

Engine Removal

GENERAL MOTORS (Cont.)

CADILLAC (Cont.)

4) Lower vehicle and remove screws securing heater water valve to evaporator and position valve out of way. Install suitable lifting fixture to engine, support transmission and slowly raise engine off mounts. Reposition transmission support, raise engine carefully and pull forward to disengage transmission. Raise engine and remove from vehicle.

CADILLAC TIGHTENING SPECIFICATIONS (ALL MODELS, EXC. ELDORADO & SEVILLE)

Application	Ft. Lbs.
Front Support Mount-to-Engine Nut	21
Front Support Mount Stud-to-Frame Nut	52
Rear Support Mount-to-Crossmember Bolt	50
Rear Support Crossmember-to-Frame Bolt	20
Rear Support Mount-to-Transmission Bolt	50
Transmission-to-Engine Bolts	35

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 (EXC. CHEVETTE)

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.

4 CYLINDER MODELS (CHEVETTE)

1) Remove hood, disconnect both battery cables and remove battery cable clips along right frame rail. Drain cooling system and disconnect radiator hoses at engine and heater hoses at heater. Disconnect engine wiring harness at bulkhead connector. Remove radiator and fan assembly. Remove air cleaner assembly and disconnect fuel line along left frame rail,

automatic transmission throttle valve linkage (if equipped) and accelerator cable. On vehicles with air conditioning, remove compressor and lay aside. Raise vehicle and disconnect exhaust pipe at manifold.

2) Remove flywheel dust cover or converter underpan. On automatic transmission vehicles, remove converter-to-flywheel bolts. Remove transmission-to-engine bolts and lower vehicle. Support transmission, remove safety straps and front motor mount bolts. Install suitable lifting device, pull engine forward to clear transmission while slowly lifting engine. Check to make sure all disconnects are made and to ensure that clearance with surrounding components is maintained.

6 CYLINDER MODELS

NOTE — Engine and transmission are removed as an assembly.

1) Remove hood and mark hinges for installation. Disconnect battery, remove air cleaner and drain cooling system. Remove fan shroud, radiator, fan and pulley. Disconnect all electrical wires, water and vacuum hoses, and fuel inlet line at fuel pump.

2) 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.

3) 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.

GENERAL MOTORS (Cont.)

CHEVROLET (Cont.)

4) 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 — Engine and transmission are removed as an assembly.

All Models, Exc. Corvette W/Auto. Trans. & Monza — 1) Remove hood and mark hinges for installation. Disconnect battery, remove air cleaner and drain cooling system. Remove fan shroud, fan and pulley, and radiator. Disconnect all electrical leads, vacuum and water hoses. Disconnect accelerator linkage at pedal lever and fuel inlet line at fuel pump.

2) Disconnect exhaust pipes at exhaust manifolds. Disconnect air conditioning compressor and/or power steering pump (if equipped) without disconnecting lines and position out of way. Disconnect shift linkage, cooler lines, speedometer cable and TCS switch at transmission. On manual transmission vehicles, disconnect clutch linkage at cross-shaft and remove cross-shaft. Remove drive shaft on all models.

3) Attach a suitable hoist to lift brackets on engine. Raise engine enough to take weight off front engine mount bolts. Remove front mount through bolts and rear mount-to-crossmember bolts. Remove engine and transmission assembly from vehicle.

Corvette W/Auto. Trans. — 1) Engine is removed using same basic procedure as previously outlined, except that transmission remains in vehicle. Consequently all procedures applying to disconnecting or removing components at transmission are disregarded, also radiator does not need to be removed.

2) Remove bolts securing converter to flex plate. Remove bolts securing transmission to engine and support transmission with a jack. Attach a suitable hoist to engine, pull engine forward to separate from transmission and remove engine. Converter must be supported as engine is being removed.

Monza — 1) Raise hood to fully open position. Disconnect both battery cables, remove air cleaner and drain cooling system and crankcase. Raise vehicle and position on safety stands. Disconnect exhaust pipes at exhaust manifolds. Remove flywheel dust cover or converter underpan.

2) If equipped with automatic transmission, remove converter-to-flex plate bolts. and install a suitable converter support. Remove all accessible bolts retaining converter housing or clutch housing to engine. Disconnect cooler lines from clip at bottom of engine. Remove front engine mount bolts at frame.

3) Lower vehicle and remove radiator panel or shroud, and remove radiator or fan. Disconnect heater hoses, and all electrical leads at engine. Remove electrical harness from clips on rocker cover and position out of way. Disconnect automatic transmission vacuum modulator and air conditioning vacuum lines at intake manifold.

4) Disconnect fuel line at rear of engine, vacuum hose at canister, accelerator cable at carburetor and bracket and air conditioning blower delay lead at rear of engine. Remove air conditioning compressor and/or power steering pump, without disconnecting lines, and position out of way. Install a suitable jack under transmission for support.

5) Attach a suitable hoist to engine and raise enough to take weight off front motor mounts. Remove front motor mount through bolts. Remove remaining bolts attaching transmission to engine. Raise hoist while pulling forward on engine and remove engine.

CHEVROLET TIGHTENING SPECIFICATIONS MONZA, VEGA & CHEVETTE

Application	Ft. Lbs.
Converter-to-Flywheel.....	35
Flywheel Housing-to-Engine	
All Exc. THM 250	25
THM 250.....	35
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