

SPECIFICATIONS

MATERIAL SPECIFICATION

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Item	Specification	Fill Capacity
Dye-Lite® ATF/Power Steering Fluid Leak Detection Dye 164-R3701 (Rotunda)	-	-
Motorcraft® MERCON® LV Automatic Transmission Fluid XT-10-QLV	MERCON® LV	12.30L (13.0 qt)
Multi-Purpose Grease XG-4 and/or XL-5	ESB-M1C93-B	-

GENERAL SPECIFICATION

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Item	Specification
Fluid	
<p>NOTE: Transmission fluids are not interchangeable. The use of any other fluid or cleaning agents will cause internal transmission damage.</p> <ul style="list-style-type: none"> • Normal maintenance: <ul style="list-style-type: none"> • Transmission fluid change not necessary, filled for life. • Severe duty maintenance: <ul style="list-style-type: none"> • Change the transmission fluid at 24,000 km (150,000 mi) intervals. 	
Fluid Filter	
Internal to the transmission	-

ASSEMBLY WEIGHT SPECIFICATION

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Description	Specification
Transmission	80.24 kg (215 lb)

CLUTCH APPLICATION CHART

CLUTCH APPLICATION CHART

Gear	Forward (A)	Direct (B)	Intermediate (C)	Low/Reverse (D)	Overdrive (E)
Park				X	
Reverse		X		X	
Neutral				X	
1st Gear Manual	X			X	
2nd Gear Manual	X		X		
3rd Gear Manual	X	X			
1st Gear D	X			X	

2nd Gear D	X		X		
3rd Gear D	X	X			
4th Gear D	X				X
5th Gear D		X			X
6th Gear D			X		X

CLUTCH APPLICATION CHART

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Gear	SSA (VFS1) Proportional	SSB (VFS2) Inversely Proportional	SSC (VFS3) Proportional	SSD (VFS4) Inversely Proportional	PCA (VFS5) Inversely Proportional	TCC (VFS6) Proportional	SSE (SS1) ON/OFF
Park				X	(1)		
Reverse		X		X	(1)		
Neutral				X	(1)		
1st Gear Manual	X			X	(1)	(1)	
2nd Gear Manual	X		X		(1)	(1)	
3rd Gear Manual	X	X			(1)	(1)	
1st Gear D	X			X	(1)	(1)	
2nd Gear D	X		X		(1)	(1)	
3rd Gear D	X	X			(1)	(1)	
4th Gear D	X			X	(1)	(1)	X
5th Gear D		X		X	(1)	(1)	X
6th Gear D			X	X	(1)	(1)	X

(1) Transmission control module (TCM) controlled

GEAR RATIO REFERENCE

GEAR RATIO REFERENCE

Gear	Ratio
1st	4.17 to 1
2nd	2.34 to 1
3rd	1.52 to 1
4th	1.14 to 1

5th	0.87 to 1
6th	0.69 to 1
Reverse	3.40 to 1

STALL SPEED REFERENCE

STALL SPEED REFERENCE

Engine	Min	Max
5.4L 3V	2,269	2,677

STEEL PLATES SPECIFICATION

NOTE: All friction and steel plates use a wave design plate.

STEEL PLATES SPECIFICATION

Item	Specifications
Forward Clutch (A)	0.71-1.10 mm (0.028-0.043 in)
Direct Clutch (B)	0.50-1.30 mm (0.019-0.051 in)
Intermediate Clutch (C)	0.71-1.10 mm (0.028-0.043 in)
Low/Reverse Clutch (D)	1.0-1.6 mm (0.039-0.063 in)
Overdrive (O/D) Clutch (E)	0.50-0.90 mm (0.019-0.035 in)

CLUTCH PLATE QUANTITY SPECIFICATION

CLUTCH PLATE QUANTITY SPECIFICATION

Component	Number of Frictions	Number of Separator Plates	Separator Plate Thickness	Number of Pressure Plates	Pressure Plate Thickness
Forward Clutch (A)	5	6	3.0 mm (0.11 in)	1	3.0 mm (0.11 in)
Direct Clutch (B)	5	5	2.1 mm (0.08 in)	1	3.9 mm (0.15 in)
Intermediate Clutch (C)	5	5	3.0 mm (0.11 in)	1	3.9 mm (0.15 in)
Low/Reverse (D)	6	6	2.1 mm (0.08 in)	Select	5.4 mm (0.21 in)
				Select	5.7 mm (0.22 in)
			2.1 mm (0.08 in)	Select	6.0 mm (0.23 in)
Overdrive (O/D) Clutch (E)	6	6	6.15 mm (0.24 in)	1	3.0 mm (0.11 in)

THROTTLE POSITION

NOTE: Shift speed ranges are approximate for all applications. For specific applications (engine, axle ratio, tire size and application), refer to the Automatic Transmission Specification booklet.

Always drive the vehicle in a safe manner according to driving conditions and obey all traffic laws.

THROTTLE POSITION

Throttle Position	Shift	MPH	Km/H
Light Throttle	1-2	8-13	13-21
Throttle Position Sensor Voltage	2-3	16-21	26-34
	3-4	22-27	35-43
	4-5	35-40	56-64
1.25 Volts	5-6	44-49	71-79
Closed Throttle	6-5	35-40	56-64
	5-4	25-30	40-48
	4-3	8-13	13-21
	3-2	2-7	3-11
	2-1	1-4	2-6
Wide Open Throttle	1-2	28-33	45-53
	2-3	54-59	87-95
	3-4	87-92	140-148

TORQUE SPECIFICATION

TORQUE SPECIFICATION

Description	Nm	lb-ft	lb-in
Detent spring bolts	12	-	106
Dual converter Y-pipe bolts	40	30	-
Evaporative Emission (EVAP) canister assembly bolt	20	-	177
Exhaust flange nuts	40	30	-
Exhaust heat shield bolt	15	-	133
Flexplate inspection cover bolts	35	26	-
Front pump body bolts	15	-	133
Front pump-to-case bolts	10	-	89
Fuel line bracket bolt	25	18	-
Ground wire nut	23	17	-
LH isolator cap bolt	35	26	-
Manual control lever nut	18	-	159
Mechatronic assembly bolts ⁽¹⁾	-	-	-
Mechatronic assembly-to-transmission case bolts ⁽¹⁾	-	-	-
Output shaft flange nut	80	59	-
Park pawl pin bolt	23	17	-
Park rod actuating plate	12	-	106

Selector lever cable bracket bolts	48	35	-
Skid plate bolts	40	30	-
Solenoid bracket bolts	6	-	53
Starter B+ cable	12	-	106
Starter cable (small)	6	-	53
Starter motor bolts	26	19	-
Torque converter nuts	35	26	-
Transmission case bolts	48	35	-
Transmission crossmember nuts and bolts	90	66	-
Transmission fluid cooler tube bracket bolt	23	17	-
Transmission fluid cooler tube bracket front stud bolt nut	27	20	-
Transmission fluid fill plug	35	26	-
Transmission fluid pan bolts ⁽¹⁾	-	-	-
Transmission insulator and retainer bolts	90	66	-
Transmission insulator and retainer nuts	115	85	-
(1) Refer to the appropriate procedure(s).			