

# TM 9-729

WAR DEPARTMENT TECHNICAL MANUAL

## LIGHT TANK T24 (M24)

**RESTRICTED DISSEMINATION OF RESTRICTED MATTER—**

The information contained in restricted documents and reports is of a confidential character and its disclosure would be injurious to the national defense. It is to be disseminated only to persons 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 21, AR 380-5, 15 March 1944.)

WAR DEPARTMENT

27 JUNE 1944



*WAR DEPARTMENT TECHNICAL MANUAL*  
*TM 9-729*

This manual includes all pertinent information from OFSTB 700-15, 21 July 1942; OFSTB 700-66, 11 June 1943; WDTB ORD 20, 24 January 1944; and WDTB ORD 88, 4 May 1944.

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# LIGHT TANK T24



*WAR DEPARTMENT*

• *27 JUNE 1944*

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WAR DEPARTMENT  
Washington 25, D. C., 27 June 1944

TM 9-729, Light Tank T24, 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.*

OFFICIAL:

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

DISTRIBUTION: X.

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

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### PART ONE

## GENERAL

### Section I

## INTRODUCTION

### 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 Light Tank T24, 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. It also lists 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). Official stock numbers in this part were obtained from the Organizational Spare Parts and Equipment List of SNL G-200.

(4) Part Four, Auxiliary Equipment (identifies the communications equipment and contains the information necessary to connect this equipment for use or transportation, and to protect it properly. Detailed instructions pertaining to this equipment are contained in separate technical manuals.

(5) Part Five, Armament, contains the essential instructions for the operation of the 75-mm gun, machine guns, submachine gun and smoke mortar. It lists the authorized ammunition load and sighting equipment for these weapons.

(6) The Appendix contains instructions for shipment and limited storage, and a list of references including Standard Nomenclature Lists, Technical Manuals, and publications applicable to vehicle.

**LIGHT TANK T24****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 an accident resulting in injury or property damage, it will be filled out by the driver on the spot, or as promptly as practicable 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 appropriate parts of this form. These forms need not be issued for vehicles in convoy or those 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 unit, 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.

(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 all 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 replacement, repair, or the



## DESCRIPTION AND DATA

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 similar serviceable assemblies, parts, vehicles and tools.

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### Section II

## DESCRIPTION AND DATA

### 3. DESCRIPTION.

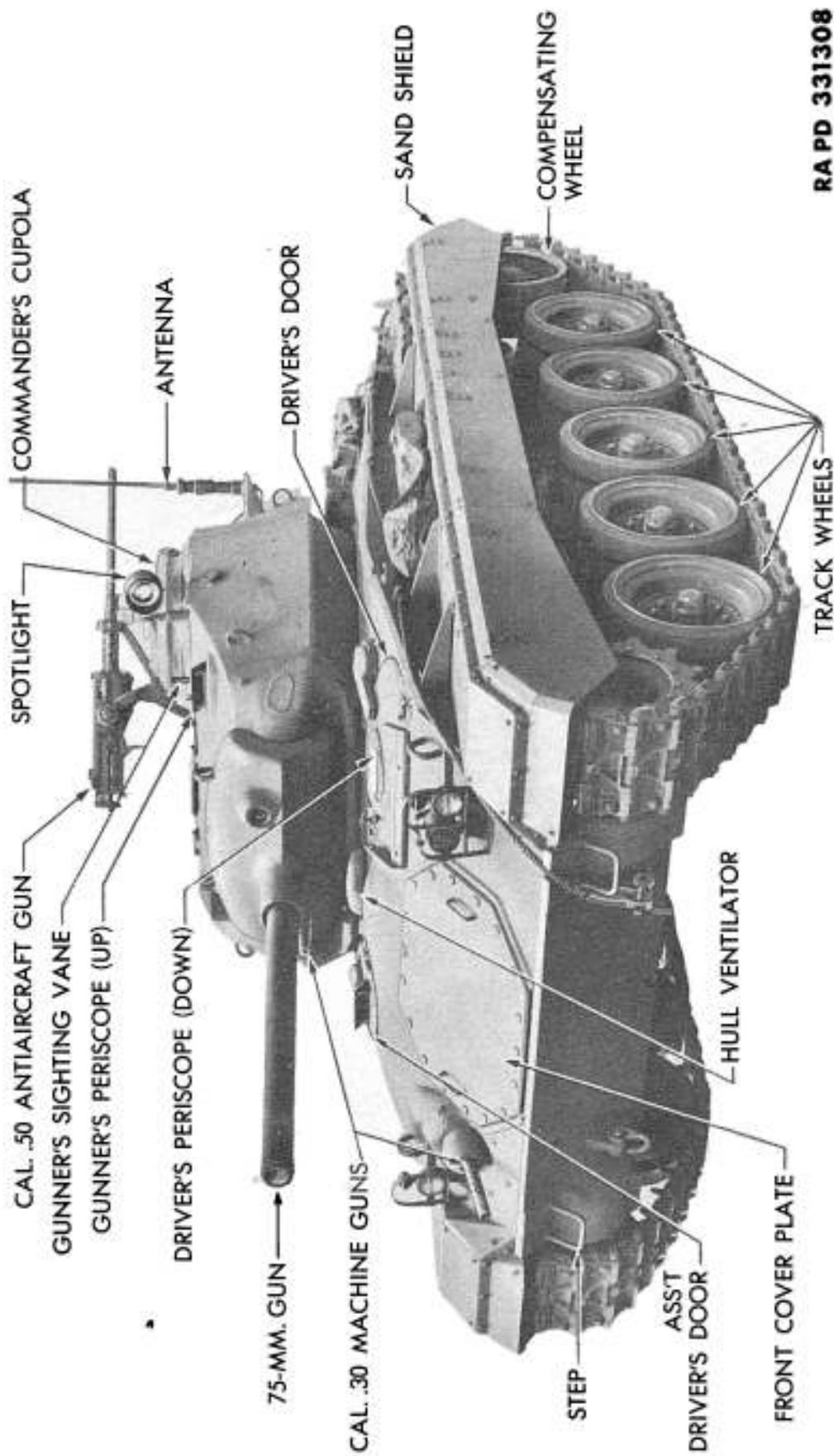
a. **General.** The Light Tank, T24, is an armored, full-track laying combat vehicle mounting a 75-mm gun. It carries a crew of four men—a commander, a gunner, a driver, and an assistant driver. The assistant driver moves up into the turret and serves as loader when the vehicle is in combat. The vehicle is designed with a driving compartment at the front, a fighting compartment in the center, and an engine compartment at the rear. Dual controls are provided—one set for the driver, and one for the emergency operation of the vehicle by the assistant driver.

b. **Power Train.** The vehicle is driven by two 8-cylinder, 90-degree, V-type liquid-cooled engines, through two Hydra-Matic transmissions, a transfer unit with mechanically selected speed ranges—two forward and one reverse—a controlled differential for steering and braking which is located in the front of the hull, two final drives, and the necessary connecting propeller shafts. Wide steel block tracks provide the means of propulsion. Torsion arm suspension is used for the dual track wheels, and includes a compensating wheel at the rear on each side to keep track tension constant regardless of obstacles.

c. **Hull.** The hull of this vehicle is a completely welded structure, except for portions of the front, top and floor, which are removable for service operations. The hull is divided into two compartments: the fighting and driving compartment at the front, and an engine compartment at the rear. These compartments are separated by a bulkhead that extends from side to side, and from the roof down to the bulkhead extensions, which in turn extend forward far enough to cover the transfer unit. The front of the hull slopes downward at the top and upward at the bottom to form a "V." The sides of the hull slope inward at the bottom. Lifting eyes are provided and should be used if the tank is to be lifted.

d. **Turret.** The fighting compartment comprises a turret of approximately 60 inches inside diameter, mounted on a continuous ball bearing mounting, and having a 360-degree traverse by means of hand-wheel or hydraulic mechanism. The 75-mm gun and a coaxial machine gun are mounted in the turret.

LIGHT TANK T24



RA PD 331308

Figure 1—Light Tank T24—Three-quarter Left Front View