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TM 9-787A

WAR DEPARTMENT

TECHNICAL MANUAL



HEAVY TRACTOR M1
(ALLIS-CHALMERS HD-10W)

DECEMBER 21, 1942

TECHNICAL MANUAL }
No. 9-787A }

WAR DEPARTMENT
Washington, December 21, 1942

HEAVY TRACTOR M1

(ALLIS-CHALMERS HD-10W)

Prepared under the direction of the
Chief of Ordnance

(with the cooperation of the Allis-Chalmers Manufacturing Company)

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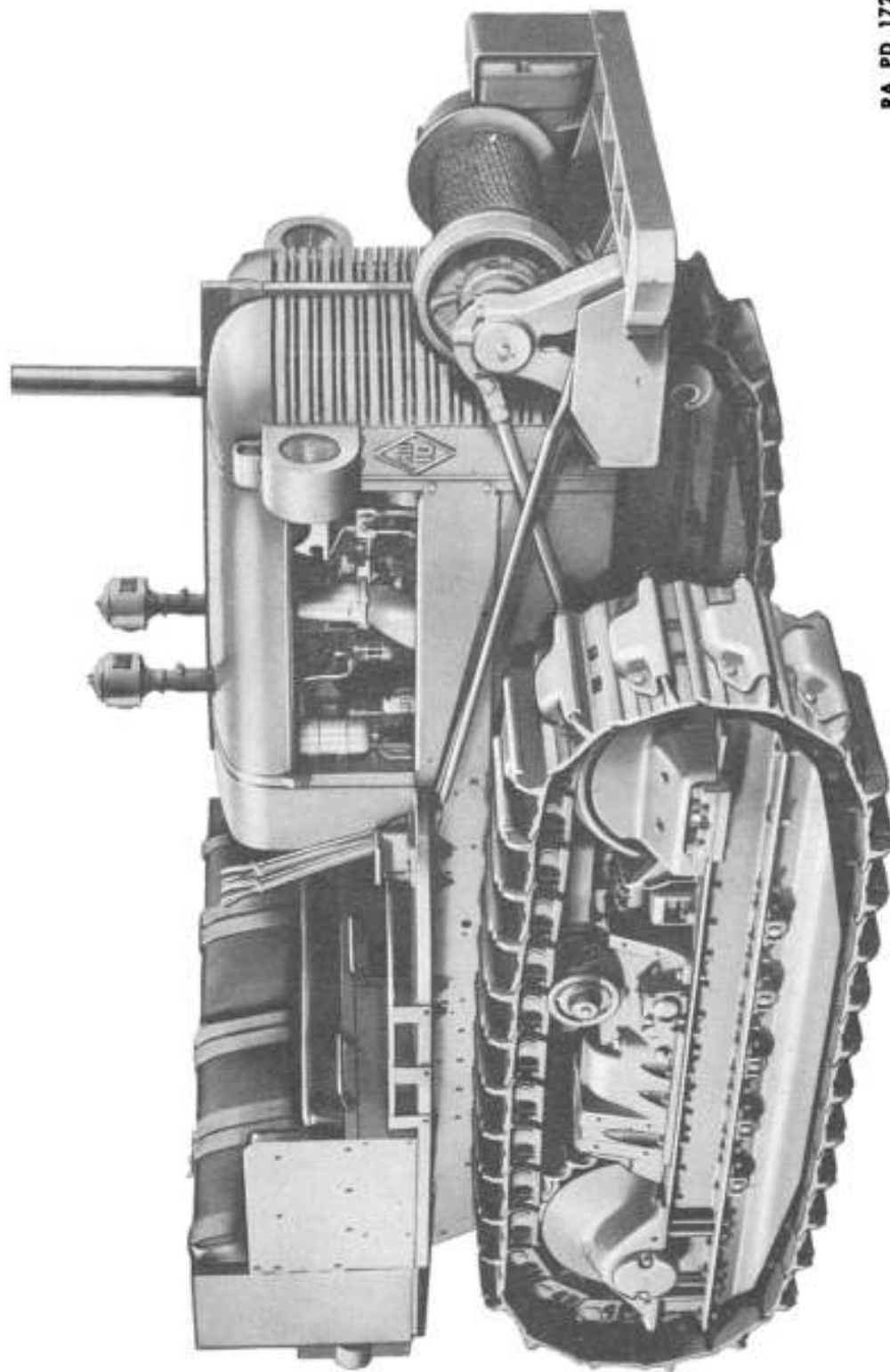
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HEAVY TRACTOR M1



RA PD 17201

Heavy Tractor M1 – Frontispiece

HEAVY TRACTOR M1**PART ONE—Operating Instructions****Section I****INTRODUCTION**

	Paragraph
Purpose and scope.....	1
Content and arrangement of manual.....	2
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1. PURPOSE AND SCOPE.

a. The information and instructions contained in this manual provide a guide for all personnel charged with the operation, lubrication, and light maintenance of this materiel. Specifications, illustrations, and detailed instructions are given regarding the operation, lubrication, adjustments, and minor repairs. Group assemblies and component parts are listed under separate headings, with detailed instructions under each heading explaining the proper operation or adjustments necessary to keep or put the machine in normal operating condition.

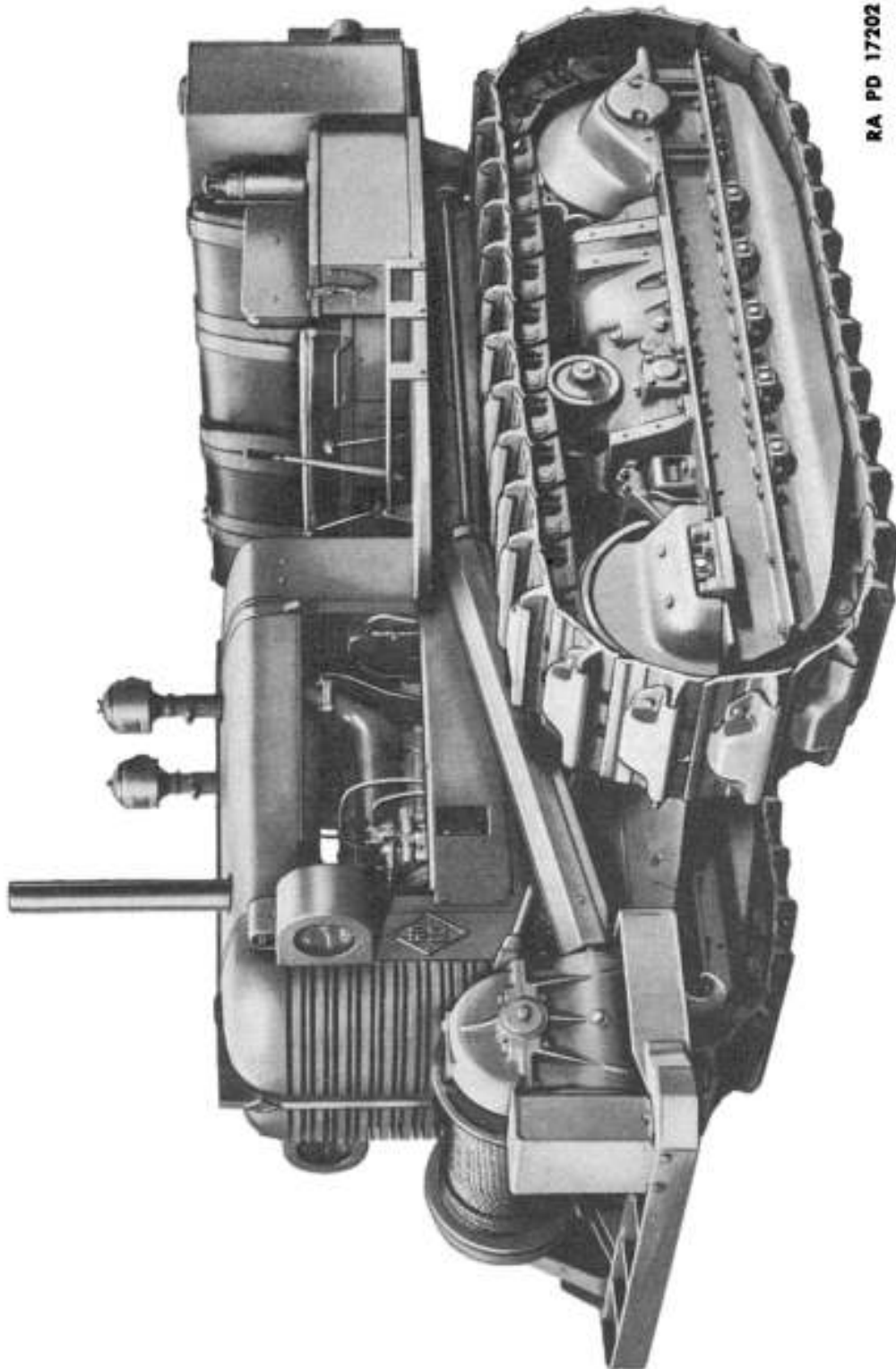
2. CONTENT AND ARRANGEMENT OF MANUAL.

a. Part One consists of specifications and photographs of the tractor, lubrication charts and specifications, and general operating instructions. Part Two consists of illustrations and instructions on adjustments and minor repairs.

3. REFERENCES.

a. A list of references will be found in section **XXVI** of this manual.

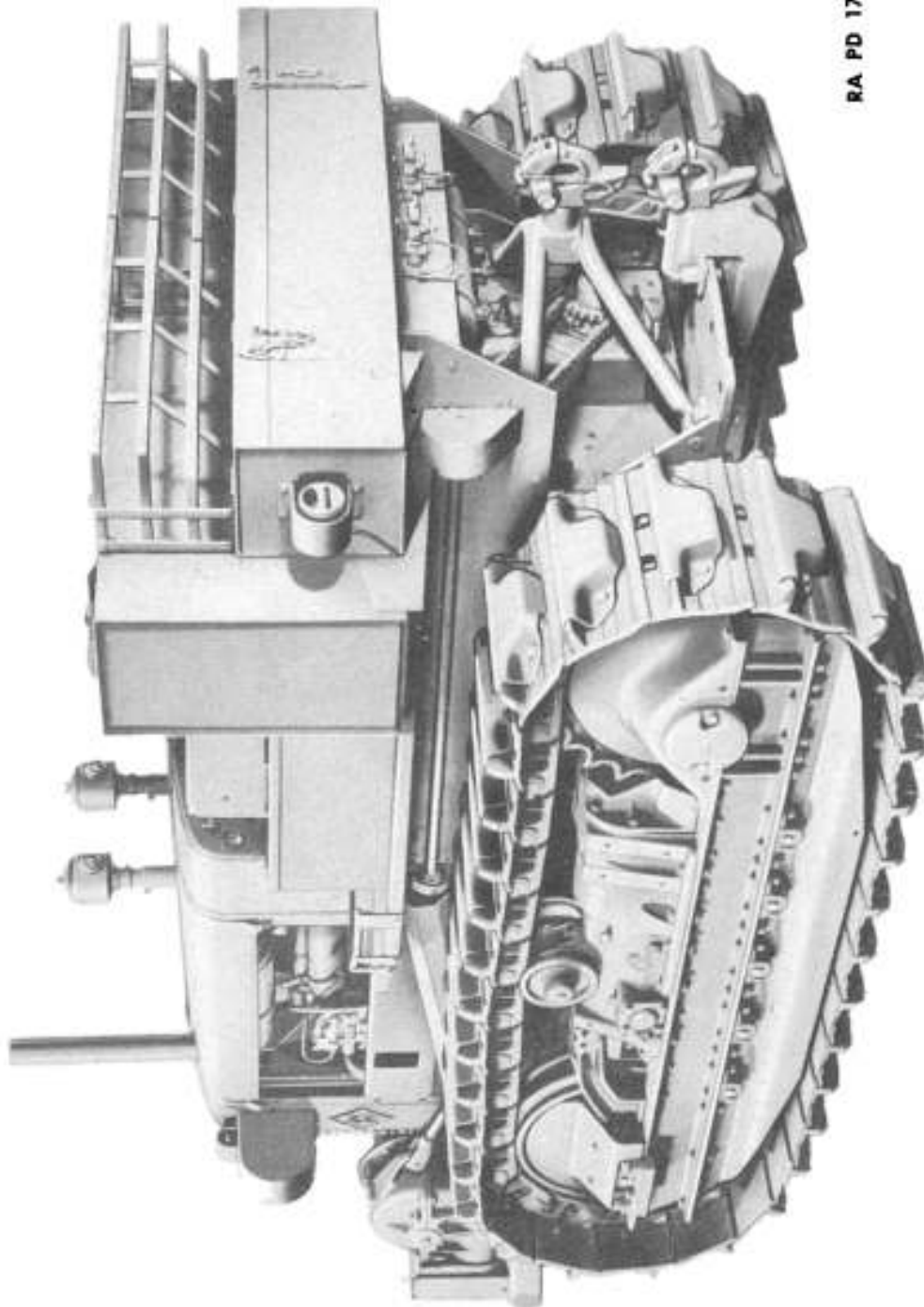
INTRODUCTION



RA PD 17202

Figure 1 — Heavy Tractor M1 — Three-quarter Left Front View

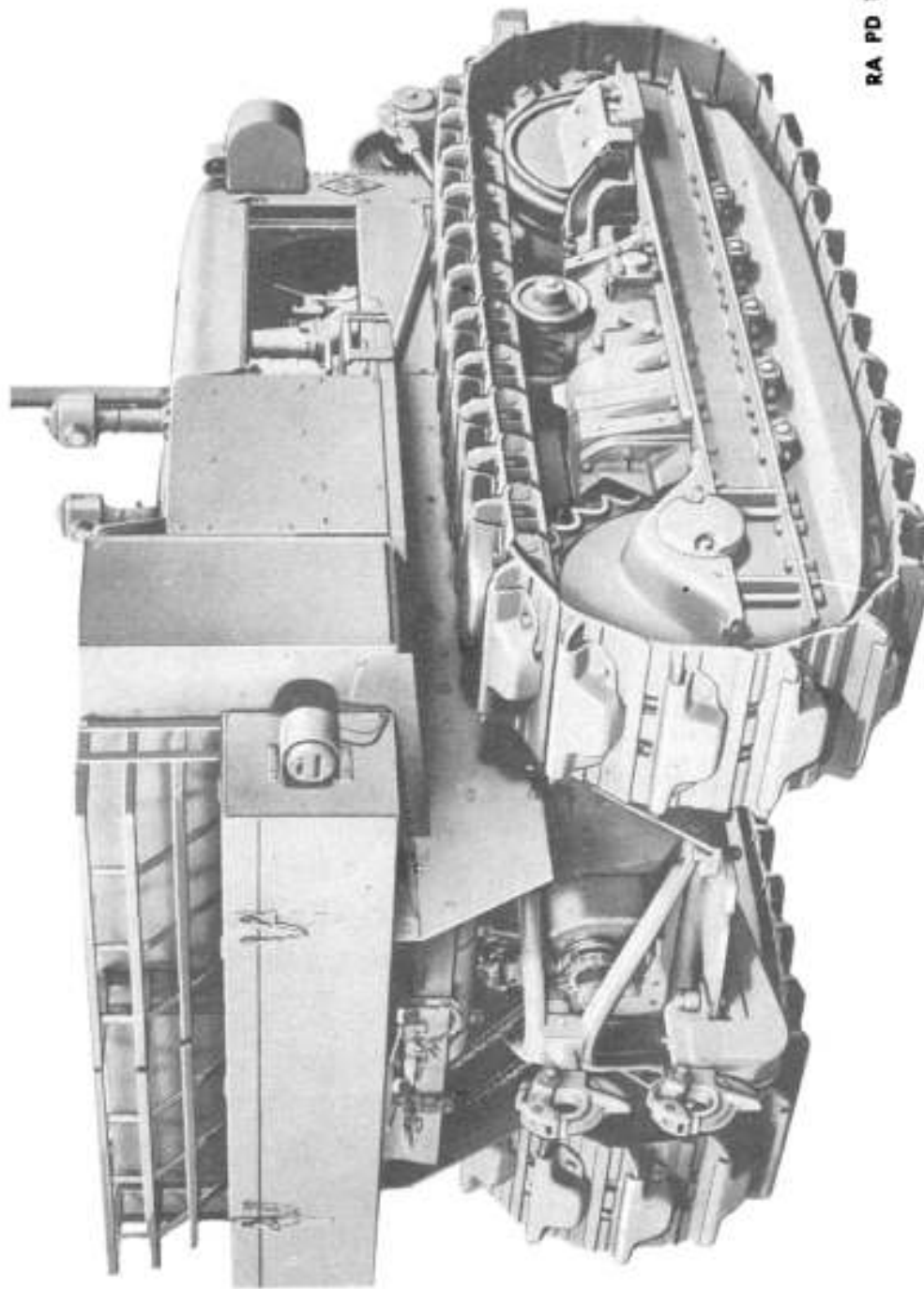
HEAVY TRACTOR M1



RA PD 17203

Figure 2—Heavy Tractor M1 —Three-quarter Left Rear View

INTRODUCTION



RA PD 17204

Figure 3—Heavy Tractor M1—Three-quarter Right Rear View

HEAVY TRACTOR M1

Section II

DESCRIPTION AND TABULATED DATA

	Paragraph
Description	4
Tabulated data	5

4. DESCRIPTION.

a. General. This tractor is of the crawler or track-laying type and may be used for either highway or cross country travel. Because of its relatively low center of gravity, the tractor can climb slopes as steep as 30 degrees, depending on the kind of footing available and the load being pulled.

b. Engine. Power is supplied by a water-cooled, 4-cylinder, valve-in-head, 2-cycle Diesel engine. A multiple speed transmission is used offering six forward speeds ranging from 1.87 miles per hour to 11.00 miles per hour and two reverse speeds of 2.05 miles per hour and 4.60 miles per hour at full throttle engine speed. The fuel tank has a capacity of 156 gallons which permits about 20 hours of operation without refueling.

c. Steering. Steering is accomplished by means of steering clutches operated by two levers, mounted in the center of the tractor within easy reach of the operator. Each lever controls a multiple disk steering clutch through which power is delivered from the transmission to the final drive sprockets.

d. Seat. The seat has removable cushions and safety straps and will accommodate the operator and three other men.

e. Winch. The winch is mounted on the front of the tractor and is driven by a reversible power take-off from the tractor transmission. A control lever for the power take-off is just ahead of the seat and in easy reach of the operator.

f. Equipment. Equipment on the tractor includes batteries, electric starter, generator, lights, mile meter, engine air heater and engine pre-heater for cold weather starting, fire extinguisher, electric and air trailer brake control system, snatch block, tow chain, and loose tools.

g. Tractor and Engine Numbers. The serial number of the tractor is stamped on the steering clutch lever stop which is on the gear shifter housing and also on the rear of the transmission case on the right side just below the top. The engine number can be found on a bronze plate on the right side of the engine in back of the governor.