

2007-08 GENERAL INFORMATION

Specifications - TL

STANDARDS AND SERVICE LIMITS

ENGINE ELECTRICAL

ENGINE ELECTRICAL SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
Ignition coil	Rated voltage		12V	
	Firing order		1-4-2-5-3-6	
Spark plug	Type		NGK: IZFR6K11	
	Gap		1.0-1.1 mm (0.039-0.043 in.)	1.3 mm (0.051 in.)
Ignition timing	At idle Check the red mark	A/T (in N or P position)	10 ± 2° BTDC	
		M/T (in neutral)	10 ± 2° BTDC	
Drive belt	Tension		Auto-tensioner	
Alternator	Output at 13.5 V and normal engine temperature		130A	
	Coil (rotor) resistance	At 68°F (20°C)	2.5 k ohms	
	Slip ring O.D.		14.4 mm (0.57 in.)	14.0 mm (0.55 in.)
	Brush length		10.5 mm (0.41 in.)	1.5 mm (0.06 in.)
	Brush spring tension		3.2 N (0.33 kgf, 0.73 lbf)	
Starter (MITSUBA)	Output		1.6 kW	
	Commutator mica depth		0.4-0.5 mm (0.016-0.020 in.)	0.15 mm (0.006 in.)
	Commutator runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
	Commutator O.D.		28.0-28.1 mm (1.102-1.106 in.)	27.5 mm (1.083 in.)
	Brush length		15.8-16.2 mm (0.62-0.64 in.)	11.0 mm (0.43 in.)
	Brush spring tension (new)		15.7-17.7 N (1.60-1.80 kgf, 3.53-3.97 lbf)	
Starter (MITSUBISHI)	Output		1.6 kW	
	Commutator mica depth		0.40-0.50 mm (0.016-0.020 in.)	0.20 mm (0.008 in.)
	Commutator runout		0.05 mm (0.002 in.) max.	0.1 mm (0.004 in.)
	Commutator O.D.		29.3-29.5 mm (1.154-1.161 in.)	28.8 mm (1.134 in.)
			7.7-8.0 mm (0.30-	0.9 mm

	Brush length	0.31 in.)	(0.04 in.)
	Brush spring tension (new)	15.9-19.5 N (1.62-1.99 kgf, 3.57-4.39 lbf)	

ENGINE ASSEMBLY

ENGINE ASSEMBLY SPECIFICATIONS

Item	Measurement	Qualification	Standard or New
Compression	Pressure Check the engine with the starter cranking	Minimum	930 kPa (9.5 kgf/cm ² , 135 psi)
		Maximum variation	200 kPa (2.0 kgf/cm ² , 28 psi)

CYLINDER HEAD

CYLINDER HEAD SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
Head	Warpage		-	0.05 mm (0.002 in.)
	Height		120.95-121.05 mm (4.762-4.766 in.)	-
Camshaft	End play		0.05-0.20 mm (0.002-0.008 in.)	0.20 mm (0.008 in.)
	Camshaft-to-holder oil clearance		0.050-0.089 mm (0.0020-0.0035 in.)	0.15 mm (0.006 in.)
	Total runout		0.03 mm (0.001 in.) max.	0.04 mm (0.002 in.)
	Cam lobe height (J32A3)	Intake, primary	35.041 mm (1.3796 in.)	-
		Intake, mid	36.445 mm (1.4348 in.)	-
		Intake, secondary	35.284 mm (1.3891 in.)	-
		Exhaust	36.326 mm (1.4302 in.)	-
	Cam lobe height (J35A8)	Intake, primary	35.112 mm (1.3824 in.)	-
		Intake, mid	36.394 mm (1.4328 in.)	-
		Intake, secondary	35.112 mm (1.3824 in.)	-
		Exhaust	36.389 mm (1.4326 in.)	-
Valve	Clearance (cold)	Intake	0.20-0.24 mm (0.008-0.009 in.)	-
		Exhaust	0.28-0.32 mm (0.011-0.013 in.)	-
	Stem O.D.	Intake	5.485-5.495 mm (0.2159-0.2163 in.)	5.455 mm (0.2148 in.)
		Exhaust	5.450-5.460 mm (0.2146-0.2150 in.)	5.420 mm (0.2134 in.)
		Intake	0.020-0.045 mm (0.0008-	0.08 mm (0.003

	Stem-to-guide clearance		0.0018 in.)	in.)
		Exhaust	0.055-0.080 mm (0.0022-0.0031 in.)	0.11 mm (0.004 in.)
Valve seat	Width	Intake	1.25-1.55 mm (0.049-0.061 in.)	2.00 mm (0.079 in.)
		Exhaust	1.25-1.55 mm (0.049-0.061 in.)	2.00 mm (0.079 in.)
	Stem installed height	Intake	46.75-47.55 mm (1.841-1.872 in.)	47.80 mm (1.882 in.)
		Exhaust	46.68-47.48 mm (1.838-1.869 in.)	47.73 mm (1.879 in.)
Valve spring	Free length (J32A3)	Intake	51.54 mm (2.029 in.)	-
		Exhaust	51.06 mm (2.010 in.)	-
	Free length (J35A8)	Intake	51.48 mm (2.027 in.)	-
		Exhaust	51.05 mm (2.010 in.)	-
Valve guide	I.D.	Intake	5.515-5.530 mm (0.2171-0.2177 in.)	5.55 mm (0.219 in.)
		Exhaust	5.515-5.530 mm (0.2171-0.2177 in.)	5.55 mm (0.219 in.)
	Installed height	Intake	21.20-22.20 mm (0.835-0.874 in.)	-
		Exhaust	20.60-21.60 mm (0.811-0.850 in.)	-
Rocker arm	Arm-to-shaft clearance (A/T)	Intake	0.026-0.067 mm (0.0010-0.0026 in.)	0.067 mm (0.0026 in.)
		Exhaust	0.026-0.077 mm (0.0010-0.0030 in.)	0.077 mm (0.0030 in.)
	Arm-to-shaft clearance (M/T)	Intake	0.026-0.067 mm (0.0010-0.0026 in.)	0.067 mm (0.0026 in.)
		Exhaust	0.026-0.067 mm (0.0010-0.0026 in.)	0.067 mm (0.0026 in.)

ENGINE BLOCK

ENGINE BLOCK SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
Block	Warpage of deck		0.07 mm (0.003 in.) max.	0.10 mm (0.004 in.)
	Bore diameter		89.000-89.015 mm (3.5039-3.5045 in.)	89.065 mm (3.5065 in.)
	Bore taper		-	0.05 mm (0.002 in.)
	Reboring limit		-	0.25 mm (0.01 in.)
	Skirt O.D. at 16.0 mm (0.63 in.) from bottom of skirt		88.975-88.985 mm (3.5029-3.5033 in.)	88.965 mm (3.5026 in.)
			0.015-0.040 mm (0.0006-	0.08 mm

Piston	Clearance in cylinder		0.0016 in.)	(0.003 in.)
	Ring groove width (J32A3)	Top	1.240-1.250 mm (0.0488-0.0492 in.)	1.27 mm (0.050 in.)
		Second	1.220-1.230 mm (0.0480-0.0484 in.)	1.25 mm (0.049 in.)
		Oil	2.805-2.825 mm (0.1104-0.1112 in.)	2.85 mm (0.112 in.)
	Ring groove width (J35A8)	Top	1.250-1.260 mm (0.0492-0.0496 in.)	1.27 mm (0.050 in.)
		Second	1.220-1.230 mm (0.0480-0.0484 in.)	1.25 mm (0.049 in.)
		Oil	2.805-2.825 mm (0.1104-0.1112 in.)	2.85 mm (0.112 in.)
Piston ring	Ring-to-groove clearance (J32A3)	Top	0.055-0.080 mm (0.0022-0.0031 in.)	0.15 mm (0.006 in.)
		Second	0.030-0.055 mm (0.0012-0.0022 in.)	0.13 mm (0.005 in.)
	Ring-to-groove clearance (J35A8)	Top	0.065-0.090 mm (0.0026-0.0035 in.)	0.15 mm (0.006 in.)
		Second	0.030-0.055 mm (0.0012-0.0022 in.)	0.13 mm (0.005 in.)
	Ring end gap	Top	0.20-0.35 mm (0.008-0.014 in.)	0.60 mm (0.024 in.)
		Second	0.40-0.55 mm (0.016-0.022 in.)	0.70 mm (0.028 in.)
		Oil	0.20-0.70 mm (0.008-0.028 in.)	0.80 mm (0.031 in.)
Piston pin	O.D.		21.962-21.965 mm (0.8646-0.8648 in.)	21.954 mm (0.8643 in.)
	Pin-to-piston clearance		-0.0050 to +0.0010 mm (-0.00020 to +0.00004 in.)	0.004 mm (0.0002 in.)
Connecting rod	Pin-to-rod clearance		0.005-0.014 mm (0.0002-0.0006 in.)	0.019 mm (0.0007 in.)
	Small-end bore diameter		21.970-21.976 mm (0.8650-0.8652 in.)	-
	Large-end bore diameter (nominal)		58.0 mm (2.28 in.)	-
	End play installed on crankshaft		0.15-0.35 mm (0.006-0.014 in.)	0.45 mm (0.018 in.)
Crankshaft	Main journal diameter		71.976-72.000 mm (2.8337-2.8346 in.)	-
	Rod journal diameter		54.976-55.000 mm (2.1644-2.1654 in.)	-
	Rod/main journal taper		0.005 mm (0.0002 in.) max.	0.010 mm (0.0004 in.)
	Rod/main journal out-of-round		0.005 mm (0.0002 in.) max.	0.010 mm (0.0004 in.)

	End play		0.10-0.35 mm (0.004-0.014 in.)	0.45 mm (0.018 in.)
	Runout		0.025 mm (0.0010 in.) max.	0.03 mm (0.0012 in.)
Crankshaft bearing	Main bearing-to-journal oil clearance	J32A3	0.020-0.044 mm (0.0008-0.0017 in.)	0.050 mm (0.0020 in.)
		J35A8	0.019-0.045 mm (0.0007-0.0018 in.)	0.050 mm (0.0020 in.)
	Rod bearing clearance		0.020-0.044 mm (0.0008-0.0017 in.)	0.050 mm (0.002 in.)

ENGINE LUBRICATION

ENGINE LUBRICATION SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
Engine oil	Capacity	Engine overhaul	5.0 L (5.3 US qt)	
		Oil change including filter	4.3 L (4.5 US qt)	
		Oil change without filter	4.0 L (4.2 US qt)	
Oil pump	Inner-to-outer rotor clearance		0.04-0.16 mm (0.002-0.006 in.)	0.20 mm (0.008 in.)
	Pump housing-to-outer rotor clearance		0.10-0.19 mm (0.004-0.007 in.)	0.20 mm (0.008 in.)
	Pump housing-to-outer rotor axial clearance		0.02-0.07 mm (0.001-0.003 in.)	0.12 mm (0.005 in.)
	Oil pressure with oil temperature at 176°F (80°C)	At idle	70 kPa (0.7 kgf/cm ² , 10 psi)	
		At 3,000 rpm	490 kPa (5.0 kgf/cm ² , 71 psi)	

COOLING SYSTEM

COOLING SYSTEM SPECIFICATIONS

Item	Measurement	Qualification	Standard or New
Radiator	Coolant capacities (including engine, heater, hoses, and reservoir) Use Acura Long Life Antifreeze/Coolant Type 2	A/T: engine overhaul	8.0 L (2.11 US gal)
		M/T: engine overhaul	8.1 L (2.14 US gal)
		Coolant change	6.3 L (1.66 US gal)
Coolant reservoir	Coolant capacity		0.6 L (0.16 US gal)
Radiator cap	Opening pressure		93-123 kPa (0.95-1.25 kgf/cm ² , 14-18 psi)
Thermostat	Opening temperature	Begins to open	169-176°F (76-80°C)
		Fully open	194°F (90°C)
	Valve lift at fully open		10.0 mm (0.39 in.) min.

FUEL AND EMISSIONS**FUEL AND EMISSIONS SPECIFICATIONS**

Item	Measurement	Qualification	Standard or New
Fuel pressure regulator	Pressure with fuel pressure gauge connected		380-430 kPa (3.9-4.4 kg/cm ² , 55-63 psi)
Fuel tank	Capacity		64.7 L (17.1 US gal)
Engine idle	Idle speed without load	M/T(in neutral), A/T(in N or P position)	750 ± 50 rpm
	Idle speed with high electrical load (A/C switch ON, temperature set to max cool, blower fan on High, rear window defogger ON, and headlights on high beam)	M/T (in neutral), A/T (in N or P position)	750 ± 50 rpm

CLUTCH**CLUTCH SPECIFICATIONS**

Item	Measurement	Qualification	Standard or New	Service Limit
Clutch pedal	Height from floor		191 mm (7.52 in.)	-
	Stroke		130-140 mm (5.12-5.51 in.)	-
	Play		10-18 mm (0.39-0.71 in.)	-
	Disengagement height from floor		90.5 mm (3.56 in.) min.	-
Flywheel	Runout on clutch mating surface		0.05 mm (0.002 in.) max.	0.15 mm (0.006 in.)
Clutch disc	Rivet head depth		1.0 mm (0.039 in.)	0.2 mm (0.008 in.)
	Thickness		8.68-9.53 mm (0.342-0.375 in.)	7.2 mm (0.28 in.)
Pressure plate	Warpage		0.03 mm (0.001 in.) max.	0.15 mm (0.006 in.)
	Height of diaphragm spring fingers measured with special tool and feeler gauge		0.6 mm (0.02 in.) max.	0.8 mm (0.03 in.)

MANUAL TRANSMISSION AND M/T DIFFERENTIAL**MANUAL TRANSMISSION AND M/T DIFFERENTIAL SPECIFICATIONS**

Item	Measurement	Qualification	Standard or New	Service Limit
Manual	Capacity	Fluid change	2.1 L (2.2 US qt)	

transmission fluid	Use Acura MTF	Overhaul	2.5 L (2.6 US qt)	
Mainshaft	End play		0.14-0.21 mm (0.006-0.008 in.)	Adjust
	Diameter of pilot bearing surface		19.967-19.980 mm (0.7861-0.7866 in.)	19.91 mm (0.784 in.)
	Diameter of 4th and 5th gears distance collar		35.987-36.000 mm (1.4168-1.4173 in.)	35.93 mm (1.415 in.)
	Diameter of ball bearing contact area (clutch housing side)		28.002-28.015 mm (1.1024-1.1030 in.)	27.95 mm (1.100 in.)
	Diameter of needle bearing contact area		41.984-42.000 mm (1.6529-1.6535 in.)	41.93 mm (1.651 in.)
	Diameter of 6th gear distance collar		32.987-33.000 mm (1.2987-1.2992 in.)	32.93 mm (1.296 in.)
	Diameter of ball bearing contact area (transmission housing side)		30.987-31.000 mm (1.2200-1.2205 in.)	30.93 mm (1.218 in.)
	Runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
Mainshaft 3rd gear	I.D.		47.009-47.025 mm (1.8507-1.8514 in.)	47.08 mm (1.854 in.)
	End play		0.06-0.19 mm (0.002-0.007 in.)	0.3 mm (0.01 in.)
	Thickness		23.89-23.97 mm (0.941-0.944 in.)	23.8 mm (0.94 in.)
Mainshaft 4th and 5th gear	I.D.		47.009-47.025 mm (1.8507-1.8514 in.)	47.08 mm (1.854 in.)
	End play		0.06-0.19 mm (0.002-0.007 in.)	0.3 mm (0.01 in.)
	Thickness		22.39-22.47 mm (0.881-0.885 in.)	22.3 mm (0.88 in.)
Mainshaft 6th gear	I.D.		47.009-47.025 mm (1.8507-1.8513 in.)	47.08 mm (1.854 in.)
	End play		0.13-0.26 mm (0.005-0.010 in.)	0.35 mm (0.01 in.)
	Thickness		23.82-23.90 mm (0.937-0.990 in.)	23.75 mm (0.94 in.)
	Diameter of needle bearing contact area (clutch housing side)		43.974-43.990 mm (1.7313-1.7319 in.)	43.92 mm (1.729 in.)
			42.975-42.991	

Countershaft	Diameter of distance collar contact area		mm (1.6919-1.6926 in.)	42.92 mm (1.690 in.)
	Diameter of ball bearing contact area (transmission housing side)		30.002-30.015 mm (1.1812-1.1817 in.)	29.95 mm (1.179 in.)
	Diameter of countershaft reverse gear		45.934-45.950 mm (1.8084-1.8091 in.)	45.88 mm (1.806 in.)
	Runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
	35 mm shim-to-bearing inner race clearance		0.04-0.10 mm (0.0016-0.0039 in.)	Adjust
Countershaft 1st gear	I.D.		57.010-57.029 mm (2.2445-2.2452 in.)	57.08 mm (2.247 in.)
	End play		0.04-0.17 mm (0.002-0.007 in.)	0.28 mm (0.011 in.)
	Thickness		22.91-22.99 mm (0.902-0.905 in.)	22.86 mm (0.900 in.)
Countershaft 2nd gear	I.D.		57.010-57.029 mm (2.2445-2.2452 in.)	57.08 mm (2.247 in.)
	End play		0.04-0.17 mm (0.002-0.007 in.)	0.28 mm (0.011 in.)
	Thickness		22.91-22.99 mm (0.902-0.905 in.)	22.86 mm (0.900 in.)
Countershaft reverse gear	I.D.		45.970-45.988 mm (1.8098-1.8105 in.)	46.04 mm (1.813 in.)
	O.D.		51.987-52.000 mm (2.0467-2.0472 in.)	51.93 mm (2.044 in.)
	Length		23.03-23.08 mm (0.907-0.909 in.)	-
Countershaft 2nd gear distance collar	I.D.		42.990-43.000 mm (1.6925-1.6929 in.)	43.05 mm (1.695 in.)
	O.D.		51.989-52.000 mm (2.0468-2.0472 in.)	51.94 mm (2.045 in.)
	Length		23.03-23.08 mm (0.907-0.909 in.)	-
Mainshaft 4th and	I.D.		36.002-36.012 mm (1.4174-1.4178 in.)	36.06 mm (1.420 in.)
	O.D.		41.989-42.000 mm (1.6531-	41.94 mm (1.651 in.)

5th gear distance collar	Length 	A	1.6535 in.) 49.95-50.05 mm (1.967-1.970 in.)	-
		B	22.53-22.58 mm (0.887-0.889 in.)	-
Mainshaft 6th gear distance collar	I.D.		33.002-33.012 mm (1.2993-1.2997 in.)	33.06 mm (1.302 in.)
	O.D.		41.989-42.000 mm (1.6531-1.6535 in.)	41.94 mm (1.651 in.)
	Length		24.03-24.08 mm (0.946-0.948 in.)	-
Reverse gear shaft	O.D.		19.989-20.000 mm (0.7870-0.7874 in.)	19.93 mm (0.785 in.)
Reverse drive/driven gear	I.D.		25.007-25.020 mm (0.9845-0.9850 in.)	25.07 mm (0.987 in.)
5th synchro ring	Ring-to-gear clearance	Ring pushed against gear	0.70-1.49 mm (0.028-0.059 in.)	0.4 mm (0.016 in.)
6th synchro ring	Ring-to-gear clearance	Ring pushed against gear	0.73-1.44 mm (0.029-0.057 in.)	0.4 mm (0.016 in.)
Double cone synchro	Outer synchro ring-to-synchro cone clearance	Ring pushed against gear	0.70-1.19 mm (0.028-0.047 in.)	0.3 mm (0.012 in.)
	Synchro cone-to-gear clearance	Ring pushed against gear	0.50-1.04 mm (0.020-0.041 in.)	0.3 mm (0.012 in.)
	Outer synchro ring-to-gear cone clearance	Ring pushed against gear	0.95-1.68 mm (0.037-0.066 in.)	0.6 mm (0.024 in.)
1st triple cone synchro	Outer synchro ring-to-synchro cone clearance	Ring pushed against gear	0.70-1.19 mm (0.028-0.047 in.)	0.3 mm (0.012 in.)
	Synchro cone-to-gear clearance	Ring pushed against gear	0.45-1.14 mm (0.018-0.045 in.)	0.3 mm (0.012 in.)
	Outer synchro ring-to-gear cone clearance	Ring pushed against gear	1.12-1.68 mm (0.044-0.066 in.)	0.6 mm (0.024 in.)
2nd triple cone synchro	Outer synchro ring-to-synchro cone clearance	Ring pushed against gear	0.70-1.19 mm (0.028-0.047 in.)	0.3 mm (0.012 in.)
	Synchro cone-to-gear clearance	Ring pushed against gear	0.60-1.88 mm (0.024-0.074 in.)	0.3 mm (0.012 in.)
	Outer synchro ring-to-gear cone clearance	Ring pushed against gear	0.87-1.82 mm (0.034-0.072 in.)	0.6 mm (0.024 in.)
1st/2nd, 3rd/4th, 5th/6th shift fork	Finger thickness		7.4-7.6 mm (0.29-0.30 in.)	-
	Fork-to-synchro sleeve clearance		0.35-0.65 mm (0.014-0.026 in.)	1.0 mm (0.039 in.)
	Finger thickness		6.2-6.4 mm (0.24-0.25 in.)	-

Reverse shift fork	Fork-to-synchro sleeve clearance		0.35-0.65 mm (0.014-0.026 in.)	1.0 mm (0.039 in.)
Reverse shift lever	Finger width		6.400-6.650 mm (0.2520-0.2618 in.)	-
	Shift lever-to-shift fork clearance		0.05-0.50 mm (0.002-0.020 in.)	0.6 mm (0.024 in.)
	Shift lever diameter at contact area		13.0-13.2 mm (0.51-0.52 in.)	-
	Shift lever-to-interlock clearance		0-0.4 mm (0-0.015 in.)	0.5 mm (0.020 in.)
Shift piece	I.D.		14.000-14.068 mm (0.5512-0.5539 in.)	-
	Shift fork diameter at contact area		12.8-13.0 mm (0.50-0.51 in.)	-
	Shift piece-to-shift fork clearance		0.2-0.6 mm (0.008-0.024 in.)	0.7 mm (0.028 in.)
Shift arm	I.D.		15.973-16.005 mm (0.6289-0.6301 in.)	-
	Shift piece diameter at contact area		13.6-13.8 mm (0.53-0.54 in.)	-
	Shift arm-to-shift piece clearance		0.257-0.568 mm (0.012-0.024 in.)	0.75 mm (0.030 in.)
Select arm	I.D.		11.01-11.05 mm (0.433-0.435 in.)	-
	Interlock diameter at contact area		12.9-13.0 mm (0.50-0.51 in.)	-
	Select arm-to-interlock clearance		0.05-0.25 mm (0.002-0.010 in.)	0.5 mm (0.020 in.)
Oil pump	Oil pump thrust clearance		0.03-0.13 mm (0.001-0.005 in.)	0.15 mm (0.006 in.)
	Outer rotor-to-body clearance		0.1-0.2 mm (0.004-0.008 in.)	0.22 mm (0.009 in.)
	Inner rotor-to-outer rotor clearance		0.14 mm (0.006 in.) max.	0.2 mm (0.008 in.)
	Oil pump inner rotor I.D.		17.1-17.2 mm (0.067-0.68 in.)	-
	Oil pump shaft O.D.		16.8-17.0 mm (0.66-0.67 in.)	-
M/T differential carrier	Backlash		0.4-1.3 mm (0.016-0.051 in.)	-
	Driveshaft contact area I.D.		30.025-30.045 mm (1.1821-1.1829 in.)	-
	Carrier bearing starting torque		3.43-4.51 N.m (35-46 kgf.cm,	Adjust

(preload)

30-40 lbf.in.)

AUTOMATIC TRANSMISSION AND A/T DIFFERENTIAL**AUTOMATIC TRANSMISSION AND A/T DIFFERENTIAL SPECIFICATIONS**

Item	Measurement	Qualification	Standard or New	Service Limit
Automatic transmission fluid	Capacity Use Acura ATF-Z1	Fluid change	3.1 L (3.3 US qt)	
		Overhaul (TL)	7.5 L (7.9 US qt)	
		Overhaul (TL Type-S)	7.7 L (8.1 US qt)	
ATF pressure	Line pressure	At 2,000 rpm in N or P position	950-1,010 kPa (9.7-10.3 kgf/cm ² , 140-146 psi)	900 kPa (9.2 kgf/cm ² , 130 psi)
	5th clutch pressure	At 2,000 rpm in M position	940-1,020 kPa (9.6-10.4 kgf/cm ² , 140-148 psi)	890 kPa (9.1 kgf/cm ² , 130 psi)
	4th clutch pressure	At 2,000 rpm in M position	940-1,020 kPa (9.6-10.4 kgf/cm ² , 140-148 psi)	890 kPa (9.1 kgf/cm ² , 130 psi)
	3rd clutch pressure	At 2,000 rpm in M position	940-1,020 kPa (9.6-10.4 kgf/cm ² , 140-148 psi)	890 kPa (9.1 kgf/cm ² , 130 psi)
	2nd clutch pressure	At 2,000 rpm in M position	940-1,020 kPa (9.6-10.4 kgf/cm ² , 140-148 psi)	890 kPa (9.1 kgf/cm ² , 130 psi)
	1st clutch pressure	At 2,000 rpm in M position	940-1,020 kPa (9.6-10.4 kgf/cm ² , 140-148 psi)	890 kPa (9.1 kgf/cm ² , 130 psi)
	1st-hold clutch pressure	At 2,000 rpm in M position	680-760 kPa (6.9-7.7 kgf/cm ² , 98-109 psi)	630 kPa (6.4 kgf/cm ² , 91 psi)
Torque converter	Stall speed Check with vehicle on level ground		1,850 rpm	1,700-2,000 rpm
Clutch	Clutch end-plate-to-top disc clearance	1st	-	1.15-1.35 mm (0.045-0.053 in.)
		2nd	-	1.05-1.25 mm (0.041-0.049 in.)
		3rd	-	0.80-1.00 mm (0.031-0.039 in.)
		4th	-	0.75-0.95 mm (0.030-0.037 in.)
		5th	-	0.75-0.95 mm (0.030-0.037 in.)
		1st-hold	-	0.6-1.0 mm (0.024-0.039 in.)

1st clutch end-plate thickness	Clutch return spring free length	1st	68.3 mm (2.69 in.)	66.3 mm (2.61 in.)
		2nd	48.3 mm (1.90 in.)	46.3 mm (1.82 in.)
		3rd	52.0 mm (2.05 in.)	50.0 mm (1.97 in.)
		4th	37.4 mm (1.47 in.)	35.4 mm (1.39 in.)
		5th	47.9 mm (1.89 in.)	45.9 mm (1.81 in.)
	Clutch disc thickness		1.94 mm (0.076 in.)	-
	Clutch plate thickness	1st	1.6 mm (0.063 in.)	When discolored
		2nd	1.8 mm (0.071 in.)	When discolored
		3rd	2.0 mm (0.079 in.)	When discolored
		4th	1.6 mm (0.063 in.)	When discolored
		5th	1.6 mm (0.063 in.)	When discolored
		1st-hold	1.8 mm (0.071 in.)	When discolored
	1st clutch end-plate thickness	Mark 1	3.1 mm (0.122 in.)	When discolored
		Mark 2	3.2 mm (0.126 in.)	When discolored
		Mark 3	3.3 mm (0.130 in.)	When discolored
		Mark 4	3.4 mm (0.134 in.)	When discolored
		Mark 5	3.5 mm (0.138 in.)	When discolored
		Mark 6	3.6 mm (0.142 in.)	When discolored
		Mark 7	3.7 mm (0.146 in.)	When discolored
		Mark 8	3.8 mm (0.150 in.)	When discolored
		Mark 9	3.9 mm (0.154 in.)	When discolored
1st-hold clutch plate B thickness		5.0 mm (0.197 in.)	When discolored	
2nd, 3rd, 4th, 5th clutch end-plate thickness	Mark 1	2.1 mm (0.083 in.)	When discolored	
	Mark 2	2.2 mm (0.087 in.)	When discolored	
	Mark 3	2.3 mm (0.091 in.)	When discolored	
	Mark 4	2.4 mm (0.094 in.)	When discolored	
	Mark 5	2.5 mm (0.098 in.)	When discolored	
	Mark 6	2.6 mm (0.102 in.)	When discolored	
	Mark 7	2.7 mm (0.106 in.)	When discolored	
	Mark 8	2.8 mm (0.110 in.)	When discolored	
	Mark 9	2.9 mm (0.114 in.)	When discolored	
Stator shaft	I.D. at needle bearing contact area	Torque converter side	27.000-27.021 mm (1.0630-1.0638 in.)	When worn or damaged
		ATF pump side	31.000-31.025 mm (1.2204-1.2215 in.)	-
	I.D. at mainshaft sealing ring contact area		31.000-31.025 mm (1.2204-1.2215 in.)	31.05 mm (1.222 in.)
ATF pump	Gear-to-body thrust clearance		0.03-0.06 mm (0.0012-0.0024 in.)	0.07 mm (0.003 in.)
	Gear-to-body clearance	Drive gear	0.210-0.265 mm (0.0083-0.0104 in.)	-

		Driven gear	0.070-0.125 mm (0.0028-0.0049 in.)	-
	Driven gear I.D.		14.016-14.034 mm (0.5518-0.5525 in.)	When worn or damaged
	Driven gear shaft O.D.		13.980-13.990 mm (0.5504-0.5508 in.)	When worn or damaged
Reverse shift fork	Fork finger thickness		5.90-6.00 mm (0.220-0.236 in.)	5.4 mm (0.213 in.)
Park gear and pawl	-		-	When worn or damaged
Regulator valve body	Shift fork shaft bore I.D.		14.000-14.010 mm (0.5512-0.5516 in.)	-
	Shift fork shaft/servo valve bore I.D.		37.000-37.039 mm (1.4567-1.4582 in.)	37.045 mm (1.4585 in.)
	Mainshaft sealing ring contact I.D.		31.000-31.025 mm (1.220-1.2215 in.)	31.05 mm (1.2224 in.)
Main valve body	Intermediary shaft sealing ring contact I.D.		35.000-35.025 mm (1.3780-1.3789 in.)	35.05 mm (1.3799 in.)
ATF guide collar	Secondary shaft sealing ring contact I.D.		29.000-29.021 mm (1.1417-1.1426 in.)	29.05 mm (1.1437 in.)
Mainshaft	Diameter at stator shaft needle bearing contact area		22.984-23.000 mm (0.9049-0.9055 in.)	When worn or damaged
	5th gear collar diameter at needle bearing contact area		39.981-39.991 mm (1.5741-1.5744 in.)	When worn or damaged
	5th gear collar length		48.7-48.8 mm (1.917-1.921 in.)	-
	5th gear collar flange thickness		4.5-4.7 mm (0.177-0.185 in.)	When worn or damaged
	5th gear I.D.		46.000-46.016 mm (1.8110-1.8116 in.)	When worn or damaged
	5th gear axial clearance		0.10-0.22 mm (0.004-0.009 in.)	-
	Sealing ring thickness		1.90-1.96 mm (0.074-0.077 in.)	1.85 mm (0.073 in.)
	Sealing ring groove width		2.025-2.060 mm (0.0797-0.0811 in.)	2.08 mm (0.082 in.)
Countershaft	Diameter at bearing contact area	Torque converter housing bearing	40.505-40.515 mm (1.5947-1.5951 in.)	When worn or damaged
		5th gear	34.975-34.991 mm (1.3770-1.3776 in.)	When worn or damaged
	Diameter of 2nd		61.975-61.991 mm	When worn or

gear at needle bearing contact area		(2.4400-2.4406 in.)	damaged
Reverse gear collar O.D.		39.979-40.000 mm (1.5740-1.5748 in.)	When worn or damaged
Reverse selector hub O.D.		55.885-55.900 mm (2.2002-2.2008 in.)	When worn or damaged
Cotter thickness		1.99-2.02 mm (0.078-0.080 in.)	-
I.D. of gears	5th gear	41.000-41.016 mm (1.6142-1.6148 in.)	When worn or damaged
	Idler gear	70.000-70.019 mm (2.7559-2.7566 in.)	When worn or damaged
	Reverse gear	46.000-46.016 mm (1.8110-1.8116 in.)	When worn or damaged
Axial clearance of gears	2nd gear	0.005-0.040 mm (0.0002-0.0016 in.)	-
	5th gear	0.12-0.27 mm (0.0047-0.0106 in.)	-
	Idler gear	0.005-0.040 mm (0.0002-0.0016 in.)	-
	Reverse gear	0.10-0.25 mm (0.0039-0.0098 in.)	-
61 mm washer thickness	A	1.525 mm (0.0600 in.)	When worn or damaged
	B	1.505 mm (0.0593 in.)	When worn or damaged
	C	1.485 mm (0.0585 in.)	When worn or damaged
	D	1.465 mm (0.0577 in.)	When worn or damaged
	E	1.445 mm (0.0569 in.)	When worn or damaged
	F	1.425 mm (0.0561 in.)	When worn or damaged
	G	1.405 mm (0.0553 in.)	When worn or damaged
50.8 mm washer thickness	A	1.91 mm (0.0752 in.)	When worn or damaged
	B	1.93 mm (0.0760 in.)	When worn or damaged
	C	1.95 mm (0.0768 in.)	When worn or damaged
	D	1.97 mm (0.0776 in.)	When worn or damaged
	E	1.99 mm (0.0783 in.)	When worn or damaged

	F	2.01 mm (0.0791 in.)	When worn or damaged
	G	2.03 mm (0.0799 in.)	When worn or damaged
	H	2.05 mm (0.0807 in.)	When worn or damaged
	I	2.07 mm (0.0815 in.)	When worn or damaged
	J	2.09 mm (0.0823 in.)	When worn or damaged
	K	2.11 mm (0.0831 in.)	When worn or damaged
	L	2.13 mm (0.0839 in.)	When worn or damaged
	M	2.15 mm (0.0846 in.)	When worn or damaged
	N	2.17 mm (0.0854 in.)	When worn or damaged
	O	2.19 mm (0.0862 in.)	When worn or damaged
	P	2.21 mm (0.0870 in.)	When worn or damaged
	Q	2.23 mm (0.0878 in.)	When worn or damaged
	R	2.25 mm (0.0886 in.)	When worn or damaged
	S	2.27 mm (0.0894 in.)	When worn or damaged
	T	2.29 mm (0.0902 in.)	When worn or damaged
	U	2.31 mm (0.0909 in.)	When worn or damaged
	V	2.33 mm (0.0917 in.)	When worn or damaged
	W	2.35 mm (0.0925 in.)	When worn or damaged
	X	2.37 mm (0.0933 in.)	When worn or damaged
	Y	2.39 mm (0.0941 in.)	When worn or damaged
	Z	2.41 mm (0.0949 in.)	When worn or damaged
	AA	2.43 mm (0.0957 in.)	When worn or damaged
	AB	2.45 mm (0.0965 in.)	When worn or damaged
35 x 47 mm thrust		2.97-3.00 mm	When worn or

	washer thickness		(0.1169-0.1181 in.)	damaged
Secondary shaft	Diameter at bearing contact area	2nd gear	43.986-43.999 mm (1.7317-1.7322 in.)	When worn or damaged
		Torque converter housing bearing	32.002-32.015 mm (1.2599-1.2604 in.)	When worn or damaged
		Torque converter housing bearing (shaft end side)	28.592-28.608 mm (1.1257-1.1263 in.)	When worn or damaged
	Diameter of 1st gear collar at needle bearing contact area		38.981-38.991 mm (1.5347-1.5351 in.)	When worn or damaged
	I.D. of gears	1st gear	44.000-44.013 mm (1.7323-1.7328 in.)	When worn or damaged
		2nd gear	50.00-50.02 mm (1.9685-1.9693 in.)	When worn or damaged
	Axial clearance of gears	1st gear	0.100-0.145 mm (0.0039-0.0057 in.)	-
		2nd gear	0.060-0.488 mm (0.0024-0.0192 in.)	-
	52 mm thrust washer thickness	A	2.705 mm (0.1065 in.)	When worn or damaged
		B	2.680 mm (0.1055 in.)	When worn or damaged
		C	2.655 mm (0.1045 in.)	When worn or damaged
		D	2.630 mm (0.1035 in.)	When worn or damaged
		E	2.605 mm (0.1026 in.)	When worn or damaged
		F	2.580 mm (0.1016 in.)	When worn or damaged
		G	2.555 mm (0.1006 in.)	When worn or damaged
		H	2.530 mm (0.0096 in.)	When worn or damaged
		I	2.505 mm (0.0986 in.)	When worn or damaged
		J	2.480 mm (0.0976 in.)	When worn or damaged
		K	2.455 mm (0.0967 in.)	When worn or damaged
		L	2.430 mm (0.0957 in.)	When worn or damaged
		M	2.405 mm (0.0947 in.)	When worn or damaged
	1st gear collar		63.3-63.4 mm	-

	length		(2.4921-2.4961 in.)	
	2nd gear splined washer thickness		8.966-9.010 mm (0.353-0.355 in.)	-
	Sealing ring thickness		1.91-1.97 mm (0.075-0.078 in.)	1.86 mm (0.073 in.)
	Sealing ring groove width		2.025-2.060 mm (0.080-0.081 in.)	2.08 mm (0.082 in.)
	ATF feed pipe O.D.	1st clutch	11.47-11.48 mm (0.4516-0.4520 in.)	11.45 mm (0.4508 in.)
		1st-hold clutch	5.97-5.98 mm (0.2350-0.2354 in.)	5.95 mm (0.2343 in.)
	Feed pipe bushing I.D.	1st clutch	11.518-11.530 mm (0.4535-0.4539 in.)	11.545 mm (0.4545 in.)
		1st-hold clutch	6.018-6.030 mm (0.2369-0.2374 in.)	6.045 mm (0.2380 in.)
	Secondary shaft (cont'd)	65 mm thrust shim thickness	OA	0.80 mm (0.031 in.) When worn or damaged
			A	0.84 mm (0.033 in.) When worn or damaged
			B	0.88 mm (0.035 in.) When worn or damaged
			C	0.92 mm (0.036 in.) When worn or damaged
			D	0.96 mm (0.038 in.) When worn or damaged
			E	1.00 mm (0.039 in.) When worn or damaged
			F	1.04 mm (0.041 in.) When worn or damaged
			G	1.08 mm (0.043 in.) When worn or damaged
			H	1.12 mm (0.044 in.) When worn or damaged
			I	1.16 mm (0.046 in.) When worn or damaged
			J	1.20 mm (0.047 in.) When worn or damaged
			K	1.24 mm (0.049 in.) When worn or damaged
			L	1.28 mm (0.050 in.) When worn or damaged
			M	1.32 mm (0.052 in.) When worn or damaged
			N	1.36 mm (0.054 in.) When worn or damaged
			O	1.40 mm (0.055 in.) When worn or damaged

		P	1.44 mm (0.057 in.)	When worn or damaged
		Q	1.48 mm (0.058 in.)	When worn or damaged
		R	1.52 mm (0.060 in.)	When worn or damaged
		S	1.56 mm (0.061 in.)	When worn or damaged
		T	1.60 mm (0.063 in.)	When worn or damaged
		U	1.64 mm (0.065 in.)	When worn or damaged
		V	1.68 mm (0.066 in.)	When worn or damaged
		W	1.72 mm (0.068 in.)	When worn or damaged
		X	1.76 mm (0.069 in.)	When worn or damaged
		Y	1.80 mm (0.071 in.)	When worn or damaged
		Z	1.84 mm (0.072 in.)	When worn or damaged
		AA	1.88 mm (0.074 in.)	When worn or damaged
		AB	1.92 mm (0.076 in.)	When worn or damaged
		AC	1.96 mm (0.077 in.)	When worn or damaged
		AD	2.00 mm (0.079 in.)	When worn or damaged
		AE	2.04 mm (0.080 in.)	When worn or damaged
		AF	2.08 mm (0.082 in.)	When worn or damaged
		AG	2.12 mm (0.083 in.)	When worn or damaged
		AH	2.16 mm (0.085 in.)	When worn or damaged
		AI	2.20 mm (0.087 in.)	When worn or damaged
		AJ	2.24 mm (0.088 in.)	When worn or damaged
		AK	2.28 mm (0.090 in.)	When worn or damaged
		AL	2.32 mm (0.091 in.)	When worn or damaged
Intermediary shaft	I.D. of 3rd gear		36.000-36.016 mm	When worn or

		(1.4173-1.4179 in.)	damaged
Axial clearance of 3rd gear		0.005-0.045 mm (0.0002-0.0018 in.)	-
Cotter thickness		2.99-3.02 mm (0.1177-0.1189 in.)	-
Sealing ring thickness		1.89-1.95 mm (0.0744-0.0768 in.)	1.84 mm (0.0724 in.)
Sealing ring groove width		2.025-2.060 mm (0.0797-0.0811 in.)	2.08 mm (0.082 in.)
53 mm splined washer thickness	A	3.995 mm (0.1573 in.)	When worn or damaged
	B	4.015 mm (0.1581 in.)	When worn or damaged
	C	4.035 mm (0.1589 in.)	When worn or damaged
	D	4.055 mm (0.1596 in.)	When worn or damaged
	E	4.075 mm (0.1604 in.)	When worn or damaged
	F	4.095 mm (0.1612 in.)	When worn or damaged
	G	4.115 mm (0.1620 in.)	When worn or damaged
	H	4.135 mm (0.1628 in.)	When worn or damaged
	I	4.155 mm (0.1636 in.)	When worn or damaged
	J	4.175 mm (0.1644 in.)	When worn or damaged
	K	4.195 mm (0.1652 in.)	When worn or damaged
	L	4.215 mm (0.1659 in.)	When worn or damaged
	M	4.235 mm (0.1667 in.)	When worn or damaged
	N	4.255 mm (0.1675 in.)	When worn or damaged
26.5 mm washer thickness	A	1.05 mm (0.041 in.)	When worn or damaged
	B	1.13 mm (0.044 in.)	When worn or damaged
	C	1.21 mm (0.048 in.)	When worn or damaged
	D	1.29 mm (0.051 in.)	When worn or damaged
	E	1.37 mm (0.054 in.)	When worn or damaged

		F	1.45 mm (0.057 in.)	When worn or damaged
		G	1.53 mm (0.060 in.)	When worn or damaged
		H	1.61 mm (0.063 in.)	When worn or damaged
		I	1.69 mm (0.067 in.)	When worn or damaged
		J	1.77 mm (0.070 in.)	When worn or damaged
		K	1.85 mm (0.073 in.)	When worn or damaged
		L	1.93 mm (0.076 in.)	When worn or damaged
		M	2.01 mm (0.079 in.)	When worn or damaged
		N	2.09 mm (0.082 in.)	When worn or damaged
Reverse idler gear	Gear shaft O.D.		13.99-14.00 mm (0.5508-0.5512 in.)	When worn or damaged
	I.D. of transmission housing of gear shaft contact area		14.006-14.024 mm (0.5514-0.5521 in.)	-
	I.D.		18.007-18.020 mm (0.7089-0.7094 in.)	When worn or damaged
	Axial clearance		0.07-0.38 mm (0.003-0.015 in.)	-
	Thrust washer thickness	Transmission housing	0.97-1.05 mm (0.038-0.041 in.)	-
		Holder side	0.97-1.05 mm (0.038-0.041 in.)	-

AUTOMATIC TRANSMISSION AND A/T DIFFERENTIAL SPECIFICATIONS

Item	Measurement	Qualification	Standard or New			
			Wire Diameter	O.D.	Free Length	No. of Coil
	Torque converter check valve spring		1.1 mm (0.043 in.)	8.6 mm (0.339 in.)	35.0 mm (1.378 in.)	12.6
	Lock-up shift valve spring		1.0 mm (0.039 in.)	6.6 mm (0.260 in.)	35.5 mm (1.398 in.)	18.2
	Shift valve E spring		0.7 mm (0.028 in.)	6.6 mm (0.260 in.)	42.4 mm (1.669 in.)	17.6
				6.6 mm	50.5 mm	

Main valve body spring (see <u>MAIN VALVE BODY DISASSEMBLY, INSPECTION, AND REASSEMBLY</u>)	Shift valve A spring		0.9 mm (0.035 in.)	(0.260 in.)	(1.988 in.)	23.3
	Shift valve B spring		0.8 mm (0.031 in.)	6.6 mm (0.260 in.)	49.1 mm (1.933 in.)	21.7
	Modulator valve spring		1.6 mm (0.063 in.)	10.4 mm (0.409 in.)	33.5 mm (1.319 in.)	9.8
	CPC valve A spring		0.7 mm (0.028 in.)	6.1 mm (0.240 in.)	17.8 mm (0.701 in.)	7.9
	Servo control valve spring		0.9 mm (0.035 in.)	9.6 mm (0.378 in.)	30.2 mm (1.189 in.)	8.4
	Lubrication control valve spring		0.9 mm (0.035 in.)	8.7 mm (0.343 in.)	25.0 mm (0.984 in.)	7.2
	Lock-up timing valve spring		0.6 mm (0.024 in.)	6.6 mm (0.260 in.)	30.9 mm (1.217 in.)	11.1
	Relief valve spring		1.0 mm (0.039 in.)	9.6 mm (0.378 in.)	28.1 mm (1.106 in.)	7.7
Secondary valve body spring (see <u>SECONDARY VALVE BODY DISASSEMBLY, INSPECTION, AND REASSEMBLY</u>)	CPC valve C spring		0.7 mm (0.028 in.)	6.1 mm (0.240 in.)	17.8 mm (0.701 in.)	7.9
	Shift valve D spring		0.7 mm (0.028 in.)	6.6 mm (0.260 in.)	42.4 mm (1.669 in.)	17.6
	Reverse CPC valve spring		0.8 mm (0.031 in.)	6.1 mm (0.240 in.)	24.4 mm (0.961 in.)	14.6
	Shift valve C spring		0.8 mm (0.031 in.)	6.6 mm (0.260 in.)	49.1 mm (1.933 in.)	21.7
	CPC valve B spring		0.7 mm (0.028 in.)	6.1 mm (0.240 in.)	17.8 mm (0.701 in.)	7.9
	Reverse control valve spring		0.8 mm (0.031 in.)	6.6 mm (0.260 in.)	49.1 mm (1.933 in.)	21.7
	3rd accumulator spring		3.1 mm (0.122 in.)	19.6 mm (0.772 in.)	41.4 mm (1.630 in.)	5.5
	Cooler check valve spring		0.9 mm (0.035 in.)	6.7 mm (0.264 in.)	31.5 mm (1.240 in.)	14.2

Regulator valve body spring (see <u>REGULATOR VALVE BODY DISASSEMBLY, INSPECTION, AND REASSEMBLY</u>)	Lock-up control valve spring		0.7 mm (0.028 in.)	6.6 mm (0.260 in.)	42.9 mm (1.689 in.)	14.2
	Regulator valve spring B		1.4 mm (0.055 in.)	8.8 mm (0.346 in.)	44.0 mm (1.732 in.)	12.0
	Regulator valve spring A		1.85 mm (0.073 in.)	14.7 mm (0.579 in.)	86.9 mm (3.421 in.)	16.2
	Stator reaction spring		5.5 mm (0.217 in.)	37.4 mm (1.472 in.)	30.3 mm (1.193 in.)	2.1
Accumulator body spring (see <u>ACCUMULATOR BODY DISASSEMBLY, INSPECTION, AND REASSEMBLY</u>)	4th accumulator spring		3.3 mm (0.130 in.)	19.6 mm (0.772 in.)	39.1 mm (1.539 in.)	5.8
	2nd accumulator spring		3.1 mm (0.122 in.)	19.6 mm (0.772 in.)	53.4 mm (2.102 in.)	7.5
	1st accumulator spring A		2.3 mm (0.091 in.)	19.6 mm (0.772 in.)	60.8 mm (2.394 in.)	9.5
	1st accumulator spring B		2.5 mm (0.098 in.)	12.8 mm (0.504 in.)	46.0 mm (1.811 in.)	9.5
	5th accumulator spring A		2.4 mm (0.094 in.)	19.6 mm (0.772 in.)	65.5 mm (2.579 in.)	12.0
	5th accumulator spring B		2.6 mm (0.102 in.)	13.2 mm (0.520 in.)	50.5 mm (1.988 in.)	10.1
	1st-hold accumulator spring		2.0 mm (0.079 in.)	13.1 mm (0.516 in.)	42.9 mm (1.689 in.)	9.8

AUTOMATIC TRANSMISSION AND A/T DIFFERENTIAL SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
	Pinion shaft contact area I.D.		18.000-18.025 mm (0.7087-0.7096 in.)	-
	Carrier-to-pinion shaft		0.013-0.054 mm	0.1 mm

A/T differential carrier	clearance		(0.0005-0.0021 in.)	(0.004 in.)
	Driveshaft contact area I.D.		30.025-30.055 mm (1.182-1.183 in.)	-
	Carrier-to-driveshaft clearance		0.045-0.096 mm (0.002-0.004 in.)	0.13 mm (0.005 in.)
	Carrier-to-intermediate shaft clearance		0.080-0.126 mm (0.003-0.005 in.)	-
	Tapered roller bearing starting torque (preload)	For new bearing	3.9-5.1 N.m (40-52 kgf.cm, 35-45 lbf.in.)	Adjust
		For used bearing	3.6-4.8 N.m (37-49 kgf.cm, 32-43 lbf.in.)	Adjust
A/T differential pinion gear	Backlash		0.05-0.15 mm (0.002-0.006 in.)	-
	I.D.		18.042-18.066 mm (0.7103-0.7113 in.)	-
	Pinion gear-to-pinion shaft clearance		0.055-0.095 mm (0.0022-0.0037 in.)	0.12 mm (0.005 in.)

STEERING

STEERING SPECIFICATIONS

Item	Measurement	Qualification	Standard or New
Steering wheel	Rotational play measured at outside edge with engine running		0-10 mm (0-0.39 in.)
	Initial turning load measured at outside edge with engine running		29 N (3.0 kgf, 6.6 lbf)
Gearbox	Angle of rack guide screw loosened from locked position		15±5°
Pump	Output pressure with shut-off valve closed		7,940-8,630 kPa (81-88 kgf/cm ² , 1,150-1,250 psi)
Power steering fluid	Capacity Use Acura Power Steering Fluid	Reservoir capacity	0.32 L (0.33 US qt)
		System capacity	1.1 L (1.16 US qt)

SUSPENSION

SUSPENSION SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
Wheel alignment	Camber	Front	-0°30'±30'	
		Rear	-1°00'±30'	
	Caster	Front	3° 17' ± 45'	
	Total toe-in	Front	0+2 mm (0+0.08 in.)	
		Rear	0 ± 2 mm (0 ± 0.08 in.)	
	Front wheel turning angle	Inward	35°06' ± 2°	
		Outward (reference)	30° 12'	

Wheel	Runout	Axial	0-0.7 mm (0-0.03 in.)	2.0 mm (0.08 in.)
		Radial	0-0.7 mm (0-0.03 in.)	1.5 mm (0.06 in.)
Wheel bearing	End play	Front	0-0.05 mm (0-0.002 in.)	
		Rear	0-0.05 mm (0-0.002 in.)	

BRAKES

BRAKES SPECIFICATIONS

Item	Measurement	Qualification	Standard or New	Service Limit
Parking brake	Distance traveled when lever pulled with 196 N (20 kgf, 44 lbf) of force		6 to 8 clicks	
	Drum I.D.		169.9-170.0 mm (6.689-6.693 in.)	171.0 mm (6.732 in.)
	Shoe lining thickness		2.5 mm (0.098 in.)	1.0 mm (0.04 in.)
Brake pedal	Pedal height (carpet removed)	M/T	171 mm (6 3/4 in.)	
		A/T	170 mm (6 11/16 in.)	
	Free play		1-5 mm (0.04-0.20 in.)	
Brake disc	Thickness	Front (TL)	27.9-28.1 mm (1.10-1.11 in.)	26.0 mm (1.02 in.)
		Front (TL Type-S)	24.9-25.1 mm (0.98-0.99 in.)	23.0 mm (0.91 in.)
		Rear	8.9-9.1 mm (0.350-0.358 in.)	7.5 mm (0.30 in.)
	Runout	Front and rear	-	0.10 mm (0.004 in.)
	Parallelism	Front and rear	-	0.015 mm (0.0006 in.)
Brake pad	Thickness	Front (A/T)	10.3-11.0 mm (0.41-0.43 in.)	1.6 mm (0.06 in.)
		Front (M/T)	8.8-10.0 mm (0.35-0.39 in.)	1.6 mm (0.06 in.)
		Rear	8.5-9.5 mm (0.33-0.37 in.)	1.6 mm (0.06 in.)

AIR CONDITIONING

AIR CONDITIONING SPECIFICATIONS

Item	Measurement	Qualification	Standard or New
Refrigerant	Type		HFC-134a (R-134a)
	Capacity of system		500-550 g (17.6-19.4 oz)
	Type		DENSO ND-OIL 8 (P/N 38897-PR7-A01AH or 38899-PR7-A01)
		Condenser	25 mL (5/6 fl.oz)

Refrigerant oil	Capacity of components	Evaporator	45 mL (1 1/2 fl.oz)
		Each line and hose	10 mL (1/3 fl.oz)
		Compressor	120-135 mL (4-4 1/2 fl.oz)
Compressor	Field coil resistance	At 68°F (20°C)	3.9-4.3 ohms
	Pulley-to-pressure plate clearance		0.35-0.60 mm (0.014-0.024 in.)

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS

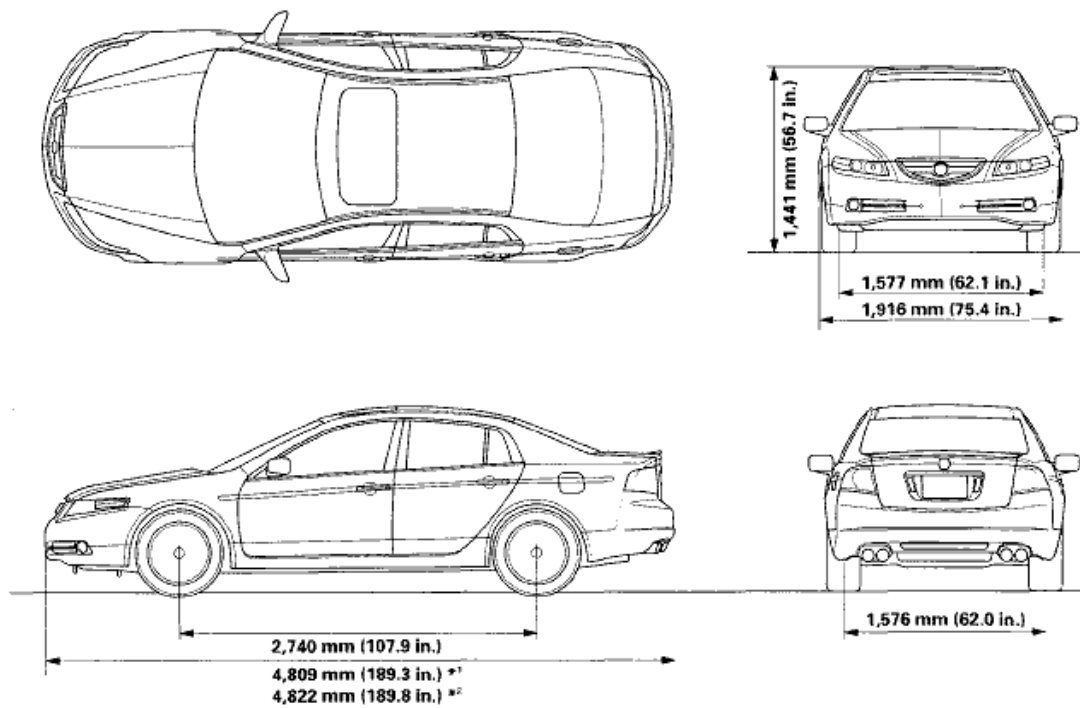
Item	Measurement	Qualification	Specification
DIMENSIONS	Overall length	TL	4,809 mm (189.3 in.)
		TL Type-S	4,822 mm (189.8 in.)
	Overall width		1,916 mm (75.4 in.)
	Overall height		1,441 mm (56.7 in.)
	Wheelbase		2,740 mm (107.9 in.)
	Track	Front	1,577 mm (62.1 in.)
		Rear	1,576 mm (62.0 in.)
	Seating capacity		Five (5)
WEIGHT	Gross Vehicle Weight Rating (GVWR)	A/T	2,090 kg (4,608 lbs)
		M/T	2,040 kg (4,497 lbs)
ENGINE	Type		Water cooled, 4-stroke SOHC VTEC gasoline engine
	Cylinder arrangement		60° V6-cylinder, transverse
	Bore and stroke	J32A3	89.0 x 86.0 mm (3.50 x 3.39 in.)
		J35A8	89.0 x 93.0 mm (3.50 x 3.66 in.)
	Displacement	J32A3	3,210 cm ³ (196 cu in.)
		J35A8	3,471 cm ³ (222 cu in.)
	Compression ratio		11.0
	Valve train		Belt drive, SOHC VTEC 4 valves per cylinder
	Lubrication system		Forced, wet sump, with trochoid pump
	Oil pump displacement	At 6,300 rpm	52.8 L (55.8 US qt)/minute
	Water pump displacement	At 6,000 rpm	92 L (97 US qt)/minute
	Fuel required		Premium UNLEADED gasoline with 91 Pump Octane Number or higher
STARTER	Type		Gear reduction
	Normal output		1.6 kW
	Nominal voltage		12V

	Hour rating		30 seconds
	Rotation of direction		Counterclockwise as viewed from drive end
CLUTCH	Type		Single plate dry, diaphragm spring
	Clutch friction material surface area		264 cm ² (40.86 sq in.)
MANUAL TRANSMISSION	Type		Synchronized, 6-speed forward, 1 reverse
	Primary reduction		Direct 1:1
	Gear ratio	1st	3.933
		2nd	2.478
		3rd	1.700
		4th	1.250
		5th	0.975
		6th	0.770
		Reverse	4.008
	Final reduction	Type	Single helical gear
		Gear ratio	3.285
AUTOMATIC TRANSMISSION	Type		Electronically-controlled automatic, 5-speed forward, 1 reverse, 3-element torque converter with lock-up clutch
	Primary reduction		Direct 1:1
	Gear ratio	1st	2.697
		2nd	1.606
		3rd	1.071
		4th	0.693
		5th	0.490
		Reverse	1.888
	Final reduction	Type	Single helical gear
		Gear ratio	4.312
STEERING	Type		Hydraulic power-assisted rack and pinion
	Overall ratio		15.4
	Turns, lock-to-lock		2.77
	Steering wheel diameter		380 mm (15.0 in.)
SUSPENSION	Type	Front	Independent double wishbone with stabilizer, coil spring
		Rear	Independent multi link with stabilizer, coil spring
	Shock absorber	Front	Telescopic, hydraulic, nitrogen gas-filled
		Rear	Telescopic, hydraulic, nitrogen gas-filled
	Size of front and		P235/45R17 93W 235/45R17 93W

TIRES	rear tires		(optional)
	Size of spare tire	A/T	T135/80R16101M
		M/T	T145/70R17 106M
BRAKES	Type of service brake	Front	Power-assisted self-adjusting ventilated disc
		Rear	Power-assisted self-adjusting solid disc
	Type of parking brake		Mechanical actuating, rear wheels
	Pad friction surface area	Front (TL)	47.0 cm ² (7.29 sq in.) x 2
		Front (TL Type-S)	51.0 cm ² (7.90 sq in.) x 2
		Rear	27.9 cm ² (4.33 sq in.) x 2
	Parking brake shoe friction surface area		49.0 cm ² (7.6 sq in.) x 2
AIR CONDITIONING	Compressor	Type	Piston
		Capacity	188 mL (11.47 cu in.)/rev.
		Maximum speed	7,922 rpm
		Lubricant capacity	120 mL (4 fl.oz)
		Lubricant type	DENSOND-OIL 8
	Condenser	Type	Corrugated fin
	Evaporator	Type	Corrugated fin
	Blower	Type	Radial
		Motor type	250 W/12 V
		Speed control	Infinite variable
		Maximum capacity	560 m ³ (19,780 cu ft)/h
	Temperature control		Air-mix type
	Compressor clutch	Type	Dry, single plate, poly V-belt drive
		Electrical power consumption at 68°F (20°C)	42 W maximum at 12 V
	Refrigerant	Type	HFC-134a (R-134a)
		Capacity	500-550 g (17.6-19.4 oz)
	Battery		12 V-72 Ah/20 HR (12 V-60 Ah/5 HR)
	Fuses	Under-hood fuse/relay box	120 A, 50 A, 40 A, 30 A, 20 A, 15 A, 10 A, 7.5 A
		Under-dash fuse/relay box	30 A, 20 A, 15 A, 10 A, 7.5 A
		Auxiliary under-dash fuse holder	7.5 A
		Headlight high/low beam (HID)	12V-35 W (D2S)
		Fog lights	12V-35W (H8)

ELECTRICAL RATINGS	Light bulbs	Daytime running lights	12V-60 W (HB3)
		Front side marker/parking/turn signal lights	TL: 12V-21/5W TL Type-S: 12 V-24/2.2 CP (Amber)
		Front side marker lights	LED
		Rear side marker lights	LED
		Rear turn signal lights	12V-21W
		Brake/taillights	LED
		Taillights	LED
		High mount brake light	LED
		Back-up lights	12V-21 CP
		License plate lights	12V-5W
		Front Individual map lights	12V-4CP
		Rear map lights	12V-5W
		Trunk light	12V-5W
		Door courtesy lights	12V-2CP
		Glove box light	12V-1.4W
		Vanity mirror lights	12V-5W
		Gauge lights	LED
		Indicator lights	LED
		Console box light	12V-1.4W
		Foot well lights	LED
	Washer reservoir	Capacity (USA models)	2.5 L (2.6 US qt)
		Capacity (Canada models)	4.5 L (4.7 US qt)

BODY SPECIFICATIONS



*1: TL
*2: TL Type-S

Fig. 1: Identifying Body Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.