

## FORD MOTOR CO.

### 6 CYLINDER ENGINES

#### 300" ALL MODELS

1) Drain crankcase and cooling system. Disconnect radiator hoses, transmission oil cooler lines (if equipped), and remove radiator (F-100/250 only). Disconnect starter cables and remove starter (F100/250 only). Remove front support insulator-to-bracket nuts and washers on both sides of engine (F100/250 only).

2) Raise front of engine using suitable jack, place 1" thick wood blocks between front support insulators and support brackets. Lower engine and remove jack. Remove oil pan attaching bolts, drop oil pan to gain access to oil pump inlet tube attaching bolts. Remove inlet tube and screen assembly from oil pump and place in bottom of pan. Remove oil pan and gaskets.

### V8 ENGINES

#### 302" "U" MODELS

Remove air cleaner, air cleaner duct, oil level dipstick and tube. Drain the crankcase and remove oil pan attaching bolts. Remove oil pan, seals, and gasket from vehicle.

#### 302" & 351-W" "E" 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) Remove rear crossmember bolts, nuts and braces. Support transmission with suitable jack and remove mount-to-transmission bolts. Remove crossmember and mount as one unit. Remove rear mount from crossmember, reposition crossmember in vehicle and tighten bolts finger-tight. Remove right exhaust heat deflector, remove dipstick tube from oil pan.

5) Raise engine as much as possible using jack under transmission. 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.

#### 302" "F" 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.

#### 360" & 390" "F" MODELS

Remove oil level dipstick and tube, then drain crankcase. Remove oil pan attaching bolts and lower oil pan to axle. Position crankcase so counterweight will clear the oil pan. Remove oil pump and inlet tube attaching bolts. Place oil pump, inlet tube screen and intermediate drive shaft in oil pan. 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 1/4" wood blocks between mounts and brackets. Remove oil filter, oil pan attaching bolts and oil pan from vehicle. *NOTE — It may be necessary to rotate crankshaft to provide clearance between pan and crankshaft counterweights.*

#### 460" "E" MODELS

1) Remove engine cover, disconnect battery and drain cooling system. Remove air cleaner assembly, disconnect transmission throttle linkage at carburetor. Remove carburetor and all related components (mechanical and electrical).

2) Disconnect upper and lower radiator hoses, oil cooler lines at radiator (if equipped), remove fan assembly and shroud, remove radiator. Raise vehicle on suitable hoist, drain crankcase and remove oil filter.

3) Remove muffler inlet pipe assembly. Disconnect manual and kickdown linkage from transmission. Remove drive shaft and coupling shaft assembly, then remove transmission tube assembly. Remove rear transmission insulator and allow transmission to rest on crossmember. Remove engine mount bolts and nuts.

# Oil Pan Removal

## FORD MOTOR CO. (Cont.)

4) Lower vehicle, disconnect engine oil dipstick tube from exhaust manifold. Remove oil filler tube and bracket. Attach suitable lifting bracket to water pump. If equipped with air conditioning, rotate lines or remove lines to clear firewall.

5) Connect suitable hoist to lifting bracket and raise engine until transmission touches floor pan, block engine in place using suitable wooden blocks. Disconnect and remove hoist, raise vehicle as before. Remove dipstick tube from pan, remove pan retaining bolts and lower pan. Remove bolts holding oil pump and pick-up assembly, drop units into pan and 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
360" & 390" .....	8-10
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.*