Light Vehicle Diesel Engines, 1st Edition Chapter 6
Name
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.
1) What could be at fault if the crankcase pressure is excessive?
2) How should dual 12-volt batteries be tested?
3) What is a cylinder contribution test and how is it performed?
4) What engine faults can be determined using a compression test?
5) What are four visual checks that should be performed on an engine if a mechanical malfunction is suspected?

Answer Key

Testname: LVDE1_SHORT6

- 1) There are several causes for excessive crankcase pressure including:
 - Crankcase oil level too high.
 - Obstruction or damage to rocker cover breather.
 - Defective Turbocharger.
 - Worn or damaged valve or cylinder.

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2) To successfully test the batteries, they should be disconnected and tested separately. If just one battery is found to be defective, most experts recommend that both be replaced to help prevent future problems. Because the two batteries are electrically connected, a fault in one battery can cause the good battery to discharge into the defective battery, thereby affecting both even if just one battery is defective.

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3) A cylinder contribution test, also called a power balance test, is an automated test that a scan tool performs by turning a fuel injector off to one cylinder at the time and monitors the drop, or increase in engine speed. This change in engine speed should be the same for all cylinders if all cylinders are working correctly. A scan tool can be used by selecting this function and following the on-screen instructions.

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- 4) An engine can lose compression by leakage of air through one or more of only three routes.
 - Intake or exhaust valve
 - Piston rings (or piston, if there is a hole)
 - Cylinder head gasket

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- 5) 1. Overall inspection of the vehicle
 - 2. Oil level and condition
 - 3. Coolant level and condition
 - 4. Oil leaks

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