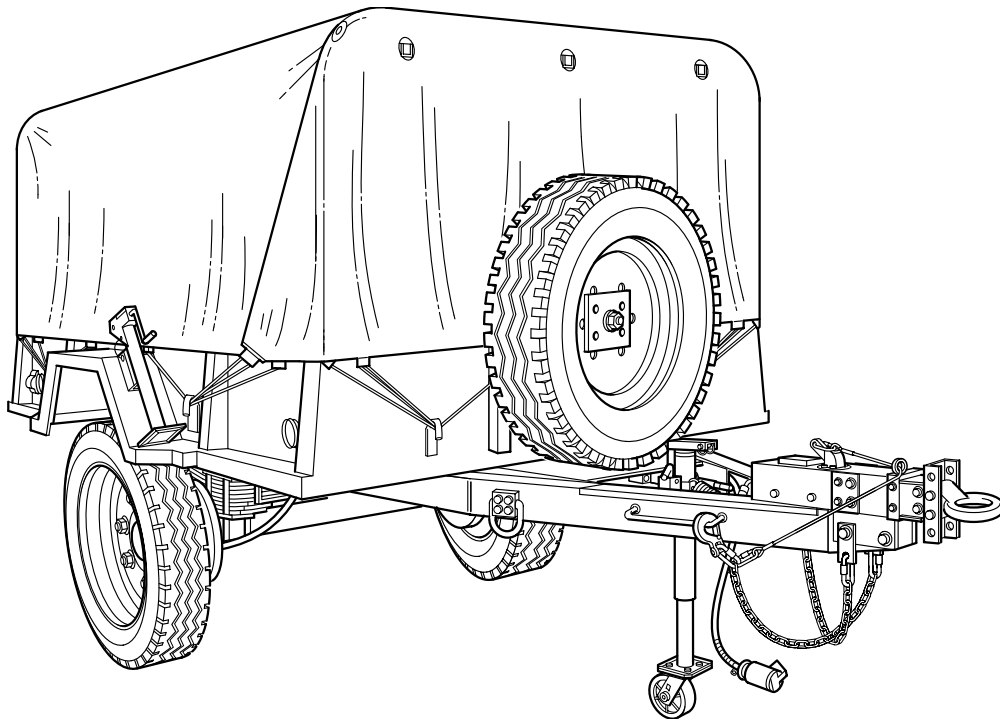


TM 9-2330-324-14&P

TECHNICAL MANUAL

**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR TRAILER, CARGO: 1-1/2-TON, 2-WHEEL,
M105A3**

NSN 2330-01-452-1218



DISTRIBUTION STATEMENT A—Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

7 July 2002

TM 9-2330-324-14&P

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND
GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

for

TRAILER, CARGO: 1-1/2-TON, 2-WHEEL,
M105A3

NSN 2330-01-452-1218

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 and Armaments Command, ATTN: AMSTA-LC-CIP-WT, Rock Island, IL 61299-7630. A reply will be furnished to you.

DISTRIBUTION STATEMENT A—Approved for public release: distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

7 July 2002

TABLE OF CONTENTS

	<u>WP Sequence No.</u>
CHAPTER 1: INTRODUCTORY INFORMATION WITH THEORY OF OPERATION	
Trailer General Information.....	0001 00
Trailer Equipment Description and Data.....	0002 00
Electrical System Theory of Operation.....	0003 00
Brake System Theory of Operation.....	0004 00
Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment.....	0005 00
CHAPTER 2: OPERATOR INSTRUCTIONS	
Description and Use of Controls and Indicators.....	0006 00
Operation Under Usual Conditions.....	0007 00
Operation Under Unusual Conditions.....	0008 00
CHAPTER 3: OPERATOR TROUBLESHOOTING PROCEDURES	
Introduction.....	0009 00
Malfunction/System Index.....	0010 00
Electrical System Operator/Crew Troubleshooting.....	0011 00
Brake System Operator/Crew Troubleshooting.....	0012 00
CHAPTER 4: ORGANIZATIONAL TROUBLESHOOTING PROCEDURES	
Introduction.....	0013 00
Malfunction/System Index.....	0014 00
Electrical System Organizational Troubleshooting.....	0015 00
Brake System Organizational Troubleshooting.....	0016 00
CHAPTER 5: OPERATOR MAINTENANCE	
Operator/Crew Preventive Maintenance Checks and Services (PMCS).....	0017 00
Operator/Crew Lubrication Instructions.....	0018 00
Handbrake Lever Adjustment.....	0019 00
Wheel Replacement.....	0020 00
CHAPTER 6: ORGANIZATIONAL MAINTENANCE	
Service Upon Receipt.....	0021 00
Organizational Preventive Maintenance Checks and Services (PMCS).....	0022 00
Organizational Lubrication Instructions.....	0023 00
General Maintenance Instructions.....	0024 00
Electrical Schematic.....	0025 00
Composite Light Maintenance.....	0026 00
Running Light Maintenance.....	0027 00
Chassis Wiring Harness Maintenance.....	0028 00
Intervehicular Cable Assembly Maintenance.....	0029 00
Wiring Harness and Cable Assembly Repair.....	0030 00
Handbrake Lever Replacement.....	0031 00
Handbrake Linkage and Cables Maintenance.....	0032 00
Service Brake Assembly Maintenance.....	0033 00
Brake Actuator Replacement.....	0034 00
Emergency Braking Breakaway Lever Reset.....	0035 00
Wheel Cylinder Replacement.....	0036 00
Hydraulic Brake Lines and Fittings Replacement.....	0037 00
Bleeding Brake System.....	0038 00
Brakedrum, Wheel Hub, and Wheel Bearing Maintenance.....	0039 00

TABLE OF CONTENTS—Continued

	<u>WP Sequence No.</u>
CHAPTER 6: ORGANIZATIONAL MAINTENANCE—Continued	
Tire Maintenance	0040 00
Drawbar Coupler Replacement	0041 00
Safety Chain Replacement	0042 00
Landing Gear Maintenance	0043 00
Spring Maintenance	0044 00
Cargo Tiedown Replacement	0045 00
Tailgate Replacement	0046 00
Spare Wheel Rack Maintenance	0047 00
D-Ring Replacement	0048 00
Reflector Replacement	0049 00
Data Plate Replacement	0050 00
Preparation for Storage or Shipment	0051 00
CHAPTER 7: DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE	
Axle Replacement	0052 00
Brakedrum Repair	0053 00
Tire Repair	0054 00
Frame Assembly Repair	0055 00
Cargo Body Maintenance	0056 00
CHAPTER 8: SUPPORTING INFORMATION	
References	0057 00
Maintenance Allocation Chart (MAC)	0058 00
Additional Authorization List (AAL)	0059 00
Expendable and Durable Items List	0060 00
Mandatory Replacement Items List	0061 00
Repair Parts and Special Tools List (RPSTL):	
Introduction	0062 00
Group 0609—Rear Composite Marker Lights	0063 00
Group 0609—Running Lights	0064 00
Group 0613—Chassis Wiring Harness	0065 00
Group 1100—Rear Axle	0066 00
Group 1201—Handbrake Linkage	0067 00
Group 1202—Service Brakes	0068 00
Group 1204—Brakes Actuator	0069 00
Group 1204—Wheel Cylinders	0070 00
Group 1204—Hydraulic Brake Lines and Fittings	0071 00
Group 1311—Wheel and Hub	0072 00
Group 1313—Tires	0073 00
Group 1503—Drawbar Ring and Safety Chain	0074 00
Group 1503—D-Rings	0075 00
Group 1507—Landing Gear	0076 00
Group 1507—Stabilizer	0077 00
Group 1601—Main and Auxiliary Springs	0078 00
Group 1810—Cargo Body	0079 00
Group 1810—Tailgate	0080 00
Group 1810—Spare Wheel Rack	0081 00
Group 2202—Reflectors	0082 00
Group 2210—Data Plates	0083 00
National Stock Number Index	0084 00
Part Number Index	0085 00
Torque Limits	0086 00

HOW TO USE THIS MANUAL

SCOPE

This manual provides you with the information you will need to operate and maintain the M105A3 Trailer.

MANUAL CONTENT

The front matter in this manual consists of general warnings, title block page, and table of contents.

The information contained in this manual is presented in eight chapters. Each chapter is divided into Work Packages (WPs) that cover operating procedures, maintenance procedures, troubleshooting procedures, and other information for specific systems or components. Each WP starts on a right-hand page. Page numbers consist of the WP number followed by a dash and another number. For example, "0014 00-7" means WP 0014 00, page 7.

At the end of this manual are an alphabetical index, DA Form 2028-2, and metric conversion chart.

Front Matter

There are general warnings that start on the first right-hand page immediately after the cover that should be read before performing any maintenance on the trailer.

The title block page includes the reporting of errors and recommending improvements statement.

The table of contents lists the chapters and WPs in this manual.

Chapters

Chapter 1 provides general information, equipment description, and theory of operation.

Chapter 2 provides the description and use of controls and indicators, and operating instructions.

Chapter 3 provides Operator troubleshooting procedures.

Chapter 4 provides Organizational troubleshooting procedures.

Chapter 5 provides Operator maintenance instructions.

Chapter 6 provides Organizational maintenance instructions.

Chapter 7 provides Direct Support and General Support maintenance instructions.

Chapter 8 provides supporting information, including the titles of documents and publications referenced in this manual, Maintenance Allocation Chart (MAC), Additional Authorization List (AAL), expendable and durable items list, mandatory replacement parts list, Repair Parts and Special Tools List (RPSTL), and torque limits.

Alphabetical Index

An index is located after the last WP in this manual that provides an alphabetical listing of information and components/assemblies contained in this manual.

HOW TO USE THIS MANUAL—Continued

DA Form 2028-2

DA Form 2028-2 is used to report errors and to recommend improvements for the tasks in this manual.

Metric Conversion Chart

The metric conversion chart converts English measurements to metric equivalents. Measurements in this manual are provided in both English and metric units.

WARNINGS, CAUTIONS, AND NOTES

You must read and understand this manual BEFORE operating the trailer.

Throughout this manual you will see **WARNING**, **CAUTION**, and **NOTE** headings. There are good reasons for every one of these notices:

WARNING

A warning is used to alert the user to hazardous operating and maintenance procedures, practices, or conditions that could result in injury or death. Warnings must be strictly observed.

CAUTION

A caution is used to alert the user to hazardous operating and maintenance procedures, practices, or conditions that could result in damage to, or destruction of, equipment or mission effectiveness. Cautions must be strictly observed.

NOTE

A note highlights an essential operating or maintenance procedure, condition, or statement.

Warnings and cautions appear immediately preceding the step to which they pertain. It is important to read and thoroughly understand the warnings and/or cautions before beginning maintenance. Notes may precede or follow the steps to which they pertain, depending on what makes the most sense.

INITIAL SETUPS

Before starting a task, you must obtain all the tools, supplies, and personnel listed in the initial setup. Be sure to read the task before performing the maintenance. If any other tasks are referenced, you must go to the initial setup page for each of those tasks to find out what tools, supplies, and personnel will be needed.

INDEXING

Four indexing procedures are used in this manual to help you locate information quickly:

- Table of contents
- Major components index on page 0002 00-2
- Controls and indicators index on page 0006 00-1
- Alphabetical index at the back of this manual

CHAPTER 1
INTRODUCTORY INFORMATION
WITH
THEORY OF OPERATION
FOR
M105A3 CARGO TRAILER

TRAILER GENERAL INFORMATION

0001 00

TYPE OF MANUAL

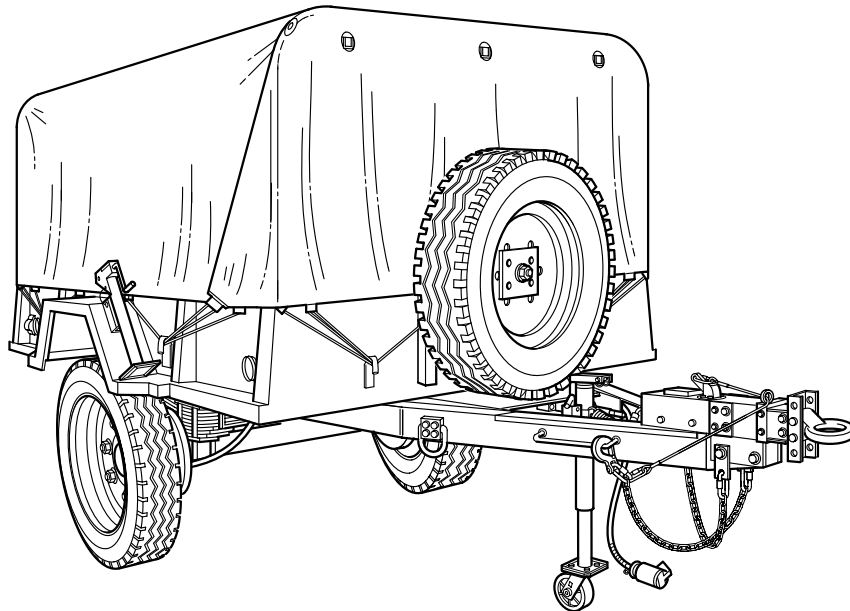
TM 9-2330-324-14&P is an Operator's, Organizational, Direct Support, and General Support Maintenance Manual (including Repair Parts and Special Tools List).

MODEL NUMBER AND EQUIPMENT NAME

This manual covers: Trailer, Cargo: 1-1/2-Ton, 2-Wheel, M105A3.

PURPOSE OF EQUIPMENT

The purpose of this trailer is to carry cargo for administrative and tactical operations.



M105A3 Cargo Trailer

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, Functional Users Manual for The Army Maintenance Management System (TAMMS), or AR 700-138, Army Logistics Readiness and Sustainability.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs)

If your trailer needs improvement, let us know. Send us an Equipment Improvement Recommendation (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. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to the address specified in DA PAM 738-750, Functional Users Manual for The Army Maintenance Management System (TAMMS), or as specified by the contracting activity. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368, Product Maintenance Deficiency Report. Use of key words such as “corrosion,” “rust,” “deterioration,” or “cracking” will ensure that the information is identified as a CPC problem.

The form should be submitted to the address specified in DA PAM 738-750, Functional Users Manual for The Army Maintenance Management System (TAMMS).

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

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

LIST OF ABBREVIATIONS/ACRONYMS

AAL.....	Additional Authorized Items
CAGEC.....	Commercial and Government Entity Code
cm.....	centimeters
CPC.....	Corrosion Prevention and Control
dc.....	direct current
DS.....	Direct Support
EA.....	each
EIR.....	Equipment Improvement Recommendation
FMTV.....	Family of Medium Tactical Vehicles
GL.....	gallon
GS.....	General Support
in.....	inches
kg.....	kilograms
km/h.....	kilometers per hour
kPa.....	kilopascals
LB.....	pounds
lb-ft.....	pound-feet
MAC.....	Maintenance Allocation Chart
mm.....	millimeters
mph.....	miles per hour
MTOE.....	Modified Table of Organization and Equipment
MWO.....	Modification Work Order
NATO.....	North Atlantic Treaty Organization
NSN.....	National Stock Number
N•m.....	Newton-meters
P/N.....	Part Number
PMCS.....	Preventive Maintenance Checks and Services
psi.....	pounds per square inch
QTY REQ.....	Quantity Required

LIST OF ABBREVIATIONS/ACRONYMS—Continued

REF.....	Reference
RL.....	roll
RPSTL.....	Repair Parts and Special Tools List
SC.....	Supply Catalog
SMR.....	Source, Maintenance, and Recoverability
SRA.....	Specialized Repair Activity
TAMMS.....	The Army Maintenance Management System
TAMMS-A.....	The Army Maintenance Management System—Aviation
TM.....	Technical Manual
TMDE.....	Test, Measurement, and Diagnostic Equipment
TOE.....	Table of Organization and Equipment
U/M.....	Unit of Measure
UUT.....	Unit Under Test
V.....	volts
WP.....	Work Package