18. Ballast Water Tank No. 2S Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	33.35	36.40	39.67	42.93	46.36	49.96	553.56	57.38	61.41	65.45	69.73	74.26
1	78.80	83.59	88.64	93.69	99.01	104.61	110.20	116.08	122.24	128.40	134.85	141.60
2	148.35	155.34	162.57	169.80	177.28	185.01	192.74	200.82	209.25	217.68	226.63	236.09
3	245.55	255.76	266.72	277.67	289.61	302.54	315.47	329.64	345.06	360.48	377.29	395.48
4	413.68	433.68	455.50	477.32	501.13	526.95	552.77	580.92	611.41	641.90	674.84	710.24
5	745.64	783.75	824.57	865.40	909.15	955.83	1002.51	1052.39	1105.48	1158.56	1214.86	1274.38
6	1333.90	1396.63	1462.57	1528.51	1597.44	1669.35	1741.26	1815.76	1892.85	1969.95	2049.33	2130.98
7	2212.63	2296.05	2381.24	2466.43	2553.16	2641.43	2729.70	2819.13	2909.71	3000.29	3091.93	3184.62
8	3277.32	3370.88	3465.29	3559.70	3654.89	3750.86	3846.84	3942.92	4039.12	4135.32	4231.22	4326.82
9	4422.43	4517.72	4612.70	4707.68								

Table G-19. Sewage Holding Tank Sounding Table.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING

FT.	INCHES											
	0	1	2	3	4	5	6	7	8	9	10	11
0	38.65	75.62	112.60	149.58	196.37	243.16	289.96	336.75	383.54	430.34	477.13	523.91
1	570.72	617.51	664.30	711.10	757.89	804.68	851.48	898.27	945.06	991.86	1038.65	1085.45
2	1132.24	1179.03	1225.83	1272.62	1319.41	1366.21	1413.00	1459.79	1506.59	1553.33	1600.17	1646.97
3	1693.76	1740.55	1787.35	1834.14	1880.93	1927.73	1974.52	2021.31				

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By Order of the Secretary of the Army:

Official:

MILTON H. HAMILTON
*Administrative Assistant to the
Secretary of the Army*
01460

GORDON R. SULLIVAN
*General, United States Army
Chief of Staff*

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From: "Whomever" <whomever@avma27.army.mil>
To: TACOM-TECH-PUBS@ria.army.mil

Subject: DA Form 2028
1. From: Joe Smith
2. Unit: home
3. Address: 4300 Park
4. City: Hometown
5. St: MO
6. Zip: 77777
7. Date Sent: 19-OCT-93
8. Pub no: 55-2840-249-23
9. Pub Title: TM
10. Publication Date: 04-JUL-85
11. Change Number: 7
12. Submitter Rank: MSG
13. Submitter FName: Joe
14. Submitter MName: T
15. Submitter LName: Smith
16. Submitter Phone: 123-123-1234
17. Problem: 1
18. Page: 1
19. Paragraph: 3
20. Line: 4
21. NSN: 5
22. Reference: 6
23. Figure: 7
24. Table: 8
25. Item: 9
26. Total: 123
27. Text:

This is the text for the problem below line 27.

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II (<i>reverse</i>) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
---	--	------

TO: (<i>Forward to proponent of publication or form</i>) (<i>Include ZIP Code</i>)	FROM: (<i>Activity and location</i>) (<i>Include ZIP Code</i>)
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PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 55-1925-207-10-2	DATE 26 May 1992	TITLE Operator's Manual for Inland and Coastal Large Tug (LT)
---	----------------------------	---

ITEM	PAGE	PARA- GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

** Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER TM 55-1925-207-10-2	DATE 26 May 1992	TITLE Operator's Manual for Inland and Coastal Large Tug (LT)
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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

PART III - REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

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PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS							
PUBLICATION/FORM NUMBER TM 55-1925-207-10-2						DATE 26 May 1992	TITLE Operator's Manual for Inland and Coastal Large Tug (LT)
ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
<i>* Reference to line numbers within the paragraph or subparagraph.</i>							
TYPED NAME, GRADE OR TITLE					TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION		SIGNATURE

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TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigram = .035 ounce
 1 dekagram = 10 grams = .35 ounce
 1 hectogram = 10 dekagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
----	------------------------	----------------------------	---------------------	----

PIN: 068849-000