

CHRYSLER CORP.

6 CYLINDER ENGINES

225" Engine

Disconnect battery and remove dipstick. Raise vehicle and drain crankcase. Remove engine-to-transmission strut and torque converter cover (if equipped with automatic transmission). Remove pan bolts and pan.

243" Engine

Disconnect battery and dipstick. Raise vehicle and drain crankcase. Remove dipstick tube and road draft tube. If equipped, disconnect oil cooler lines and torque converter cover. Remove nuts from engine mounts and bolts from oil pan. Raise engine enough to clear for pan removal.

V8 ENGINES

318" & 360" Engines

Disconnect battery and remove dipstick. Raise vehicle and drain crankcase. Remove exhaust crossover pipe and lift engine-to-transmission strut. Remove oil pan screws and oil pan.

440" Engine

Disconnect battery and remove dipstick. Raise vehicle and drain crankcase. Remove oil pan screws and oil pan.

NOTE — It may be necessary to rotate crankshaft to clear front of pan.

TIGHTENING SPECIFICATIONS

Oil Pan Attaching Bolts	INCH Lbs.
All Models	200

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

FORD MOTOR CO.

6 CYLINDER ENGINES

300" "E" MODELS

1) Remove engine cover, air cleaner and carburetor. If equipped with A/C, discharge refrigerant and remove compressor. Remove EGR valve and upper radiator hose. On E 350 vehicles, remove thermactor check valve.

2) Remove fan shroud and transmission fill tube if equipped with automatic transmission. Remove exhaust-to-manifold nuts and raise vehicle. Disconnect and plug fuel pump inlet line.

3) Remove alternator, splash shield and front engine mount nuts. Disconnect lower radiator hose and transmission cooler lines. Remove power steering return line clip located in front of crossmember.

4) Remove starter and dip stick tube. Raise engine and place 3" blocks under engine mounts. Lower engine and remove jack. Remove oil pan bolts and pick-up tube with screen from oil pump. Remove oil pan.

300" "F" MODELS

1) Drain crankcase and cooling system. Remove radiator and raise vehicle on hoist. On F 100-250 vehicles, remove starter. Remove front engine mount nuts then raise front of engine with transmission jack.

2) Place 1" block of wood under engine mounts. Lower engine on blocks and remove jack. Remove oil pan bolts and lower pan to crossmember. Remove oil pump inlet tube bolts and lay tube in bottom of pan. Remove oil pan.

V8 ENGINES

302" "F" MODELS

1) Disconnect battery, remove engine cover inside vehicle. Remove air cleaner and drain cooling system. Loosen power steering pump and remove belt (if equipped). Remove power steering pump from mount and position out of way. If equipped with air conditioning, remove compressor retainers and position compressor out of way.

2) Disconnect radiator upper hose, remove fan shroud bolts and oil filler tube. Remove oil dipstick-to-exhaust manifold bolt. Raise vehicle on hoist. Remove splash shield under alternator. Disconnect transmission cooler lines at radiator (if equipped). Disconnect lower radiator hose.

3) Disconnect fuel line at fuel pump. Remove engine mount nuts. Drain crankcase, disconnect muffler inlet pipe from exhaust manifolds. Remove automatic transmission dipstick and tube (if equipped), disconnect manual linkage at transmission. Remove center driveshaft support, remove driveshaft from transmission.

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.

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.