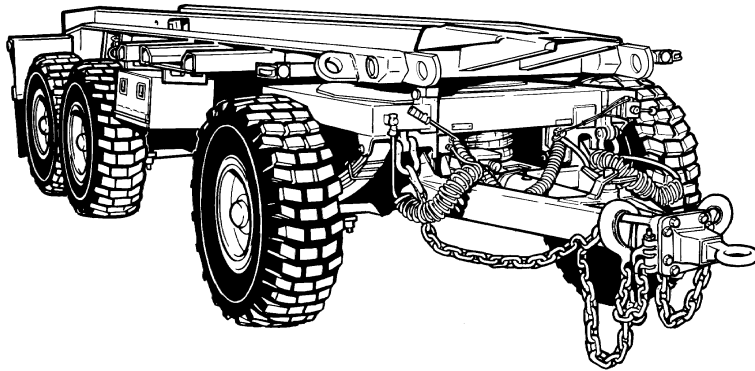


TECHNICAL MANUAL

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



**PALLETIZED LOAD SYSTEM
TRAILER (PLST)
MODEL M1076
NSN 2330-01-303-5197**

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TECHNICAL MANUAL

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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 01 August 1999

OPERATOR'S, UNIT, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL FOR PALLETIZED LOAD SYSTEM TRAILER (PLST)

Current as of 01 August 1999

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

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* This manual supersedes TM 9-2330-385-14, 30 May 1994.

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HOW TO USE THIS MANUAL

This manual is designed to help operate and maintain the Model M1076 PLS trailer, NSN 2330-01-303-5197. Listed below are some of the features included in this manual 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.
- Warning, caution and note headings, subject headings and other essential information are printed in bold type making them easier to see.
- In addition to text, there are exploded-view illustrations showing how to take a component off and put it back on. Cleaning and inspection criteria are also included where necessary.
- Chapters 1 and 2 are directed at the operator of the trailer. These chapters include an overall description and instructions for operation, as well as operator PMCS.
- Chapter 3 covers Operator Maintenance.
- Chapter 4 covers Unit Maintenance, including PMCS.
- Chapter 5 covers Direct Support Maintenance.
- Chapter 6 covers General Support Maintenance.
- Appendix A covers the References used in this manual.
- Appendix B covers the Maintenance Allocation Chart (MAC).
- Appendix C covers the Basic Issue Items (BII) list.
- Appendix D covers the Additional Authorized List (AAL) of items authorized for the trailer.
- Appendix E covers the Expendable and Durable Items List for the trailer.
- Appendix F lists the Manufactured Items for the trailer.
- Appendix G lists the Stowage and Sign Guides for the trailer.
- Appendix H lists common torque limits for the trailer.
- Appendix I lists the Mandatory Replacement Parts.
- Appendix J is the Tool Identification List.
- An Alphabetical Index is provided to help locate items in the text.

Follow these guidelines when using this manual:

- The operator must read through this manual and become familiar with the contents before attempting to operate the trailer.
- Read all WARNINGS and CAUTIONS before performing any procedure.

CHAPTER 1

INTRODUCTION

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Section I. GENERAL INFORMATION

1-1. SCOPE.

- a. Type of Manual.** Operator's, Unit, Direct Support and General Support Maintenance Manual.
- b. Model Number and Equipment Name.** Palletized Load System Trailer (PLST), M1076, NSN 2330-01-303-5197, (Figures 1-1 and 1-2).
- c. Purpose of Equipment.** The Palletized Load System Trailer, hereafter referred to as the trailer, is specifically designed to carry loads behind the Palletized Load System (PLS) M1074 and M1075, in conjunction with the Flatrack M1077. With some minor preparation, the trailer may be towed behind other Army trucks.

1-2. 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).

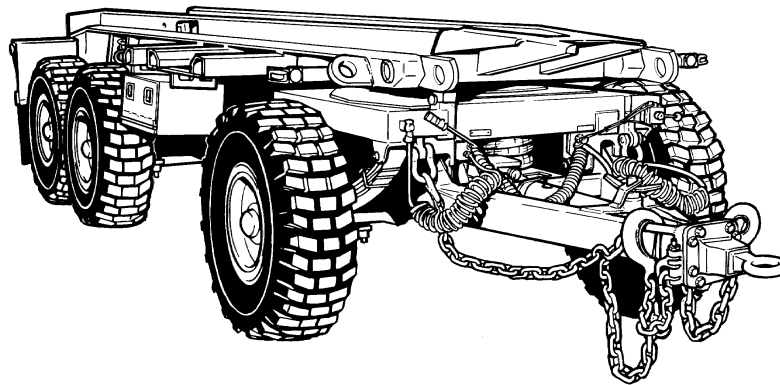


Figure 1-1. Palletized Load System Trailer, M1076, Right Front View

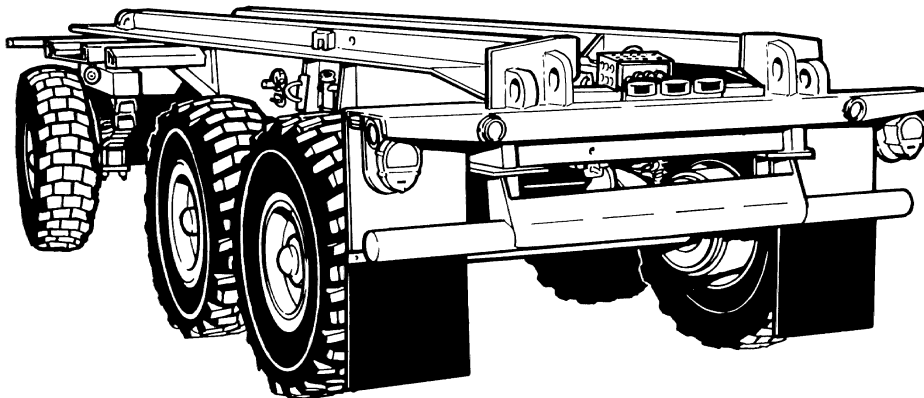


Figure 1-2. Palletized Load System Trailer, M1076, Left Rear View

1-3. CORROSION PREVENTION AND CONTROL (CPC).

The trailer has a total service life of ten years which allows for extended periods of operation in a corrosive environment. A corrosive environment includes exposure to high humidity, salt spray, road-deicing chemicals, gravel damage, and atmospheric contamination. No action beyond normal washing and repair of damaged areas is necessary to control corrosion. To prevent moisture accumulation, drain holes are provided on structural and sheet metal areas where necessary, and the stowage box is provided with seals and baffled drains.

1-4. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Command decision, according to the tactical situation, will determine when the destruction of the trailer will be accomplished. A destruction plan will be prepared by the using organization unless one has been prepared by a higher authority. For general destruction procedures for this equipment, refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to prevent Enemy Use (U.S. Army Tank-Automotive Command).

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

If your trailer 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. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at Commander, U. S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E-MPA, Warren, Michigan 48397-5000. A reply will be furnished to you.

1-6. PREPARATION FOR STORAGE OR SHIPMENT.

Refer to Chapter 4, Section VI for Unit preparation for storage or shipment. Refer to Chapter 5, Section IV for Direct Support preparation for storage or shipment.

1-7. QUALITY ASSURANCE/QUALITY CONTROL (QA/QC).

If there are any Quality Assurance/Quality Control problems with the trailer, put the problem on a SF 368 Quality Deficiency Report and mail it direct to: Commander, U. S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E-MPA, Warren, Michigan 48397-5000. A reply will be furnished to you.

1-8. EQUIPMENT CONFIGURATION.

At time of publication, there is only one model of the trailer, M1076. It should be noted however that variations in general appearance of the trailer may be due to use of the side rail kits, extended drawbar/light bar kits or International Standards Organization (ISO) container on the flatrack.

1-9. SAFETY CARE AND HANDLING.

The following are significant hazards and safety recommendations.

a. Loading Trailer With PLS Load Handling System (LHS). This is a normal operating condition. Follow all procedures and safety guidelines in TM 9-2320-364-10, and Chapter 2 of this manual.

b. Connecting/Disconnecting Trailer. This is a normal operating condition. Do not go between trailer and towing truck until engine is shut down on towing truck, brakes are set, and wheels chocked on both truck and trailer.

1-10. WARRANTY INFORMATION.

Refer to trailer Warranty Technical Bulletin, TB 9-2320-364-15, for complete warranty information covering the trailer. Warranty starts on the date found in block 23, DA Form 2408-9, in logbook. Report all defects in material or workmanship to the supervisor, who will take appropriate action.

1-11. NOMENCLATURE CROSS REFERENCE LIST.

This listing includes nomenclature cross-reference list.

Common Name	Official Nomenclature
Gladhand	Quick disconnect air coupling
Jackstand	Trestle
Towing pintle	Self-guiding coupler
Towing eye	Drawbar lunette

1-12. LIST OF ABBREVIATIONS.

The following is a list of abbreviations used in this manual.

AAL	Additional Authorization List
BII	Basic Issue Item
CAGE	Commercial and Government Entity
CCW	Counterclockwise
COEI	Components of End Item
DA	Department of the Army
EIR	Equipment Improvement Recommendation
FR	Flatrack
ft	Foot
ISO	International Standards Organization
JTA	Joint Tables of Allowances
kg	Kilogram
km/h	Kilometer Per Hour
kPa	Kilopascal
lb	Pound
lb-ft	Pound-Foot
lb-in	Pound-Inch
LHS	Load Handling System
m	Meter
MAC	Maintenance Allocation Chart
mm	Millimeter
mph	Miles Per Hour
NSN	National Stock Number
N·m	Newton Meter
PLS	Palletized Load System
PLST	Palletized Load System Trailer
PMCS	Preventive Maintenance Checks and Services

psi	Pound-Force Per Square Inch
QA/QC	Quality Assurance/Quality Control
QTY	Quantity
RPSTL	Repair Parts and Special Tools List
SAE	Society of Automotive Engineers
TAMMS	The Army Maintenance Management System
TDA	Tables of Distribution and Allowance
TM	Technical Manual
U/I	Unit Of Issue
U/M	Unit Of Measure

1-13. GLOSSARY.

The following is a glossary of words used in this manual.

Slack adjuster	A device that automatically adjusts brakes as they develop wear.
Load lock	A device designed to lock the flatrack in place on the trailer.
Drawbar	Attaches truck to trailer and allows operator to adjust length of trailer to comply with highway regulations.
Brake power regulating valve	A device designed to adjust brake power depending on the amount of load being carried on trailer.

Section II. EQUIPMENT DESCRIPTION

1-14. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES.

a. Purpose of the Trailer. The trailer carries a flatrack payload of up to 33,000 lbs (14,969 kg). The flatrack is loaded onto the trailer using the truck Load Handling System (LHS).

b. Capabilities and Features.

- Three axles and six heavy duty tires.
- Adjustable drawbar.
- High maneuverability.
- Capable of towing speeds up to 55 mph (88.5 km/h).
- On board air system for operation of air brakes, load locks, and drawbar assist.
- 12 volt and 24 volt electrical hook-ups to the tow vehicle.

1-15. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

Refer to Figures 1-3 and 1-4 for location of the following items:

- a. **Drawbar (1).** Provides a simple way to pull and guide the trailer.
- b. **12 Volt/24 Volt Vehicular Lighting Connectors (2).** 12 volt and 24 volt adapter connectors provide connectors for the truck 12 volt/24 volt system to be hooked to the trailer.
- c. **Safety Chains (3).** Provides a safety backup to drawbar.
- d. **Air Lines (4).** Provides a means to link air system of truck to trailer.
- e. **Turntable (5).** Provides front axle steering.
- f. **Stowage Box (6).** Provides a place to store trailer Basic Issue Items.
- g. **Tires (7).** Provides excellent cross-country mobility.
- h. **Frame (8).** Provides a main support for loads and flatrack.
- i. **Lifting Eyes (9).** Provides means to lift trailer.
- j. **Guide Rails (10).** Provides guides for flatrack during loading and unloading.
- k. **Data Plates (11).** Provides information on operation and technical details of the trailer.
- l. **Drawbar Extension (12).** (If equipped.) Provides a way to pull and guide trailer during Combat Bridge Transport missions.

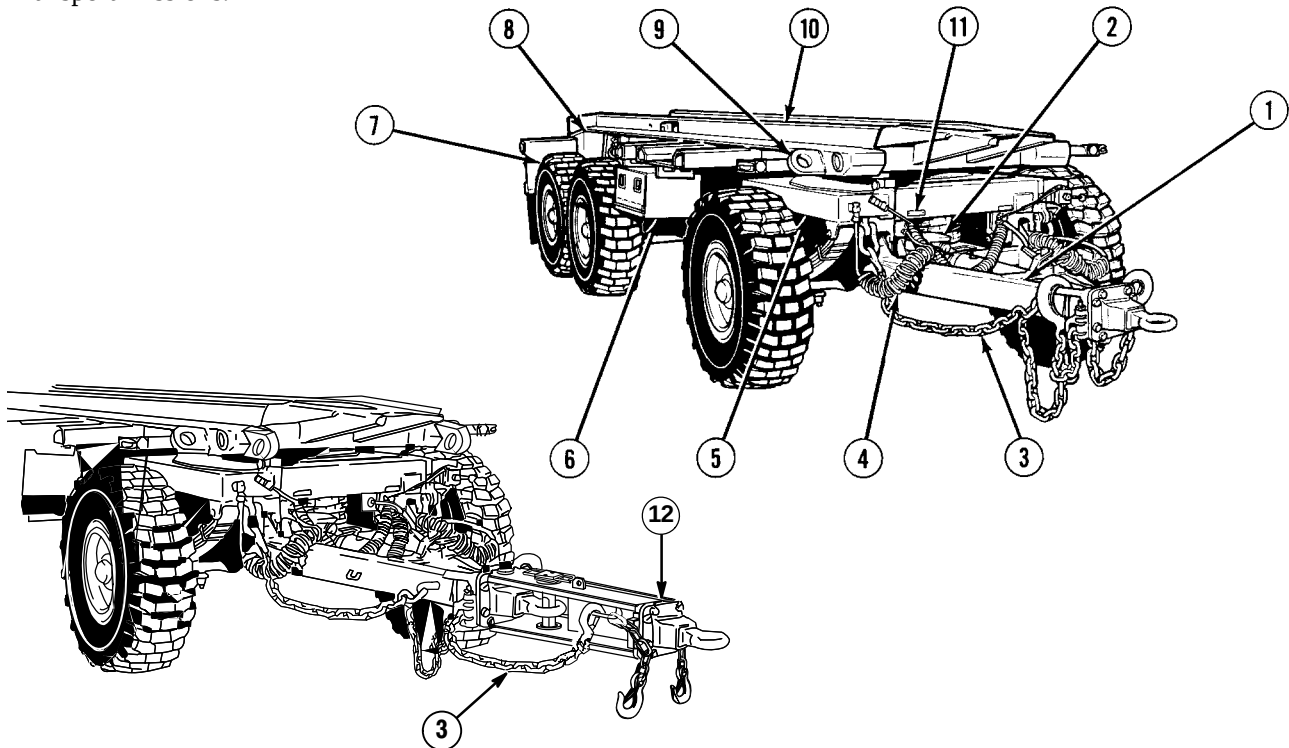


Figure 1-3. Location of Major Components, Right Front View

- m. Rear Combination Lights (13).* Provides stop, turn, and blackout lights.
- n. Reflectors (14).* Provides safety marking.
- o. Parking Brakes and Service Brakes (15).* Provides stopping capability and holds the trailer in place when parked.
- p. Spare Tire (16).* Provides tire change capability during mission.
- q. Loading Struts (17).* Provides trailer stacking capability.
- r. Side Marker Lights (18).* Provides safety marking to sides.
- s. Load Locks (19).* Provides for locking of flatracks to trailer frame.
- t. Rear Marker Lights (20).* Provides safety marking to the rear.
- u. Light Bar Electrical Connector (21).* (If equipped.) Provides way to provide power to light bar used during Combat Bridge Transport missions.

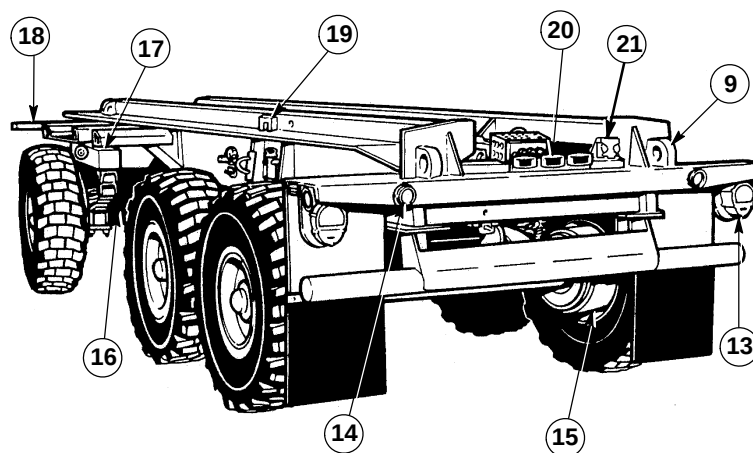


Figure 1-4. Location of Major Components, Left Rear View