

FORD MOTOR CO. (Cont.)

FORD MOTOR CO. TIGHTENING SPECIFICATIONS (Cont.)

V6 MODELS

Application	Ft. Lbs.
Motor Mount-to-Engine	35-60
Motor Mount Through-Bolt	20-30
Motor Mount Bracket-to-Frame	20-30
Rear Mount-to-Trans.	40-60
Rear Mount-to-Crossmember	
Pinto & Bobcat	30-45
Mustang II	20-30
Crossmember-to-Frame	20-30

V8 MODELS

Application	Ft. Lbs.
302" & 351" W	
Motor Mount-to-Engine	35-60
Motor Mount Bracket-to-Frame	
Granada, Monarch & Versailles	35-60
Comet & Maverick	20-37
LTD II, Cougar & Thunderbird	35-50
Mustang II	20-30
Motor Mount Through-Bolt	
Comet, Maverick & Mustang II	20-30
Rear Mount-to-Trans.	
Man. Trans. With Floor Shift	17-32
All Others	40-60
Rear Mount-to-Crossmember	30-50
Crossmember-to-Frame	20-30

V8 MODELS (Cont.)

Application	Ft. Lbs.
351" M & 400"	
Motor Mount-to-Engine	35-60
Motor Mount Bracket-to-Frame	
LTD II, Cougar, Thunderbird, & Continental Mark V	35-50
Ford & Mercury	20-35
Lincoln Continental	40-55
Motor Mount Through-Bolt	
Ford & Mercury	20-35
Rear Mount-to-Transmission	40-60
Rear Mount-to-Crossmember	
LTD II, Cougar & Thunderbird	20-35
Ford & Mercury	25-40
Lincoln Continental & Mark V	30-50
460"	
Motor Mount-to-Engine	35-60
Motor Mount Bracket-to-Frame	
Ford & Mercury	25-40
Lincoln Continental & Mark V	35-50
Motor Mount Through-Bolt	20-35
Rear Mount-to-Transmission	
Ford & Mercury	40-60
Mark V	20-35
Rear Mount-to-Crossmember	
Ford & Mercury	25-40
Mark V	30-50

GENERAL MOTORS

BUICK

V6 & V8 MODELS

1) Remove hood and mark hinges for installation. Disconnect battery, remove air cleaner and drain cooling system. Remove air conditioning compressor (if equipped) from mount without disconnecting lines and position out of way. Remove fan pulleys and drive belts. Disconnect radiator hoses and remove fan shroud.

2) On models equipped with 305", 350" (VIN L & R) or 403" V8, remove radiator. Remove power steering pump (if equipped) from mount without disconnecting lines and position out of way. Disconnect all electrical and vacuum connections at engine. Disconnect accelerator cable or linkage at carburetor.

3) Raise vehicle and position on safety stands. Disconnect exhaust pipes at exhaust manifolds. Remove flywheel or converter housing cover. Scribe mark aligning converter to flex plate for installation. Remove converter-to-flex plate bolts.

NOTE — The remainder of the engine removal procedure will vary depending on model and engine as follows:

4) **All Models W/231" V6, 305", 350" (VIN H, J, & L) & 403" V8** — Remove starter cable and cable shield from

engine. If equipped with automatic transmission, remove transmission-to-engine bolts.

NOTE — Manual transmission is removed with engine. On manual transmission models, remove drive shaft, shift linkage, clutch equalizer shaft and transmission mount. On all models, remove motor mount fasteners, lower vehicle and support automatic transmission with a jack and a wood block.

5) Attach a suitable hoist to engine and raise enough to take weight off front engine mounts. Remove front mount through bolts. Raise engine and transmission support until engine and automatic transmission can be separated and remove engine. Remove engine and manual transmission assembly (if equipped).

4) **All Models W/350" (VIN R) & 403" V8** — Remove motor mount bolts. Remove three bolts on right side securing engine-to-transmission. Remove starter with wires attached and secure starter to frame, out of way.

5) Lower vehicle and support transmission with a jack and a wood block. Remove three bolts on left side securing engine to transmission. Attach a suitable hoist to engine and remove engine.

Engine Removal

GENERAL MOTORS (Cont.)

BUICK (Cont.)

BUICK TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
All Models W/231" V6	
Motor Mount Bracket-to-Frame	25-35
Motor Mount-to-Engine	50-65
Motor Mount Through Bolt	
All Except Skyhawk	40-55
Skyhawk	25-35
Clutch Housing or Auto. Trans-to-Engine	35
All Models With V8	
Motor Mount Bracket-to-Frame	25-35
Motor Mount-to-Engine	50-65
Motor Mount Through-Bolt	40-55
Rear Mount-to-Transmission	45
Rear Mount-to-Crossmember	60

CADILLAC

CAUTION — Do not loosen fittings on fuel injection system until pressure is first bled from system by opening Schrader fitting on fuel rail near pressure regulator. When opening fitting, place rags or container near fitting to catch any fuel spillage.

ALL MODELS, EXC. ELDORADO & SEVILLE

- 1) Remove hood and mark hinges for installation. Disconnect battery, remove air cleaner and inlet resonator assembly, and drain cooling system. Remove retaining screws for each wheel housing strut-to-radiator cover and position struts to side. Remove radiator hoses, radiator cover and fan.
- 2) Disconnect wiring harness and all electrical connections to engine. Disconnect Cruise Control servo from left cylinder head and brake hose from brake pipe. Disconnect throttle linkage and vapor canister hose. Detach power steering pump and air conditioning compressor without disconnecting hoses and position to one side.
- 3) Disconnect spark plug wires from right side of engine. Disconnect vacuum lines, heater hoses at right cylinder head. Loosen tie struts and swing to one side. Remove two upper transmission-to-engine bolts.
- 4) Raise vehicle and position on safety stands. Remove nuts securing front engine mounts to frame. Remove starter, converter inspection cover and bolts securing converter to flex plate. Remove remaining bolts securing engine to transmission. Disconnect exhaust pipes at exhaust manifolds.
- 5) Disconnect fuel line and vapor return line (if equipped with air conditioning) from fuel pump. Lower vehicle and support transmission with a jack. Move right side lifting bracket to a **position** so it straddles intake passage for number one

cylinder. On engines with fuel injection, install suitable lifting bracket (J-25511). Attach suitable hoist to engine, pull engine forward to separate engine and transmission and remove engine.

ELDORADO

- 1) Remove hood and mark hinges for installation. Disconnect battery, remove air cleaner and inlet resonator assembly, and drain cooling system. Remove upper radiator hose, radiator cover and fan assembly. Disconnect alternator wires, right side spark plug wires and heater turn-on switch. Disconnect water control valve hose and starter motor wiring harness.
- 2) Remove power steering pump without disconnecting hoses and position to side. Remove air conditioning compressor mounts, disconnect electrical lead and move compressor to top of battery.
- 3) Disconnect accelerator linkage, wiring harness on left side of engine and vacuum lines. Remove left exhaust manifold flange nuts, transmission cooler line bracket screw and filler pipe nut from exhaust manifold. Position right engine lift hook over number one intake port. On engine with fuel injection, install suitable lifting bracket (J-25511). Remove upper screw securing steering gear flex coupling shroud to frame.
- 4) Raise vehicle and position on safety stands. Remove steering gear shroud. Remove bolt securing final drive to mount and disconnect fuel pump lines. Remove front engine mount nuts, lower radiator hose, right exhaust manifold flange nuts, and starter motor without disconnecting wiring. Remove converter inspection cover and bolts securing converter to flex plate.