

# A750E AUTOMATIC TRANSMISSION

## SERVICE DATA

Line pressure Engine idling	D position	356 to 426 kPa (3.6 to 4.3 kgf*cm <sup>2</sup> , 52 to 62 psi)
	R position	500 to 600 kPa (5.1 to 6.1 kgf*cm <sup>2</sup> , 73 to 87 psi)
Line pressure AT stall (Throttle valve fully opened)	D position	1,367 to 1,477 kPa (14.0 to 15.1 kgf*cm <sup>2</sup> , 198 to 214 psi)
	R position	1,278 to 1,506 kPa (13.0 to 15.4 kgf*cm <sup>2</sup> , 185 to 218 psi)
Engine stall revolution	D positions	2,250 to 2,550 rpm
Time lag	N → D position	Less than 1.2 seconds
	N → R position	Less than 1.5 seconds
Engine idle speed (A/C OFF)	N position	650 to 750 rpm
Drive plate runout	Max.	0.20 mm (0.0079 in.)
Torque converter runout	Max.	0.30 mm (0.0118 in.)
Torque converter clutch installation distance		23.28 mm (0.9166 in.) or more
Shift schedule		
D position		
(Throttle valve fully opened)	1 → 2	32 to 40 mph (52 to 64 km/h)
	2 → 3	60 to 67 mph (97 to 108 km/h)
	3 → 4	89 to 97 mph (143 to 156 km/h)
	4 → 5	116 to 125 mph (187 to 201 km/h)
	5 → 4	111 to 119 mph (179 to 191 km/h)
	4 → 3	81 to 88 mph (130 to 141 km/h)
	3 → 2	54 to 58 mph (87 to 94 km/h)
	2 → 1	25 to 29 mph (41 to 46 km/h)
(Throttle valve fully closed)	4 → 5	30 to 34 mph (48 to 54 km/h)
	5 → 4	18 to 21 mph (29 to 34 km/h)
4 position		
(Throttle valve fully opened)	1 → 2	32 to 40 mph (52 to 64 km/h)
	2 → 3	60 to 67 mph (97 to 108 km/h)
	3 → 4	89 to 97 mph (143 to 156 km/h)
	5 → 4	124 to 132 mph (200 to 213 km/h)
	4 → 3	81 to 88 mph (130 to 141 km/h)
	3 → 2	54 to 58 mph (87 to 94 km/h)
	2 → 1	25 to 29 mph (41 to 46 km/h)
3 position		
(Throttle valve fully opened)	1 → 2	32 to 40 mph (52 to 64 km/h)
	2 → 3	60 to 67 mph (97 to 108 km/h)
	4 → 3	87 to 94 mph (140 to 151 km/h)
	3 → 2	54 to 58 mph (87 to 94 km/h)
	2 → 1	25 to 29 mph (41 to 46 km/h)
2 position		
(Throttle valve fully opened)	1 → 2	32 to 40 mph (52 to 64 km/h)
	3 → 2	58 to 64 mph (93 to 103 km/h)
	2 → 1	25 to 29 mph (41 to 46 km/h)
L position		
(Throttle valve fully opened)	2 → 1	25 to 29 mph (41 to 46 km/h)

SS

Lock-up point Throttle valve opening 5%		
D position 5th gear	Lock-up ON	47 to 51 mph (75 to 82 km/h)
	Lock-up OFF	42 to 46 mph (68 to 74 km/h )
4 position 4th gear	Lock-up ON	45 to 48 mph (72 to 78 km/h)
	Lock-up OFF	40 to 43 mph (64 to 70 km/h )

**AUTOMATIC TRANSMISSION UNIT**

1st and reverse return spring free length	Standard: 23.74 mm (0.9347 in.)
Rear planetary gear pinion thrust clearance	Standard: 0.2 to 0.6 mm (0.008 to 0.024 in.)
Rear planetary gear bushing inside diameter	Standard: 20.075 mm (0.7904 in.)
1st and reverse brake pack clearance	0.8 to 1.1 mm (0.031 to 0.043 in.)
Flange thickness (1st and reverse brake)	Mark 0: 0 mm (0 in.) Mark 2: 0.2 mm (0.008 in.) Mark 4: 0.4 mm (0.016 in.) Mark 6: 0.6 mm (0.024 in.) Mark 8: 0.8 mm (0.031 in.) Mark 10: 1.0 mm (0.039 in.) Mark 12: 1.2 mm (0.047 in.) Mark 14: 1.4 mm (0.055 in.)
Intermediate shaft run out	Standard: 0.08 mm (0.003 in.)
Intermediate shaft diameter	Standard A: 25.962 to 25.975 mm (1.022 to 1.023 in.) Standard B: 25.962 to 25.975 mm (1.022 to 1.023 in.) Standard C: 32.062 to 32.075 mm (1.262 to 1.263 in.) Standard D: 32.062 to 32.075 mm (1.262 to 1.263 in.)
Rear planetary ring gear flange bushing inside diameter	Standard: 32.18 mm (1.2667 in.)
Center planetary gear pinion thrust clearance	Standard: 0.12 to 0.68 mm (0.005 to 0.027 in.)
Brake piston return spring No.2 free length	Standard: 17.45 mm (0.687 in.)
Brake piston return spring free length	Standard: 17.05 mm (0.671 in.)
Front planetary gear pinion thrust clearance	Standard: 0.20 to 0.60 mm (0.008 to 0.024 in.)
Front planetary gear bushing inside diameter	Standard: 57.48 mm (2.263 in.)
Brake piston No.1 piston stroke	0.42 to 0.72 mm (0.017 to 0.028 in.)
Flange thickness (brake piston No.1)	Mark 0: 2.0 mm (0.079 in.) Mark 1: 2.2 mm (0.087 in.) Mark 2: 2.4 mm (0.094 in.) Mark 3: 2.6 mm (0.102 in.)
Brake piston return spring No.3 free length	Standard: 15.72 mm (0.619 in.)
Snap ring and race clearance	0.05 to 0.33 mm (0.002 to 0.013 in.)
Flange thickness	No. 1: 3.7 mm (0.146 in.)
	No. 2: 3.8 mm (0.150 in.)
	No. 3: 3.9 mm (0.154 in.)
	No. 4: 4.0 mm (0.158 in.)
	No. 5: 4.1 mm (0.161 in.)
	No. 6: 4.2 mm (0.165 in.)

**OIL PUMP**

Body clearance	Standard: 0.10 to 0.17 mm (0.0039 to 0.0067 in.)
	Maximum: 0.17 mm (0.0067 in.)
Tip clearance	Standard: 0.07 to 0.15 mm (0.0028 to 0.0059 in.)
	Maximum: 0.15 mm (0.0059 in.)
Side clearance	Standard: 0.02 to 0.05 mm (0.0008 to 0.0020 in.)
	Maximum: 0.05 mm (0.0020 in.)

Drive and driven gear thickness	Mark 0: 10.740 to 10.749 mm (0.4228 to 0.4232 in.)
	Mark 1: 10.750 to 10.759 mm (0.4232 to 0.4236 in.)
	Mark 2: 10.760 to 10.769 mm (0.4236 to 0.4240 in.)
	Mark 3: 10.770 to 10.779 mm (0.4240 to 0.4244 in.)
	Mark 4: 10.780 to 10.789 mm (0.4244 to 0.4248 in.)
Starter shaft bushing inside diameter	Standard (Front side): 21.577 mm (0.850 in.)
	Standard (Rear side): 32.08 mm (1.263 in.)
Front oil pump body inside diameter	38.188 mm (1.504 in.)

**CLUTCH DRUM AND INPUT SHAFT**

Direct clutch	
Pack clearance	0.50 to 0.80 mm (0.020 to 0.032 in.)
Clutch piston return spring free length	Standard: 19.51 mm (0.768 in.)
Flange thickness	No. 0: 3.0 mm (0.118 in.)
	No. 1: 3.1 mm (0.122 in.)
	No. 2: 3.2 mm (0.126 in.)
	No. 3: 3.3 mm (0.130 in.)
	No. 4: 3.4 mm (0.134 in.)
	No. 5: 3.5 mm (0.138 in.)
	No. 6: 3.6 mm (0.142 in.)
	No. 7: 3.7 mm (0.146 in.)
No. 8: 3.8 mm (0.150 in.)	
Reverse clutch	
Reverse clutch hub busing inside diameter	Standard: 35.812 to 35.837 mm (1.4099 to 1.4109 in.)
	Maximum: 35.887 mm (1.4129 in.)
Pack clearance	0.50 to 0.80 mm (0.020 to 0.032 in.)
Clutch piston return spring free length	Standard: 21.04 mm (0.828 in.)
Flange thickness	No. 0: 2.8 mm (0.110 in.)
	No. 1: 2.9 mm (0.114 in.)
	No. 2: 3.0 mm (0.118 in.)
	No. 3: 3.1 mm (0.122 in.)
	No. 4: 3.2 mm (0.126 in.)
	No. 5: 3.3 mm (0.130 in.)
	No. 6: 3.4 mm (0.134 in.)
	No. 7: 3.5 mm (0.138 in.)
	No. 8: 3.6 mm (0.142 in.)
	No. 9: 3.7 mm (0.146 in.)
No. A: 3.8 mm (0.150 in.)	
Forward clutch	
Forward clutch hub bushing inside diameter	Standard: 26.037 to 26.062 mm (1.0251 to 1.0261 in.)
	Maximum: 26.112 mm (1.028 in.)
Pack clearance	0.60 to 0.90 mm (0.024 to 0.035 in.)
Clutch piston return spring free length	Standard: 26.74 mm (1.053 in.)

SS

Flange thickness	No. 0: 3.0 mm (0.118 in.)
	No. 1: 3.1 mm (0.122 in.)
	No. 2: 3.2 mm (0.126 in.)
	No. 3: 3.3 mm (0.130 in.)
	No. 4: 3.4 mm (0.134 in.)
	No. 5: 3.5 mm (0.138 in.)
	No. 6: 3.6 mm (0.142 in.)
	No. 7: 3.7 mm (0.146 in.)
	No. 8: 3.8 mm (0.150 in.)
	No. 9: 3.9 mm (0.154 in.)
No. A: 4.0 mm (0.158 in.)	

SS

**ACCUMULATOR**

Spring	Free Length/Outer diameter	Color
B-3	70.5 mm (2.776 in.)/19.7 mm (0.776 in.)	Purple
C-2	62.0mm (2.441)/15.9 mm (0.626 in.)	White
C-1 (Inner)	30.4 mm (1.197 in.)/11.4 mm (0.449 in.)	Pink
C-1 (Outer)	48.76 mm (1.920 in.)/16.6 mm (0.654 in.)	Light green
C-3 (Inner)	44.0 mm (1.732 in.)/14.0 mm (0.551 in.)	Yellow
C-3 (Outer)	73.35 mm (2.888 in.)/19.9 mm (0.784 in.)	Red