AUTOMATIC TRANSMISSION / TRANSAXLE

0305N–01

SERVICE DATA

Oil pump		
Body clearance	STD	0.10 – 0.17 mm (0.0039 – 0.0067 in.)
	Max.	0.17 mm (0.0067 in.)
Tip clearance	STD	0.07 – 0.15 mm (0.0028 – 0.0059 in.)
	Max.	0.15 mm (0.0059 in.)
Side clearance	STD	0.02 – 0.05 mm (0.0008 – 0.0020 in.)
	Max.	0.05 mm (0.0020 in.)
Drive gear thickness	Mark	
	1	10.690 –10.699 mm (0.4209 – 0.4212 in.)
	2	10.700 –10.709 mm (0.4213 – 0.4216 in.)
	3	10.710 –10.720 mm (0.4217 – 0.4220 in.)
	4	10.721 –10.730 mm (0.4221 – 0.4224 in.)
	5	10.731 –10.740 mm (0.4225 – 0.4228 in.)
Driven gear thickness	Mark	
	1	10.690 –10.699 mm (0.4209 – 0.4212 in.)
	2	10.700 –10.709 mm (0.4213 – 0.4216 in.)
	3	10.710 –10.720 mm (0.4217 – 0.4220 in.)
	4	10.721 –10.730 mm (0.4221 – 0.4224 in.)
	5	10.731 –10.740 mm (0.4225 – 0.4228 in.)
Pump body bushing inside diameter	STD	38.11 – 38.14 mm (1.5005 – 1.5015 in.)
	Max.	38.19 mm (1.5035 in.)
Stator shaft bushing inside diameter	STD	20.50 – 21.53 mm (0.8465 – 0.8475 in.)
	Max.	21.57 mm (0.8492 in.)

Forward Clutch		
Piston stroke		1.74 – 2.08 mm (0.0685 – 0.0819 in.)
Piston return spring free length		28.23 mm (1.1114 in.)
Flange thickness	No.	
	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		
Pack clearance		0.605 – 0.825 mm (0.02382 – 0.03248 in.)
Piston return spring free length		22.58 mm (0.8890 in.)
Flange thickness	No.	
	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.)
End play		0.198 – 0.936 mm (0.00800 – 0.03685 in.)

2ND brake		
Pack clearance		0.62 – 0.91 mm (0.0244 – 0.0358 in.)
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		0.26 – 1.25 mm (0.0103 – 0.0492 in.)

U/D clutch		
Pack clearance		1.51 – 1.90 mm (0.0594 – 0.0748 in.)
U/D clutch drum busing inside diameter	STD	32.56 – 32.58 mm (1.2818 – 1.2826 in.)
	Max	32.63 mm (1.2846 in.)
Piston return spring free length		17.14 mm (0.6748 in.)
Flange thickness	Mark	
	A	3.0 mm (0.118 in)
	B	3.2 mm (0.126 in.)
	C	3.4 mm (0.134 in.)

U/D brake		
Piston stroke		1.81 – 2.20 mm (0.0713 – 0.0866 in.)
Piston return spring free length		14.04 mm (0.5213 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 & reverse brake		
Pack clearance		1.02 – 1.21 mm (0.0402 – 0.0476 in.)
Piston return spring free length		15.51 mm (0.6106 in.)

Front planetary gear		
Bearing turning torque at 60 rpm	New bearing:	0.5 – 1.0 N·m (5.1 – 10.0 kgf·cm, 4.4 – 8.7 in.·lbf)
	Used bearing:	0.3 – 0.5 N·m (3.1 – 5.1 kgf·cm, 2.7 – 4.4 in.·lbf)

U/D planetary gear		
U/D output shaft turning torque	at 60 rpm	0.23 – 5.01 N·m (2 – 51 kgf·cm, 2.0 – 44.3 in.·lbf)
End play		0.20 – 0.69 mm (0.0079 – 0.0272 in.)

Transmission valve body		
Bolt length	A	25 mm (0.984 in.)
	B	41 mm (1.614 in.)
	C	45 mm (1.771 in.)

Accumulator			
Spring		Free length/Outer diameter	Color
B_3	Inner	60.24 (2.3716) / 15.9 (0.626)	Yellowish Green
	Outer	74.61 (2.9374) / 21.7 (0.854)	Blue
C_1		81.53 (3.2098) / 18.5 (0.728)	Pink
C_3		90.49 (3.5626) / 19.2 (0.756)	White

Differential	
Side gear backlash	0.05 – 0.20 mm (0.0020 – 0.0079 in.)
Thrust washer thickness	1.0 mm (0.039 in) 1.1 mm (0.043 in.) 1.2 mm (0.047 in.) 1.3 mm (0.051 in.)

Preload (at starting)		
New bearing		0.20 – 0.69 N·m (2 – 7 kgf·cm, 1.8 – 6.1 in.·lbf)
Used bearing		0.10 – 0.35 N·m (1 – 4 kgf·cm, 0.9 – 3.1 in.·lbf)
Shim thickness	Mark	
	0	1.90 mm (0.0748 in.)
	1	1.95 mm (0.0768 in.)
	2	2.00 mm (0.0787 in.)
	3	2.05 mm (0.0807 in.)
	4	2.10 mm (0.0827 in.)
	5	2.15 mm (0.0846 in.)
	6	2.20 mm (0.0866 in.)
	7	2.25 mm (0.0886 in.)
	8	2.30 mm (0.0906 in.)
	9	2.35 mm (0.0925 in.)
	A	2.40 mm (0.0945 in.)
	B	2.45 mm (0.0965 in.)
	C	2.50 mm (0.0984 in.)
	D	2.55 mm (0.1004 in.)
	E	2.60 mm (0.1024 in.)
	F	2.65 mm (0.1043 in.)
	G	2.70 mm (0.1063 in.)
	H	2.75 mm (0.1083 in.)
	J	2.80 mm (0.1102 in.)