

Oil Pan Removal

FORD MOTOR CO. OIL PAN REMOVAL

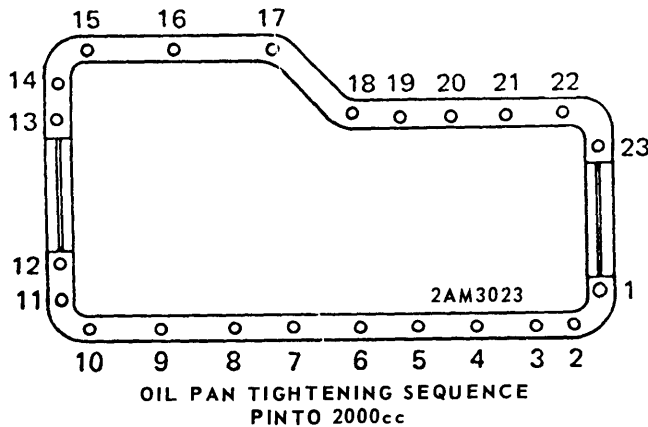
FOUR CYLINDER ENGINES

PINTO 1600 cc

Drain oil and remove dipstick. Disconnect battery and throttle linkage (at carburetor). Disconnect steering cable from rack and pinion, then disconnect rack and pinion from the crossmember and move it forward. Remove the starter motor, then remove the left bottom bolt from the lower rear cover and remove the cover. Remove the oil pan bolts and remove oil pan. Remove the oil pump and inlet tube as an assembly.

PINTO 2000 cc

Drain oil and remove dipstick. Remove flywheel housing inspection cover. Disconnect the steering cable from the rack and pinion then disconnect the rack and pinion from the crossmember and move it forward. Remove oil pan bolts and remove oil pan. Remove the oil pump and inlet tube as an assembly. *NOTE - When installing pan, tighten bolts in two steps using sequence shown below: Step 1 - Starting with bolt No. 1 tighten all bolts to 2 ft. lbs. Step 2 - Starting with bolt No. 13 retighten all bolts to 4-6 ft. lbs.*



SIX CYLINDER ENGINES

1965-73 170", 200", 250" ALL MODELS (EXC. MUSTANG)

Drain crankcase, remove oil dip stick and flywheel housing inspection cover. Remove oil pan, gasket and oil pump inlet tube and screen assembly.

1965-66 MUSTANG

Drain crankcase, remove oil dip stick and flywheel housing inspection cover. Remove stabilizer bar. Remove oil pan, gasket, pump inlet tube and screen assembly.

1967-71 MUSTANG

Drain crankcase, remove oil dip stick and flywheel housing inspection cover. Disconnect stabilizer bar and pull it downward out of way. Remove one bolt and loosen the other on the number two crossmember, lower crossmember out of way. Remove oil pan and gasket with oil pump inlet tube and screen assembly.

1972-73 MUSTANG

Drain crankcase, remove oil dip stick and flywheel housing inspection cover. Drain cooling system and remove radiator. Disconnect stabilizer bar and engine front supports and raise engine approximately two inches. Remove starter motor and remove oil pan bolts, lower pan and remove oil pump inlet tube and screen assembly. Push oil pan forward into radiator area, lower pan and remove.

1965-72 240" ALL MODELS

Drain crankcase and cooling system. Disconnect radiator upper hose at coolant outlet elbow and the lower hose at the radiator. Disconnect automatic transmission oil cooler lines at radiator (if equipped). Remove radiator. If equipped with air conditioning, remove condenser bolts, and position condenser to one side for accessibility. **Do not** disconnect condenser refrigerant lines. Raise vehicle on hoist, disconnect starter cable at starter and remove retaining bolts and starter. Remove engine front support insulator-to-intermediate support bracket nuts on both supports. Remove engine rear support insulator-to-crossmember bolt and insulator-to-transmission extension housing bolts. Raise transmission, remove the support insulator and lower transmission to crossmember. Raise engine with a transmission jack and place 3" wood blocks between both front support insulators and intermediate support brackets. Remove stabilizer bar. Remove oil pan retaining bolts (allow pan to rest on crossmember). Remove oil pump retaining bolts and pump from cylinder block, place pump in bottom of oil pan. Rotate crankshaft (for clearance), remove oil pan and gaskets and remove inlet tube and screen from pump.

TIGHTENING SPECIFICATIONS

Oil Pan Screws or Bolts	Ft. Lbs.
1964-67 144", 170", 200" Engines	7-9
240"	10-12
260", 289" 1/4" screws	7-9
5/16" screws	9-11
430"	4-6
All Others	9-13
1968 170", 200" Engines	7-9
240"	10-12
289", 302" 1/4" screws	7-9
5/16" screws	9-11
390", 427", 428"	9-11
460"	6-9
1969-70 170", 200", 240", 250" Engines	7-9
302", 351" 1/4" screws	7-9
5/16" screws	9-11
390", 428"	10-12
429", 460"	9-11
1971-73 1600cc	6-8
2000cc	4-6
170", 200", 250" Engines	7-9
240"	10-12
302", 351" 1/4" screws	7-9
5/16" screws	9-11
351"C, 400" 1/4" screws	7-9
5/16" screws	11-13
429", 460" 1/4" screws	7-9
5/16" screws	9-11

FORD MOTOR CO. OIL PAN REMOVAL (Cont.)

V8 ENGINES

FORD MOTOR CO. INTERMEDIATES & COMPACTS

1965-68 260" & 289"

COMET, FALCON, FAIRLANE, MUSTANG, COUGAR

Drain crankcase and remove dipstick, then disconnect and lower inlet pipes from manifolds. Drop stabilizer bar down, disconnect one end of crossmember and loosen other end, then lower crossmember. Lower idler arm, remove pan retaining bolts, turn crankshaft for clearance, and remove oil pan. *INSTALLATION NOTE - Tabs of oil pan front and rear seals must be installed over the oil pan side gaskets.*

1969 302" & 351"

FALCON, FAIRLANE (TORINO), MONTEGO, MUSTANG, COUGAR

Drain crankcase and remove dipstick. Disconnect stabilizer from lower control arms and pull ends down. Remove oil pan attaching bolts and place pan on number 2 crossmember. Remove one oil inlet tube attaching bolt and loosen the other bolt, position inlet tube out of the way. Crank engine to obtain clearance, remove oil pan.

1970-71 MUSTANG, COUGAR 302" & 351" W

Remove bolts retaining stabilizer to frame. Remove two bolts retaining the crossmember under the engine. Remove the oil pan bolts, rotate crankshaft to obtain clearance and remove oil pan.

1972-73 MAVERICK, COMET 302" & 351" W

Raise vehicle and drain crankcase. Remove stabilizer bar from chassis. Remove engine front support through bolts and remove supports. Remove bolt and nut retaining power steering lines to rear side of lower arm. Remove idler arm bracket bolts and pull linkage down. Remove oil pan and oil pump pickup tube and screen assembly.

1970-73 TORINO, MONTEGO, FALCON 302" & 351" W 1972-73 MUSTANG 302" & 351" W

Remove fan shroud from radiator (1973 only) and position on fan. Remove stabilizer bar from chassis. Remove engine front support bolts, raise engine 1-2", place blocks under engine supports. Disconnect transmission oil cooler lines at radiator. Remove oil pump pickup tube and screen. Rotate crankshaft for clearance and remove oil pan.

1966 COMET, FALCON, FAIRLANE 390"

Drain crankcase, remove dipstick, then remove pan retaining bolts and position pan on crossmember. Remove pump inlet tube retaining bolts and position inlet tube out of way. Rotate crankshaft as necessary to remove oil pan.

1967-70 390", 427", 428", 429"

COMET, COUGAR, FAIRLANE (TORINO), MUSTANG, MONTEGO

Raise vehicle and drain crankcase. If equipped with air conditioning, remove fan shroud from radiator and position it over fan. Disconnect stabilizer bar at connecting links and pull ends down. To obtain clearance for removal of

oil pan, remove engine front support insulator to intermediate support bracket nuts and lock washers. Install a block of wood on a floor jack and position the jack under front leading edge of oil pan. Raise engine approximately 1/4" and insert a 1" block of wood between insulators and frame crossmember. Remove floor jack. Remove oil pan attaching screws and lower oil pan to the frame crossmember. Crank engine to obtain necessary clearance between counterweight and rear of oil pan. Remove upper bolt and loosen lower bolt on inlet tube. Position inlet tube away and remove pan.

1970-73 MUSTANG, COUGAR 351" C & 400"

Remove starter. Remove bolts retaining sway bar to chassis. Remove two bolts retaining frame crossmember under engine. Remove oil pan bolts, turn crankshaft for clearance and remove oil pan.

1970-73 TORINO, MONTEGO 351" C & 400"

1) Remove fan shroud from radiator and position on fan. Remove starter. Remove sway bar bolts and lower sway bar.

2) Remove engine front support bolts, raise engine 1-2" and place blocks under engine supports. Position transmission oil cooler lines out of way. Remove oil pan bolts and oil pan.

1971 MUSTANG, COUGAR, TORINO, MONTEGO 429"

Disconnect battery ground cable. Remove fan shroud from radiator and position over fan. Remove bolt holding vacuum line clip to upper right side of converter housing. Remove engine support bolts and raise engine sufficiently to place 1 1/4" blocks under support insulators. Remove starter and position it on steering linkage. Remove end attachments of front stabilizer bar and rotate ends of bar down to raise center of bar. Remove oil pan bolts, rotate crankshaft to obtain clearance and remove oil pan.

1972-73 TORINO, MONTEGO 429", 460", 460" P.I.

Disconnect battery ground cable and remove radiator shroud and position it over fan. Raise vehicle on hoist and drain crankcase. Remove sway bar attaching bolts and two bolts and bushings attaching sway bar to lower arms. Move sway bar forward on struts. Remove through bolts from each engine support. Raise engine and place 1 1/4" blocks between engine insulators and brackets. Remove oil filter and oil pan bolts, rotate crankshaft for clearance and remove oil pan.

V8 ENGINES

FORD, MERCURY, METEOR

1965-67 FORD, MERCURY 289"

Drain crankcase, remove dipstick, then remove pan retaining bolts and position pan on crossmember. Remove pump inlet tube retaining bolts and position inlet tube out of way. Rotate crankshaft as necessary to remove oil pan.

Oil Pan Removal

FORD MOTOR CO. OIL PAN REMOVAL (Cont.)

1968-69 302" & 351" W FORD, MERCURY, METEOR

Drain crankcase and remove dipstick. Disconnect stabilizer from lower control arms and pull ends down. Remove oil pan attaching bolts and position pan on number 2 cross-member. Remove one oil inlet tube bolt and loosen the other (to allow inlet tube to be positioned out of way when removing oil pan). Crank engine to obtain clearance between crankshaft and oil pan, remove pan.

1970-73 FORD, METEOR 302" & 351" W

Remove fan shroud from radiator and position on fan. Remove engine support bolts. Raise engine and place blocks of wood between engine supports and chassis brackets. Disconnect stabilizer from lower control arms and pull ends down. Remove pan bolts and position pan on frame crossmember. Position stabilizer bar for clearance and remove oil pan.

1972-73 351" C & 400" FORD, MERCURY, METEOR

1) Remove fan shroud from radiator and position on fan. Remove starter. Remove sway bar bolts and lower sway bar.

2) Remove engine front support bolts, raise engine 1-2" and place blocks under engine supports. Position transmission oil cooler lines out of way. Remove oil pan bolts and oil pan.

1965-71 352", 390", 410", 427", 428" FORD, MERCURY, METEOR

Raise vehicle and drain crankcase. Remove fan shroud (if equipped), disconnect stabilizer bar at connecting links and pull ends down. Remove engine front support insulator to intermediate support bracket nuts and lock washers. Install a block of wood on a floor jack and position jack under front leading edge of oil pan. Raise engine approximately 1 1/4" and insert a 1" block of wood between insulators and frame crossmember. Remove floor jack, remove oil pan retaining screws and lower oil pan to the cross-member. Crank engine to obtain necessary clearance between counterweight and rear of oil pan. Remove upper bolt and loosen lower bolt on inlet tube. Position inlet tube and screen away, and remove oil pan.

1972-73 429", 460", 460" P.I. FORD, MERCURY, METEOR

Disconnect battery ground cable and remove radiator shroud and position it over fan. Raise vehicle on hoist and drain crankcase. Remove sway bar attaching bolts and two bolts and bushings attaching sway bar to lower arms. Move sway bar forward on struts. Remove through bolts from each engine support. Raise engine and place 1 1/4" blocks between engine insulators and brackets. Remove oil filter and oil pan bolts, rotate crankshaft for clearance and remove oil pan.

V8 ENGINES THUNDERBIRD

1965-66 ALL ENGINES

Drain crankcase and remove dipstick. Remove oil pan retaining screws and lower oil pan to crossmember. Turn

crankshaft so counterweight will clear oil pan. Remove oil pump retaining bolts and place oil pump assembly in oil pan. Remove oil pump and oil pan. **INSTALLATION NOTE** - Oil pump assembly must be placed in oil pan and installed when oil pan is installed.

1967 ALL ENGINES

Drain crankcase and remove dipstick. Disconnect stabilizer from lower control arms and pull ends down. Remove oil pan attaching bolts and position pan on number 2 cross-member. Remove one oil inlet tube bolt and loosen the other (to allow inlet tube to be positioned out of way when removing oil pan). Crank engine to obtain clearance between crankshaft and oil pan, remove pan.

1968-71 ALL ENGINES

Disconnect battery ground cable. Remove fan shroud from radiator and position over fan. On 1970-71 models remove vacuum line clip from upper right side of converter housing. Remove engine support bolts, raise engine and place 1 1/4" blocks under support insulators. Remove starter and on 1968 models remove oil filter. Remove end attachments of front stabilizer bar, rotate ends of bar down to raise center of bar. Remove oil pan bolts, rotate crankshaft to obtain clearance and remove oil pan.

1972 400" ENGINE

1) Remove fan shroud from radiator and position on fan. Remove starter. Remove sway bar bolts and lower sway bar.

2) Remove engine front support bolts, raise engine 1-2" and place blocks under engine supports. Position transmission oil cooler lines out of way. Remove oil pan bolts and oil pan.

1972-73 429", 460"

Disconnect battery ground cable and remove radiator shroud and position it over fan. Raise vehicle on hoist and drain crankcase. Remove sway bar attaching bolts and two bolts and bushings attaching sway bar to lower arms. Move sway bar forward on struts. Remove through bolts from each engine support. Raise engine and place 1 1/4" blocks between engine insulators and brackets. Remove oil filter and oil pan bolts, rotate crankshaft for clearance and remove oil pan.

V8 ENGINES

LINCOLN CONTINENTAL CONTINENTAL MARK III & IV

1966-68 LINCOLN CONTINENTAL, ALL ENGINES

With No. 1 piston at 15° BTDC, remove engine front support insulator-to-sidemember nuts, then raise engine and place a 1/2" block of wood between insulator and underbody engine support members. **CAUTION** - When raising engine, do not force engine against automatic temperature control case in engine compartment. Remove end attachments of front stabilizer bar and rotate ends of bar down, so center portion of bar is up and away from oil pan. Remove oil pan mounting bolts and washers, and free oil pan from block. Remove oil pan with pick-up tube and screen.

FORD MOTOR CO. OIL PAN REMOVAL (Cont.)

1968 CONTINENTAL MARK III 460" 1969 LINCOLN CONTINENTAL 460"

Disconnect shroud from radiator. Raise vehicle and drain crankcase. Disconnect idler arm from underbody and loosen starter retaining bolts. Remove cylinder block to converter housing supports. Disconnect engine front support insulators from underbody crossmember. Place floor jack under front of oil pan, with block of wood between jack and oil pan. Raise engine enough to insert 1" wood blocks between insulator and underbody side members. Remove floor jack. Remove end attachments of front stabilizer bar and rotate ends of bar down to raise center of bar. Remove oil filter. Remove oil pan mounting bolts and lower oil pan to underbody crossmember. Remove splash shield from right side of oil pan. Disconnect pressure line at power steering pump. Remove bolts retaining pump to cylinder front cover and rotate pump to clear oil pan. Remove pan.

1969-73 CONTINENTAL MARK III & IV 460"

NOTE — On 1969 models only, it is required to disconnect and move power steering lines and pump.

Disconnect two transmission oil cooler lines from radiator. Disconnect radiator shroud and place shroud over pan. Raise vehicle, drain crankcase, and remove oil filter. Remove stabilizer bar. Disconnect pressure and return lines from power steering pump. Remove power steering

pump to cylinder front cover attaching bolts. Support engine with a jack, remove the bolt that attaches each engine support to insulator. Remove the bolt that attaches the transmission oil cooler line retaining bracket to the cylinder block. Loosen the two starter attaching bolts. Raise engine enough to remove the engine support insulator attaching bolts, then remove the right insulator and heat shield. Position a wooden block 3" high between each engine support bracket and exhaust manifold. Lower engine to allow blocks to support engine. Remove converter housing to cylinder block support attaching bolts and remove the brackets. Carefully rotate power steering pump in a clockwise direction as far as possible. Remove oil pan attaching bolts and lower the pan to the number 2 crossmember. Move transmission oil cooler lines upward, then remove pan.

1970-73 LINCOLN CONTINENTAL 460"

Disconnect battery ground cable and remove shroud from radiator. Raise vehicle on hoist, drain crankcase and remove starter. Raise engine and remove through bolts from each front engine support. Remove two forward bolts from right support insulator, loosen rear bolt and pivot insulator upward. Remove converter support bracket from each side of oil pan and place 1" blocks under each support bracket. Remove end attachments of front stabilizer bar and rotate ends down to raise center of bar. Remove oil filter, oil pan bolts and oil pan.