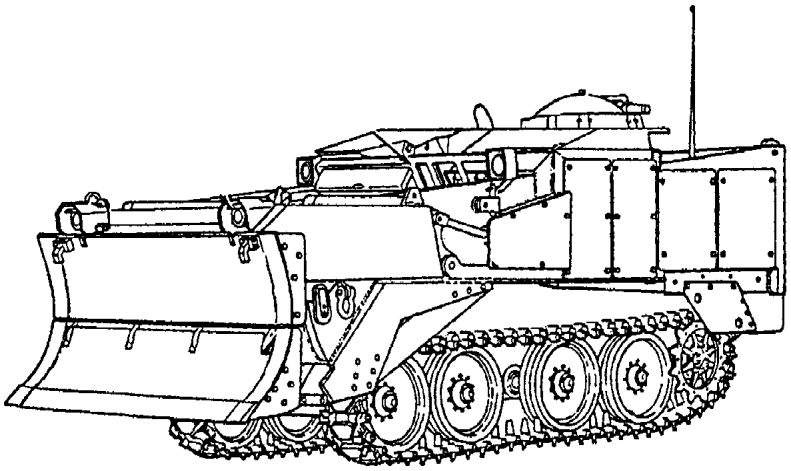
TM5-2350-262-10*

OPERATOR'S MANUAL



ARMORED COMBAT EARTHMOVER (ACE), M-9

(2350-00-808-7100)

***This publication supercedes TM 5-2350-262-10 dated 31 October 1990**

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HEADQUARTERS DEPARTMENT OF THE ARMY

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JUNE 1992

TM 5-2350-262-10

TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON D.C., *26 JUNE 1992*

OPERATOR'S MANUAL
ARMORED COMBAT EARTHMOVER (ACE), M-9

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028-2 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is **http://aeps.ria.army.mil. If you need a password, scroll down and click on "ACCESS REQUEST FORM". The DA Form 2028 is located in the ONLINE FORMS PROCESSING section of the AEPS. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or email your letter, DA Form 2028, or DA Form 2028-2 direct to: Commander, U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-LC-CI, Rock Island, IL 61299-7630. The email address is AMSTA-LC-CI@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.**

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*This publication supersedes TM 5-2350-262-10 dated October1990.

HOW TO USE THIS MANUAL

This manual is designed to help you operate and maintain the M9 Armored Combat Earthmover. Listed below are special features which have been included to make it easier to locate and use the information you need.

- A front cover Table of Contents is provided, giving you a quick reference to chapters and sections you will be using often.
- Warnings, subject headings, and procedural steps are highlighted in bold print so that they are easy to locate.

BECOME FAMILIAR WITH THIS MANUAL BEFORE OPERATING THE M9

This manual is arranged in the order that you will need the information about the M9. The following major sections, or chapters, include all the information that you, the operator, must be familiar with.

- Warnings – Warnings you should observe while operating or performing operator maintenance are shown in the front part of the manual. These are only the most frequently encountered warnings. These are also repeated in the parts of the book where they apply.
- Table of Contents – The contents of the three chapters and the appendices are listed here.
- Chapter 1 – This chapter covers general information and descriptions of the vehicle and vehicle systems.
- Chapter 2 – This chapter describes how to operate the M9, in both usual and unusual conditions, and what to check or inspect before, during, and after operating the vehicle.
- Chapter 3 – This chapter contains the maintenance instructions and procedures for which the operator is responsible.
- Appendix A – This appendix lists references, such as technical manuals and other publications, to which you may need to refer.
- Appendix B – This appendix illustrates and lists the Components of End Item and Basic Issue Items.
- Appendix C – This appendix illustrates and lists the Additional Authorization List items.
- Appendix D – This appendix lists the Expendable Supplies and Materials you will need.
- Appendix E – This appendix depicts and lists the stowage areas and signs to which you should be aware.
- Appendix F – This appendix depicts and lists instructions for you to lubricate the M9.

CHAPTER 1

INTRODUCTION

Section I. General Information 1-1
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Section I. GENERAL INFORMATION

SCOPE

This manual is for use in operating and maintaining the M9 Armored Combat Earthmover (ACE).

- Chapter 1 contains general information, description, and data on the M9.
- Chapter 2 depicts and describes the controls and indicators, Preventive Maintenance Checks and Services (PMCS), and operation of the M9.
- Chapter 3 contains lubrication instructions, troubleshooting, and maintenance procedures.
- Appendices A through F list references, including Components of End Item (COEI), Basic Issue Items (BII), Additional Authorization List (AAL), Expendable Supplies and Materials List, Stowage and Sign Guide, and Lubrication Instructions.

MAINTENANCE FORMS AND RECORDS

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

EQUIPMENT IMPROVEMENT REPORT AND MAINTENANCE DIGEST (EIR MD)

The quarterly or semiannual 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 (EIR's) that you prepared on the vehicle covered in this manual. Many of these articles resulted 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 that may affect this manual. The information will help you in doing your job better and will help in keeping you advised of the latest changes to this manual. Also refer to DA Pam 25-30, Consolidated Index of Army Publications and Blank Forms, and Appendix A, References, of this manual.

HAND RECEIPT (-HR MANUALS)

This manual has a companion document with a TM followed by "-HR" (which stands for Hand Receipt). The TM 5-2350-262-10-HR consists of preprinted hand receipts (DA Form 2062) that list end item related equipment (i.e., COEI, BII, and AAL) that you must account for. As an aid to property accountability, additional -HR manuals may be requisitioned from the following source in accordance with procedures in chapter 3, AR 310-2.

The U.S. Army Adjutant General Publications Center
Attn: AGLD-OD
1655 Woodson Road
St. Louis, MO 63114

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR's)

If your M9 ACE vehicle 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 or performance. Put it on a SF368 (Quality Deficiency Report). Mail it to us at: Commander, U.S. Army Tank-Automotive and Armaments Command, ATTN: AMSTA-TR-E/MPA/267, Warren, MI 48397-5000. We'll send you a reply.

Section II. EQUIPMENT DESCRIPTION

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

PURPOSE

The M9 is an armored combat earthmover used for:

- Bulldozing
- Rough grading
- Excavating
- Hauling
- Scraping

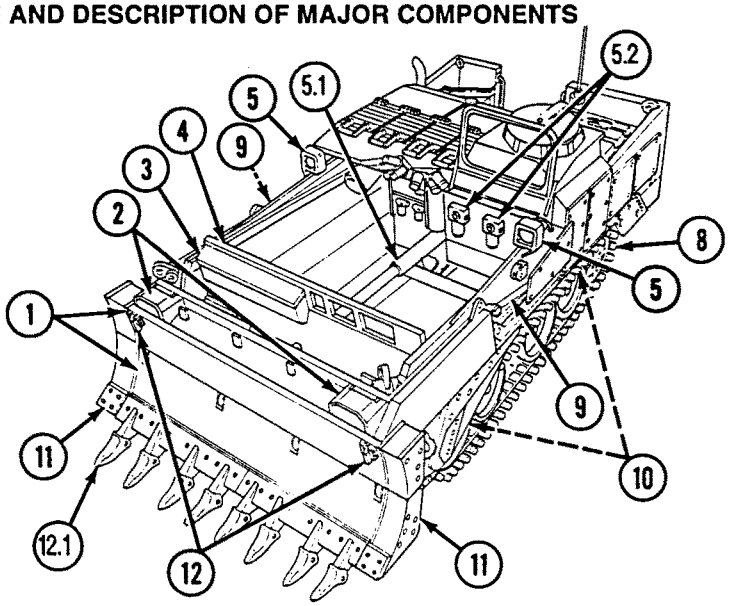
It is a multi-purpose vehicle and is also used as an:

- Earth hauler
- Cargo carrier
- Prime mover

CAPABILITIES AND FEATURES

- Full tracked
- Air transportable
- Highly mobile
- Armored
- Travels on land at up to 30 mph (48.3 km/h). Maximum speed for this vehicle is 30 mph on hard, level surface and will vary in other soil conditions.
- Climbs up to 60 percent grades.
- Drawbar pull of 31,000 lb (14,074 kg) at 1.5 mph (2.4 km/h)
- Smoke grenade launchers

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS



(1) APRON AND DOZER ASSEMBLY. Used for earthmoving operations. Can be raised, or lowered to load or unload material or cargo.

(2) HEADLIGHTS. Provide light for night driving. Include blackout and infrared lights.

(3) STOWAGE BOX. Used to stow Basic Issue Items (BII) and Additional Authorization List (AAL) items.

(4) EJECTOR. Moves back and forth in bowl to discharge material, load or unload palletized cargo, and fold the dozer blade.

(5) FLOODLIGHTS. Provide light for night operations.

(5.1) DEBRIS SHIELD. Prevents debris from accumulating on hose assemblies and fittings in lower bowl area.

(5.2) HIGH-PRESSURE FILTERS. Provide increased filtration and ease of maintenance with pop-out indicators, spin-off filters, and replaceable filter elements.

(6) Deleted

(7) Deleted

(8) TRACK. Consists of rubber-padded steel track shoes and is driven by the sprockets.

(9) APRON CYLINDER. Raises and lowers apron and dozer assembly.

(10) TRACK WEAR PLATES. Replaceable steel plates keep track from wearing welded parts on the aluminum hull.

NOTE

NEW PRODUCTION vehicles are equipped with a steel dozer blade and extensions. Aluminum dozer blade and extensions are shown.

(11) APRON AND DOZER EXTENSIONS. Provide a larger working surface for apron and dozer. May be removed for transporting vehicle.

(12) DOZER/RIPPER BLADE LATCHES. Reusable pin assembly locks dozer/ripper blade, in folded position during long motor marches and cross-country driving.

(12.1) RIPPER BLADE. Provides ease of digging in hard-packed soils (if installed).