WAR DEPARTMENT TECHNICAL MANUAL
**TM 9-756 RESTRICTED*

Medium Tank M4A6

WAR DEPARTMENT • *21 DECEMBER 1943*

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The information contained in restricted documents and the essential characteristics of restricted materiel may be given to any person known to be in the Service of the United States and to persons of undoubted loyalty and discretion who are cooperating in Government work, but will not be communicated to the public or to the press except by authorized military public relations agencies. (See also paragraph 18 b, AR 380-5, 28 September 1942.)

*This technical manual includes pertinent information from TC 47, 13 Apr 1943; TB 700-9, 1 Jan 1942; TB 700-14, 17 Jun 1942; TM 700-15, 21 Jul 1942; TB 700-28, 19 Dec. 1942; TB 700-30, 9 Jan 1943; TB 700-37, 4 Mar 1943; TB 700-67, 15 Jun 1943; TB 700-73, 1 Jul 1943, and TB 700-87, 29 Jul 1943.

WAR DEPARTMENT
Washington 25, D. C., 21 December 1943

TM 9-756, Medium Tank M4A6, is published for the information and guidance of all concerned.

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BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

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J. A. ULIO,
Major General,
The Adjutant General.

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(For explanation of symbol, see FM 21-6.)

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PART ONE – VEHICLE OPERATION INSTRUCTIONS

Section I

INTRODUCTION

1. SCOPE.

a. This technical manual* is published for the information and guidance of the using arm personnel charged with the operation and maintenance of this materiel.

b. In all cases where the nature of the repair, modifications, or adjustment is beyond the scope or facilities of the unit, the responsible ordnance service must be informed so that trained personnel with suitable tools and equipment may be provided, or proper instructions issued.

2. ARRANGEMENT.

a. In addition to a description of Medium Tank M4A6, this manual contains technical information required for the identification, use, and care of the materiel. This manual is divided into three parts. Part One, section 1 through section IX, contains vehicle operation instructions. Part Two, section X through section XXVIII, contains vehicle maintenance instructions for using arm personnel charged with the responsibility of doing maintenance work within their jurisdiction. Part Three, section XXIX through section XXXII, contains operation instructions for armament on Medium Tank M4A6. Part Four, section XXXIII contains instruction for storage and shipment. Pertinent references are located immediately after Part Four and precede the index in this publication.

Section II

DESCRIPTION AND TABULATED DATA

3. DESCRIPTION.

a. The Medium Tank M4A6 (figs. 1, 2, and 3) consists of a welded hull and cast turret. Access to the tank is provided through the two

*To provide operating instructions with the materiel, this technical manual has been published in advance of complete technical review. Any errors or omissions will be corrected by changes or, if extensive, by an early revision.

MEDIUM TANK M4A6

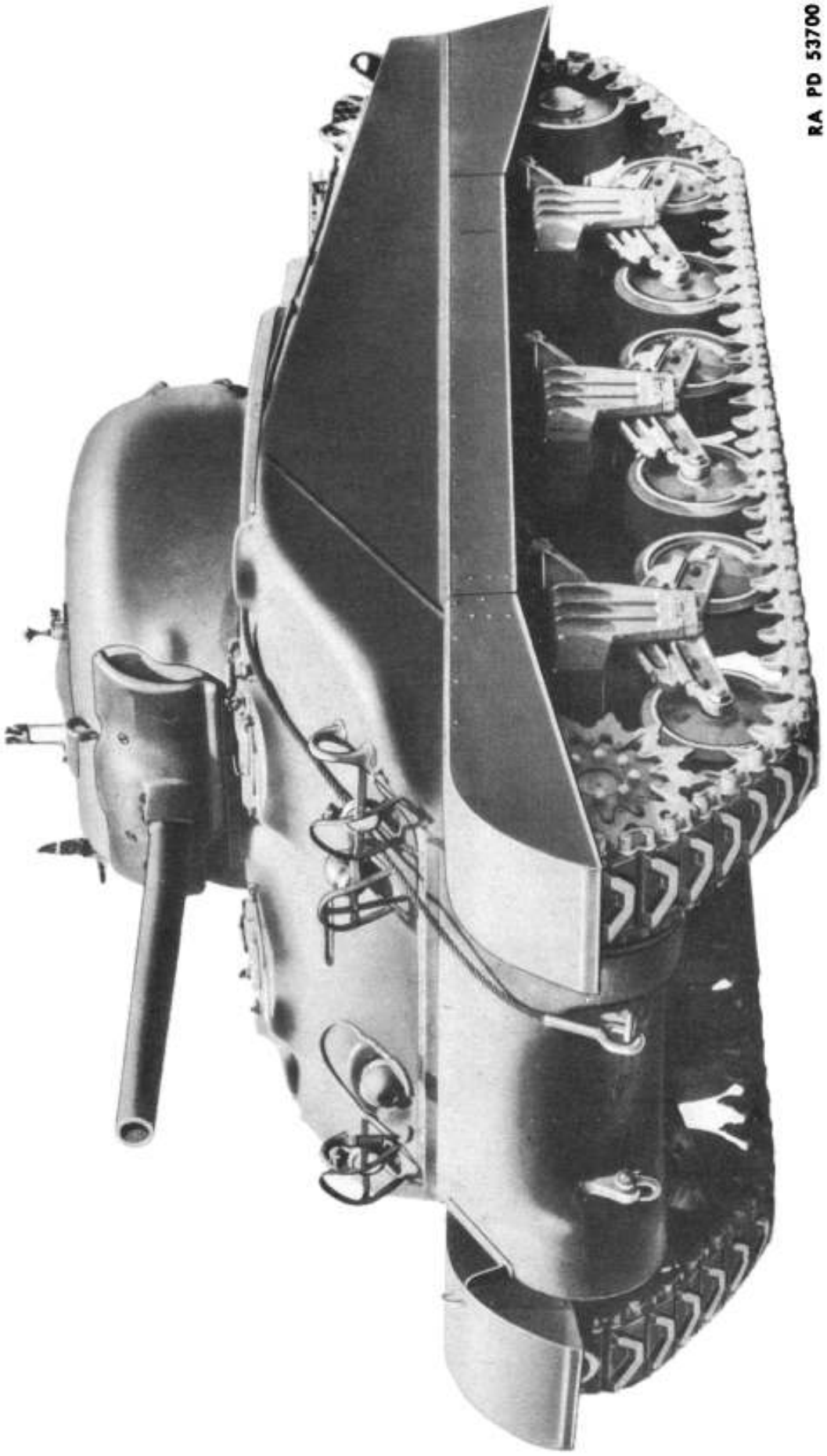

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Figure 1 — Three Quarter Left Front View

DESCRIPTION AND TABULATED DATA

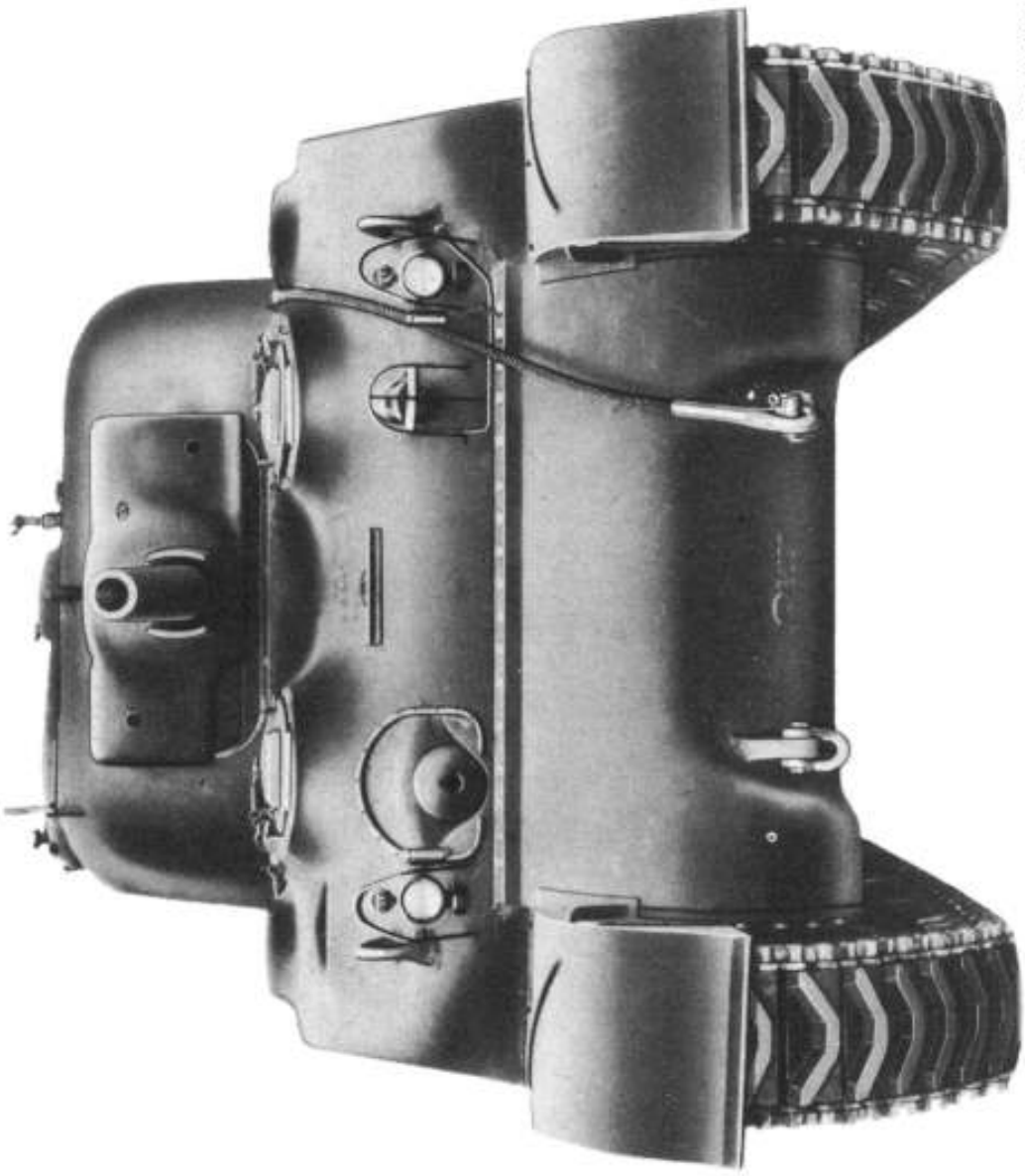

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Figure 2 — Front View

MEDIUM TANK M4A6

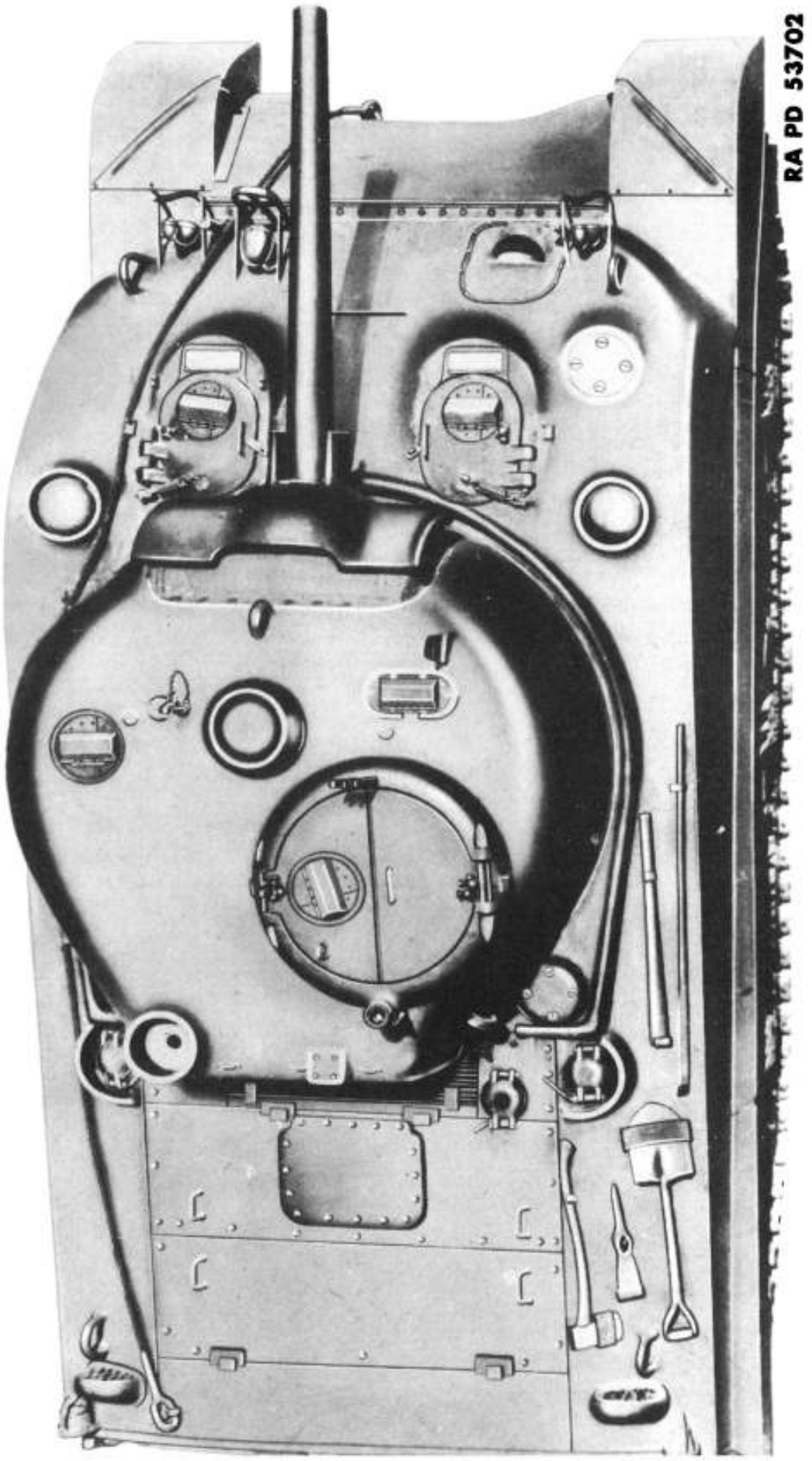

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Figure 3 — Top View

doors over the driver's compartment and the revolving hatch in the turret. For use in an emergency, an escape hatch is provided in the tank floor, directly back of the assistant driver. When all hatches are closed, indirect vision is provided for each member of the crew by means of periscopes.

b. The tank crew consists of five men. The driver sits to the left of the transmission. The assistant driver's position is to the right of the transmission. The tank commander is stationed directly under the turret hatch. The 75-mm gunner's station is to the right of the gun, just ahead of the tank commander. The loader's station is to the left of the 75-mm gun.

c. The tank is powered by a 450-horsepower, 9-cylinder, radial Diesel engine, mounted in the rear of the tank. Access to the engine is provided through hinged engine compartment top plates, two doors at the rear of the engine compartment and an inspection plate located beneath the engine.

d. The tank is equipped with radio for intertank communication and with a telephone system for communication between the tank commander and members of the crew.

4. DATA.

a. General.

Weight without armament, fuel and crew	Approximately 62,400 lb
Weight fully equipped	Approximately 64,000 lb
Ground pressure	12.9 lb per sq in.
Over-all width	8 ft 7 in.
Over-all height	9 ft 9 in.
Over-all length	19 ft 10½ in.
Ground clearance	17 in.
Tread (center to center of tracks)	83 in.

b. Engine.

Rated horsepower	450 at 2,000 rpm
Number of cylinders	9

c. Weights.

Weight of engine w/accessories	3,900 lb
Weight of power train unit (including transmission)	7,900 lb

d. Fuel and Oil.

Fuel capacity	162 gal
Fuel consumption (approximate)	0.7 miles per gal
Number of miles without refueling	80
Diesel fuel, U. S. Army specifications	2-102
Oil consumption (approximate)	10 miles per gal

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Engine oil capacity	Approximately 17 gal
Engine oil available for lubrication	Approximately 13 gal
Lubricants	See Lubrication Guide

e. Performance.

Maximum vehicle speed on smooth road	30 miles per hour
Maximum allowable engine speed full load	2,000 rpm
Maximum allowable engine speed no load	2,150 rpm
Minimum engine idling speed	650 rpm
Maximum grade ascending ability	60 percent
Maximum grade descending ability	60 percent
Maximum width of ditch tank will cross	6.2 ft
Maximum vertical obstacle, such as a wall, that tank will negotiate	24 in.
Maximum fording depth (at slowest forward speed)	36 in.

Section III

DRIVING CONTROLS AND OPERATION

5. CONTROLS.

a. Hand Throttle Control (fig. 4). A push-pull hand throttle regulates engine speed for idling. It may be pulled out to the desired setting and locked in that position. To return to the closed position, pull out slightly, depress button and push in.

b. Accelerator Pedal (fig. 4). This foot-operated pedal is used to regulate engine speed while driving.

c. Clutch Pedal (fig. 4). When depressed, this foot-operated pedal disconnects the engine from the transmission to permit shifting of the gears in the transmission. When foot pressure on the pedal is released, it will return to the engaged position.

d. Transmission Gearshift Lever (fig. 4). The shift lever is used to make various gear changes in the transmission. Do not move the lever when the engine is running, without first depressing the clutch