

TM 9-2330-238-14

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL

FOR

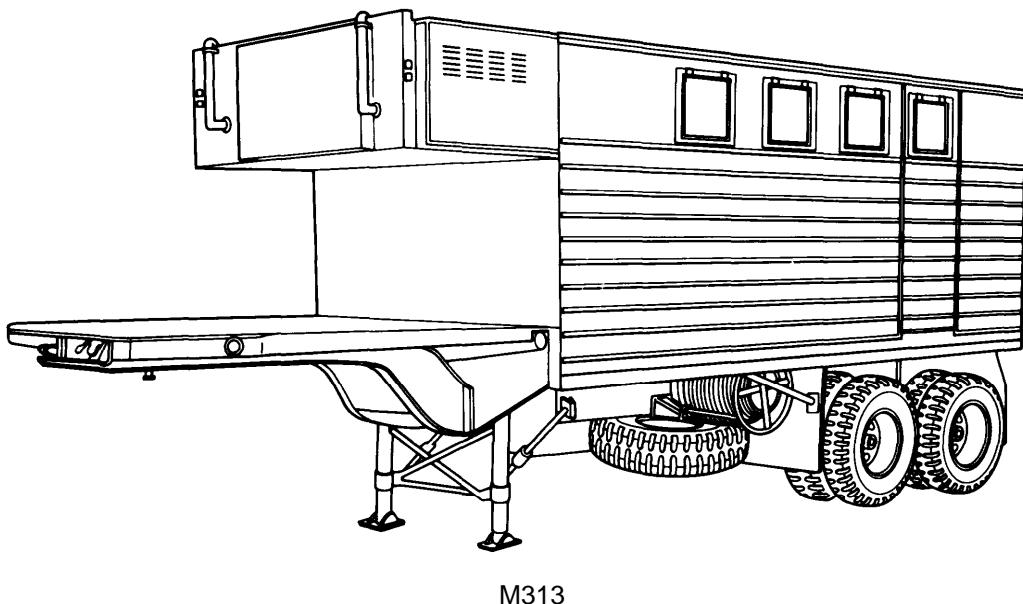
CHASSIS, SEMITRAILER: 6-TON, 4-WHEEL
M295A1 (NSN 2330-00-649-8124)

SEMITRAILER, VAN: EXPANSIBLE, 6-TON, 4-WHEEL
M313 (NSN 2330-00-772-5273)

SEMITRAILER, VAN: SHOP, FOLDING SIDES, 6-TON, 4-WHEEL
M447 (NSN 2330-00-542-5709)
M447C (NSN 2330-00-472-9999)

SEMITRAILER, VAN: REPAIR PARTS, SHOP EQUIPMENT,
6-TON, 4-WHEEL
M749 (NSN 2330-00-587-2454)

SEMITRAILER, VAN: REPAIR PARTS STORAGE,
6-TON, 4-WHEEL
M750 (NSN 2330-00-926-7035)



This manual and TM 9-2330-238-24P supersede TM 9-2330-238-14&P dated 15 April 1976, and all changes.

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

JULY 1992

Operating Instructions

2-1

Operator/Crew MCS

2-5

Lubrication Instructions

3-1

Operator/Crew Troubleshooting Procedures

3-7

Organizational PMCS

4-3

Organizational Troubleshooting Procedures

4-7

DS/GS Troubleshooting Procedures

5-1

Maintenance Allocation Chart (MAC)

B-1

TECHNICAL MANUAL
TM 9-2330-238-14

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., 14 July 1992

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND
GENERAL SUPPORT MAINTENANCE MANUAL

FOR

CHASSIS, SEMITRAILER: 6-TON, 4-WHEEL
M295A1 (NSN 2330-00-649-8124)

SEMITRAILER, VAN: EXPANSIBLE, 6-TON, 4-WHEEL
M313 (NSN 2330-00-772-5273)

SEMITRAILER, VAN: SHOP, FOLDING SIDES, 6-TON, 4-WHEEL
M447 (NSN 2330-00-542-5709)
AND M447C (NSN 2330-00-472-9999)

SEMITRAILER, VAN: REPAIR PARTS, SHOP
EQUIPMENT, 6-TON, 4-WHEEL
M749 (NSN 2330-00-587-2454)

SEMITRAILER, VAN: REPAIR PARTS STORAGE,
6-TON, 4-WHEEL
M750 (NSN 2330-00-926-7035)

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.

TABLE OF CONTENTS

	Page
CHAPTER 1 INTRODUCTION	
Section I. General Information	1-1
Section II. Equipment Data and Description	1-2

* This manual and TM 9-2330-238-24P supersede TM 9-2330-238-14&P, dated 15 April 1976, and all changes.
Approved for public release; distribution is unlimited.

TABLE OF CONTENTS (Con't)

	Page
CHAPTER 2 OPERATING INSTRUCTIONS	
Section I. Description and Use of Operator's Controls and Indicators	2-1
Section II. Operator/Crew Preventive Maintenance Checks and Services (PMCS)	2-5
Section III. Operation Under Usual Conditions	2-9
Section IV. Operation Under Unusual Conditions	2-32
CHAPTER 3 OPERATOR MAINTENANCE	
Section I. Lubrication Instructions.....	3-1
Section II. Operator/Crew Troubleshooting Procedures	3-7
CHAPTER 4 ORGANIZATIONAL MAINTENANCE	
Section I. Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment.....	4-1
Section II. Service Upon Receipt	4-2
Section III. Organizational Preventive Maintenance Checks and Services (PMCS)	4-3
Section IV. Organizational Troubleshooting Procedures	4-7
Section V. Electrical System Maintenance	4-19
Section VI. Brake System Maintenance	4-71
Section VII. Wheels, Hubs, and Brakedrums Maintenance..	4-98
Section VIII. Frame and Towing Attachments Maintenance.....	4-104
Section IX. Springs and Suspension Maintenance.....	4-114
Section X. Body Maintenance	4-122
Section XI. Accessory Items Maintenance	4-151
Section XII. Air Conditioning Components Maintenance	4-155
Section XIII. Heating Units Maintenance	4-158
Section XIV. Preparation for Storage or Shipment	4-188
Section XV. Special Purpose Kits	4-192

TABLE OF CONTENTS (Con't)

	Page
CHAPTER 5 DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE	
Section I. Direct Support and General Support Troubleshooting Procedures	5-1
Section II. Electrical System Maintenance	5-4
Section III. Rear Axle Maintenance	5-6
Section IV. Wheels, Hubs, and Brakedrums Maintenance	5-17
Section V. Frame and Towing Attachments Maintenance.....	5-19
Section VI. Suspension Maintenance	5-46
Section VII. Body Maintenance	5-48
Section VIII. Heating Units Maintenance	5-106
APPENDIX A REFERENCES	A-1
APPENDIX B MAINTENANCE ALLOCATION CHART	B-1
APPENDIX C COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS	C-1
APPENDIX D ADDITIONAL AUTHORIZATION LIST	D-1
APPENDIX E EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST.....	E-1
APPENDIX F TORQUE LIMITS	F-1
INDEX	Index 1

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

Paragraph Title	Page Number
Destruction of Army Materiel to Prevent Enemy Use	1-1
Maintenance Forms, Records, and Reports	1-1
Preparation for Storage or Shipment	1-1
Reporting Equipment Improvement Recommendations (EIRs)	1-1
Scope	1-1

1-1. SCOPE.

a. This manual describes the operation and Organizational, Direct Support, and General Support Maintenance for:

- Chassis, Semicrailer: 6-Ton, 4-Wheel, M295A1.
- Semicrailer, Van: Expandible, 6-Ton, 4-Wheel, M313.
- Semicrailer, Van: Shop, Folding Sides, 6-Ton, 4-Wheel, M447 and M447C.
- Semicrailer, Van: Repair Parts, Shop, Equipment, 6-Ton, 4-Wheel, M749.
- Semicrailer, Van: Repair Parts, Storage, 6-Ton, 4-Wheel, M750.

b. Throughout this manual, the terms "curbside" and "roadside" are used to describe views of the semitrailers. As viewed from the rear, curbside is right side and roadside is left side.

1-2. 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)*.

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

For destruction of Army materiel to prevent enemy use, refer to TM 750-244-6.

1-4. PREPARATION FOR STORAGE OR SHIPMENT.

For information on preparing semitrailer for storage or shipment, refer to Chapter 4, Section XIV

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

If your semitrailer needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell use 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 will send you a reply.

Section II. EQUIPMENT DESCRIPTION AND DATA

Paragraph Title	Page Number
Differences Between Models	1-31
Equipment Characteristics, Capabilities, and Features	1-2
Equipment Data	1-32
Location and Contents of Decals and Data Plates	1-22
Location and Description of Major Components	1-4

1-6. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

- a. The semitrailers are designed to be towed by a 5-ton truck tractor.
- b. The M295A1 Chassis, used with all of the van bodies mentioned in this manual, is a 6-ton, 4-wheel vehicle equipped with the following:
 - (1) A frame consisting of two siderails, ten crossmembers, channels, and a plate to support the kingpin. Angles, brackets, spring tensioners, and other attaching hardware on frame serve to mount the different van bodies.
 - (2) A 24-volt electrical system capable of operating under standard and blackout modes.
 - (3) Adjustable landing gear to support the front of the semitrailer when uncoupled from the towing vehicle.
 - (4) Leveling jacks to level and stabilize the semitrailer van in its parked position.
 - (5) Four dual wheels on two axles. The wheels are an offset disk-type rim with split-type retaining side ring.
 - (6) A spare wheel and tire carrier mounted on the side of the frame of the chassis.
 - (7) Standard 2 in. kingpin for use with fifth wheel of standard 5-ton or 2½-ton, 6 x 6, truck tractor.
 - (8) A pintle located at rear for towing purposes.
 - (9) A single point, two-spring, tandem axle suspension which utilizes parallelogram type linkage. There are two, eight-leaf springs which add extra support to the main springs under heavy loads.
 - (10) Dual-line air/hydraulic brake system which receives air pressure from the towing vehicle.
- c. The M313 Expansible Van Body is a mobile, expandible van shop:
 - (1) The M313 is designed to house maintenance shop sets to be used by personnel maintaining and repairing equipment in the field.
 - (2) In expanded position, the M313's volume is approximately twice its volume in retracted position.
 - (3) In both expanded and retracted positions, body is sealed against water and light.