

# 7. CYLINDER/PISTON

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## SERVICE INFORMATION

### GENERAL

- Camshaft lubrication oil is fed to the cylinder head through an orifice in the cylinder and crankcase. Be sure this orifice is clogged and that the O-rings and dowel pins are in place before installing the cylinder head.

### SPECIFICATIONS

ITEM		STANDARD	SERVICE LIMIT	
Cylinder	I.D.	65.00–65.01 mm (2.559–2.560 in)	65.10 mm (2.563 in)	
	Taper	—————	0.10 mm (0.004 in)	
	Out of round	—————	0.10 mm (0.004 in)	
	Warpage across top	—————	0.10 mm (0.004 in)	
Piston, piston pin, piston rings.	Piston O.D.	64.955–64.985 mm (2.5573–2.5585 in)	64.90 mm (2.555 in)	
	Piston pin bore	15.002–15.008 mm (0.5906–0.5909 in)	15.04 mm (0.592 in)	
	Piston pin O.D.	14.994–15.000 mm (0.5903–0.5906 in)	14.96 mm (0.589 in)	
	Piston-to-pin clearance	0.002–0.014 mm (0.0001–0.0006 in)	0.02 mm (0.001 in)	
	Piston ring-to-ring groove clearance	TOP	0.015–0.050 mm (0.0006–0.0020 in)	0.09 mm (0.004 in)
		SEC	0.015–0.045 mm (0.0006–0.0018 in)	0.09 mm (0.004 in)
	Piston ring end gap	TOP/SECOND	0.20–0.40 mm (0.008–0.016 in)	0.50 mm (0.020 in)
OIL		0.30–0.90 mm (0.012–0.035 in)	—————	
Cylinder-to-piston clearance		0.015–0.055 mm (0.0006–0.0022 in)	0.10 mm (0.004 in)	

## TROUBLESHOOTING

### Low or unstable compression

1. Worn cylinder or piston rings.
2. Decompressor lever out of adjustment.

### Excessive smoke

1. Worn cylinder, piston, or piston rings.
2. Improper installation of piston rings.
3. Scored or scratched piston or cylinder wall.

### Overheating

- Excessive carbon build-up on piston or combustion chamber wall.

### Knocking or abnormal noise

1. Worn piston and cylinder.
2. Excessive carbon build-up.