Automotive Engines 10th

Chapter 8 Measuring Systems and Tools

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

1. How is a micrometer is read?

2. How is a dial bore gauge set to a dimension before using?

3. What gaps or clearances can be measured using a feeler (thickness) gauge?

4. What engine components can be measured with the help of a telescopic gauge?

5. How is a crankshaft journal checked for out-of-round and taper?

Answer Key
Testname: ENGINES 10 SHORT08

1. A micrometer uses a screw thread that has 40 threads per inch. Every rotation of the thimble moves the spindle 0.025 in. The spindle is then divided into 25 parts so each line on the spindle represents 0.001 in.
   Page Ref: 76
2. A dial bore gauge has to be adjusted to a dimension, such as the factory specifications. the reading on the dial bore gauge then indicates plus (+) or minus (−) readings from the predetermined dimension.
   Page Ref: 82
3. The gaps or clearances that can be measured using a feeler gauge include piston ring gap, piston ring side clearance, and connecting rod side clearance.
   Page Ref: 81
4. The engine components that can be measured with the help of a telescopic gauge include cylinder bore, camshaft bearing diameter, main bearing bore diameter, and connecting rod bore diameter.
   Page Ref: 79
5. To check a crankshaft journal for out-of round, a micrometer should be used to check the diameter in three positions, each 120 degrees apart. To check for taper, measure the journal diameter at two locations. The difference in the two readings is the taper.
   Page Ref: 77