

SPECIFICATIONS

GENERAL SPECIFICATIONS

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Item	Specification
Fluid	
CAUTION: MERCON®, MERCON® V and MERCON® SP are not interchangeable transmission fluids. The use of any other fluid or cleaning agents will cause internal transmission damage.	
MERCON® SP Automatic Transmission Fluid XT-6-QSP	MERCON® SP
Fluid Capacities	
All	9L (9.5 quarts)
Fluid Filter	
Internal to the transmission. Part of the transmission fluid pan.	-
Lubricants	
Multi-Purpose Grease XG-4 and/or XL-5	ESB-MIC93-B
Transmission Fluid Flow	
Transmission fluid cooler fluid flow	0.6 liters (20 ounces) in 15 seconds

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	
First gear (M) manual	X			X	
Second gear manual	X		X		
Third gear manual	X	X			
First gear D6/D4	X			X	
Second gear D6/D4	X		X		
Third gear D6/D4	X	X			
Fourth gear D6/D4	X				X
Fifth gear D6/D4		X			X
Sixth gear D6/D4			X		X

CLUTCH APPLICATION CHART

CLUTCH APPLICATION CHART

Gear	SS A (EDS1)	SS B (EDS2)	SSC (EDS3)	SS D (EDS4)	PC A (EDS5)	TCC (EDS6)	SS E (MV1)	REV (MV3) ⁽¹⁾
PARK				X	(1)			
REVERSE		X		X	(1)			(2)
NEUTRAL				X	(1)			

First gear manual	X			X	(1)	(1)		
Second gear manual	X		X		(1)	(1)		
Third gear manual	X	X			(1)	(1)		
First gear D6/D4	X			X	(1)	(1)		
Second gear D6/D4	X		X		(1)	(1)		
Third gear D6/D4	X	X			(1)	(1)		
Fourth gear D6/D4	X			X	(1)	(1)	X	
Fifth gear D6/D4		X		X	(1)	(1)	X	
Sixth gear D6/D4 (Overdrive)			X	X	(1)	(1)	X	
(1) TCM Controlled								
(2) Reverse back up lamps								

GEAR RATIO

GEAR RATIO

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

STALL SPEED

Engine	Min	Max
5.4L (3V)	1,650	2,150

END PLAY

END PLAY

Item	Specifications
Forward Clutch (A)	1.59-2.04 mm (0.63-0.80 inch)
Direct Clutch (B)	1.41-1.86 mm (0.056-0.073 inch)
Intermediate Clutch (C)	1.38-1.83 mm (0.054-0.072 inch)
Low/Reverse Clutch (D)	2.11-2.75 mm (0.083-0.108 inch)
Overdrive Clutch (E)	1.84-2.37 mm (0.072-0.093 inch)

CLUTCH PLATE QUANTITY

CLUTCH PLATE QUANTITY

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 inch)	1	3.0 mm (0.11 inch)
Direct Clutch (B)	5	5	2.1 mm (0.08 inch)	1	3.9 mm (0.15 inch)
Intermediate Clutch (C)	5	5	3.0 mm (0.11 inch)	1	3.9 mm (0.15 inch)
Low/Reverse (D)	5	5	2.1 mm (0.08 inch)	Select	5.4 mm (0.21 inch)
				Select	5.7 mm (0.22 inch)
			2.1 mm (0.08 inch)	Select	6.0 mm (0.23 inch)
Overdrive Clutch (E)	6	7	3.0 mm (0.11 inch)	1	3.0 mm (0.11 inch)

SHIFT SPEEDS

NOTE: Shift speed ranges are approximate for all applications. For specific applications (engine, axle ratio, tire size and application), refer to **SPECIFICATIONS** . Always drive the vehicle in a safe manner according to driving conditions and obey all traffic laws.

SHIFT SPEEDS

Throttle Position	Shift	MPH	Km/H
Light Throttle TP Voltage 1.25 Volts	1-2	12	19
	2-3	19	30
	3-4	26	42
	4-5	34	55
	5-6	44	71
Closed Throttle	6-5	39	63
	5-4	32	52
	4-3	21	34
	3-2	6	10
	2-1	2	3
Wide Open Throttle (WOT)	1-2	26	42
	2-3	53	85
	3-4	82	132

OUTPUT SHAFT END PLAY

OUTPUT SHAFT END PLAY

Item	Specifications

End play	0.15-0.35 mm (0.006-0.013 inch)
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INPUT SHAFT END PLAY

INPUT SHAFT END PLAY

Item	Specifications
End play	0.2-0.4 mm (0.008-0.015 inch)

FORWARD CLUTCH PACK

FORWARD CLUTCH PACK

Item	Specifications
Clearance	1.59-2.04 mm (0.063-0.080 inch)

DIRECT CLUTCH PACK

DIRECT CLUTCH PACK

Item	Specifications
Clearance	1.41-1.86 mm (0.056-0.073 inch)

INTERMEDIATE CLUTCH PACK

INTERMEDIATE CLUTCH PACK

Item	Specifications
Clearance	1.38-1.83 mm (0.054-0.072 inch)

LOW/REVERSE CLUTCH PACK

LOW/REVERSE CLUTCH PACK

Item	Specifications
Clearance	2.11-2.75 mm (0.083-0.108 inch)

OVERDRIVE CLUTCH PACK

OVERDRIVE CLUTCH PACK

Item	Specifications
Clearance	1.84-2.37 mm (0.072-0.093 inch)

TORQUE SPECIFICATIONS

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Description	Nm	lb-ft	lb-in
Rear transmission mount-to-crossmember nuts	103	76	-
Rear transmission support bolts	80	59	-

Rear transmission crossmember-to-frame nuts	90	66	-
Rear transmission mount bracket	65	48	-
Rear fuel line bracket bolt	25	18	-
Exhaust rubber hanger	40	30	-
Exhaust hanger-to-transmission bolts	80	59	-
Engine-to-transmission support bracket bolts	48	35	-
Exhaust heat shield	15	11	-
Transmission fluid pan bolts	8	-	71
Transmission fluid drain plug	8	-	71
Transmission fluid fill plug	35	26	-
Front pump bolts (outer)	10	-	89
Front pump bolts (inner)	15	11	-
Front pump stator-to-cover outer bolts	15	11	-
Front sway bar U-bracket bolts	102	75	-
Mechatronic bolts	8	-	71
Rear driveshaft bolts	81	60	-
Rear driveshaft flange nut	120	89	-
Starter motor bolts	26	19	-
Torque converter nuts	35	26	-
Transmission case bolts	48	35	-
Starter B+ cable	12	9	-
Starter cable (small)	6	-	53
Detent spring bolts ⁽¹⁾	-	-	-
Park lever guide plate	10	-	89
Extension housing-to-transmission (4x4)	48	35	-
Transmission fluid cooler at the transmission	23	17	-
Transmission fluid cooler tube bracket front stud bolt	27	20	-
Transmission fluid cooler tube bracket transmission-to-engine	48	35	-

bolt			
Shift cable bracket bolts	48	35	-
Flexplate inspection cover	35	26	-
Park pawl pin bolt	35	26	-
Output shaft flange nut	120	89	-

(1) Refer to the procedure below.