

## TRANSMISSION REMOVAL & INSTALLATION - M/T

### MANUAL TRANSMISSION REMOVAL Ford Motor Co. - MTX-75 5-Speed

## REMOVAL & INSTALLATION

### TRANSMISSION

**CAUTION:** When battery is disconnected, vehicle computer may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See the **COMPUTER RELEARN PROCEDURES** article in the **GENERAL INFORMATION** section before disconnecting battery.

**CAUTION:** If engine and transaxle support insulator or upper front engine support insulator are removed, engine and transaxle position **MUST** be realigned to front sub-frame. Failure to realign engine and transaxle may result in component damage.

### Removal & Installation

1. Remove battery. On 2.5L models, remove battery tray. On all models, secure radiator, cooling fan and fan shroud to radiator support using mechanics wire. Loosen left and right shock strut upper mounting nuts 5 turns. Remove mass airflow sensor and air cleaner outlet tube with resonator. Install 3-Bar Engine Support (D88L-6000-A).
2. Disconnect back-up light switch connector transaxle ground strap. On 2.5L models, remove water pump pulley shield. Remove bolts retaining engine and transaxle support insulator to left fender apron. Remove retaining nuts and engine and transaxle support insulator. Discard retaining nuts. Disconnect hydraulic line and grommet from bracket.
3. Remove rubber inspection cover from clutch housing. Remove retaining clip and disconnect hydraulic line fitting. Position hydraulic line aside. Remove upper transaxle-to-engine bolt and 2 upper starter motor retaining bolts with ground strap. On 2.0L models, remove exhaust manifold heat shield and catalytic convertor-to-exhaust manifold nuts.
4. On all models, raise and support vehicle. Remove front wheels. Remove accessory drive belt pulley cover. On 2.0L models, remove catalytic convertor. On 2.5L models, remove "Y" pipe. On all models, disconnect vehicle speed sensor electrical connector. Disconnect speedometer cable. Remove lower radiator air deflector.
5. Push shift rod forward and remove shift rod pinch bolt. Pull shift rod back and remove from transaxle. Remove shift control stabilizer bar. Remove shift control stabilizer bar bracket from right engine support insulator bracket. Remove underbody heat shield from under gearshift control. Position shift rod and stabilizer bar aside to allow transaxle removal.
6. Remove 2 screws retaining receiver-drier to front sub-frame. Remove axle shafts. See the **AXLE SHAFT** article in **DRIVE AXLES** section. Remove right engine support insulator. Remove left engine support insulator through bolt. Lower vehicle and adjust engine support to relieve tension from right front engine support bracket through bolt.
7. Remove right front engine support bracket through bolt. Raise vehicle. On 2.0L models, remove oil level dipstick and exhaust manifold heat shield. On all models, disconnect steering column from steering gear at pinch bolt. Disconnect left and right tie rod ends. Remove left and right lower control arm ball joint pinch bolts.

8. Disconnect stabilizer bar links. Remove front sub-frame splash shield. Disconnect power steering oil cooler hoses at right front of sub-frame and drain power steering fluid. Remove 4 bolts retaining lower radiator supports to sub-frame and rotate radiator supports forward. Remove 2 screws retaining bumper cover braces to sub-frame and rotate braces forward.
9. Secure wood blocks approximately 40" (1016 mm) in length to appropriate lift and position under sub-frame. Remove 4 sub-frame-to-body retaining bolts. Lower sub-frame slightly and disconnect power steering hoses. Remove sub-frame from vehicle. Lower vehicle and loosen front mount retaining nuts 5 turns. Support transaxle using floor jack and wood block.
10. Release tension from engine support. Lower transaxle to limit of front engine mount movement. Adjust engine support to hold engine. Remove floor jack and wood block. Secure transaxle to transaxle jack. Remove remaining starter motor bolt and position aside. Support starter motor with wire. Remove 2 bolts retaining engine oil pan to transaxle. Remove remaining bolts, separate transaxle from engine and remove from vehicle.
11. To install, reverse removal procedure. Install NEW self-locking engine and transaxle support insulator-to-transaxle nuts. Install NEW axle shaft nut, NEW circlips on ends of axle shafts and NEW nut and bolt when attaching lower control arm ball joint to steering knuckle.
12. Align front sub-frame using Sub-Frame Alignment Pin Set (T94P-2100-AH). Align engine and transaxle position using Powertrain Alignment Gauge (T94P-6000-AH).

## TORQUE SPECIFICATIONS

### TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Ball Joint Pinch Bolt	37-43 (50-58)
Engine Support Mount Bolts/Nuts	
Front Supports-To-Sub-Frame	30-41 (41-56)
All Others	52-70 (71-95)
Engine Support Through Bolts	75-102 (102-138)
Flywheel Bolts	83 (113)
Front Engine Support Nuts	52-70 (71-95)
Lug Nuts	63 (85)
Pressure Plate Bolts	13-18 (18-24)
Shift Rod Pinch Bolt	14-18 (19-24)
Shock Strut Upper Mounting Nut	34 (46)
Stabilizer Bar Nut	28-38 (38-52)
Starter Motor Bolt	35 (47)
Steering Column Pinch Bolt	18 (24)
Sub-Frame-To-Body Bolts	81-110 (110-150)
Transaxle-To-Engine Bolts	
Upper (2)	28-38 (38-52)
All Others	30 (41)
Wheel Lug Nut	85-105 (115-142)