

Piston Rings

Meets ASE Task: (A1-C-12) P-2 Inspect, measure and install piston rings.

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

Piston rings should be fitted to each cylinder of the engine. The end gap of the rings is critical for best engine operation.

_____ 1. Determine the following specifications for the engine being serviced:

Ring end gap = _____ (usually 0.004" per inch of bore)

Ring side clearance = _____ (usually 0.001" to 0.003")

_____ 2. Select the top compressing ring and install it into the cylinder. Use a piston inserted upside down into the top of the bore to position the ring squarely in the cylinder.

_____ 3. Use a feeler (thickness) gauge to measure the ring end gap:

Ring end gap = _____

OK _____ NOT OK _____

_____ 4. If the gap is less than specified, use a file or ring file tool to increase the end gap until the specified gap is obtained.

_____ 5. Repeat the procedure for the second compression ring.

_____ 6. Repeat the procedure for all other rings and cylinders.

_____ 7. Before installing the rings on the piston, be sure that there is the specified side clearance by inserting the piston ring backward into the piston ring groove and measuring the side clearance with a feeler gauge.

Actual side clearance = _____

OK _____ NOT OK _____

