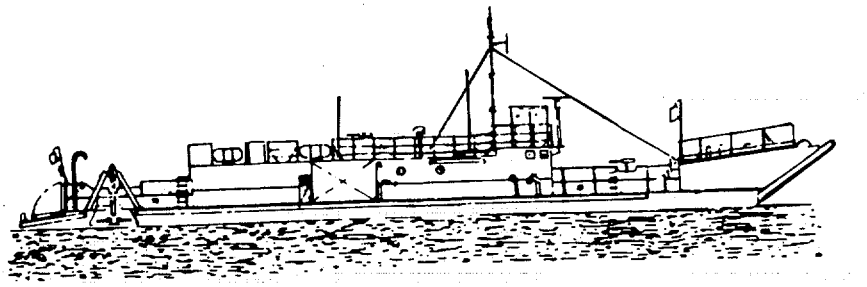
TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL

OPERATOR MAINTENANCE INSTRUCTIONS FOR AUXILIARY EQUIPMENT

LANDING CRAFT UTILITY
LCU 1671-1679
NSN 1905-01 -009-1056



***This manual supersedes TM 55-1905-14-8, 10 June 1980**

HEADQUARTERS, DEPARTMENT OF THE ARMY
6 JULY 1984

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

FOR AUXILIARY EQUIPMENT

OVERVIEW

The operator maintenance instructions in this chapter apply to the following:

Chapter 3 contains the maintenance instructions for all major equipment.

SECTION I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

4-1. GENERAL.

Repair parts, special tools, test, maintenance, diagnostic equipment, (TMDE), and support equipment are listed and illustrated in TM 55-1905-220-20P.

SECTION II. SERVICE UPON RECEIPT

4-2. PRELIMINARY SERVICING OF EQUIPMENT.

a. General. When a landing craft is received, inspect all items for damage that may have occurred during shipping or setting-up operations. Particular attention should be directed toward loose or missing nuts, bolts, screws, drain plugs, drain cocks, oil plugs, assemblies, subassemblies, or components that may be easily lost or broken in transit. All other onboard equipment listed in basic issue items list, or packing lists, on new or used equipment should be similarly inspected and all discrepancies carefully noted.

b. Batteries. Batteries may be shipped separately, or installed for convenience with the electrolyte shipped separately.

(1) If batteries are not installed, uncrate and install.

(2) If batteries are installed, remove filler caps and carefully fill each cell with electrolyte until level is 3/8 inch (9.53 mm) above plates. Replace filler caps.

(3) Charge battery if required.

WARNING

Handle electrolyte with care. It is capable of inflicting severe burns. Solution contacting the body must be washed off with fresh water immediately. Do not smoke or use open flame while servicing batteries. Batteries generate a hydrogen gas which is highly explosive.

(4) For testing of batteries, refer to PMCS Table 2-14, item 15.

c. Inspection. All areas will be carefully inspected for proper component attachment, or damaged components.

d. Servicing and Equipment. When a landing craft is received, perform all preventive maintenance -checks and services. Before filling fuel tanks, cooling system, hydraulic reservoir, engine crankcase, transmission oil reservoir, or oil reservoir of any component, ensure that associated drain cocks are closed, and all barrier material has been removed.

(1) Filters. Hydraulic filters are susceptible to easy contamination on new equipment. Check frequently and change elements after first 50 hours of operation.

4-3. INSTALLATION OF SEPARATELY PACKED COMPONENTS.

Normally, there are no components packed separately. Loose items of equipment subject to loss, damage, or pilferage, may be boxed and secured on the landing craft. Such items should be unpacked and properly stowed during inspection and servicing of equipment on receipt.

SECTION III. LUBRICATION

4-4. GENERAL.

Refer to Lubrication Order LO-55-1905-219 for lubrication instructions.

SECTION IV. TROUBLESHOOTING - SYMPTOM INDEX

4-5. GENERAL.

a. This table lists the common malfunctions which you may find during the operation and maintenance of the following components:

- Commissary Space Equipment
- Electronic/Navigation System
- Fire Detection and Extinguishing Equipment
- Heating, Ventilation, and Air Conditioning System
- Hull and Outfit
- Interior Communication System
- Oil/Water Separation System
- Piping System
- Plumbing and Deck Drains
- Pump Sets
- Sewage System
- Tanks and Voids
- Vents and Sounding Tubes

b. You should perform the tests/inspections and corrective actions in the order listed.

c. This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify your supervisor.

d. Refer to Chapter 3 for the maintenance procedures for major machinery.

4-5. GENERAL (Continued).

SYMPTOM INDEX

Note

M in Table number indicates malfunction item number.

EQUIPMENT	MALFUNCTION	TABLE
Portable Fire Pump	Ignition troubleshooting	4-1
(Gale Marine P250)	Spark plug	4-1-M1
	Breaker points - magneto	4-1-M2
	Condenser - magneto	4-1-M3
	Ignition coil - magneto	4-1-M4
	Wiring magneto	4-1-M5
	Flywheel	4-1-M6
	Carburetion troubleshooting	4-2
	Filter - fuel	4-2-M1
	Fuel tanks	4-2-M2
	Carburetor	4-2-M3
	Motor floods	4-2-M4
	Motor starves	4-2-M5
	Poor carburetion	4-2-M6
	Power head troubleshooting	4-3
	Cooling system troubleshooting	4-4
Portable Fire Pump	Hardstarting or will not run	4-1A
(Prosser PE-250)	Lack of fuel	4-1A-M1
	Poor or no ignition spark	4-1A-M2
	Engine flooded	4-1A-M3
	Carburetor lean, too much air	4-1A-M4
	Poor compression	4-1A-M5
	Running troubles	4-2A
	Lacks power	4-2A-M1
	Runs unevenly	4-2A-M2
	Poor acceleration	4-2A-M3
	No acceleration	4-2A-M4
	Engine backfires through carburetor	4-2A-M5
	Pings under heavy load, full throttle	4-2A-M6
	Engine stops	4-2A-M7
	Pump troubles	4-3A
	Pump primes slowly or not at a	4-3A-M1 -
	Magnetic clutch slipping	4-3A-M2
	Pump will not pump water - or is not pumping enough	4-3A-M3

4-5. GENERAL (Continued).

SYMPTOM INDEX (Continued)

EQUIPMENT	MALFUNCTION	TABLE
Lube Oil Transfer Hand Pump	Pump does not deliver or delivers below rated capacity	4-5-M1
	Evidence of excessive leakage	4-5-M2
	Pump is excessively noisy and vibrates in operation - turns hard, or binds	4-5-M3
Air Conditioner	Abnormal operating pressures/ temperatures	4-6
	High head pressure	4-6-M1
	Low head pressure	4-6-M2
	High suction pressure	4-6-M3
	Low suction pressure	4-6-M4
	Compressor crankcase cold	4-6-M5
	High crankcase temperature	4-6-M6
	Erratic operation	4-7
	Compressor will not start	4-7-M1
	Compressor short cycles or high pressure cut-out	4-7-M2
	Compressor short cycles or low pressure cut-out	4-7-M3
	Compressor runs continuously	4-7-M4
	Lubrication troubles	4-8
	Oil leaves compressor crankcase	4-8-M1
	Oil does not return to crankcase	4-8-M2
	Lubrication troubles (Continued)	
	Low oil pressure or no oil pressure	4-8-M3
	Compressor cuts out on low oil pressure	4-8-M4
	System noises	4-9
	Compressor noise	4-9-M1
	Pipe rattles	4-9-M2
	Hissing	4-9-M3
	Capacity control troubles	4-10
	Compressor will not unload	4-10-M1
	Compressor will not load	4-10-M2
	Any one cylinder will not unload	4-10-M3:
	Any one cylinder will not load	4-10-M4
	Compressor noise varying with unloading	4-10-M5
	Rapid unloading cycling	4-10-M6
	Cooling coil troubles	4-11
	Loud hissing at thermal expansion valve	4-11-M1

4-5. GENERAL (Continued). SYMPTOM INDEX (Continued)

SYMPTOM INDEX (Continued)

EQUIPMENT	MALFUNCTION	TABLE
Air Conditioner (Continued)	Partial frosting of coil - failure to cool	4-11-M2
	No frosting of coil - failure to cool	4-11-M3
	Complete frosting of coil - failure to cool	4-11-M4
	Too much cooling	4-11-M5
Drinking Fountain	Water leaks	4-12-M1
	Water not cold or not cold enough	4-12-M2
	Little or no water from bubbler valve	4-12-M3
	Bubbler valve stream too high or too low	4-12-M4
	Compressor runs continuously	4-12-M5
	Compressor inoperative	4-12-M6
Milk Dispenser	Compressor will not start - no hum	4-13-M1
	Compressor will not start - hums but cycles on overload	4-13-M2
	Compressor starts but starting winding remains in circuit	4-13-M3
	Compressor starts and runs but cycles on overload	4-13-M4
	Compressor tries to start when control closed but cuts out on overload finally starts after several attempts	4-13-M5
	Compressor starts but immediately cuts out on overload	4-13-M6
	Relay burned out	4-13-M7
	Head pressure too high	4-13-M8
	Head pressure too low	4-13-M9
	Compressor running cycle too long or operating continuously	4-13-M10
	Milk can compartment temperature too high	4-13-M11
	Noisy unit	4-13-M12
	Evaporator freezes but defrosts	4-13-M13
	while compress-or is running	4-13-M13
	Suction line sweating or frosting	4-13-M14

4-5. GENERAL (Continued).

SYMPTOM INDEX (Continued)

EQUIPMENT	MALFUNCTION	TABLE
Water Closet	Water closet assembly	4-14
	Will not flush	4-14-M1
	Flushes but no water	4-14-M2
	Flushes but improper amount	4-14-M3
	Check valve assembly	4-15
	Activation valve	4-16
	No vacuum	4-16-M1
	Vacuum at inlet but not at outlets when valve is energized	4-16-M2
	Activation valve does not cycle	4-16-M3
	Gravity timer	4-17
	Will not cock	4-17-M1
	Will not honor low vacuum hold	4-17-M2
	Will not actuate water dispensing valve or vacuum dispensing valve	4-17-M3
	Vacuum dispensing valve	4-18
	Water dispensing valve	4-19
	No water	4-19-M1
	Water valve runs continuously	4-19-M2
Sewage System	Sewage discharge valve	4-20
	Urinal discharge valve	4-21
	Vacuum leak between inlet and outlet parts	4-21-M1
	Vacuum leak at top cover	4-21-M2
	Leak in body of assembly	4-21-M3
Washer/Dryer	No product operation	4-22-M1
	No operation - washer unit only	4-22-M2
	No operation - dryer unit only	4-22-M3
	Washer vibration during spin or agitate	4-22-M4
	Motor will not operate	4-22-M5
	Won't agitate - motor operating	4-22-M6
	Noisy operation	4-22-M7
	Insufficient water level	4-22-M8
	Overfill	4-22-M9
	Water leaking onto deck	4-22-M10
	Wash water not hot enough, controls set for hot wash	4-22-M11
	Clothing too wet after final spin	4-22-M12
	Odor in washer unit	4-22-M13
	Torn clothing	4-22-M14
	Dryer drum will not rotate - motor operating	4-22-M15

4-5. GENERAL (Continued).

SYMPTOM INDEX (Continued)

EQUIPMENT	MALFUNCTION	TABLE
Washer/Dryer (Continued)	Drum speed too fast	4-22-M16
	Drum speed too slow - noisy or vibrating	4-22-M17
	No heat - drum rotates	4-22-M18
	Improper drying temperature	4-22-M19
	Drying time too long or clothes not dry when removed from drum	4-22-M20
	Clothing tears or holes	4-22-M21
Fire Detection and Extinguishing System	Failure of all detectors to respond to test	M-23-M1
	Failure of all detectors in one compartment to respond to test	4-23-M2
Public Address System	No sound from reproducer when operating trigger switch	4-24-M1
	Click but no speech reproduction	4-24-M2
	Accoustic howl at all speech settings of volume control	4-24-M3
	Voice signals badly distorted	4-24-M4
	Voice reproduction weak	4-24-M5
Hot Water Heater	No hot water :	4-25-M1
	Water temperature below setting at all time	4-25-M2
	Relief valve discharges continuously	4-25-M3
	Monitoring thermostat	4-25-M4
	Magnetic contactor	4-25-M5
Signalling Searchlight	No light	4-26-M1
	Weak beam	4-26-M2
	Shutter leaks light	4-26-M3
	Short lamp life	4-26-M4

4-5. GENERAL (Continued).

Table 4-1. Portable Fire Pump (P-250) Ignition Troubleshooting.

NOTE

Tables 4-1 thru 4-4 apply the the Gale Marine P-250 portable fire pump. Tables 4-1A thru 4-3A apply to the Prosser PE250 electric start portable fire pump.

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION
1. Spark plug problems.
Step 1. Loose in cylinder head. Refer to paragraph 4-7.5.
Step 2. Loose connection. Refer to paragraph 4-7.5.
Step 3. Spark gap not properly adjusted. Refer to paragraph 4-7.5.
Step 4. Fouled. Refer to paragraph 4-7.5.
Step 5. Burned out. Refer to paragraph 4-7.5.
Step 6. Faulty gasket. Refer to paragraph 4-7.5.
2. Breaker points - magneto.
Step 1. Improperly adjusted. Refer to paragraph 4-7.5.
Step 2. Pitted or corroded. Refer to paragraph 4-7.5.