Standards and Service Limits

5. Engine/Cylinder Head, Valve Train

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 min^{-1} (rpm) and wide-open throttle		Nominal Minimum Maximum variation	1226 kPa (12.5 kg/cm^2, 178 psi) 931 kPa (9.5 kg/cm^2, 135 psi) 196 kPa (2 kg/cm^2, 28 psi)
Cylinder head	Warpage Height		— 99.95—100.05 (3.935—3.938)	0.05 (0.002) —
Camshaft	End play Oil clearance Runout Cam lobe height		0.05—0.15 (0.002—0.006) 0.05—0.089 (0.002—0.0035) 0.03 (0.001) max.	0.50 (0.020) 0.150 (0.006) 0.04 (0.002)
		IN 1. F20A2:	38.526 (1.5167)	—
		2. F20A3:	38.526 (1.5167)	—
		3. F20A5:	38.741 (1.5252)	—
		4. F20A6:	38.526 (1.5167)	—
		5. F20A8:	38.741 (1.5252)	—
		6. F22A2:	38.741 (1.5252)	—
		7. F22A3:	39.167 (1.5420) M/T 38.741 (1.5252) A/T	— —
		8. F22A6:	38.741 (1.5252)	—
		9. F22A7:	39.167 (1.5420)	—
		10. F22A8:	38.741 (1.5252)	—
		11. F22A9:	38.741 (1.5252)	—
		12. F20A7:	38.741 (1.5252)	—
		13. F20Z3:	38.741 (1.5252)	—
		EX 1. F20A2:	38.778 (1.5266)	—
		2. F20A3:	38.778 (1.5266)	—
		3. F20A5:	38.972 (1.5343)	—
		4. F20A6:	38.778 (1.5266)	—
		5. F20A8:	38.972 (1.5343)	—
		6. F22A2:	38.972 (1.5343)	—
		7. F22A3:	39.356 (1.5494) M/T 38.972 (1.5343) A/T	— —
		8. F22A6:	38.972 (1.5343)	—
		9. F22A7:	39.356 (1.5494)	—
		10. F22A8:	38.972 (1.5343)	—
		11. F22A9:	38.972 (1.5343)	—
		12. F20A7:	38.972 (1.5353)	—
		13. F20Z3:	38.972 (1.5353)	—
Valve	Valve clearance	IN	0.23—0.28 (0.0091—0.0110)	—
		EX	0.27—0.32 (0.0106—0.1259)	—
	Valve stem O.D.	IN	5.485—5.495 (0.2159—0.2163)	5.455 (0.2148)
		EX	5.450—5.460 (0.2145—0.2149)	5.420 (0.2133)
	Stem-to-guide clearance	IN	0.020—0.045 (0.0007—0.0017)	0.075 (0.0029)
		EX	0.055—0.080 (0.0021—0.0031)	0.12 (0.0047)
Valve seat	Width	IN and EX	1.25—1.55 (0.049—0.0610)	2.00 (0.0787)
	Valve stem installed height	IN	48.245—48.715 (1.8994—1.9179)	—
		EX	50.315—50.785 (1.9809—1.9994)	—
Valve spring	Free length	IN (NH)	56.28 (2.2157)*1	—
			54.82 (2.1582)*1	—
			53.15 (2.0925)*2	—
		(CH)	56.26 (2.2150)*1	—
			54.81 (2.1578)*1	—
			53.16 (2.0929)*2	—
		(AS)	54.82 (2.1582)*1	—

1. F20A2: 2.0 ℓ CARB with CATA
2. F20A3: 2.0 ℓ CARB
3. F20A5: 2.0 ℓ PGM-FI
4. F20A6: 2.0 ℓ CARB with CATA
5. F20A8: 2.0 ℓ PGM-FI with CATA
6. F22A2: 2.2 ℓ PGM-FI
7. F22A3: 2.2 ℓ PGM-FI with CATA
8. F22A6: 2.2 ℓ PGM-FI with CATA for 5D KQ
9. F22A7: 2.2 ℓ PGM-FI with CATA for 5D EC M/T
10. F22A8: 2.2 ℓ PGM-FI with CATA for 5D EC A/T
11. F22A9: 2.2 ℓ PGM-FI with CATA for KQ
12. F20A7: 2.0 ℓ PGM-FI with CATA for KB other
13. F20Z3: 2.0 ℓ PGM-FI with CATA for 5D EC

NH: NIHON HATSUJO
CH: CHUO HATSUJO
AS: ASSOCIATED SPRING

*1: 2.0 ℓ CARB
*2: 2.0 ℓ and 2.2 ℓ PGM-FI

Unit of length: mm (in)

5. Engine/Cylinder Head, Valve Train

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Valve spring	Free length	EX (AS): (NH): (CH):	56.28 (2.2157)*1 55.78 (2.1960)*2 55.80 (2.1968)*2	— — —
Valve guide	I.D. Valve guide installed height	IN and EX IN EX	5.515—5.530 (0.2171—0.2177) 23.75—24.25 (0.9148—0.9547) 15.05—15.55 (0.5925—0.6122)	5.53 (0.2177) — —
Rocker arm	Arm-to-shaft clearance	IN EX	0.017—0.050 (0.0007—0.0020) 0.018—0.054 (0.0007—0.0021)	0.080 (0.0031) 0.080 (0.0031)

*1: 2.0 ℓ CARB
*2: 2.0 ℓ and 2.2 ℓ PGM-FI

AS: ASSOCIATED SPRING
NH: NIHON HATUJO
CH: CHUO HATSUJO

5. Engine/Engine Block

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface Bore diameter Bore taper Reboring limit		0.07 (0.003) max. 85.00—85.02 (3.3464—3.3472) — —	0.10 (0.004) 85.07 (3.3492) 0.05 (0.002) 0.5 (0.02)
Piston	Skirt O.D. (At 21 mm (0.83 in) from bottom of skirt) Clearance in cylinder	No Mark B	84.98—84.99 (3.3456—3.4605) 84.97—84.98 (3.3452—3.3456) 0.02—0.04 (0.0008—0.0016)	84.97 (3.3452) 84.96 (3.3448) 0.05 (0.0020)
Piston ring	Piston-to-ring clearance Ring end gap	Top Second Top Second Oil	0.035—0.060 (0.0014—0.0024) 0.030—0.055 (0.0011—0.0022) 0.20—0.35 (0.0079—0.0138) 0.40—0.55 (0.0157—0.0217) 0.20—0.70 (0.0079—0.0276)	0.130 (0.0051) 0.130 (0.0051) 0.60 (0.0236) 0.70 (0.0276) 0.80 (0.0315)
Connecting rod	Pin-to rod interference Small end bore diameter Large end bore diameter End play installed on crankshaft	 2.0 ℓ 2.2 ℓ 	0.013—0.032 (0.0005—0.0013) 21.968—21.981 (0.8649—0.8654) Nominal 48 (1.890) Nominal 51 (2.008) 0.15—0.30 (0.006—0.012)	— — — — 0.40 (0.016)
Crankshaft	Main journal diameter Taper/out-of-round, main journal Rod journal diameter Taper/out-of-round, rod journal End play Runout	No.1, 2 Journals No.3 Journal No.4 Journal No.5 Journal 2.0 ℓ 2.2 ℓ 	49.976—50.000 (1.9676—1.9685) 49.972—49.996 (1.9674—1.9683) 49.984—50.008 (1.9665—1.9688) 49.984—50.008 (1.9679—1.9688) 49.988—50.012 (1.9680—1.9690) 0.005 (0.0002) max. 44.976—45.000 (1.7710—1.7717) 47.976—48.000 (1.8888—1.8898) 0.005 (0.0002) max. 0.10—0.35 (0.004—0.014) 0.015 max. (0.0006)	— — — — — 0.006 (0.0004) — — 0.006 (0.0004) 0.45 (0.018) 0.020 (0.0008)
Bearings	Main bearing-to journal oil clearance Rod bearing-to journal oil clearance	No.1, 2 Journals No.3 Journal No.4 Journal No.5 Journal 2.2 ℓ 2.0 ℓ	0.021—0.045 (0.0009—0.0018) 0.025—0.049 (0.0001—0.0019) 0.013—0.037 (0.0005—0.0015) 0.009—0.033 (0.0004—0.0013) 0.021—0.049 (0.0008—0.0019) 0.015—0.043 (0.0006—0.0017)	0.05 (0.002) 0.054 (0.0021) 0.05 (0.002) 0.05 (0.002) 0.05 (0.002) 0.05 (0.002)

Standards and Service Limits

5. Engine/Engine Block

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Balancer shaft	Journal diameter	No. 1 journal (Front)	42.722—42.734 (1.6820—1.6824)	—
		(Rear)	20.938—20.950 (0.8243—0.8248)	—
		No. 2 journal	38.712—38.724 (1.5241—1.5246)	—
		No. 3 journal	34.722—34.734 (1.3670—1.3674)	—
	Journal taper		0.005 (0.0002)	—
	End play	(Front)	0.100—0.350 (0.0040—0.0138)	—
		(Rear)	0.060—0.180 (0.0024—0.0070)	—
	Runout		0.020 (0.0008)	—
	Oil Clearance	No. 1 journal (Rear)	0.050—0.075 (0.0020—0.0030)	—
		No. 1, 3 journal	0.066—0.118 (0.0026—0.0046)	—
		No. 2 journal	0.076—0.128 (0.0030—0.0050)	—
Balancer shaft bearing	I.D.	No. 1 journal (Front)	42.800—42.820 (1.6850—1.6858)	—
		(Rear)	21.000—21.013 (0.8268—0.8273)	—
		No. 2 journal	38.800—38.820 (1.5276—1.5283)	—
		No. 3 journal	34.800—34.820 (1.3701—1.3710)	—

5. Engine/Engine Lubrication

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Engine oil	Capacity ℓ (US qt, Imp qt)		4.9 (5.2, 4.3) After engine disassembly 3.8 (4.0, 3.3) After oil change, including oil filter 3.5 (3.7, 3.1) After oil change, without oil filter	
Oil pump	Displacement ℓ (US qt, Imp qt)/min. at pump 1,000 min^{-1} (rpm)		7.4 (7.8, 6.5) min.	
	Inner-to-outer rotor radial clearance		0.02—0.16 (0.0008—0.0063)	0.2 (0.008)
	Pump body-to-rotor radial clearance		0.10—0.19 (0.0040—0.0075)	0.21 (0.0083)
	Pump body-to-rotor side clearance		0.02—0.07 (0.001—0.003)	0.12 (0.005)
Relief valve	Pressure setting with oil temperature at 80°C (176°F)	Idle	69 kPa (0.7 kg/cm^2, 10 psi) min.	
		3,000 min^{-1} (rpm)	343 kPa (3.5 kg/cm^2, 50 psi)	

5. Engine/Cooling

Unit of length: mm (in)

	MEASUREMENT	STANDARD (NEW)
Thermostat	Starts to open	78±2°C (172±3°F)
	Full open	90°C (194°F)
	Valve lift at full open	8 (0.31) max.
Water pump	Displacement ℓ(US qt, Imp qt)/min. at pump 2,000 min^{-1} (rpm)	44 (46, 40) min.
Radiator	Capacity (incl. heater) ℓ (US qt, Imp qt) (Includes reservoir tank 0.6 (0.63, 0.53))	
	for overhaul 1. F20A2:	M/T: 7.2 (7.61, 6.34) A/T: 7.1 (7.50, 6.23)
	2. F20A3:	7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	3. F20A5:	6.6 (6.97, 5.81)* 7.1 (7.50, 6.23)*
		7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	4. F20A6:	7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	5. F20A8:	7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	6. F22A2:	6.6 (6.97, 5.81) 7.1 (7.50, 6.23)
	7. F22A3:	7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	8. F22A6:	6.6 (6.97, 5.81) 7.1 (7.50, 6.23)
	9. F22A7:	7.2 (7.61, 6.34) ——
	10. F22A8:	—— 7.1 (7.50, 6.23)
	11. F22A9:	6.6 (6.97, 5.81) 7.1 (7.50, 6.23)
	12. F20A7:	7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	13. F20Z3:	7.2 (7.61, 6.34) 7.1 (7.50, 6.23)
	for change 1. F20A2:	M/T: 3.6 (3.80, 3.17) A/T: 3.5 (3.70, 3.08)
	2. F20A3:	3.6 (3.80, 3.17) 3.5 (3.70, 3.08)
	3. F20A5:	3.0 (3.17, 2.64)* 3.5 (3.70, 3.08)*
		3.6 (3.80, 3.17) 3.5 (3.70, 3.08)
	4. F20A6:	3.6 (3.80, 3.17) 3.5 (3.70, 3.08)
	5. F20A8	3.6 (3.80, 3.17) 3.5 (3.70, 3.08)
	6. F22A2:	3.0 (3.17, 2.64) 3.0 (3.17, 2.64)
	7. F22A3:	3.6 (3.80, 3.17) 3.6 (3.80, 3.17)
	8. F22A6:	3.0 (3.17, 2.64) 3.5 (3.70, 3.08)
	9. F22A7:	3.6 (3.80, 3.17) ——
	10. F22A8:	—— 3.6 (3.80, 3.17)
	11. F22A9:	3.0 (3.17, 2.64) 3.5 (3.70, 3.08)
	12. F20A7:	3.6 (3.80, 3.17) 3.5 (3.70, 3.08)
	13. F20Z3:	3.6 (3.80, 3.17) 3.5 (3.70, 3.08)
	Pressure cap opening pressure	93—123 kPa (0.95—1.25 kg/cm^2, 13.5—17.8 psi)
Cooling fan	"ON" temperature	87°—93°C (189°—199°F)
	"OFF" temperature	80°—91°C (176°—196°F)
	"ON" temperature (Fan timer)	105°—111°C (221°—231°F)
	"OFF" temperature (Fan timer)	98°—109°C (208°—228°F)
Radiator cap	Opening pressure kPa (kg/cm^2, psi)	95-125 (0.95-1.25, 13.5-17.8)

1. F20A2: 2.0 ℓ CARB with CATA
2. F20A3: 2.0 ℓ CARB
3. F20A5: 2.0 ℓ PGM-FI
6. F20A6: 2.0 ℓ CARB with CATA
5. F20A8: 2.0 ℓ PGM-FI with CATA
6. F22A2: 2.2 ℓ PGM-FI
7. F22A3: 2.2 ℓ PGM-FI with CATA
8. F22A6: 2.2 ℓ PGM-FI with CATA for 5D KQ
9. F22A7: 2.2 ℓ PGM-FI with CATA for 5D EC M/T
10. F22A8: 2.2 ℓ PGM-FI with CATA for 5D EC A/T
11. F22A9: 2.2 ℓ PGM-FI with CATA
12. F20A7: 2.0 ℓ PGM-FI with CATA for KB other
13. F20Z3: 2.0 ℓ PGM-FI with CATA for 5D EC

*KB model

Standards and Service Limits

6. Fuel and Emissions

	MEASUREMENT	STANDARD (NEW)
Fuel pump (PGM-FI)	Displacement (minimum in 10 seconds) Relief value opening pressure	230 ml (7.8 US oz, 8.1 Imp oz) 441—588 kPa (4.5—6.0 kg/cm², 64—85 psi)
Fuel pump (CARB)	Delivery pressure Displacement (minimum in minute at 12V)	9—12 kPa (0.09—0.12 kg/cm², 1.3—1.7 psi) 700 ml (23.7 US oz, 19.7 Imp oz)
Pressure regulator (PGM-FI)	Pressure with regulator vacuum hose disconnected	240—279 kPa (2.45—2.85 kg/cm², 34—41 psi)*1 275—324 kPa (2.80—3.30 kg/cm², 40—47 psi)*2
Fuel tank	Capacity 2WS: 4WS:	65 ℓ (17.2 US gal, 14.3 Imp gal) 60 ℓ (15.9 US gal, 13.2 Imp gal)
Engine	Fast idle	PGM-FI: 1,400±400 min⁻¹ (rpm) CARB: 3,400±500 min⁻¹ (rpm)
	Idle speed (with headlights and cooling fan OFF) M/T with carburated engine: M/T with PGM-FI engine: A/T with carburated engine: A/T with PGM-FI engine:	800±50 min⁻¹ (rpm) 770±50 min⁻¹ (rpm) 750±50 min⁻¹ (rpm) in N or P position 770±50 min⁻¹ (rpm) in N or P position
	Idle CO With CATA: Without CATA:	0.1% maximum 1.0±1.0%

*1: F20A5, F22A2, F22A3, F22A7, F22A8 engines
*2: Except F20A5, F22A2, F22A3, F22A7, F22A8 engines

7. Clutch

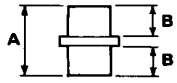
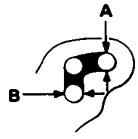
	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch pedal	Pedal height RHD: LHD: Stroke Pedal play Disengagement height	210 (8.3) to floor 184 (7.2) to floor 142.0 (5.6) 9—15 (0.4—0.6) 90 (3.5) min. to floor 80 (3.1) min. to carpet	— — — — — —
Flywheel	Clutch surface runout	0.05 (0.002) max.	0.15 (0.006)
Clutch disc	Rivet head depth Surface runout Thickness	1.3 (0.05) min. 0.6 (0.02) max. 8.4—9.1 (0.33—0.36)	0.2 (0.008) 1.0 (0.04) 6.0 (0.24)
Clutch cover	Uneveness of diaphragm spring	0.6 (0.02) max.	0.8 (0.03)

8. Manual Transmission

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity ℓ (US qt, Imp qt)	1.9 (2.0, 1.7) for oil change 2.0 (2.1, 1.8) for overhaul	
Mainshaft	End play Diameter of ball bearing contact area Diameter of third gear contact area Diameter of ball bearing contact area Runout	0.10—0.16 (0.0039—0.0063) 27.977—27.990 (1.1015—1.1020) 37.984—38.000 (1.4954—1.4961) 27.987—28.000 (1.1018—1.1024) 0.02 (0.0008) max.	Adjust with a shim. 27.940 (1.1000) 37.930 (1.4933) 27.940 (1.1000) 0.05 (0.002)
Mainshaft third and fourth gears	I.D. End play Thickness 3rd gear 4th gear	43.009—43.025 (1.6933—1.6939) 0.06—0.21 (0.0024—0.0083) 32.42—32.47 (1.276—1.278) 30.92—30.97 (1.217—1.219)	43.080 (1.6961) 0.30 (0.012) 32.3 (1.27) 30.8 (1.21)
Mainshaft fifth gear	I.D. End play Thickness	43.009—43.025 (1.6933—1.6939) 0.06—0.21 (0.0024—0.0083) 30.92—30.97 (1.217—1.219)	43.080 (1.6961) 0.30 (0.012) 30.8 (1.21)
Countershaft	End play Diameter of needle bearing contact area Diameter of ball bearing needle bearing contact area Diameter of low gear contact area Runout	0.05—0.40 (0.0019—0.0157 38.000—38.015 (1.4961—1.4967) 24.987—25.000 (0.9837—0.9845) 39.984—40.000 (1.5742—1.5748) 0.02 (0.0008) max.	0.50 (0.02) 37.95 (1.4941) 24.94 (0.982) 39.93 (1.572) 0.05 (0.002)

Unit of length: mm (in)

8. Manual Transmission

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Countershaft low gear	I.D. End play	46.009—46.025 (1.8114—1.8120) 0.04—0.10 (0.002—0.004)	46.08 (1.814) Adjust with a washer.
Countershaft second gear	I.D. End play Thickness	47.009—47.025 (1.8507—1.8514) 0.04—0.10 (0.002—0.004) 34.62—34.67 (1.3630—1.3650)	47.08 (1.854) Adjust with a collar. 33.5 (1.32)
Spacer collar (Countershaft second gear)	I.D. O.D. Length A B	36.48—36.49 (1.4362—1.4366) 41.989—42.000 (1.6531—1.6535) 29.02—29.04 (1.1425—1.1433) 29.07—29.09 (1.1445—1.1453)	36.50 (1.437) 41.94 (1.651) — —
Spacer collar (Mainshaft fourth and fifth gears)	I.D. O.D. Length A B 	31.002—31.012 (1.2205—1.2209) 37.989—38.000 (1.4956—1.4961) 56.45—56.55 (2.222—2.226) 26.03—26.08 (1.0248—1.0268)	31.06 (1.223) 37.94 (1.494) — 26.01 (1.024)
Reverse idler gear	I.D. Gear-to-reverse gear shaft clearance	20.016—20.043 (0.7880—0.7891) 0.036—0.084 (0.0014—0.0033)	20.09 (0.7909) 0.160 (0.0006)
Synchronizer ring	Ring-to-gear clearance (ring pushed against gear)	0.85—1.10 (0.0335—0.0433)	0.40 (0.016)
Shift fork	Synchronizer sleeve groove width Fork-to-synchronizer sleeve clearance	6.75—6.85 (0.266—0.270) 0.35—0.65 (0.014—0.026)	— 1.0 (0.039)
Reverse shift fork	Pawl groove width Fork-to-reverse idle gear clearance Groove width at A at B Fork-to fifth/ reverse shift Shaft clearance at A at B 	13.0—13.3 (0.51—0.52) 0.5—1.1 (0.02—0.43) 7.05—7.25 (0.278—0.2854) 7.4—7.7 (0.29—0.30) 0.05—0.35 (0.002—0.014) 0.4—0.8 (0.02—0.03)	— 1.8 (0.07). — — 0.5 (0.02) 1.0 (0.04)
Shift arm	I.D. Shift arm-to-shaft clearance Shift fork diameter at contact area Shift-arm-to-shift fork shaft clearance	15.973—16.000 (0.6289—0.6299) 0.005—0.059 (0.0002—0.0023) 12.9—13.0 (0.508—0.512) 0.2—0.5 (0.01—0.02)	— — — 0.6 (0.02)
Select lever	Pin size of contact area Shaft outer diameter Shift arm cover clerance	7.9—8.0 (0.311—0.315) 15.41—15.68 (0.607—0.617) 0.032—0.102 (0.0013—0.0040)	— — —
Shift arm lever	O.D. Transmission housing clearance	15.941—15.968 (0.6276—0.6287) 0.027—0.139 (0.0011—0.0055)	— —
Inter lock	Bore diameter Shift arm lever clearance	16.00—16.05 (0.630—0.632) 0.032—0.109 (0.0013—0.0043)	— —
Ring gear	Backlash	0.085—0.142 (0.0033—0.0056)	0.200 (0.0079)
Differential carrier	Pinion shaft bore diameter Carrier-to-pinion shaft clearance Driveshaft bore diameter Carrier-to-driveshaft clearance R L	18.000—18.018 (0.7087—0.7094) 0.017—0.047 (0.0007—0.0019) 28.005—28.025 (1.1026—1.1033) 0.025—0.066 (0.0009—0.0026) 0.055—0.091 (0.0022—0.0036)	— 0.100 (0.0039) — 0.120 0.150
Differential pinion gear	Backlash Pinion gear bore diameter Pinion gear-to-pinion shaft clearance	0.05—0.15 (0.002—0.006) 18.042—18.066 (0.7103—0.7113) 0.059—0.095 (0.0023—0.0037)	Selection with 7 types of washers. — 0.150 (0.0059)
Differential taper roller bearing	Preload	1.4—2.6 N·m (14—26 kg-cm, 1.0—1.9 lb-ft)	Selection with 20 types of shims.

Standards and Service Limits

9. Automatic Transmission

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity ℓ (US qt, Imp qt)		2.4 (2.5, 2.1) for oil change 6.0 (6.3, 5.3) for overhaul	
Hydraulic pressure	Line pressure at 2,000 min^{-1} (rpm) ([N] or [P] position)	Carburetor	760 kPa (7.75 kg/cm², 110 psi) Throttle valve full-closed | 809 kPa (8.25 kg/cm², 117 psi) Throttle valve more than 2/8 open	711 kPa (7.25 kg/cm², 103 psi) Throttle valve more than 2/8 open
		PGM-FI	784 kPa (8.0 kg/cm², 114 psi) Throttle valve full-closed | 834 kPa (8.5 kg/cm², 121 psi) Throttle valve more than 1.5/8 open	735 kPa (7.5 kg/cm², 107 psi) Throttle valve more than 1.5/8 open
	4th clutch pressure at 2,000 min^{-1} (rpm) ([D4] position)	Carburetor	412 kPa (4.2 kg/cm², 60 psi) Throttle valve full-closed | 809 kPa (8.25 kg/cm², 117 psi) Throttle valve more than 2/8 open	353 kPa (3.6 kg/cm², 51 psi) Throttle valve full-closed | 711 kPa (7.25 kg/cm², 103 psi) Throttle valve more than 2/8 open
		PGM-FI	520 kPa (5.3 kg/cm², 75 psi) Throttle valve full-closed | 834 kPa (8.5 kg/cm², 121 psi) Throttle valve more than 1.5/8 open	461 kPa (4.7 kg/cm², 67 psi) Throttle valve full-closed | 735 kPa (7.5 kg/cm², 107 psi) Throttle valve more than 1.5/8 open
	3rd clutch pressure at 2,000 min^{-1} (rpm) ([D4] or [D3] position)	Carburetor	392 kPa (4.0 kg/cm², 57 psi) Throttle valve full-closed | 809 kPa (8.25 kg/cm², 117 psi) Throttle valve more than 2/8 open	353 kPa (3.6 kg/cm², 51 psi) Throttle valve full-closed | 711 kPa (7.25 kg/cm², 103 psi) Throttle valve more than 2/8 open
		PGM-FI	490 kPa (5.0 kg/cm², 71 psi) Throttle valve full-closed | 834 kPa (8.5 kg/cm², 121 psi) Throttle valve more than 1.5/8 open	441 kPa (4.5 kg/cm², 64 psi) Throttle valve full-closed | 735 kPa (7.5 kg/cm², 107 psi) Throttle valve more than 1.5/8 open
	2nd clutch pressure at 2,000 min^{-1} (rpm) ([D4] or [D3] position)	Carburetor	392 kPa (4.0 kg/cm², 57 psi) Throttle valve full-closed | 809 kPa (8.25 kg/cm², 117 psi) Throttle valve more than 2/8 open	353 kPa (3.6 kg/cm², 51 psi) Throttle valve full-closed | 711 kPa (7.25 kg/cm², 103 psi) Throttle valve more than 2/8 open
		PGM-FI	490 kPa (5.0 kg/cm², 71 psi) Throttle valve full-closed | 834 kPa (8.5 kg/cm², 121 psi) Throttle valve more than 1.5/8 open	441 kPa (4.5 kg/cm², 64 psi) Throttle valve full-closed | 735 kPa (7.5 kg/cm², 107 psi) Throttle valve more than 1.5/8 open
	1st clutch pressure at 2,000 min^{-1} (rpm) ([1], [D4] or [D3] position)	Carburetor	760—809 kPa (7.75—8.25 kg/cm², 110—117 psi)	711 kPa (7.25 kg/cm², 103 psi)
		PGM-FI	785—834 kPa (8.0—8.5 kg/cm², 114—121 psi)	735 kPa (7.5 kg/cm², 107 psi)
	2nd clutch pressure at 2,000 min^{-1} (rpm) ([2] position)	Carburetor	760—809 kPa (7.75—8.25 kg/cm², 110—117 psi)	711 kPa (7.25 kg/cm², 103 psi)
		PGM-FI	785—834 kPa (8.0—8.5 kg/cm², 114—121 psi)	735 kPa (7.5 kg/cm², 107 psi)

9. Automatic Transmission

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Hydraulic pressure	Governor pressure at 60 km/h (37.5 mph) (D4 or D3 position)	Carburetor with CATA	226–235 kPa (2.30–2.40 kg/cm², 33–34 psi)	221 kPa (2.25 kg/cm², 32 psi)
		Carburetor without CATA	167–177 kPa (1.70–1.80 kg/cm², 24–25 psi)	162 kPa (1.65 kg/cm², 23 psi)
	Throttle pressure A (D4 or D3 position)	Carburetor with CATA	closed 0	–
			open 515–530 kPa (5.25–5.4 kg/cm², 75–77 psi)	510 kPa (5.2 kg/cm², 74 psi)
		Carburetor without CATA	closed 0	–
			open 485–500 kPa (4.95–5.10 kg/cm², 70–73 psi)	481 kPa (4.9 kg/cm², 70 psi)
	Throttle pressure B (D4 or D3 position)	Carburetor	closed 0	–
			open 760–809 kPa (7.75–8.25 kg/cm², 110–117 psi)	711 kPa (7.25 kg/cm², 103 psi)
		PGM-FI	closed 0	–
			open 785–834 kPa (8.0–8.5 kg/cm², 114–121 psi)	735 kPa (7.5 kg/cm², 107 psi)
Stall speed	Check with car on level ground	Carburetor	2,450–2,750 min^{-1} (rpm)	–
		PGM-FI	2,350–2,650 min^{-1} (rpm)	–
Clutch	Clutch initial clearance	1st-hold	0.8–1.0 (0.031–0.039)	–
		1st, 2nd	0.65–0.85 (0.026–0.033)	–
		3rd, 4th	0.4–0.6 (0.016–0.024)	–
	Clutch return spring free length	Carburetor	1st, 2nd, 3rd: 33.9 (1.33) 4th: 30.2 (1.189)	31.9 (1.256) 28.2 (1.110)
		PGM-FI	1st, 2nd, 3rd, 4th: 33.5 (1.318)	31.5 (1.240)
	Clutch disc thickness		1.88–2.0 (0.074–0.079)	Until grooves worn out
	Clutch plate thickness	Carburetor	1st, 2nd: 2.25–2.35 (0.089–0.093)	Discoloration
			3rd, 4th, 1st-hold: 1.95–2.05 (0.077–0.081)	
		PGM-FI	1st, 1st-hold: 1.95–2.05 (0.0767–0.0807)	
			2nd: 2.55–2.65 (0.1003–0.1043)	
			3rd, 4th: 2.25–2.35 (0.0885–0.0925)	
	Clutch end plate thickness	Mark 1	2.05–2.10 (0.081–0.83)	Discoloration
		Mark 2	2.15–2.20 (0.085–0.087)	
		Mark 3	2.25–2.30 (0.089–0.091)	
		Mark 4	2.35–2.40 (0.093–0.094)	
		Mark 5	2.45–2.50 (0.096–0.098)	
		Mark 6	2.55–2.60 (0.100–0.102)	
		Mark 7	2.65–2.70 (0.104–0.106)	
		Mark 8	2.75–2.80 (0.108–0.110)	
		Mark 9	2.85–2.90 (0.112–0.114)	
		*Mark 10	2.95–3.00 (0.116–0.118)	

*Carburated engine only.

Standards and Service Limits

9. Automatic Transmission (cont'd)

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Valve body	Stater camshaft needle bearing contact area I.D. (torque converter side)	27.000–27.021 (1.0630–1.0638)	Wear or damage
	Stater camshaft needle bearing contact area I.D. (oil pump side)	29.000–29.013 (1.1417–1.1422)	—
	Oil pump driven gear I.D.	14.016–14.034 (0.5518–0.5525)	Wear or damage
	Oil pump gear shaft O.D.	13.980–13.990 (0.5504–0.5508)	Wear or damage
	Oil pump gear side clearance	0.03–0.05 (0.0012–0.0020)	0.07 (0.0028)
	Oil pump gear-to-body clearance: Drive	0.21–0.265 (0.0083–0.0104)	—
	Oil pump gear-to-body clearance: Driven	0.07–0.125 (0.0027–0.0049)	—
Regulator valve body	Sealing ring contact area diameter	35.000–35.025 (1.3780–1.3789)	35.050 (1.3799)
Accumulator body	Sealing ring contact area diameter	32.000–32.013 (1.2598–1.2604)	32.05 (1.2618)
Stator camshaft	Sealing ring contact area diameter	29.000–29.013 (1.1417–1.1422)	29.05 (1.1436)
Shifting device and parking brake control	Reverse shift fork thickness	5.90–6.00 (0.232–0.236)	5.40 (0.213)
	Parking brake ratchet pawl	—	Wear or other defect
	Parking gear	—	Wear or other defect
	Throttle cam stopper: Carburetor	18.5–18.6 (0.7283–0.7322)	—
	Throttle cam stopper: PGM-FI	17.0–17.1 (0.6692–0.6732)	—
Servo body	Shift fork shaft I.D.: A	14.000–14.005 (0.5512–0.5514)	—
	Shift fork shaft I.D.: B	14.006–14.010 (0.5514–0.5516)	—
	Shift fork shaft I.D.: C	14.011–14.015 (0.5516–0.5518)	—
	Shift fork shaft valve bore I.D.	37.000–37.039 (1.4567–1.4582)	37.045 (1.4585)
Transmission	Diameter of needle bearing contact area		
	On mainshaft and stator shaft	22.984–23.000 (0.9049–0.9055)	Wear or damage
	On mainshaft 4th gear collar	31.984–32.000 (1.2592–1.2598)	
	On mainshaft 3rd gear collar: Carburetor	41.984–42.000 (1.6529–1.6535)	
	On mainshaft 3rd gear collar: PGM-FI	45.984–46.000 (1.8104–1.8110)	
	On countershaft 1st gear collar	40.984–41.000 (1.6142–1.6535)	
	On countershaft 4th gear	31.975–31.991 (1.2589–1.2595)	
	On countershaft reverse gear	35.979–36.000 (1.4165–1.4173)	
	On countershaft parking gear	39.984–40.000 (1.5741–1.5748)	
	On secondary shaft 1st gear	31.975–31.991 (1.2588–1.2594)	
	On secondary shaft 2nd gear	31.975–31.991 (1.2588–1.2594)	
	Reverse idler gear shaft holder I.D.	14.416–14.434 (0.5675–0.5682)	
	Mainshaft 3rd gear I.D.: Carburetor	48.000–48.019 (1.8898–1.8905)	
	Mainshaft 3rd gear I.D.: PGM-FI	52.000–52.019 (2.0472–2.0480)	
	Mainshaft 4th gear I.D.	38.005–38.021 (1.4963–1.4969)	Wear or damage

9. Automatic Transmission

Unit of length: mm (in)

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	Countershaft 1st gear I.D.	47.000—47.016 (1.8504—1.8510)	Wear or damage
	Countershaft 4th gear I.D.	38.000—38.016 (1.4961—1.4967)	↑
	Countershaft reverse gear I.D.	42.000—42.016 (1.6535—1.6541)	↑
	Countershaft idler gear I.D.	48.000—48.016 (1.8897—1.8903)	↑
	Secondary shaft 1st gear I.D.	37.000—37.016 (1.4566—1.4573)	↑
	Secondary shaft 2nd gear I.D.	37.000—37.016 (1.4566—1.4573)	↑
	Mainshaft 3rd gear collar length Carburetor	20.000—20.050 (0.7874—0.7893)	↑
	PGM-FI	19.500—19.550 (0.7677—0.7697)	↑
	Mainshaft 4th gear collar length	47.500—47.550 (1.8700—1.8720)	↑
	Countershaft 1st gear collar length	27.500—27.550 (1.0826—1.0846)	↑
	Secondary shaft distance collar length	4.95—5.00 (0.1948—0.1968)	↑
	Secondary shaft 2nd gear thrust washer thickness	4.35—4.45 (0.1713—0.1752)	↑
	Countershaft 1st gear thrust washer thickness	1.45—1.50 (0.0570—0.0590)	↑
	Countershaft idler gear thrust washer thickness	3.45—3.55 (0.1358—0.1398)	↑
	Countershaft parking gear length	25.030—25.048 (0.9854—0.9861)	↓
	Secondary shaft 2nd gear spline washer thickness		Wear or damage
		4.02—4.05 (0.158—0.159)	—
		4.07—4.10 (0.160—0.161)	—
		4.12—4.15 (0.162—0.163)	—
		4.17—4.20 (0.164—0.165)	—
		4.22—4.25 (0.166—0.167)	—
		4.27—4.30 (0.168—0.169)	—
		4.32—4.35 (0.170—0.171)	—
		4.37—4.40 (0.172—0.173)	—
		4.42—4.45 (0.174—0.175)	—

Standards and Service Limits

9. Automatic Transmission (cont'd)

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)			
			WIRE DIA.	O.D.	FREE LENGTH	No. of COILS
Spring (Carburetor)	One way ball spring		0.29 (0.0114)	4.0 (0.1574)	14.0 (0.5511)	13.0
	Regulator valve spring A		1.80 (0.0708)	14.7 (0.5787)	86.5 (3.4055)	16.5
	Regulator valve spring B		1.80 (0.0708)	9.6 (0.3779)	44.0 (1.7328)	7.5
	Stator reaction spring		5.50 (0.2165)	37.4 (1.4724)	30.3 (1.1929)	2.1
	Throttle modulator spring	with CATA	1.20 (0.0472)	9.4 (0.3700)	27.2 (1.0708)	8.0
		without CATA	1.20 (0.0472)	9.4 (0.3700)	26.3 (1.0354)	8.0
	Torque convertor check valve spring		1.10 (0.0433)	8.4 (0.3307)	36.4 (1.4331)	12.0
	Relife valve spring		1.00 (0.0393)	8.4 (0.3307)	39.1 (1.5393)	15.1
	Cooler check valve spring		1.10 (0.0433)	8.4 (0.3307)	46.8 (1.8425)	17.0
	Governor spring A	without CATA	1.0 (0.0393)	18.8 (0.7401)	25.8 (1.0157)	4.0
		with CATA	1.0 (0.0393)	18.8 (0.7401)	41.2 (1.6220)	4.0
			1.0 (0.0393)	18.8 (0.7401)	44.3 (1.7440)	4.0
	Governor spring B	with CATA	0.8 (0.0314)	11.8 (0.4645)	22.9 (0.9016)	7.0
			0.9 (0.0354)	11.8 (0.4645)	18.4 (0.7244)	6.2
		without CATA	0.9 (0.0354)	11.8 (0.4645)	21.4 (0.8425)	6.2
	2nd orifice control spring		0.7 (0.0275)	6.6 (0.2598)	53.3 (2.0984)	20.5
	Servo orifice control spring		0.9 (0.0354)	7.1 (0.2795)	61.2 (2.4094)	28.2
	Throttle spring A		1.0 (0.0393)	8.5 (0.3346)	21.0 (0.8267)	5.8
			1.0 (0.0393)	8.5 (0.3346)	21.0 (0.8267)	5.4
			1.0 (0.9393)	8.5 (0.3346)	22.2 (0.8740)	6.0
			1.0 (0.0393)	8.5 (0.3346)	22.1 (0.8701)	5.5
	Throttle adjust spring A		0.8 (0.0314)	6.2 (0.2440)	27.0 (1.0630)	8.5
	Throttle adjust spring B		0.8 (0.0314)	6.2 (0.2440)	30.0 (1.1811)	8.0
	Throttle spring B		1.4 (0.0551)	8.5 (0.3346)	41.6 (1.6378)	14.0
	1-2 shift spring	with CATA	0.5 (0.0196)	4.6 (0.1811)	42.3 (1.6653)	25.0
		without CATA	0.6 (0.0236)	6.1 (0.2401)	42.3 (1.6653)	21.1
	1-2 shift ball spring	with CATA	0.4 (0.0157)	4.5 (0.1771)	13.0 (0.5118)	8.7
		without CATA	0.4 (0.0157)	4.5 (0.1771)	12.6 (0.4960)	8.7
	2-3 shift spring	with CATA	0.9 (0.0354)	7.6 (0.2992)	70.0 (2.7559)	28.2
		without CATA	0.8 (0.0314)	7.6 (0.2992)	58.9 (2.3188)	16.8
	2-3 shift ball spring	with CATA	0.5 (0.0196)	4.5 (0.1771)	11.7 (0.4606)	10.5
		without CATA	0.5 (0.0196)	4.5 (0.1771)	14.1 (0.5551)	10.5
	3-4 shift spring	with CATA	0.9 (0.0354)	9.6 (0.3779)	35.8 (1.4094)	10.3
		without CATA	0.9 (0.0354)	9.6 (0.3779)	27.7 (1.0905)	10.3
	3-4 shift ball spring	with CATA	0.5 (0.0196)	4.5 (0.1771)	11.5 (0.4527)	7.4
		without CATA	0.5 (0.0196)	4.5 (0.1771)	11.3 (0.4448)	7.4
	1st-hold accumulator spring		4.0 (0.1574)	21.5 (0.8464)	71.7 (2.8228)	8.3
	1st accumulator spring		1.8 (0.0709)	16.3 (0.6417)	115.4 (4.5433)	18.6
	4th accumulator spring		2.6 (0.1023)	16.0 (0.6292)	84.6 (3.3307)	14.3
	2nd accumulator spring		3.5 (0.1378)	22.0 (0.8661)	77.1 (3.0354)	10.0
	3rd accumulator spring		2.6 (0.1023)	17.5 (0.6890)	78.6 (3.0944)	11.0
	L/C shift spring		0.9 (0.0354)	7.6 (0.2992)	73.7 (2.9015)	32.0
	L/C timing spring B	with CATA	1.0 (0.0393)	6.6 (0.2598)	84.0 (3.3070)	42.4
		without CATA	1.0 (0.0393)	6.6 (0.2598)	79.1 (3.1141)	42.4
	L/C timing spring A	with CATA	0.9 (0.0354)	6.6 (0.2598)	55.9 (2.2007)	27.3
		without CATA	0.9 (0.0354)	6.6 (0.2598)	50.0 (1.9685)	27.3
	Governor cut spring		0.8 (0.0314)	7.6 (0.2992)	44.5 (1.7519)	17.0
	L/C control spring		0.7 (0.0275)	6.6 (0.2598)	42.9 (1.6889)	14.1
	CPC valve spring		1.4 (0.0551)	9.4 (0.3700)	31.2 (1.2283)	10.9
	3rd kick down spring		0.9 (0.0354)	7.6 (0.2992)	62.7 (2.4684)	27.5
	Reverse control spring		0.7 (0.0275)	7.1 (0.2795)	40.0 (1.5748)	20.8
	L/C cut spring		0.7 (0.0275)	7.6 (0.2992)	31.0 (1.2204)	12.7
	Accumulator control spring		1.2 (0.0472)	7.7 (0.3031)	45.6 (1.7952)	21.8
	2nd kick down spring		1.2 (0.0472)	7.1 (0.2795)	46.9 (1.8464)	20.6
	Servo control spring		0.9 (0.0354)	6.4 (0.2519)	32.5 (1.2795)	17.5
	2-1 timing spring		0.7 (0.0275)	5.6 (0.2204)	33.0 (1.2992)	21.7
	4th exhaust spring		0.8 (0.0314)	6.1 (0.2401)	51.1 (2.0118)	26.6

9. Automatic Transmission

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)			
			WIRE DIA.	O.D.	FREE LENGTH	No. of COILS
Spring (PGM-FI)	Regulator valve spring	A	1.8 (0.0709)	14.7 (0.5887)	86.5 (3.4055)	16.5
		B	1.8 (0.0709)	9.6 (0.3779)	44.0 (1.7323)	12.7
	Stator reaction spring		4.5 (0.1772)	35.4 (1.3937)	30.3 (1.1929)	1.92
	Torque converter check valve spring		1.1 (0.0433)	8.4 (0.3307)	36.4 (1.4331)	12.0
	Relief valve spring		1.0 (0.0394)	8.4 (0,3307)	39.1 (1.5393)	15.1
	Cooler check valve spring		1.1 (0.0433)	8.4 (0.3307)	46.8 (1.8425)	17.0
	2nd orifice control spring		0.6 (0.0236)	6.6 (0.2598)	58.3 (2.2953)	15.8
	Servo orifice control spring		0.8 (0.0315)	6.6 (0.2598)	52.5 (2.0669)	33.0
	4th exhaust spring		0.9 (0.0354)	7.1 (0.2795)	60.8 (2.3936)	28.9
	1-2 shift spring		1.0 (0.0393)	8.6 (0.3386)	41.3 (1.6259)	16.9
	2-3 shift spring		0.9 (0.0354)	7.6 (0.2992)	57.0 (2.2440)	26.8
	1st accumulator spring		1.8 (0.0709)	16.3 (0.6417)	115.4 (4.5433)	18.6
	4th accumulator spring		2.9 (0.1142)	22.0 (0.8661)	90.1 (3.5472)	10.9
	2nd accumulator spring	Sedan	3.5 (0.1378)	22.0 (0.8661)	77.1 (3.0354)	10.0
	2nd accumulator spring	Aero deck	3.3 (0.1299)	22.0 (0.8661)	84.9 (3.3425)	11.1
	3rd accumulator spring	Sedan	2.8 (0.1102)	17.5 (0.6890)	94.2 (3.7086)	16.1
	3rd accumulator spring	Aero deck	2.6 (0.1024)	17.5 (0.6890)	104.5 (4.1142)	18.0
	L/C shift spring		0.9 (0.0354)	7.6 (0.2992)	73.7 (2.9016)	32.0
	L/C timing spring		0.8 (0.0314)	6.6 (0.2598)	51.1 (2.0118)	14.7
	Servo control spring		1.0 (0.0394)	8.1 (0.3188)	52.6 (2.0708)	22.4
	3rd kick-down spring		1.1 (0.0433)	7.6 (0.2992)	48.3 (1.9015)	23.3
	2nd kick-down spring		1.2 (0.0472)	7.1 (0.2795)	46.9 (1.8464)	20.6
	Throttle adjust spring		0.8 (0.0314)	6.2 (0.2440)	30.0 (1.1811)	8.0
	Throttle B spring		1.4 (0.0551)	8.5 (0.3346)	41.5 (1.6339)	10.5
			1.4 (0.0551)	8.5 (0.3346)	41.5 (1.6339)	11.2
			1.4 (0.0551)	8.5 (0.3346)	41.6 (1.6378)	12.4
	1st-hold accumulator spring		4.0 (0.1574)	25.0 (0.9842)	64.7 (2.5472)	7.3
	CPC valve spring		1.4 (0.0551)	9.4 (0.3700)	33.0 (1.2992)	10.5
	L/C control spring		0.7 (0.0276)	6.6 (0.2598)	38.0 (1.4961)	14.1

Standards and Service Limits

9. Automatic Transmission (cont'd)

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Final driven gear	Backlash	0.085—0.142 (0.003—0.006)	0.200 (0.008)
Differential carrier	Pinion shaft bore diameter	18.000—18.018 (0.7087—0.7094)	—
	Carrier-to-pinion shaft clearance	0.017—0.047 (0.001—0.002)	0.100 (0.004)
	Driveshaft bore diameter	28.005—28.025 (1.1026—1.1033)	—
	Carrier-to driveshaft clearance	0.025—0.066 (0.001—0.003)	0.120 (0.005)
Differential pinion gear	Backlash	0.05—0.15 (0.02—0.006)	Adjust with a washer
	Pinion gear bore diameter	18.042—18.066 (0.710—0.711)	—
	Pinion gear-to pinion shaft clearance	0.059—0.095 (0.002—0.004)	0.120 (0.005)
Differential tapered roller bearing preload	Starting torque		
	For used bearing	2.5—3.7 N·m (25—37 kg—cm, 1.8—2.7 lb-ft)	Adjust with a washer
	After replacement of bearing	2.8—4.0 N·m (28—48 kg-cm, 2.0—2.9 lb-ft)	*Adjust with a washer*

11. Steering

	MEASUREMENT		STANDARD (NEW)
Steering wheel	Play		10 (0.39) maximum
Gearbox	Pinion starting torque		Below 1.0 N•m (10 kg-cm, 0.72 lb-ft)
	Angle of rack guide screw loosend from locked position		20° $^{+5°}_{-0}$
Pump	*Pump pressure with valve closed* (oil temperature: 40°C/104°F minimum) Do not run for more than 5 seconds		7,845—8,826 kPa (80—90 kg/cm², 1,138—1,280 psi) at idle
Power steering fluid	Capacity	Reservoir	0.5 ℓ (0.53 US qt, 0.44 Imp qt)
		At change (approx.)	1.8 ℓ (1.90 US qt, 1.58 Imp qt)
Power steering belt*	Deflection between pulleys with 98 N (10 kg, 22 lbs) force	For used belt	13.0—16.0 (0.51—0.62)
		For new belt	9.5—11.5 (0.37—0.45)
	Belt tension between pulleys (measured with belt tension gauge)	For used belt	343—490 N (35—50 kg, 77—110 lbs)
		For new belt	686—882 N (70—90 kg, 154—198 lbs)

*When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off. Readjust deflection or tension to used belt values.

12. Suspension

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Wheel alignment	Total toe	Front	0±2 (0±0.08)	—
		Rear 2WS:	IN 2±2 (0.08±0.08)	—
		Rear 4WS:	IN 3±2 (0.12±0.08)	—
	Camber	Front	0°00′ ± 1°	—
		Rear 2WS:	−0°30′ ± 1°	—
		Rear 4WS:	−0°20′ ± 1°	—
	Caster	Front	3°00′ ± 1°	—
	Front Wheel turning angle	Inward wheel	2WS: 39°05′±2°	—
			4WS: 38°50′±2°	—
		Outward wheel (reference)	2WS: 29°30′	—
			4WS: 29°30′	—
	Rear Wheel turning angle (4WS only)	Inward wheel	5° 50′ ± 1°	—
		Outward wheel (reference)	6° 10′ ± 1°	—
Wheel	Rim runout	Steel wheel Axial	Below 1.0 (0.04)	2.0 (0.08)
		Steel wheel Radial	Below 1.0 (0.04)	1.5 (0.06)
		Aluminum wheel Axial	Below 0.7 (0.03)	2.0 (0.08)
		Aluminum wheel Radial	Below 0.7 (0.03)	1.5 (0.06)
Wheel bearing	End play	Front	0—0.05 (0—0.002)	—
		Rear	0—0.05 (0—0.002)	—

Unit of length: mm (in)

13. Brakes

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Parking brake lever	Play in stroke 200 N (20 kg, 44 lbs)		To be locked when pulled 4—8 notches	—
Foot brake pedal	Pedal height (from floor)	LHD: M/T	165±0.5 (6.5±0.02)	—
		A/T	170±0.5 (6.7±0.02)	—
		RHD: M/T	190 (7.5) minimum	—
		A/T	195 (7.7) minimum	—
	Free play		1—5 (0.04—0.20)	5 (0.20)
Master cylinder	Piston-to-push rod clearance		0—0.4 (0—0.016)	—
Brake drum	I.D.		220 (8.66)	221 (8.70)
Lining	Thickness		4.5 (0.18)	2.0 (0.08)
Disc brake	Disc thickness	Front	23.0 (0.91)	21.0 (0.83)
		Rear	10.0 (0.39)	8.0 (0.32)
	Disc runout	Front	—	0.10 (0.004)
		Rear	—	0.10 (0.004)
	Disc parallelism	Front and rear	—	0.015 (0.0006)
	Pad thickness	Front	2.0 ℓ model: 12.5 (0.49) 2.2 ℓ model: 12.0 (0.47)	1.6 (0.06) 1.6 (0.06)
		Rear	9.0 (0.35)	1.6 (0.06)
Brake booster	Characteristics at 20 kg (44 lbs) pedal pressure		Line pressure Unit: kPa (kg/cm²/psi)	
	Vacuum \ Brakes		Conventional type	with anti-lock-brake system
	0 mm (0 in) Hg		922 (9.4/134) minimum	813 (8.3/118) minimum
	300 mm (11.8 in) Hg		5,494 (56/796) minimum	6,076 (62/882) minimum
	500 mm (19.7 in) Hg		8,535 (87/1,237) minimum	8,134 (83/1,180) minimum

15. Air Conditioner

	MEASUREMENT		STANDARD (NEW)
Air conditioner system	Lubricant capacity	Condenser	10 mℓ (0.3 US oz, 0.4 Imp oz)
		Evaporator	25 mℓ (0.8 US oz, 0.9 Imp oz)
		Line or hose	10 mℓ (0.3 US oz, 0.4 Imp oz)
		Reservoir	10 mℓ (0.3 US oz, 0.4 Imp oz)
Compressor	Lubricant capacity		90-120 ml (3.0-4.0 US oz, 3.2-4.2 Imp oz)
	Stator coil resistance at 20°C (68°F)		3.4—3.8 Ω
	Pulley-to pressure plate clearance		0.35—0.65 (0.014—0.026)
Compressor belt*	Deflection between pulleys with 98N (10 kg, 22 lbs) force	For used belt	10—12 (0.4—0.5)
		For new belt	4.5—7.0 (0.18—0.28)
	Belt tension between pulleys (measured with belt tension gauge)	For used belt	441—588 N (45—60 kg, 99—132 lbs)
		For new belt	931—1,127 N (95—115 kg, 209—254 lbs)

*When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off. Readjust deflection or tension to used belt values.

Standards and Service Limits

16. Electrical

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)		SERVICE LIMIT
Ignition coil	Rated voltage		12 Volts		
	Winding resistance < >: Carburated engine	Primary Secondary	0.6—0.8 Ω <0.5—0.7 Ω> 12.8—19.2 kΩ <14.4—21.6 kΩ>		
Ignition wire	Resistance		25 kΩ maximum		
Spark plug	Type ( ): Manufacturer	Standard	ZFR5F-11 (NGK) or KJ16CR-L11 (ND)*1 ZFR6F-11 (NGK) or KJ20CR-L11 (ND)*2		
		Option	ZFR5F-11 (NGK) or KJ16CR-L11 (ND)*3 ZFR6F-11 (NGK) or KJ20CR-L11 (ND)*1 ZFR7F-11 (NGK) or KJ22CR-L11 (ND)*2		
	Gap		1.0—1.1 (0.039—0.043)		
Ignition timing	At idling		PGM-FI engine: 15° ± 2° BTDC Carburated engine: F20A2, F20A3-M/T, F20A6: 15° ± 2° BTDC F20A3-A/T (KY): 0° ± 2° BTDC F20A3-A/T (others): 10° ± 2° BTDC		
Battery	Lighting capacity (20-hours ratio) < >: KY, KQ (except 5D), KP, KT		65Ah <47Ah>		
	Starting capacity (voltage after 5 sec.)		8.4 V minimum/300 ampere draw at −15°C (59°F)		
Alternator	Output < >: Carburated engine (except KS, KU, KW, KY)		80A <70A>		
	Rotor coil resistance Slip ring O.D. Brush length Brush spring tension		2.8—3.0 Ω 14.4 (0.57) 10.5 (0.41) 300—360 g (10.6—12.7 oz)		— 14.0 (0.55) 5.5 (0.22) —
Alternator belt*	Deflection at midway between pulleys with 98 N (10 kg, 22 lb) force		Model without A/C	Used belt	10—12 (0.39—0.47)
				New belt	8.5—11 (0.33—0.43)
			Model with A/C	Used belt	10—12 (0.39—0.47)
				New belt	4.5—7.0 (0.18—0.28)
	Belt tension between pulleys (measured with tension gauge)		Model without A/C	Used belt	294—441 N (30—45 kg, 66—99 lb)
				New belt	441—637 N (45—65 kg, 99—143 lb)
			Model with A/C	Used belt	441—637 N (45—65 kg, 99—143 lb)
				New belt	931—1,128 N (95—115 kg, 209—154 lb)
Starting motor	Output	4D European except KE Except European and KE 5D KE Except KE	M/T: 1.4 kW (2.2 ℓ: 1.6 kW) M/T: 1.4 kW M/T: 1.4 kW M/T: 1.6 kW		A/T: 1.6 kW A/T: 1.4 kW A/T: 1.4 kW A/T: 1.6 kW
	Manufacturer: Mitsuba	Mica depth Commutator runout Commutator O.D. Brush length Brush spring tension	0.4—0.5 (0.016—0.02) 0—0.02 (0—0.001) 28.0—28.1 (1.10—1.11) 15.8—16.2 (0.62—0.64) 16—18 N (1.6—1.8 kg, 3.5—4.0 lbs)		0.15 (0.006) 0.05 (0.002) 27.5 (1.08) 10.0 (0.39) —
	Manufacturer: ND	Mica depth Commutator runout Commutator O.D. Brush length Brush spring tension	0.5—0.8 (0.02—0.03) 0—0.02 (0—0.001) 29.9—30.0 (1.18—1.18) 15.0—15.5 (0.59—0.61) 19—24 N (1.9—2.4 kg, 4.2—5.3 lbs)		0.2 (0.01) 0.05 (0.002) 29.0 (1.14) 10.0 (0.39) —

*When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off. Readjust deflection or tension to used belt values.

*1: Carburetor type except models for Europe, KY and KU.
*2: All fuel injection types, and carburetor types for Europe, KY and KU.
*3: Fuel injection types except 2.2 ℓ models for Europe, and carburetor types for Europe, KY and KU.