

**TM 9-1808B**

**RESTRICTED\***

**WAR DEPARTMENT**

**TECHNICAL MANUAL**



**ORDNANCE MAINTENANCE**

**POWER TRAIN, CHASSIS AND BODY  
FOR BASIC VEHICLES,  $\frac{3}{4}$  TON 4 x 4  
AND  $1\frac{1}{2}$  TON 6 x 6 (DODGE)**

**17 NOVEMBER 1943**

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**CONTENTS**

	Paragraphs	Pages
CHAPTER 1. INTRODUCTION .....	1-4	3-15
CHAPTER 2. POWER TRAIN.....	5-61	16-138
SECTION I General description .....	5-6	16-21
II Trouble shooting.....	7-11	22-28
III Transmission and power take-off .....	12-23	29-55
IV Transfer case ( $\frac{3}{4}$ ton, 4 x 4 truck).....	24-29	56-65
V Transfer case ( $1\frac{1}{2}$ ton, 6 x 6 truck).....	30-35	66-79
VI Propeller shafts and universal joints .....	36-40	80-87
VII Front axle.....	41-50	88-112
VIII Rear axle.....	51-57	113-120
IX Differential and carrier assem- bly (front and rear axles) ..	58-60	121-136
X Fits and tolerances— power train.....	61	137-138

**TM 9-1808B****ORDNANCE MAINTENANCE—POWER TRAIN, CHASSIS AND BODY  
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	<b>Paragraphs</b>	<b>Pages</b>
<b>CHAPTER 3. CHASSIS</b> .....	<b>62-97</b>	<b>139-208</b>
<b>SECTION I General description</b> .....	<b>62-63</b>	<b>139-147</b>
<b>II Trouble shooting</b> .....	<b>64-67</b>	<b>148-152</b>
<b>III Brakes</b> .....	<b>68-78</b>	<b>153-171</b>
<b>IV Steering</b> .....	<b>79-83</b>	<b>172-184</b>
<b>V Frame</b> .....	<b>84-85</b>	<b>185-188</b>
<b>VI Springs and shock absorbers</b> ..	<b>86-90</b>	<b>189-198</b>
<b>VII Winch</b> .....	<b>91-96</b>	<b>199-207</b>
<b>VIII Fits and tolerances—chassis</b> ..	<b>97</b>	<b>208</b>
<b>CHAPTER 4. BODY</b> .....	<b>98-106</b>	<b>209-223</b>
<b>CHAPTER 5. SPECIAL TOOLS</b> .....	<b>107</b>	<b>224-225</b>
<b>REFERENCES</b> .....		<b>226-227</b>
<b>INDEX</b> .....		<b>228</b>

## CHAPTER 1

### INTRODUCTION

	Paragraph
Purpose and scope . . . . .	1
Arrangement of manual . . . . .	2
Distinguishing characteristics of materiel . . . . .	3
Maintenance allocation . . . . .	4

#### 1. PURPOSE AND SCOPE.

a. The instructions contained in this manual are for the information and guidance of personnel charged with the maintenance and repair of Dodge 1½ ton, 6 x 6 and ¾ ton, 4 x 4 trucks. Information on the detailed construction of the unit, disassembly and assembly procedure, inspection, maintenance and repair is contained in two Technical Manuals of the 1000 series, of which this is the manual on the power train, chassis and body. 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 TM's or FM's.

b. This manual (TM 9-1808B) contains a description of, and procedure for removal, disassembly, inspection, and repair of the units of power train, chassis and body.

c. TM 9-1808A contains information, a description of, and procedure for removal, disassembly, inspection and repair of the engine and electrical units.

#### 2. ARRANGEMENT OF MANUAL.

a. This manual is divided into five chapters as follows:

(1) Chapter 1 contains information to help identify the materiel on which maintenance information is given, general information on maintenance terms used and the maintenance allocation chart.

(2) Chapter 2 concerns the power train beginning with general description and data. Trouble shooting is treated next, followed by disassembly, inspection, repair and assembly of the power train units; the transmission, transfer case, propeller shafts, front axle, rear axles and differential and carrier assembly. A chart of fits and tolerances for the power train units completes Chapter 2.

(3) Chapter 3 concerns chassis units beginning with general description and data. Trouble shooting for chassis units is treated next, followed by disassembly, inspection, repair and assembly instructions on

**TM 9-1808B****2-4****ORDNANCE MAINTENANCE—POWER TRAIN, CHASSIS AND BODY FOR BASIC VEHICLES,  $\frac{3}{4}$  TON 4 x 4, AND 1½ TON 6 x 6 (DODGE)**

brake units, steering gear, frame, springs, shock absorbers and winch. A table of fits and tolerances for chassis units completes Chapter 3.

(4) Chapter 4 contains instructions for replacement of body parts for the various style bodies supplied on  $\frac{3}{4}$  ton, 4 x 4 and 1½ ton, 6 x 6 truck chassis.

(5) Chapter 5 contains a list of tools required for servicing the units covered by this manual.

**3. DISTINGUISHING CHARACTERISTICS OF MATERIEL.**

a. **General.** The  $\frac{3}{4}$  ton, 4 x 4 and 1½ ton, 6 x 6 Dodge trucks are manufactured in different body styles for various tactical uses. The  $\frac{3}{4}$  ton, 4 x 4 trucks can be driven by all four wheels or by the rear wheels only. The 1½ ton, 6 x 6 trucks can be driven by all six wheels or by the four rear wheels only. Differences in the transfer case, propeller shafts and rear axles are explained in the respective sections of the manual.

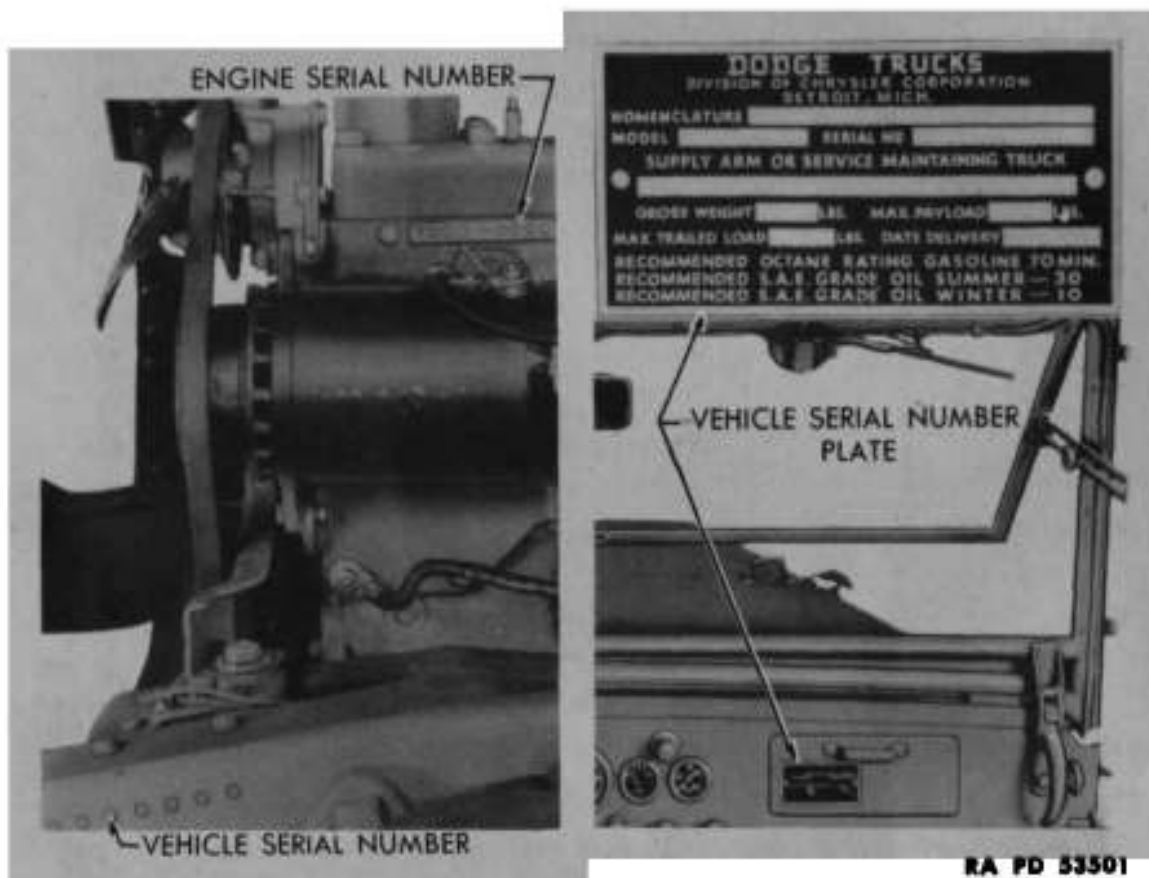
b. **Engine and Vehicle Serial Numbers (fig. 1).** The engine number is stamped on a boss on the left side of the engine block opposite number one cylinder. The letter on the circular bosses on the block are for the use of factory inspectors only and are not to be used with the engine number. The vehicle serial number is stamped on a plate which is attached to the face of the instrument panel and on the left frame side member just forward of the front axle. Engine numbers for the  $\frac{3}{4}$  ton 4 x 4 trucks start with number T214-1001 and vehicle serial numbers start with number 81,534,381. Engine numbers for the 1½ ton 6 x 6 trucks start with number T223-1001 and vehicle serial numbers start with number 82,000,001.

**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. All of these are variable and no exact system of procedure can be prescribed. Many second echelon operations are often done by ordnance personnel.

b. **Allocation of Maintenance.** Indicated below are the maintenance duties for which tools and parts have been provided for the using arm personnel. Other replacements and repairs are the responsibility of ordnance maintenance personnel but may be performed by using arm personnel when circumstances permit, within the discretion of the

## INTRODUCTION



**Figure 1—Engine and Vehicle Serial Numbers**

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 organizations, 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.

**TM 9-1808B****4****ORDNANCE MAINTENANCE—POWER TRAIN, CHASSIS AND BODY FOR BASIC VEHICLES,  $\frac{3}{4}$  TON 4 x 4, AND 1 $\frac{1}{2}$  TON 6 x 6 (DODGE)**

- SERVICE:** Preventive maintenance, checking and replenishing fuel, oil, grease, water and anti-freeze, air, and battery liquid; checking and tightening nuts and bolts; cleaning; and making external adjustment of subassemblies or assemblies and controls.
- Par. 24 a (2)  
and (3) in part  
AR 850-15
- REPLACE:** To remove an unserviceable part, assembly, or subassembly from a vehicle and replace it with a serviceable one.
- Par. 24 a (5)  
AR 850-15
- REPAIR:** To restore to a serviceable condition, such parts, assemblies or subassemblies as can be accomplished without completely disassembling the assembly or subassembly, and where heavy riveting, or precision machining, fitting, balancing, or alining is not required.
- Par. 24 a (4)  
in part  
AR 850-15
- REBUILD:** Consists of stripping and completely reconditioning and placing in serviceable condition any vehicle or unserviceable part, subassembly, or assembly of the vehicle, including welding, riveting, machining, fitting, alining, balancing, assembling, and testing.
- Par. 24 a (6)  
AR 850-15
- RECLAMATION:** Salvage of serviceable or economically repairable units and parts removed from vehicles, and their return to stock. This includes the process which recovers and/or reclaims unusable articles or component parts thereof and places them in a serviceable condition.
- Par. 24 a (7) and  
in part CIR. 75,  
dated 3/16/43
- NOTES:** (1) Operations allocated will normally be performed in the echelon indicated by "X".
- (2) \*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.*
- (3) Operations allocated to the third echelon as indicated by "E" may be performed by these units in emergencies only.
- (4) Operations allocated to the fourth echelon by "E" are normal 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.
- (5) Technical Bulletins of the 2830-series should be consulted for detailed information relative to reclamation procedure.



## INTRODUCTION

	ECHELONS			
	2nd	3rd	4th	5th
<b>ABSORBERS, SHOCK</b>				
Absorber assemblies, shock (w/linkage)—replace	X			
Absorber assemblies, shock (w/linkage)—repair		X		
Absorber assemblies, shock (w/linkage)—rebuild			E	X
<b>AXLE, FRONT</b>				
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			
Drums, brake—replace	X			
Gears, bevel and pinion—adjust		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 alignment, toe-in—adjust	X			
Wheel alignment, camber and caster—check		X		
<b>AXLES AND SUSPENSION, REAR</b>				
*Axle assemblies—replace	*	X		
Axle assemblies—repair		X		
Axle assemblies—rebuild			E	X
Bearings, spring seat (1½ ton, 6 x 6)—service, adjust, and/or replace	X			
Bearings, wheel—service, adjust and/or replace	X			
Drums, brake—replace	X			
Gears, bevel and pinion—adjust		X		
Hub assemblies—replace	X			
Hub assemblies—repair		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.*

**TM 9-1808B****4****ORDNANCE MAINTENANCE—POWER TRAIN, CHASSIS AND BODY  
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	ECHELONS			
	2nd	3rd	4th	5th
<b>AXLES AND SUSPENSION, REAR (Cont'd)</b>				
Hub assemblies—rebuild.....			X	
Hub and drum assemblies—replace.....	X			
Retainers, wheel grease—replace.....	X			
Rod assemblies, torque (1½ ton, 6 x 6)—replace	X			
Rod assemblies, torque (1½ ton, 6 x 6)—repair		X		
Rod assemblies, torque (1½ ton, 6 x 6)—rebuild			E	X
Seat assemblies, spring (1½ ton, 6 x 6)—replace	X			
Seat assemblies, spring (1½ ton, 6 x 6)—repair		X		
Seat assemblies, spring (1½ ton, 6 x 6)—rebuild			E	X
Shaft or tube, trunnion (1½ ton, 6 x 6)—replace	X			
Shaft or tube, trunnion (1½ ton, 6 x 6)—rebuild			E	X
Shafts, axle—replace.....	X			
Spring assemblies, rear suspension—replace....	X			
Spring assemblies, rear suspension—repair.....		X		
Spring assemblies, rear suspension—rebuild....			E	X

**BODY**

Blades, windshield wiper—replace.....	X			
Body assembly—replace.....			X	
Body assembly—repair.....		X		
Body assembly—rebuild.....			X	
Bows and ridgpole ( $\frac{3}{4}$ ton, 4 x 4 weapon carrier) —replace.....	X			
Bows and ridgpole ( $\frac{3}{4}$ ton, 4 x 4 weapon carrier) —repair.....		X		
Cab assembly ( $\frac{3}{4}$ ton, 4 x 4)—replace.....			X	
Cab assembly ( $\frac{3}{4}$ ton, 4 x 4)—repair.....		X		
Cab assembly ( $\frac{3}{4}$ ton, 4 x 4)—rebuild.....			X	
Cushions, seat ( $\frac{3}{4}$ ton, 4 x 4)—replace.....	X			
Cushions, seat ( $\frac{3}{4}$ ton, 4 x 4)—rebuild.....			X	
Door assemblies ( $\frac{3}{4}$ ton, 4 x 4)—replace and/or repair.....		X		
Glass ( $\frac{3}{4}$ ton, 4 x 4)—replace.....		X		
Seat assemblies, bucket—replace.....	X			
Seat assemblies, bucket—repair.....		X		
Seat assemblies, bucket—rebuild.....			X	
Seats, troop—replace.....	X			
Seats, troop—repair.....		X		