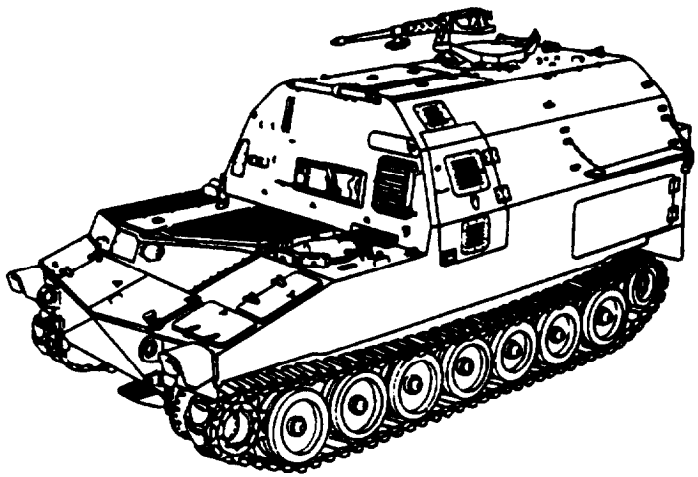
TM 9-2350-267-10*

★ This manual supersedes TM 9-2350-267-10 dated 30 September 1985

OPERATOR'S MANUAL



CARRIER, AMMUNITION, TRACKED M992 (2350-01-110-4660)

EQUIPMENT DESCRIPTION PAGE 1-3

OPERATING INSTRUCTIONS PAGE 2-1

PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) PAGE 2-25

LUBRICATION INSTRUCTIONS PAGE 3-1

TROUBLESHOOTING PAGE 3-2

MAINTENANCE PROCEDURES PAGE 3-21

AUTOMATIC FIRE EXTINGUISHING SYSTEM (AFES) PAGE 4-1

SUBJECT INDEX INDEX-1

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HEADQUARTERS, DEPARTMENT OF THE ARMY
CURRENT AS OF OCTOBER 1991

Change 1

TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 4 October 1991

OPERATOR'S MANUAL
FOR
CARRIER, AMMUNITION, TRACKED
M992
(NSN 2350-01-110-4660)

REPORTING OF 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, US. Army Tank-Automotive Command, AITN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

Page

HOW TO USE THIS MANUAL iii

CHAPTER 1 **INTRODUCTION** 1-1

Section I General Information 1-1

Section II Equipment Description 1-3

Section III Principles of Operation 1-10

CHAPTER 2 **OPERATING INSTRUCTIONS** 2-1

Section I Description of Controls and Indicators 2-2

Section II Preventive Maintenance Checks and Services (PMCS) 2-25

Section III Operation Under Usual Conditions . ., ... 2-77

Section IV Operation Under Unusual Conditions 2-215

* This manual supersedes TM 9-2350-267-10 dated 30 September 1985

Page

CHAPTER 3 **MAINTENANCE INSTRUCTIONS** 3-1
Section I Lubrication Instructions 3-1
Section II Troubleshooting 3-2
Section Ill Maintenance Procedures 3-21
CHAPTER 4 **AUTOMATIC FIRE EXTINGUISHING SYSTEM** 4-1
Section I Equipment Description 4-1
Section II Component Location 4-8
Section Ill Operating Instructions 4-21
Section IV Emergency Procedures 4-30
APPENDIX A **REFERENCES** A-1
APPENDIX B **COMPONENTS OF END ITEM LIST** B-1
Section I Introduction B-1
Section II integral Componentsof End ltem (lCOEl) B-3
Section Ill Basic lssue ltems (Bll) B-4
APPENDIX C **ADDITIONAL AUTHORIZATION LIST** C-1
Section I Introduction C-1
Section II Additional Authorization List (AAL) C-2
APPENDIX D **EXPENDABLE SUPPLIES AND MATERIALS LIST** D-1
Section I Introduction D-1
Section II Expendable Supplies and Materials List D-2
SUBJECT INDEX Index-1

HOW TO USE THIS MANUAL

This operator's manual was designed to provide you with the information you will need to operate and maintain the M992.

The information contained in this manual is presented in four chapters and four appendixes. Each chapter is divided into sections to cover the subject or operating procedures for the vehicle systems or components. Where references are made to tables, figures, paragraphs and appendixes, refer to those portions of the text.

To find information relating to a specific component or system:

A - Determine the specific name or function of the component/system.

B- Find the name or function in the Subject Index listing, located at the end of this manual.

C - Refer to the appropriate page(s) called out in the Subject Index listing.

To find information pertaining to a broader range of information (such as vehicle troubleshooting, preventive maintenance and vehicle descriptions):

A - Identify the desired topic.

B- Find the general topic in the Table of Contents or in the Front Cover Index (both are located at the front of this manual).

C- Refer to the appropriate page(s) called out in the Table of Contents/Front Cover Index.

IMPORTANT

You must read and understand this manual BEFORE operating the M992.

Throughout this manual you will frequently see the phrase "notify Organizational Maintenance". When you are instructed to notify Organizational Maintenance, do exactly that; they have the tools and training to efficiently and correctly perform the next level of maintenance.

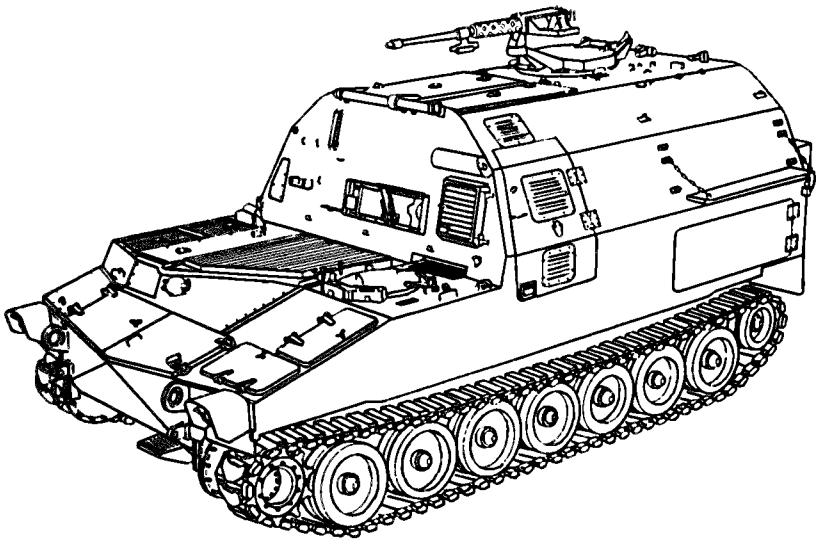
Throughout this manual you will also see **WARNING** and **CAUTION** headings. There are good reasons for every one of these notices:

WARNING

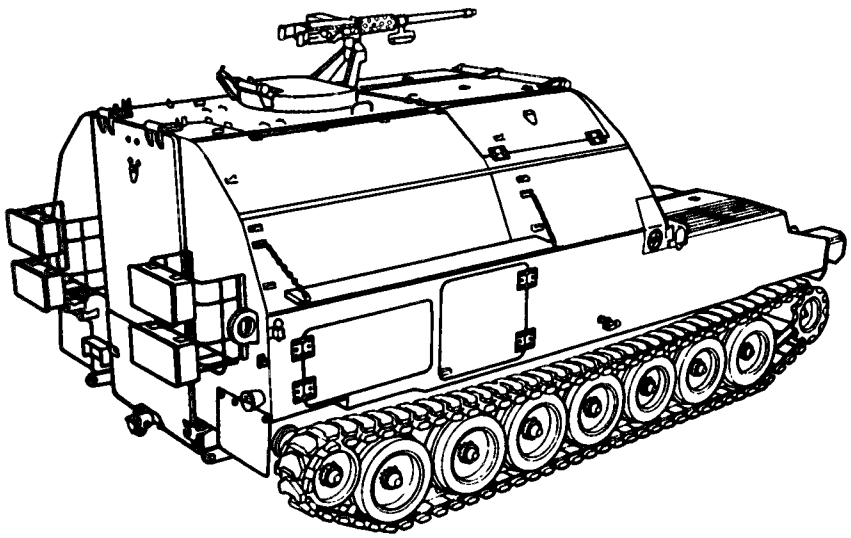
A Warning is used to alert the user of hazardous operating and maintenance procedures, practices or conditions that could result in injury to, or death of, personnel. Warnings must be strictly observed.

CAUTION

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

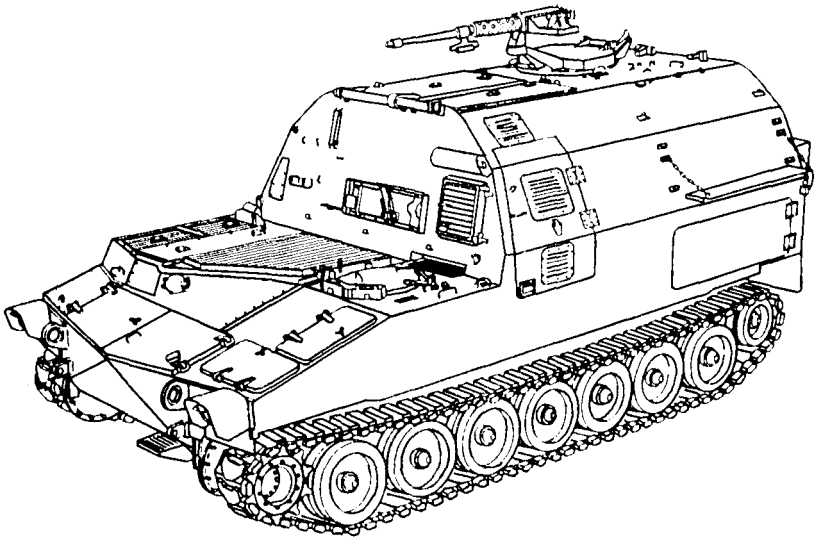


M992 FRONT LEFT VIEW

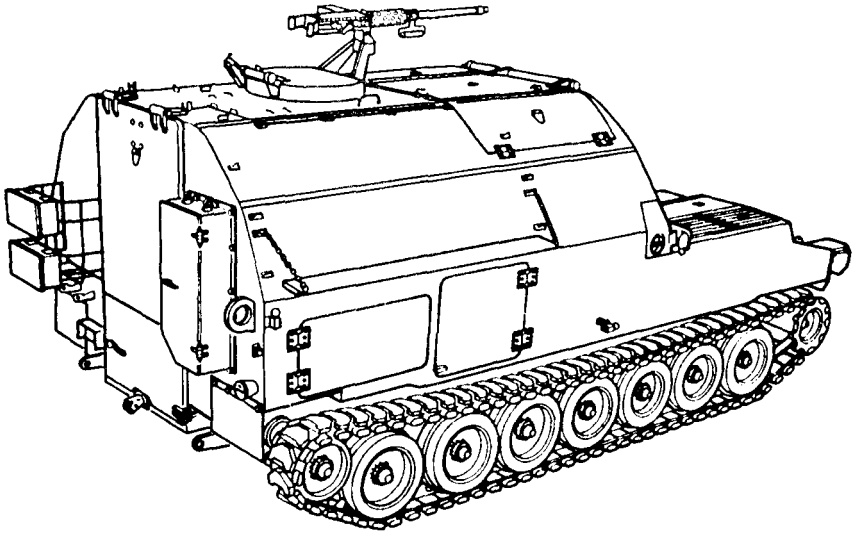


M992 RIGHT REAR VIEW

EFFECTIVE FOR VEHICLES 1-344



M992 FRONT LEFT VIEW



M992 RIGHT REAR VIEW

EFFECTIVE FOR VEHICLES 345 AND ABOVE

CHAPTER 1
INTRODUCTION

Chapter Overview

This chapter introduces the operator to the M992 CARRIER, AMMUNITION, TRACKED. Information found in Chapter 1 includes:

- Brief description and purpose of the M992
- Statement of intended vehicle use
- Reference to documents which pertain to the operator
- List of abbreviations used throughout this manual
- Vehicle data and specifications
- Location and description of equipment essential for successful mission completion
- Technical principles of operation for various complex M992 systems

Chapter 1 is divided into the following sections:

Section I GENERAL INFORMATION
Section II EQUIPMENT DESCRIPTION
Section Ill TECHNICAL PRINCIPLES OF OPERATION

Section I. GENERAL INFORMATION

Scope

This manual contains information you need to operate the M992 CARRIER, AMMUNITION, TRACKED. The primary use of the M992 is to provide overland transport of 155mm projectiles and charges from ammunition depots to howitzers in the field. Included are instructions for the proper use of on-board ammunition handling and stowage equipment, as well as driving and crew maintenance procedures.

In terms of driving capabilities and limitations, the M992 is comparable to the M109A2 SP howitzer. The speed, mobility and maneuverability of the M992 equals that of the M109A2, making the M992 well-suited for efficient re-supply of ammunition to M109A2 howitzers.

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).

Hand Receipts (-HR) Manuals

This manual has a companion document with a TM number followed by -HR (which stands for Hand Receipt). The TM 9-2350-267-10-HR consists of preprinted hand receipts (DA Form 2062) that list end-item related equipment (i.e., COEI, Bll, and AAL) you must account for. As an aid to property accountability, additional -HR manuals may be requisitioned from the following source in accordance with procedures in AR 25-30:

The U.S. Army Adjutant General Publications Center
ATTN: AGLD-OD
1655 Woodson Rd.
St. Louis, MO 63114

Reporting Equipment Improvement Recommendations (EIR'S)

If your M992 CARRIER, AMMUNITION, TRACKED 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. Let us know why you don't like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at: Commander, US. Army Tank-Automotive Command, ATTN: AMSTA-MP, Warren, Ml 48397-5000. We'll send you a reply.

List Of Abbreviations

AHE	Ammunition Handling Equipment. AHE in the M992 consists of the stacker, the conveyor, the projectile rack assemblies and related components
APU	Auxiliary Power Unit
CK	Cyanogen Chloride, a chemical agent
F	Full; Fahrenheit
FES/AFES	Fire Extinguishing System/Automatic Fire Extinguishing System. Used interchangeably
LAW	Lubricating oil, for Aircraft Weapons
RRB	Right Rear Bottom (canister stowage area)
RRM	Right Rear Middle (canister stowage area)
RRT	Right Rear Top (canister stowage area)
LRB	Left Rear Bottom (canister stowage area)
LRT	Left Rear Top (canister stowage area)
N	Neutral
NBC	Nuclear, Biological, Chemical
PMCS	Preventive Maintenance Checks and Services
rpm	revolutions per minute
STE/ICE	Simplified Test Equipment/Internal Combustion Engine
VFP/VFPS	Ventilated Face Piece/Ventilated Face Piece System

Section II. EQUIPMENT DESCRIPTION

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

Purpose

The M992 is afield artillery ammunition support vehicle comparable to current field artillery weapons (M109A2 and M110A2 self-propelled howitzer class) in terms of speed, mobility, and survivability.

Capabilities

This full-tracked, self-propelled, diesel-powered vehicle is highly mobile and maneuverable. It is capable of long-range, high-speed operation on improved roads. It is also well-suited to rough terrain, muddy or marshy ground, sand, snow, and ice. The M992 can also ford waterways where maximum depth is 42 inches.

Features

- Ammunition handling equipment (AHE), including a hydraulically-operated conveyor and X-Y stacker, the projectile rack assemblies, and related components.
- A diesel-powered auxiliary power unit (APU) used to drive the hydraulic system and recharge vehicle batteries.
- Simplified test equipment for internal combustion engine (STE/ICE).
- Automatic Fire Extinguishing System (AFES).
    - AFES is an automatic and manual electric system that when actuated provides fire extinguishing capability for the engine and crew compartment. It consists of test/alarm panels, sensors and associated equipment explained later on in this section and the Chapter 4 operating instructions.
    - Automatic electric operation will automatically sense and discharge an agent to extinguish hydrocarbon fires. The crew system provides an automatic electric second shot capability should the fire continue burning or a second fire occurs.
    - Manual electric operation must be manually activated by the crew to discharge the agent to extinguish fires. The crew system second shot manual electric activation is available if the fire continues to burn. It must be manually activated by a crew member.
    - These systems will not activate unless the crew/engine test and alarm panel maintenance switches are in the horizontal power on-normal operational position. (See Chapter 4).
- Nuclear, biological, and chemical (NBC) agent detection and protection system.
- Ammunition storage racks and compartments.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

Shown on the following pages are locations and descriptions of major components used to operate the M992 effectively.

MAIN ENGINE EXHAUST OUTLET (1)

APU ENGINE EXHAUST OUTLET (2)

IDLER WHEEL (3) The right and left idler wheels guide, support, and maintain tension for the track.

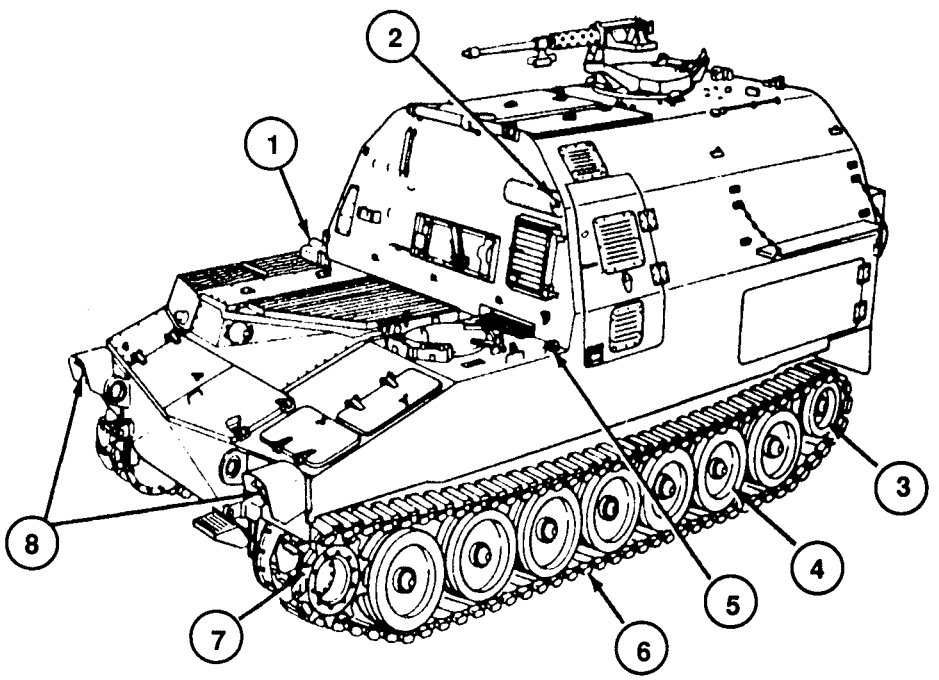
ROADWHEELS (4) Seven sets per side provide support and guide the track.

LANYARD CABLE PULL HANDLE (5) For emergency manual discharge of one engine compartment and two crew compartment extinguishers to extinguish fires in the engine and crew compartments.

TRACK (6)

DRIVE SPROCKET (7) Left and right sprockets are mounted on the final drives to drive each track.

HEADLAMPS (8) Provide light for night driving under normal or blackout (infrared) conditions.



M992 Left Front View

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - Continued

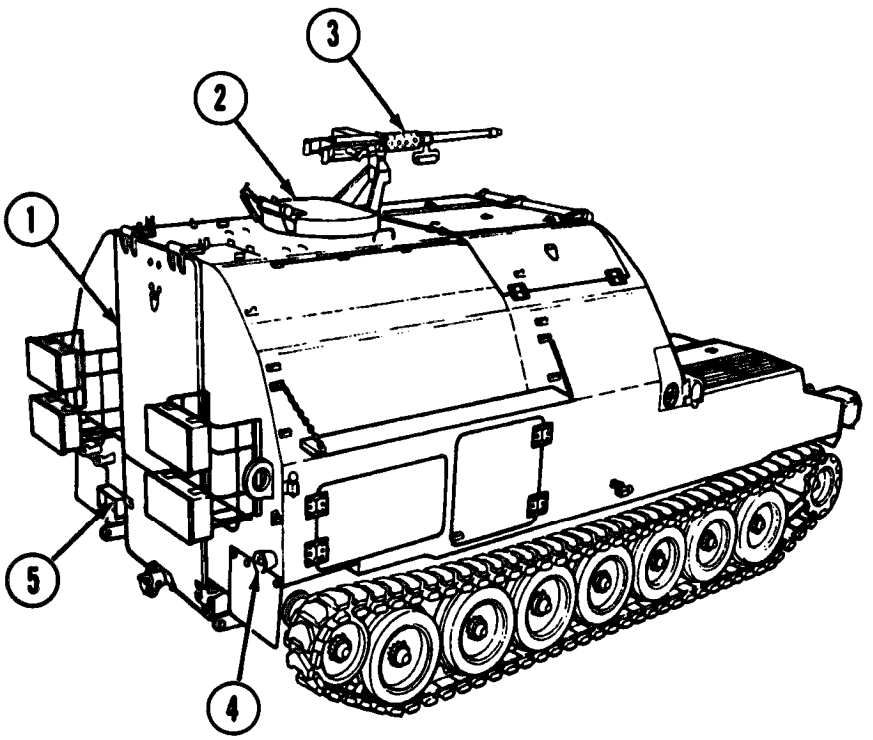
UPPER REAR DOOR (BALLISTIC SHIELD) (1)

COMMANDER'S CUPOLA (2) Provides access to machine gun mount; rotates manually 6400 roils (360 degrees).

MACHINE GUN (3) M2, .50-caliber heavy barrel.

TAILLIGHT/STOPLIGHT (4) Two combination taillight/stoplight units provide rear light for night driving under normal and blackout (infrared) conditions

NATO SLAVE RECEPTACLE (5) Used to connect the M992 electrical system with that of another vehicle for slave starting operations, and to provide power access.



M992 Right Rear View