

*Automotive Engines 10th*

**Chapter 34 Engine Assembly and Dynamometer Testing**

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

1. How is crankshaft end play measured?
2. Why are torque-to-yield fasteners used for many head bolts?
3. Why should Teflon seals not be oiled prior to being installed?
4. What are the measured and the calculated values as a result of testing an engine on a dynamometer?
5. What are the items that need to be installed as part of the short block assembly?

## Answer Key

Testname: ENGINES 10 SHORT34

1. Crankshaft end play is measured with a dial indicator or a feeler gauge.  
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2. 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. This aids in head gasket sealing performance and eliminates the need for re-torquing.  
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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. 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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5. A short block assembly includes the block, cam bearings, crankshaft, pistons and connecting rods, and camshaft if OHV.  
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