

## GENERAL MOTORS (Cont.)

### BUICK (Cont.)

**All Other Models (350" & 400" VIN R & K)** – Align rotor to number 1 firing position. Disconnect battery cable and remove dipstick. Remove upper radiator support and fan shroud screws. Raise vehicle and drain crankcase. Remove flywheel cover. Disconnect exhaust and crossover pipes. Remove starter and engine mounts from block. Raise engine as far up as possible using suitable support tool (J-23515) and adapter (J-23515-20). Remove oil pan bolts and pan.

<b>BUICK TIGHTENING SPECIFICATIONS</b>	
Application	Ft. Lbs.
Oil Pan Bolts	
196", 231" & 350" (VIN C,A,2,3,X) .....	14
301" (VIN Y,W) .....	12
305" & 350" (VIN G,H,L) .....	7
350" & 403" (VIN R & K) .....	10

## CADILLAC

### ALL MODELS

**Eldorado** – Remove final drive assembly with output shafts attached. Remove starter motor and drain crankcase. Remove oil pan bolts and oil pan. On vehicles with Diesel engines, loosen engine mounts and slightly raise engine, using a screw jack under harmonic balancer.

**Seville (Diesel)** – Remove drive and vacuum pump. Disconnect battery cables and remove rear battery. Remove fan screws, leaving fan in housing. Raise vehicle and drain crankcase. Remove flywheel cover and oil cooler lines. Disconnect exhaust crossover pipe and remove starter, ground strap and engine mount through bolts. Remove tunnel stiffener strut, transmission dipstick and tube. Using jack under harmonic balancer, raise engine so oil pan is 4" above frame crossmember. Remove oil pan bolts and pan.

**Seville** – Remove wheelhouse struts from both fenders. Remove radiator cover and raise vehicle. Remove through bolts

from front engine mounts. Remove exhaust crossover pipe, starter motor and flywheel housing lower cover. Remove oil pan bolts and raise engine as far as necessary to remove oil pan by placing jack under crankshaft pulley.

**All Other Models** – Disconnect negative battery cable. Remove radiator cover, support rods and shroud. Loosen fan belts and remove pulleys. Raise vehicle and drain crankcase. Remove exhaust pipe at manifold and catalytic converter. Remove engine mount through bolts. Remove starter and transmission lower cover. Using a block of wood under crankshaft hub, raise engine with suitable jack. Remove oil pan.

<b>CADILLAC TIGHTENING SPECIFICATIONS</b>	
Application	Ft. Lbs.
Oil Pan Bolts .....	10

## CHEVROLET

### 4 CYLINDER MODELS

**Chevette** – 1) Remove heater housing assembly from front of dash and rest housing on top of engine. Remove engine mount nuts. Pull back engine mount wire restraints. Remove radiator upper support and upper fan shroud (if equipped). Disconnect fuel line from charcoal canister. Raise vehicle and drain crankcase. Remove flywheel lower cover.

2) On vehicles with manual transmission, remove rack and pinion mounting bolts and move rack and pinion aside. Loosen rear catalytic converter-to-exhaust pipe clamp bolts. Using suitable adapter (J-26436), raise engine. Remove oil pan bolts and lower pan about 1". Rotate front of pan to right and rear to left. Tilt front of pan down 45° and remove pan from vehicle.

**All Other Models** – Disconnect battery and raise vehicle. Drain crankcase and remove rear section of frame crossmember. Disconnect exhaust pipe at manifold and loosen bracket.

Remove flywheel lower cover and disconnect steering linkage at steering gear and idler arm support. Remove oil pan bolts and pan.

### L6 MODELS

Disconnect battery, remove air cleaner and loosen fan shroud. Remove bolt from starter bracket, raise vehicle, remove starter. Drain crankcase, remove torque converter cover. Disconnect exhaust pipe and catalytic converter from manifold and transmission bracket. Wire up out of way. Remove engine through bolts, raise engine and remove bolts and oil pan.

### V6 MODELS

**All Models (200" VIN M)** – Drain crankcase, disconnect battery and remove oil dipstick and tube. Disconnect exhaust crossover pipe, inboard starter bolt and brace. Swing starter to side. On automatics, remove converter housing under pan. Remove oil pan bolts and pan.

# Oil Pan Removal

## GENERAL MOTORS (Cont.)

### CHEVROLET (Cont.)

**All Models (196" & 231" VIN A,C & 2)** — Raise vehicle, drain crankcase and remove flex plate cover. Remove crossover pipe, oil pan bolts and pan.

#### V8 MODELS

**NOTE** — Oil pan removal will vary on same size engines depending upon body style.

The following are special instructions that apply to specific models. They should be used in conjunction with the complete procedures that follow:

- Malibu, El Camino — Remove dipstick and tube.
- Impala, Caprice — If equipped with air conditioning, remove vacuum reservoir.
- Nova, Camaro — Remove distributor cap and move aside. If equipped with heavy duty radiator, remove one piece shroud.
- Corvette — Disconnect idler arm and lower steering linkage. Remove flywheel splash shield.

1) Disconnect negative battery cable and remove air cleaner. Remove upper half of fan shroud (except Nova and Camaro with H.D. radiator). Raise vehicle and drain crankcase. Remove

exhaust crossover pipe at manifold and converter. Remove torque converter cover. On manual transmission, remove starter and flywheel cover.

2) Remove engine mount through bolt and oil pan bolts. Raise engine and reinstall through bolts to hold engine. Remove oil pan bolts and lower pan, if necessary, rotate crankshaft to clear oil pan. Remove pan from vehicle.

### CHEVROLET

#### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
<b>4 Cyl. Models</b>	
151" (VIN 1)	
Front .....	4
Sides .....	7
151" (VIN V, 9)	7
Chevette .....	5
<b>6 Cyl. Models</b>	
250" L6 (VIN D)	
Front .....	4
Sides .....	7
200" V6 (VIN M)	7
196" & 231" (VIN C,A,2)	14
V8 Models, All .....	7

## OLDSMOBILE

#### 4 CYLINDER MODELS

Raise vehicle and drain crankcase oil. Remove rear section of frame crossmember. Disconnect exhaust pipe at manifold and loosen bracket. Remove starter and flywheel cover. Disconnect steering linkage at steering gear and idler arm support. Remove oil pan bolts, tap pan loose and remove pan.

#### V6 MODELS

**Starfire & Cutlass** — Raise vehicle and drain crankcase. Remove crossover pipe and flywheel cover. Remove oil pan bolts and pan.

**All Other Models** — Disconnect battery cables and fan shroud to radiator screws. Remove air cleaner and disconnect throttle and transmission linkage at intake manifold. Raise vehicle and drain crankcase. Remove flywheel cover and shift linkage. Disconnect exhaust crossover pipe and front engine mount bolts. Disconnect idler arm at frame and swing down. Raise engine, remove oil pan bolts and pan.

#### V8 MODELS

**Toronado (350" Gas & Diesel)** — 1) Disconnect battery cable and fan shroud. Remove right drive axle cotter pin, retainer and nut. Raise vehicle and remove right front wheel. Disconnect right tie rod end using suitable tool (J-6027) and upper ball joint. Remove drive axle to output shaft bolts.

**All Other Models (260" & 350" Diesel)** — 1) Remove drive and vacuum pump (A/C cars) or oil pump drive (non-A/C). Disconnect battery cables, remove dipstick and tube. Remove upper radiator support and fan shroud tubes.

**All Other Models (260", 350" & 403" VIN F,K,R)** — Remove distributor cap and align rotor in number 1 firing position. Disconnect battery and remove dipstick. Remove upper radiator support and shroud screws. Raise vehicle and drain crankcase. Remove flywheel cover and disconnect exhaust and crossover pipes. Remove starter and engine mounts. Lift engine as far as possible and remove oil pan bolts and pan.

**All Models (305" & 350" VIN G,H,L)** — 1) Disconnect battery and remove air cleaner. Remove upper portion of shroud. Use the following instructions that apply to specific models: