Automotive Technology 6th Edition
Chapter 37 - Engine Assembly and Dynamometer Testing
Chapter 37

Name_____

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

1) What are the measured and the calculated values as a result of testing an engine on a dynamometer?

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2) How is crankshaft end play measured?

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3) Why should Teflon seals not be oiled prior to being installed?

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4) Why are torque-to-yield fasteners used for many head bolts?

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5) What are the items that need to be installed as part of the short block assembly?

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1) Measured values are actual physical measurements taken from readouts from the sensors used on the engine or dynamometer. Calculated values, such as horsepower, are calculated from the torque and engine RPM measured values.
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2) Crankshaft end play is measured with a dial indicator or a feeler gauge.
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3) Teflon seals must transfer some of the Teflon to the crankshaft to provide a proper seal. If oil is used on the seal, the Teflon cannot be transferred.
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4) Many engines use a tightening procedure called the torque-to-yield (TTY) method. The purpose of the TTY procedure is to have a more constant clamping load from bolt to bolt.
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5) A short block assembly includes the block, crankshaft, pistons and connecting rods, and camshaft if OHV.
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