

PISTON INSPECTION

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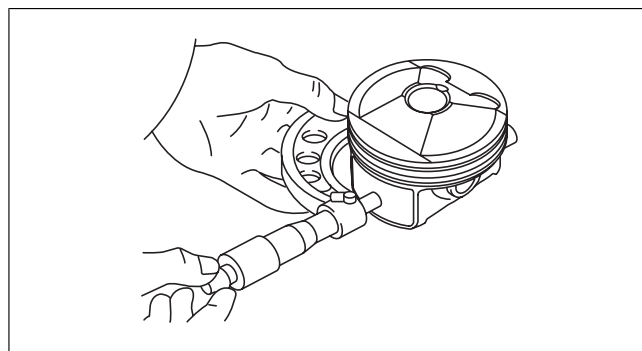
Caution

- If the piston is replaced, replace the piston, piston pin, and the snap ring as a single component.

1. Measure the piston outer diameter using the micrometer. The measurement position is **8.0 mm {0.31 in}** from the lower end of the piston (area with no coating on the piston skirt) and in the thrust direction.
 - If it is not within the specification, replace the piston.

Standard piston outer diameter

SKYACTIV-G 2.0: 83.465—83.495 mm {3.2861—3.2872 in}
SKYACTIV-G 2.5: 88.965—88.995 mm {3.5026—3.5037 in}



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2. Measure the cylinder bore diameter. (See CYLINDER BLOCK INSPECTION.)
3. Calculate the cylinder-to-piston clearance from the cylinder bore diameter and the piston outer diameter.
 - If the clearance exceeds the maximum specification, replace the piston or cylinder block.

Standard clearance between piston and cylinder

0.025—0.045 mm {0.0010—0.0017 in}

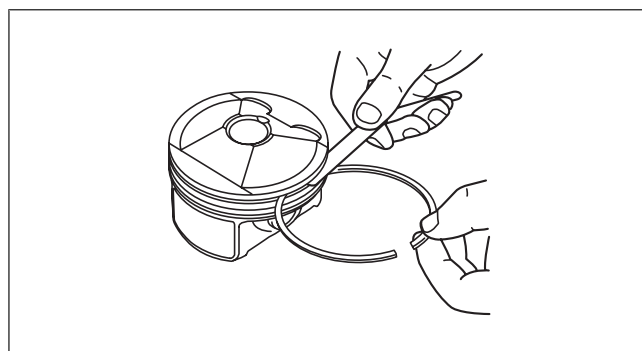
Maximum clearance between piston and cylinder

SKYACTIV-G 2.0: 0.063 mm {0.0025 in}
SKYACTIV-G 2.5: 0.066 mm {0.0026 in}

4. Measure the piston-to-ring groove clearance along the perimeter using a feeler gauge. For the O-ring, measure the clearance with the O-ring assembled to the piston.
 - If the clearance exceeds the maximum specification, replace the piston or piston ring.

Standard clearance between piston ring and ring groove

Top: 0.04—0.08 mm {0.002—0.003 in}
Second: 0.03—0.07 mm {0.0012—0.0027 in}
Oil: 0.04—0.12 mm {0.002—0.004 in}



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Maximum clearance between piston ring and ring groove

Top: 0.12 mm {0.0047 in}
Second: 0.10 mm {0.0039 in}
Oil: 0.17 mm {0.0067 in}