

# Engine Removal

## GENERAL MOTORS (Cont.)

### CADILLAC (Cont.)

CADILLAC TIGHTENING SPECIFICATIONS ELDORADO	
Application	Ft. Lbs.
Front Mount Support Bracket-to-Engine Nut .....	21
Front Support Cushion-to-Frame Nut .....	35
Front Support Cushion-to-Engine Mounting Bracket Nut .....	57
Rear Support Bracket-to-Transmission Bolt .....	50
Rear Support Assembly-to-Bracket .....	46
Rear Support Assembly-to-Frame .....	52
Transmission-to-Engine Bolts .....	35
SEVILLE	
Application	Ft. Lbs.
Engine Mount-to-Cylinder Block .....	65
Engine Mount-to-Frame .....	30
Engine Mount-Through Bolt .....	30
Transmission-to-Engine Bolts .....	35

### CHEVROLET

#### 4 CYLINDER MODELS

1) Disconnect battery cables, all water, vacuum and emission control hoses. Disconnect all wires at sending units, switches and solenoids. Remove radiator panel or shroud, radiator, fan and spacer. Position power steering pump and/or air conditioning compressor (if equipped) out of way without disconnecting hoses.

2) Raise vehicle and disconnect exhaust pipe at manifold. Remove flywheel inspection cover or converter underpan. If equipped with automatic transmission, remove converter-to-flex plate bolts and install converter safety strap. Remove converter housing or clutch housing bolts. Loosen engine front mounts at frame.

3) Lower vehicle and position jack under transmission for support. Using a suitable hoist, raise engine enough to take weight off of engine. Remove front engine mount bolts. Pull engine forward to separate from transmission and remove engine.

#### 6 CYLINDER MODELS

1) Mark hinges and remove hood. Disconnect battery, remove air cleaner and drain cooling system.

**NOTE** — On VIN code "M" model, remove radiator.

2) Remove fan shroud, pulley and fan. Disconnect all electrical wiring, water and vacuum hoses, and fuel inlet line at fuel pump.

3) Disconnect accelerator linkage at bell crank and exhaust pipe at manifold. Remove power steering pump and bracket (if equipped) without disconnecting hoses and position out of way.

4) Raise vehicle and position on safety stands, drain crankcase. Remove drive shaft and plug end of shaft. Disconnect transmission cooler lines (if equipped), shift linkage at transmission, speedometer cable, and TCS switch (if equipped) at transmission.

5) On manual transmissions, disconnect clutch linkage at cross-shaft and remove cross-shaft. Lower vehicle and connect a suitable hoist to engine. Raise engine enough to take weight off front engine mount bolts and remove bolts. Remove rear mount bolt at crossmember and remove engine and transmission assembly.

#### V8 MODELS

**NOTE** — On VIN code "U" & "L" models, remove radiator.

1) Mark hinges and remove hood. Disconnect battery, remove air cleaner and drain cooling system. Remove fan shroud and pulley. Disconnect all electrical wiring, vacuum and water hoses. Disconnect accelerator linkage at inlet manifold and fuel hose at fuel pump. Disconnect fuel vapor storage canister hose (if equipped).

2) Disconnect vacuum line to power brake unit at manifold. Remove power steering pump (if equipped) and set aside. Raise vehicle and disconnect exhaust pipes at manifolds. Disconnect (if equipped) converter bracket at transmission rear mount. Remove starter, and as applicable, flywheel splash shield or converter housing cover.

3) On vehicles with automatic transmission, remove converter to flywheel attaching bolt. Remove mount through bolts. Remove bell housing bolts. Lower vehicle and raise transmission using a floor jack. Attach engine lifting device and raise engine. Remove motor mount to engine brackets and remove engine assembly.

## GENERAL MOTORS (Cont.)

### CHEVROLET (Cont.)

CHEVROLET TIGHTENING SPECIFICATIONS MONZA & CHEVETTE	
Application	Ft. Lbs.
Converter-to-Flywheel .....	35
Flywheel Housing-to-Engine .....	25
Crossmember-to-Frame .....	40
Crossmember-to-Transmission	
Center Nut .....	33
End Nut .....	21
ALL OTHER MODELS	
Application	Ft. Lbs.
Converter-to-Flywheel.....	35
Flywheel Housing-to-Engine	
All Exc. THM 200 .....	35
THM 200.....	25
Crossmember-to-Frame.....	25
Crossmember-to-Mount .....	40
Mount-to-Transmission.....	35

## OLDSMOBILE

### 4 CYLINDER MODELS

1) Mark hinges and remove hood. Disconnect battery, drain cooling system and remove all water and vacuum hoses from engine. Disconnect electrical wiring and remove air cleaner. Remove shroud and fan assembly. Disconnect fuel lines, hoses and linkage from carburetor.

2) If equipped, remove power steering pump and A/C compressor without disconnecting hoses. Position to one side to clear engine. Raise vehicle on hoist and disconnect exhaust pipe from manifold. Drain crankcase.

**Manual Transmission** — Disconnect clutch linkage and remove cross shaft. Remove bell housing bolts, starter wiring and motor mount bolts.

**Automatic Transmission** — Remove converter cover and retaining bolts. Disconnect transmission filler tube support and starter wiring. Slide converter to rear and remove motor mount bolts.

**All Models** — Lower vehicle and use jack and block of wood to support transmission. Install lifting device and raise engine slightly to remove front engine mounts. Tilt engine up in front to remove from vehicle.

### V6 MODELS

**NOTE** — Manual transmission and engine are removed as an assembly.

1) Remove hood and mark hinges for installation. Disconnect battery, remove air cleaner and drain cooling system.

Disconnect all electrical leads at engine. Disconnect engine-to-body ground strap. Remove air conditioning compressor, without disconnecting lines, and position off to side.

2) Remove fan blade, pulleys and belts. Disconnect radiator and heater hoses from engine. Remove fan shroud assembly. Remove power steering pump, without disconnecting lines, and position off to side. Remove fuel pump hose and all vacuum lines at engine.

3) Disconnect throttle cable and downshift cable at carburetor. Raise vehicle and disconnect starter cables and cable shield from engine. Disconnect exhaust pipes from manifolds. Remove lower flywheel cover or converter cover.

4) Scribe a mark on the converter and flywheel for reassembly alignment. Remove flywheel to converter attaching bolts. If equipped with automatic transmission, remove transmission to engine bolts. On manual transmission models, remove drive shaft, shift linkage, clutch equalizer shaft and transmission mount.

5) On all models, remove motor mount fasteners. Lower vehicle and support automatic transmission. Attach a suitable hoist to engine and raise enough to take weight off front engine mounts. Remove front mount through bolts. Separate automatic transmission from engine, and remove engine. Remove engine and manual transmission as an assembly.

### 305" & 350" (VIN U & L)

1) Remove hood and mark hinges for installation. Disconnect battery cables at battery. Remove air cleaner and drain cooling system. Disconnect radiator and heater hoses. Remove