

## CHRYSLER CORP. (Cont.)

2) On 318" and 360" 2-Bbl. engines (St. Regis, Newport, New Yorker, Magnum & Cordoba), remove left torque converter housing strut. On all vehicles, remove center link from steering arm and idler arm ball joints.

3) On all except 360" 4-Bbl. engines, disconnect exhaust pipe at manifold. On 318" and 360" 2-Bbl. engines (St. Regis, Newport, New Yorker, Magnum and Cordoba), remove oil pan bolts and oil pan. On all others, place jack under transmission and remove rear engine mount bolts. Raise transmission until rear of oil pan clears transmission. Remove oil pan.

4) On 360" 4-Bbl. engines, lower transmission and loosely install rear mount bolts. Loosen front engine mounts from frame and raise front of engine about 1" with a jack under vibration damper

**NOTE** - Take care that fan does not hit shroud.

5) Remove oil pan bolts and oil pan.

CHRYSLER CORP.	
TIGHTENING SPECIFICATIONS	
Oil Pan Bolts	Ft. Lbs.
4 Cylinder Hex Head .....	14
4 Cylinder Allen Head .....	7
6 Cylinder & 8 Cylinder .....	17

## FORD MOTOR CO.

### 4 CYLINDER MODELS

Drain crankcase, remove dipstick and flywheel inspection cover. Disconnect steering shaft flex coupling from rack and pinion, then disconnect rack and pinion from crossmember and move it forward. Remove oil pan bolts and remove oil pan.

### 6 CYLINDER MODELS

1) Disconnect oil cooler lines and top support bolts from radiator. Remove dipstick and raise vehicle. Drain crankcase and remove starter. Disconnect sway bar to chassis bolts and allow bar to hang down. Remove "K" brace and lower front steering rack and pinion (on Fairmount and Zephyr models only).

2) Loosen rear insulator to crossmember bolts and remove engine mount bolts. Raise engine and place 1 1/4" spacer between engine support insulator and chassis bracket.

3) Position jack under transmission and raise slightly. Remove oil pan attaching bolts and lower pan to crossmember. Clear cooler lines and remove oil pan. Rotate crankshaft on Granada and Monarch for clearance (may also be necessary on other models).

### V6 MODELS

Drain crankcase and cooling system. Remove dipstick and disconnect upper and lower radiator hoses at radiator. Remove fan shroud bolts and slide shroud back over fan. Disconnect battery cable at battery. Raise vehicle and disconnect automatic transmission cooler lines at radiator (if equipped.). Disconnect steering gear (and power steering hoses, if equipped) and position out of way. Disconnect stabilizer bar at ends and rotate to provide clearance. Remove splash shield and starter. Remove front engine support nuts. Raise engine and position wood blocks between engine support and frame. Remove oil pan. When installing oil pan, tighten oil pan screws in sequence as shown in Fig 1.

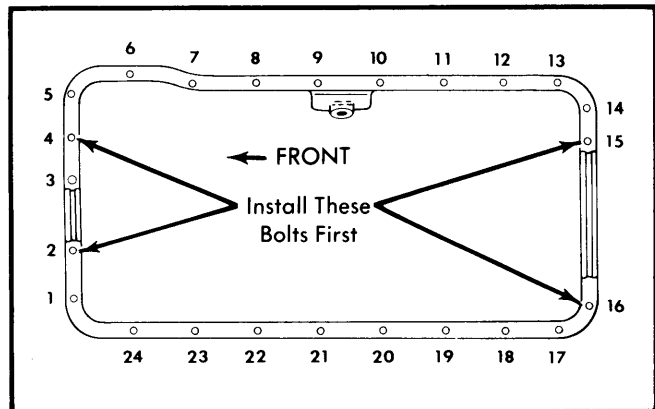


Fig. 1 V6 Oil Pan Tightening Sequence

### V8 MODELS

**Capri, Mustang, Fairmont & Zephyr (302")** - Disconnect battery and remove fan shroud bolts, positioning shroud back over fan. Raise vehicle and drain crankcase. Remove bolts attaching steering gear to main crossmember and let steering gear rest on frame away from oil pan. Remove engine mount bolts and raise engine. Place two wood blocks (2" x 4") between engine mounts and frame. Remove rear "K" brace and oil pan bolts. Lower pan to frame and remove oil pump attaching bolts. Lower pump into pan and remove oil pan. Rotate crankshaft as necessary to clear counterweights.

**Granada & Monarch (302")** - Raise vehicle and drain crankcase. Remove stabilizer bar and engine front support through bolts. If equipped, remove nut and bolt holding power steering lines to rear side of lower arm. Remove idler arm bracket and pull linkage down out of way. Remove oil pan bolts and remove pan.

**Versailles (302")** - Disconnect battery and remove shroud attaching screws. Raise vehicle and drain crankcase. Remove stabilizer bar and front mount through bolts. Loosen transmission cooler lines and move aside. Raise engine and block up with 2" x 4" under engine mount. Remove oil pan bolts and remove pan. Rotate crankshaft so rear throw is in horizontal position to clear rear oil pan flange.

# Oil Pan Removal

## FORD MOTOR CO. (Cont.)

**LTD II, Cougar & Thunderbird (302", 351" & 400")** – Remove dipstick and fan shroud bolts. Position shroud over fan. Raise vehicle and drain crankcase. Remove stabilizer bar and front mount through bolts. Raise engine and block up with wood blocks between front support and chassis bracket. If equipped, disconnect oil cooler lines at radiator. Remove oil pan attaching bolts and lower pan onto crossmember. Rotate crankshaft as necessary to clear pan.

**Ford & Mercury (302" & 351" W)** – Remove negative battery cable. Disconnect fan shroud and position toward engine, away from radiator. Raise vehicle and drain crankcase, then remove oil dipstick and tube. Remove windshield wiper motor, and disconnect wiring, fuel lines, cables and linkage as necessary to remove engine. Loosen rear engine mount attaching nuts and remove engine mount through bolts. Raise engine, using care that brake lines, transmission linkage and starter motor do not interfere. Place wood blocks under engine and remove oil pan retaining bolts. Lower oil pan. Remove oil pump pickup tube and screen assembly and lower into oil pan. Remove oil pan.

**All Models (351" M & 400")** – Disconnect battery and remove dipstick. Remove fan shroud bolts and position air inlet tube and shroud over fan. Raise vehicle and drain crankcase. Remove sway bar (if equipped), and lower for clearance.

Remove front engine support through bolts, raise engine, and block up with wood block. Remove oil pan bolts and position transmission cooler lines out of way. Lower oil pan. Remove oil pump and inlet tube and lower into oil pan. Position crankshaft throw horizontally to permit oil pan removal.

### FORD MOTOR CO. TIGHTENING SPECIFICATIONS

Oil Pan Bolts	Ft. Lbs.
4 Cylinder	
6 mm Bolts .....	6-8
8 mm Bolts .....	8-10
6 Cylinder .....	7-9
V6 Models .....	7-10
V8 Models	
1/4" Bolts .....	① 7-9
5/16" Bolts .....	② 11-13

① – 10-12 Ft. Lbs. on 351" W engine.

② – 15-17 Ft. Lbs. on 351" W engine.

## GENERAL MOTORS

### BUICK

#### V6 MODELS

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

**All Other Models** – Raise vehicle and drain crankcase. Remove flywheel inspection cover and exhaust crossover pipe. Remove oil pan retaining screws and remove oil pan.

#### V8 MODELS

**All Models (301")** – 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 1 cylinder at bottom dead center. Loosen fuel pump to timing cover bolts for clearance and attach suitable lifting tool (J-23515) to engine and crossmember. Raise engine and remove engine mount through bolts. Remove oil pan bolts, and allowing tool to swing freely, lift engine until oil pan can be removed.

**All Models (305" & 350" VIN G,H,L)** – Disconnect battery, remove air cleaner and upper half of fan shroud. Remove oil dipstick and tube on Century and Regal only. Raise vehicle and drain crankcase. Remove crossover pipe, converter cover and

starter (manual transmission). Remove engine mount through bolts, raise engine and remove pan. Replace through bolts to hold engine.

**Skylark (350" VIN X)** – Disconnect battery. Remove radiator tie bar screws. Remove air cleaner and disconnect accelerator linkage at intake manifold. Raise vehicle and drain crankcase. Remove lower flywheel housing cover and shift linkage bolt. Disconnect exhaust crossover pipe. Remove engine mount through bolts. Disconnect idler arm at frame and swing downward. Raise engine and remove oil pan bolts and pan.

**All Other Models (350" VIN X)** – Disconnect battery and remove radiator tie bar screws. Remove air cleaner and disconnect throttle linkage. Raise vehicle and drain crankcase. Disconnect exhaust crossover pipe and remove lower flywheel housing cover. Remove shift linkage attaching bolt and swing out of way. Remove engine front mounting bolts. Raise engine slowly and remove oil pan bolts and pan.

**NOTE** – On A/C equipped vehicles, place a support under right side of transmission prior to raising engine. This prevents engine/transmission assembly from cocking to the right.

**Riviera (350" VIN R)** – Engine must be removed before oil pan can be removed. See *appropriate article in ENGINE REMOVAL Section*.