

# Oil Pan Removal

## GENERAL MOTORS (Cont.)

### OLDSMOBILE

#### 4 CYLINDER MODELS

1) Raise vehicle and drain crankcase oil. Support front of engine to remove weight from front engine mounts. Remove front frame crossmember and both front crossmember braces. Disconnect steering idler arm at frame side rail. On vehicles with air conditioning, disconnect idler arm at relay rod. Mark relationship of steering linkage pitman arm to pitman shaft and remove arm. **NOTE** — Do not rotate steering gear while steering arm is disconnected as this will change steering wheel alignment.

2) Remove flywheel cover or converter underpan. Remove oil pan bolts, tap oil pan and remove from vehicle. To remove oil pan baffle, remove pick-up screen-to-support and screen-to-baffle bolts and remove support from baffle. Remove bolt securing oil drain back tube to baffle, then rotate baffle 90° towards left side of vehicle and remove baffle from pick-up screen.

#### V6 MODELS (Exc. Starfire)

Raise vehicle, position on safety stands and drain crankcase. Remove flywheel inspection cover and exhaust crossover pipe. Remove oil pan retaining screws and remove oil pan.

#### V6 MODELS (Starfire Only)

1) Disconnect battery and remove radiator tie bar screws. Remove air cleaner and disconnect accelerator and downshift linkage at intake manifold. Raise vehicle and drain crankcase. Remove lower flywheel housing cover.

2) Remove shift linkage bolt. Disconnect exhaust crossover pipe. Remove motor mount through bolts. Disconnect idler arm at frame. Raise engine using suitable lifting device (BT-6501). Remove oil pan bolts and pan.

#### V8 MODELS 305" & 350" (VIN L & G)

1) Remove air cleaner. Disconnect fan shroud and cold air intake. On 88 models, remove upper half of fan shroud and disconnect heater vacuum reservoir. Raise vehicle and remove flywheel cover. On Omega models, disconnect lower part of

fan shroud. On 88 models, remove exhaust crossover pipe and converter assembly. On Omega, disconnect crossover pipe and support with a chain.

2) Remove pan bolt holding transmission cooler line clip. Turn crankshaft so timing mark is at 6 o'clock position. Install engine lifting tool and remove motor mount through bolts. Drain crankcase and remove oil pan bolts. Raise engine only enough to allow pan to be rotated past oil dipstick tube and be removed.

#### All Remaining Models W/260", 350" (VIN R) & 403" (Exc. Toronado)

1) Remove distributor cap and turn engine over until rotor is at number one firing position. Disconnect battery cable and remove dipstick. Remove upper radiator support and shroud bolts. Raise vehicle, position on safety stands and drain crankcase.

2) Remove flywheel or converter housing cover and starter. Disconnect exhaust or crossover pipes at manifold flanges. Disconnect front engine mounts and raise engine using a suitable lifting tool (BT-6501) positioned under harmonic balancer. Remove oil pan retaining bolts and remove oil pan.

**Toronado** — Engine must be removed before oil pan can be removed. See appropriate article in ENGINE REMOVAL Section.

OLDSMOBILE TIGHTENING SPECIFICATIONS	
Application	Ft. Lbs.
Oil Pan Bolts	
4 Cyl. Models .....	15
V6 Models .....	14
V8 Models	
305" & 350" (VIN L & G) .....	7
All Others .....	10

### PONTIAC

#### 4 CYLINDER MODELS (Exc. 151")

1) Raise vehicle, position on safety stands and drain crankcase. Support front of engine so that weight is off front mounts. Remove front crossmember and both front crossmember braces. Disconnect steering idler arm at frame side rails. **NOTE** — If equipped with air conditioning, disconnect idler arm at relay rod. Mark position of pitman arm on steering gear shaft, and remove pitman arm. **CAUTION** — Do not turn steering gear shaft with pitman arm removed, as wheel alignment will change.

2) Remove flywheel or converter housing cover. Remove oil pan screws and remove oil pan. Remove pickup screen bolt. Remove pickup screen to baffle support bolts and remove baf-

fle support. Remove bolt securing oil drainback to baffle and remove baffle.

#### 4 CYLINDER MODELS W/151"

1) Disconnect battery negative cable. Remove engine fan assembly on Ventura models. Raise vehicle and drain oil.

2) Remove rear section of frame crossmember on Astre and Sunbird models. Loosen hanger bracket and disconnect exhaust pipe at manifold. Remove starter motor.

3) Remove clutch housing inspection cover. Remove hub bolt and, using suitable lifting device, raise engine to remove weight from engine mounts. Remove bracket to engine mount bolts.

## GENERAL MOTORS (Cont.)

4) Disconnect steering linkage at steering gear and idler arm support on Astre and Sunbird models only. Remove oil pan bolts. Raise engine, if necessary, for clearance and remove oil pan.

### V6 MODELS

Raise vehicle and drain crankcase oil. Remove flywheel cover and exhaust crossover pipe. Remove oil pan.

### V8 Models

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

Raise vehicle and drain crankcase. Remove dipstick and tube. Remove exhaust crossover pipe. Remove converter housing under pan (if equipped). Remove starter brace and inboard bolt and swing starter aside. Remove oil pan bolts and pan.

#### 350" (VIN R) & 403"

1) Align rotor to number one firing position. Disconnect battery cable and remove dipstick. Remove upper radiator support and fan shroud screws. Raise vehicle and drain crankcase. Remove flywheel cover.

2) Disconnect exhaust and crossover pipes. Remove starter and motor mounts from engine. Raise front of engine up as far as possible using suitable support tool (J-23515) and adaptor (J-23515-20) or (BT-6501). Remove oil pan bolts and pan.

#### 301", 350" (VIN P) & 400"

**NOTE** — Oil pans on 301" and 350" (VIN P) do not have a inner baffle. 400" engines have oil pan baffles only when equipped with axle ratios above 2.93:1.

1) Disconnect battery and remove fan and distributor cap. If necessary, remove A/C compressor for clearance. Raise vehicle, drain crankcase and disconnect exhaust pipes from manifolds. Remove starter and flywheel inspection cover. Position number one cylinder at bottom dead center.

**NOTE** — Loosen fuel pump to timing cover bolts to permit clearance for lifting tool (J-23515-2).

2) Attach a suitable lifting tool (J-23515) and adapters to engine and crossmember. Raise engine and remove both motor mount bolts. Remove oil pan bolts allowing tool to swing freely. Raise engine until oil pan can be removed.

<b>PONTIAC TIGHTENING SPECIFICATIONS</b>	
Application	Ft. Lbs.
Oil Pan Bolts	
4 Cyl. Models (Exc. 151") .....	15
151" Models	
Front .....	4
Side .....	7
V6 Models .....	14
V8 Models	
305" & 350" (VIN L) .....	7
350" (VIN R) & 403" .....	10
301", 350" (VIN P) & 400" .....	12