

**BASIC HALF-TRACK VEHICLES (IHC)****(PERSONNEL CARRIER M5, CAR M9A1,  
MULTIPLE GUN MOTOR CARRIAGE M14, AND  
SIMILAR IHC VEHICLES)**

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Prepared under the direction of the  
Chief of Ordnance

*(with the cooperation of International Harvester Company)*

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\* This manual supersedes TM 9-711A, Half-track Personnel Carrier M5.

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**PART ONE – Vehicle 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. It is a basic manual for Half-track Personnel Carrier M5, Half-track Car M9A1, Multiple Gun Motor Carriage M14, and other similar half-track vehicles manufactured by International Harvester Company.

c. In addition to a description of the vehicles, this manual contains technical information required for the identification, use, and care of the materiel.

d. 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.

e. 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.**

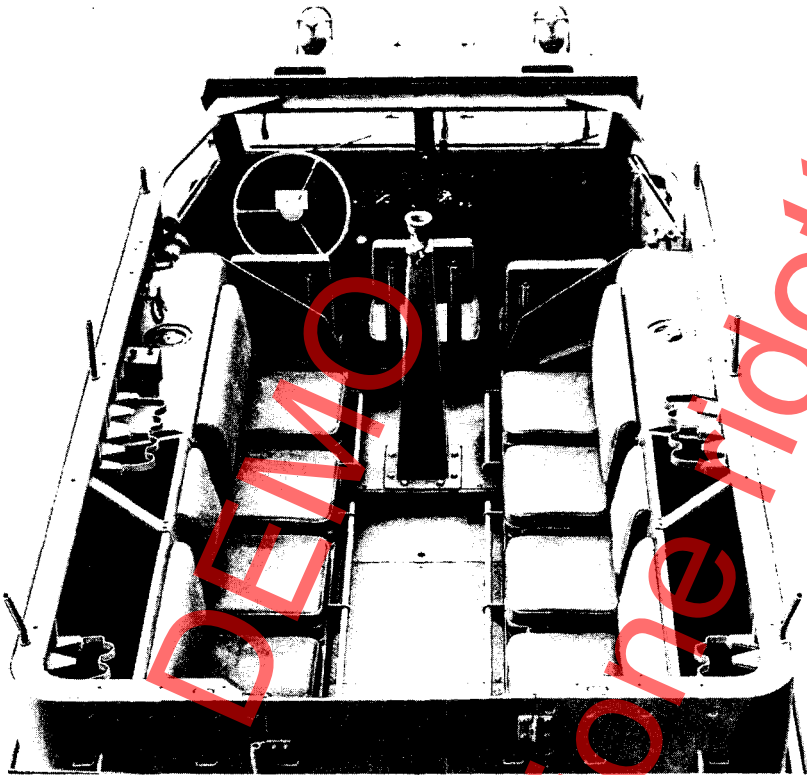
a. Information for operating personnel (crews) is in Part One, sections I to VII, inclusive. Information for organizational maintenance personnel (using arms unit mechanics) is in Part Two, sections VIII to XXVII, inclusive. A list of references is available in section XXVIII.

**3. DESCRIPTION.**

a. The armored vehicles described in this manual are of half-track type but have different bodies. Each vehicle has a specially designed, commercial type, front-and-rear drive, truck chassis with an armored hull. Each vehicle is powered by a conventional 6-cylinder gasoline engine.

b. **Half-track Personnel Carrier M5.** This vehicle is illustrated in figures 1, 2, and 3. The personnel carrier is distinguished by the seating

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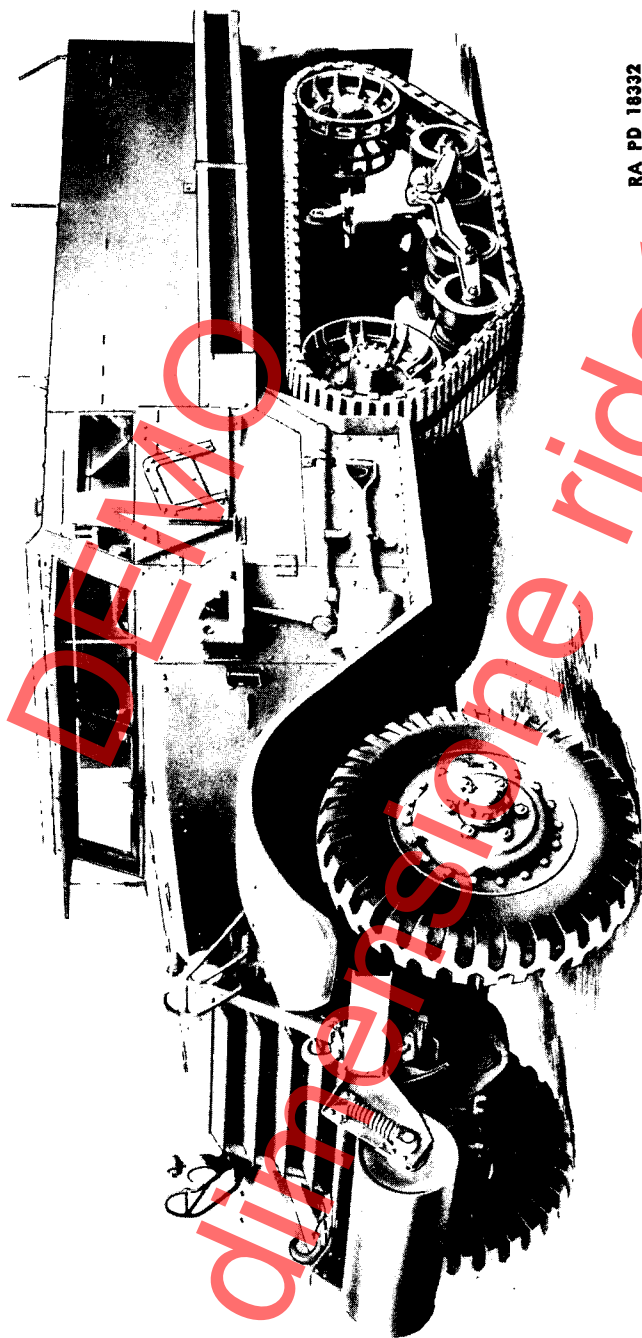
**Figure 1 — Half-track Personnel Carrier M5 — Top View**

arrangement for a crew of 13, a pedestal mount, and the presence of a rear door. There are 3 driver's compartment seats, and the remaining 10 seats are arranged in 2 lengthwise rows of 5 each.

c. **Half-track Car M9A1.** This vehicle is illustrated in figures 4 to 7, inclusive, and has a seating arrangement for a crew of 10, a gun ring, a radio mast, and a rear door. The driver's seat and commander's seat are in the driver's compartment. A third seat is just behind the driver's compartment but also faces toward the front. The remaining seats are arranged 3 on either side at the fuel tanks and 1 facing the rear just behind the center driver's compartment seat.

d. **Multiple Gun Motor Carriage M14.** This vehicle is illustrated in figures 7 to 11, inclusive, and is distinguished by the seating arrangement for a crew of five, and the twin mount machine gun. There are

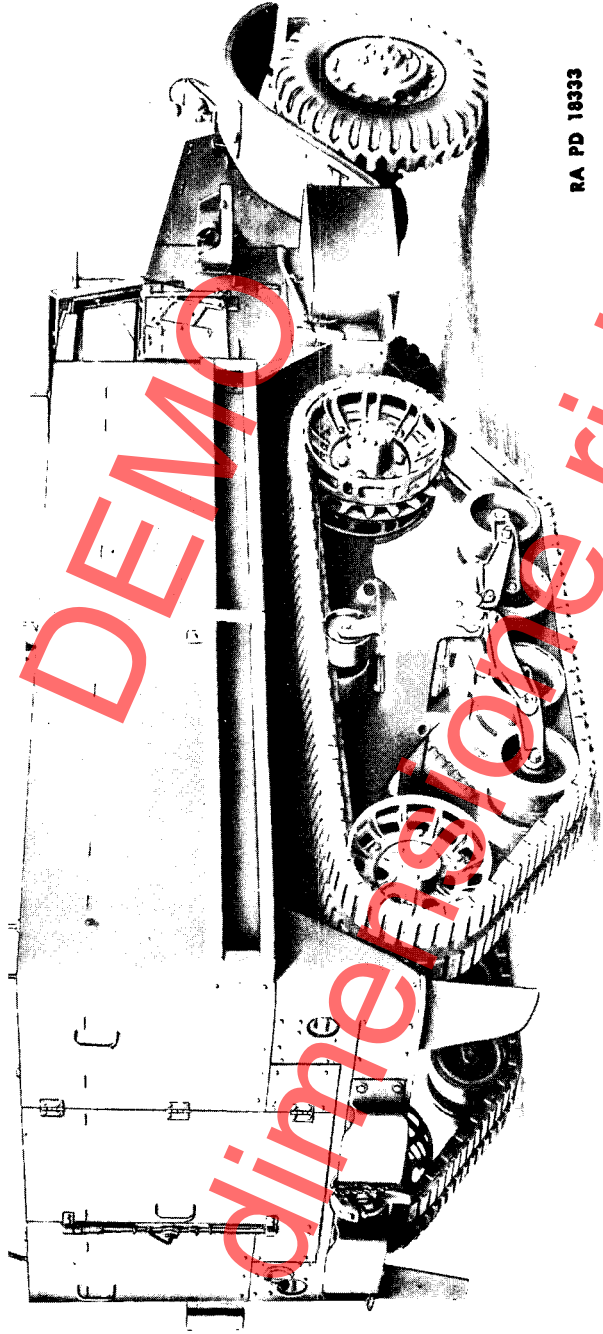
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Figure 2 — Half-track Personnel Carrier M5 — Left Front

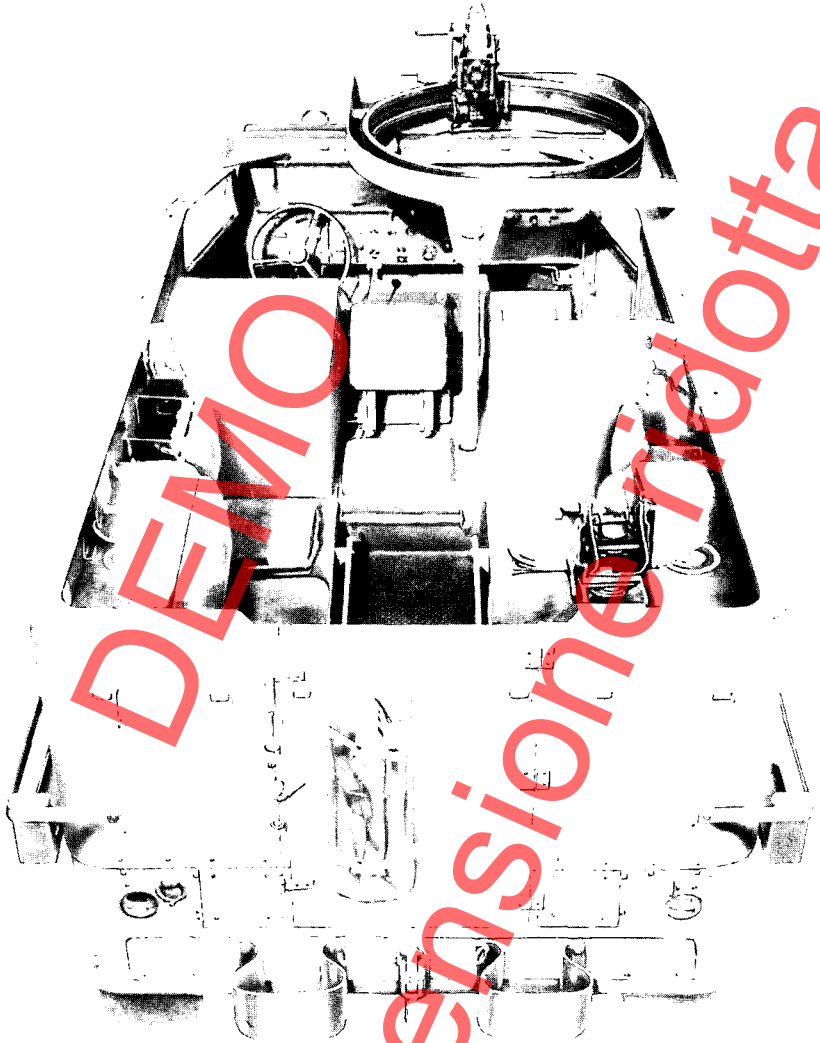
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Figure 3 — Half-track Personnel Carrier M5 — Right Rear

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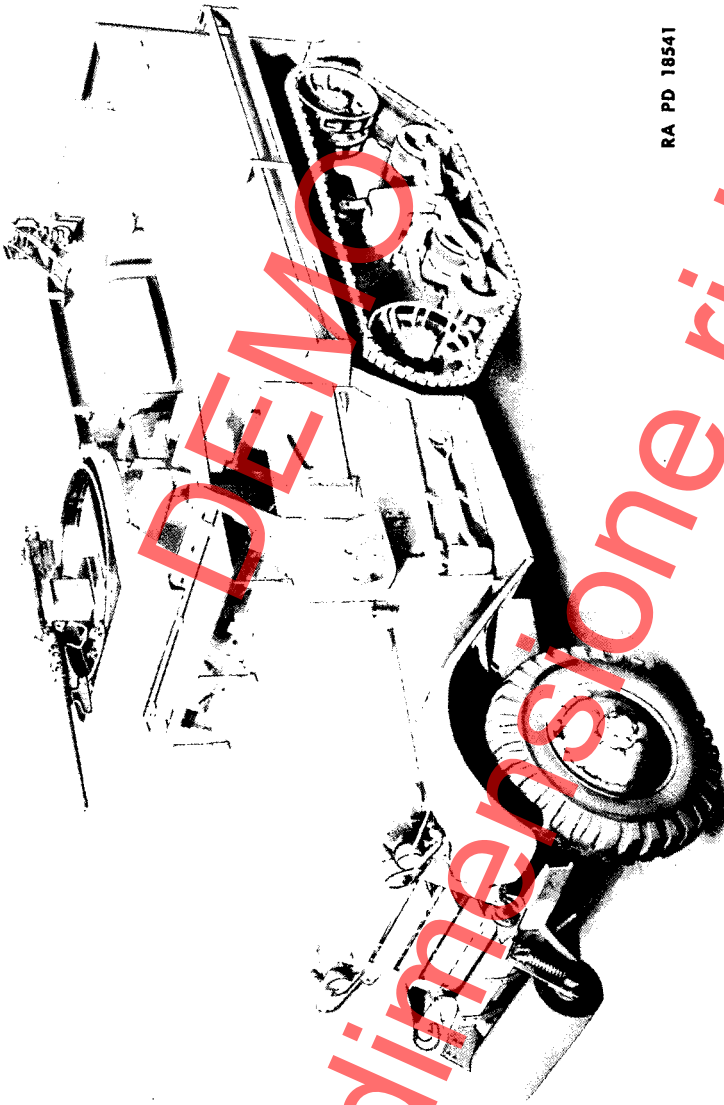
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*Figure 4 — Half-track Car M9A1 — Top View*

three driver's compartment seats and the remaining two seats face each other just to the rear of the driver's compartment.

e. **Identification Numbers.** The manufacturer's chassis serial number 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 side and to the front of the crankcase.

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Figure 5 — Half-track Car M9A1 — Left Front



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Figure 6 — Half-track Car M9A1 — Right Rear

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Figure 7 — Multiple Gun Motor Carriage M14 — Right Front

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Figure 8 — Multiple Gun Motor Carriage M14 — Left Front

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Figure 9 — Multiple Gun Motor Carriage M14 — Left

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Figure 10 — Multiple Gun Motor Carriage M14 — Right

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Figure 11 -- Multiple Gun Motor Carriage M14 -- Top

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f. **Mobility.** The vehicle is designed for travel on highways and cross-country and will negotiate steep grades and rough terrain provided traction is maintained. Approach and departure angles are illustrated in figures 12 and 13.

g. **Body.** The body is protected by  $\frac{5}{16}$ -inch armor plate at the sides and rear. A folding armor shield on each door is provided to increase the height of the armor protection for the driver's compartment. These shields are hinged to the side doors and supported in the upright position by vertical rods latched to the doors. Vision slots are incorporated. The armor plate is replaceable on the hood and doors and is assembled with removable screws and safety nuts. The body armor plate is welded.

h. **Louvres.** Radiator louvres or shutters, made of  $\frac{5}{16}$ -inch armor plate, are provided for protection of the radiator. The shutters are operated by a control lever at the right side of the driver's compartment. Three intermediate positions between fully open and fully closed are provided.

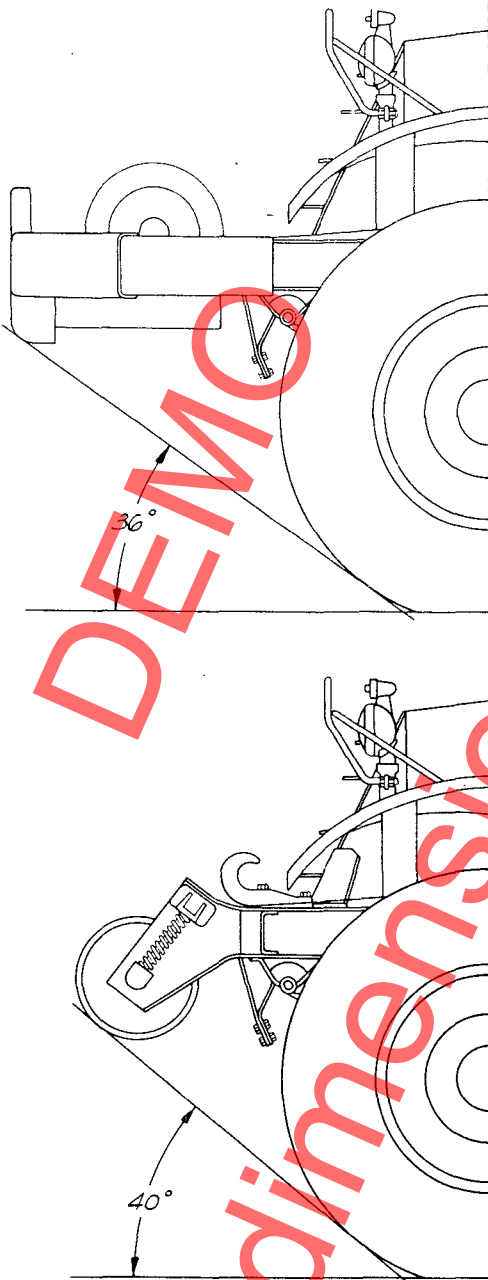
i. **Hood.** Top and side protection is afforded the engine by the armor plate hood which is made of two double panels hinged together to aid in opening. Two latches on each side panel secure the hood when closed.

j. **Windshields** (figs. 14 and 15). The shatterproof glass windshield is constructed of two sections which are held in position by six half-clamps and one full clamp. A protective shield of  $\frac{5}{8}$ -inch armor plate is provided. This armor shield is hinged at the top to the windshield support frame and is held in the open position by three support rods. Before the windshield armor plate is lowered into the closed position, remove the two sections of the windshield.

(1) **WINDSHIELD BREAKAGE.** The cause of windshield breakage should be determined before replacing glass. Unless the glass is struck by some object, breakage may be caused by unusual twisting of the windshield frame members resulting from vibration.

(2) **WINDSHIELD REMOVAL.** To remove the windshield, loosen the clamps by unscrewing the wing nuts. To remove the windshield wiper blades, depress the spring clip at the bottom of the wiper arm and unhook the wiper arm from the shaft.

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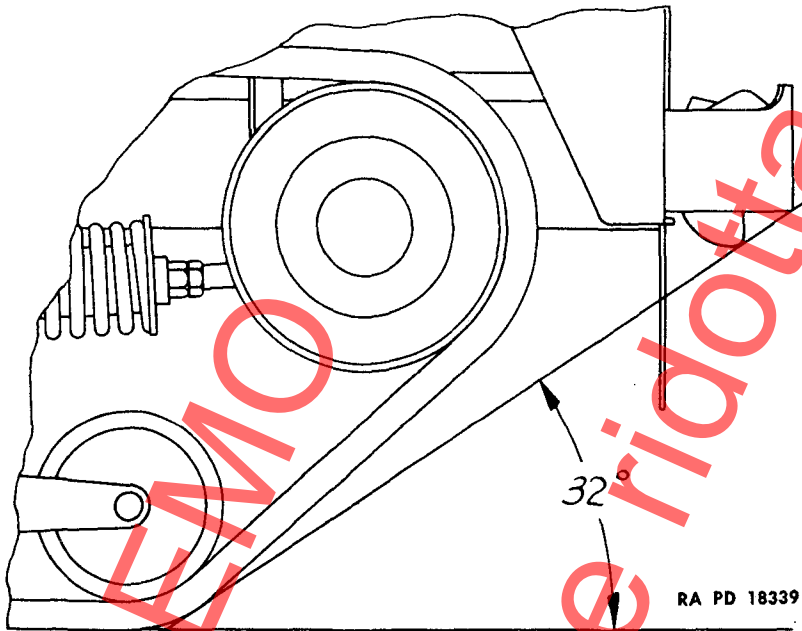


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Figure 12 — Approach Angle



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**Figure 13 – Departure Angle**

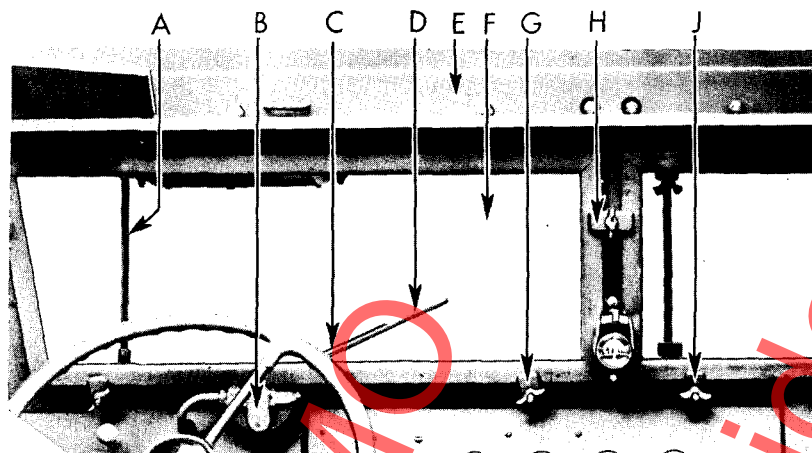
(3) **VISION SLOTS.** Two vision slots are provided in the armor shield. Each opening may be covered by a sliding panel of armor which is held in position by a thumbscrew.

**k. Tarpaulin.** A detachable canvas tarpaulin is supplied with the M14 vehicle to serve as a cover when desired.

**l. Top (M5 and M9A1).** The detachable canvas top is supported by three removable metal bows and the windshield frame. Removable side curtains with transparent windows are also provided. The top is secured by a series of strap fasteners that attach to footman loops around the sides of the body.

**m. Seats.** The driver's seat is adjustable, while the commander's seat is hinged and can be folded. The center seat backs can also be folded down. Loose seat cushions are provided for all seats. These cushions may be opened by slide fasteners and blankets may be inserted. All seat back covers are detachable for decontamination purposes.

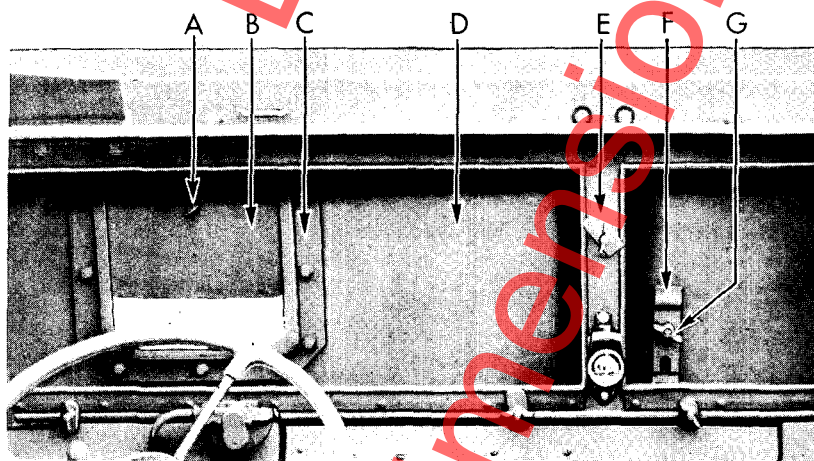
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- |  |   |
|--|---|
| A—WINDSHIELD ARMOR LEFT SUPPORT ROD ASSEMBLY | F—LEFT WINDSHIELD, WITH GLASS, ASSEMBLY |
| B—WINDSHIELD WIPER ASSEMBLY                  | G—WINDSHIELD HALF CLAMP                 |
| C—WINDSHIELD WIPER ARM                     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

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**Figure 14 — Windshield Details**



- |  |                                   |
|--|-----------------------------------|
| A—WINDSHIELD ARMOR PORT HOLE COVER THUMB SCREW | D—WINDSHIELD ARMOR PLATE ASSEMBLY |
| B—WINDSHIELD ARMOR PORT HOLE COVER             | E—CENTER RETAINER                 |
| C—PORT HOLE COVER RETAINER                     | F—ARMOR PLATE RETAINING CLAMP     |
|  | G—WING NUT                        |

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**Figure 15 — Windshield Details — Armor**

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## 4. TABULATED DATA.

a. Data indicating comparative size and performance of the vehicle is tabulated as follows:

## (1) VEHICLE SPECIFICATIONS.

	M5	M9A1	M14
Wheel base (in.).....	135½	135½	135½
Length, over-all (roller-equipped) (in.).....	242¾ <sub>16</sub>	242¾ <sub>16</sub>	—
Length, over-all (winch-equipped) (in.).....	—	—	249¾ <sub>16</sub>
Width, over-all (in.).....	86¾ <sub>8</sub>	86¾ <sub>8</sub>	85¾ <sub>4</sub>
Weight, over-all (top of body) (in.).....	91	91	74½ (top of hull)
Wheel size (in.).....	20	20	20
Tire size.....	9.00-20	9.00-20	9.00-20
Track size (width) (in.).....	12	12	12
Tread (center to center):			
Front.....	66½	66½	66½
Rear.....	63 <sup>13</sup> / <sub>16</sub>	63 <sup>13</sup> / <sub>16</sub>	63 <sup>13</sup> / <sub>16</sub>
Crew.....	13	10	5
Weight of vehicle (winch-equipped):			
Net.....	15,900	16,050	16,200
Gross.....	18,900	19,050	19,200
Pay load.....	3,000	3,000	3,000
Weight of vehicle (roller-equipped):			
Net.....	15,400	16,050	—
Gross.....	18,900	19,050	—
Pay load.....	3,500	3,500	—
Ground clearance:			
Front (in.).....	11¾ <sub>16</sub>	11¾ <sub>16</sub>	11¾ <sub>16</sub>
Rear (in.).....	17¼	17¼	17¼
Pintle height (in.).....	29¾ <sub>16</sub>	29¾ <sub>16</sub>	29¾ <sub>16</sub>
Gasoline octane rating.....	70 to 72	70 to 72	70 to 72