

TM 9-1707B

WAR DEPARTMENT TECHNICAL MANUAL

ORDNANCE MAINTENANCE

**POWER TRAIN, BODY,
AND CHASSIS FOR BASIC
HALF-TRACK VEHICLE (IHC)
(PERSONNEL CARRIERS M5 AND
M5A1, CAR M9A1, MULTIPLE GUN
MOTOR CARRIAGES M14 AND
M17, AND SIMILAR IHC VEHICLES)**

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WAR DEPARTMENT

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TM 9-1707B—Ordnance Maintenance, Power Train, Body, and Chassis for Basic Half-track Vehicle (IHC) (Personnel Carriers M5 and M5A1, Car M9A1, Multiple Gun Motor Carriages M14 and M17, and Similar IHC Vehicles), is published for the information and guidance of all concerned.

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(For explanation of symbols, see FM 21-6)

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CHAPTER 1

INTRODUCTION

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1. SCOPE.

a. The instructions contained in this manual are for the information and guidance of personnel charged with the maintenance and repair of Half-track Personnel Carrier M5 or M5A1, Half-track Car M9A1, Multiple Gun Motor Carriage M14 or M17, and other similar half-track vehicles manufactured by International Harvester Company. Information on the detailed construction of the vehicles, disassembly and assembly procedure, inspection, maintenance, and repair is contained in two technical manuals of the 1000 series, of which this is the second. These instructions are supplementary to those in the field and technical manuals prepared for the using arms. This manual does not contain information which is intended primarily for the using arms, since such information is available to ordnance maintenance personnel in 100-series technical manuals or field manuals.

2. TECHNICAL MANUAL REFERENCES.

a. This manual contains a description of and procedure for removal, disassembly, inspection, cleaning, repair, reassembly, and reinstallation of the body, bogie suspension and tracks, frame, power train, springs, steering gear, drag link, and winch.

b. TM 9-707 is the operator's technical manual for the using arms.

c. TM 9-1707A is the maintenance technical manual containing information pertaining to the engine and its accessories, electrical system, fuel system, and cooling system.

d. TM 9-1827B is the maintenance technical manual containing information pertaining to the vacuum power brakes.

e. TM 9-1827C is the maintenance technical manual containing information pertaining to the hydraulic brakes.

f. TM 9-1825A is the maintenance technical manual containing information pertaining to the starter, generator, generator regulator, and distributor.

g. TM 9-1826C is the maintenance technical manual containing information pertaining to the carburetor and governor.

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**ORDNANCE MAINTENANCE—POWER TRAIN,
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a. The arrangement of this technical manual is such that it contains descriptions, removal of units, disassembly, inspection, repair, assembly and installation of the components.

4. MAINTENANCE ALLOCATION.

a. **Scope.** The scope of maintenance and repair by the crew and other units of the using arms is determined by the availability of suitable tools, availability of necessary parts, capabilities of the mechanics, time available, and the tactical situation. No exact system of procedure can be prescribed which will be uniformly applicable to all types of vehicles. Many second echelon operations are often done by ordnance personnel.

b. **Allocation of Maintenance.** Indicated below are the maintenance duties for which, under normal circumstances, tools and parts have been provided for the using arm and ordnance maintenance personnel. Certain replacements and repairs which are the responsibility of ordnance maintenance personnel may be performed by using arm personnel when circumstances permit or require, within the discretion of the commander concerned. Echelons and words as used in this list of maintenance allocations are defined as follows:

FIRST AND SECOND ECHELON: Table III AR 850-15	Operating organization driver, operator or crew, companies and detachments, battalions, squadrons, regiments, and separate companies and detachments (first and second echelons, respectively).
THIRD ECHELON: Table III AR 850-15	Technical light and medium maintenance units, including post and port shops.
FOURTH ECHELON: Table III AR 850-15	Technical heavy maintenance and field depot units including designated post and service command shops
FIFTH ECHELON: Table III AR 850-15	Technical base units.
SERVICE: (Including preventive maintenance) par. 24 a (2) and (3) in part AR 850-15	Checking and replenishing fuel, oil, grease, water and antifreeze, air, and battery liquid; checking and tightening nuts and bolts; cleaning.

INTRODUCTION

REPLACE: To remove an unserviceable part, assembly, or
 Par. 24 a (5) subassembly from a vehicle and replace it
 AR 850-15 with a serviceable one.

REPAIR: To restore to a serviceable condition, such
 Par. 24 a (6) parts, assemblies or subassemblies as can be
 in part accomplished without completely disassembling the assembly or subassembly, and where
 AR 850-15 heavy riveting, or precision machining, fitting, balancing, or alining is not required.

REBUILD: Consists of stripping and completely recondi-
 Par. 24 a (6) tioning and replacing in serviceable condition
 AR 850-15 any vehicle or unserviceable part, subassembly, or assembly of the vehicle, including welding, riveting, machining, fitting, alining, balancing, assembling, and testing.

RECLAMATION: Salvage of serviceable or economically repair-
 AR 850-15 able units and parts removed from vehicles, and their return to stock. This includes the
 Par. 4 (c) in part process which recovers and/or reclaims unus-
 CIR. 75, dated 16 able articles or component parts thereof and
 March '43 places them in a serviceable condition.

- NOTES:** (1) Operations allocated will normally be performed in the echelon indicated by x.
- (2) Operations allocated to the third echelon as indicated by E may be performed by these units in emergencies only.
- (3) Operations allocated to the fourth echelon by E are normally fifth echelon operations. They will not be performed by the fourth echelon, unless the unit is expressly authorized to do so by the chief of the service concerned.
- (4) Consult reclamation bulletins for detailed information relative to reclamation procedure.

ABSORBERS, SHOCK	ECHELONS			
	2nd	3rd	4th	5th
Absorber assemblies, shock (w/linkage)—service and/or replace	X			
Absorber assemblies, shock (w/linkage)—repair		X		
Absorber assemblies, shock (w/linkage)—rebuild			E	X

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	ECHELONS			
	2nd	3rd	4th	5th
AXLE, FRONT				
Arm, steering knuckle—replace		X		
*Axle assembly—replace	*	X		
Axle assembly—repair		X		
Axle assembly—rebuild			E	X
Bearings, wheel—service, adjust and/or replace	X			
Carrier assembly, differential (w/ring gear and pinion)—replace and/or repair		X		
Carrier assembly, differential (w/ring gear and pinion)—rebuild			E	X
Drums, brake—replace	X			
Hub assemblies—replace	X			
Hub assemblies—repair		X		
Hub assemblies—rebuild			X	
Hub and drum assemblies—replace	X			
Retainers, wheel grease—replace	X			
Rod assembly, tie—replace	X			
Rod assembly, tie—repair		X		
Seals, trunnion housing oil—replace		X		
Shafts, axle—replace		X		
Wheel alinement, toe-in—adjust	X			
Wheel alinement, camber and caster—check		X		
AXLE, REAR (JACKSHAFT)				
*Axle assembly—replace	*	X		
Axle assembly—repair		X		
Axle assembly—rebuild			E	X
Bearings, drive sprocket—service, adjust and/or replace	X			
Carrier assembly, differential (w/ring gear and pinion)—replace and/or repair		X		
Carrier assembly, differential (w/ring gear and pinion)—rebuild			E	X
Drums, brake—replace	X			
Hub assemblies—replace	X			
Hub assemblies—repair		X		
Hub assemblies—rebuild			X	
Retainers, drive sprocket grease—replace	X			
Shafts, axle—replace	X			

*The second echelon is authorized to remove and reinstall items marked by an asterisk. However, when it is necessary to replace an item marked by an asterisk with a new or rebuilt part, subassembly or unit assembly, the assembly marked by an asterisk may be removed from the vehicle by the second echelon only after authority has been obtained from a higher echelon of maintenance.

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	ECHELONS			
	2nd	3rd	4th	5th
AXLE, REAR (JACKSHAFT) (Cont'd)				
Sprocket assemblies—replace	X			
Sprocket assemblies—repair		X		
Sprocket assemblies—rebuild			E	X
BODY				
Blades, windshield wiper—replace	X			
Body assembly—replace			X	
Body assembly—repair		X		
Body assembly—rebuild			E	X
Bows—replace	X			
Bows—repair		X		
Cushions, seat—replace	X			
Door assemblies—replace	X			
Door assemblies—repair		X		
Seat assemblies—replace	X			
Seat assemblies—repair		X		
Seat assemblies—rebuild			X	
Shield assemblies, doors and windshield (armor plate)—replace	X			
Shield assemblies, doors and windshield (armor plate)—repair		X		
Top—replace	X			
Top—repair		E	X	
Ventilator—replace	X			
Ventilator—repair		X		
Windshield—replace	X			
Windshield—repair		X		
Wiper assemblies, windshield—service and/or replace	X			
Wiper assemblies, windshield—repair		X		
Wiper assemblies, windshield—rebuild			X	
BRAKE, DRIVE SHAFT (PARKING)				
Controls and linkage—adjust and/or replace	X			
Controls and linkage—repair		X		
Shoe assemblies—adjust and/or replace	X			
Shoe assemblies—repair (reline)		X		
BRAKES, SERVICE (HYDROVAC)				
Cleaner assembly, air—service and/or replace	X			
Cleaner assembly, air—repair		X		
Controls and linkage—adjust and/or replace	X			
Controls and linkage—repair		X		