

Automatic Transmission — Section 14

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Transmission fluid	Capacity ℓ (US qt) Use Honda ATF-ZI	Overhaul Fluid charge	7.0 (7.4) 2.9 (3.1)	
Hydraulic pressure kPa (kgf/cm ² , psi)	Line pressure at 2,000 rpm in D or 1 position		830 – 880 (8.5 – 9.0, 121 – 128)	785 (8.0, 114)
	1st clutch pressure at 2,000 rpm in D or 1 position			
	2nd clutch pressure at 2,000 rpm in D position		490 (5.0, 71) Fully closed throttle 880 (9.0, 128) throttle more than 3/16 opened	440 (4.5, 64) Fully closed throttle 780 (8.0, 114) throttle more than 3/16 opened
	3rd clutch pressure at 2,000 rpm in D position			
	4th clutch pressure at 2,000 rpm in D position			
	1st-hold clutch pressure at 2,000 rpm in 1 position		830 – 880 (8.5 – 9.0, 121 – 128)	785 (8.0, 114)
	2nd clutch pressure at 2,000 rpm in 2 position			
	4th clutch pressure at 2,000 rpm in R position			
	Throttle B pressure	Throttle fully closed Throttle fully opened	0 – 15 (0 – 0.15, 0 – 2) 600 – 660 (6.1 – 6.7, 87 – 95)	0 – 15 (0 – 0.15, 0 – 2) 600 – 660 (6.1 – 6.7, 87 – 95)
Stall speed rpm	Check with vehicle on level ground		2,100	1,950 – 2,250
Clutch	Clutch initial clearance	1st-hold	0.7 – 0.9 (0.028 – 0.035)	_____
		1st	0.65 – 0.85 (0.026 – 0.033)	_____
		2nd, 3rd, 4th	0.75 – 0.95 (0.030 – 0.037)	_____
	Clutch return spring free length	1st	41.4 (1.630)	39.4 (1.551)
		2nd, 3rd, 4th	33.0 (1.299)	31.0 (1.220)
	Clutch disc thickness	1st-hold, 1st, 2nd, 3rd	1.88 – 2.00 (0.074 – 0.079)	Until grooves worn out
		4th	2.28 – 2.40 (0.090 – 0.094)	Until grooves worn out
	Clutch plate thickness	1st-hold, 1st	1.95 – 2.05 (0.077 – 0.081)	Discoloration
		2nd, 3rd, 4th	2.25 – 2.35 (0.089 – 0.093)	
	Clutch end plate thickness*	Mark 1	2.05 – 2.10 (0.081 – 0.083)	
		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)	Discoloration
Valve body	Stator shaft needle bearing contact I.D. (torque converter side)		28.000 – 28.021 (1.102 – 1.103)	Wear or damage
	Stator shaft needle bearing contact I.D. (ATF pump side)		31.000 – 31.013 (1.220 – 1.221)	_____
	ATF pump driven gear I.D.		14.016 – 14.034 (0.552 – 0.553)	Wear or damage
	ATF pump driven gear shaft O.D.		13.980 – 13.990 (0.550 – 0.551)	Wear or damage
	ATF pump gear side clearance		0.03 – 0.05 (0.001 – 0.002)	0.07 (0.003)
	ATF pump gear-to-body clearance	Drive Driven	0.210 – 0.265 (0.008 – 0.010) 0.070 – 0.125 (0.003 – 0.005)	_____
Regulator valve body	Sealing ring contact I.D.		37.000 – 37.025 (1.457 – 1.458)	37.05 (1.459)

* Clutch end plate diameter: 1st: 116 mm (4.57 in)
1st-hold, 2nd, 3rd and 4th: 120 mm (4.72 in)

(cont'd)

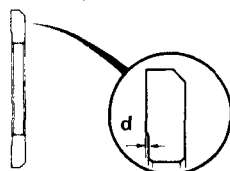
Standards and Service Limits

Automatic Transmission (cont'd) — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
2nd accumulator body	Sealing ring contact I.D.	35.000 – 35.025 (1.378 – 1.379)	35.05 (1.380)
Shifting device and parking brake control	Reverse shift fork finger thickness Park brake pawl Park gear	5.90 – 6.00 (0.232 – 0.236) _____ _____	5.40 (0.213) Wear or other defect Wear or other defect
Servo body	Shift fork shaft bore I.D. Shift fork shaft valve bore 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) 37.000 – 37.039 (1.457 – 1.458)	_____ _____ _____ 37.045 (1.4459)
Transmission	Diameter of needle bearing contact area On mainshaft and stator shaft On mainshaft 4th gear collar On mainshaft 1st gear collar On countershaft (right side) On countershaft 3rd gear collar On countershaft 4th gear On countershaft reverse gear collar On countershaft 1st gear collar On secondary shaft 2nd gear On reverse idler gear shaft Inside diameter Mainshaft 1st gear Mainshaft 4th gear Countershaft 1st gear Countershaft reverse gear Countershaft 4th gear Countershaft 2nd gear Countershaft 3rd gear Secondary shaft 2nd gear Reverse idler gear Reverse idler gear shaft holder Mainshaft 1st gear collar length Mainshaft 1st gear collar flange thickness Countershaft reverse gear collar length Countershaft reverse gear collar flange thickness Diameter of countershaft one-way clutch contact area Diameter of parking gear one-way clutch contact area Mainshaft ATF feed pipe O.D. Mainshaft ATF feed pipe O.D. Mainshaft sealing ring 37 mm thickness Mainshaft bushing I.D. Countershaft ATF feed pipe O.D. Countershaft ATF feed pipe O.D. Countershaft bushing I.D. Secondary shaft sealing ring 35 mm thickness Mainshaft sealing ring groove width Secondary shaft sealing ring groove width	23.980 – 23.993 (0.944 – 0.945) 33.975 – 33.991 (1.3376 – 1.3382) 32.975 – 32.991 (1.298 – 1.299) 41.005 – 41.015 (1.614 – 1.615) 43.975 – 43.991 (1.731 – 1.732) 34.975 – 34.991 (1.377 – 1.378) 36.975 – 36.991 (1.4557 – 1.4563) 33.975 – 33.991 (1.3376 – 1.3382) 36.975 – 36.991 (1.4557 – 1.4563) 13.990 – 14.000 (0.5508 – 0.5512) 38.000 – 38.016 (1.496 – 1.497) 40.000 – 40.016 (1.5748 – 1.5754) 40.000 – 40.016 (1.5748 – 1.5754) 43.000 – 43.016 (1.693 – 1.694) 41.000 – 41.016 (1.614 – 1.615) Involute spline 52.000 – 52.019 (2.0472 – 2.0480) 43.000 – 43.016 (1.693 – 1.694) 18.007 – 18.020 (0.7089 – 0.7094) 14.416 – 14.434 (0.5676 – 0.5683) 35.00 – 35.05 (1.378 – 1.380) 2.95 – 3.10 (0.116 – 0.122) 16.00 – 16.05 (0.630 – 0.632) 2.95 – 3.05 (0.116 – 0.120) 88.869 – 88.895 (3.499 – 3.500) 72.212 – 72.225 (2.8430 – 2.8435) 11.47 – 11.48 (0.4516 – 0.4520) 5.97 – 5.98 (0.2350 – 0.2354) 1.980 – 1.995 (0.078 – 0.079) 6.018 – 6.030 (0.2369 – 0.2374) 11.500 – 11.518 (0.4528 – 0.4535) 11.47 – 11.48 (0.4516 – 0.4520) 7.97 – 7.98 (0.3138 – 0.3142) 8.000 – 8.015 (0.315 – 0.316) 11.500 – 11.518 (0.4528 – 0.4535) 1.980 – 1.995 (0.078 – 0.079) 2.025 – 2.060 (0.080 – 0.081) 2.025 – 2.060 (0.080 – 0.081)	Wear or damage ↑ ↓ Wear or damage Wear or damage ↑ ↓ Wear or damage _____ Wear or damage _____ Wear or damage Wear or damage Wear or damage 11.45 (0.451) 5.95 (0.2343) 1.80 (0.071) 6.045 (0.238) 11.35 (0.454) 11.45 (0.451) 7.95 (0.313) 8.03 (0.316) 11.53 (0.454) 1.80 (0.071) 2.08 (0.082) 2.08 (0.082)

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	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission (cont'd)	Selector hub O.D.	55.67 – 55.70 (2.192 – 2.193)	Wear or damage
	Thrust washer thickness		
	Mainshaft 4th gear right side	4.45 – 4.55 (0.175 – 0.179)	Wear or damage
	Mainshaft 4th gear left side	3.45 – 3.55 (0.136 – 0.140)	Wear or damage
	Mainshaft 1st gear right side	1.45 – 1.50 (0.057 – 0.059)	1.40 (0.055)
	Mainshaft 1st gear left side	2.43 – 2.50 (0.096 – 0.098)	Wear or damage
	Countershaft 3rd gear collar length	1 35.425 – 35.440 (1.3947 – 1.3953)	_____
		2 35.440 – 35.455 (1.3953 – 1.3959)	_____
		3 35.455 – 35.470 (1.3959 – 1.3965)	_____
		4 35.470 – 35.485 (1.3965 – 1.3970)	_____
		5 35.485 – 35.500 (1.3970 – 1.3976)	_____
		6 35.500 – 35.515 (1.3976 – 1.3982)	_____
	Countershaft 2nd gear spacer length	17.90 – 17.95 (0.705 – 0.707)	_____
	Cotter thickness	1 1.975 – 2.000 (0.078 – 0.079)	_____
		2 2.000 – 2.025 (0.079 – 0.080)	_____
		3 2.025 – 2.050 (0.080 – 0.081)	_____
		4 2.050 – 2.075 (0.081 – 0.082)	_____
		5 2.075 – 2.100 (0.082 – 0.083)	_____
		6 2.100 – 2.125 (0.083 – 0.084)	_____
		7 2.125 – 2.150 (0.084 – 0.085)	_____
		8 2.150 – 2.175 (0.085 – 0.086)	_____
		9 2.175 – 2.200 (0.086 – 0.087)	_____
		10 2.200 – 2.225 (0.087 – 0.088)	_____
		11 2.225 – 2.250 (0.088 – 0.089)	_____
		12 2.250 – 2.275 (0.089 – 0.090)	_____
		13 2.275 – 2.300 (0.090 – 0.091)	_____
		14 2.300 – 2.325 (0.091 – 0.092)	_____
		15 2.325 – 2.350 (0.092 – 0.093)	_____
		16 2.350 – 2.375 (0.093 – 0.094)	_____
	Cotter retainer thickness	1 2.97 – 3.00 (0.117 – 0.118)	_____
		2 3.00 – 3.03 (0.118 – 0.119)	_____
		3 3.03 – 3.06 (0.119 – 0.120)	_____
		4 3.06 – 3.09 (0.120 – 0.122)	_____
		5 3.09 – 3.12 (0.122 – 0.123)	_____
	Countershaft reverse gear thrust washer thickness	1.45 – 1.50 (0.057 – 0.059)	1.40 (0.055)
	Countershaft 1st gear collar length	1 62.50 – 62.55 (2.461 – 2.463)	_____
		2 62.60 – 62.65 (2.465 – 2.467)	_____
	Thrust washer thickness		
	Countershaft 1st gear left side	3.43 – 3.50 (0.135 – 0.138)	Wear or damage
	Secondary shaft 2nd gear	4.45 – 4.55 (0.175 – 0.179)	Wear or damage
	Secondary shaft spacer 31 mm length	33.00 – 33.05 (1.299 – 1.301)	_____
	End play		
	Mainshaft 4th gear	0.10 – 0.22 (0.004 – 0.009)	_____
	Mainshaft 1st gear	0.08 – 0.33 (0.003 – 0.013)	_____
	Countershaft 3rd gear	0 – 0.03 (0 – 0.001)	_____
	Countershaft 2nd gear	0 – 0.05 (0 – 0.002)	Adjust with a 3rd gear collar or cotters
	Countershaft 4th gear	0.05 – 0.11 (0.002 – 0.004)	Adjust with a cotter retainer
	Countershaft reverse gear	0.10 – 0.25 (0.004 – 0.010)	_____
	Countershaft 1st gear	0.20 – 0.31 (0.008 – 0.012)	Adjust with a 1st gear collar
	Secondary shaft 2nd gear	0.01 – 0.11 (0.0004 – 0.0043)	Adjust with a thrust washer
	Reverse idler gear	0.05 – 0.18 (0.002 – 0.007)	_____
	Secondary shaft 2nd gear thrust washer depth "d"	0 (0)	_____
		0 – 0.03 (0 – 0.001)	_____
		0.03 – 0.06 (0.001 – 0.002)	_____
		0.06 – 0.09 (0.002 – 0.004)	_____
		0.09 – 0.12 (0.004 – 0.005)	_____



(cont'd)

Standards and Service Limits

Automatic Transmission (cont'd) — Section 14

	MEASUREMENT	STANDARD (NEW)			
		Wire Dia.	O.D.	Free Length	No. of Coils
Spring	Idle shaft spring A	0.7 (0.028)	5.7 (0.224)	14.6 (0.575)	7.0
	Servo detent spring	1.0 (0.039)	7.6 (0.299)	14.8 (0.583)	5.5
	Regulator valve spring A	1.58 x 2.0 (0.062 x 0.079)	14.7 (0.579)	88.6 (3.488)	20.9
	Regulator valve spring B	1.8 (0.071)	9.6 (0.378)	44.0 (1.732)	14.7
	Stator reaction spring	6.0 (0.236)	38.4 (1.512)	30.3 (1.193)	2.0
	Torque converter check valve spring	1.1 (0.043)	8.4 (0.331)	41.8 (1.646)	15.7
	Relief valve spring	1.1 (0.043)	8.4 (0.331)	44.4 (1.748)	19.5
	Cooler relief valve spring	1.2 (0.047)	8.4 (0.331)	35.7 (1.406)	16.5
	One-way relief valve spring	0.9 (0.035)	6.4 (0.252)	25.1 (0.988)	11.9
	LSD relief valve spring	0.8 (0.031)	8.4 (0.331)	37.3 (1.469)	12.1
	2nd orifice control valve spring	0.8 (0.031)	8.1 (0.319)	47.9 (1.886)	16.0
	3rd orifice control valve spring	0.9 (0.035)	8.6 (0.339)	48.3 (1.902)	16.6
	4th exhaust valve spring	0.6 (0.024)	7.6 (0.299)	24.4 (0.961)	7.9
	Throttle valve B spring A/B/C/D	0.9 (0.035)	7.1 (0.280)	29.0 (1.142)	12.6
	1-2 shift valve spring	0.9 (0.035)	8.6 (0.339)	40.4 (1.591)	14.5
	2-3 shift valve spring	0.8 (0.031)	7.0 (0.276)	43.7 (1.720)	21.2
	3-4 shift valve spring	0.8 (0.031)	7.0 (0.276)	43.7 (1.720)	21.2
	1st-hold accumulator spring	3.4 (0.134)	24.3 (0.957)	64.7 (2.547)	6.7
	1st accumulator spring	2.3 (0.091)	20.0 (0.787)	104.6 (4.118)	14.8
	4th accumulator spring	3.0 (0.118)	18.0 (0.709)	84.5 (3.327)	12.8
	2nd accumulator spring	3.3 (0.130)	20.2 (0.795)	78.0 (3.071)	11.8
	3rd accumulator spring	3.2 (0.126)	19.0 (0.748)	88.6 (3.488)	14.3
	Lock-up shift valve spring	1.0 (0.039)	8.6 (0.339)	51.3 (2.020)	19.8
	Lock-up timing valve B spring	0.8 (0.031)	5.6 (0.220)	27.8 (1.094)	16.4
	Lock-up control valve spring A/B/C	0.8 (0.031)	6.6 (0.260)	38.3 (1.508)	25.0
	Servo control valve spring	1.0 (0.039)	8.1 (0.319)	53.5 (2.106)	20.8
	Modulator valve spring A/B	1.4 (0.055)	9.4 (0.370)	33.0 (1.299)	10.5
	CPC valve spring A/B/C	1.0 (0.039)	6.8 (0.268)	32.1 (1.264)	15.6
	4-3 kick-down valve spring	0.9 (0.035)	6.6 (0.260)	30.7 (1.209)	12.9
	3-2 kick-down valve spring	1.0 (0.039)	6.1 (0.240)	27.1 (1.067)	13.4
	2nd exhaust valve spring	1.0 (0.039)	6.1 (0.240)	27.1 (1.067)	13.4

Differential (Manual Transmission) — Section 15

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Differential carrier	Preset torque N·m (kgf·m, lbf·ft)	59 – 137 (6 – 14, 43 – 101)	30 (3, 22)
	Assembly On-car	118 – 275 (12 – 28, 87 – 203)	60 (6, 43)
Tapered roller bearing	Preload N·m (kgf·cm, lbf·in)	2.0 – 3.0 (20 – 30, 17 – 26)	Adjust with a shim
Clutch disc	Thickness	1.68 – 1.80 (0.066 – 0.071)	0.25 (0.01)
Clutch plate	Thickness	2.55 – 2.65 (0.100 – 0.104)	—
Central gear end play		0.18 – 0.32 (0.007 – 0.013)	Adjust with a shim

Differential (Automatic Transmission) — Section 15

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Differential carrier	Preset torque N·m (kgf·m, lbf·ft)	60 – 140 (6 – 14, 43 – 101)	30 (3, 22)
Tapered roller bearing	Preload N·m (kgf·cm, lbf·in)	3.2 – 4.4 (33 – 45, 29 – 39)	Adjust with a shim
Clutch disc	Thickness	1.68 – 1.80 (0.066 – 0.071)	0.25 (0.01)
Clutch plate	Thickness	2.55 – 2.65 (0.100 – 0.104)	—
Distance between final driven gear and 112 mm thrust shim		41.7 – 41.9 (1.64 – 1.65)	Adjust with a shim