

Engine Removal

FORD MOTOR CO.

4 CYLINDER MODELS

- 1) Mark hinges for reinstallation and remove hood. Drain crankcase and cooling system. Remove air cleaner and exhaust manifold shroud. Disconnect all electrical wiring, vacuum hoses and water hoses. Remove radiator and fan. Remove A/C compressor from mounting bracket and lay aside with refrigerant lines attached.
- 2) Disconnect flexible fuel line from fuel tank line and remove starter. Raise vehicle and remove flywheel or converter housing upper bolts. Disconnect exhaust pipe at manifold, then right and left engine mounts at underbody bracket. Remove flywheel or converter housing cover.
- 3) With manual transmission, remove flywheel housing lower bolts. With automatic transmission, disconnect converter from flywheel and remove converter housing lower bolts.
- 4) Lower vehicle and support transmission on a jack. Attach suitable hoisting tackle to engine lifting brackets and remove engine from vehicle.

6 CYLINDER MODELS

- 1) Mark hinges for installation and remove hood. Drain crankcase and cooling system, disconnect battery and remove air cleaner. Disconnect all radiator and heater hoses and remove radiator. Remove fan, spacer, belt, and pulley. Disconnect accelerator linkage, fuel line, all electrical connections, and vacuum lines at engine.

NOTE — If engine is equipped with Thermactor system, remove or disconnect all components of system that will interfere with removal of engine.

- 2) On models equipped with power steering or air conditioning, remove unit from mount and lay aside with hoses attached. Remove starter.
- 3) On manual transmissions, disconnect the clutch retracting spring. Disconnect clutch equalizer shaft and arm bracket at underbody rail and remove.
- 4) Raise vehicle and remove flywheel or converter housing upper attaching bolts. Disconnect muffler inlet pipe at exhaust manifold. Disconnect right and left engine mounts at underbody bracket. Remove flywheel or converter housing cover and lower attaching bolts.
- 5) Lower vehicle and support transmission on a jack. Attach suitable hoisting tackle to engine lifting brackets and remove engine from vehicle.

V6 MODELS

- 1) Mark hinges for reinstallation and remove hood. Drain cooling system and crankcase, then disconnect battery cables.

Remove air cleaner and intake duct assembly. Disconnect all coolant and vacuum hoses and fuel lines. Remove radiator and fan shroud.

NOTE — If engine is equipped with Thermactor system, remove or disconnect all components of system that will interfere with removal of engine.

- 2) Disconnect alternator ground wire and remove alternator with bracket. Disconnect all wiring, engine-to-body ground straps, carburetor linkage, and brake booster line. Raise vehicle, remove starter, and disconnect exhaust pipes from manifolds. Remove front support through-bolts.
- 3) On automatic transmissions, remove converter inspection cover, disconnect flywheel from converter, remove downshift rod, and remove converter housing-to-engine block bolts. Remove adapter plate-to-converter housing bolts.
- 4) On manual transmissions, remove clutch linkage and remove bell housing-to-engine block bolts. Lower vehicle and support transmission. Attach suitable lifting sling to lifting brackets at exhaust manifolds. Carefully remove engine from vehicle.

V8 MODELS

- 1) Mark hinges for reinstallation and remove hood. Drain crankcase and cooling system. Disconnect battery and alternator ground cables from engine. Remove air cleaner and intake duct assembly. Disconnect all coolant and vacuum hoses, fuel lines and transmission oil cooler lines.

NOTE — If engine is equipped with Thermactor system, remove or disconnect all components of system that will interfere with removal of engine.

- 2) Remove radiator, A/C condenser, fan, spacer, pulley and shroud. Position alternator and power steering pump out of way. Isolate A/C compressor and remove.
- 3) Disconnect all wiring and transmission and carburetor linkage. Remove flywheel or converter housing upper bolts, engine-to-body ground straps, and raise vehicle. Remove starter and disconnect exhaust pipes from manifolds.
- 4) On manual transmission vehicles, remove clutch equalizer bar and any other clutch linkage. Remove lower flywheel housing-to-engine bolts. On vehicles with automatic transmission, remove converter housing cover and disconnect flywheel from converter. Secure converter assembly in housing, and remove lower converter housing-to-engine bolts. Remove engine front support bolts on all models.
- 5) Lower vehicle and support transmission with floor jack. Attach suitable lifting sling to engine lifting brackets. Lift engine slightly and pull forward and away from transmission. Lift engine out of vehicle.

FORD MOTOR CO. TIGHTENING SPECIFICATIONS

4 CYLINDER 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-Transmission	40-60
Rear Mount-to-Crossmember	30-45
Crossmember-to-Frame	20-30

6 CYLINDER MODELS

Application	Ft. Lbs.
Motor Mount Bracket-to-Engine	17-32
Motor Mount Bracket-to-Frame	①30-50
Motor Mount-to-Engine Bracket	20-32
Motor Mount-to-Frame Bracket	40-60

