

Name _____

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

1) What are the steps in performing an oil change?

2) Why do engines in vehicle built before about 1990 need an additive in the oil to help protect the engine?

3) How is the fluid level in a manual transmission checked?

4) What oil specification is used to express the thickness (viscosity) of the oil?

5) What additives are added to oil to help protect the engine?

Answer Key

Testname: INTRO_SHORT19

- 1) To change the engine oil, perform the following steps:
 - Step 1 Check the oil level (notify the customer if low).
 - Step 2 Hoist the vehicle and drain the oil; remove the oil filter.
 - Step 3 Lubricate the oil filter rubber gasket and install the oil filter; reinstall the oil drain plug with a new gasket.
 - Step 4 Lower the vehicle and add the amount of specified oil.
 - Step 5 Start the engine and check for leaks.

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- 2) Most older engines that use flat-bottom valve lifters need oil or an additive with additional zinc to protect against sliding friction.

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- 3) The fluid level is determined by removing a plug on the side of the case where the fluid level can be checked at this point, following the manufacturer's specified level.

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- 4) The SAE rating of the oil is used to designate the viscosity of the oil.

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- 5) The additives used to protect the engine include:
 - Rust inhibitor. Inhibits the action of water on ferrous metal, such as steel
 - Corrosion inhibitor. Protects nonferrous metals, such as copper
 - Anti-wear additive. Forms a protective layer on metal surfaces to reduce friction and prevent wear when no lubricant film is present
 - Extreme pressure additive. Functions only when heavy loads and temperatures are occurring

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