

SPECIFICATIONS

GENERAL SPECIFICATIONS

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| Item | Specification |
|---|---------------------|
| Fluid CAUTION: Use only MERCON® V transmission fluid. Use of any other fluids may result in transmission failure. | |
| <ul style="list-style-type: none"> • Normal maintenance; <ul style="list-style-type: none"> • Fluid change not necessary, filled for life. • Severe duty maintenance; <ul style="list-style-type: none"> • Change the fluid at 48,000 km (30,000 miles) intervals. | |
| Motorcraft MERCON® V Automatic Transmission Fluid XT-5-QM | MERCON® V |
| Fluid Capacity NOTE: Approximate dry capacity, includes cooler and tubes. Fluid level procedures should be used to determine actual fluid requirements and fluid specification. DO NOT OVERFILL. If it is necessary to add or change fluid, use only fluid which has been certified by the supplier as meeting the Ford Motor Company specification shown. | |
| 4.0L, 4.6L engine | 12.0L (12.7 Quarts) |
| Fluid Filter | |
| In-Line Fluid Filter Kit | XC3Z-7B155-AA |
| In-Line Fluid Filter | XC3Z-7B155-BA |
| Lubricant | |
| Ford Multi-Purpose Grease DOAZ-19584-AA | ESB-M1C93-B |

END PLAY SPECIFICATIONS - THRUST WASHER

END PLAY SPECIFICATIONS - THRUST WASHER

| Transmission Overdrive End Play Dimension D | Select Thrust Washer (No. 1 Nylon) | | ID: Color |
|---|------------------------------------|------------------------|-----------|
| | Part Number | Thickness | |
| 38.05-38.24 mm (1.50 in) | XW4Z-XA | 1.70-1.75 mm (0.06 in) | Brown/8 |
| 38.25-38.40 mm (1.50-1.51 in) | XW4Z-NA | 1.85-1.90 mm (0.07 in) | Red/4 |
| 38.41-38.59 mm (1.51-1.52 in) | XW4Z-RA | 2.05-2.10 mm (0.08 in) | Black/6 |
| 38.60-38.76 mm (1.52-1.54 in) | XW4Z-YA | 2.20-2.25 mm (0.09 in) | Orange/9 |
| | | | |

| | | | |
|--------------------------|---------|------------------------|-----------|
| 38.77-38.97 mm (1.53 in) | XW4Z-ZA | 2.40-2.45 mm (0.10 in) | Purple/10 |
|--------------------------|---------|------------------------|-----------|

END PLAY SPECIFICATIONS - NEEDLE BEARINGS

END PLAY SPECIFICATIONS - NEEDLE BEARINGS

| Rear (No. 4) Dimension E | Selective Needle Bearings (No. 4) | | ID: Notches |
|-------------------------------|-----------------------------------|-------------------------------|-------------|
| | Part Number | Thickness | |
| 1.69-1.87 mm (0.066-0.074 in) | XW4Z-7D014-CA | 2.65-2.80 mm (0.104-0.110 in) | 0 |
| 1.88-2.04 mm (0.074-0.080 in) | XW4Z-7D014-DA | 2.83-2.98 mm (0.110-0.116 in) | 1 |
| 2.05-2.22 mm (0.081-0.087 in) | XW4Z-7D014-EA | 3.01-3.16 mm (0.118-0.124 in) | 2 |
| 2.23-2.43 mm (0.088-0.096 in) | XW4Z-7D014-FA | 3.21-3.36 mm (0.126-0.132 in) | 3 |

TORQUE CONVERTER END PLAY SPECIFICATIONS

TORQUE CONVERTER END PLAY SPECIFICATIONS

| Transmission Model | Converter End Play | | | |
|--------------------|--------------------------|------------|----------------|------------|
| | New or Rebuilt Converter | | Used Converter | |
| | mm | inch | mm | inch |
| 5R55S (4.6L) | 0.44 max. | 0.017 max. | 0.80 max. | 0.031 max. |
| 5R55S (4.0L) | 0.58 max. | 0.023 max. | 1.27 max. | 0.050 max. |

BAND ADJUSTMENT AND TORQUE CHART

BAND ADJUSTMENT AND TORQUE CHART

| Description | No. of Turns to Back Off | Locknut | | Adjusting Screw | |
|-------------------|--------------------------|---------|-------|-----------------|-------|
| | | Nm | Lb-Ft | Nm | Lb-Ft |
| Intermediate Band | 2.0 | 54 | 40 | 14 | 10 |
| Overdrive Band | 2.0 | 54 | 40 | 14 | 10 |

SELECTIVE SNAP RINGS SPECIFICATIONS

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| Coast and Direct Clutch Drum | | | | | Forward Clutch Cylinder | | | | |
|------------------------------|-----------|--------|----------|-------|-------------------------|-----------|--------|----------|------|
| Part Number | Thickness | | Diameter | | Part Number | Thickness | | Diameter | |
| | mm | inch | mm | inch | | mm | inch | mm | inch |
| E860126-S | 1.37 | 0.0539 | 130.1 | 5.122 | | | | | |
| E860127-S | 1.73 | 0.0681 | 130.1 | 5.122 | XW4Z-7D483-AB | 1.73 | 0.0681 | 141.45 | 5.56 |
| E860128-S | 2.08 | 0.0819 | 130.1 | 5.122 | XW4Z-7D483-AC | 2.08 | 0.0819 | 141.45 | 5.56 |
| E860129-S | 2.44 | 0.0961 | 130.1 | 5.122 | XW4Z-7D483-AD | 2.44 | 0.0961 | 141.45 | 5.56 |

SERVICE IDENTIFICATION MODEL CHART

SERVICE IDENTIFICATION MODEL CHART

| 7000 Prefix and Suffix | C=Column F=Floor | Engine Displacement | Vehicle Application |
|------------------------|------------------|---------------------|---------------------|
| 4L2P-AA | C | 4.0L | 4x2 |
| 4L2P-BA | C | 4.0L | 4x4 |
| 4L2P-CB | C | 4.6L | 4x2 |
| 4L2P-DB | C | 4.6L | 4x4 |

SOLENOID OPERATION CHART

SOLENOID OPERATION CHART

| Selector Position | PCM Comman-ded Gear | SSA | SSB | SSC | SSD | PCA | PCB | PCC |
|-------------------|---------------------|-----|-----|-----|-----|--------------------|------------------|--------------------|
| R | R | On | Off | Off | Off | L/H ⁽¹⁾ | H ⁽²⁾ | H ⁽²⁾ |
| (D) | 1 | On | Off | Off | On | H ⁽²⁾ | H ⁽²⁾ | L ⁽³⁾ |
| Overdrive | 2 | On | Off | On | On | L ⁽³⁾ | H ⁽²⁾ | L ⁽³⁾ |
| | 3 | On | On | Off | On | H ⁽²⁾ | L ⁽³⁾ | L ⁽³⁾ |
| | 4 | Off | Off | Off | On | L/H ⁽¹⁾ | L ⁽³⁾ | H ⁽²⁾ |
| | 5 | Off | Off | On | On | L/H ⁽¹⁾ | H ⁽²⁾ | H ⁽²⁾ |
| Drive | 1M | On | Off | Off | Off | H ⁽²⁾ | H ⁽²⁾ | L/H ⁽¹⁾ |
| | 2M | On | Off | On | Off | H ⁽²⁾ | H ⁽²⁾ | L/H ⁽¹⁾ |
| | 3M | On | On | Off | Off | H ⁽²⁾ | H ⁽²⁾ | L/H ⁽¹⁾ |
| | 4M | Off | Off | Off | Off | L/H ⁽¹⁾ | H ⁽²⁾ | H ⁽²⁾ |

(1) Low/High line pressure
 (2) High line pressure
 (3) Low line pressure

BAND AND CLUTCH APPLICATION CHART A

BAND AND CLUTCH APPLICATION CHART A

| | Overdrive Band | Intermediate Band | Reverse Band | Forward Clutch | Direct Clutch | Coast Clutch |
|--------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|
| REVERSE | | | A ⁽¹⁾ | | A ⁽¹⁾ | Ac ⁽²⁾ |
| 1st | | | | A ⁽¹⁾ | | |
| 2nd | A ⁽¹⁾ | | | A ⁽¹⁾ | | |
| 3rd | | A ⁽¹⁾ | | A ⁽¹⁾ | | |
| 4th | | | | A ⁽¹⁾ | A ⁽¹⁾ | |
| 5th | A ⁽¹⁾ | | | A ⁽¹⁾ | A ⁽¹⁾ | |
| 1st ⁽³⁾ | | | | A ⁽¹⁾ | | |
| | | | | | | |

| | | | | | |
|--------------------|------------------|-------------------|-------------------|------------------|-------------------|
| 2nd ⁽³⁾ | A ⁽¹⁾ | | | A ⁽¹⁾ | |
| 3rd ⁽³⁾ | A ⁽¹⁾ | | | A ⁽¹⁾ | |
| 4th ⁽³⁾ | | A ⁽¹⁾ | | A ⁽¹⁾ | Ac ⁽²⁾ |
| MAN. 3rd | | Ac ⁽²⁾ | | A ⁽¹⁾ | Ac ⁽²⁾ |
| MAN. 2nd | A ⁽¹⁾ | | Ac ⁽²⁾ | A ⁽¹⁾ | |
| MAN. 1st | | | Ac ⁽²⁾ | A ⁽¹⁾ | Ac ⁽²⁾ |

(1) A = Applied

(2) Ac = Applied to carry coast torque.

(3) (D) Position (overdrive canceled)

BAND AND CLUTCH APPLICATION CHART B

BAND AND CLUTCH APPLICATION CHART B

| | Direct One-Way Clutch | | Low One-Way Clutch | | Engine Braking |
|--------------------|-----------------------|-------------------|--------------------|-------------------|----------------|
| | Drive | Coast | Drive | Coast | |
| REVERSE | H ⁽¹⁾ | OR ⁽²⁾ | NE ⁽³⁾ | | NO |
| 1st | H ⁽¹⁾ | OR ⁽²⁾ | H ⁽¹⁾ | OR ⁽²⁾ | NO |
| 2nd | OR ⁽²⁾ | OR ⁽²⁾ | H ⁽¹⁾ | OR ⁽²⁾ | NO |
| 3rd | H ⁽¹⁾ | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | NO |
| 4th | H ⁽¹⁾ | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | NO |
| 5th | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | YES |
| 1st ⁽⁴⁾ | H ⁽¹⁾ | OR ⁽²⁾ | H ⁽¹⁾ | OR ⁽²⁾ | YES |
| 2nd ⁽⁴⁾ | OR ⁽²⁾ | OR ⁽²⁾ | H ⁽¹⁾ | OR ⁽²⁾ | YES |
| 3rd ⁽⁴⁾ | H ⁽¹⁾ | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | YES |
| 4th ⁽⁴⁾ | H ⁽¹⁾ | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | Yes |
| MAN. 3rd | H ⁽¹⁾ | OR ⁽²⁾ | OR ⁽²⁾ | OR ⁽²⁾ | YES |
| MAN. 2ND | OR ⁽²⁾ | OR ⁽²⁾ | H ⁽¹⁾ | OR ⁽²⁾ | YES |
| MAN. 1ST | H ⁽¹⁾ | OR ⁽²⁾ | H ⁽¹⁾ | OR ⁽²⁾ | YES |

(1) H = Hold

(2) OR = Overrunning

(3) NE = No Effect

(4) (D) Position (overdrive canceled)

LINE PRESSURE CHART 4.0L

LINE PRESSURE CHART 4.0L

| Transmission Application | Range | Idle | | WOT Stall | |
|--------------------------|-------|-------------|-------------|-------------|-------------|
| | | PC C | Line | PC C | Line |
| | | 621-827 kPa | 690-965 kPa | 772-924 kPa | 1,944-2,620 |

| | | | | | |
|------|------------|----------------------|--------------------------|----------------------|-------------------------------|
| 4.0L | R | (90-120 psi) | (100-140 psi) | (112-134 psi) | kPa (282-380 psi) |
| | N | 0-103 kPa (0-15 psi) | 621-827 kPa (90-120 psi) | | |
| | D) 3, 2, 1 | 0-103 kPa (0-15 psi) | 621-758 kPa (90-110 psi) | 0-103 kPa (0-15 psi) | 1,572-1,813 kPa (228-263 psi) |

LINE PRESSURE CHART 4.6L

LINE PRESSURE CHART 4.6L

| Transmission Application | Range | Idle | | WOT Stall | |
|--------------------------|------------|--------------------------|--------------------------|---------------------------|-------------------------------|
| | | PC C | Line | PC C | Line |
| 4.6L | R | 621-827 kPa (90-120 psi) | 621-827 kPa (90-120 psi) | 772-924 kPa (112-134 psi) | 1,944-2,620 kPa (282-380 psi) |
| | N | 0-103 kPa (0-15 psi) | 621-827 kPa (90-120 psi) | | |
| | D) 3, 2, 1 | 0-103 kPa (0-15 psi) | 552-758 kPa (80-110 psi) | 0-103 kPa (0-15 psi) | 1,572-1,813 kPa (228-263 psi) |

STALL SPEED CHART

STALL SPEED CHART

| Engine | RPM |
|--------|-------------|
| 4.0L | 2,566-3,000 |
| 4.6L | 2,584-3,014 |

SHIFT SPEEDS - 4.0L

SHIFT SPEEDS - 4.0L

| Vehicle Information | Throttle Position | (D) | Speed km/h (mph) |
|---------------------|-------------------|-------|------------------|
| | | Shift | Axle Ratio All |
| 4.0L | Closed | 5-4 | 48-54 (30-34) |
| | | 4-3 | 32-35 (20-22) |
| | | 3-1 | 11-14 (7-9) |
| | Minimum | 1-2 | 19-22 (12-14) |
| | Monitor PID: | 2-3 | 27-31 (17-19) |
| | TP volt-1.25 | 3-4 | 38-45 (24-28) |
| | | 4-5 | 58-64 (36-40) |
| | Wide Open | 1-2 | 53-60 (33-37) |
| | | 2-3 | 79-87 (49-54) |
| | | 3-4 | 123-134 (77-83) |

SHIFT SPEEDS - 4.6L

SHIFT SPEEDS - 4.6L

| Vehicle Information | Throttle Position | (D) | Speed km/h (mph) |
|---------------------|-------------------|-------|------------------|
| | | Shift | Axle Ratio All |
| 4.6L | Closed | 5-4 | 40-47 (25-29) |
| | | 4-3 | 24-29 (15-18) |
| | | 3-1 | 10-13 (6-8) |
| | Minimum | 1-2 | 15-18 (9-11) |
| | Monitor PID: | 2-3 | 26-32 (16-20) |
| | TP volt-1.25 | 3-4 | 33-40 (21-25) |
| | | 4-5 | 60-68 (37-42) |
| | Wide Open | 1-2 | 53-60 (33-37) |
| | | 2-3 | 79-87 (49-54) |
| | | 3-4 | 123-134 (77-83) |

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

| Description | Nm | lb-ft | lb-in |
|---|----|-------|-------|
| Case-to-center support bolt | 11 | 8 | - |
| Digital transmission range (TR) sensor screws | 10 | - | 89 |
| Extension housing screws | 30 | 22 | - |
| Fluid level indicator plug-to-drain pipe assembly | 10 | - | 89 |
| Fluid pan drain plug | 26 | 19 | - |
| Fluid pump housing screws | 25 | 18 | - |
| Locknut for band adjustment screw | 54 | 40 | - |
| Main control-to-case screws (all) | 10 | - | 89 |
| Manual control valve detent spring screw | 10 | - | 89 |
| Manual control lever shaft nut | 48 | 35 | - |
| Band adjustment screw | 14 | 10 | - |
| Pressure tap plug to case | 14 | 10 | - |
| Fill plug | 20 | 15 | - |
| Reverse servo assembly screws | 11 | 8 | - |
| Separator-to-main control screws | 10 | - | 89 |
| Shift cable bracket | | | |

| | | | |
|--|----|----|----|
| screws | 40 | 30 | - |
| Solenoid body screws | 8 | - | 71 |
| Speed sensor screws | 14 | 10 | - |
| Torque converter adapter plate-to-converter nuts | 38 | 28 | - |
| Torque converter adapter plate-to-flexplate nuts | 38 | 28 | - |
| Transmission cooler fitting-to-case | 47 | 35 | - |
| Transmission cooler tube nut-to-case fitting | 30 | 22 | - |
| Transmission fluid filter screws | 10 | - | 89 |
| Transmission fluid pan-to-case screws | 11 | 8 | - |
| Transmission mount-to-extension housing screws | 90 | 66 | - |
| Transmission mount-to-crossmember nuts | 90 | 66 | - |
| Transmission-to-engine screws | 48 | 35 | - |
| Vehicle harness-to-solenoid body screw | 5 | - | 44 |