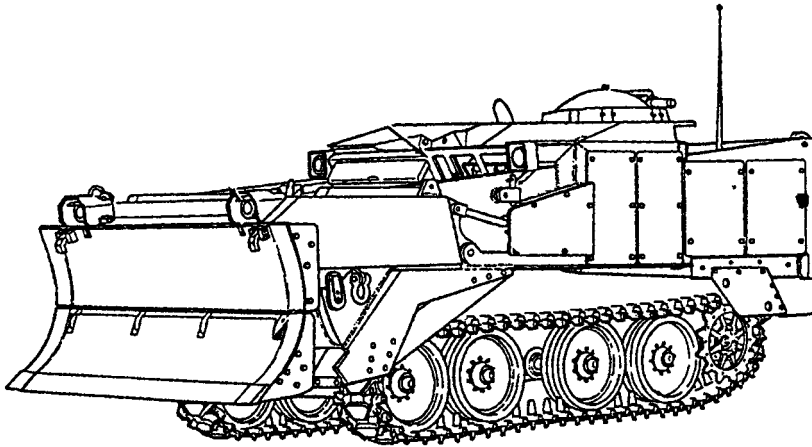


# TM 5-2350-262-20-1\*

## TECHNICAL MANUAL UNIT MAINTENANCE MANUAL

VOLUME 1 OF 3



## ARMORED COMBAT EARTHMOVER (ACE), M9 (NSN 2350-00-808-7100)

\*This manual supersedes TM 5-2350-262-20-1,  
dated 1 November 1990, and all related changes.

DISTRIBUTION STATEMENT A. Approved for public release; distribution  
is limited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

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JANUARY 1997  
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# UNIT MAINTENANCE MANUAL

## ARMORED COMBAT EARTHMOVER (ACE), M9 (NSN 2350-00-808-7100)

### VOLUME 1 OF 3

#### REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

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DISTRUBTION STATEMENT A. Approved for public release; distribution is unlimited.

This manual is published in three volumes. TM 5-2350-262-20-1 contains chapter 1 through chapter 4, section X. TM 5-2350-262-20-2 contains chapter 4, section XI through XXII and appendixes A through H. This manual contains a table of contents, a group index, list of tasks, appendixes, and an alphabetical index covering both volumes. TM 5-2350-262-20-3 contains hydraulic system principles operation and hydraulic system troubleshooting.

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\* This manual supersedes TM 5-2350-262-20-1 dated November 1990 and all related changes.

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## HOW TO USE THIS MANUAL

This manual describes the unit maintenance tasks and procedures for the M9, Armored Combat Earth-mover. Before performing any work on the M9, you should become thoroughly familiar with this manual, its content, organization, and features.

## OVERVIEW

This manual is organized by chapters, sections, and appendixes. A summary of the organization of this manual, by major divisions, follows:

Front cover index provides quick reference to chapters, sections, and appendixes that you will use often.

**WARNINGS** – All warnings must be observed while you work on or around the M9. Warnings are listed in the front of this manual, and repeated throughout the manual where they apply.

**Table of Contents** – The contents of the chapters and appendixes are listed.

**Chapter 1** – This chapter contains general information about the M9. It also shows and describes major components and lists specific data to assist you when performing unit maintenance tasks.

**Chapter 2** – This chapter describes services and inspections that must be performed at the unit level, such as services you must perform upon receipt of the vehicle, and preventive maintenance checks and services. Other sections contain painting and restenciling of markings, general repair and cleaning methods, general hydraulic system repair methods, general quick-disconnect repair methods, general hull repair procedures, and battery box insulation replacement and battery service.

**Chapter 3** – This chapter outlines troubleshooting of the M9 and its systems. It includes a troubleshooting index, by symptom and system, and procedures on how to use the STE/ICE-R components while troubleshooting. The STE/ICE-R CI Engine GO NO-GO chain test procedures are also contained in this chapter.

**Chapter 4** – This chapter contains step-by-step instructions for doing the maintenance tasks. Each system of the M9 has its own section within the chapter, and any special tools, equipment, or supplies required for a task are listed.

**Appendix A** – This appendix lists Army regulations, forms, field manuals, technical manuals, and other publications referenced in this manual and which apply to unit maintenance of the M9 ACE.

**Appendix B** – This appendix contains the Maintenance Allocation Chart (MAC) for the M9.

**Appendix C** – This appendix lists and illustrates special tools and equipment you will need to perform unit maintenance on the M9.

**Appendix D** – This appendix lists the expendable/durable supplies and materials you will need to perform unit maintenance on the M9.

**Appendix E** – This appendix illustrates and describes manufactured items you will need to perform unit maintenance on the M9.

**Appendix F** – This appendix lists torque limits and describes the proper method of tightening fasteners.

Appendix G - The vehicle hydraulic system and electrical system schematic diagrams for the M9 are contained in this appendix.

Appendix H - This appendix lists the proper charges at ambient air temperatures for the main hydraulic and the actuator accumulators.

Index - The index is an alphabetical listing of the contents of this manual.

Back Cover - The inside back cover contains a metric conversion table.

### **USING THE MANUAL ON THE JOB**

Find the task or component/part to be replaced or repaired by using the list of tasks (p vii) or the index (p Index 1), then turn to the page listed for that task or component/part.

Read the INITIAL SETUP procedures, and gather the necessary items and personnel. Pay attention to the warnings. The INITIAL SETUP sheet is described on page v.

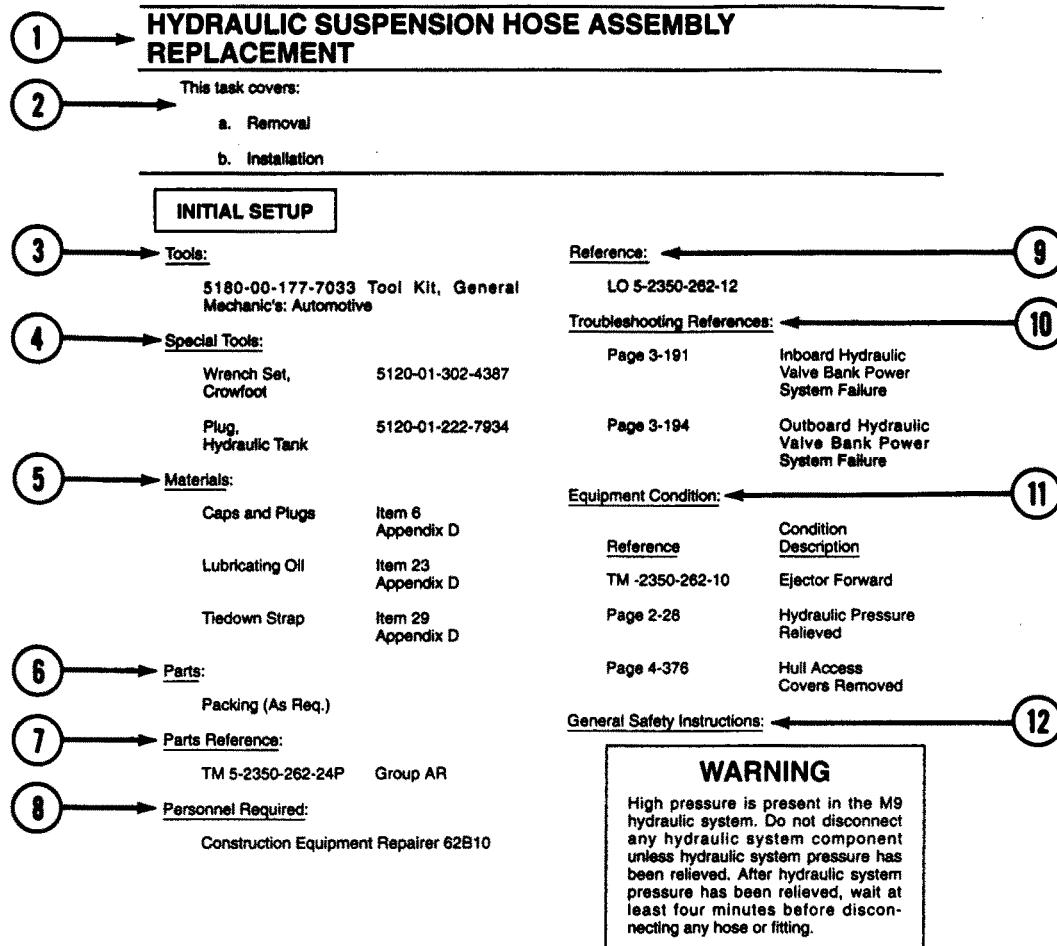
### **TROUBLESHOOTING TASKS**

#### **Note**

For specific hydraulic troubleshooting symptoms not found in this manual, refer to TM 5-2350-262-3.

Find the problem in the alphabetical symptom index (p 3-124) or the symptom index, by system (p 3-126), then go to the page listed for that malfunction.

Perform the test or inspection required for that malfunction, then go to the page listed of the corrective action.



1. **TITLE** – This is the name of the task.
2. **TASKS** – This lists all the maintenance actions included in the task.
3. **TOOLS** – These are the tools and equipment you will need to perform the task.
4. **SPECIAL TOOLS** – These are special tools you will need to complete the task. If no special tools are required, this heading will not be used. If not readily available, it will be necessary to requisition special tools (before starting the task) using the data supplied in TM 5-2350-262-24P, the repair parts and special tools list, for this level of maintenance. A list of special tools is located in appendix C in TM 5-2350-262-20-2.
5. **MATERIALS** – These are the supplies you will need to perform the task.
6. **PARTS** – If parts are required, they are listed here by nomenclature.
7. **PARTS REFERENCE** – To be referred to for parts requisition data.
8. **PERSONNEL REQUIRED** – These are the personnel required to perform the task.
9. **REFERENCES** – These are the other technical publications you will need to perform the task.
10. **TROUBLESHOOTING REFERENCES** – These are troubleshooting tasks designed to assist you in determining which component or item is defective.
11. **EQUIPMENT CONDITION** – This is the condition the vehicle must be in before you start the task. Other tasks that must be performed first are listed by page number reference to this manual or the publication number if another manual is required.
12. **GENERAL SAFETY INSTRUCTIONS** – These are the safety precautions that you must observe while performing the task.

**TROUBLESHOOTING TASKS**

Find the problem in the alphabetical symptom index (p 3-124) or the symptom index, by system (p 3-126), then go to the page listed for that malfunction.

Perform the test or inspection required for that malfunction, then go to the page listed for the corrective action.

# LIST OF TASKS

Maintenance tasks included in this manual are listed below and on the following pages. Use the table of contents for page reference by chapter and section, and use the alphabetical index for page cross reference to tasks by component/part name.

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