

RESTRICTED

TM 9-710-A

WAR DEPARTMENT

TECHNICAL MANUAL



**HALF-TRACK CAR M2;
HALF-TRACK PERSONNEL CARRIER M3**

SEPTEMBER 16, 1942

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WAR DEPARTMENT
 Washington, September 16, 1942

HALF-TRACK CAR M2; HALF-TRACK PERSONNEL CARRIER M3

Prepared under the direction of the
 Chief of Ordnance

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* This TM supersedes TM 9-710, January 5, 1942
 TB 710-1, January 1, 1942
 TB 710-2, January 1, 1942
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PART I—OPERATING INSTRUCTIONS**Section I****INTRODUCTION**

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1. SCOPE.

a. This manual is published for the information of the using arms and services.

b. In addition to a description of the Half-Track Car M2 and Half-Track Personnel Carrier M3 this manual contains technical information required for the identification, use, and care of the materiel.

c. Disassembly, assembly, and such repairs as may be handled by using arm personnel may be undertaken only under the supervision of an officer or the chief mechanic.

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

2. CONTENT AND ARRANGEMENT OF TEXT.

Information for operating personnel (crews) is in sections I to IX inclusive. Information for organizational maintenance personnel (using arm unit mechanics) is in sections X to XXIX, inclusive.

3. PRINCIPAL CHANGES AND ADDITIONS.

The major changes to the original edition of TM 9-710, January 5, 1942, follow:

a. Gear shifting instructions (par. 8) now conform to the procedure made possible by modification or omission of the transmission interlock mechanism.

b. Lubrication instructions are revised (pars. 13–16).

c. The inspection section (pars. 17–25) is expanded to include procedures for weekly, monthly, and semiannual inspections.

d. Changes in characteristic armament are incorporated (pars. 36–42). Loading and stowage charts are altered accordingly.

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e. A new trouble shooting section (par. 52) provides corrections for commonly occurring malfunctions.

f. The bogie suspension and track section (pars. 61-65) includes latest maintenance procedures.

g. Operation of Hydrovac brake vacuum booster unit is discussed (par. 68).

h. Battery maintenance and care is expanded (par. 91).

i. Blackout equipment is described in paragraphs 105 and 106.

j. Data on front wheel tires are revised to include combat tires with standard tubes and standard tires with bullet sealing tubes (par. 158). Vehicles may be equipped with either type.

k. Instructions for preparation of vehicles for water shipment now include rust prevention treatment (par. 163).

l. A new section **XXIX**, Cold Weather Operation, is added.

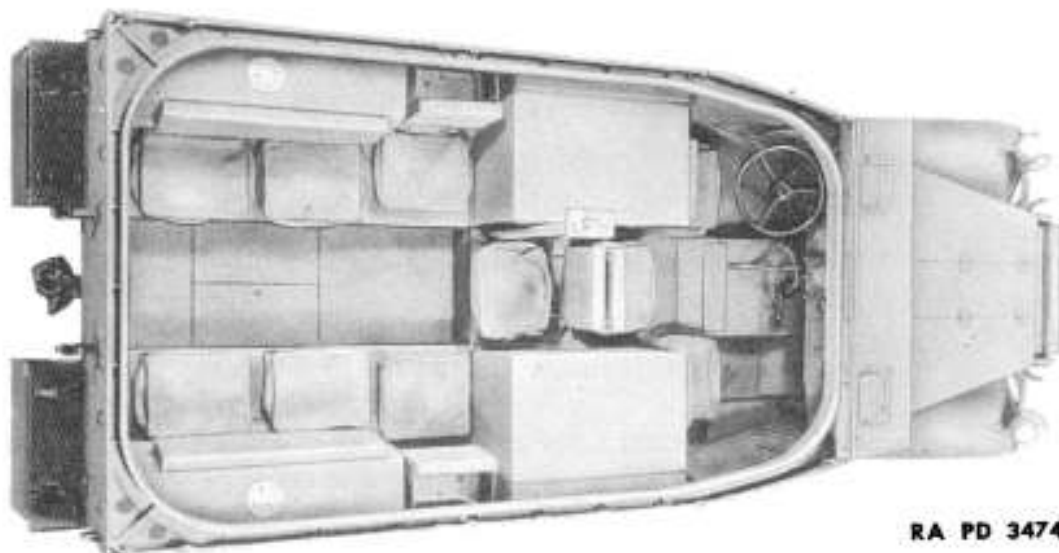
Section II

DESCRIPTION AND CHARACTERISTICS

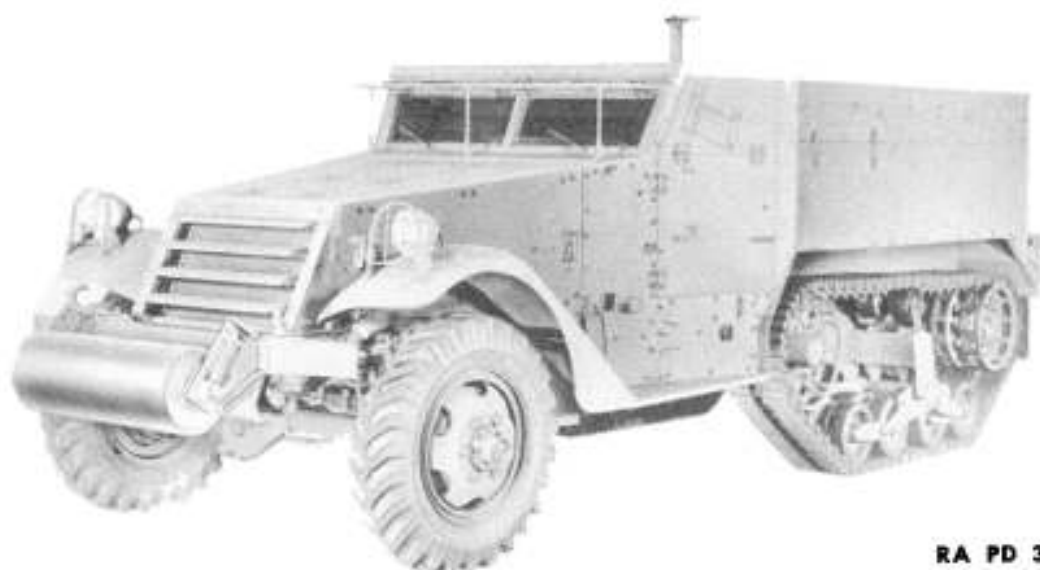
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Tabulation of characteristics and armament	5

4. GENERAL DESCRIPTION.

The armored vehicles described in this manual have chassis similar to the half-track type but different bodies. Each vehicle has a specially-designed, commercial-type, front-and-rear drive, truck chassis with armored hull. Each vehicle is powered by a conventional six-cylinder gasoline engine.



RA PD 3474

Figure 1—Half-Track Car M2—Plan

RA PD 3470

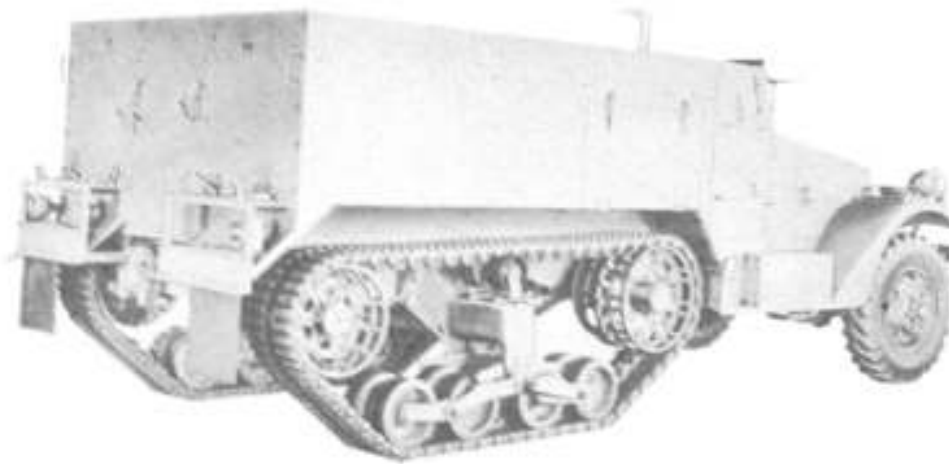
Figure 2—Half-Track Car M2—Left Front

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HALF-TRACK CAR M2; HALF-TRACK PERSONNEL CARRIER M3

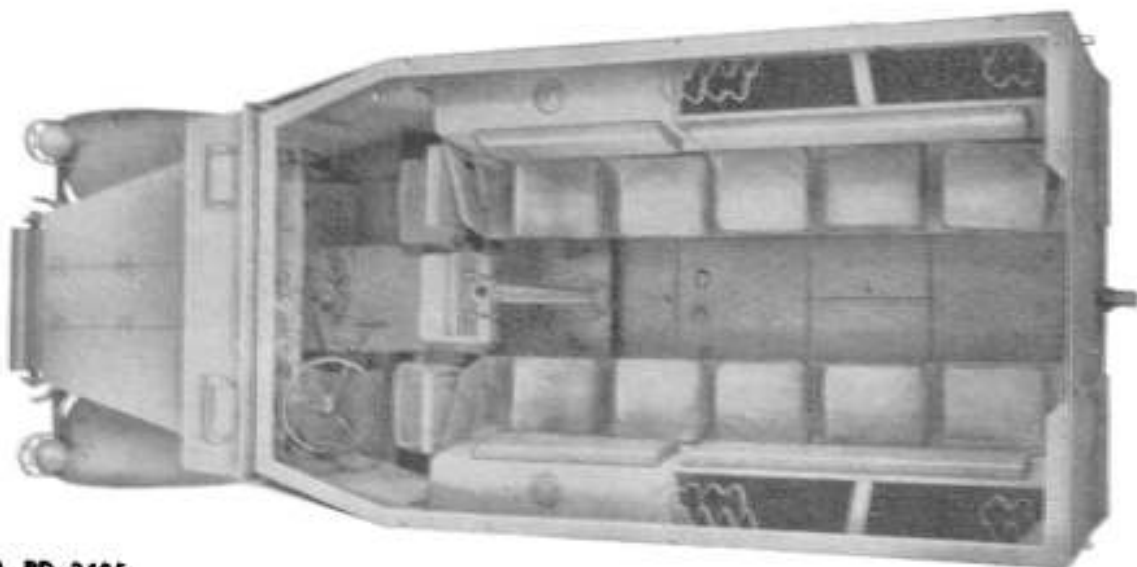
a. **Half-Track Car M2.** This vehicle, illustrated in figures 1 to 3, has seating arrangement for a crew of 10, a gun rail, a radio mast, and no rear door. The driver's seat, commander's seat, and one other are in the driver's compartment. Arrangement of other seats is shown in figure 1.



RA PD 3473

Figure 3—Half-Track Car M2—Right Rear

b. **Half-Track Personnel Carrier M3.** This vehicle is illustrated in figures 4 to 6. It has seating arrangement for a crew of 13, a pedestal mount, and a rear door. The three seats in the driver's compartment are like those of the Car M2. The other 10 are arranged in 2 rows of 5 each, backed up against the fuel tanks and body compartment. There are no gun rail and radio mast.



RA PD 3485

Figure 4—Half-Track Carrier M3—Plan

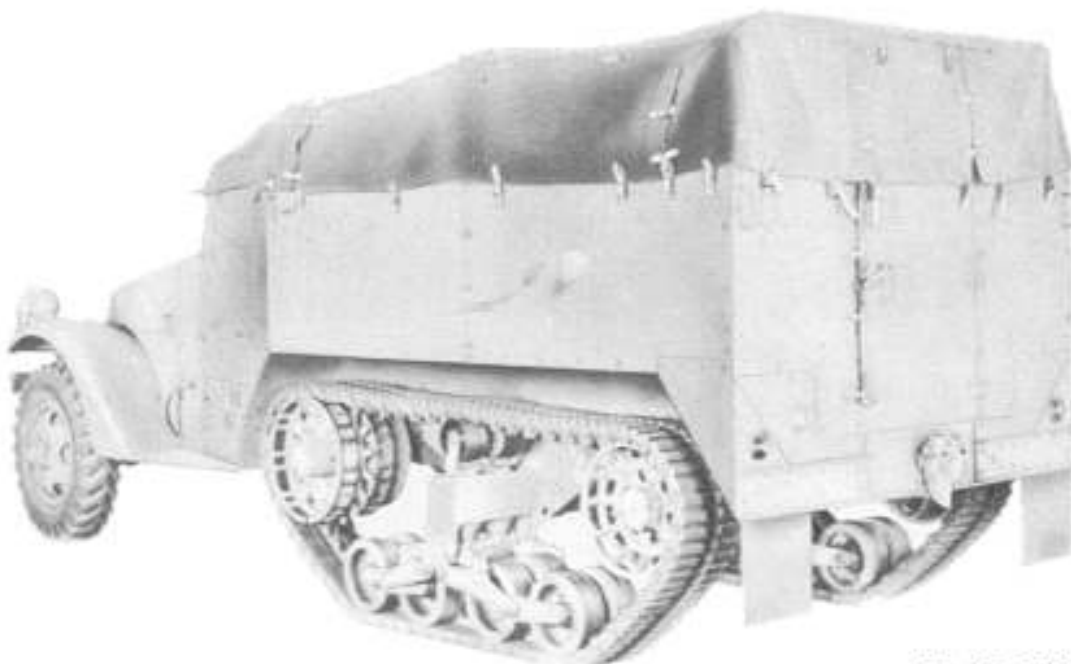
DESCRIPTION AND CHARACTERISTICS

c. **Designation.** The chassis serial and model numbers are located on a plate attached to the right side of the instrument panel. The engine number is stamped on a pad on the left and to the front of the crankcase.



RA PD 3480

Figure 5—Half-Track Carrier M3—Right Front



RA PD 3478

Figure 6—Half-Track Carrier M3—Left Rear

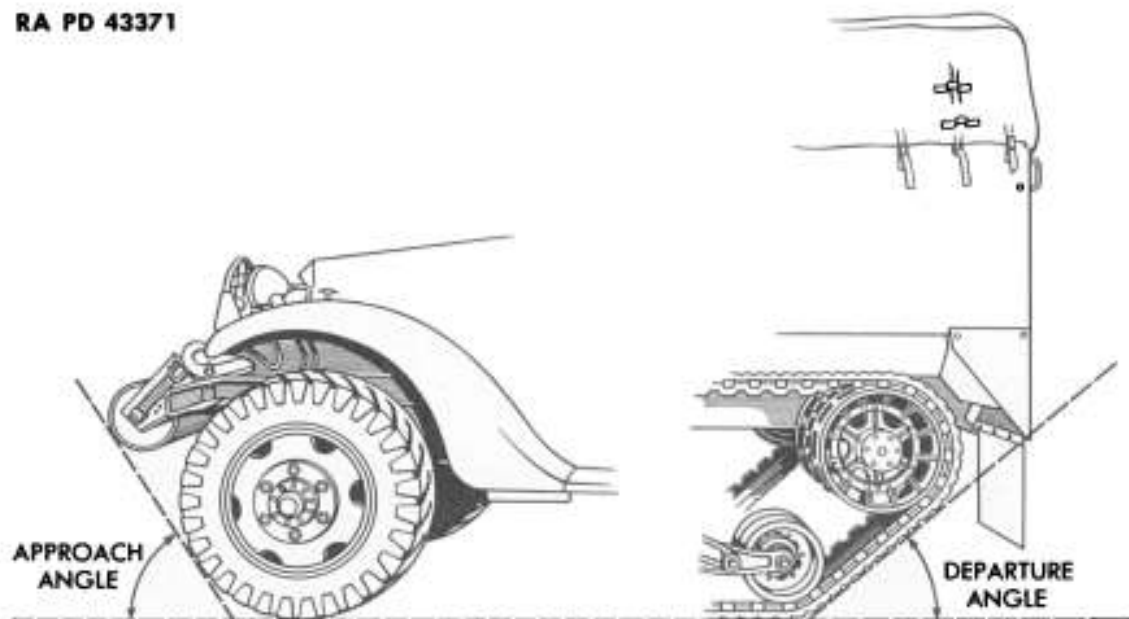
d. **Mobility.** The vehicles are designed for travel both on highways and cross country. Ditches can be crossed if they are not sufficiently

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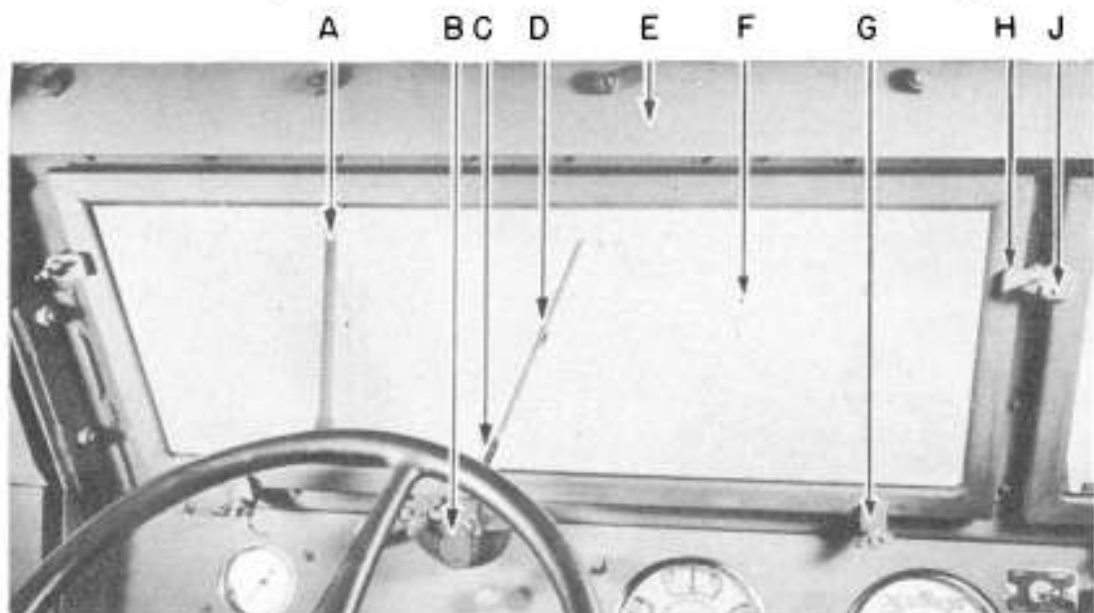
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RA PD 43371

**Figure 7—Vehicle Approach and Departure Angles**

step to cause the vehicle's front roller to become imbedded in the bank and if the banks are not close enough together to cause the rear overhang to dig in on the descending side of the ditch (fig. 7).

e. **Body.** The body is protected by $\frac{1}{4}$ -in. armor plate at the sides and rear. A folding armor shield on each door increases the height of the



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| A — WINDSHIELD ARMOR LEFT SUPPORT ROD ASSEMBLY | F — LEFT WINDSHIELD, W/GLASS, ASSEMBLY |
| B — WINDSHIELD WIPER ASSEMBLY | G — WINDSHIELD HALF CLAMP |
| C — WINDSHIELD WIPER ARM | H — WINDSHIELD FULL CLAMP |
| D — WINDSHIELD WIPER BLADE | J — WINDSHIELD WING NUT |
| E — WINDSHIELD HEADER | |

RA PD 3521

Figure 8—Windshield Details