

TM 9-759

WAR DEPARTMENT TECHNICAL MANUAL

TANK, MEDIUM, M4A3

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TM 9-759, Tank, Medium, M4A3, is published for the information and guidance of all concerned.

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Chief of Staff.

OFFICIAL:

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

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PART ONE—INTRODUCTION**Section I****GENERAL****1. SCOPE.**

a. These instructions are published for the information and guidance of the personnel to whom this equipment is assigned. They contain information on the operation and maintenance of the Medium Tank M4A3, as well as descriptions of the major units and their functions in relation to the other components of this vehicle.

b. This manual has the following arrangement:

(1) Part One—General, contains description and data. It lists the tools, spare parts, and equipment carried on the vehicle, and also organizational special tools for this vehicle.

(2) Part Two—Operating Instructions, contains instructions for the operation of the vehicle, with description and location of the controls and instruments.

(3) Part Three—Maintenance Instructions, contains information needed for the performance of the scheduled lubrication and preventive maintenance services, and instructions for maintenance operations which are the responsibility of the using organizations (first and second echelons). Stock numbers in this part were obtained from Ordnance Supply Catalog ORD 7-8-9, SNL G-104, Volume 15, SNL G-205 dated 1 June 1944.

(4) Part Four covers the auxiliary equipment mounted on this vehicle. Detailed instructions pertaining to this auxiliary equipment are contained in separate technical manuals (see section XLV for references).

(a) Part Four-A identifies the auxiliary generator, fixed fire extinguisher, and communications equipment, and contains the information necessary to connect this equipment for use or transportation, and to protect it properly.

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(b) Part Four-B contains the essential instructions for the operation of the 75-mm gun M3 in the combination gun mounts M34 and M34A1. It lists the authorized ammunition and sighting equipment for the 75-mm gun.

(c) Part Four-C contains the essential instructions for the operation of the 76-mm gun M1A1, M1A1C, or M1A2 in the combination gun mount M62. It lists the authorized ammunition and sighting equipment for the 76-mm gun.

(d) Part Four-D contains the essential instructions for the operation of the 105-mm howitzer M4 in the combination gun mount M52. It lists the authorized ammunition and sighting equipment for the 105-mm howitzer.

(5) The appendix contains instructions for shipment and limited storage, and a list of references including standard nomenclature lists, technical manuals, and other publications applicable to the vehicle.

2. RECORDS.

a. Forms and records applicable for use in performing prescribed operations are listed below with brief explanations of each.

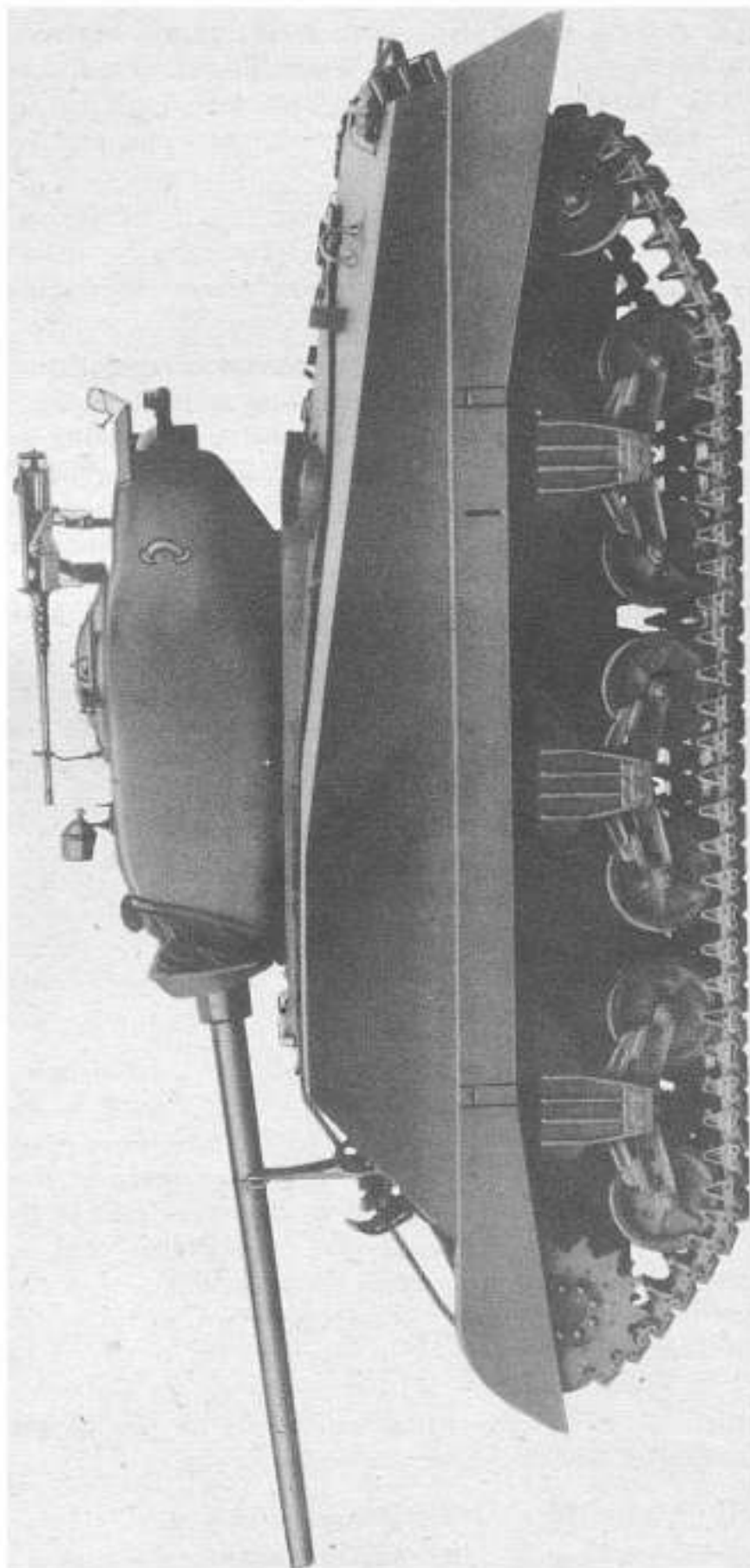
(1) STANDARD FORM NO. 26, DRIVER'S REPORT—ACCIDENT, MOTOR TRANSPORTATION. One copy of this form will be kept with the vehicle at all times. In case of accident resulting in injury or property damage, it will be filled out by the driver on the spot, or as promptly as practical thereafter.

(2) WAR DEPARTMENT FORM NO. 48, DRIVER'S TRIP TICKET AND PREVENTIVE MAINTENANCE SERVICE RECORD. This form, properly executed, will be furnished to the driver when his vehicle is dispatched on nontactical missions. The driver and the official user of the vehicle will complete in detail approximate parts of this form. These forms need not be issued for vehicles in convoy or on tactical missions. The reverse side of this form contains the driver's daily and weekly preventive maintenance service reminder schedule.

(3) W.D., A.G.O. FORM NO. 478, MWO AND MAJOR UNIT ASSEMBLY REPLACEMENT RECORD. This form will be used by all personnel completing a modification or major unit assembly (engine, transmission, transfer case, and tracks) replacement to record clearly the description of work completed, date, vehicle hours, and/or mileage, and MWO number or nomenclature of unit assembly. Personnel performing the operation will initial in the column provided. Minor repairs, parts, and accessory replacements will not be recorded.

(4) W.D., A.G.O. FORM NO. 6, DUTY ROSTER. This form, slightly modified, will be used for scheduling and maintaining a record of vehicle maintenance operations. It may be used for lubrication records.

GENERAL



RA PD 329216

Figure 1—Left Side View of Medium Tank M4A3 (76-mm Vehicles)

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(5) W.D., A.G.O. FORM NO. 462, PREVENTIVE MAINTENANCE SERVICE AND TECHNICAL INSPECTION WORK SHEET FOR FULL-TRACK AND TANK-LIKE WHEELED VEHICLES. This form will be used for 50-hour (500-mile) or 100-hour (1,000-mile) services, and for technical inspections of these vehicles.

(6) W.D., O.O. FORM NO. 7353, SPOT-CHECK INSPECTION REPORT FOR ALL MOTOR VEHICLES. This form may be used by all commanding officers or their staff representatives in making spot-check inspections on all vehicles.

(7) W.D., A.G.O. FORM NO. 468, UNSATISFACTORY EQUIPMENT RECORD. This form will be used for reporting manufacturing, design, or operational defects in materiel with a view to improving and correcting such defects, and for use in recommending modifications of materiel. This form will not be used for reporting failures, isolated materiel defects, or malfunctions of materiel resulting from fair wear and tear or accidental damage, nor for the replacement, repair, or the issue of parts and equipment. It does not replace currently authorized operational or performance records.

(8) W.D., O.O. FORM NO. 7370, EXCHANGE PART OR UNIT IDENTIFICATION TAG. This tag, properly executed, may be used when exchanging unserviceable items for like serviceable assemblies, parts, vehicles, and tools.

Section II**DESCRIPTION AND DATA****3. DESCRIPTION.**

a. The Medium Tank M4A3 is an armored, full-track laying vehicle, powered by a 500-horsepower Ford tank engine which is an 8-cylinder, liquid-cooled, V-type engine designed specifically for tanks. The engine is located in the rear of the hull. The operator steers the vehicle by means of two levers, located in the front end of the hull. The vehicle has five forward speeds and one reverse, and is wired for radio installation, and for an interphone system within the tank. The turret can be rotated through 360 degrees. An auxiliary electrical generating system, consisting of a generating set powered by a 1-cylinder, 2-cycle gasoline engine, is used to charge the batteries when the main generator is not operating, or when the use of electrical units in the vehicle draws large amounts of current.

4. DIFFERENCES AMONG MODELS.

a. M4A3 Tank (76-mm) (fig. 2). The M4A3 tank with a 76-mm gun is provided with 76-mm ammunition racks which have liquid-filled containers on either side to prevent fire in case the side of the