

AUTOMATIC TRANSAXLE

SERVICE DATA

SS02A-04

Oil pump		
Body clearance	STD Max.	0.075 – 0.150 mm (0.0030 – 0.0059 in.) 0.30 mm (0.0118 in.)
Tip clearance	STD Max.	0.11 – 0.14 mm (0.0043 – 0.0055 in.) 0.30 mm (0.0118 in.)
Side clearance	STD Max.	0.02 – 0.04 mm (0.0008 – 0.0016 in.) 0.10 mm (0.0039 in.)
Pump body bushing inside diameter	STD Max.	38.12 – 38.13 mm (1.5008 – 1.5012 in.) 38.18 mm (1.5031 in.)
Stator shaft bushing inside diameter	STD Max.	21.50 – 21.52 mm (0.8465 – 0.8472 in.) 21.57 mm (0.8492 in.)
Direct clutch		
Piston stroke		1.41 – 1.62 mm (0.0555 – 0.0638 in.)
Piston return spring free length		28.23 mm (1.1114 in.)
Flange thickness	Mark	
	1	3.00 mm (0.1181 in.)
	2	3.15 mm (0.1240 in.)
	3	3.30 mm (0.1299 in.)
	4	3.45 mm (0.1358 in.)
	5	3.60 mm (0.1417 in.)
Direct clutch		
Piston stroke		0.62 – 0.74 mm (0.0224 – 0.0291 in.)
Piston return spring free length		22.58 mm (0.8890 in.)
Flange thickness	Mark	
	1	3.0 mm (0.118 in.)
	2	3.1 mm (0.122 in.)
	3	3.2 mm (0.126 in.)
	4	3.3 mm (0.130 in.)
	5	3.4 mm (0.134 in.)
	6	3.5 mm (0.138 in.)
U/D planetary gear		
Starting torque		0.7 – 4.4 N·m (7 – 44 kgf·cm, 6.2 – 38.9 in.·lbf)
U/D clutch		
Piston stroke		1.47 – 1.69 mm (0.0579 – 0.0666 in.)
Piston return spring free length		17.14 mm (0.6748 in.)
Flange thickness	Mark	
	1	3.0 mm (0.118 in.)
	2	3.2 mm (0.126 in.)
	3	3.4 mm (0.134 in.)
U/D clutch drum busing inside diameter	STD Max	32.56 – 32.58 mm (1.2818 – 1.2826 in.) 32.64 mm (1.2850 in.)

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U/D brake			
Piston return spring free length		13.24 mm (0.5212 in.)	
Flange thickness	Mark		
	1	3.0 mm (0.118 in)	
	2	3.2 mm (0.126 in.)	
	3	3.4 mm (0.134 in.)	
1st and reverse brake			
Piston return spring free length		17.61 mm (0.6933 in.)	
Flange thickness	Mark		
	1	1.8 mm (0.071 in)	
	2	1.9 mm (0.075 in)	
	3	2.0 mm (0.079 in.)	
	4	2.1 mm (0.083 in.)	
	5	2.2 mm (0.087 in.)	
	6	2.3 mm (0.091 in.)	
	7	2.4 mm (0.094 in.)	
	8	2.5 mm (0.098 in.)	
2nd brake			
Piston return spring free length		16.61 mm (0.6539 in.)	
Flange thickness	Mark		
	1	3.0 mm (0.118 in.)	
	2	3.1 mm (0.122 in.)	
	3	3.2 mm (0.126 in.)	
	4	3.3 mm (0.130 in.)	
	5	3.4 mm (0.134 in.)	
	6	3.5 mm (0.138 in.)	
	7	3.6 mm (0.142 in.)	
Input shaft			
End play		0.27 – 1.24 mm (0.0106 – 0.0488 in.)	
Transaxle rear cover			
End play		0.2 – 0.9 mm (0.008 – 0.035 in.)	
Bearing press fit depth		12.05 – 12.75 mm (0.4744 – 0.5020 in.)	
Transaxle housing			
End play		0.198 – 0.693 mm (0.0078 – 0.0273 in.)	
Valve body spring			
Spring (Color)		Free length	Coil outer diameter Total No. of coils
Upper valve body			
Lock-up relay valve (None)		29.27 mm (1.1523 in.)	9.7 mm (0.382 in.) 10.50
Secondary regulator valve (Blue)		58.36 mm (2.2977 in.)	8.7 mm (0.343 in.) 20.58
Lock-up control valve (None)		23.98 mm (0.9441 in.)	5.4 mm (0.213 in.) 14.94
C-2 lock valve (Yellow)		33.66 mm (1.3252 in.)	7.4 mm (0.291 in.) 11.82
Solenoid modulator valve (Red)		62.40 mm (2.4567 in.)	9.8 mm (0.386 in.) 22.31
B-3 orifice control valve (Gray)		62.65 mm (2.4665 in.)	7.8 mm (0.307 in.) 19.60

Valve body spring			
Spring (Color)	Free length	Coil outer diameter	Total No. of coils
Upper valve body			
B-1 lock valve (White)	37.42 mm (1.4732 in.)	9.8 mm (0.386 in.)	8.84
Clutch apply control valve (Purple)	40.29 mm (1.5862 in.)	9.0 mm (0.354 in.)	13.00
C-2 exhaust check valve (Orange)	40.27 mm (1.5854 in.)	7.4 mm (0.291 in.)	17.10
Lower valve body			
3-4 shift valve (None)	29.25 mm (1.1516 in.)	9.7 mm (0.382 in.)	10.5
B-1 control valve (Green)	48.57 mm (1.9122 in.)	9.8 mm (0.386 in.)	13.43
B-2 control valve (Pink)	57.08 mm (2.2472 in.)	9.8 mm (0.386 in.)	15.34
Primary regulator valve (Orange)	57.58 mm (2.2669 in.)	19.9 mm (0.783 in.)	7.87
C-2 control valve (Brown)	34.19 mm (1.3461 in.)	9.9 mm (0.390 in.)	8.79
Valve body key			
Key	Height	Width	Thickness
Upper valve body			
Lock-up relay valve	10.0 mm (0.394 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Lock-up control valve	10.0 mm (0.394 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Secondary regulator valve	8.0 mm (0.315 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
C-2 lock valve	10.0 mm (0.394 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Solenoid modulator valve	8.0 mm (0.315 in.)	5.0 mm (0.197 in.)	2.9 mm (0.114 in.)
B-3 orifice control valve	18.5 mm (0.728 in.)	-	2.3 mm (0.091 in.)
B-1 lock valve	8.0 mm (0.315 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
C-2 exhaust check valve	8.0 mm (0.315 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
3-way check valve	8.0 mm (0.315 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Lower valve body			
3-4 shift valve	25.5 mm (1.004 in.)	-	2.3 mm (0.091 in.)
B-1 control valve	14.5 mm (0.571 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
B-2 control valve	14.5 mm (0.571 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
C-2 control valve	14.5 mm (0.571 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Accumulator			
Spring	Free length / Outer diameter	Color	
B ₃	Inner	60.24 mm (2.3716 in.) / 15.9 mm (0.626 in.)	
	Outer	72.61 mm (2.8587 in.) / 16.7 mm (0.657 in.)	
C ₃	86.66 mm (3.4118 in.) / 19.2 mm (0.756 in.)		Yellow
C ₁	90.53 mm (3.5642 in.) / 18.5 mm (0.728 in.)		Red
Counter drive gear			
Stating torque	0.5 – 1.0 N·m (5.0 – 10.0 kgf·cm, 4.3 – 8.7 in.·lbf)		

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Differential		
Side gear backlash		0.05 – 0.20 mm (0.0020 – 0.0079 in.)
Thrust washer thickness	Mark	
	A	0.95 mm (0.0374 in.)
	B	1.00 mm (0.0394 in.)
	C	1.05 mm (0.0413 in.)
	D	1.10 mm (0.0433 in.)
	E	1.15 mm (0.0453 in.)
	F	1.20 mm (0.0472 in.)
Preload (at starting)		
New bearing		1.0 – 1.6 N·m (10.0 – 16.3 kgf·cm, 8.7 – 14.2 in.·lbf)
Used bearing		0.5 – 0.8 N·m (5.1 – 8.2 kgf·cm, 4.4 – 7.1 in.·lbf)
Plate washer thickness	Mark	
	0	2.90 mm (0.01141 in.)
	1	2.95 mm (0.01161 in.)
	2	3.00 mm (0.1181 in.)
	3	3.05 mm (0.1201 in.)
	4	3.10 mm (0.1220 in.)
	5	3.15 mm (0.1240 in.)
	6	3.20 mm (0.1260 in.)
	7	3.25 mm (0.1279 in.)
	8	3.30 mm (0.1299 in.)
	9	3.35 mm (0.1319 in.)
	A	3.40 mm (0.1339 in.)
	B	3.45 mm (0.1358 in.)
	C	3.50 mm (0.1378 in.)
	D	3.55 mm (0.1398 in.)
	E	3.60 mm (0.1417 in.)
	F	3.65 mm (0.1437 in.)
	G	3.70 mm (0.1457 in.)
	H	3.75 mm (0.1476 in.)
	J	3.80 mm (0.1496 in.)
Transaxle housing side oil seal drive in depth		0 ± 0.5 mm (0 ± 0.0197 in.)
Differential side bearing retainer oil seal drive in depth		2.7 ± 0.5 mm (0.1063 ± 0.0197 in.)