

Engine Removal

AMERICAN MOTORS

4 CYLINDER MODELS

1) Mark hinges for reinstallation and remove hood. Disconnect battery negative cable. Drain cooling system, disconnect lower and upper radiator hoses, remove fan shroud and fan. Remove radiator. Disconnect all lines, wires, cables and linkage from engine. Remove air cleaner, if equipped with A/C disconnect and move to one side.

2) Raise vehicle and support with safety stands. Remove engine mount nuts at crossmember. Disconnect cable and solenoid wire from starter. Loosen crossmember, lower it slightly and remove: cooler lines and speedometer cable at transmission, transmission linkage and backup light switch.

3) Remove transmission rear mount. Remove crossmember, exhaust pipe-to-manifold nuts and tie exhaust pipe to strut rod bushing with wire. Mark propeller shaft and remove. Lower vehicle, using engine sling connected to rear bracket (attached to cylinder head) and air conditioner or alternator mounting bracket, raise and remove engine and transmission assembly.

6 CYLINDER MODELS

1) Mark hinges for reinstallation and remove hood. Remove air cleaner and battery. Drain cooling system and crankcase. Remove radiator assembly and engine fan. Disconnect all wires, cables, lines, hoses and linkage from engine and transmission.

2) Remove and plug flexible fuel line from pump. Disconnect engine ground strap and remove right front engine support cushion to bracket screw. Disconnect and remove power steering pump hoses, bracket and pump.

3) Discharge A/C refrigerant from compressor, remove condenser and receiver assembly. Raise vehicle and support with safety stands. Disconnect exhaust pipe at manifold. Remove starter. If equipped with automatic transmission: Remove con-

verter housing spacer cover, remove converter drive screws. If equipped with manual transmission: Remove clutch housing cover and clutch bellcrank inner support screws. Disconnect springs and remove bellcrank. Remove outer bellcrank-to-strut rod bracket retainer.

4) On Eagle only, support axle assembly, remove bolts from axle bracket at axle tube and right engine support cushion, remove axle bracket. Remove bolts from axle bracket at pinion end of axle. Remove bolts at left engine support cushion-to-front axle bracket. Lower axle assembly only enough to allow oil pan clearance.

5) On all models, disconnect exhaust pipe from manifold. Remove upper converter (or clutch) housing screws and loosen bottom screws. Lift vehicle and move support stands to jack pad area. Remove A/C idler pulley and mounting bracket, if equipped.

6) Install lifting device to engine, raise engine off front supports. Place support stand under converter (or clutch) housing. Remove remaining housing screws, lift engine out of vehicle.

AMERICAN MOTORS

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Motor Mount Bracket-to-Engine	
Eagle	45
All Others	35
Motor Mount-to-Crossmember	37
Motor Mount-to-Bracket	33
Front Crossmember-to-Frame	65
Rear Mount Bracket-to-Transmission	33
Rear Mount-to-Crossmember	18
Rear Crossmember-to-Frame	30

CHRYSLER CORP.

4 CYLINDER MODELS

NOTE — Remove engine and transmission as an assembly.

1) Disconnect battery. Mark hinges for reinstallation and remove hood. Drain cooling system and remove hoses and oil lines from radiator and engine. Remove radiator and air cleaner. Remove air conditioning compressor without disconnecting lines.

2) Disconnect all hoses, lines, electrical leads, and linkage from engine, carburetor and transmission. Remove air diverter valve and lines from air pump. Remove alternator belt and alternator.

3) Raise vehicle and disconnect drive shaft from transmission. Disconnect exhaust pipe from manifold and remove air pump. Remove transmission linkage and lower vehicle from hoist.

4) Attach lifting fixture to engine and transmission assembly and raise slightly to remove engine mounts. Lift assembly from vehicle.

NOTE — Align dimple mark on flywheel with indicator on housing before separating engine from transmission.

6 CYLINDER MODELS

Engine & Transmission Removal

1) Mark hinges for installation and remove hood. Disconnect battery, drain cooling system, and remove air cleaner. Disconnect radiator and heater hoses, and remove radiator. Remove air conditioning compressor and/or power steering pump (if equipped) without disconnecting lines, and position out of way. Disconnect hoses at valve cover and all electrical leads and vacuum hoses at engine. Disconnect fuel line at fuel pump and accelerator linkage at carburetor. Disconnect exhaust pipe at manifold flange.

CHRYSLER CORP. (Cont.)

2) Raise vehicle and position on safety stands. If equipped with automatic transmission, drain converter housing and transmission, remove filler tube and cooler lines. If equipped with manual transmission, disconnect clutch linkage and remove clutch shaft. On all transmissions, disconnect speedometer cable and shift linkage, and remove drive shaft. Position a suitable support under rear of engine. Remove transmission crossmember and remove transmission. Lower vehicle and attach a suitable hoist to engine. Remove engine support and remove engine mounts. Raise engine out of vehicle.

Engine Removal

1) Mark hinges for installation and remove hood. Disconnect battery, drain cooling system, and remove air cleaner. Disconnect radiator and heater hoses, and remove radiator. Remove air conditioning compressor and/or power steering pump (if equipped) without disconnecting lines, and position out of way. Disconnect all electrical leads and vacuum hoses at engine. Disconnect accelerator linkage at carburetor.

2) Remove distributor cap and wiring. Remove starter, alternator, charcoal canister, and horns. Disconnect exhaust pipe at manifold flange. Remove transmission-to-engine bolts and remove inspection cover. Remove flex plate-to-converter bolts (mark position of converter flex plate for reassembly). Support transmission and attach a suitable hoist to engine. Remove engine front mount bolts and remove engine.

V8 MODELS

Engine & Transmission Removal

1) Mark hinges for installation and remove hood. Disconnect battery, drain cooling system, and remove air cleaner. Disconnect radiator and heater hoses, and remove radiator and shroud. Remove air conditioning compressor and/or power steering pump (if equipped) without disconnecting lines, and position out of way. Disconnect all electrical leads and vacuum hoses at engine. Disconnect fuel line at fuel pump and accelerator linkage at carburetor.

2) Attach lifting device to engine and raise vehicle. Support rear of engine on safety stands. Disconnect exhaust pipes at manifold flanges. If equipped with automatic transmission, drain fluid and remove filler tube and cooler lines. If equipped with manual transmission, disconnect clutch linkage and remove clutch shaft. On all vehicles, disconnect speedometer cable and drive shaft. Remove transmission-to-engine bolts,

detach rear crossmember and remove transmission. Lower vehicle and remove front engine mounts. Lift engine from vehicle.

Engine Removal

1) Mark hinges for installation and remove hood. Disconnect battery, drain cooling system, and remove air cleaner. Disconnect radiator and heater hoses, and remove radiator. Remove air conditioning compressor and/or power steering pump (if equipped) without disconnecting lines, and position out of way. Disconnect all electrical leads and vacuum hoses. Disconnect accelerator linkage at carburetor. Remove carburetor.

2) Remove distributor cap and wiring. Remove starter, alternator, charcoal canister, and horns. Disconnect exhaust pipes at manifold flanges. Remove transmission-to-engine bolts and remove inspection cover. Remove flex plate-to-converter bolts (Mark position of converter flex plate for reassembly). Use "C" clamp to hold torque converter in housing. Disconnect engine from torque converter drive plate. Attach suitable hoist to engine and remove front mount bolts. Lift out engine.

CHRYSLER CORP. TIGHTENING SPECIFICATIONS 4 CYLINDER MODELS	
Application	Ft. Lbs.
Motor Mount-to-Engine	
Front	40
Right Side	20
Left Side	40
Motor Mount-to-Frame	
Front	40
Right Side	40
Left Side	40
6 CYLINDER & V8 MODELS	
Application	Ft. Lbs.
Motor Mount-to-Engine	65
Motor Mount-to-Bracket Nut	75
Rear Mount-to-Extension	50
Rear Mount-to-Crossmember Nut	50
Rear Crossmember-to-Frame	①30
① — 75 ft. lbs. for V8 Models.	

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 hous-

ing 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.