

7. CYLINDER/PISTON

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SERVICE INFORMATION

GENERAL

- Camshaft lubrication oil is fed to the cylinder head through a pipe. Be sure this pipe is not clogged before installing the cylinder head.
- The cylinder can be removed with the engine in the frame.

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SPECIFICATIONS

ITEM		STANDARD	SERVICE LIMIT	
Cylinder	I.D.	74.00–74.01 mm (2.913–2.914 in)	74.10 mm (2.917 in)	
	Taper	—	0.10 mm (0.004 in)	
	Outer 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.	73.965–73.985 mm (2.9120–2.9128 in)	73.90 mm (2.909 in)	
	Piston pin bore	19.002–19.008 mm (0.7481–0.7483 in)	19.04 mm (0.750 in)	
	Piston pin O.D.	18.994–19.000 mm (0.7478–0.7480 in)	18.96 mm (0.747 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	0.015–0.045 mm (0.0006–0.0018 in)	0.09 mm (0.004 in)
		SECOND	0.015–0.045 mm (0.0006–0.0018 in)	0.09 mm (0.004 in)
Piston ring end gap	TOP/SECOND	0.15–0.3 mm (0.006–0.012 in)	0.50 mm (0.020 in)	
	OIL	0.2–0.7 mm (0.008–0.028 in)	—	
Cylinder-to-piston clearance		0.015–0.045 mm (0.0006–0.0018 in)	0.10 mm (0.004 in)	
Cranksaft	Connecting rod small end I.D.	19.020–19.041 mm (0.7488–0.7496 in)	19.10 mm (0.752 in)	

TROUBLESHOOTING

Low or unstable compression

1. Worn cylinder or piston rings

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