

## SERVICE INFORMATION

### GENERAL

- This section covers service of the cylinder head, valves and camshaft.
- The camshaft services can be done with the engine installed in the frame. The cylinder head service requires engine removal.
- When disassembling, mark and store the disassembled parts to ensure that they are reinstalled in their original locations.
- Clean all disassembled parts with cleaning solvent and dry them by blowing them off with compressed air before inspection.
- Camshaft lubricating oil is fed through oil passages in the cylinder head. Clean the oil passages before assembling cylinder head.
- Be careful not to damage the mating surfaces when removing the cylinder head cover and cylinder head.

### SPECIFICATIONS

ITEM		STANDARD	Unit: mm (in)
		STANDARD	SERVICE LIMIT
Cylinder compression		1,098 kPa (11.2 kgf/cm <sup>2</sup> , 159 psi) at 350 rpm	—
Valve clearance		IN 0.16 ± 0.03 (0.006 ± 0.001)	—
		EX 0.30 ± 0.03 (0.012 ± 0.001)	—
Camshaft	Cam lobe height	IN 37.02 – 37.10 (1.457 – 1.461)	37.00 (1.457)
		EX 36.66 – 36.74 (1.443 – 1.446)	36.64 (1.443)
	Runout	—	0.05 (0.002)
	Oil clearance	0.020 – 0.062 (0.0008 – 0.0024)	0.10 (0.004)
Valve lifter	Valve lifter O.D.	25.978 – 25.993 (1.0228 – 1.0233)	25.97 (1.022)
	Valve lifter bore I.D.	26.010 – 26.026 (1.0240 – 1.0246)	26.04 (1.025)
Valve, valve guide	Valve stem O.D.	IN 3.975 – 3.990 (0.1565 – 0.1571)	3.965 (0.1561)
		EX 3.965 – 3.980 (0.1561 – 0.1567)	3.955 (0.1557)
	Valve guide I.D.	IN/EX 4.000 – 4.012 (0.1575 – 0.1580)	4.04 (0.159)
	Stem-to-guide clearance	IN 0.010 – 0.037 (0.0004 – 0.0015)	0.075 (0.0030)
		EX 0.020 – 0.047 (0.0008 – 0.0019)	0.085 (0.0033)
	Valve guide projection above cylinder head	IN 16.1 – 16.4 (0.63 – 0.65)	—
		EX 15.5 – 15.8 (0.61 – 0.62)	—
	Valve seat width	IN 0.90 – 1.10 (0.035 – 0.043)	1.5 (0.06)
EX 0.90 – 1.10 (0.035 – 0.043)		1.5 (0.06)	
Valve spring free length	IN	39.5 (1.56)	38.7 (1.52)
	EX	39.5 (1.56)	38.7 (1.52)
Cylinder head warpage		—	0.10 (0.004)

### TORQUE VALUES

Cylinder head mounting bolt/washer	51 N·m (5.2 kgf·m, 38 lbf·ft)	Apply molybdenum disulfide oil to the threads and seating surface
Camshaft holder flange bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	Apply oil to the threads
Cylinder head sealing bolt	27 N·m (2.8 kgf·m, 20 lbf·ft)	
Cylinder head cover bolt	9.8 N·m (1.0 kgf·m, 7 lbf·ft)	
Breather plate flange bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	Apply a locking agent to the threads
PAIR reed valve cover bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	CT bolt
Throttle body insulator socket bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	Apply a locking agent to the threads
Cam sprocket flange bolt	20 N·m (2.0 kgf·m, 14 lbf·ft)	Apply a locking agent to the threads
Cam chain tensioner pivot bolt	9.8 N·m (1.0 kgf·m, 7 lbf·ft)	Apply a locking agent to the threads
Camshaft position sensor rotor bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	Apply a locking agent to the threads
Cam chain tensioner lifter mounting socket bolt	9.8 N·m (1.0 kgf·m, 7 lbf·ft)	
Cam chain guide torx bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	
Exhaust pipe stud bolt	See page 1-15	
Spark plug	16 N·m (1.6 kgf·m, 12 lbf·ft)	