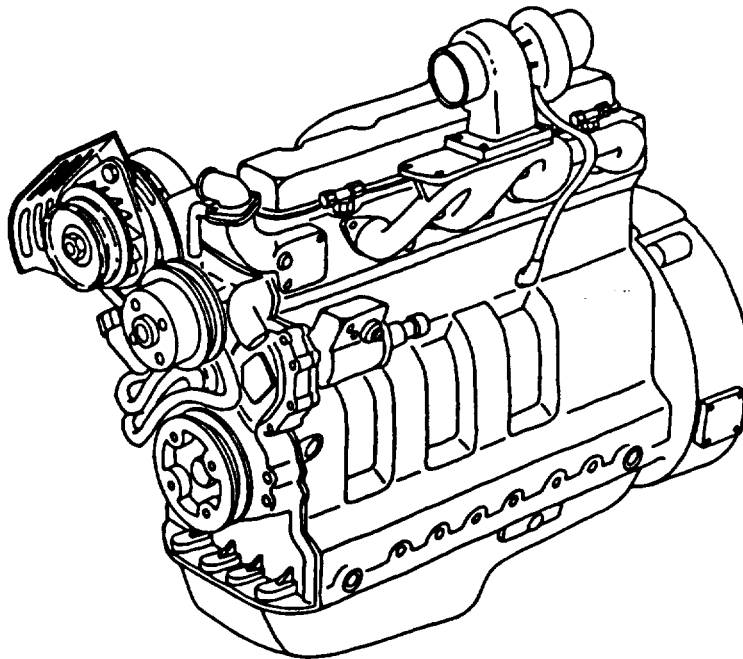


TECHNICAL MANUAL
UNIT, DIRECT SUPPORT AND GENERAL SUPPORT
MAINTENANCE INSTRUCTIONS

DIESEL ENGINE
MODEL 4039T
4 CYLINDER 3.9 LITER
NSN: 2815-01-350-2208



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HEADQUARTERS, DEPARTMENTS OF THE ARMY,
AIR FORCE AND MARINE CORPS

15 SEPTEMBER 1993

TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENTS OF THE ARMY, AIR FORCE
AND HEADQUARTERS, U.S. MARINE CORPS
WASHINGTON, D.C., 15 September 1993

NO. 9-2815-255-24

TECHNICAL MANUAL
Unit, Direct Support and General Support
Maintenance Instructions

DIESEL ENGINE
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CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE.

1-1.1. Type of Manual. This manual contains unit, direct support, and general support maintenance instructions for the Model 4039T Diesel Engine, hereafter referred to as engine. Also included are descriptions of major systems/components and their functions in relation to other systems/components.

1-1.2. Purpose of Equipment. The engine provides a driving force for generators or other equipment requiring this size (HP rating) and compatibility.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.

1-2.1. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, Army Maintenance Management System (TAMMS). Air Force personnel will use AFR 66-1, Air Force Maintenance Management Policy, for maintenance reporting and TO-00-35D54 for unsatisfactory equipment reporting.

1-2.2. Reporting of Item and Packaging Discrepancies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-1-2/DLAR 414-55/SECNAVINST 4355.18/AFR 400-54/MCO 4430.3J.

1-2.3. Transportation Discrepancy Report (TDR) (SF 361). Fill out and forward Transportation Discrepancy Report (TDR) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

1-3. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).

1-3.1. Army. If your Military Standard Engine 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 (Product Quality Deficiency Report). Mail it to us at: Commander, U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-MDO, 4300 Goodfellow Boulevard, St. Louis, Missouri 63120-1798. We will send you a reply.

1-3.2. Air Force. Air Force personnel are encouraged to submit EIR's in accordance with AFR 9004.

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

Refer to 750-244-3 for procedures to destroy equipment to prevent enemy use.

1-5. PREPARATION FOR STORAGE OR SHIPMENT.

Refer to TB 740-97-2 for procedures to place the equipment into storage.

1-6. WARRANTY.

The engine is warranted for a specific period of time. Refer to Warranty Technical Bulletin for the end item. The warranty starts on the date found in block 23, DA Form 24089, in the equipment log book. Report all defects in material or workmanship to your supervisor, who will take appropriate action.

Section II. EQUIPMENT DESCRIPTION AND DATA

1-7. GENERAL.

The diesel engine (FIGURE 1-1) is four cylinder, four cycle, fuel injected, turbocharged, and liquid cooled. The firing order is 1-3-4-2. The number one cylinder is toward the fan end of the engine. The serial number is found on right side of the cylinder block in the vicinity of the starter. Rotation of engine is counterclockwise as viewed from flywheel.