

TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL
MAINTENANCE MANUAL
LANDING CRAFT, MECHANICAL;
STEEL; DECK; OVERHEAD, LENGTH 74 FEET;
MOD 1, MARK VIII, NAVY DESIGN LCM-8
HULL NUMBERS 8500 THRU 8560 AND 8580 THRU 8618
(GUNDERSON BROS. ENGINEERING CORP.,
MARINETTE MARINE CORP., AND ROHR CORP.)
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CHAPTER 1

INTRODUCTION

SECTION I. GENERAL

1-1. Scope

This manual is for your use in operating and maintaining the landing craft, design LCM-8, MOD 1. The manual provides information on the operation, lubrication, and organizational maintenance of the equipment. Also included are descriptions of main units and their functions in relationship to other components.

1-2. Maintenance forms and Records

Maintenance forms and records that you are required to use are explained in DA Pam 738-750.

1-3. Reporting of Errors

You can improve this manual by calling attention to errors and by recommending improvements, using DA Form 2028 (Recommended Changes to Publications), or by a letter, and mail direct to

the Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A Reply will be furnished directly to you.

1-4. Equipment Serviceability Criteria (ESC)

This equipment is not covered by an ESC.

1-5. Destruction of Army Material to Prevent Enemy Use .

Procedures to be followed when capture or abandonment of the landing craft to an enemy is eminent are covered in TM 750-244-3.

1-6. Administrative -Storage

Procedures to be followed will be found in T'M 740-90-1 Administrative Storage.

SECTION II. Description and Data

1-7. Description

a. General. The LCM-8, MOD 1, Landing Craft (fig. 1-1 and 1-2) is a welded steel, twinscrew type craft. It is used to transport cargo, troops, and vehicles from ship shore, shore-to shore, or in retrograde movements. It may be utilized for lighterage and utility work in harbors. It is intended for use in rough or exposed waters and is capable of operating through breakers and grounding on a beach, remaining upright and tight, and retracting from the beach under its own power. The craft is propelled by two twin-engine propulsion units, and is capable of a speed of nine knots when fully equipped. The maintenance paragraphs of this manual contain detailed descriptions of the components of the LCM's.

b. Main Deck. The main deck is aft, with the pilot house centrally located on the deck. The engine room hatch is located in the deck

from the pilot house and the Lazarette hatch is located in the deck aft from the pilot house. The deck contains a bolted cover plate over each-engine to facilitate engine removal and installation.

c. Cargo Well and Ramp. The cargo well is forward. Dimensions are 42 ft. long and 15 ft. wide. The ramp is lowered and raised, by a winch located forward in the hull. The winch is powered by a hydraulic motor and is normally controlled from the pilot house.

d. Engine Room. The engine room is below the main deck between the cargo well and the Lazarette. Hydraulic system tanks are located in the engine room. Craft manufactured by the Marinette Marine Corporation also have a steering system expansion tank in the pilot house. Bilge pumps and bilge system valves are located in the engine room.

e. Lazarette. The lazaette is aft below. the main deck. It contains the two diesel fuel tanks,

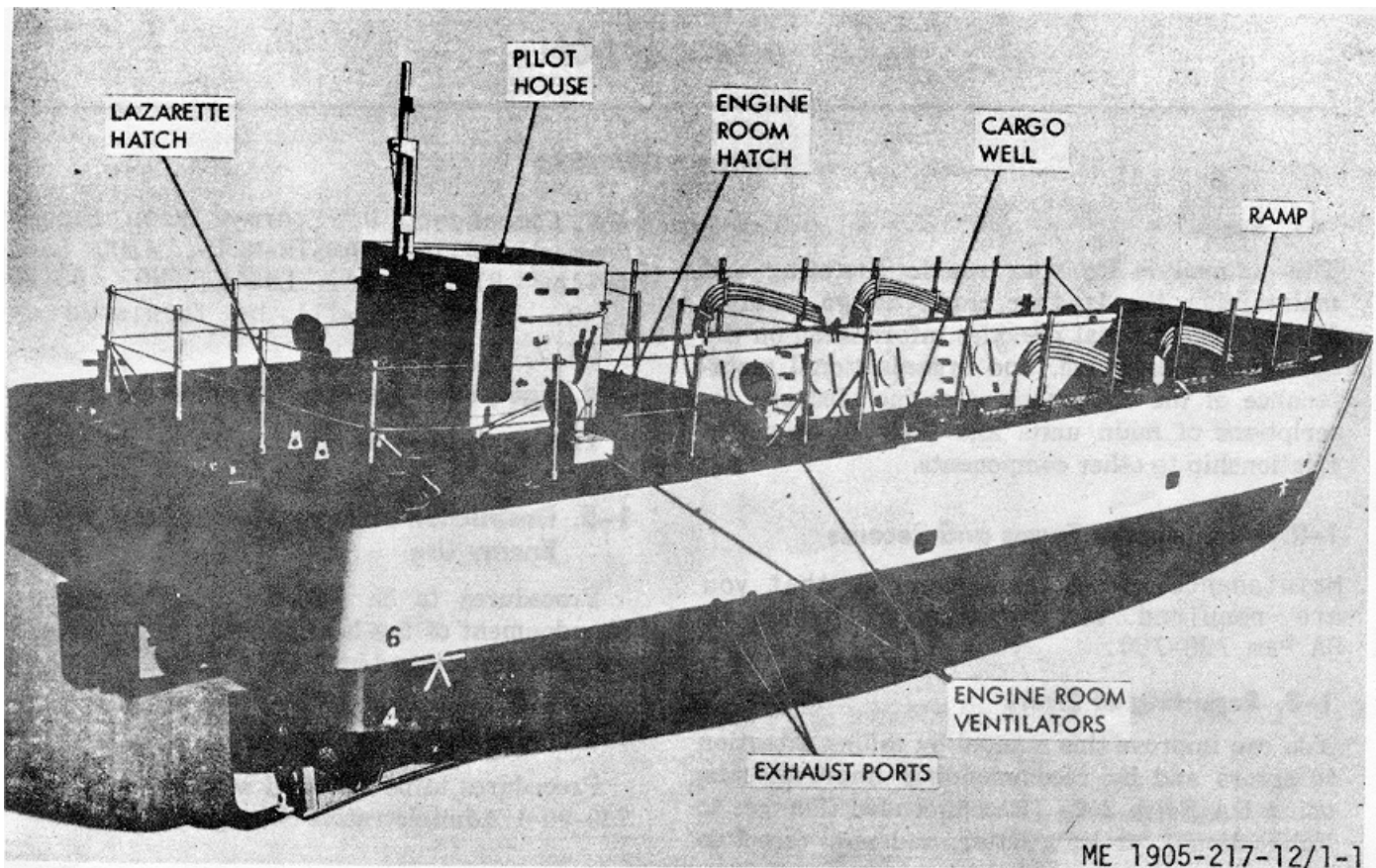


Figure 1-1. Landing craft, mechanized, diesel, design, LCM-8, MOD-1. (Marinette and Gunderson Models)

fuel shutoff and steering cylinders, steering linkage, and ball valves and counterbalance valves. Space for ammunition stowage is provided in the Lazarette

f. *Starting and Control Systems.* Two starting systems are provided for the diesel engines. Each outboard engine has an electric starter and each inboard engine has a hydraulic starter. If either starting system should fail, the other systems can be used to start both engines. Separate hydraulic systems can be used to start both engines. Separate hydraulic systems are provided for steering and for the ramp hoist.

g. *Pilot House.* The pilot house on the Marionette and Gunderson Models are of the same type construction. The pilot house on the Rohr Model is somewhat different in that it has an overhead.

1-8. Difference in Models

a. *General.* Landing craft, LCM-8, MOD 1, have been produced by three different manufacturers as follows:

Manufacturer Registry Numbers

Marinette Marine Corp.	LCM-8500 thru LCM-8519
Gunderson Bros Engineering Corp.	LCM-8450 thru LCM-8539
Rohr Corporation	LCM-8540 thru LCM-8560 and LCM-8580 thru LCM8a18

b. *Components.* The propulsion engine units and many other components are common to all craft. There are some differences in the ramp hoist system and the steering system. Refer to paragraph 1-9c for a list of major accessories used in these craft.

c. *Operation.* Controls and operation are generally the same for all craft. Minor differences are explained in paragraphs 2-1 thru 2-6.

d. *Maintenance.* Differences in maintenance procedures may be required where different accessories have been used. Maintenance procedures for all accessories are provided and identified in appropriate sections in this manual.

e. *Schematic and Functional Diagrams.* Plan views and functional diagrams of the systems are shown in figures 13 through 1-18.