

T 444E
DIESEL ENGINE / VEHICLE
DIAGNOSTIC MANUAL
FOR
INTERNATIONAL® TRUCKS
EGES-125-1
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 - (APS/IVS) ACCELERATOR PEDAL POSITION SENSOR / IDLE VALIDATION SWITCH
 - (BARO) BAROMETRIC PRESSURE SENSOR
 - (BRAKE) BRAKE SWITCH/RELAY CIRCUITS
 - (CMP) CAMSHAFT POSITION SENSOR
 - (DCL/ATA) DCL/ATA DATA COMMUNICATION LINKS
 - (EBP) EXHAUST BACK PRESSURE SENSOR
 - (ECI) ENGINE CRANK INHIBIT
 - (ECL) ENGINE COOLANT LEVEL SYSTEM (ENGINE PROTECTION)
 - (ECM) ELECTRONIC CONTROL MODULE SELF DIAGNOSTICS
 - (ECM IDM) ECM/IDM COMMUNICATIONS
 - (ECM PWR) ELECTRONIC CONTROL MODULE POWER SUPPLY

SECTION 3: ELECTRONIC CONTROL SYSTEM DIAGNOSTICS (Continued)

SECTION 3.5 CIRCUIT FUNCTION AND DIAGNOSTICS (Continued)

(ECT) ENGINE COOLANT TEMPERATURE SENSOR
(EDL) ENGINE DATA LINE CIRCUITS WITH ALLISON AT/MT TRANSMISSIONS
(EOP) ENGINE OIL PRESSURE SENSOR
(EOT) ENGINE OIL TEMPERATURE SENSOR
(EPR) EXHAUST BACK PRESSURE REGULATOR
(GPC) GLOW PLUG CONTROL
(IAT) INTAKE AIR TEMPERATURE SENSOR
(ICP) INJECTION CONTROL PRESSURE SENSOR
(IDM PWR) INJECTOR DRIVER MODULE POWER CIRCUITS
(INJ) INJECTOR DRIVE CIRCUITS
(IPR) INJECTION PRESSURE REGULATOR
(KAM PWR) KEEP ALIVE MEMORY POWER
(MAP) MANIFOLD ABSOLUTE PRESSURE SENSOR
(SCCS) SPEED CONTROL COMMAND SWITCHES AND PTO CONTROLS
(STI/EWL) SELF TEST INPUT SWITCH AND ENGINE WARNING LIGHT
(TACH) TACHOMETER INPUT CIRCUITS
(TSA) TWO SPEED AXLE CIRCUIT
(V REF) VOLTAGE REFERENCE CIRCUITS
(VPM) VEHICLE PERSONALITY MODULE FUEL/HOUR METERS AND ODOMETER
(VSS) VEHICLE SPEED SIGNAL

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This manual is part of a series of manuals intended to assist service technicians in maintaining International® Engines in accordance with the latest technical advancements.

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:

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Battle Creek Michigan 49017

T 444E DIESEL ENGINES

<u>Form No.*</u>	<u>Description</u>
EGES-120	T 444E Engine Service Manual
EGES-125	T 444E Diesel Engine / Vehicle Diagnostic Manual
EGED-130	T 444E Hard Start / No Start & Performance Engine Diagnostics Form
EGED-135	T 444E Electronic Control System Diagnostic Form
1 171 674 R1	T 444E Engine Operation and Maintenance Manual (Prior to 1997)
1 171 715 R1	T 444E Engine Operation and Maintenance Manual 1997 Model Year

* – Manual number specified with latest revision will be furnished.

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 information 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 reassemble.

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. Hard Start / No Start & Performance Engine Diagnostics.
3. Electronic Diagnostics
4. Service Bulletins.

This manual is arranged in sections, with the pages numbered consecutively in each section. Any photos or artist renderings are also numbered consecutively in each section. Included at the top of each page is the Section Title, Section Number and Page Number. The bottom center of each page will show the manual Form Number (i.e. EGES-125).

NOTE: A dash and a numeral (-1) indicates the number of times the basic manual has been completely revised.

An index arranged according to sections will be found at the beginning of this manual.

The diagram illustrates the layout of a manual page. It features a large rectangular frame. At the top left, the text "SECTION TITLE" is followed by a right-pointing arrow and the word "GENERAL". To the right of this, the text "Section 1" is above "Page 1". On the far right, outside the frame, the text "SECTION NO." is above "PAGE NO.", with arrows pointing to the "Section 1" and "Page 1" text inside the frame. In the center of the frame, the word "EXAMPLE" is written in large, bold, capital letters. At the bottom, a horizontal line is followed by the text "FORM NO." followed by a right-pointing arrow and "EGES-125-1".