TECHNICAL MANUAL

UNIT, INTERMEDIATE DIRECT SUPPORT AND INTERMEDIATE GENERAL SUPPORT MAINTENANCE MANUAL

DRILLING SYSTEM, WELL, ROTARY, TRUCK MOUNTED, AIR TRANSPORTABLE, 600 FEET CAPACITY MODEL LP-12 NSN 3820-01-246-4276

Approved for public release; distribution is unlimited.

This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content requirements normally associated with Army technical manuals. This technical manual does, however, contain all essential information required to operate and maintain the equipment.

HEADQUARTERS, DEPARTMENT OF THE ARMY
8 MAY 1989

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Due to a commitment of continuous research and development, some procedures, specifications and parts may be altered to improve International® products and introduce technological advances.

Periodic revisions may be made to this publication and mailed automatically to "Revision Service" subscribers. The following literature, supporting International® Diesel Engines, is available from:

Forward Requests to:
International Harvester Company
Printing, Procurement and Distribution
807 Blackhawk Drive
Westmont, Illinois 60559

400 SERIES ENGINES

Form No.	Description
CGGES-185	300/400 Series Engine Service Manual
CGES-200	UTDS Model 100 Fuel Injection Pump Manual
CGES-375	Robert Bosch "MW" Injection Pump Manual
CGED-390	400 Series (w/UTDS Model 100 Pump) Performance Analysis Guide
CGED-365	400C Series (w/Robert Bosch MW Pump) Performance Analysis Guide

SERVICE DIAGNOSIS

Service diagnosis is a systematic procedure of investigation to be followed in order to locate and correct an engine problem. The engine is first considered as a complete unit in its specific application and then the problem is localized to components or systems; intake, exhaust, cooling, lubrication or injection. Testing procedures will then help analyze the source of the problem.

PREREQUISITES FOR EFFECTIVE DIAGNOSIS:

1. Knowledge of the principles of operation for both the engine and application systems.

2. Knowledge to perform and understand all procedures in the diagnostic and service manuals.

3. Availability of and the ability to use gauges and diagnostic test equipment.

4. Have available the current Guideline Data for the engine application.

Although the cause of an engine failure may be apparent, very often the real cause is not found until a repeat failure occurs. This can be prevented if specific diagnostic action is taken prior to, during and after engine disassembly and during engine reassembly.

It is also very important that specific diagnostic tests follow engine reassembly prior to and after the engine is placed back into service.

Identification of the symptoms which lead to engine failure is the result of proper service diagnosis. Effective service diagnosis requires use of the following references:

1. Appropriate Diesel Engine Service Manual.

2. Performance Analysis Guides.

3. Fuel Injection Pump and Nozzle Service Manuals.

4. Service Bulletins.