

CYLINDER HEAD/VALVES SPECIFICATIONS

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT
Cylinder compression			1,098 kPa (11.2 kgf/cm ² , 159 psi) at 550 rpm	–
Cylinder head warpage			–	0.05 (0.002)
Rocker arm	Rocker arm I.D.	IN/EX	10.000 – 10.015 (0.3937 – 0.3943)	10.10 (0.398)
	Rocker arm shaft O.D.	IN/EX	9.972 – 9.987 (0.3926 – 0.3932)	9.91 (0.390)
	Arm-to-shaft clearance	IN/EX	0.013 – 0.043 (0.0005 – 0.0017)	0.08 (0.003)
Camshaft	Cam lobe height	IN	32.542 – 32.782 (1.2812 – 1.2906)	32.52 (1.280)
		EX	32.263 – 32.503 (1.2702 – 1.2796)	32.24 (1.269)
Valve, valve guide	Valve clearance	IN	0.16 ± 0.02 (0.006 ± 0.001)	–
		EX	0.25 ± 0.02 (0.010 ± 0.001)	–
	Valve stem O.D.	IN	4.975– 4.990 (0.1959 – 0.1965)	4.90 (0.193)
		EX	4.955 – 4.970 (0.1951 – 0.1957)	4.90 (0.193)
	Valve guide I.D.	IN/EX	5.000 – 5.012 (0.1969 – 0.1973)	5.03 (0.198)
	Stem-to-guide clearance	IN	0.010 – 0.037 (0.0004 – 0.0015)	0.08 (0.003)
		EX	0.030 – 0.057 (0.0012 – 0.0022)	0.10 (0.004)
	Valve guide projection above cylinder head	IN/EX	9.1 – 9.3 (0.36 – 0.37)	–
Valve seat width	IN/EX	0.90 – 1.10 (0.035 – 0.043)	1.5 (0.06)	
Valve spring free length	IN/EX	Outer	38.33 (1.509)	37.04 (1.458)
		Inner	31.53 (1.241)	30.66 (1.207)

CYLINDER/PISTON SPECIFICATIONS

Unit: mm (in)

ITEM			STANDARD	SERVICE LIMIT	
Cylinder	I.D.		50.000 – 50.010 (1.9685 – 1.9689)	50.10 (1.972)	
	Out-of-round		–	0.05 (0.002)	
	Taper		–	0.05 (0.002)	
	Warpage		–	0.05 (0.002)	
Piston, piston ring, piston pin	Piston O.D.		49.970 – 49.990 (1.9673 – 1.9681)	49.95 (1.967)	
	Piston O.D. measurement point		10 (0.4) from bottom of skirt	–	
	Piston pin bore I.D.		13.002 – 13.008 (0.5119 – 0.5121)	13.04 (0.513)	
	Piston pin O.D.		12.994 – 13.000 (0.5116 – 0.5118)	12.96 (0.510)	
	Piston-to-piston pin clearance		0.002 – 0.014 (0.0001 – 0.0006)	0.02 (0.001)	
	Piston ring-to-ring groove clearance	Top		0.015 – 0.045 (0.0006 – 0.0018)	0.08 (0.003)
		Second		0.015 – 0.045 (0.0006 – 0.0018)	0.08 (0.003)
	Piston ring end gap	Top		0.10 – 0.25 (0.004 – 0.010)	0.45 (0.018)
		Second		0.10 – 0.25 (0.004 – 0.010)	0.45 (0.018)
Oil (side rail)			0.20 – 0.70 (0.008 – 0.028)	–	
Cylinder-to-piston clearance			0.010 – 0.040 (0.0004 – 0.0016)	0.09 (0.004)	
Connecting rod small end I.D.			13.010 – 13.028 (0.5122 – 0.5129)	13.05 (0.514)	
Connecting rod-to-piston pin clearance			0.010 – 0.034 (0.0004 – 0.0013)	0.05 (0.002)	
Stud bolt projection above crankcase			177.5 – 178.5 (6.99 – 7.03)	–	