

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	1,177 kPa (12.0 kg/cm ² , 171 psi)
		1.8 ℓ	Minimum	931 kPa (9.5 kg/cm ² , 135 psi)
		2.0 ℓ	Maximum variation	196 kPa (2 kg/cm ² , 28 psi)
Cylinder head	Warpage Height	2.2 ℓ	Nominal	1226 kPa (12.5 kg/cm ² , 178 psi)
			Minimum	931 kPa (9.5 kg/cm ² , 135 psi)
			Maximum variation	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	IN	1. F18A2:	0.05–0.15 (0.002–0.006)
			2. F20A2:	0.05–0.089 (0.002–0.0035)
			3. F20A3:	0.015 (0.0006)
			4. F20A4:	38.095 (1.4998)
			5. F20A5:	38.526 (1.5167)
			6. F20A6:	38.526 (1.5167)
			7. F22A2:	38.741 (1.5252)
			8. F22A3:	38.741 (1.5252)
			9. F22A5:	38.741 (1.5252) MT
			10. F22A6:	38.741 (1.5252) AT
			11. F22A7:	38.526 (1.5167)
			12. F22A8:	37.890 (1.4917)
			13. F20A2:	38.778 (1.5266)
			14. F20A3:	38.778 (1.5266)
			15. F20A4:	38.972 (1.5343)
			16. F20A5:	38.972 (1.5343)
			17. F20A6:	38.778 (1.5266)
			18. F22A2:	38.972 (1.5343)
			19. F22A3:	39.356 (1.5494) MT
			20. F22A5:	38.972 (1.5343) AT
Valve	Valve clearance	IN	0.24–0.28 (0.0094–0.0110)	—
			0.28–0.32 (0.0110–0.1259)	—
			5.485–5.495 (0.2159–0.2163)	5.455 (0.2147)
			5.480–5.490 (0.2157–0.2161)	5.450 (0.2145)
			5.450–5.460 (0.2145–0.2149)	5.420 (0.2133)
			0.020–0.045 (0.0007–0.0017)	0.075 (0.0029)
Valve	Valve stem O.D.	EX	0.025–0.050 (0.0009–0.0019)	0.080 (0.0031)
			0.055–0.080 (0.0021–0.0031)	0.12 (0.0047)
			0.020–0.045 (0.0007–0.0017)	—
			0.025–0.050 (0.0009–0.0019)	—
			0.055–0.080 (0.0021–0.0031)	—
			0.020–0.045 (0.0007–0.0017)	—
Valve	Stem-to-guide clearance	IN	0.020–0.045 (0.0007–0.0017)	—
			0.025–0.050 (0.0009–0.0019)	—
			0.055–0.080 (0.0021–0.0031)	—
			0.020–0.045 (0.0007–0.0017)	—
			0.025–0.050 (0.0009–0.0019)	—
			0.055–0.080 (0.0021–0.0031)	—
Valve seat	Width	IN and EX	1.25–1.55 (0.049–0.0610)	2.00 (0.0787)
			48.245–48.715 (1.8994–1.9179)	—
Valve seat	Valve stem installed height	IN	50.315–50.785 (1.9809–1.9994)	—
			—	—
Valve spring	Free Length	IN (NH)	1. F18A2:	56.28 (2.2157)
			2. F20A2:	54.82 (2.1582)
			3. F20A3:	54.82 (2.1582)
			4. F20A4:	53.15 (2.0925)
			5. F20A5:	53.15 (2.0925)
			6. F20A6:	54.82 (2.1582)
			7. F22A2:	53.15 (2.0925)
			8. F22A3:	53.15 (2.0925)
			9. F22A5:	54.82 (2.1582)
			10. F22A6:	54.82 (2.1582)
			11. F22A7:	54.82 (2.1582)
			12. F22A8:	54.82 (2.1582)
			13. F22A9:	54.82 (2.1582)
			14. F22A10:	54.82 (2.1582)
			15. F22A11:	54.82 (2.1582)
			16. F22A12:	54.82 (2.1582)
			17. F22A13:	54.82 (2.1582)
			18. F22A14:	54.82 (2.1582)
			19. F22A15:	54.82 (2.1582)
			20. F22A16:	54.82 (2.1582)

1. F18A2: 1.8 ℓ CARB
 2. F20A2: 2.0 ℓ CARB with CATA
 3. F20A3: 2.0 ℓ CARB
 4. F20A4: 2.0 ℓ PGM-FI with CATA
 5. F20A5: 2.0 ℓ PGM-FI
 6. F20A6: 2.0 ℓ CARB with CATA
 7. F22A2: 2.2 ℓ PGM-FI
 8. F22A3: 2.2 ℓ PGM-FI with CATA
 9. F22A5: 2.2 ℓ PGM-FI with CATA
 NH: NIHON HATSUJO
 CH: CHUO HATSUJO

5. Engine/Cylinder Head, Valve Train

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Valve spring	Free length EX (NH) 1. F18A2: 2. F20A2: 3. F20A3: 4. F20A4: 5. F20A5: 6. F20A6: 7. F22A2: 8. F22A3: 9. F22A5: (CH) 1. F18A2: 2. F20A2: 3. F20A3: 4. F20A4: 5. F20A5: 6. F20A6: 7. F22A2: 8. F22A3: 9. F22A5:	59.89 (2.3578)	—
		59.89 (2.3578)	—
		59.89 (2.3578)	—
		55.78 (2.1960)	—
		55.78 (2.1960)	—
		59.89 (2.3578)	—
		55.78 (2.1960)	—
		55.78 (2.1960)	—
		55.28 (2.2157)	—
		59.88 (2.3574)	—
		59.88 (2.3574)	—
		59.88 (2.3574)	—
		55.80 (2.1968)	—
		55.80 (2.1968)	—
		59.88 (2.3574)	—
		55.80 (2.1968)	—
		55.80 (2.1968)	—
		55.80 (2.1968)	—
Valve guide	I.D.	5.515–5.530 (0.2171–0.2177)	5.53 (0.2177)
	Valve guide installed height IN EX	23.75–24.25 (0.9148–0.9547) 15.05–15.55 (0.5925–0.6122)	—
Rocker arm	Arm-to shaft clearance IN EX	0.017–0.050 (0.0007–0.0020)	0.080 (0.0031)
		0.018–0.054 (0.0007–0.0021)	0.080 (0.0031)

5. Engine/Engine Block

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface	0.07 (0.003) max.	0.10 (0.004)
	Bore diameter	85.00–85.02 (3.3464–3.3472)	85.07 (3.3492)
	Bore taper	—	0.05 (0.002)
	Reboring limit	—	0.5 (0.02)
Piston	Skirt O.D. (At 21 mm (0.83 in) from bottom of skirt)	A 84.98–84.99 (3.3456–3.4605) B 84.97–84.98 (3.3452–3.3456)	84.97 (3.3452) 84.96 (3.3448)
	Clearance in cylinder	0.02–0.04 (0.0008–0.0016)	0.05 (0.0020)
Piston ring	Piston-to-ring clearance	Top 0.035–0.060 (0.0014–0.0024)	0.130 (0.0051)
		Second 0.030–0.055 (0.0011–0.0022)	0.130 (0.0051)
	Ring end gap	Top 0.20–0.35 (0.0079–0.0138)	0.60 (0.0236)
		Second 0.40–0.55 (0.0157–0.0217)	0.70 (0.0276)
		Oil 0.20–0.70 (0.0079–0.0276)	0.80 (0.0315)
Connecting rod	Pin-to rod interference	0.013–0.032 (0.0005–0.0013)	—
	Small end bore diameter	21.968–21.981 (0.8649–0.8654)	—
	Large end bore diameter	Nominal 48 (1.890) Nominal 51 (2.008)	—
	End play installed on crankshaft	0.15–0.30 (0.006–0.012)	0.40 (0.016)
Crankshaft	Main journal diameter	No. 1, 2 Journals 49.976–50.000 (1.9676–1.9685) No. 3 Journal 49.972–49.996 (1.9674–1.9683) No. 4, 5 Journals 49.948–50.008 (1.9665–1.9688)	—
	Taper/out-of-round, main journal	0.005 (0.0002) max.	0.010 (0.0004)
	Rod journal diameter	44.976–45.000 (1.7710–1.7717)	—
	Taper/out-of-round, rod journal	0.005 (0.0002) max.	0.010 (0.0004)
	End play	0.10–0.35 (0.004–0.014)	0.45 (0.018)
	Runout	0.015 max (0.0006)	0.020 (0.0008)
Bearings	Main bearing-to journal oil clearance	No. 1, 2 Journals 0.021–0.045 (0.0009–0.0018) No. 3 Journal 0.035–0.044 (0.0014–0.0017) No. 4, 5 Journals 0.013–0.037 (0.0005–0.0015)	0.05 (0.002) 0.054 (0.0021) 0.05 (0.002)
	Rod bearing-to journal oil clearance	2.2 ℓ 0.021–0.044 (0.0008–0.0017) others 0.015–0.044 (0.0006–0.0017)	0.05 (0.002) 0.05 (0.002)

1. F18A2: 1.8 ℓ CARB
2. F20A2: 2.0 ℓ CARB with CATA
3. F20A3: 2.0 ℓ CARB
4. F20A4: 2.0 ℓ PGM-FI with CATA
5. F20A5: 2.0 ℓ PGM-FI
6. F20A6: 2.0 ℓ CARB with CATA
7. F22A2: 2.2 ℓ PGM-FI
8. F22A3: 2.2 ℓ PGM-FI with CATA
9. F22A5: 2.2 ℓ PGM-FI with CATA

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)	—
	Journal taper	No.3 journal	34.722—34.734 (1.3670—1.3674)	—
			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)	—
Balancer Shaft Bearing	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)	—
	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 (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		43.9 ℓ (11.6 US. gal., 9.7 Imp. gal.)/6,000 min ⁻¹ (rpm)	
	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 80°C (176°F)	Idle	69 kPa (0.7 kg/cm ² , 10 psi) min.	
		3,000 min ⁻¹ (rpm)	3431 kPa (3.5 kg/cm ² , 50 psi)	

5. Engine/Cooling

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Thermostat	Starts to open Full open Valve lift at full open	78°C±2 (172°F±3) 90°C (194°F) 8 (0.31) max.	86—90°C (187—194°F)
Water Pump	Displacement	160 ℓ (42.2 US gal, 35.2 Imp gal)/6,000 min ⁻¹ (rpm)	
Radiator	Capacity (incl. heater) ℓ (US.qt., Imp. qt) (Includes reservoir tank 0.6 (0.63, 0.53) after overhaul 1. F18A2: 2. F20A2: 3. F20A3: 4. F20A4: 5. F20A5: 6. F20A6: 7. F22A2: 8. F22A3: 9. F22A5: at change 1. F18A2: 2. F20A2: 3. F20A3: 4. F20A4: 5. F20A5: 6. F20A6: 7. F22A2: 8. F22A3: 9. F22A5: pressure cap opening pressure	MT: 6.6 (6.97, 5.81) AT: 6.5 (6.87, 6.72) 7.2 (7.61, 6.34) 7.1 (7.50, 6.23) 7.2 (7.61, 6.34) 7.1 (7.50, 6.23) 7.2 (7.61, 6.34) 7.1 (7.50, 6.23) 7.2 (7.61, 6.34) 7.1 (7.50, 6.23) 7.2 (7.61, 6.34) 7.1 (7.50, 6.23) 6.6 (6.97, 5.81) 7.1 (7.50, 6.23) 7.2 (7.61, 6.34) 7.1 (7.50, 6.23) 6.6 (6.97, 5.81) 7.1 (7.50, 6.23) MT: 3.0 (3.17, 2.64) AT: 2.9 (3.06, 2.55) 3.6 (3.80, 3.17) 3.5 (3.70, 3.08) 3.6 (3.80, 3.17) 3.5 (3.70, 3.08) 3.6 (3.80, 3.17) 3.5 (3.70, 3.08) 3.6 (3.80, 3.17) 3.5 (3.70, 3.08) 3.6 (3.80, 3.17) 3.5 (3.70, 3.08) 3.0 (3.17, 2.64) 3.0 (3.17, 2.64) 3.6 (3.80, 3.17) 3.6 (3.80, 3.17) 3.0 (3.17, 2.64) 3.5 (3.70, 3.08) 88.3—123 kpa (0.9—1.25 kg/cm ² , 12.8—17.8 psi)	
Cooling fan	"ON" temperature "OFF" temperature "ON" temperature (Fan timer) "OF" temperature (Fan timer)	87°—93°C (189°—199°F) 80°—91°C (176°—196°F) 105°—111°C (221°—231°F) 98°—109°C (208°—228°F)	

1. F18A2: 1.8 ℓ CARB
2. F20A2: 2.0 ℓ CARB with CATA
3. F20A3: 2.0 ℓ CARB
4. F20A4: 2.0 ℓ PGM-FI with CATA
5. F20A5: 2.0 ℓ PGM-FI
6. F20A6: 2.0 ℓ CARB with CATA
7. F22A2: 2.2 ℓ PGM-FI
8. F22A3: 2.2 ℓ PGM-FI with CATA
9. F22A5: 2.2 ℓ PGM-FI with CATA

Standards and Service Limits

6. Fuel and Emissions

	MEASUREMENT		STANDARD (NEW)
Fuel Pump (Carburated engine)	Delivery pressure		250 kPa (2.55 kg/cm ² , 36 psi)
	Displacement (minimum in 10 seconds)		230 cc (7.8 US oz., 8.1 Imp oz.)
	Relief valve opening pressure		441–588 kPa (4.5–6.0 kg/cm ² , 64–85 psi)
Fuel Pump (PGM-FI)	Delivery pressure		9–14 kPa (0.09–0.14 kg/cm ² , 1.3–2.0 psi)
	Displacement (minimum in minute at 12V)		760 cc (25.7 US oz., 26.8 Imp oz.)
Pressure Regulator (PGM-FI)	Pressure		240–279 kPa (2.45–2.85 kg/cm ² , 35–41 psi)
Fuel Tank	Capacity	2WS:	65 ℓ (17.2 US gal., 14.3 Imp gal.)
		4WS:	60 ℓ (15.9 US gal., 13.2 Imp gal.)
Engine	Fast idle		1,400 min ⁻¹ (rpm)
	Idle speed (with headlights and cooling fan OFF)	MT with carburated engine:	800±50 min ⁻¹ (rpm)
		MT with PGM-FI engine:	770±50 min ⁻¹ (rpm)
		AT with carburated engine: AT with PGM-FI engine:	750±50 min ⁻¹ (rpm) in <input type="checkbox"/> position 770±50 min ⁻¹ (rpm) in <input type="checkbox"/> or <input type="checkbox"/> positions
	Idle CO	With CATA: Without CATA:	0.1% maximum 1.0±1.0%


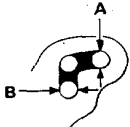
7. Clutch

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch pedal	Pedal height	210 (8.3) to floor	—
	Stroke	142.0 (5.6)	—
	Pedal play	9–15 (0.4–0.6)	—
	Disengagement height	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	1.3 (0.05) min.	0.2 (0.008)
	Surface runout	0.8 (0.03) max.	1.0 (0.04)
	Thickness	8.5–9.2 (0.33–0.36)	6.1 (0.24)
Clutch cover	Unevenness of diaphragm spring	0.6 (0.02) max.	0.8 (0.03)

8. Manual Transmission

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity ℓ (U.S. qt., Imp. qt.)	1.9 (2.0, 1.7) at assembly 2.0 (2.1, 1.8) at oil change	
Mainshaft	End play	0.10–0.16 (0.0039–0.0063)	Adjust with a shim.
	Diameter of ball bearing contact area	27.977–27.990 (1.1015–1.1020)	29.93 (1.1783)
	Diameter of third gear contact area	37.984–38.000 (1.4954–1.4961)	37.930 (1.4933)
	Diameter of ball bearing contact area	27.987–28.000 (1.1018–1.1024)	27.940 (1.1000)
	Runout	0.02 (0.008) max.	0.05 (0.002)
Mainshaft third and fourth gears	I.D.	43.009–43.025 (1.6933–1.6939)	43.080 (1.6961)
	End play	0.06–0.21 (0.0024–0.0083)	0.30 (0.012)
	Thickness 3rd gear	32.42–32.47 (1.276–1.278)	32.3 (1.27)
	4th gear	30.92–30.97 (1.217–1.219)	30.8 (1.21)
Mainshaft fifth gear	I.D.	43.009–43.025 (1.6933–1.6939)	43.080 (1.6961)
	End play	0.06–0.21 (0.0024–0.0083)	0.30 (0.012)
	Thickness	30.42–30.47 (1.198–1.200)	30.3 (1.193)
Countershaft	End play	0.05–0.21 (0.0019–0.0083)	0.50 (0.02)
	Diameter of needle bearing contact area	33.000–33.015 (1.2992–1.2998)	32.95 (1.297)
	Diameter of ball bearing needle bearing contact area	24.987–25.000 (0.9837–0.9845)	24.94 (0.982)
	Diameter of low gear contact area	39.984–40.000 (1.5742–1.5748)	39.93 (1.572)
	Runout	0.02 (0.0008) max.	0.05 (0.002)

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	50.009–50.025 (1.9689–1.9695) 0.04–0.10 (0.002–0.004) 33.92–33.97 (1.335–1.337)	50.08 (1.972) Adjust with a collar. 32.8 (1.2913)
Spacer collar (Countershaft second gear)	I.D. O.D. Length	36.48–36.49 (1.4362–1.4366) 43.989–44.000 (1.7318–1.7323) 29.03–29.05 (1.1429–1.1437) 28.98–29.00 (1.1409–1.1417)	36.50 (1.437) 43.94 (1.730) — —
Spacer collar (Mainshaft fourth and fifth gears)	I.D. O.D. Length	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 (0.006)
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 Fork-to fifth/reverse shift Shaft clearance	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 clearance	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	18.000–18.018 (0.7087–0.7094) 0.017–0.047 (0.0007–0.0019) 28.005–28.025 (1.1026–1.1033) 0.020–0.062 (0.0008–0.0024) 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 † (U.S. qt., Imp. qt.)		2.4 (2.5, 2.1) at oil change 6.0 (6.4, 5.2) at assembly	
Hydraulic pressure	Line pressure at 2,000 min ⁻¹ (rpm)	Carburetor	760 kPa (7.75 kg/cm ² , 110 psi) Throttle valve full-closed 808 kPa (8.25 kg/cm ² , 117 psi) Throttle valve more than 2/8 open	710 kPa (7.25 kg/cm ² , 103 psi) Throttle valve more than 2/8 open
		PGM-FI	784 kPa (8.0 kg/cm ² , 113 psi) Throttle valve full-closed 833 kPa (8.5 kg/cm ² , 120 psi) Throttle valve more than 2/8 open	735 kPa (7.5 kg/cm ² , 106 psi) Throttle valve more than 2/8 open
	4th clutch pressure at 2,000 min ⁻¹ (rpm)	Carburetor	411 kPa (4.2 kg/cm ² , 59 psi) Throttle valve full-closed 808 kPa (8.25 kg/cm ² , 117 psi) Throttle Valve more than 2/8 open	352 kPa (3.6 kg/cm ² , 51 spi) Throttle valve full-closed 710 kPa (7.25 kg/cm ² , 103 psi) Throttle valve more than 2/8 open
		PGM-FI	509 kPa (5.2 kg/cm ² , 74 psi) Throttle valve full-closed 833 kPa (8.5 kg/cm ² , 120 psi) Throttle valve more than 2/8 open	460 kPa (4.7 kg/cm ² , 66 psi) Throttle valve full-closed 735 kPa (7.5 kg/cm ² , 106 psi) Throttle valve more than 2/8 open
	3rd clutch pressure at 2,000 min ⁻¹ (rpm)	Carburetor	392 kPa (4.0 kg/cm ² , 57 psi) Throttle valve full-closed 808 kPa (8.25 kg/cm ² , 117 psi) Throttle valve more than 2/8 open	352 kPa (3.6 kg/cm ² , 51 psi) Throttle valve full-closed 710 kPa (7.25 kg/cm ² , 103 psi) Throttle valve more than 2/8 open
		PGM-FI	490 kPa (5.10 kg/cm ² , 71 psi) Throttle valve full-closed 833 kPa (8.5 kg/cm ² , 120 psi) Throttle valve more than 2/8 open	441 kPa (4.5 kg/cm ² , 64 psi) Throttle valve full-closed 735 kPa (7.5 kg/cm ² , 106 psi) Throttle valve more than 2/8 open
	2nd clutch pressure at 2,000 min ⁻¹ (rpm)	Carburetor	392 kPa (4.0 kg/cm ² , 57 psi) Throttle valve full-closed 808 kPa (8.25 kg/cm ² , 117 psi) Throttle valve more than 2/8 open	352 kPa (3.6 kg/cm ² , 51 psi) Throttle valve full-closed 710 kPa (7.25 kg/cm ² , 103 psi) Throttle valve more than 2/8 open
		PGM-FI	490 kPa (5.0 kg/cm ² , 71 psi) Throttle valve full-closed 833 kPa (8.5 kg/cm ² , 120 psi) Throttle valve more than 2/8 open	441 kPa (4.5 kg/cm ² , 64 psi) Throttle valve full-closed 735 kPa (7.5 kg/cm ² , 106 psi) Throttle valve more than 2/8 open
	1st clutch pressure at 2,000 min ⁻¹ (rpm)	Carburetor	750—808 kPa (7.75—8.25 kg/cm ² , 110—117 psi)	710 kPa (7.25 kg/cm ² , 103 psi)
		PGM-FI	784—833 kPa (8.0—8.5 kg/cm ² , 113—120 psi)	735 kPa (7.5 kg/cm ² , 106 psi)

9. Automatic Transmission

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT	
Hydraulic pressure	Governor pressure at (37.5 mph) 60 km/h	Carburetor with CATA	225—235 kPa (2.30—2.40 kg/cm ² , 32—34 psi)	220 kPa (2.25 kg/cm ² , 32 psi)	
		Carburetor without CATA	166—176 kPa (1.70—1.80 kg/cm ² , 24—25 psi)	162 kPa (1.65 kg/cm ² , 23 psi)	
	Throttle pressure A	Carburetor with CATA	closed 0 open 514—530 kPa (5.25—5.4 kg/cm ² , 74—76 psi)	— 509 kPa (5.2 kg/cm ² , 73 psi)	
		Carburetor with CATA	closed 0 open 485—500 kPa (4.95—5.10 kg/cm ² , 70—72 psi)	— 480 kPa (4.9 kg/cm ² , 69 psi)	
	Throttle pressure B	Carburetor	closed 0 open 760—808 kPa (7.75—8.25 kg/cm ² , 110—117 psi)	— 710 kPa (7.25 kg/cm ² , 103 psi)	
			PGM-FI	closed 0 open 784—833 kPa (8.0—8.5 kg/cm ² , 113—120 psi)	— 735 kPa (7.5 kg/cm ² , 106 psi)
				closed 0 open 760—808 kPa (7.75—8.25 kg/cm ² , 110—117 psi)	— 710 kPa (7.25 kg/cm ² , 103 psi)
				closed 0 open 784—833 kPa (8.0—8.5 kg/cm ² , 113—120 psi)	— 735 kPa (7.5 kg/cm ² , 106 psi)
Stall speed	Check with car on level ground	Carburetor (1.8 l)	2.450—2.750 min ⁻¹ (rpm)		
		Others	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, 33.9 (1.334) 2nd, 30.3 (1.192) 3rd, 32.1 (1.263) 4th, 32.1 (1.263)	31.9 (1.255) 28.3 (1.114) 30.1 (1.185) 30.1 (1.185)	
			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, 3rd, 4th, 1.95—2.05 (0.0767—0.0807)	Discoloration ↓ Discoloration	
			2nd, 2.55—2.65 (0.1003—0.1043)		
		PGM-FI	1st, 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)		
			2.95—3.00 (0.116—0.118)		
	Clutch end plate thickness	Mark 1 2.05—2.10 (0.081—0.83) 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)			

* Carbureted engine only.

Standards and Service Limits

9. Automatic Transmission (cont'd)

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Valve body	Stator camshaft needle bearing contact area I.D. (torque converter side)	27.000—27.021 (1.0630—1.0638)	Wear or damage
	Stator camshaft needle bearing contact area I.D. (oil pump side)	29.000—29.013 (1.417—1.1422)	—
	Oil pump driven gear I.D.	14.016—14.034 (0.5518—0.5525)	Wear or damage
	Oil pump 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)	—
	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—32.025 (1.2598—1.2608)	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 PGM-FI	18.5—18.6 (0.7283—0.7322)	—
		17.0—17.1 (0.6692—0.6732)	—
Servo body	Shift fork Shaft I.D.	14.000—14.005 (0.5512—0.5514)	—
		14.006—14.010 (0.5514—0.5516)	—
		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	22.980—23.000 (0.9047—0.9055)	Wear or damage
	On mainshaft and stator shaft	31.984—32.000 (1.2592—1.2598)	—
	On mainshaft 4th gear collar	—	—
	On mainshaft 3rd gear collar	—	—
	Carburetor PGM-FI	41.984—42.000 (1.6529—1.6535)	—
		45.984—46.000 (1.8103—1.8110)	—
	On counter shaft 1st gear collar	40.984—42.000 (1.6135—1.6535)	—
	On counter shaft 4th gear collar	35.980—35.996 (1.4165—1.4171)	—
	On counter shaft reverse gear collar	35.984—36.000 (1.4166—1.4173)	—
	On counter shaft 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	35.984—36.000 (1.4166—1.4173)	—
	Reverse idle shaft holder I.D.	14.416—14.434 (0.5675—0.5682)	—
	Mainshaft 3rd gear I.D.	52.000—52.019 (2.0472—2.0479)	—
	4th gear I.D.	38.000—38.016 (1.4960—1.4966)	Wear or damage

Unit of length: mm (in.)

9. Automatic Transmission

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	Counter shaft 1st gear I.D.	47.000—47.016 (1.8504—1.8510)	Wear or damage
	4th gear I.D.	42.000—42.016 (1.6535—1.6541)	
	reverse gear I.D.	42.000—42.016 (1.6535—1.6541)	
	idle 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)	
	2nd gear I.D.	42.010—42.025 (1.6539—1.6545)	Wear or damage
	Mainshaft 3rd gear collar length	20.000—20.050 (0.7874—0.7893)	
	4th gear collar length	47.500—47.550 (1.8700—1.8720)	
	Counter shaft 1st gear collar length	27.500—27.550 (1.0826—1.0846)	
	4th gear collar length	20.04—20.08 (0.7889—0.7905)	
	reverse gear collar length	15.00—15.05 (0.5905—0.5925)	
	Secondary shaft distance collar length	4.95—5.00 (0.1948—0.1968)	
	Counter shaft 1st gear thickness	1.45—1.50 (0.0570—0.0590)	
	Counter shaft parking gear length	25.030—25.048 (0.9854—0.9861)	Wear or damage

Standards and Service Limits

Unit of length: mm (in.)

9. Automatic Transmission (cont'd)

	MEASUREMENT	STANDARD (NEW)			
		WIRE DIA.	O.D.	FREE LENGTH	No. of COILS
Spring (Carburetor)	1st One way ball spring	0.29 (0.0114)	4.0 (0.01574)	14.0 (0.5511)	13.0
	Regulator valve spring A	1.80 (0.0708)	14.7 (0.5787)	85.1 (3.3503)	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	1.20 (0.0472)	9.4 (0.3700)	27.2 (1.0708)	8.0
	with 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)	36.8 (1.4488)	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	1.0 (0.0393)	18.8 (0.7401)	44.3 (1.7440)	4.0
	with CATA	1.0 (0.0393)	18.8 (0.7401)	25.8 (1.0157)	4.0
	Governor spring B	0.9 (0.0354)	11.8 (0.4645)	18.4 (0.7244)	6.2
	with CATA	0.9 (0.0354)	11.8 (0.4645)	21.4 (0.8425)	6.2
	Second oilfice control spring	0.7 (0.0275)	6.6 (0.2598)	53.3 (2.0984)	20.5
	Servo oilfice 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
	Throttle adjust spring A	0.8 (0.0314)	6.2 (0.2440)	30.0 (1.1811)	8.0
	Throttle spring B	1.6 (0.0629)	8.5 (0.3346)	41.4 (1.6299)	11.7
	1-2 shift spring	0.5 (0.0196)	4.6 (0.1811)	42.3 (1.6653)	25.0
	with CATA	0.6 (0.0236)	6.1 (0.2401)	42.3 (1.6653)	21.1
	1-2 shiftball spring	0.4 (0.0157)	4.5 (0.1771)	13.0 (0.5118)	8.7
	with CATA	0.4 (0.0157)	4.5 (0.1771)	12.6 (0.4960)	8.7
	2-3 shift spring	0.9 (0.0354)	7.6 (0.2992)	70.0 (2.7559)	28.2
	with CATA	0.8 (0.0314)	7.6 (0.2992)	58.9 (2.3188)	16.8
	2-3 shift ball spring	0.5 (0.0196)	4.5 (0.1771)	11.7 (0.4606)	10.5
	with CATA	0.5 (0.0196)	4.5 (0.1771)	14.1 (0.5551)	10.5
	3-4 shift spring	0.9 (0.0354)	9.6 (0.3779)	35.8 (1.4094)	10.3
	with CATA	0.9 (0.0354)	9.6 (0.3779)	27.7 (1.0905)	10.3
	3-4 shift ball spring	0.5 (0.0196)	4.5 (0.1771)	11.5 (0.4527)	7.4
	with 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	2.1 (0.0826)	16.3 (0.6417)	96.0 (3.7795)	17.1
	4th accumulator spring	2.6 (0.1023)	16.0 (0.6292)	84.6 (3.3307)	14.3
	2nd accumulator spring	3.2 (0.1259)	20.7 (0.8149)	80.7 (3.1771)	10.8
	3rd accumulator spring	2.6 (0.1023)	17.5 (0.6889)	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	1.0 (0.0393)	6.6 (0.2598)	84.0 (3.3070)	42.4
	with CATA	1.0 (0.0393)	6.6 (0.2598)	79.1 (3.1141)	42.4
	L/C timing spring A	0.9 (0.0354)	6.6 (0.2598)	55.9 (2.2007)	27.3
	with 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

	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
	Regulator valve Spring B	1.8 (0.0709)	6.0 (0.2336)	44.0 (1.7323)	12.7
	Stator reaction spring	5.5 (0.2165)	37.4 (1.4724)	30.3 (1.1929)	2.1
	Torque converter check valve spring	1.1 (0.0433)	8.4 (0.3307)	33.8 (1.3307)	12.5
	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 spring	0.6 (0.0236)	6.6 (0.2598)	52.2 (2.0551)	21.0
	Servo orifice spring	0.8 (0.0315)	6.6 (0.2598)	52.2 (2.0551)	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	2.1 (0.0826)	16.3 (0.6417)	96.0 (3.7795)	17.1
	4th accumulator spring	2.9 (0.1142)	22.0 (0.8661)	84.5 (3.3267)	10.9
	2nd accumulator spring	3.2 (0.1260)	20.7 (0.8149)	80.7 (3.1771)	10.8
	3rd accumulator spring	2.8 (0.1102)	17.5 (0.6889)	94.2 (3.7086)	16.1
	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)	64.0 (2.5196)	40.1
	D-inhibitor 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	1.5 (0.0591)	8.5 (0.3346)	41.5 (1.6334)	11.2
	1st hold spring	4.0 (0.1574)	25.0 (0.9842)	64.7 (2.5472)	7.3
	L/C modulator valve spring	1.4 (0.0551)	9.4 (0.3700)	33.0 (1.2992)	10.5
	L/C control spring	0.8 (0.0314)	6.6 (0.2598)	41.0 (1.6141)	25.0

Standards and Service Limits

9. Automatic Transmission (cont'd)

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Rign 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	0.08–0.15 (0.03–0.006)	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)	0.150 (0.006)
Differential taper roller bearing preload	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 1.0N-m (10 kg-cm, 0.72 lb-ft)
	Angle of rack guide screw loosend from locked position	35° \pm 5°
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	0.5 ℓ (0.53 US qt., 0.44 Imp qt.)
	Reservoir 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: 12.5–16.0 (0.50–0.62) For new belt: 9.5–11.5 (0.37–0.45)
	Belt tension between pulleys (measured with tension gauge)	For used belt: 343–490 N (35–50 kg, 77–110 lb) For new belt: 686–882 N (70–90 kg, 154–198 lb)

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) 4WS: IN 3±2 (0.12±0.08)	—
	Camber	Front: 0° 00' ± 1' Rear: 2WS: -0° 30' ± 1' 4WS: -0° 20' ± 1'	—
	Caster	Front: 3° 00' ± 1'	—
	Front Wheel turning angle	Inward wheel: 2.0/2.2 ℓ engine: 39° ± 2' 1.8 ℓ engine: 40° 50' ± 2' 4WS: 38° 50' ± 2' Outward wheel: 2.0/2.2 ℓ engine: 29° 30' 1.8 ℓ engine: 31° 10' 4WS: 29° 30'	—
	Rear Wheel turning angle (4WS only)	Inward wheel: 5° 50' ± 1' Outward wheel: 6° 10' ± 1'	—
Wheel	Rim runout	Steel wheel: Below 1.0 (0.04) Aluminum wheel: Below 1.0 (0.04)	2.0 (0.08)
		Axial: Below 0.7 (0.03)	1.5 (0.06)
		Radial: Below 0.7 (0.03)	2.0 (0.08)
			1.5 (0.06)
Wheel bearing	End play	Front: 0–0.05 (0–0.002) Rear: 0–0.05 (0–0.002)	—
			—

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)	MT	190 (7.5)	—
		AT	195 (7.7)	—
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	—	0.15 (0.006)
	Disc parallelism	Front and rear	—	0.015 (0.0006)
		Front	12.5 (0.49)	1.6 (0.06)
Brake booster	Characteristics at 20 kg (44 lbs) pedal pressure	Brakes	2.2 l model: 12.0 (0.47)	1.6 (0.06)
			9.0 (0.35)	1.6 (0.06)
			Line pressure Unit: kPa (kg/cm ² /psi)	
			Conventional type	with ALB system
	Vacuum	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 cc (0.3 US oz., 0.4 Imp oz.)
		Evaporator	25 cc (0.8 US oz., 0.9 Imp oz.)
		Line or hose	10 cc (0.3 US oz., 0.4 Imp oz.)
		Reservoir	10 cc (0.3 US oz., 0.4 Imp oz.)
Compressor	Lubricant capacity		900–950 g (31.7–33.5 oz)
	Stator coil resistance at 20°C (68°F)		3.4–3.8 Ω
Compressor belt	Pulley-to pressure plate clearance		0.35–0.65 (0.014–0.026)
	Deflection between pulleys with 98N (10 kg, 22 lbs) force	For used belt	10–12 (0.4–0.5)
		For new belt	8.5–11 (0.3–0.4)
	Belt tension between pulleys (measured with 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)

Standards and Service Limits

Unit of length: mm (in.)

16. Electrical

16. Electrical				
MEASUREMENT			STANDARD (NEW)	SERVICE LIMIT
Ignition coil	Rated voltage		12 Volts	
	Winding resistance	Primary	0.6—0.8 Ω <0.5—0.7 Ω >	
		Secondary	12.9—19.3 k Ω <14.4—21.6 k Ω >	
< >: Carbureted engine				
Ignition wire	Resistance		25 k Ω maximum	
Spark plug	Type (): Manufacturer	standard	ZFR6F-11 (NGK) or KJ20CR-L11 (ND) KP, KT: ZFR5F-11 (NGK) or KJ16CR-L11 (ND)	
		Option *: Except 2.2 l engines other than KQ, KY types	*: ZFR5F-11 (NGK) or KJ16CR-L11 (ND) KP, KT only: UFR6F-11 (NGK) or KJ20CR-L11 (ND) Except KP, KT: ZFR7F-11 (NGK) or KJ22CR-L11 (ND)	
	Gap		1.0—1.1 (0.039—0.043)	
Ignition timing	At idling		15° \pm 2° BTDC	
	KF, KB, KE, KW, KU, KT, KP (AT) KY (AT/MT)		10° \pm 2° BTDC 10° \pm 2° BTDC	
Battery	Lighting capacity (20-hours ratio) < >: KY, KQ, KP, KT		65Ah <47Ah>	
	Starting capacity (voltage after 5 sec.)		8.4 V minimum/300 ampere draw at -15°C (59°F)	
Alternator	Output < >: Carbureted engine (except KS, KW, KY)		80A <70A>	
	Rotor coil resistance		2.8—3.0 Ω	
	Slip ring O.D.		14.4 (0.57)	
Alternator belt	Brush length		10.5 (0.41)	
	Brush spring tension		300—360 g (10.6—12.7 oz)	
Starting motor	Deflection at midway between pulleys with 98 N (10 kg, 22 lbs) force		10—12 (0.39—0.47) for used belt 8.5—11.0 (0.33—0.43) after replacement of belt	
	Output		MT: 1.4 kw (2.2 l : 1.6 kw) MT: 1.4 kw	
Starting motor	European Except European		AT: 1.6 kw AT: 1.4 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—18N (1.6—1.8 kg, 3.5—4.0 lbs)	
Starting motor	Manufacturer: ND	Mica depth Commutator runout Commutator O.D. Brush length Brush spring tension	0.15 (0.006) 0.05 (0.002) 27.5 (1.08) 10.0 (0.39)	
			0.2 (0.01) 0.05 (0.002) 29.0 (1.14) 10.0 (0.39)	
Starting motor			19—24N (1.9—2.4 kg, 4.2—5.31 lbs)	
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