

FORD MOTOR CO. (Cont.)

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.

"E" MODELS WITH 460"

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 adapter 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	
1/4"	7-9
5/16"	8-11
351" M & 400"	
1/4"	7-9
5/16"	11-13
460"	
1/4"	7-9
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 7/16" x 3" bolts.

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

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 WITH 305", 350" (Gas) & 400"

Raise vehicle on hoist and drain oil. Remove exhaust crossover pipe and remove flywheel splash shield/converter cover. Remove oil pan and discard gaskets. On "K" models with automatic transmission, remove strut rod at motor mount.

ALL MODELS WITH 454"

1) Disconnect battery negative cable, loosen fan shroud and remove air cleaner and distributor cap. Raise vehicle and drain oil. On models equipped with manual transmission, remove starter.

2) Remove flywheel splash shield/converter cover. Remove oil filter. On gauge equipped models, remove oil pressure line from block. Remove front engine mount through bolts, raise engine and remove oil pan bolts and remove oil pan.

ALL MODELS WITH 350" DIESEL

1) Disconnect battery cable, remove air cleaner, drive and vacuum pump. Remove fan shroud bolts and position shroud over fan. Raise vehicle and drain oil.

2) Remove flywheel splash shield/converter cover, starter assembly and front engine mount through bolts. Raise engine and loosen left hand mount. Remove right hand mount, oil pan bolts and remove oil pan.

Oil Pan Removal

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
350" Diesel	
Pan-to-Block	
	120

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

4 CYLINDER ENGINES

Disconnect battery negative cable. Raise vehicle and drain oil. Remove starter. Remove oil pan bolts and remove oil pan.

oil cooler lines (if equipped) on automatic transmission. Bend tabs down on dust shield (if equipped) on manual transmission, remove oil pan bolts and remove oil pan.

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

6 CYLINDER ENGINES

Disconnect battery negative cable. Raise vehicle and drain oil. Remove starter. On "CJ" models, position floor 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 and remove oil pan, seals and side gaskets.

V8 ENGINES

Disconnect battery negative cable. Drain oil, remove starter. On "CJ" models, remove frame crossbar. Remove transmission

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.