

AUTOMATIC TRANSMISSION

SERVICE DATA

SS19B-01

Oil pump		
Body clearance	STD	0.07 – 0.15 mm (0.0028 – 0.0059 in.)
	Max.	0.3 mm (0.012 in.)
Tip clearance	STD	0.11 – 0.14 mm (0.0043 – 0.0055 in.)
	Max.	0.3 mm (0.012 in.)
Side clearance	STD	0.02 – 0.05 mm (0.0008 – 0.0020 in.)
	Max.	0.1 mm (0.004 in.)
Pump body bushing inside diameter	Max.	38.19 mm (1.5035 in.)
Stator shaft bushing inside diameter		
Front side:	Max.	23.11 mm (0.9098 in.)
Rear side:	Max.	23.11 mm (0.9098 in.)
O/D Direct Clutch		
Clutch drum bushing inside diameter	Max.	23.14 mm (0.9110 in.)
O/D direct clutch piston stroke		1.74 – 2.44 mm (0.0685 – 0.0961 in.)
O/D planetary gear bushing	Max.	11.27 mm (0.4437 in.)
Planetary pinion gear thrust clearance	STD	0.20 – 0.50 mm (0.0079 – 0.0197 in.)
O/D Brake		
Pack clearance		0.75 – 1.25 mm (0.0295 – 0.0492 in.)
Plate thickness		2.0 mm (0.079 in.)
		2.3 mm (0.091 in.)
Front Clutch		
Piston stroke		1.40 – 1.60 mm (0.0551 – 0.0630 in.)
Flange thickness		1.8 mm (0.071 in.)
		2.0 mm (0.079 in.)
Rear Clutch		
Piston stroke		0.90 – 1.30 mm (0.0354 – 0.0512 in.)
Flange thickness		3.55 mm (0.1398 in.)
		3.75 mm (0.1477 in.)
		4.00 mm (0.1575 in.)
No. 1 Brake		
Piston stroke		0.97 – 1.64 mm (0.0382 – 0.0646 in.)
Center support bushing inside diameter	Max.	36.46 (1.4354 in.)
No. 2 Brake		
Piston stroke		0.98 – 1.71 mm (0.0386 – 0.0673 in.)
Planetary Sun Gear		
Maximum inside diameter		21.58 mm (0.8496 in.)
Front Planetary Gear		
Planetary pinion gear thrust clearance		0.20 – 0.50 mm (0.0079 – 0.0197 in.)
Rear Planetary Gear		
Rear planetary gear output shaft bushing	Max.	18.08 mm (0.7118 in.)
Planetary pinion gear thrust clearance		0.20 – 0.50 mm (0.0079 – 0.0197 in.)

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No. 3 Brake			
Pack clearance	0.52 – 1.27 mm (0.0205 – 0.0500 in.)		
Flange thickness	3.00 mm (0.1181 in.)		
	3.25 mm (0.1280 in.)		
	3.50 mm (0.1378 in.)		
	3.75 mm (0.1477 in.)		
	4.00 mm (0.1575 in.)		
4.25 mm (0.1674 in.)			
Valve body spring			
Spring (Color)	Free length	Coil outer diameter	Total No. of coils
Upper valve body			
Secondary regulator valve (Purple)	32.88 mm (1.2944 in.)	10.60 mm (0.4173 in.)	9.13
C-O accumulator piston (White or Pink)	54.41 mm (2.1421 in.)	15.00 mm (0.5906 in.)	13.26
3-4 shift valve (Red)	25.50 mm (1.0039 in.)	9.73 mm (0.3831 in.)	7.75
2-3 shift valve (Red)	25.50 mm (1.0039 in.)	9.73 mm (0.3831 in.)	7.75
1-2 shift valve (Red)	25.50 mm (1.0039 in.)	9.73 mm (0.3831 in.)	7.75
Lock-up relay valve (Red)	23.42 mm (0.9220 in.)	5.86 mm (0.2307 in.)	12.25
Lock-up control valve (Yellow)	20.87 mm (0.8217 in.)	5.55 mm (0.2185 in.)	11.15
Reverse control valve (None)	25.58 mm (1.0071 in.)	8.64 mm (0.3402 in.)	8.75
B-O accumulator valve (White or Red)	71.50 mm (2.8150 in.)	14.00 mm (0.5512 in.)	19.81
Reverse sequence valve (Light blue)	26.73 mm (1.0523 in.)	8.20 mm (0.3228 in.)	10.22
Solenoid modulator valve (Yellow)	32.13 mm (1.2649 in.)	8.00 mm (0.3150 in.)	15.75
Lower No. 1 valve body			
Primary regulator valve (Light blue)	37.38 mm (1.4717 in.)	18.88 mm (0.7433 in.)	7.17
Cut back valve (None)	18.80 mm (0.7402 in.)	7.48 mm (0.2944 in.)	7.50
C-1 orifice control valve (White)	37.13 mm (1.4618)	11.14 mm (0.4386 in.)	11.25
C-1 orifice control valve (Yellow)	19.77 mm (0.7783 in.)	11.14 mm (0.4386 in.)	11.25
Low coast modulator valve (Blue)	26.43 mm (1.0405 in.)	8.26 mm (0.3252 in.)	10.51
Lower No. 2 valve body			
2nd coast modulator valve (Blue)	32.31 mm (1.2720 in.)	8.30 mm (0.3268 in.)	12.60
Accumulator control valve (White)	24.88 mm (0.9795 in.)	8.00 mm (0.3150 in.)	14.34

Valve body retainer			
Retainer	Height	Width	Thickness
Upper valve body			
Lock-up relay valve	12.5 mm (0.492 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Lock-up control valve	19.0 mm (0.748 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Reverse control valve	14.0 mm (0.551 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
B-O accumulator valve	36.5 mm (1.437 in.)	-	4.0 mm (0.157 in.)
Reverse sequence valve	10.0 mm (0.397 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Solenoid modulator valve	10.0 mm (0.397 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
No. 2 check valve	10.0 mm (0.397 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
No. 2 check valve	10.0 mm (0.397 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Secondary regulator valve	19.0 mm (0.748 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
C-O accumulator piston	36.5 mm (1.437 in.)	-	4.0 mm (0.157 in.)
3-4 shift valve	21.2 mm (0.835 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
2-3 shift valve	21.2 mm (0.835 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
1-2 shift valve	21.2 mm (0.835 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Lower No. 1 valve body			
Primary regulator valve	14.5 mm (0.571 in.)	-	3.2 mm (0.126 in.)
Cut back valve	19.0 mm (0.748 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
C-1 orifice control valve	10.0 mm (0.394 in.)	5.0 mm (0.197 in.)	3.2 mm (0.126 in.)
Low coast modulator valve	21.5 mm (0.846 in.)	-	1.4 mm (0.055 in.)
Check Ball			
Upper valve body			
Rubber ball		5.5 mm (0.217 in.) 6.4 mm (0.252 in.)	
Lower No. 1 valve body			
Plastic ball		9.5 mm (0.374 in.)	
Transmission Case			
Transmission case bushing	Max.	38.19 mm (1.5035 in.)	
Extension Housing			
Extension housing bushing	Max.	38.09 mm (1.4996 in.)	
Output Shaft			
End play		0.3 - 0.9 mm (0.012 - 0.035 in.)	
Accumulator Piston			
C ₁		31.8 (1.252)	
C ₂		31.8 (1.252)	
B ₂		34.8 (1.370)	
Accumulator Spring			
Spring	Free length/Coil outer diameter		Color
C ₁	75.03 mm (2.9540 in.) / 17.00 mm (0.6693 in.)		White or Blue
C ₂	57.74 mm (2.2732 in.) / 16.54 mm (0.6512 in.)		White or Purple
B ₂	56.40 mm (2.2205 in.) / 18.79 mm (0.7398 in.)		Green