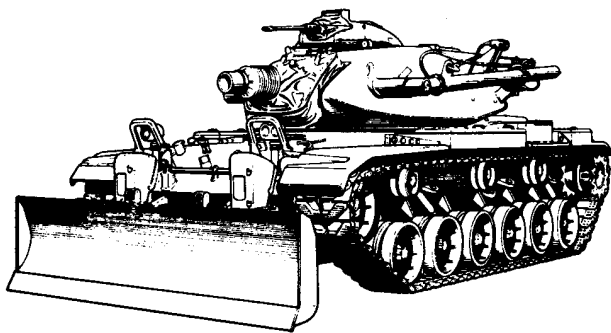


TECHNICAL MANUAL

DIRECT SUPPORT AND
GENERAL SUPPORT
MAINTENANCE



COMBAT ENGINEER VEHICLE,

FULL TRACKED, M728

2350-00-795-1797

(HULL)

This copy is a reprint which includes current
pages from Changes 1 through 5.

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Technical Manual
No. 9-2350-222-34-1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C. 8 December 1980

**DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE
COMBAT ENGINEER VEHICLE, FULL-TRACKED, M728
NSN 2350-00-795-1797
(HULL)**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake 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-MBC, Warren, Michigan 48397-5000. A reply will be furnished to you.

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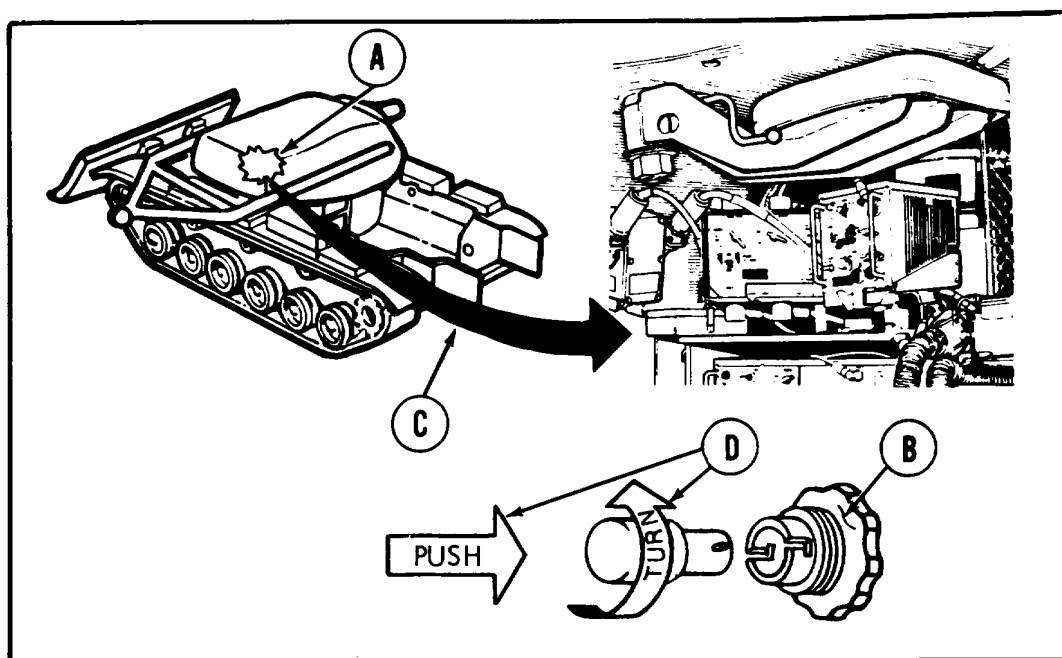
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***This manual supersedes portions of TM 9-2300-378-35/1, dated 24 January 1978, including changes.**

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HOW TO USE THIS MANUAL:

- Manual is divided into chapters.
- Chapters are by functional group code and presented in same order as the RPSTL (Repair Parts and Special Tool List).
- Procedure indexes are on procedures that are four pages or more, and indicate how the procedure is set up, i.e., Disassembly, Removal, Cleaning and Inspection, etc.
- All manual references refer to page numbers.
- Steps are numbered and are to be performed in that order.
- Be sure to read all NOTES, WARNINGS, AND CAUTIONS.
- Locator views are included wherever necessary. These will help you locate the item for which the procedure is referencing.
- Jagged circle (✱) on locator (A) indicates a cutout and item is inside of vehicle.
- A (~) symbol represents the outside surface (B) of a piece of equipment that cannot be shown in its entirety.
- Callouts are shown by a circle with a letter inside.
- Locator arrows (C) are black and mechanical motion arrows (D) are white.
- Broken leader arrow (— →) indicates the item is either inside or under the tank and cannot be seen.



TA130425

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

SCOPE

Type of Manual : Direct Support and General Support Maintenance.

Model Number and Equipment Name : Combat Engineer Vehicle, Full-Track, M728.

Purpose of Equipment : Provide a mobile and maneuverable weapon for combat support of ground troops and vehicles. It is equipped with a hydraulically-operated bulldozer mounted to the front of the hull. A winch and a boom are mounted to the turret for lifting, carrying, and winching. The M728 vehicle is used for breaching, obstacle removal, transportation of demolition teams, and pioneering operations.

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).

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR's)

If your M728 Engineer Vehicle 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 our equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, U.S. Army Tank-Automotive Command, AMSTA-Q, Warren, Michigan 48397-5000. We'll send you a reply.

CALIBRATION

There are no calibration requirements for the maintenance of any component of the hull.

ENGLISH AND METRIC SYSTEM UNITS

Torque values specified in this manual are expressed in pound feet (lb-ft) or pound inches (lb-in) followed by the metric equivalent in parenthesis. The metric equivalent is expressed in system international units Newton meters (Nm). There is a metric equivalents chart located on the inside rear cover of this manual.

Section II. EQUIPMENT DESCRIPTION AND DATA

DESCRIPTION

Refer to TM 9-2350-222-20-1.

DATA

Refer to TM 9-2350-222-20-1.

CHAPTER 2

HULL MAINTENANCE INSTRUCTIONS

Section I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

COMMON TOOLS AND EQUIPMENT

For authorized common tools and equipment, refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

Special tools for direct support and general support maintenance are listed and illustrated in TM 9-2350222-34P-1, which is the authority for requisitioning replacements.

ENGINE

- | | |
|--|---------------------------------|
| 1. Engine and Transmission Sling
(12257229) | Remove and install power plant. |
|--|---------------------------------|

TRANSMISSION

- | | |
|---|--|
| 2. Mechanical Puller Adapter
(7082774) | Disengage transmission input shaft from engine flywheel (used with slide hammer puller 7082201). |
| 3. Deleted | |
| 4. Deleted | |
| 5. Pinion Turning Wrench
(7081564) | Turn transmission gearing. |

FINAL DRIVE

- | | |
|---------------------------------------|---|
| 6. Box Wrench
(12251988) | Remove and install final drive output shaft nut. |
| 7. Bearing Remover Tool
(12291062) | Remove bearings from final drive output shaft and drive gear. |
| 8. Seal Inserter (8355822) | Install final drive output shaft seal. |

SUSPENSION

- | | | |
|------|--|--|
| 9. | Shock Absorber Bearing Replacer (11654533) | Remove and replace bearing in shock absorber. |
| 10. | Bearing Tool Assembly (12325917) | Remove No. 1 left and right roadwheel arm track adjusting bearing |
| 10.1 | Spanner Wrench (12301553) | Loosen or tighten grease actuated track adjusting link locking collar. |
| 10.2 | Test Fixture (12326061) | Test grease actuated track adjusting link. |
| 10.3 | Bearing Driver (12290993) | Remove and replace bearing in track adjusting link mount. |

HYDRAULICS

- | | | |
|-----|-----------------------------|--|
| 11. | Spanner Wrench (MS 16153-9) | Remove and install suction line bulkhead bushing. |
| 12 | Spanner Wrench (10952095) | Remove and install threaded retainer from right angle drive. |

SPARE AND REPAIR PARTS

Spares and repair parts are listed and illustrated in the repair parts and special tools list covering direct support and general support maintenance for this equipment (TM 9 2350-222-34P-1).

Section II. SERVICE UPON RECEIPT

1. This section contains information on services to be performed upon issue of the vehicle to the using organization. Where practicable, the crew will assist in services described. For services to be performed on turret components, refer to TM 9-2350-222-34-2. Some of the services contained herein may not be required, depending upon the degree of preservation provided by the shipper and the planned use of the vehicle.
2. Cut hold-down straps and remove wooden boxes, containers of equipment, and any other vehicle components secured to the exterior or interior of the vehicle.
 - a. Inspect equipment for damage incurred during shipment. If equipment has been damaged, report damage on DD Form 6, Packaging Improvement Report.
 - b. Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with instructions of TM 38-750.
3. Conduct service upon receipt of the vehicle in accordance with the procedures specified on pages 2-4 and 2-5.

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SERVICE UPON RECEIPT - Continued

Step	Item	Action	Remarks
1. Hull	Exterior	Check vehicle hull for damage	—
2. Hull	Fender stowage boxes	Inspect for water in two center and two rear fender stowages boxes.	Para 4a, page 2-6
3. Hull	Hatches	Remove wrapping, barrier material, and tape.	—
4. Hull	Periscope shields	Remove wrapping, barrier material, and tape.	—
5. Hull	Optical glass	Remove wrapping, barrier material, and tape.	—
6. Hull (right side)	Personnel heater exhaust assembly	Remove tape.	Item 1, page 2-6
7. Hull (right and left sides)	Air cleaner (precleaner) centrifugal fan (blower motor) exhaust elbows	Remove tape and protective barrier plugs.	Item 2, Para 4b, page 2-6
8. Hull (top deck)	Turbosupercharger and tubes	Open two top deck hatch door assemblies and remove tape and plugs from two turbosuperchargers and two tubes.	Item 3, Para 4c, page 2-6
9. Hull (top deck)	Air cleaner inlet screens	Open two top deck hatch door assemblies and remove tape from two air cleaner inlet screens at bulkhead.	Item 3, page 2-6
10. Hull (right rear fender)	External handset box	Remove tape from external handset box.	Item 4, page 2-6, Para 4d, page 2-7
11. Hull (front and rear)	Tow hooks	Remove four tow hooks stowed inside hull. Install two hooks at front and two hooks at rear of vehicle.	Item 5, page 2-6, Para 4e, page 2-7
12. Hull (rear)	Pintle	Remove pintle stowed inside of hull. Install pintle at rear of vehicle.	Item 6, page 2-6, Para 4f, page 2-7

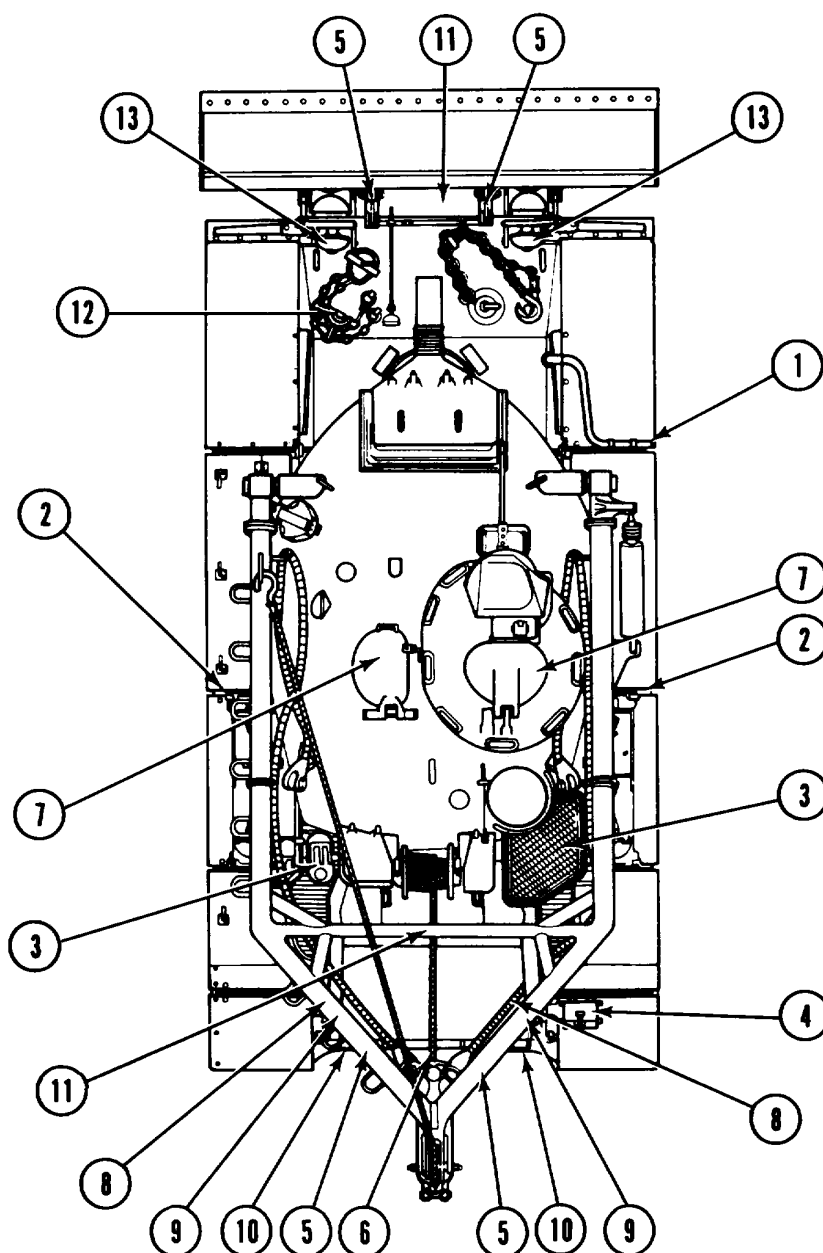
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SERVICE UPON RECEIPT -Continued

Step	Item	Action	Remarks
13. Hull (underside)	Fuel tank drain access openings	Remove two screens at two fuel tank drain access openings.	Item 7, page 2-6, Para 4g, page 2-7
14. Hull (underside)	Brake control access openings	Remove two screens at two brake control access openings.	Item 8, page 2-6, Para 4h, page 2-7
15. Hull (underside)	Brake control access covers access openings.	Remove two brake control access covers stowed inside hull and install on	Para 4i, page 2-7
16. Hull (underside)	Front and rear drain valve openings	Remove screens from front and rear drain valve openings.	Item 11, page 2-6, Para 4j, page 2-7
17. Hull (rear)	Engine exhaust outlet doors	Open engine exhaust outlet doors and remove tape from engine exhaust outlet pipes.	Item 9, page 2-6
18. Hull (rear)	Taillights taillight lenses.	Remove wrapping and tape from two page 2-6	Item 10,
19. Hull (front)	Fire extinguisher handles	Remove tape from fire extinguisher handles protective shield.	Item 12, page 2-6, Para 4k, page 2-7
20. Hull (interior)	CO2 cylinder plastic blow-off cap	Check for presence of shrunk tubing on service valve of CO2 cylinder, located next to driver's compartment.	Para 4l, page 2-7
21. Hull (front)	Headlight mounting receptacles	Remove dust covers from two hull headlight mounting receptacles.	Item 13, page 2-6, Para 4m, page 2-7

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SERVICE UPON RECEIPT - Continued



4. Corrective action for items listed in paragraph 3 found deficient will be corrected as follows:

- a. Water in fender stowage boxes should be drained by removing 1/4 inch headless drain plugs (two in each box) as required to allow water to drain. After water has drained, reinstall and tighten plugs.
- b. Protective barrier plugs should be reinstalled and tightened after water has drained.
- c. Connect tubes to turbosupercharger. Refer to TM 9-2350-222-20-1.

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