

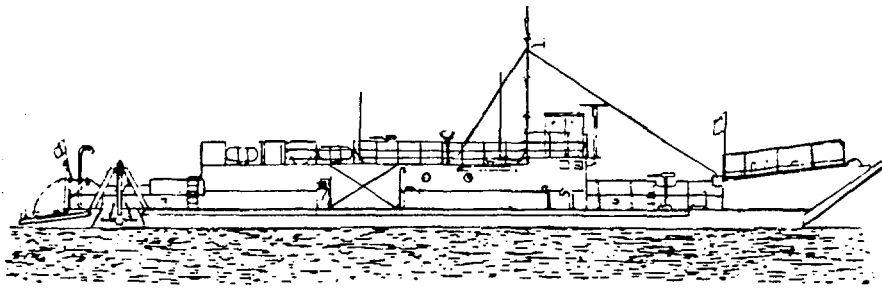
TECHNICAL MANUAL

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

LANDING CRAFT UTILITY
LCU 1671-1679
(1905-01-009-1056)

OPERATION UNDER USUAL
CONDITIONS

OPERATION UNDER UNUSUAL
CONDITIONS



HEADQUARTERS, DEPARTMENT OF THE ARMY

26 AUGUST 1983

TECHNICAL MANUAL
NO. 55-1905-220-14-2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON D.C., **26 August 1983**

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2, located in the back of this manual direct to: Commander, US Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-MPSD, 4300 Goodfellow Blvd., St. Louis, MO 63120. A reply will be furnished directly to you.

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*This manual supersedes TM 55-1905-220-14-2, 3 July 1980.

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CHAPTER 2

(CONTINUED)

SECTION III. OPERATION UNDER USUAL CONDITIONS

2-20. GENERAL.

The instructions in this section are for the personnel who operate the various systems of the landing craft. The instructions for each component of a system are as follows:

- Preliminary Adjustments - Settings for valves or switches that must be checked prior to initial starting of a device.
- Local Start - Starting from the physical location of the device. Warm and cold weather starting is also included.
- Remote Start - Starting the device from a remote location.
- Local Stop - Stopping at the physical location of the device.
- Remote Stop - Stopping the device from a remote location.

The following is an index to the procedures for operation under usual conditions:

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2-20. GENERAL (Cont).

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Before you operate. Always keep in mind the CAUTIONS and WARNINGS.

Before you operate. Perform the PMCS(s) in Chapter 2, Section II.

2-21. HYDRAULIC STARTING SYSTEM.

- a. The following paragraphs contain the procedures that must be performed prior to starting the propulsion engines, generator engines or anchor winch engine.
- b. The hydraulic starting system located in the forward engine room is for the port main engine and generator engine.
- c. The hydraulic starting system located in the aft engine room is for the starboard main engine and generator engine.
- d. The hydraulic starting system for the anchor winch engine is located in the anchor winch compartment.
- e. The following is an index to the procedures:

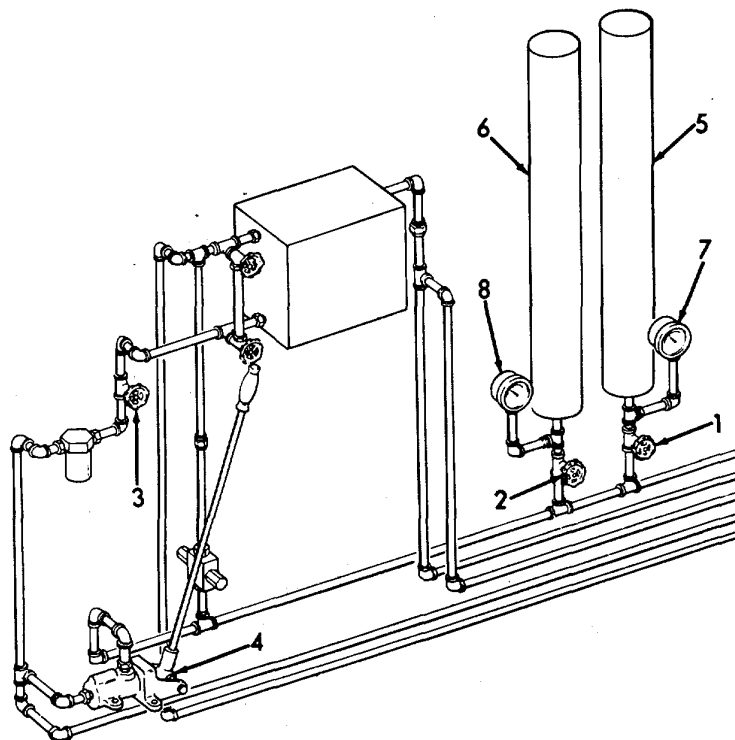
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2-22. HYDRAULIC STARTING SYSTEM - FORWARD ENGINE ROOM

Preliminary Adjustments.

- Open shut off valves (1 and 2) by rotating valves counter-clockwise.
- Open shut off valve (3) by rotating valve counter-clockwise.
- Operate hand pump (4) to charge accumulators (5 and 6).
- Pressure gages (7 and 8) should read:

AMBIENT TEMPERATURE	GAGE READING
Above 40°F (4.4°C)	1500 psi (1054.5 kg sq cm)
40° F to 0°F (4.4° C to -17.8°C)	2500 psi (1757.5 kg sq cm)
Below 0°F (-17.8°C)	3300 psi (2319.9 kg sq cm)



2-23. HYDRAULIC STARTING SYSTEM - FORWARD ENGINE ROOM - SHUT DOWN.

In usual operating conditions, the hydraulic starting system should not be shut down. The engines, when running, maintain a constant pressure in the system.

- Close all valves by rotating clockwise.
- Note the pressure on the gages will remain constant.

2-24. HYDRAULIC STARTING SYSTEM - AFT ENGINE ROOM

Preliminary Adjustments.

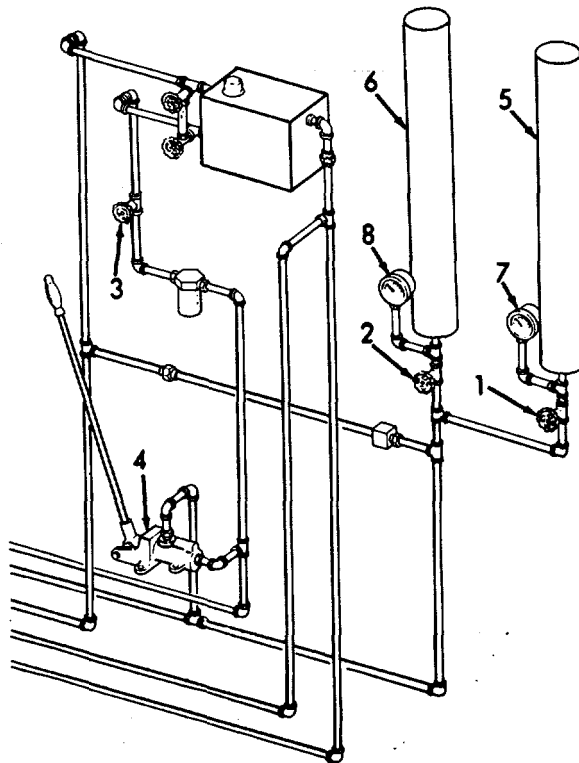
- Open shut off valves (1 and 2) by rotating valves counter-clockwise.
- Open shut off valve (3) by rotating valve counter-clockwise.
- Operate hand pump (4) to charge accumulators (5 and 6).
- Pressure gages (7 and 8) should read:

AMBIENT TEMPERATURE

Above 40°F (4.4°C)
 40° F to 0° F (4.4 °C to -17.8°C)
 Below 0°F (-17.8°C)

GAGE READING

1500 psi (1054.5 kg sq cm)
 2500 psi (1757.5 kg sq cm)
 3300 psi (2319.9 kg sq cm)



2-25. HYDRAULIC STARTING SYSTEM - AFT ENGINE ROOM - SHUT DOWN.

In usual operating conditions, the hydraulic starting system should not be shut down. The engines, when running, maintain a constant pressure in the system.

- Close all valves by rotating clockwise.
- Note the pressure on the gages will remain constant.

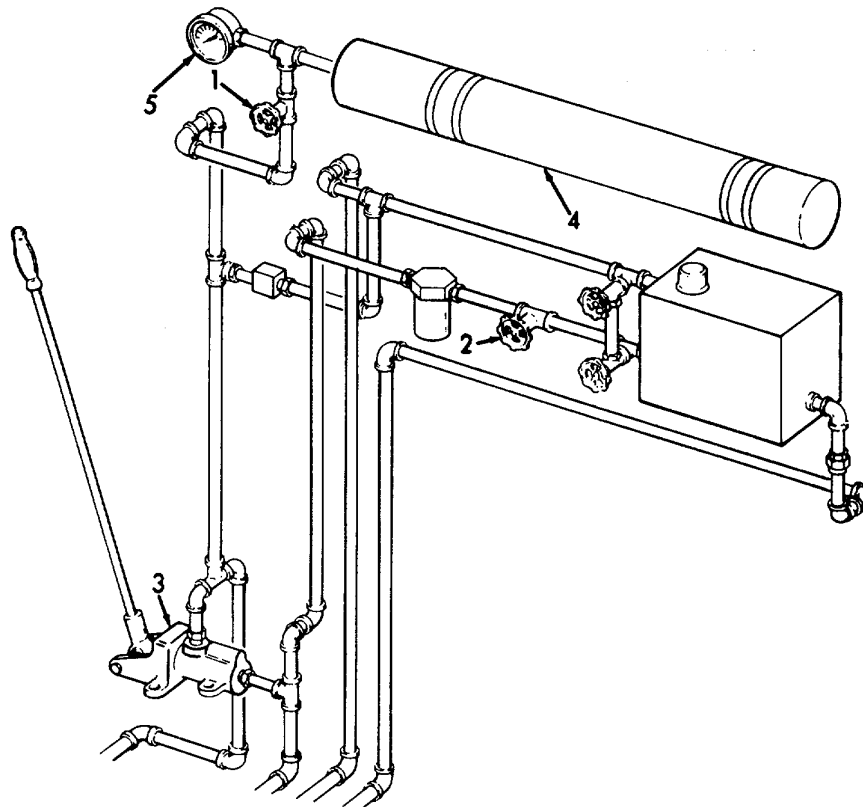
2-26. HYDRAULIC STARTING SYSTEM - ANCHOR WINCH COMPARTMENT.

Preliminary Adjustments.

- a. Open shut off valve (1) by rotating valve counter-clockwise.
- b. Open shut off valve (2) by rotating valve counter-clockwise.
- c. Operate hand pump (3) to charge accumulator (4).
- d. Pressure gage (5) should read:

AMBIENT TEMPERATURE
Above 40°F (4.4°C)
40° F to 0° F (4.4° C to -17.8°C)
Below 0°F (-17.8°C)

GAGE READING
1500 psi (1054.5 kg sq cm)
2500 psi (1757.5 kg sq cm)
3300 psi (2319.9 kg sq cm)



2-27. HYDRAULIC STARTING SYSTEM - ANCHOR WINCH COMPARTMENT-SHUT DOWN.

In usual operating conditions, the hydraulic starting system, should not be shut down. The engines, when running, maintain a constant pressure in the system.

- a. Close all valves by rotating clockwise.
- b. Note the pressure on the gages will remain constant.

2-28. FUEL SYSTEM.

a. The procedure contained in this paragraph must be performed prior to starting the propulsion engines, generator engines, or anchor winch engine. Refer to FO-34 for orientation.

- (1) Open supply valves (1) in the forward engine room by rotating valve counter-clockwise.

NOTE

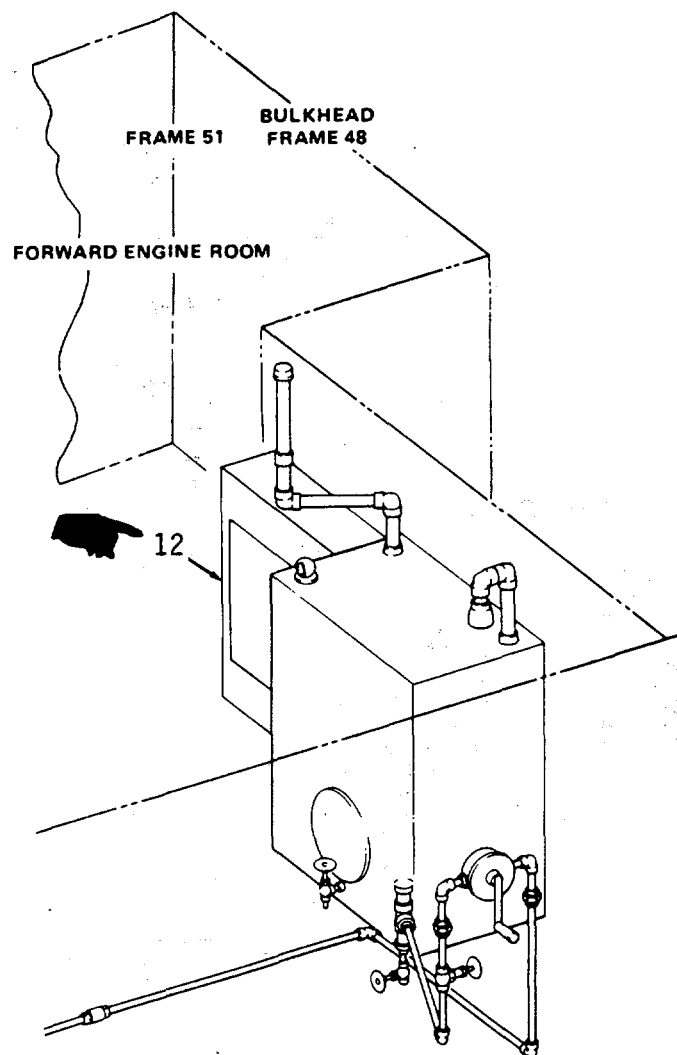
The supply valves can be opened by rotating the reach rods (2) counter-clockwise.

- (2) Remove deck plates in forward engine room at frame 49 ½ Starboard, 2 feet 9 inches (83.8 cm) from centerline.
- (3) Place crossover valve (3) as follows:
 - (a) Starboard - Fuel oil will be taken from starboard tank and returned to the starboard tank.
 - (b) Port - Fuel oil will be taken from the port tank and returned to the port tank.
- (4) Open shut off valves as follows:
 - (a) Port Propulsion Engine - Open valve (4) by rotating counter clockwise.
 - (b) Starboard Generator Engine - Open valve (5) by rotating counter-clockwise.
 - (c) Isolation Valve - Open valve (6) by rotating counter-clockwise.
 - (d) Starboard Propulsion Engine - Open valve (7) by rotating counter-clockwise.
 - (e) Port Generating Engine - Open valve (8) by rotating counter-clockwise.
 - (f) Anchor Winch Engine - Open valve (9) by rotating counter -clockwise.
- (5) The return line can operate in either of two modes.
 - (a) Direct:
 - 1 Open bypass valve (10) by rotating counter-clockwise.
 - 2 Close shut off valves (11) by rotating clock-wise.

2-28. FUEL SYSTEM (Cont).

(b) Heat Exchanger:

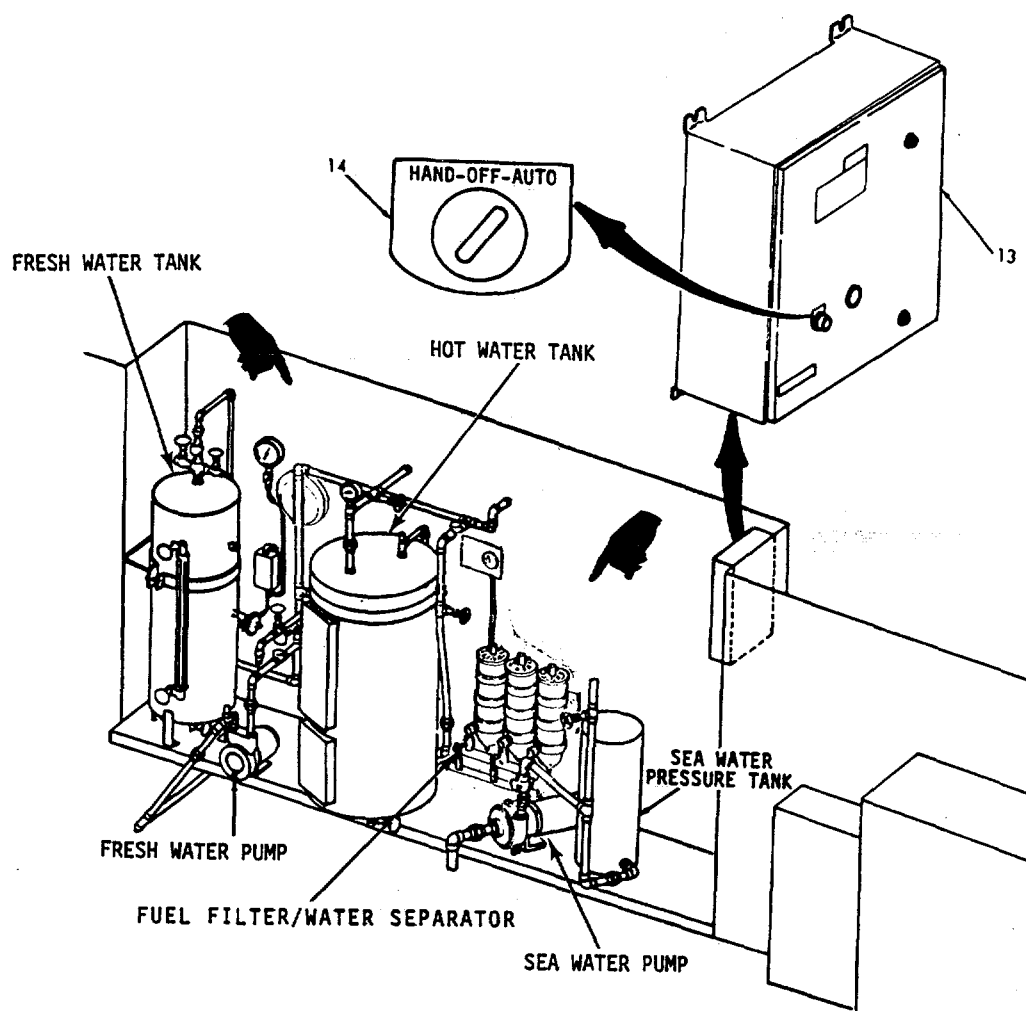
- 1 Close bypass valve (10) by rotating clockwise.
- 2 Open shut off valves (11) by rotating counter-clockwise.
- 3 In the forward engine room; on power distribution panel P-401, (12) place circuit breaker #18 in the ON position.



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2-28. FUEL SYSTEM (Cont).

- 4 In the fwd engine room; at controller (13), place selector switch (14) in the ON position.
- 5 Shut-Down - Place the selector switch (14), on the controller (13) in the OFF position.



FWD BULKHEAD

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- b. The various valves in the system can be left as initially set.

2-29. PROPULSION SYSTEM.

- a. The procedures contained in these paragraphs apply to both v the starboard and port propulsion engines.
- b. Prior to starting the propulsion system, the fuel system must be turned on. See paragraph 2-28.
- c. The following is an index to the procedures:

DESCRIPTION	PARAGRAPH
Propulsion Engine - Warm Weather -Local Starting.	2-30
Propulsion Engine - Cold Weather - Local Starting.	2-31
Propulsion Engine - Local Stop.	2-32
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Propulsion Engine - Remote Stop.	2-34

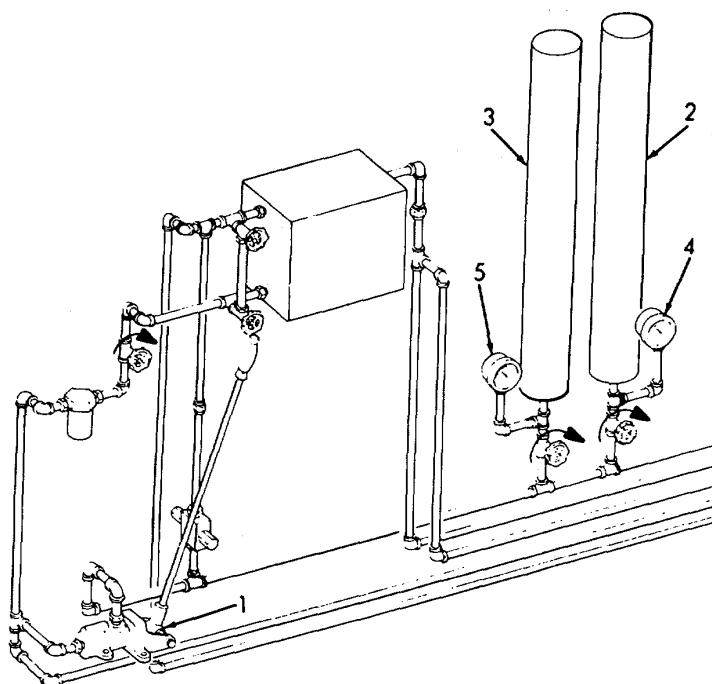
2-30. PROPULSION ENGINE - WARM WEATHER - LOCAL STARTING

- a. Perform all before and daily operations on the Preventive Maintenance Checks and Services Chart.

NOTE

Position all shut off valves clockwise.

- b. Operate hand pump (1) on hydrostarter in forward engine room to charge accumulators (2 and 3).



2-30. PROPULSION ENGINE - WARM WEATHER - LOCAL STARTING (Cont).

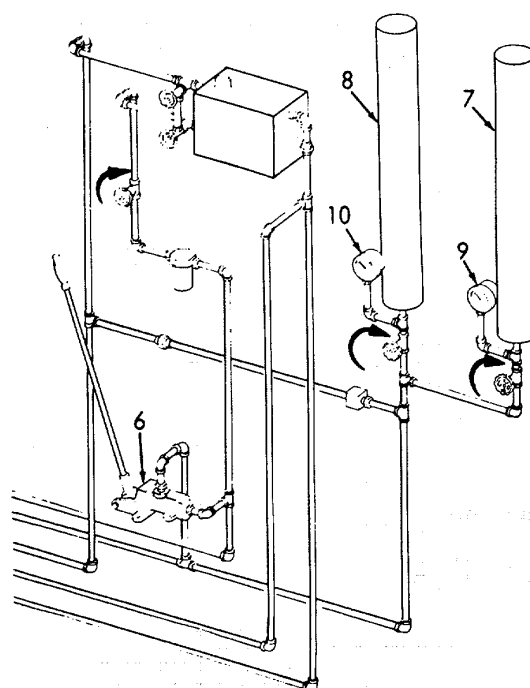
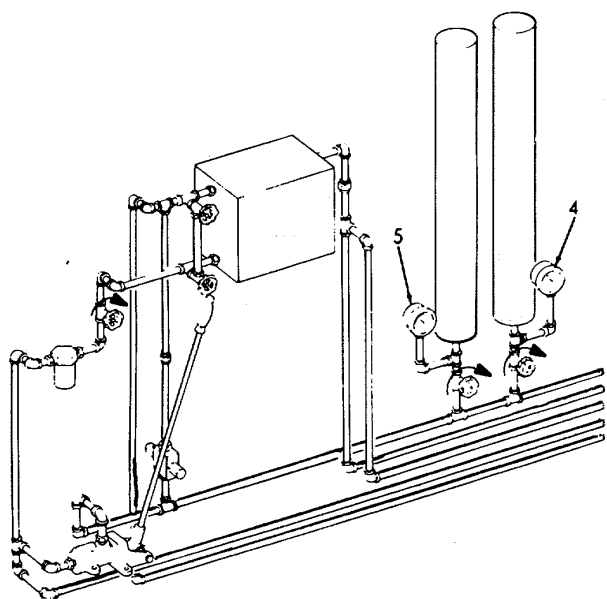
- c. Pressure gages (4 and 5) should read:

AMBIENT TEMPERATURE	GAGE READING
Above 40°F (4.4° C)	1500 psi (1054.5 kg sq cm)
40° F to 0°F (4.4° C to -17.8°C)	2500 psi (1757.5 kg sq cm)
Below 0°F (-17.8°C)	3300 psi (2319.9 kg sq cm)

- d. Operate hand pump (6) on hydrostarter in aft engine room to change accumulators (7 and 8).

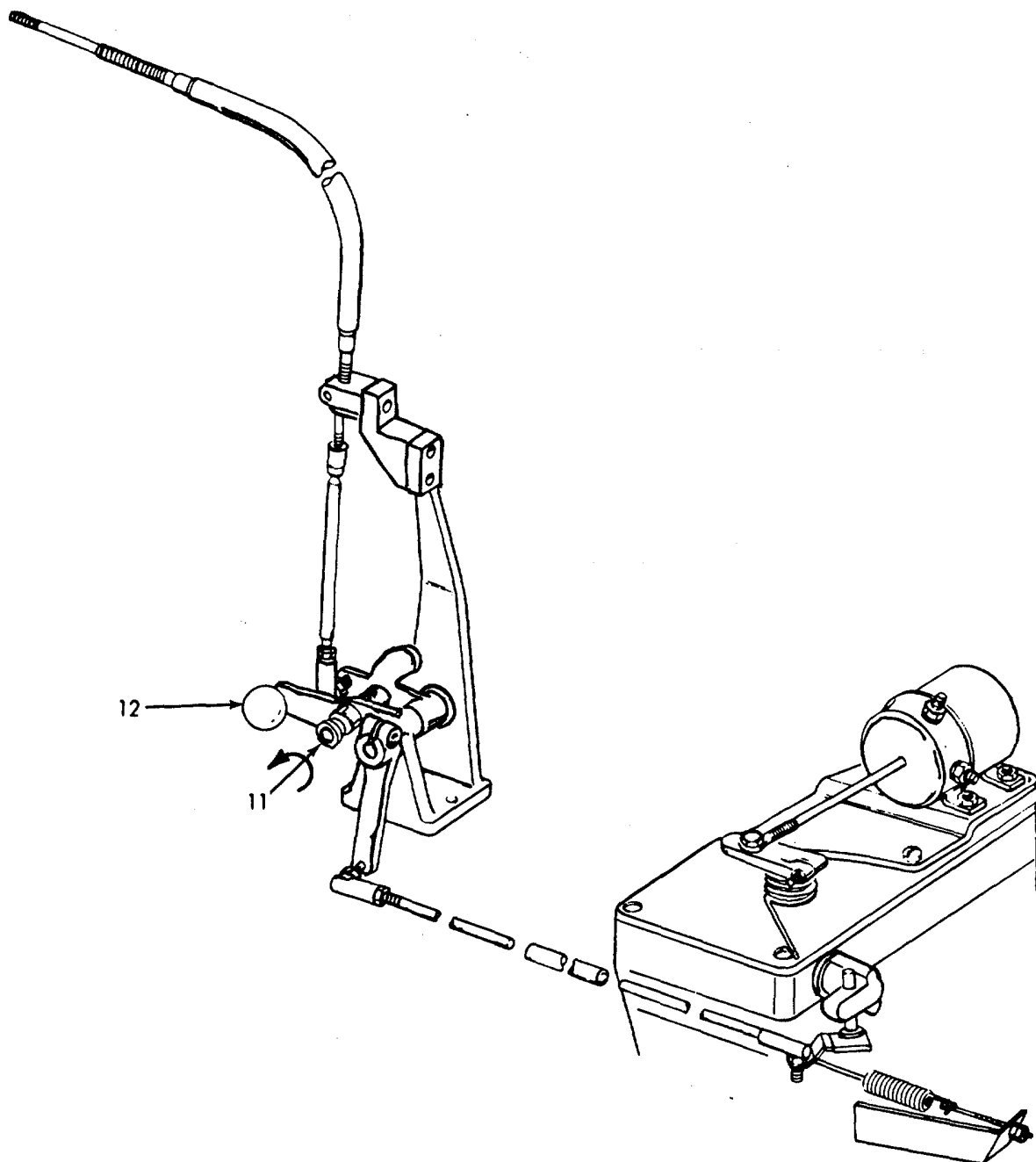
- e. Pressure gages (9 and 10) should read:

AMBIENT TEMPERATURE	GAGE READING
Above 40° F (4.4°C)	1500 psi (1054.5 kg sq cm)
40° F to 0° F (4.4 °C to -17.8°C)	2500 psi (1757.5 kg sq cm)
Below 0°F (-17.8°C)	3300 psi (2319.9 kg sq cm)



2-30. PROPULSION ENGINE - WARM WEATHER - LOCAL STARTING (Cont).

- f. Pull out knob (11) on local throttle control (12).
- g. Rotate knob (11) one-quarter turn counter-clockwise.



2-30. PROPULSION ENGINE - WARM WEATHER - LOCAL STARTING (Cont).

- h. Pull out knob (13) on local clutch control (14).
- i. Rotate knob (13) one-quarter turn counter-clockwise.
- j. Place clutch control (14) in neutral.
- k. Set throttle control (12) to one-half open.

