

TM 9-2320-279-10-1

OPERATOR'S MANUAL

VOLUME NO. 1

M977 SERIES, 8 x 8 HEAVY EXPANDED MOBILITY TACTICAL TRUCKS (HEMTT)

MODEL	NSN
TRUCK, CARGO, WITH WINCH, M977	2320-01-097-0260
TRUCK, CARGO, WITHOUT WINCH, M977	2320-01-099-6426
TRUCK, TANK, FUEL, WITH WINCH, M978	2320-01-097-0249
TRUCK, TANK, FUEL, WITHOUT WINCH, M978	2320-01-100-7672
TRUCK, TRACTOR, WITH WINCH, WITHOUT CRANE, M983	2320-01-097-0247
TRUCK, TRACTOR, WITH WINCH, WITH CRANE, M983	2320-02-099-6421
TRUCK, WRECKER-RECOVERY, M984	2320-01-097-0248
TRUCK, WRECKER-RECOVERY, M984E1	2320-01-195-7641
TRUCK, CARGO, WITH WINCH, M985	2320-01-097-0261
TRUCK, CARGO, WITHOUT WINCH, M985	2320-01-100-7673
TRUCK, CARGO, WITH WINCH, M985E1	2320-01-194-7032
TRUCK, CARGO, WITHOUT WINCH, M985E1	2320-01-194-7031

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HEADQUARTERS,
DEPARTMENT OF THE ARMY
NOVEMBER 1986

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TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY

No. 9-2320-279-10

Washington, DC, 21 November 1986

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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 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) Web site. The Internet address is <http://aeprs.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 e-mail your letter DA Form 2028 direct to: AMSTA-LC-CI/TECH PUBLS, TACOM-RI, 1 Rock Island Arsenal, Rock Island Il 61229-7630. The email address is TACOM-TECH-PUBS@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

M983 with crane and M985E1 without winch are no longer in the fleet. Ignore all references to these vehicles. The M984E1 and M984A1 are the same vehicle. All references to M984E1 shall be interpreted as the M984A1 model.

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HOW TO USE THIS MANUAL

This manual is designed to help operate and maintain the M977 series vehicles. Volume 1 of this manual contains instructions that are common to the M984E1 and other M977 series vehicles. Volume 2 contains unique operator instructions for the M984E1 Wrecker-Recovery vehicle. In addition to this manual, TM 9-2320-355-10 provides unique operator instructions for the M985E1 Guided Missile Transporter (GMT) and TM 9-2320-354-10 provides unique operator instructions for the M984 wrecker vehicle. Listed below are some of the special features which have been included to help locate and use the needed information.

- A front cover Table of Contents is provided for quick reference to chapters and sections that will be used often.
- Each chapter begins with a Table of Contents listing all paragraph headings in the chapter.
- Warning, caution, and note headings, subject headings, and certain other essential information are printed in bold type to make them easier to see.

FOLLOW THESE GUIDELINES WHEN USING THIS MANUAL:

- The driver must read through this manual and become familiar with the content before attempting to operate the vehicle.
- Read all WARNINGS and CAUTIONS before performing any procedures.

CHAPTER 1 INTRODUCTION

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Section I. GENERAL INFORMATION

Vehicle Models

1-1. SCOPE. This manual is used for operation and operator-performed maintenance of the 60,000-lb (27 240 kg) GVWR, 8x8, M977 series, Heavy Expanded Mobility Tactical Truck (HEMTT). The M977 series vehicles consists of a number of different models all built on similar chassis but specially equipped to perform different missions. The models are as follows:

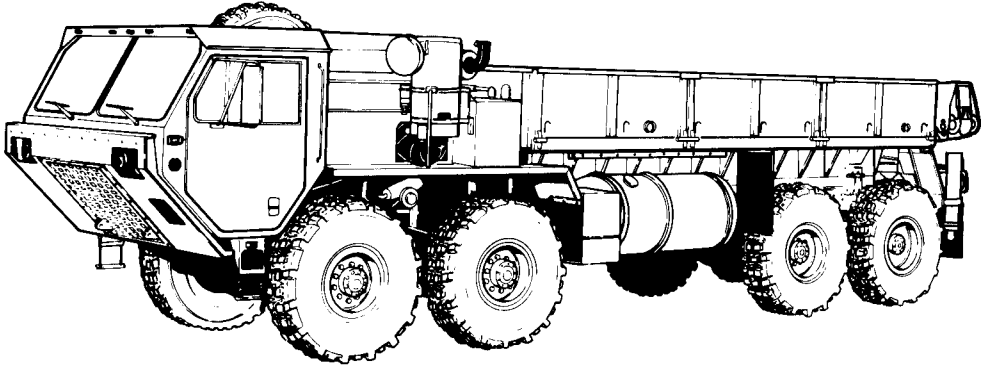
Model	Description
M977	Cargo vehicle with 62,000-lb (28 100 kg) GVWR and 100,000-lb (45 400 kg) GCWR. Vehicle is equipped with material handling crane with 2500-lb (1 135 kg) load capacity at 19 ft (5.8 m) boom radius and has 18-foot cargo body (fig. 1-1).
M978	Tanker vehicle with 2500-gal (9 463 L) tank and fuel resupply module (fig. 1-2).
M983	Tractor vehicle with 100,000-lb (45 400 kg) GCWR. Vehicle is equipped with fifth wheel and 3 1/2-inch kingpin.

Vehicle Models (Cont)

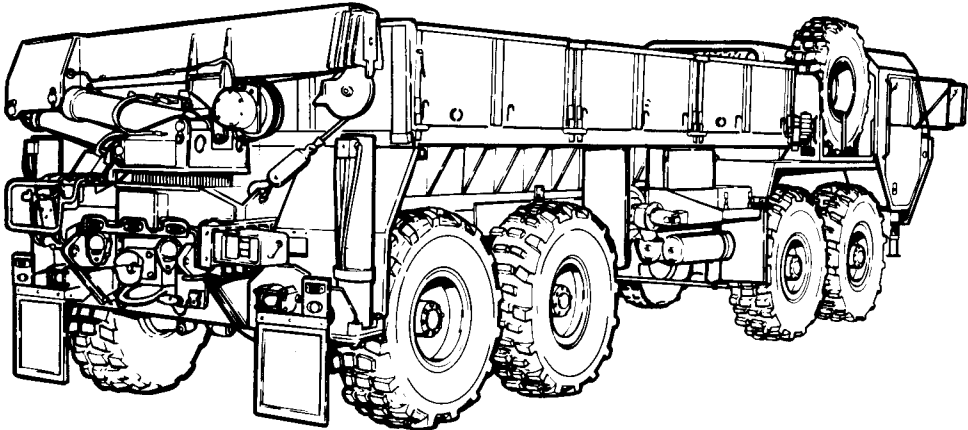
1-1. SCOPE (CONT).

Model	Description
M984	Wrecker vehicle with 82,000-lb (37 200 kg) GVWR and 100,000-lb (45 400 kg) GCWR. Vehicle is equipped with material handling crane with 10,000-lb (4 540 kg) load capacity at 12 ft (3.7 m) or 24,000-lb (10 896 kg) with boom extension retracted and resting on boom support tubes, 60,000-lb (27 240 kg) recovery winch, and 10-foot cargo body (fig. 1-5).
M984E1	Wrecker vehicle with 95,000-lb (43 000 kg) GVWR and 114,000-lb (51 700 kg) GCWR that can be increased to 155,000-lb (70 370 kg) GCWR under certain conditions. Vehicle is equipped with material handling crane with 6,000-lb (2 722 kg) load capacity at 18.2 ft (5.5 m) boom radius, 60,000-lb (27 240 kg) recovery winch, and equipment body with 10 stowage compartments (fig. 1-6).
M985	Cargo vehicle with 68,000-lb (30 800 kg) GVWR and 100,000-lb (45 400 kg) GCWR. Vehicle is equipped with material handling crane with 5,400-lb (2 452 kg) load capacity at 16.5 ft (5.0 m) boom radius and has 18-foot cargo body (fig. 1-7).
M985E1	Cargo vehicle with 58,000-lb (26 332 kg) GVWR and 100,000-lb (45 400 kg) GCWR. Vehicle is equipped with material handling crane with 5,400-lb (2 452 kg) load capacity at 16.5 ft (5.03 m) or 4,500-lb (2 043 kg) at 20.5 ft (6.25 m). Maximum reach in knuckle position (inner boom 10° - 15° above horizontal and outer boom horizontal) is 20.5 ft (6.25 m) (fig. 1-8).

Vehicle Models (Cont)



LEFT FRONT VIEW



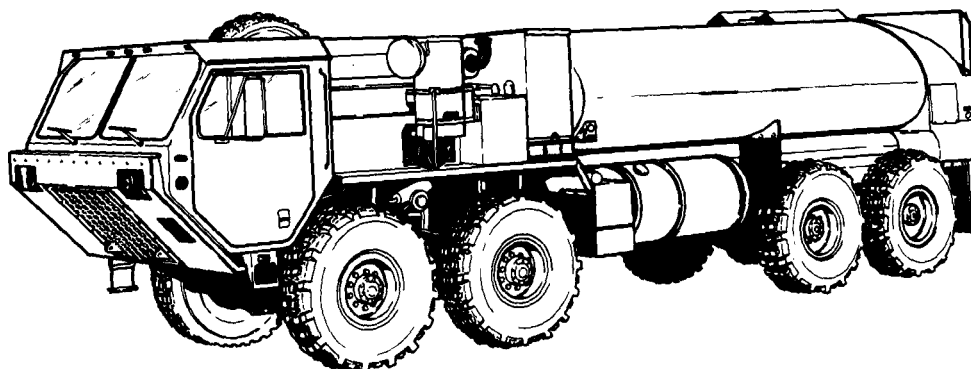
RIGHT REAR VIEW

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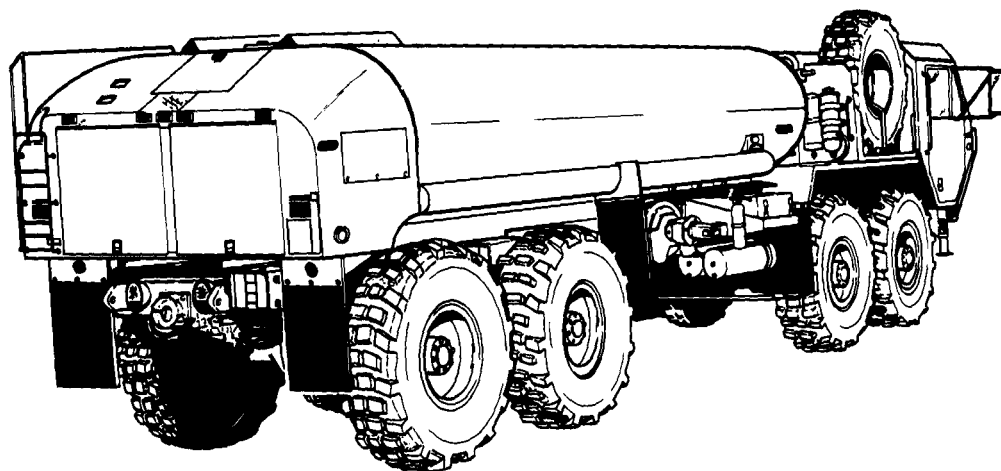
Figure 1-1. M977 Cargo Vehicle.

Vehicle Models (Cont)

1-1. SCOPE (CONT).



LEFT FRONT VIEW

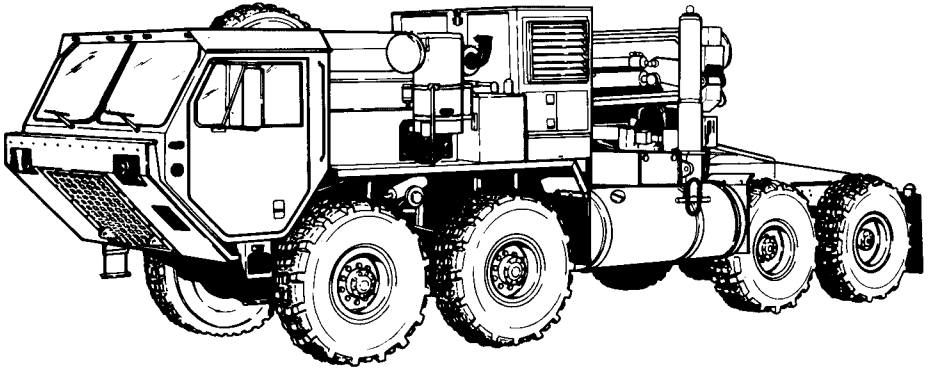


RIGHT REAR VIEW

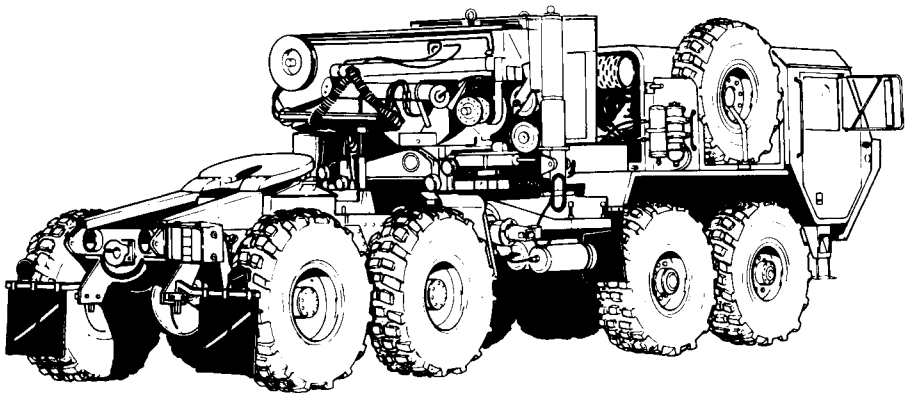
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Figure 1-2. M978 Tanker Vehicle.

Vehicle Models (Cont)



LEFT FRONT VIEW



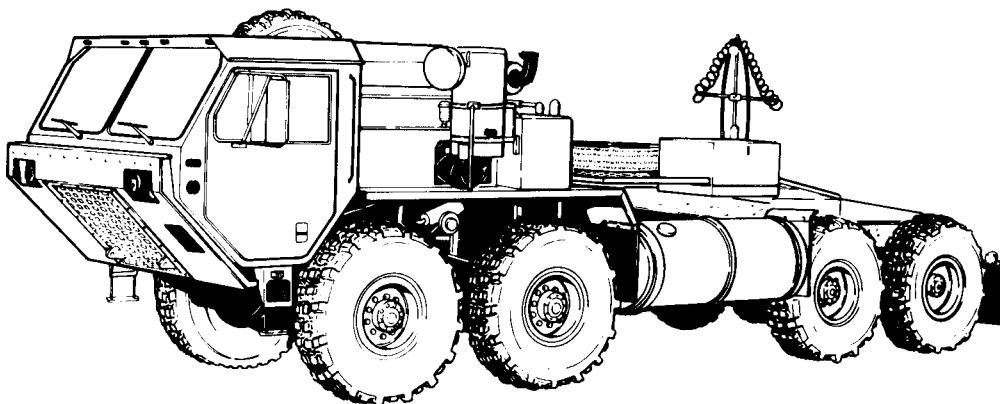
RIGHT REAR VIEW

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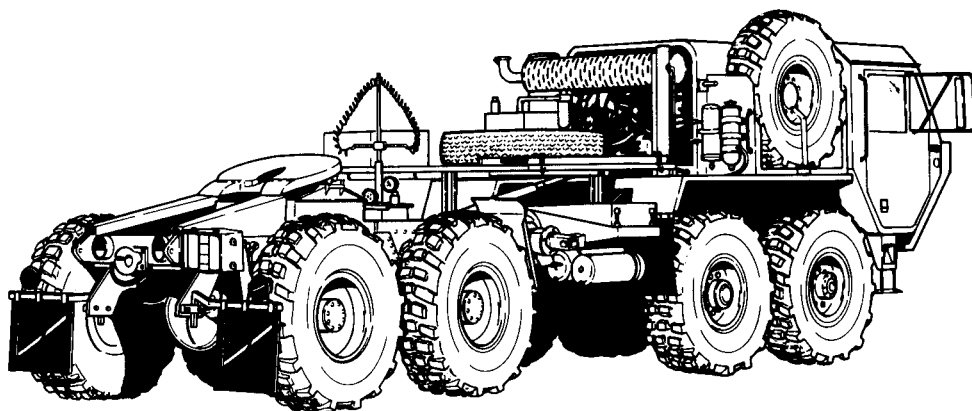
Figure 1-3. M983 Tractor Vehicle with Crane.

Vehicle Models (Cont)

1-1. SCOPE (CONT).



LEFT FRONT VIEW

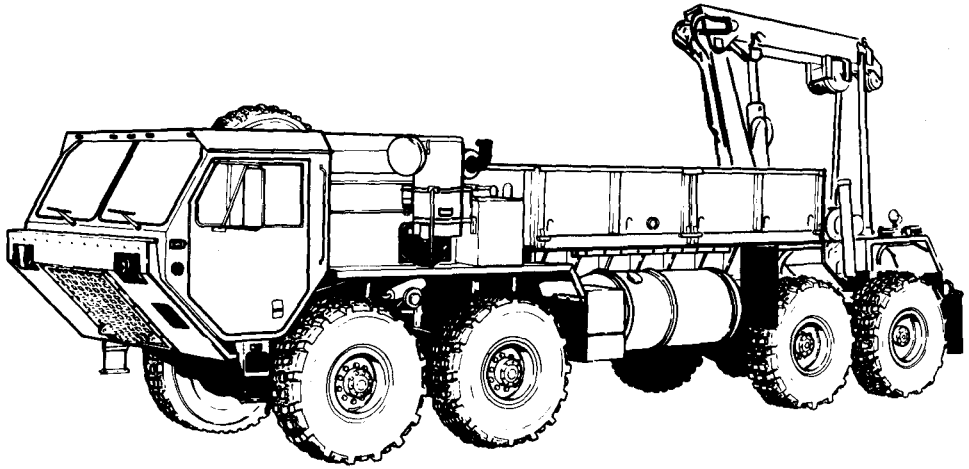


RIGHT REAR VIEW

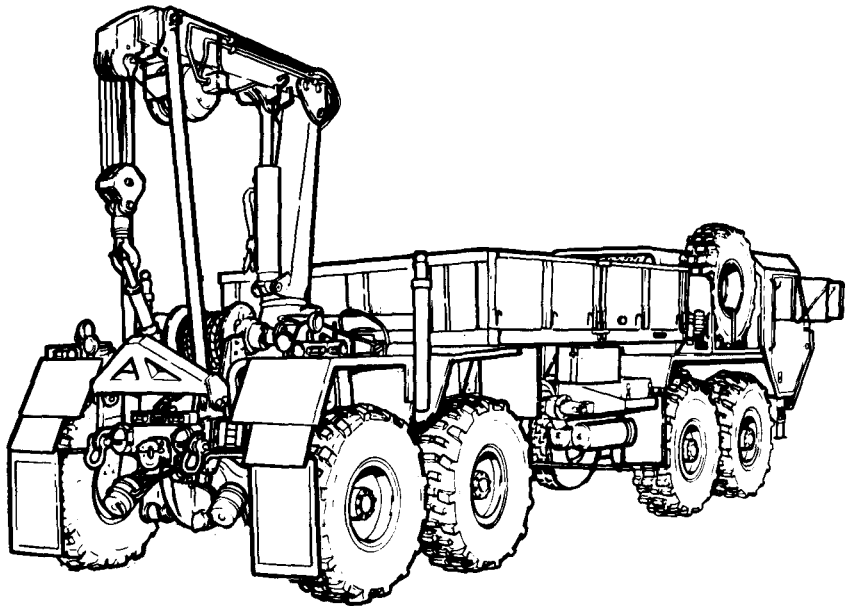
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Figure 1-4. M983 Tractor Vehicle without Crane.

Vehicle Models (Cont)



LEFT FRONT VIEW



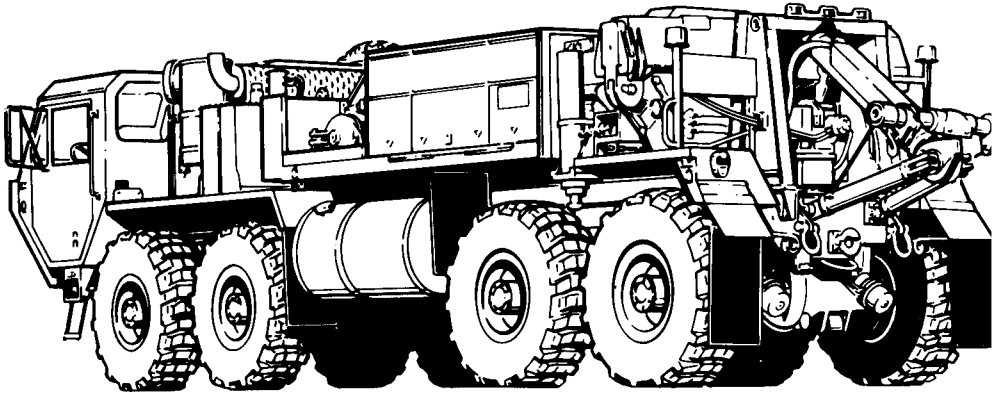
RIGHT REAR VIEW

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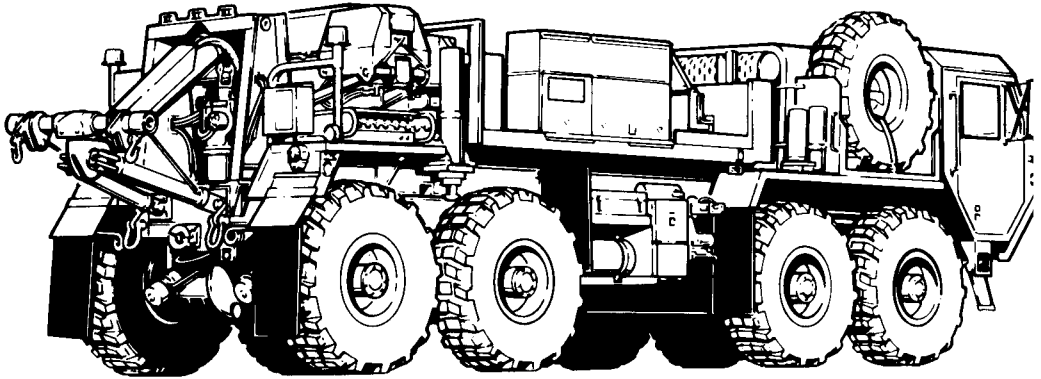
Figure 1-5. M984 Wrecker-Recovery Vehicle.

Vehicle Models (Cont)

1-1. SCOPE (CONT).



LEFT REAR VIEW

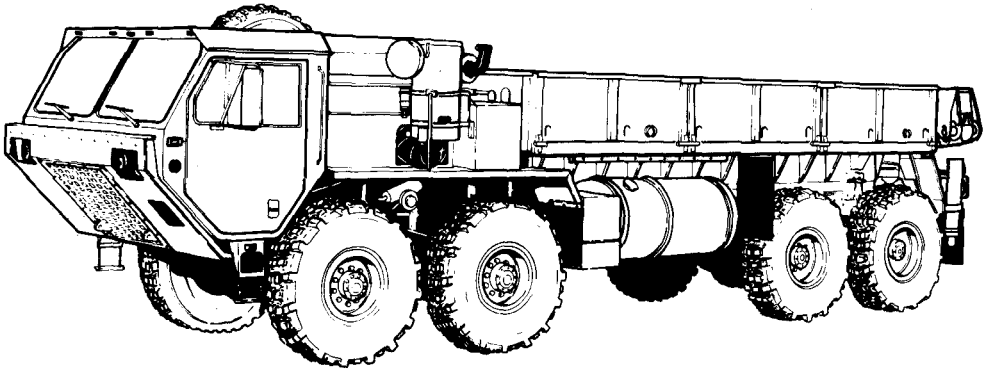


RIGHT REAR VIEW

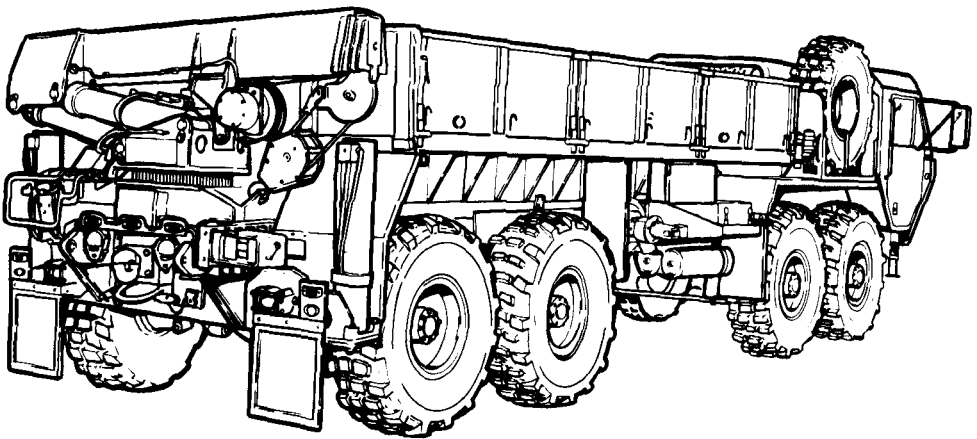
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Figure 1-6. M984E1 Wrecker-Recovery Vehicle.

Vehicle Models (Cont)



LEFT FRONT VIEW



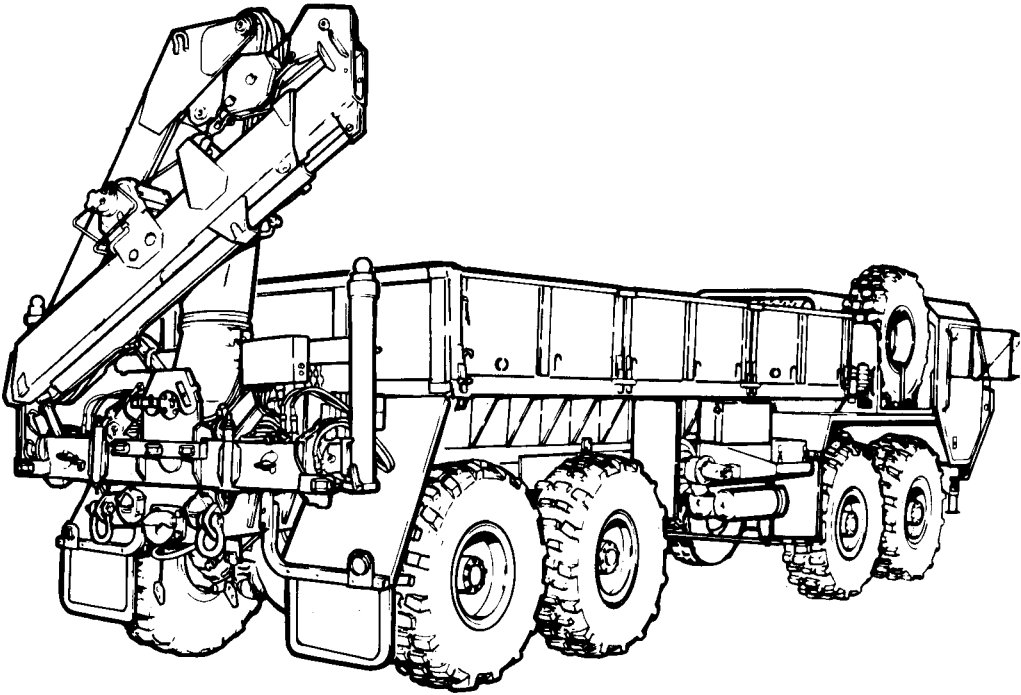
RIGHT REAR VIEW

TA185000

Figure 1-7. M985 Cargo Vehicle.

Vehicle Models (Cont)

1-1. SCOPE (CONT).



RIGHT REAR VIEW

TA358841

Figure 1-8. M985E1 Cargo Vehicle.

Equipment and Maintenance Reports

1-2. MAINTENANCE FORMS AND RECORDS. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by PAM 738-750, The Army Maintenance Management System (TAMMS).

1-3. 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 equipment covered in this manual. Information in the TB 43-0001-39 series is compiled from some of the Equipment Improvement Reports that have been prepared on vehicles covered in this manual. Many of these articles result from comments, suggestions, and improvement recommendations that were submitted to the EIR program. The TB 43-0001-39 series contains information on equipment improvements, minor alterations,