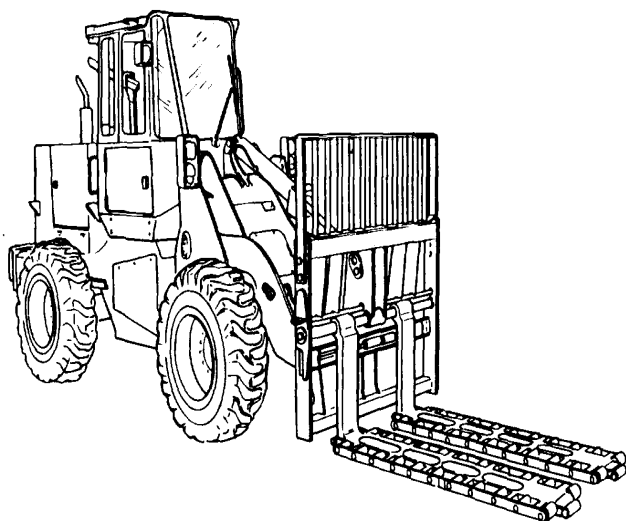


TECHNICAL MANUAL
UNIT MAINTENANCE MANUAL
FOR
TRUCK, FORKLIFT: ADVERSE TERRAIN,
10,000 LB CAPACITY, M544E
(NSN 3930-01-301-8250)



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TECHNICAL MANUAL

TM 10-3930-659-20

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., 29 December 1993

**UNIT MAINTENANCE MANUAL
FOR
TRUCK, FORKLIFT: ADVERSE TERRAIN,
10,000 LB CAPACITY, M544E
(NSN 3930-01-301-8250)**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or If you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (*Recommended Changes to Publications and Blank Forms*), or DA Form 2028-2, located in the back of this manual, direct to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

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*This manual and TM 10-3930-659-34 supersede Air Force T.O. 36M2-2-203-2/Army TM 10-3930-659-24, dated 1 September 1990.

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HOW TO USE THIS MANUAL

This manual is designed to help maintain the M544E Forklift Truck. It describes in detail the Unit Maintenance prescribed by the Maintenance Allocation Chart (Appendix B) and the Source, Maintenance, and Recoverability (SMR) Codes (TM 10-3930-659-24P).

FEATURES OF THIS MANUAL:

- Bleed-to-edge indicators on the cover and on the edge of the applicable manual pages provide quick access to chapters most often used.
- A table of contents is provided at the beginning of most chapters and sections.
- WARNINGS, CAUTIONS, and NOTES, subject headings, and other important information are highlighted in BOLD print as a visual aid.

WARNING

A WARNING indicates a hazard which can result in death or serious injury.

CAUTION

A CAUTION is a reminder of safety practices or directs attention to usage practices that may result in damage to equipment.

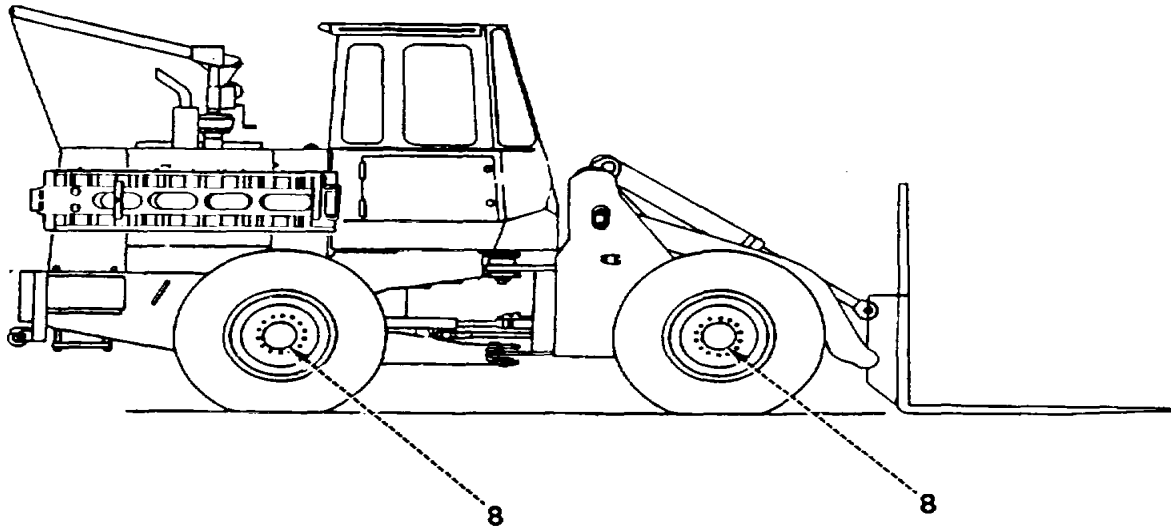
NOTE

A NOTE is a statement containing information that will make the procedure easier to perform.

- Statements and words of particular importance are printed in capital letters to create emphasis.
- Instructions are located together with illustrations that show the specific task on which the technician is working.
- Equipment locator illustrations are provided throughout the maintenance procedures. These illustrations are for use in locating components and assemblies of the overall equipment. It should be noted that the locator illustrations do not always reflect the equipment condition listed in the Initial Setup at the beginning of each task.

HOW TO USE THIS MANUAL (Con't)

- Dashed leader lines used in illustrations indicate that called out items are not visible (i.e., they are located *within* the structure). The example illustrates that the drive axles (8) are located within the axle.



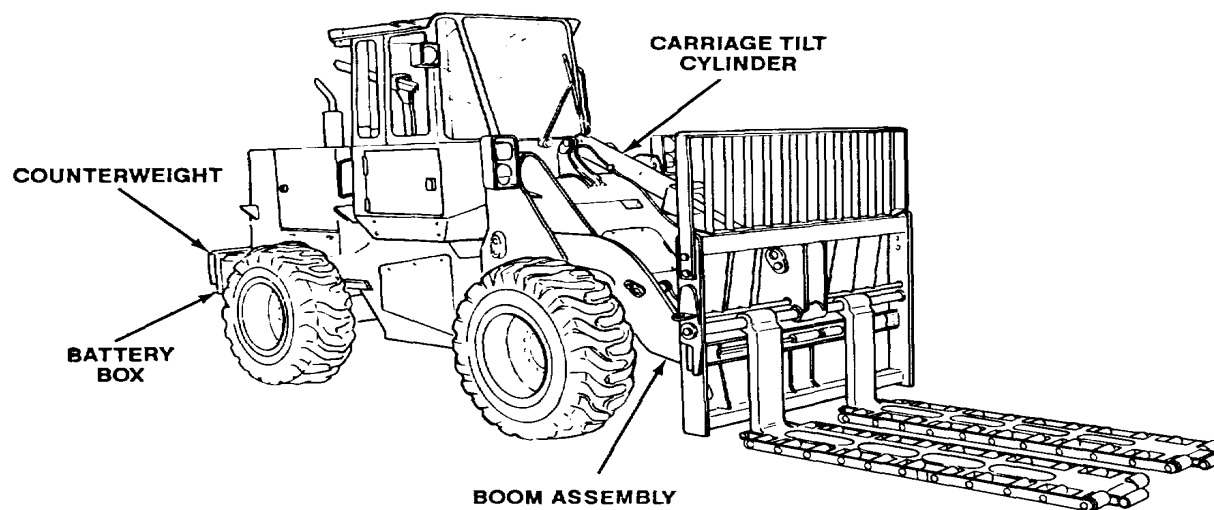
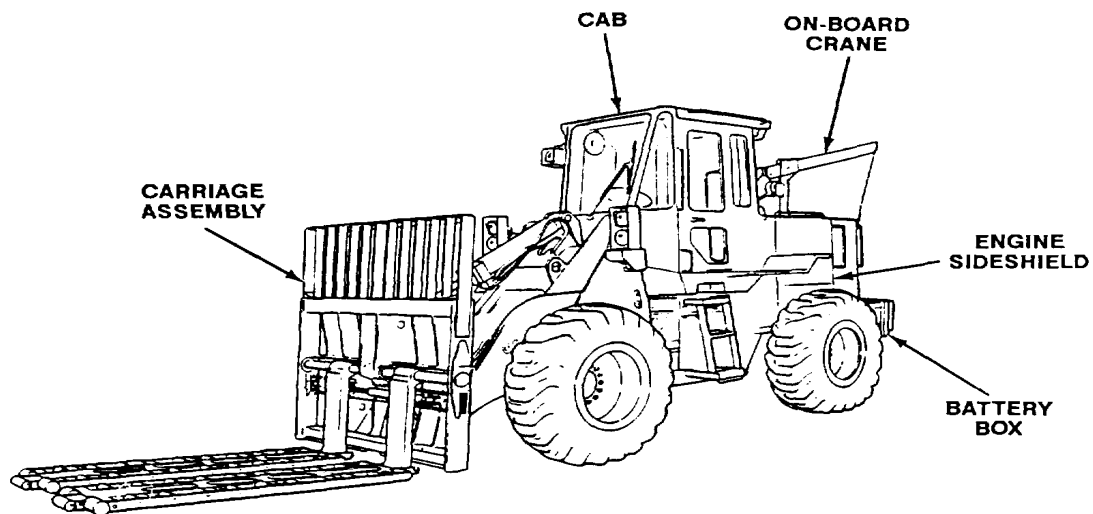
Dashed Leader Line Example

- Technical instructions include metric In addition to standard units. A metric conversion chart is provided on the inside back cover.
- A standard torque chart is provided at Appendix E.
- An alphabetical index is provided at the end of the manual to assist in locating information not readily found in the table of contents.

FOLLOW THESE GUIDELINES WHEN YOU USE THIS MANUAL:

- Read through this manual and become familiar with its contents before proceeding to specific maintenance tasks.
- A warning summary is provided at the beginning of this manual and should be read before performing any maintenance tasks.
- In the actual maintenance tasks, follow all WARNINGS, CAUTIONS, and NOTES. These are given immediately preceding the procedural steps to which they apply. If these instructions are not followed or care is not taken, injury to personnel or equipment damage may result.
- Within a chapter, section, or paragraph, headings are used to help group the material and assist you in quickly finding tasks. Read all preliminary information found at the beginning of each task. After completing a task, ALWAYS perform the follow-on maintenance at the end of the task.

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CHAPTER 1 INTRODUCTION

Section I. GENERAL INFORMATION

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1-1. SCOPE.

- a. **Type of Manual.** Unit Maintenance Manual.
- b. **Equipment Name and Model Number.** Truck, Forklift: Adverse Terrain, 10,000 Lb Capacity, M544E.
- c. **Purpose of Equipment.** The forklift truck is designed for conventional loading and unloading or stacking and unstacking of suitably packaged materiel.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.

Department of the Army forms and procedures used for the equipment will be those prescribed by DA Pam 738-750, *The Army Maintenance Management System (TAMMS)*.

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

For destruction of Army materiel to prevent enemy use, refer to TM 750-244-3.

1-4. PREPARATION FOR STORAGE OR SHIPMENT.

For information on preparing the forklift truck for storage or shipment, refer to Chapter 22.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs).

If your forklift truck needs Improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF Form 368 (*Product Quality Deficiency Report*). Mail it to us at: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MP, Warren, MI 48397-5000. We'll send you a reply.

1-6. WARRANTY INFORMATION.

The forklift truck is under warranty by the John Deere Company in accordance with TB 10-3930-659-14.

1-7. SAFETY, CARE, AND HANDLING.

a. General. Refer to FM 21-11, *First Aid for Soldiers*, for first aid treatments of injured personnel. IMMEDIATELY seek medical attention for any injury. The following first aid procedures should be used to prevent further injury until medical attention is available.

(1) **Exhaust Gases or Toxic Fumes.** Expose person to fresh air and keep warm. DO NOT permit person to move. If necessary, administer artificial respiration and immediately seek medical attention.

(2) **Chemical Burns.**

(a) Eyes. Flush eyes with cold water for no less than 15 minutes. Immediately seek medical attention.

(b) Skin. Flush area with large amounts of cold water until all acid is removed. Seek medical attention as required.

(c) Internal. Drink large amounts of water or milk followed by milk of magnesia, beaten egg, or vegetable oil. Immediately seek medical attention.

(d) Clothing or Equipment. Immediately wash area with large amounts of cold water. Neutralize acid with baking soda or household ammonia.

(3) **Foreign Object In Eye.** DO NOT attempt to remove foreign object from eye as object may cause cuts and abrasions. Close eye, cover with gauze and tape, and immediately seek medical attention.

b. **Personnel Precautions.**

(1) Read and become familiar with all WARNINGS in the warning summary at the front of this manual.

(2) Throughout this manual, WARNINGS are given immediately preceding the procedural steps to which they apply. Read these WARNINGS and follow them exactly.

(3) WARNING decals may be found on the forklift truck (see TM 10-3930-659-10) to provide safety instructions and identify specific hazards which if not followed may result in serious injury or death to personnel.

(4) Protect yourself against injury. Wear protective gear such as safety goggles or lenses, safety shoes, rubber apron, gloves, etc.

(5) Stay clear of moving parts. Remove watches, rings, and other jewelry which could catch on moving parts and cause injury. Keep hands, feet, and clothing away from all moving parts.

(6) Notify others in the area if you are handling flammable materials. Know location of fire extinguishers and emergency procedures in case of accident or fire.

(7) Never operate engine or heater in a closed area unless area is properly ventilated. If symptoms of carbon monoxide poisoning are noticed, immediately evacuate and ventilate area.

(8) When lifting heavy parts, have someone help you. Ensure that lifting or jacking equipment is properly working, is suitable for the assigned task, and is secure against slipping.

1-7. SAFETY, CARE, AND HANDLING (Con't).

(9) Never leave forklift truck unattended while engine is running. Observe all equipment conditions before performing maintenance.

(10) DO NOT climb on tires. Use mounted steps and ladders when climbing onto forklift truck. If needed, use a sturdy stepladder to perform maintenance on equipment not safely within your reach.

c. Forklift Truck Precautions.

(1) Throughout this manual, CAUTIONs are placed as they pertain to specific maintenance procedures. Read these CAUTIONs and follow them exactly.

(2) Ensure that the battery disconnect switch is turned to the OFF position when performing any maintenance on the forklift truck.

(3) Disconnect battery as required.

(4) Use lifting equipment of sufficient capacity to remove and support heavy items.

1-8. CORROSION PREVENTION AND CONTROL.

a. Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with the forklift truck be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

b. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

c. If a corrosion problem is identified, it can be reported using SF Form 368 (*Product Quality Deficiency Report*). Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.