

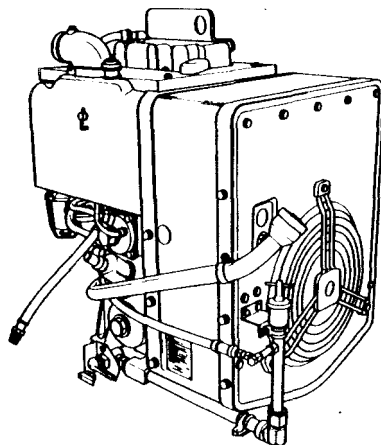
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**DEPARTMENT OF THE ARMY
TECHNICAL MANUAL**

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**DIRECT SUPPORT AND GENERAL SUPPORT
MAINTENANCE
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)**

ENGINE, DIESEL, INDUSTRIAL TYPE



MODEL DJEAM AND MODEL DJBMA
(NSN 2815-01-1 75-7342) (NSN 2815-00-615-8740)

TM 9-281 5-221-34&P

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OCTOBER 1985

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DIRECT SUPPORT AND GENERAL MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
MODEL DJEAM AND MODEL DJBMA
(NSN 2815-01-175-7342) (NSN 2815-00-615-8740)

REPORTING OF ERRORS

You can 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 or DA Form 2028-2 directly to COMMANDER, US Army Tank-Automotive Command, ATTN: AMSTA-MBC, Warren, MI 48397-5000. A reply will be furnished to you.

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HOW TO USE THIS MANUAL

GENERAL

This manual contains direct and general support maintenance procedures (including Repair Parts and Special Tools List) for Model DJEAM and DJBMA Diesel Engines.

It is divided into four chapters. Each chapter is divided into sections to cover the subject or maintenance/test procedure for each major part of the engine.

Appendix B contains a repair parts and special tool list (RPSTL). Refer to page B-1 for detailed RPSTL instructions.

IMPORTANT

You must read and understand entire maintenance procedure before beginning any maintenance task.

Also, read general information in Chapter 1 (p 1-1) and general maintenance instructions in Chapter 3 (p 3-1 and 3-2).

SAMPLE PROBLEM

To help you discover how to use this manual, a typical maintenance problem is given. Follow steps in order:

STEP 1 How do you Start?

- A Open manual to Quick Guide to Troubleshooting (p 2-5).**
- B Find name of item that doesn't work. (FOR EXAMPLE: ENGINE.)**

STEP 2 What kind of problem do you have? Find problem with item. (FOR EXAMPLE: LOW ENGINE POWER.)

STEP 3 How do you fix it?

- A Turn to page listed under solution or reference (p 2-14).**
- B Follow procedure given.**

CHAPTER 1 INTRODUCTION

Section I GENERAL INFORMATION

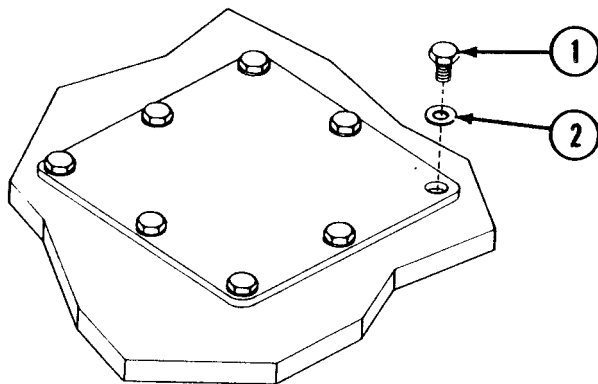
SCOPE

This technical manual has instructions for Direct/General Support Maintenance of the Diesel Engine Assembly, Model DJEAM, used on the Carrier, Ammunition, Tracked, M992; and Model DJBMA used on the M88A1 Medium Recovery Vehicle.

Steps in which maintenance procedures are to be performed are indicated by letters: step A is performed before step B, and B before C. Step AA follows step Z.

Text and illustrations use numbers to help you identify parts. Example: to tell how to remove the screws and washers in the picture below, your instructions would be:

Remove eight screws (1) and washers (2).



Dotted lines on illustrations indicate where parts are located.

APPENDIX A is a list of current references, including supply manuals, forms, and other applicable publications.

APPENDIX B is the Repair Parts and Special Tools List, with applicable illustrations, required to support the diesel engine assembly.

APPENDIX C lists Expendable Supplies and Materials required to support the diesel engine assembly maintenance functions.

APPENDIX D lists torque limits for the diesel engine assembly.

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).

Accidents involving injury to personnel or damage to materiel will be reported on DA Form 285 (Accident Report) in accordance with AR 385-40.

METRIC TOOLS

Diesel Engines, Model DJEAM and DJBMA, described in this manual are non-metric. Use of metric tools is not required.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR'S)

If your Diesel Engine, Model DJEAM or **DJBMA** needs improvement, let us know. Send us an E **IR**. 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 (Quality Deficiency Report). Mail it to us **at**: Commander, US Army Tank-Automotive Command, ATTN: AMSTA-QRT, Warren, MI 48397-5000. We'll send you a reply.

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

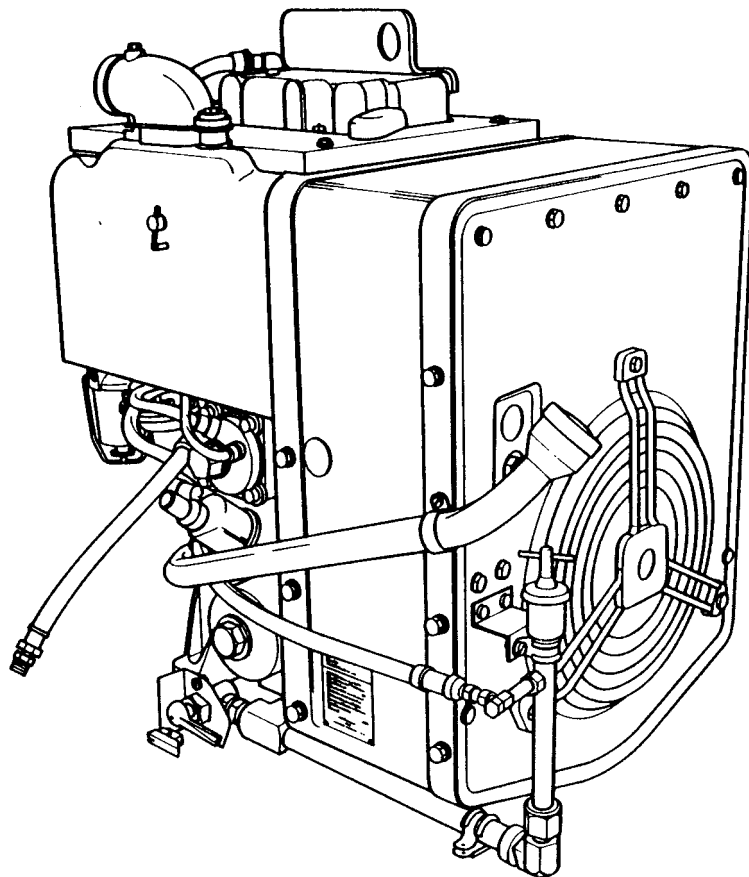
Diesel Engine, Model DJEAM, is part **of** the Auxiliary Power Unit (**APU**) assembly on board the **M992** vehicle. Refer to TM 750-244-6 for procedures on destruction of the **M992** vehicle.

Diesel Engine, Model DJBMA, is part of the Auxiliary Power Unit (**APU**) assembly **on** board the **M88A1** vehicle. Refer to TM 9-2350-256-10 and TM 750-244-6 for procedures on destruction of the **M88A1** vehicle.

ADMINISTRATIVE STORAGE

Basic requirements for the administrative storage are covered in TM 740-90-1.

Section II EQUIPMENT DESCRIPTION AND DATA



DESCRIPTION

Diesel engines Model DJEAM and DJBMA are 2-cylinder valve-in-head, add firing, air cooled engines used as auxiliary power sources for the M992, Carrier, Ammunition, Tracked and M88A1 Medium Recovery Vehicle. The 4-cycle engine develops 11.5 hp (10.8 hp for DJBMA) at engine speed of 200 rpm (at 500 foot elevation, outside air temperature 70 °F). The following systems makeup the DJEAM and DJBMA engines:

A	Air cooling system	page 1-5
B	Fuel system	page 1-6
C	Lubrication system	page 1-7
D	Starting system	page 1-9
E	Governor system	page 1-10
F	Power train	page 1-11

NOTE

The terms right, left, front and rear used in this manual, with reference to the engine, are as viewed from the front or flywheel end of the engine.

Physical and technical characteristics are listed on page 1-4