

# Standards and Service Limits

## Cylinder Head/Valve Train — Section 6

	MEASUREMENT			STANDARD (NEW)	SERVICE LIMIT
Compression	200 rpm and wide open throttle kPa (kgf/cm <sup>2</sup> , psi)	Minimum Maximum variation		980 (10.0, 142) 200 (2.0, 28)	
Cylinder head	Warpage Height			150.95 – 151.05 (5.943 – 5.947)	0.05 (0.002)
Camshaft	End play			0.05 – 0.15 (0.002 – 0.006)	0.5 (0.02)
	Camshaft-to-holder oil clearance			0.050 – 0.089 (0.002 – 0.004)	0.15 (0.006)
	Total runout			0.03 (0.0012) max.	0.04 (0.0016)
	Cam lobe height	M/T IN	Primary	37.086 (1.4601)	—
			Mid	38.037 (1.4975)	—
			Secondary	37.326 (1.4695)	—
		EX	Primary	36.559 (1.4393)	—
			Mid	37.398 (1.4724)	—
			Secondary	36.741 (1.4465)	—
		A/T IN	Primary	37.266 (1.4672)	—
			Mid	37.655 (1.4825)	—
			Secondary	37.504 (1.4765)	—
		EX	Primary	36.559 (1.4393)	—
			Mid	37.398 (1.4724)	—
			Secondary	36.741 (1.4465)	—
Valve	Valve clearance	IN		0.15 – 0.19 (0.006 – 0.007)*3	—
		EX		0.17 – 0.21 (0.007 – 0.008)*3	—
	Valve stem O.D.	IN		5.475 – 5.485 (0.2156 – 0.2159)	5.445 (0.2144)
		EX		5.45 – 5.46 (0.2146 – 0.2150)	5.42 (0.2134)
	Stem-to-guide clearance	IN		0.025 – 0.055 (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		0.80 – 1.00 (0.031 – 0.039)	1.5 (0.059)
		EX		1.25 – 1.55 (0.049 – 0.061)	2.0 (0.079)
	Stem installed height	IN		41.55 – 42.35 (1.6358 – 1.6673)	42.435 (1.6707)
		EX		41.55 – 42.35 (1.6358 – 1.6673)	42.435 (1.6707)
Valve spring	Free length	M/T IN	Outer	43.23 (1.7020)*1	—
			Inner	43.24 (1.7024)*2	—
		EX		39.79 (1.5665)*1	—
				39.82 (1.5677)*2	—
				46.00 (1.8110)*1	—
				45.98 (1.8102)*2	—
		A/T IN		44.59 (1.7555)*1	—
				44.60 (1.7559)*2	—
		EX		47.40 (1.8661)*1	—
				47.43 (1.8673)*2	—
Valve guide	I.D.		IN and EX	5.51 – 5.53 (0.2169 – 0.2177)	5.53 (0.218)
	Installed height		IN and EX	13.75 – 14.25 (0.541 – 0.561)	—
Rocker arm	Arm-to-shaft clearance	Primary and Secondary	IN and EX	0.025 – 0.052 (0.0010 – 0.0020)	0.08 (0.003)
		Mid	IN and EX	0.024 – 0.053 (0.0009 – 0.0021)	0.08 (0.003)

\*1: NIHON HATSUJO made, \*2: CHUO HATSUJO made.

M/T: Manual Transmission A/T: Automatic Transmission

\*3: Measured between the rocker arm and camshaft.