

Engine Block — **Section 7**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface Bore diameter Bore taper Reboring limit	0.07 (0.003) max. 90.00-90.02 (3.543-3.544) — —	0.10 (0.004) 90.07 (3.546) 0.05 (0.002) 0.5 (0.02)
Piston	Skirt O.D. at 17.0mm (0.67in) from bottom of skirt No Letter (A) B Clearance in cylinder Groove width (for ring) Top Second Oil	89.980-89.990 (3.5425-3.5429) 89.970-89.980 (3.5421-3.5425) 0.02-0.04 (0.001-0.002) 1.22-1.23 (0.0480-0.0484) 1.22-1.23 (0.0480-0.0484) 2.805-2.820 (0.1104-0.1110)	89.97 (3.5421) 89.96 (3.5417) 0.08 (0.003) 1.25 (0.0492) 1.25 (0.0492) 2.84 (0.1118)
Piston ring	Ring-to-groove clearance Top Second Ring end gap Top Second Oil	0.035-0.060 (0.0014-0.0024) 0.030-0.055 (0.0012-0.0022) 0.25-0.40 (0.010-0.016) 0.40-0.55 (0.016-0.022) 0.20-0.70 (0.008-0.028)*1 0.20-0.50 (0.008-0.020)*2	0.13 (0.005) 0.13 (0.005) 0.70 (0.028) 0.85 (0.033) 0.80 (0.031) 0.80 (0.031)
Piston Pin	O.D. Pin-to-piston clearance	21.994-22.000 (0.8659-0.8661) 0.012-0.024 (0.0005-0.0009)	— —
Connecting rod	Pin-to-rod interference Small end bore diameter Large end bore diameter End play installed on crankshaft Nominal	0.013-0.032 (0.0005-0.0013) 21.968-21.981 (0.8649-0.8654) 57.0 (2.24) 0.15-0.30 (0.006-0.012)	— — — —
Crankshaft	Main journal diameter Rod journal diameter Taper Out-of-round End play Total runout	67.976-68.000 (2.6762-2.6772) 53.970-53.994 (2.1248-2.1257) 0.005 (0.0002) max. 0.004 (0.0002) max. 0.10-0.29 (0.004-0.011) 0.020 (0.0008) max.	— — 0.010 (0.0004) 0.010 (0.0004) 0.45 (0.018) 0.030 (0.0012)
Bearings	Main bearing-to-journal oil clearance Rod bearing-to-journal oil clearance	0.020-0.044 (0.0008-0.0017) 0.022-0.046 (0.0009-0.0018)	0.05 (0.002) 0.05 (0.002)

*1: RIKEN manufactured piston ring

*2: TEIKOKU PISTON RING manufactured piston ring

Engine Lubrication — **Section 8**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Engine oil	Capacity ℓ (US qt, Imp qt)	5.3 (5.6, 4.7) for engine overhaul 4.5 (4.8, 4.0) for oil change, including filter 4.0 (4.2, 3.5) for oil change, without filter	
Oil pump	Inner-to-outer rotor radial clearance Housing-to-outer rotor radial clearance Housing-to rotor axial clearance	0.04-0.16 (0.002-0.006) 0.10-0.18 (0.004-0.007) 0.02-0.07 (0.001-0.003)	0.20 (0.008) 0.20 (0.008) 0.12 (0.005)
Relief valve	Pressure setting at oil temperature 176°F (80°C) kPa (kg/cm ² , psi) at idle at 3,000rpm	70 (0.7, 10) min. 350 (3.5, 50)min.	