SERVICE SPECIFICATIONS

SERVICE DATA

EG0VT-0F

Compression pressure	at 250 rpm	STD	1,176 kPa (12.0 kgf/cm², 171 psi) or more
		Minimum	883 kPa (9.0 kgf/cm², 128 psi)
	Difference of pressure between each cylinder		98 kPa (1.0 kgf/cm², 14 psi) or less
Valve clearance	at cold	Intake	0.15 – 0.25 mm (0.006 – 0.010 in.)
		Exhaust	0.25 – 0.35 mm (0.010 – 0.014 in.)
Ignition timing	w/ Terminals TE1 and E1 connected		3° BTDC @ Idle
Idle speed	–		650 ± 50 rpm
Intake manifold vacuum	at idle speed		63 kPa (473 mmHg, 18.6 in.Hg)
Cylinder head	Warpage		
	Cylinder block side	Maximum	0.15 mm (0.0059 in.)
	Manifold side	Maximum	0.10 mm (0.0039 in.)
	Valve seat		
	Refacing angle	Intake	30°, 45°, 75°
		Exhaust	45°, 75°
	Contacting angle		45°
	Contacting width	Intake	1.2 – 1.6 mm (0.047 – 0.063 in.)
		Exhaust	1.0 – 1.4 mm (0.039 – 0.055 in.)
	Cylinder head bolt outside diameter	STD	10.85 – 11.00 mm (0.4272 – 0.4331 in.)
		Limit	10.6 mm (0.417 in.)
Valve guide bushing	Inside diameter		7.010 – 7.030 mm (0.2760 – 0.2768 in.)
	Outside diameter (for repair part)	STD	11.492 – 11.513 mm (0.4524 – 0.4533 in.)
		O/S 0.05	11.542 – 11.563 mm (0.4544 – 0.4552 in.)
	Protrusion height		8.2 – 8.6 mm (0.323 – 0.339 in.)
Valve	Valve overall length	STD Intake	98.4 mm (3.874 in.)
		Exhaust	97.9 mm (3.854 in.)
		Minimum Intake	97.9 mm (3.854 in.)
		Exhaust	97.4 mm (3.835 in.)
	Vale face angle		44.5°
	Stem diameter	Intake	6.970 – 6.985 mm (0.2744 – 0.2750 in.)
		Exhaust	6.965 – 6.980 mm (0.2742 – 0.2748 in.)
	Stem oil clearance	STD Intake	0.025 – 0.060 mm (0.0010 – 0.0024 in.)
		Exhaust	0.030 – 0.065 mm (0.0012 – 0.0026 in.)
		Maximum Intake	0.08 mm (0.0031 in.)
		Exhaust	0.10 mm (0.0039 in.)
	Margin thickness	STD	1.2 mm (0.047 in.)
		Minimum	1.0 mm (0.039 in.)
Valve spring	Deviation	Maximum	2.0 mm (0.079 in.)
	Free length		43.94 – 45.06 mm (1.7299 – 1.7740 in.)
	Installed tension at 36.5 mm (1.437 in.)		214 – 238 N (21.8 – 24.2 kgf, 48.1 – 53.4 lbf)
Valve lifter	Lifter diameter		33.966 – 33.976 mm (1.3372 – 1.3376 in.)
	Lifter bore diameter		34.000 – 34.021 mm (1.3386 – 1.3394 in.)
	Oil clearance	STD	0.024 – 0.055 mm (0.0009 – 0.0022 in.)
		Maximum	0.07 mm (0.0028 in.)
Manifold	Warpage	Maximum	0.30 mm (0.0118 in.)

Air intake chamber	Warpage	Maximum	0.30 mm (0.0118 in.)
Camshaft	Thrust clearance	STD	0.030 — 0.080 mm (0.0012 — 0.0031 in.)
		Maximum	0.10 mm (0.0039 in.)
	Journal oil clearance	STD	0.025 — 0.062 mm (0.0010 — 0.0024 in.)
		Maximum	0.10 mm (0.0039 in.)
	Journal diameter		26.959 — 26.975 mm (1.0614 — 1.0620 in.)
	Circle runout	Maximum	0.06 mm (0.0024 in.)
	Cam lobe height	STD	50.61 — 50.71 mm (1.9925 — 1.9965 in.)
		Minimum	50.51 mm (1.9886 in.)
	Camshaft gear backlash	STD	0.020 — 0.200 mm (0.0008 — 0.0079 in.)
		Maximum	0.30 mm (0.0188 in.)
	Camshaft gear spring end free distance		18.2 — 18.8 mm (0.717 — 0.740 in.)
Spark plug tube	Protrusion		45.5 mm (1.791 in.)
Oil pump drive shaft gear	Thrust clearance	STD	0.040 — 0.160 mm (0.0016 — 0.0063 in.)
		Maximum	0.30 mm (0.0118 in.)
Chain and timing gear	Chain length at 16 links	Maximum	146.6 mm (5.772 in.)
	Camshaft timing gear wear (w/ chain)	Minimum	126.0 mm (4.961 in.)
	Crankshaft timing gear wear (w/ chain)	Minimum	65.4 mm (2.575 in.)
Chain tensioner slipper and vibration damper	Wear	Maximum	1.0 mm (0.039 in.)
Cylinder block	Cylinder head surface warpage	Maximum	0.05 mm (0.0020 in.)
	Cylinder bore diameter	STD Mark 1	100.000 — 100.010 mm (3.9370 — 3.9374 in.)
		Mark 2	100.010 — 100.020 mm (3.9374 — 3.9378 in.)
		Mark 3	100.020 — 100.030 mm (3.9378 — 3.9382 in.)
		Maximum STD	100.23 mm (3.9461 in.)
		O/S 0.50	100.73 mm (3.9658 in.)
		O/S 1.00	101.23 mm (3.9854 in.)
	Main bearing bolt outside diameter	STD	10.85 — 11.00 mm (0.4271 — 0.4331 in.)
		Minimum	10.6 mm (0.417 in.)
Piston and piston ring	Piston diameter	STD Mark 1	99.950 — 99.960 mm (3.9350 — 3.9354 in.)
		Mark 2	99.960 — 99.970 mm (3.9354 — 3.9358 in.)
		Mark 3	99.970 — 99.980 mm (3.9358 — 3.9362 in.)
		O/S 0.50	100.450 — 100.480 mm (3.9547 — 3.9559 in.)
		O/S 1.00	100.950 — 100.980 mm (3.9744 — 3.9756 in.)
	Piston oil clearance	STD	0.040 — 0.060 mm (0.0016 — 0.0024 in.)
	Piston ring groove clearance	No.1	0.040 — 0.080 mm (0.0016 — 0.0031 in.)
		No.2	0.030 — 0.070 mm (0.0012 — 0.0028 in.)
	Piston ring end gap	STD No.1	0.300 — 0.520 mm (0.0118 — 0.0205 in.)
		No.2	0.450 — 0.670 mm (0.0177 — 0.0264 in.)
		Oil	0.150 — 0.520 mm (0.0059 — 0.0205 in.)
		Maximum No.1	1.12 mm (0.0441 in.)
		No.2	1.17 mm (0.0461 in.)
		Oil	1.12 mm (0.0441 in.)

Connecting rod	Thrust clearance	STD	0.160 — 0.262 mm (0.0063 — 0.0103 in.)
		Maximum	0.362 mm (0.0143 in.)
	Connecting rod bearing center wall thickness		
	Reference	STD Mark 2	1.744 — 1.747 mm (0.0687 — 0.0688 in.)
		Mark 3	1.747 — 1.750 mm (0.0688 — 0.0689 in.)
		Mark 4	1.750 — 1.753 mm (0.0689 — 0.0690 in.)
		Mark 5	1.753 — 1.756 mm (0.0690 — 0.0691 in.)
		Mark 6	1.756 — 1.759 mm (0.0691 — 0.0693 in.)
	Connecting rod oil clearance	STD STD	0.032 — 0.050 mm (0.0013 — 0.0020 in.)
		U/S 0.25	0.033 — 0.073 mm (0.0013 — 0.0029 in.)
		Maximum	0.10 mm (0.0039 in.)
	Rod bend	Maximum per 100 mm (3.94 in.)	0.05 mm (0.0020 in.)
	Rod twist	Maximum per 100 mm (3.94 in.)	0.15 mm (0.0059 in.)
	Bushing inside diameter		26.008 — 26.020 mm (1.0239 — 1.0244 in.)
	Piston pin diameter		26.000 — 26.012 mm (1.0236 — 1.0241 in.)
	Piston pin oil clearance	STD	0.004 — 0.012 mm (0.0002 — 0.0005 in.)
		Limit	0.05 mm (0.0020 in.)
	Connecting rod bolt outside diameter	STD	8.40 — 8.60 mm (0.3307 — 0.3386 in.)
		Minimum	8.00 mm (0.3150 in.)
Crankshaft	Thrust clearance	STD	0.020 — 0.220 mm (0.0008 — 0.0087 in.)
		Maximum	0.30 mm (0.0118 in.)
	Thrust washer thickness	STD	2.440 — 2.490 mm (0.0961 — 0.0980 in.)
		O/S 0.125	2.503 — 2.553 mm (0.0985 — 0.1005 in.)
		O/S 0.250	2.565 — 2.615 mm (0.1010 — 0.1030 in.)
	Main journal oil clearance	STD STD	0.042 — 0.060 mm (0.0017 — 0.0024 in.)
		U/S 0.25	0.041 — 0.081 mm (0.0016 — 0.0032 in.)
		Maximum	0.10 mm (0.0039 in.)
	Main journal diameter	STD	68.982 — 69.000 mm (2.7158 — 2.7165 in.)
		U/S 0.25	68.745 — 68.755 mm (2.7065 — 2.7069 in.)
	Main bearing center wall thickness		
	Reference	STD Mark 2	2.489 — 2.492 mm (0.0980 — 0.0981 in.)
		Mark 3	2.492 — 2.495 mm (0.0981 — 0.0982 in.)
		Mark 4	2.495 — 2.498 mm (0.0982 — 0.0983 in.)
		Mark 5	2.498 — 2.501 mm (0.0983 — 0.0985 in.)
		Mark 6	2.501 — 2.504 mm (0.0985 — 0.0986 in.)
	Crank pin diameter	STD	56.982 — 57.000 mm (2.2434 — 2.2441 in.)
		U/S 0.25	56.745 — 56.755 mm (2.2341 — 2.2344 in.)
	Circle runout	Maximum	0.06 mm (0.0024 in.)
	Main journal taper and out—of—round	Maximum	0.02 mm (0.0008 in.)
	Crank pin taper and out—of —round	Maximum	0.02 mm (0.0008 in.)

EG0VU-OF

TORQUE SPECIFICATIONS

Part tightened	N·m	kgf·cm	ft·lbf
Chain tensioner x Cylinder head	21	210	15