

SECTION 01: ENGINE

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1. ENGINE

This vehicle is powered by a 6-cylinder, four-cycle, Detroit Diesel series 60 engine, equipped with an electronic control system (DDEC V).

Two engine displacements are used in the Series 60 engines: 12.7 and 14.0 liters. Summary information on the Electronic Control System is given in this section.

Complete maintenance and repair information on the engine will be found in the current DDEC V Service Manual. This maintenance manual covers engine accessories, controls and related components.

Procedures for engine removal and installation are given at the end of this section. The DDEC system is self-diagnostic. It can identify faulty components and other engine-related problems by providing the technician with a diagnostic code.

Refer to DDEC Troubleshooting Guide published by Detroit Diesel for more complete information on diagnosis of components and system problems.

DDEC V (Detroit Diesel Electronic Control) controls the timing and amount of fuel injected by the electronic unit injectors (EUI). The system also monitors several engine functions using electrical sensors, which send electrical signals to the Electronic Control Module (ECM). The ECM computes the electrical signals and determines the correct fuel output and timing for optimum power, fuel economy and emissions. The ECM also has the ability to display warnings or shut down the engine completely (depending on option selection) in the event of damaging engine conditions, such as low oil pressure, low coolant level, or high oil temperature.

Two categories divide system components: engine-mounted components and engine-related components.

2. ENGINE-MOUNTED COMPONENTS

NOTE: COOLANT LEVEL SENSOR IS MOUNTED ON COOLANT SURGE TANK, LOCATED ON UPPER L. H. SIDE OF ENGINE COMPARTMENT. TURBO COMPRESSOR IN TEMPERATURE SENSOR IS MOUNTED ON ENGINE AIR INTAKE DUCT.

