

# U340E AUTOMATIC TRANSMISSION

## SERVICE DATA

### AUTOMATIC TRANSMISSION ASSEMBLY

Line pressure (Wheel locked) AT stall (Throttle valve fully opened)	D position	1,107 to 1,225 kPa (11.3 to 12.5 kgf/cm <sup>2</sup> , 161 to 178 psi)
	R position	1,695 to 1,813 kPa (17.3 to 18.5 kgf/cm <sup>2</sup> , 246 to 263 psi)
Engine stall revolution	D positions	2,050 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	600 to 750 rpm
Drive plate runout	Maximum.	0.20 mm (0.0079 in.)
Differential oil seal drive in depth	LH side	5.4 to 6.4 mm (0.213 to 0.252 in.)
	RH side	1.5 to 2.5 mm (0.059 to 0.098 in.)
Shift point		
D position (Throttle valve fully opened)	1 → 2	50 to 55 km/h (31 to 34 mph)
	2 → 3	94 to 102 km/h (58 to 63 mph)
	3 → 4	147 to 156 km/h (91 to 97 mph)
	4 → 3	142 to 151 km/h (88 to 94 mph)
	3 → 2	89 to 96 km/h (55 to 60 mph)
	2 → 1	41 to 46 km/h (25 to 29 mph)
D position (Throttle valve fully closed)	3 → 4	40 to 44 km/h (25 to 27 mph)
	4 → 3	30 to 34 km/h (19 to 21 mph)
2 position (Throttle valve fully opened)	1 → 2	50 to 55 km/h (31 to 34 mph)
	3 → 2	89 to 96 km/h (55 to 60 mph)
	2 → 1	41 to 46 km/h (25 to 29 mph)
L position (Throttle valve fully opened)	3 → 2	89 to 96 km/h (55 to 60 mph)
	2 → 1	44 to 48 km/h (27 to 30 mph)
Lock-up point		
D position (Throttle valve opening 5 %)	Lock-up ON 3 → 3L	94 to 102 km/h (58 to 63 mph)
	Lock-up ON 4 → 4L	54 to 59 km/h (34 to 37 mph)
	Lock-up OFF 4L → 4	66 to 75 km/h (41 to 47 mph)
	Lock-up OFF 3L → 3	89 to 96 km/h (55 to 60 mph)

### OIL PUMP

Body clearance	STD	0.10 to 0.15 mm (0.0039 to 0.0059 in.)
	Max.	0.15 mm (0.0059 in.)
Tip clearance	STD	0.07 to 0.15 mm (0.0028 to 0.0059 in.)
	Max.	0.15 mm (0.0059 in.)
Side clearance	STD	0.02 to 0.05 mm (0.0008 to 0.0020 in.)
	Max.	0.05 mm (0.0020 in.)

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Drive gear thickness	Mark 1	9.44 to 9.45 mm (0.3709 to 0.3713 in.)
	Mark 2	9.45 to 9.46 mm (0.3713 to 0.3717 in.)
	Mark 3	9.46 to 9.47 mm (0.3717 to 0.3721 in.)
	Mark 4	9.47 to 9.48 mm (0.3721 to 0.3725 in.)
	Mark 5	9.48 to 9.49 mm (0.3725 to 0.3729 in.)
Driven gear thickness	Mark 1	9.44 to 9.45 mm (0.3709 to 0.3713 in.)
	Mark 2	9.45 to 9.46 mm (0.3713 to 0.3717 in.)
	Mark 3	9.46 to 9.47 mm (0.3717 to 0.3721 in.)
	Mark 4	9.47 to 9.48 mm (0.3721 to 0.3725 in.)
	Mark 5	9.48 to 9.49 mm (0.3725 to 0.3729 in.)
Pump body bushing inside diameter	STD	38.113 to 38.138 mm (1.50050 to 1.50149 in.)
	Max.	38.138 mm (1.50149 in.)
Oil seal in depth	STD	0 +- 0.5 mm (0 +- 0.020 in.)
Stator shaft bushing inside diameter	STD	21.500 to 21.526 mm (0.84646 to 0.84748 in.)
	Max	21.526 mm (0.84748 in.)

### FORWARD CLUTCH

Pack clearance		1.406 to 1.806 mm (0.0553 to 0.0711 in.)
Piston return spring free length		21.69 mm (0.8540 in.)
Flange thickness	Mark -	3.00 mm (0.1181 in.)
	Mark 1	3.20 mm (0.1260 in.)
	Mark 2	3.40 mm (0.1339 in.)
	Mark 3	3.60 mm (0.1417 in.)

### DIRECT AND REVERSE CLUTCH

Pack clearance	Direct clutch	0.62 to 1.02 mm (0.0244 to 0.0402 in.)
	Reverse clutch	0.86 to 1.26 mm (0.0339 to 0.0496 in.)
Piston return spring free length (Direct clutch)		32.9 mm (1.2953 in.)
Flange thickness (Direct clutch)	Mark -	3.0 mm (0.118 in.)
	Mark 1	3.2 mm (0.126 in.)
	Mark 2	3.4 mm (0.134 in.)
	Mark 3	3.6 mm (0.142 in.)
Flange thickness (Reverse clutch)	Mark -	3.0 mm (0.118 in.)
	Mark 1	3.2 mm (0.126 in.)
	Mark 2	3.4 mm (0.134 in.)
	Mark 3	3.6 mm (0.142 in.)

### 1ST AND REVERSE BRAKE

Pack clearance		0.8 to 1.206 mm (0.0317 to 0.0475 in.)
Piston return spring free length		13.96 mm (0.5496 in.)
Flange thickness	Mark -	3.4 mm (0.134 in.)
	Mark 1	3.6 mm (0.142 in.)
	Mark 2	3.8 mm (0.150 in.)
	Mark 3	4.0 mm (0.157 in.)

### 2ND COAST AND O/D BRAKE

Pack clearance		2.091 to 2.491 mm (0.0823 to 0.0981 in.)
Piston return spring free length (O/D brake)		18.99 mm (0.7476 in.)

Flange thickness	Mark 4	4.0 mm (0.157 in.)
	Mark 5	4.2 mm (0.165 in.)
	Mark 6	4.4 mm (0.173 in.)
	Mark 7	4.6 mm (0.181 in.)

**2ND BRAKE**

Pack clearance	0.847 to 1.247 mm (0.033 to 0.049 in.)	
Piston return spring free length	14.65 mm (0.5768 in.)	
Flange thickness	Mark -	3.0 mm (0.118 in.)
	Mark 1	3.2 mm (0.126 in.)
	Mark 2	3.4 mm (0.134 in.)
	Mark 3	3.6 mm (0.142 in.)

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**MANUAL VALVE LEVER SHAFT**

Manual valve lever shaft oil seal in depth	0 +/- 0.5 mm (0 +/- 0.020 in.)
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**INTERMEDIATE SHAFT**

Intermediate shaft clearance	0.204 to 0.966 mm (0.008 to 0.038 in.)
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**INPUT SHAFT**

End play	0.37 to 1.29 mm (0.0146 to 0.0508 in.)
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**ACCUMULATOR**

Spring	Free length / Outer diameter	Color
B2	66.90 mm (2.634 in.) / 15.50 mm (0.610 in.)	Green
C2	66.90 mm (2.6339 in.) / 15.50 mm (0.6102 in.)	-
C3	80.20 mm (3.158 in.) / 18.70 mm (0.736 in.)	-

**TRANSAXLE REAR COVER ASSEMBLY**

Needle roller bearing clearance	25.2 mm (0.992 in.)
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**TRANSMISSION VALVE BODY ASSEMBLY**

Valve body assembly installation bolt length	32 mm (1.26 in.) for bolt A
	22 mm (0.87 in.) for bolt B
	55 mm (2.17 in.) for bolt C
	45 mm (1.77 in.) for bolt D
Detente spring installation bolt length	14 mm (0.55 in.) for bolt A
	45 mm (1.77 in.) for bolt B

**COUNTER DRIVE GEAR**

Rotating torque	0.20 to 0.49 N*m (2 to 5 kgf*cm, <sup>2</sup> to 4 in*lbf)
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**DIFFERENTIAL**

Differential drive pinion plug drive in depth	2.5 to 2.6 mm (0.098 to 0.102 in.)	
Side gear backlash	0.05 to 0.20 mm (0.002 to 0.008 in.)	
Thrust washer thickness	Mark -	0.95 mm (0.0374 in.)
	Mark -	1.00 mm (0.0394 in.)
	Mark -	1.05 mm (0.0413 in.)
	Mark -	1.10 mm (0.0433 in.)
	Mark -	1.15 mm (0.0453 in.)
	Mark -	1.20 mm (0.0472 in.)
Preload (at starting)	New bearing	0.78 to 1.37 N*m (8.0 to 14.0 kgf*cm, 6.9 to 12.2 in*lbf)
	Using bearing	0.39 to 0.69 N*m (4.0 to 7.0 kgf*cm, 3.5 to 6.1 in*lbf)

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Shim thickness	Mark 01	1.90 mm (0.0748 in.)
	Mark 02	1.95 mm (0.0768 in.)
	Mark 03	2.00 mm (0.0787 in.)
	Mark 04	2.05 mm (0.0807 in.)
	Mark 05	2.10 mm (0.0827 in.)
	Mark 06	2.15 mm (0.0846 in.)
	Mark 07	2.20 mm (0.0866 in.)
	Mark 08	2.25 mm (0.0885 in.)
	Mark 09	2.30 mm (0.0906 in.)
	Mark 10	2.35 mm (0.0925 in.)
	Mark 11	2.40 mm (0.0945 in.)
	Mark 12	2.45 mm (0.0965 in.)
	Mark 13	2.50 mm (0.0984 in.)
	Mark 14	2.55 mm (0.1004 in.)
	Mark 15	2.60 mm (0.1024 in.)
	Mark 16	2.65 mm (0.1043 in.)
	Mark 17	2.70 mm (0.1063 in.)
	Mark 18	2.75 mm (0.1082 in.)
	Mark 19	2.80 mm (0.1102 in.)
Transaxle housing side oil seal drive in depth		2 +- 0.5 mm (0.079 +- 0.020 in.)
Transaxle case side oil seal drive in depth		5.9 +- 0.5 mm (0.232 +- 0.020 in.)