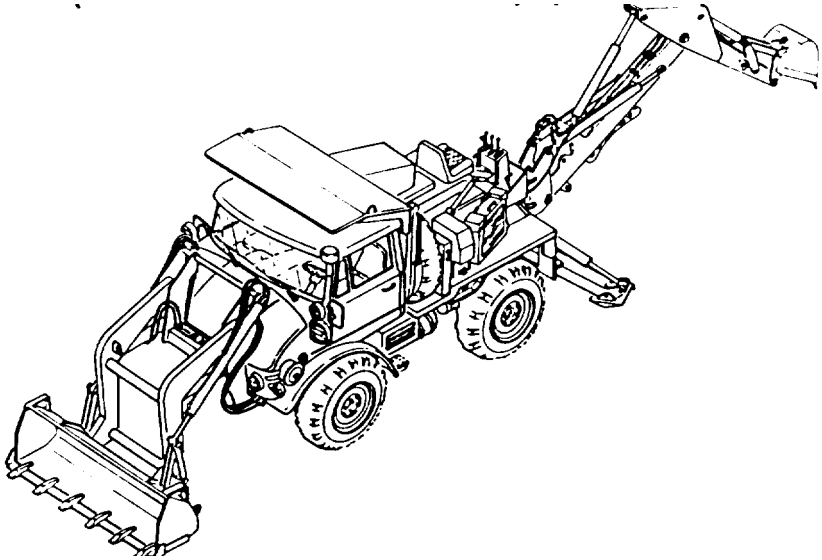
TM 5-2420-224-20-1
Volume No. 1

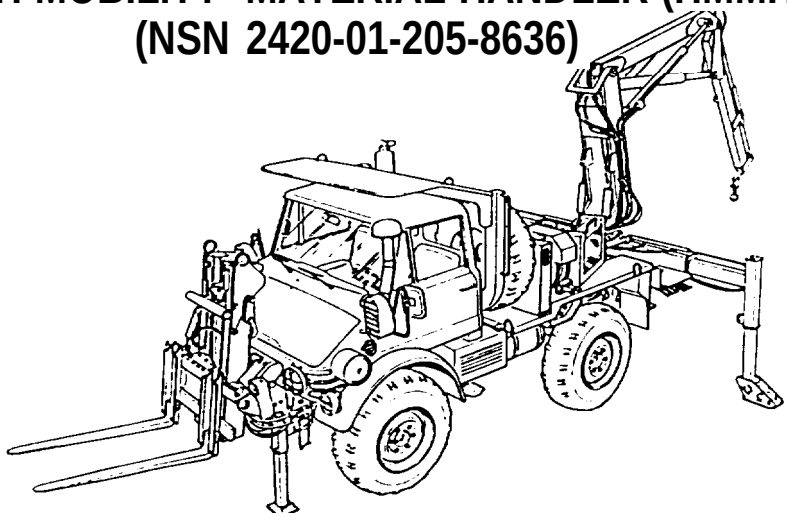
TECHNICAL MANUAL

UNIT MAINTENANCE MANUAL FOR

TRACTOR, WHEELED, 4 X 4 DED SMALL EMPLACEMENT EXCAVATOR (SEE)
(NSN 2420-01-160-2754) (EIC:EDL)



TRACTOR, WHEELED, 4 X 4 DED HIGH MOBILITY MATERIAL HANDLER (HMMH)
(NSN 2420-01-205-8636)



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HEADQUARTERS, DEPARTMENT OF THE ARMY **28 JULY 1993**

This manual along with TM5-2420-224-20-2 and TM5-2420-224-34 supersedes TM5–2420–224-24 dated December 1989

Approved for public release; distribution is unlimited.

Technical Manual
No. 5-2420-224-20-1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., 28 July 1993

UNIT MAINTENANCE MANUAL FOR TRACTOR, WHEELED, 4 X 4 DED SMALL EMPLACEMENT EXCAVATOR (SEE) (NSN 2420-01-160-2754) (EIC:EDL)

AND

TRACTOR, WHEELED, 4 X 4 DED HIGH MOBILITY MATERIAL HANDLER (HMMH) (NSN 2420-01-205-8636)

VOLUME 1 OF 2

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HOW TO USE THIS MANUAL

This manual has an edge index that will help you find specific information in a hurry. Simply spread the pages in the right edge of the manual until the printed blocks can be seen. Open the manual where the block on the edge of the page lines up with your selected topic printed in the front cover block.

OVERVIEW

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

Front cover index gives you a quick reference to chapters, sections, and appendices that you will use often.

WARNINGS—All warnings you should observe while working on or around the SEE/HMMH are shown in this part of the manual. These are repeated in the parts of the manual where they apply.

Table of Contents—The contents of the chapters and appendices are listed here.

Chapter 1—This chapter contains general information about the SEE/HMMH. It also shows and describes major components and lists specific data that you will find helpful while performing 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, preventive maintenance checks and services, and lubrication instructions. Other sections contain painting and restenciling of markings and general repair and cleaning methods.

Chapter 3—This chapter outlines troubleshooting of the SEE/HMMH and their systems. It includes a troubleshooting index, by symptom and system, and procedures on how to use the STE/ICE R components while troubleshooting.

Chapter 4—This chapter contains step-by-step instructions for doing the maintenance tasks. Each system of the SEE/HMMH has its own section within the chapter, and any special tools, equipment, or supplies you may need for a task are listed.

Appendix A—This appendix lists the technical manuals and other publications you may have to refer to while working on the SEE/HMMH.

Appendix B—This appendix contains the Maintenance Allocation Chart (MAC) for the SEE/HMMH.

Appendix C—This appendix lists the expendable supplies and materials you will need while performing maintenance on the SEE/HMMH.

Appendix D—This appendix lists and describes any manufactured items you will need for performing maintenance on the SEE/HMMH.

Appendix E—This appendix describes the proper method of tightening fasteners.

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

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

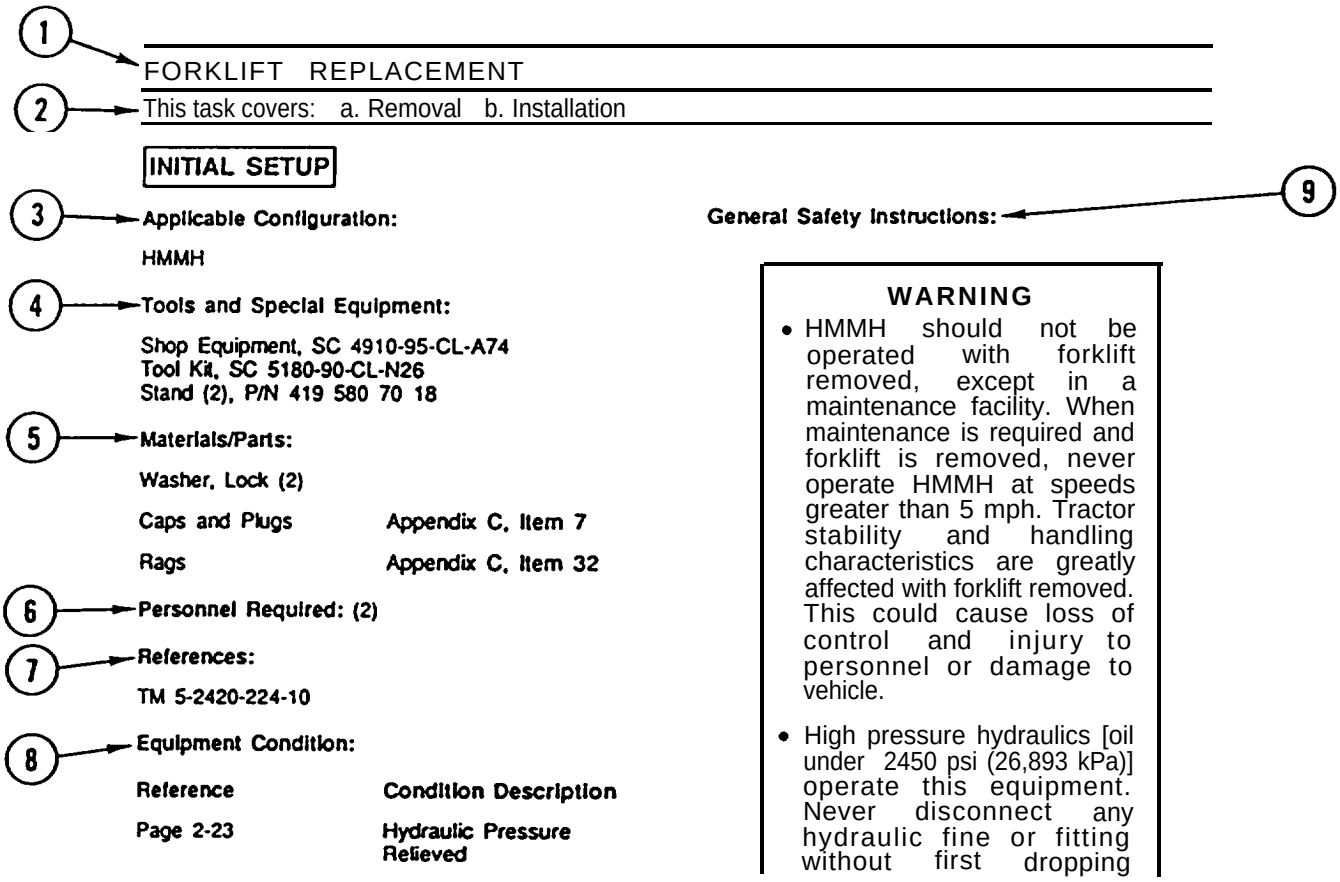
USING THE MANUAL ON THE JOB

Find the task or component that needs repair by using the LIST OF TASKS (page iii) or the Index (page Index-1), then turn to the page listed for that task or component.

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 xiv.

Although tasks are complete in detail, complete only the part of the task required. For example, if your task is to replace both air cleaner elements, you need not perform the remainder of the task to remove and replace the air cleaner canister.

TM 5-2420-224-20-2



1. TITLE—This is the name of the task.

2. TASK COVERS-This lists all the tasks included in the module.

3. APPLICABLE CONFIGURATION—If the task is applicable to only one of the vehicles. SEE or HMMH (as appropriate) will be listed here.

4. TOOLS AND SPECIAL EQUIPMENT—These are the tools and equipment you will need to do the task.

5. MATERIALS/PARTS—These are the supplies you will need to do the task. If parts or materials are required, they are listed here or referenced to Appendix C.

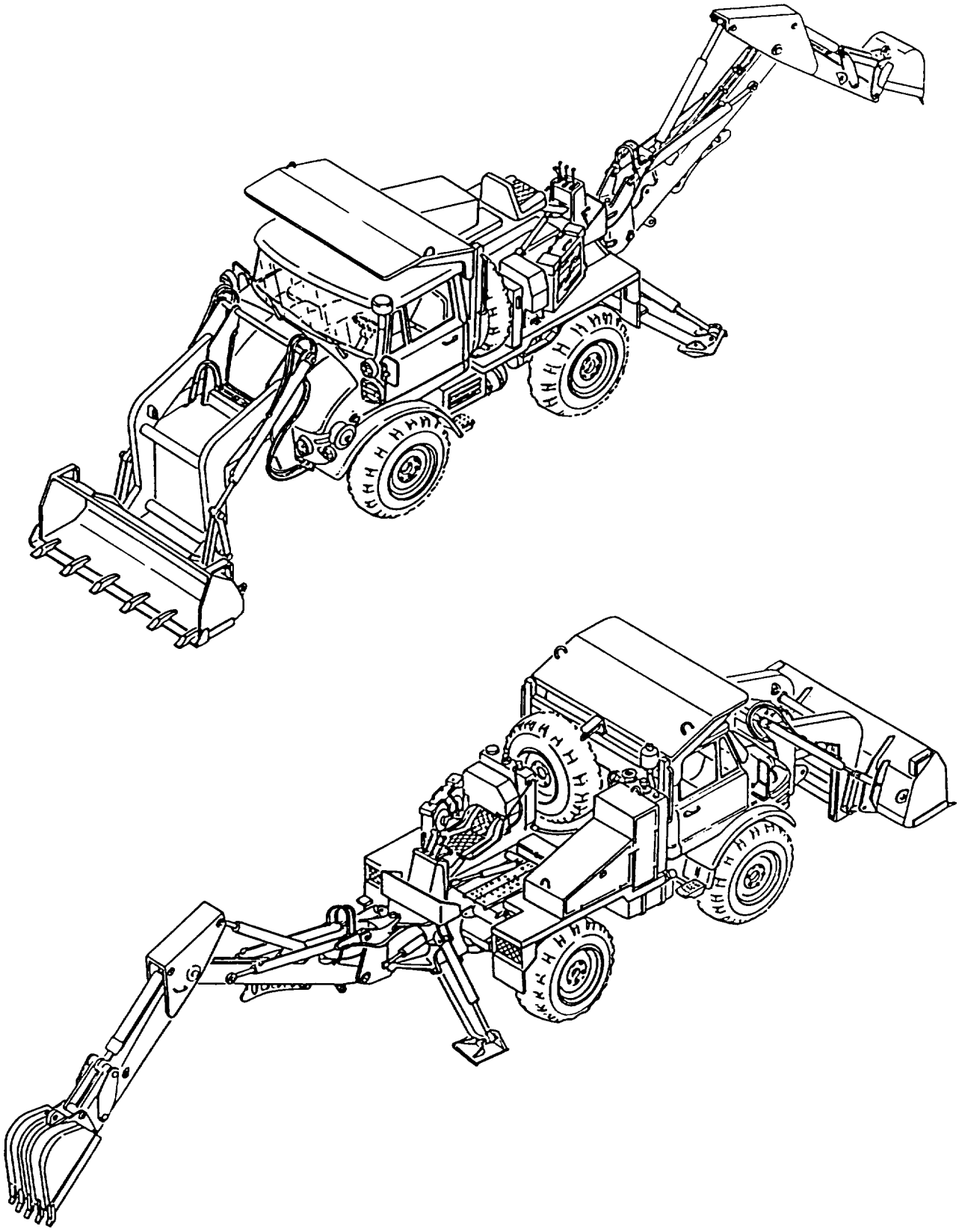
6. PERSONNEL REQUIRED-Personnel required to perform a task will be identified if the task requires more than one.

7. REFERENCES-These are the other technical publications you will need to do the task.

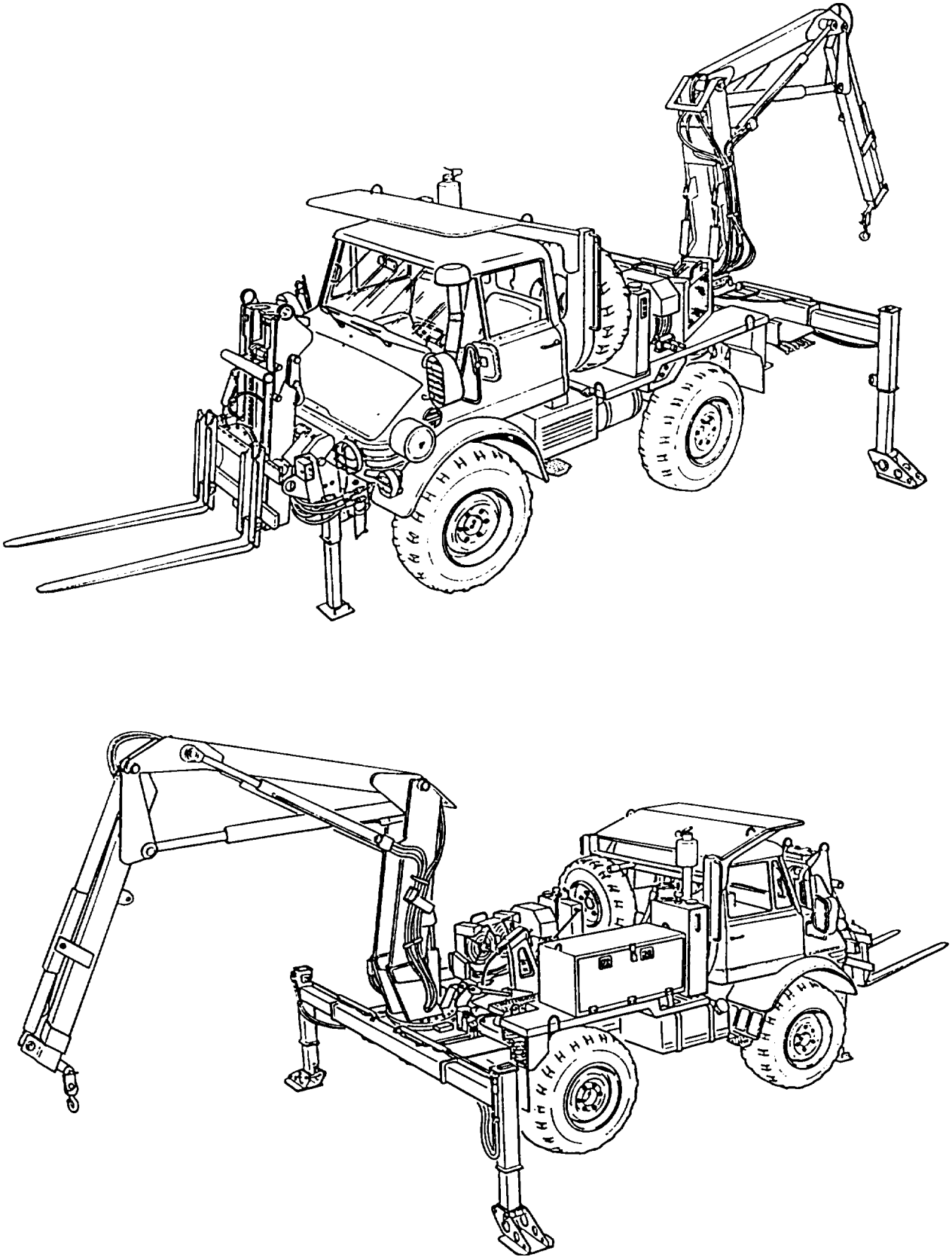
8. EQUIPMENT CONDITION—This is the condition(s) the vehicle must be in before you start the task. Other tasks that must be done first are listed by page number or by technical manual number if another manual is required.

9. GENERAL SAFETY lNSTRUCTIONS—These are the safety precautions that must be observed while you are doing the task.

10. FOLLOW-ON MAINTENANCE—These are the tasks listed at the end of the procedure that must be completed to return the vehicle to an operational condition.



Small Emplacement Excavator (SEE)



High Mobility Material Handler (HMMH)

CHAPTER 1
INTRODUCTION

SCOPE

A list of sections contained in this chapter is shown below.

		Page
Section I.	General Information	1-1
Section II.	Equipment Description and Data	1-3
Section III.	Principles of Operation	1-8

Section I. GENERAL INFORMATION

OVERVIEW

Type of Manual: Unit Maintenance.

Model Number and Equipment Name:

Model No. FLU419 Tractor, Wheeled, 4X4 DED Small Emplacement Excavator (SEE) with Attachments, NSN 2420-01-160-2754 (EIC:EDL).

Model No. FLU10344 Tractor, Wheeled, 4X4 DED High Mobility Material Handler (HMMH) with Attachments, NSN 2420-01-205-8636.

Purpose of Equipment:

The SEE is used for excavation, loading, lifting, and grading on various types of terrain. The vehicle is equipped with a front loader, backhoe, chain saw, pavement breaker, and hammer drill and is capable of rapid deployment for constructing protective positions.

The HMMH is used for material handling with forklift and crane attachments. The vehicle is equipped with an impact wrench to assist in maintenance of other equipment and is capable of rapid deployment.

MAINTENANCE FORMS, RECORDS, AND REPORTS

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).

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

When the tactical situation requires that Army materiel be abandoned, refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use, for procedures on destruction of the vehicle(s).

PREPARATION FOR STORAGE OR SHIPMENT

Instructions for storage and shipment, including administrative storage, are found in TM 740-90-1, MIL-V-62038D, and Chapter 2, Section VII.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs)

If your vehicle needs improvement, let us know. Send us a Quality Deficiency Report. 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 an SF Form 368 (QDR) and mail it to:

U.S. Tank-automotive and Armaments Command
Attn: AMSTA-TR-E/PQDR MS 267
6501 E. 11 Mile Road
Warren, MI 48397-5000

WARRANTY INFORMATION

The vehicles are warranted by Freightliner Corporation in accordance with TB 5-2420-224-15. Warranty starts on the date found in block 23, DA Form 2408-9 in the logbook. Report all defects in material or workmanship to your supervisor, who will take appropriate action through your unit maintenance shop.

METRIC SYSTEM

The equipment described herein contains metric components and requires metric common and special tools; therefore, metric units in addition to English units will be used throughout the manual. An English-to-metric conversion table is included as the last page of this manual inside the back cover.