

# Standards and Service Limits

## Cylinder Head/Valve Train — Section 6

	MEASUREMENT			STANDARD (NEW)	SERVICE LIMIT
Compression	200 rpm and wide open throttle	Nominal Minimum Maximum variation		1,400 kPa (14.0 kg/cm <sup>2</sup> , 199 psi) 1,000 kPa (10.0 kg/cm <sup>2</sup> , 142 psi) 200 kPa (2.0 kg/cm <sup>2</sup> , 28 psi)	
Cylinder head	Warpage Height			— 99.95–100.05 (3.935–3.939)	0.05 (0.002) —
Camshaft	End play			0.05–0.15 (0.002–0.006)	0.15 (0.006)
	Camshaft-to-holder oil clearance			0.050–0.089 (0.0020–0.0035)	0.10 (0.004)
	Total runout			0.03 (0.001)	0.04 (0.002)
	Cam lobe height	L, LS	IN	40.005 (1.5750)	—
			EX	37.766 (1.4868)	—
		GS	IN	40.345 (1.5884)	—
			EX	37.934 (1.4935)	—
Valve	Valve clearance		IN	0 (Hydraulic tappets, Auto-adjuster type)	—
			EX	0 (Hydraulic tappets, Auto-adjuster type)	—
	Valve stem O.D.		IN	5.48–5.49 (0.2157–0.2161)	5.45 (0.215)
			EX	5.45–5.46 (0.2146–0.2150)	5.42 (0.213)
	Stem-to-guide clearance		IN	0.02–0.05 (0.001–0.002)	0.08 (0.003)
			EX	0.05–0.08 (0.002–0.003)	0.11 (0.004)
Valve seat	Width		IN	1.25–1.55 (0.049–0.061)	2.0 (0.08)
			EX	1.25–1.55 (0.049–0.061)	2.0 (0.08)
	Stem installed height		IN	46.935–47.375 (1.8478–1.8652)	47.625 (1.8750)
			EX	47.885–48.375 (1.8852–1.9045)	48.575 (1.9124)
Valve spring	Free length	L, LS	IN	50.16 (1.9748)* <sup>1</sup>	—
				50.17 (1.9752)* <sup>2</sup>	—
			EX	50.36 (1.9827)	—
		GS	IN	49.15 (1.935)* <sup>1</sup>	—
				49.10 (1.933)* <sup>2</sup>	—
			EX	50.16 (1.975)* <sup>1</sup>	—
				50.17 (1.975)* <sup>2</sup>	—
Valve guide	I.D.		IN and EX	5.51–5.53 (0.217–0.218)	5.55(0.219)
	Installed height		IN and EX	15.75–16.25 (0.620–0.640)	—
Rocker arm	Arm-to-shaft clearance			0.018–0.054 (0.0007–0.0021)	0.08 (0.003)

\*1: NIHON HATSUJO manufactured valve spring \*2: CHUO HATSUJO manufactured valve spring