

Oil Pan Removal

FORD MOTOR CO. (Cont.)

302" & 351" W "E" MODELS

1) Remove oil level dipstick and bolts attaching fan shroud to radiator. Position shroud over fan. Remove front engine support-to-chassis bracket nuts and washers. Disconnect transmission oil cooler lines (if equipped) at radiator.

2) Raise engine using suitable jack and position wood blocks under engine supports. Drain crankcase and remove oil pan attaching bolts. Lower oil pan onto crossmember. Remove bolts attaching oil pump pick up tube, then lower tube and screen assembly into oil pan. Remove oil pan from vehicle.

351" M & 400" ALL MODELS

1) Remove dipstick. Remove fan shroud attaching bolts and lay shroud back over fan. Raise vehicle and drain oil. Remove starter. Place a jack and wood block under oil pan. Remove front engine support through bolts.

2) Raise engine and place wood blocks between engine supports and chassis brackets. Lower engine on blocks and remove jack. Remove oil pan bolts. Position oil cooler lines out of way if equipped with automatic transmission. Remove oil pan from vehicle.

460" "F" MODELS

Disconnect battery ground cable. Disconnect radiator shroud and position over fan. Raise vehicle on a hoist and drain crankcase. Remove front motor mount through bolt on both sides of engine and use a suitable floor jack to raise engine enough to insert 1 $\frac{1}{4}$ " wood blocks between mounts and brackets. Lower engine on blocks and remove jack. Remove oil filter, oil pan attaching bolts and oil pan.

NOTE — It may be necessary to rotate crankshaft to provide clearance between pan and crankshaft counterweight.

460" "E" MODELS

1) Remove engine cover, disconnect battery and drain cooling system. Remove air cleaner assembly, then disconnect throttle and transmission linkage at carburetor. Disconnect power brake vacuum line. Disconnect fuel line, choke lines, and air cleaner adaptor from carburetor.

2) Disconnect radiator hoses, transmission oil cooler lines, then remove fan assembly, shroud, and radiator. Remove power steering pump and position to one side with hoses connected. Remove oil dipstick tube and engine mount attaching bolts. Remove oil filler tube and bracket.

3) Rotate air conditioning lines at rear of compressor down to clear dash or remove lines. Raise vehicle, drain crankcase, and remove oil filter. Remove muffler inlet pipe assembly. Disconnect manual and kickdown linkage from transmission. Remove propeller shaft and coupling shaft assembly, then remove transmission tube assembly.

4) Position floor jack and wooden block under oil pan and raise engine assembly approximately 4". **NOTE** — Keep engine centered in engine compartment to obtain this much height. Insert wood blocks to support engine at highest possible point. Lower and remove jack, and remove oil pan attaching bolts. Lower oil pan, drop oil pump and pick-up tube into pan, remove oil pan from vehicle.

TIGHTENING SPECIFICATIONS

Oil Pan Attaching Bolts	Ft. Lbs.
300"	10-15
302" & 351-W"	
$\frac{1}{4}$ "	7-9
$\frac{5}{16}$ "	8-11
351"-M & 400"	
$\frac{1}{4}$ "	7-9
$\frac{5}{16}$ "	11-13
460"	
$\frac{1}{4}$ "	7-9
$\frac{5}{16}$ "	9-11

NOTE — Torque specifications for components other than oil pan attaching bolts may be found in Engine Removal Section.

GENERAL MOTORS

6 CYLINDER ENGINE

"G" MODELS W/MAN. TRANS.

1) Disconnect battery negative cable, remove engine cover, air cleaner and studs. Remove fan guard and radiator upper support bracket. Raise vehicle on hoist.

2) Disconnect clutch cross shaft from left front mount bracket. Remove transmission to bell housing upper bolts and transmission rear mount bolts, install two $\frac{7}{16}$ " x 3" bolts.

3) Raise transmission, install 2" block between block and crossmember. Remove starter and mount through bolts, drain crankcase. Raise engine insert wooden blocks between engine mounts and crossmember brackets. Remove fly wheel splash shield/converter cover and remove oil pan bolts.

ALL REMAINING MODELS

Disconnect negative battery cable. Raise vehicle on a hoist and drain engine oil. Remove starter. Remove flywheel or converter splash shield. Remove front engine mount through bolts. Raise front of engine and reinstall through bolts to hold engine up. Remove oil pan bolts and remove oil pan.

V8 ENGINES

ALL MODELS

Raise vehicle on hoist and drain crankcase. Remove exhaust crossover pipe and automatic transmission converter housing cover if equipped with automatic transmission. Remove oil pan and discard gaskets. On "K" models with automatic transmission, remove strut rod at motor mount.

GENERAL MOTORS (Cont.)

TIGHTENING SPECIFICATIONS	
Oil Pan Attaching Bolts	INCH Lbs.
6 Cylinder Engine	
Pan-to-Block	
1/4 -20 Bolts	80
5/16 -18 Bolts.....	75
Pan-to-Front Cover	
	50
305", 350" & 400" V8	
Pan-to-Block	
1/4 -20 Bolts	80
5/16 -18 Bolts.....	165
454"	
Pan-to-Block	
1/4 -20 Bolts	55
5/16 -18 Bolts.....	135

NOTE — Torque specifications for components other than oil pan attaching bolts may be found in Engine Removal Section.

INTERNATIONAL HARVESTER

NOTE — Oil pan removal information for International Harvester models was not available from manufacturer at time of publication.

JEEP

6 CYLINDER ENGINES

Drain crankcase and remove starter. On "CJ" models, position suitable jack under transmission housing, disconnect right support cushion bracket from block and raise engine to gain clearance for oil pan removal. Remove oil pan attaching bolts. Remove oil pan, seals, and side gaskets.

V8 ENGINES

On "CJ" Models, remove frame crossbar. Remove transmission oil cooler lines (if equipped). Bend tabs down on dust shield if equipped with manual transmission and remove oil pan.

NOTE — It may be necessary to cut corner of right side engine mount with a hacksaw to provide clearance.

TIGHTENING SPECIFICATIONS	
Oil Pan Attaching Bolts	Ft. Lbs.
All Engines	
1/4 -20 Bolts	7
5/16 -18 Bolts.....	11

NOTE — Torque specifications for components other than oil pan attaching bolts may be found in Engine Removal Section.