

5. CYLINDER HEAD/ CYLINDER/PISTON

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SERVICE INFORMATION

GENERAL

- All cylinder head, cylinder and piston maintenance and inspection can be done with the engine installed.
- Before disassembling the engine, clean the outside of the frame and engine thoroughly so to keep dirt and dust out of the cylinder and crankcase.
- Remove all traces of gasket material from the mating surfaces of the cylinder head, cylinder and crankcase.
- Clean all parts before inspecting.
- Before assembling, apply clean 2-stroke engine oil to all sliding surfaces.
- Under racing conditions, the piston and rings should be replaced after 30 hours of running. The piston pin and small end connecting rod bearing should be replaced after 30 hours of running.
- Optional oversize piston and piston rings are available. Refer to Page 1-14.

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SPECIFICATIONS

ITEM		STANDARD mm (in)	SERVICE LIMIT mm (in)
Cylinder head warpage		0.05 (0.002)	0.07 (0.003)
Cylinder	I.D.	66.02–66.04 (2.5992–2.5998)	66.07 (2.601)
	Taper	—	0.03 (0.001)
	Out of round	—	0.03 (0.001)
Piston, piston pin, piston ring	Piston O.D. 30 mm (1.18 in) from piston skirt bottom	65.94–65.96 (2.596–2.597)	65.88 (2.594)
	Piston pin bore	18.007–18.013 (0.7089–0.7091)	18.03 (0.710)
	Piston pin O.D.	17.994–18.000 (0.7084–0.7087)	17.98 (0.708)
	Piston pin-to-pin bore	0.007–0.019 (0.0003–0.0007)	0.03 (0.001)
	Piston ring-to-ring groove clearance	0.045–0.075 (0.0018–0.003)	0.095 (0.0037)
	Piston ring end gap	0.2–0.4 (0.01–0.02)	0.5 (0.02)
Cylinder-to-piston clearance		0.060–0.095 (0.0024–0.0037)	0.14 (0.006)
Connecting rod small end I.D.		21.997–22.009 (0.8860–0.8665)	22.022 (0.8670)

TORQUE VALUES

Cylinder head nut	24–29 N·m (2.4–2.9 kg-m, 17–21 ft-lb)
Cylinder base nut	38–48 N·m (3.8–4.8 kg-m, 27–35 ft-lb)
Engine mounting bolt (10 mm)	50–60 N·m (5.0–6.0 kg-m, 36–43 ft-lb)
Engine hanger bolt (8 mm)	25–35 N·m (2.5–3.5 kg-m, 18–25 ft-lb)
Spark plug	15–20 N·m (1.5–2.0 kg-m, 11–14 ft-lb)
Cylinder coolant drain bolt	8–12 N·m (0.8–1.2 kg-m, 6–9 ft-lb)