

TECHNICAL MANUAL

VOLUME 3 OF 3

PART 1 OF 4

MAINTENANCE

ORGANIZATIONAL LEVEL

2 ½-TON, 6X6, M44A1 AND M44A2 SERIES TRUCKS

(MULTIFUEL)

**TRUCK, CARGO: M35A1,
M35A2, M35A2C, M36A2; TRUCK,
TANK, FUEL: M49A1C, M49A2C; TRUCK, TANK,
WATER: M50A1, M50A2, M50A3; TRUCK, VAN,
SHOP: M109A2, M109A3; TRUCK, REPAIR SHOP:
M185A2, M185A3; TRUCK, TRACTOR: M275A1,
M275A2; TRUCK, DUMP: M342A2; TRUCK,
MAINTENANCE, PIPELINE CONSTRUCTION:
M756A2; TRUCK, MAINTENANCE,
EARTH BORING AND POLESETTING: M764**

NOTE:

**THE STYLE OF THIS TM IS
EXPERIMENTAL. IT IS BEING TRIED
BY THE ARMY ONLY ON
A LIMITED BASIS**

**Chapter 1
General Maintenance Information**

**Chapter 2
Engine System**

**Chapter 3
Clutch System**

**Chapter 4
Fuel System**

**Chapter 5
Exhaust System**

**Chapter 6
Cooling System**

**Chapter 7
Electrical System**

**Chapter 8
Transmission System**

**Chapter 9
Transmission Transfer System**

**Chapter 10
Propeller Shafts**

**Chapter 11
Front Axle**

**Chapter 12
Rear Axle**

DEPARTMENTS OF THE ARMY AND THE AIR FORCE

MAY 1981

TECHNICAL ORDER

NO. 36A12-1B-1092-1-3

CHANGE

No. 1

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DEPARTMENT OF THE ARMY
WASHINGTON D.C., 16 April 1990

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V O L U M E 3 O F 3
P A R T 1 O F 4
M A I N T E N A N C E
O R G A N I Z A T I O N A L L E V E L
2-½ TON, 6X6, M44A1 AND M44A2 SERIES TRUCKS
(M U L T I F U E L)

TRUCK, CARGO: M35A1
M35A2, M35A2C, M36A2C; TRUCK,
M35A2, M35A2C, M36A2C; TRUCK,
TANK, FUEL: M49A1C; TRUCK, TANK,
WATER, M50A1, M5012, M50A3; TRUCK, VAN,
SHOP: M109A2, M109A3; TRUCK, REPAIR, SHOP:
M185A2, M185A3; TRUCK, TRACTOR: M275A1,
M275A2; TRUCK, DUMP: M342A2; TRUCK,
MAINTENANCE, PIPELINE CONSTRUCTION:
M756A2; TRUCK, MAINTENANCE,
EARTH BORING AND POLSETTING: M764

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 NO. 9-2320-209-20-3-1
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DEPARTMENTS OF THE ARMY
 AND
 THE AIR FORCE
 Washington, D. C., 27 May 1981

TECHNICAL MANUAL

VOLUME 3 OF 3

PART 1 OF 4

MAINTENANCE

ORGANIZATIONAL LEVEL
2½-TON, 6X6, M44A1 AND M4A2 SERIES TRUCKS

(MULTIFUEL)

Model		NSN without Winch	NSN with Winch
Truck, Cargo	M35A1	2320-00-542-5633	2320-00-542-5634
	M35A2	2320-00-077-1616	2320-00-077-1617
	M35A2C	2320-00-926-0873	2320-00-926-0875
	M36A2	2320-00-077-1618	2320-00-077-1619
Truck, Tank, Fuel	M49A1C	2320-00-440-3349	2320-00-440-3346
	M49A2C	2320-00-077-1631	2320-00-077-1632
Truck, Tank, Water	M50A1	2320-00-440-8307	2320-00-440-8305
	M50A2	2320-00-077-1633	2320-00-077-1634
	M50A3	2320-00-937-4036	2320-00-937-5264
Truck, Van, Shop	M109A2	2320-00-440-8313	2320-00-440-8308
	M109A3	2320-00-077-1636	2320-00-077-1637
Truck, Repair Shop	M185A2	4940-00-987-8799	
	M185A3	4940-00-077-1638	4940-00-077-1639
Truck, Tractor	M275A1	2320-00-446-2479	
	M275A2	2320-00-077-1640	2320-00-077-1641
Truck, Dump	M342A2	2320-00-077-1643	2320-00-077-1644
Truck, Maintenance, Pipeline Construction	M756A2		2320-00-904-3277
Truck, Maintenance, Earth Boring and Polesetting	M764		2320-00-937-5980

*This manual, together with TM 9-2320-209-20-1, 27 May 1981; TM 9-2320-20-2-1, 27 May 1981; TM 9-2320-209-20-2-2, 27 May 1981; TM 9-2320-209-20-3-2, 27 May 1981; TM 9-2320-209-20-3-3, 27 May 1981; and TM 9-2320-209-20-3-4, 27 May 1981, supersedes TM 9-2320-209-20-1, 31 August 1978.

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedure, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publication and Blank Forms) , or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Tank Automotive Materiel Readiness Command, ATTN: DRSTA-MB , Warren, Michigan 48090. A reply will be furnished to you.

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CHAPTER 1

GENERAL MAINTENANCE INFORMATION

1-1. SCOPE . This manual contains the organizational maintenance instructions for the trucks listed below. This manual includes procedures for disassembly, cleaning, inspection, repair, test and adjustment as authorized by the maintenance allocation chart.

Truck, Cargo: 2 1/2 ton, 6x6, M35A1, M35A2, M35A2C, and M36A2
 Truck, Dump: 2 1/2 ton, 6x6, M342A2
 Truck, Tractor: 2 1/2 ton, 6x6, M275A1 and M275A2
 Truck, Tank, Fuel: 2 1/2 ton, 6x6, M49A1C and M49A2C
 Truck, Tank, Water: 2 1/2 ton, 6x6, M50A1, M50A2, and M50A3
 Truck, Repair Shop: 2 1/2 ton, 6x6, M185A2 and M185A3
 Truck, Van, Shop: 2 1/2 ton, 6x6, M109A2 and M109A3
 Truck, Maintenance, Earth Boring and Polesetter: 2 1/2 ton, 6x6, M764
 Truck, Maintenance, Pipeline Construction: 2 1/2 ton, 6x6, M756A2

Information is provided on maintenance of trucks which is beyond the scope of tools, equipment, personnel, or supplies normally available to the operator or using organization.

1-2. GENERAL MAINTENANCE . The general maintenance and repair covered by other manuals and called out in this manual are as follows:

TM 9-214 Inspection, Care and Maintenance of Antifriction Bearings.
 TM 9-237 Operator's Manual: Welding Theory and Application (TO 34W4-1-5).
 FM 43-3 General Repair for Canvas and Webbing.
 TM 9-247 Materials Used for Cleaning, Preserving, Abrading and Cementing Ordnance Materiel and Related Materials Including Chemicals.
 FM 43-2 Metal Body Repair and Related Operations.
 TB 750-254 Cooling Systems: Tactical Vehicles Changes 1, 2.
 TB 43-0212 Purging, Cleaning and Coating Interior Ferrous and Terne Sheet Vehicle Fuel Tanks
 TM 43-0139 Painting Instructions for Field Use.
 TB 43-0209 Color, Marking and Camouflage Painting of Military Vehicles, Construction Equipment, and Materials Handling Equipment.
 TB 43-0213 (Rustproofing)
 TM 9-2300-422-20 Security-of Tactical Wheeled Vehicles.

1-3. CLEANING . All parts must be cleaned before inspection and assembly and after repair.

WARNING

Dry cleaning solvent is flammable. Do not use near an open flame. Keep a fire extinguisher nearby when solvent is used. Use only in well-ventilated places. Failure to do this may result in injury to personnel and damage to equipment.

Clean inner and outer surfaces of metallic parts and all areas subject to oil or grease with dry cleaning solvent, type II (SD-2), Fed. Spec P-D-680. Clean out sludge and gum with a stiff brush. Use steam cleaning to take off accumulated grease and dirt after dry cleaning solvent has been applied. Dry with clean rags. To clean bearings,

refer to TM 9-214. The general cleaning covered by other manuals and references called out in this manual are as follows:

TM 9-247 Materials Used for Cleaning, Preserving, Abrading and Cementing Ordnance Materiel and Related Materials Including Chemicals.

TM 9-214 Inspection, Care and Maintenance of Antifriction Bearings.

1-4. **PAINTING.** Instructions for the preparation of the material for painting, how to paint, and material to be used are in TM 43-0139. Instructions for camouflage painting are contained in TB 43-0209. Stenciling and marking must be done periodically due to weathering or repainting. Instructions for marking military trucks is called out in TB 43-0209.

1-5. **AIR SYSTEM LEAKAGE TEST .** The following procedures give instructions for checking the compressed air system for leaks. These instructions are of a general nature and are given here so that they do not have to be repeated throughout chapter 12.

a. With compressed air system filled, brush each air line and fitting with soapy water.

b. If air bubbles appear, line or fitting is leaking.

c. Tighten fitting just enough to stop leak and do steps a and b again.

d. If you still have a leak, remove and replace line or fitting.

1-6. **TORQUE VALUES .** Critical torque values for a particular component are given in the maintenance procedures. When torque values are not given, bolts, screws, and nuts are to be tightened as given in table 1- 1.

1-7. **SPECIAL TOOLS AND EQUIPMENT .** Special tools and equipment are provided to make it easier to do particular maintenance tasks and to keep the truck in good repair. Table 1-2 lists the special tools and equipment and gives a reference to the maintenance paragraph where they are used and what they are used for.

1-8. **COMMON TOOLS.** In the maintenance procedures covered in this manual, specific wrench sizes have been given. However, due to modifications made to equipment in the field or in production at the factory, you may need different wrench sizes.

1-9. **SAFETY INSPECTION AND TESTING OF LIFTING DEVICES.** Refer to TB 43-0142 for safety inspection and testing of lifting devices used in this manual.

1-10. **FORMS AND RECORDS .** Maintenance forms, records, and reports which are to be used by maintenance personnel at all levels are listed in and prescribed by TM 38-750.

1-11. **EQUIPMENT IMPROVEMENT REPORT AND MAINTENANCE DIGEST (EIR MD) AND EQUIPMENT IMPROVEMENT REPORT AND MAINTENANCE SUMMARY (EIR MS).** The quarterly Equipment Improvement Report and Maintenance Digest, TB 43-0001-39 series, contains valuable field information on the equipment covered in this manual. The information in the TB 43-0001-39 series is compiled from some of the Equipment Improvement Reports that you prepared on the vehicles covered in this manual. Many of these articles result from comments, suggestions, and improvement recommendations that you submitted to the EIR program. The TB 43-0001-39 series contains information on equipment improvements, minor alterations, proposed Modification Work Orders (MWO' s) , warranties (if applicable) , actions taken on some of your DA Form 2028's (Recommended Changes to Publications) , and advance information on proposed changes