

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) Describe the cylinder leakage test.

2) Describe how to perform a compression test and how to determine what is wrong with an engine based on compression test result.

3) List three items that could cause engine noises.

4) List three items that could cause excessive oil consumption.

5) Describe the test procedure for determining if the exhaust system is restricted (clogged) using a vacuum gauge.

6) Describe the visual checks that should be performed on an engine if a mechanical malfunction is suspected.

7) Describe how a vacuum gauge would indicate if the valves were sticking in their guides.

Answer Key

Testname: ENGINEPERF5_SHORT13

- 1) A cylinder leakage test uses compressed air in the cylinders and faults are detected by listening for where the air is escaping from the engine.
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- 2) A compression test is performed by connecting a pressure gauge into the spark plug hole and cranking the engine. A low first puff measurement indicates worn or broken piston rings. All cylinders should be within 20% of each other.
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- 3) Excessive engine noise can be caused by a defective accessory drive belt, cracked flexplate, or loose torque converter.
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- 4) Excessive oil consumption can be caused by oil leaks, worn valve stem seals, and a clogged PCV system.
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- 5) A clogged (restricted) exhaust would be indicated on a vacuum gauge as a drop in engine vacuum if the engine speed is held at 2,000 to 2,500 RPM.
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- 6) The visual inspection items that should be performed as a part of a diagnosis include oil level and condition, coolant level and condition, checking for oil leaks, and listening carefully for abnormal engine noise.
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- 7) A vacuum gauge can be used to detect engine faults and a sticking valve would be indicated by a vacuum gauge needle movement that drops 1 or 2 in. Hg from the normal reading.
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