

GENERAL MOTORS (Cont.)

OLDSMOBILE (Cont.)

2) Disconnect idler arm bracket at frame and turn steering wheel to left lock position. Disconnect drive axles from output shafts. Remove battery cable bracket from output shaft support and output shaft support from engine block. Remove final drive-to-transmission bolts.

3) Remove final drive cover and final drive unit using a transmission jack. Remove splash shield, starter motor and flywheel inspection cover. Drain crankcase, remove oil pan bolts and remove oil pan.

4.3L (262") Diesel, Exc. Cutlass Ciera — 1) Remove oil pump drive and vacuum pump. Disconnect battery cables at battery and remove dipstick. Remove upper radiator support and fan shroud attaching screws. Raise vehicle on hoist and drain crankcase.

2) Remove flywheel cover and disconnect exhaust crossover pipes. Remove oil cooler lines at filter base. Remove starter motor. Remove engine mounts from engine and jack up front of engine using engine support tool (BT-6501 or equivalent). Remove oil pan bolts and oil pan.

4.3L (262") Diesel, Cutlass Ciera — 1) Install engine support fixture (BT-6603 or J-22825-1, J-22825-45 and J-22825-48 or equivalent) to right front side of cylinder head as shown in Fig. 1. Raise vehicle on hoist but keep rear slightly lower than front. Install suitable support stands at forward lift points.

2) Drain crankcase. Remove left side steering gear-to-cradle bolt and loosen right side steering gear-to-cradle bolt. Remove front stabilizer bar. Drill through spot weld, located between rear holes at left hand front stabilizer bar mounting point, using a 1/2" drill bit. Remove nuts attaching engine and transaxle to cradle mounts.

3) Disconnect lower left ball joint from knuckle. Place a suitable jack under transaxle oil pan, with block of wood between pan and jack, and raise transaxle until mount studs clear cradle. Remove bolts attaching front crossmember to right side of cradle. Remove bolts from left side body mounts.

4) Remove left and front crossmember assembly. It will be necessary to lower the rear crossmember below the left for removal clearance. Remove flywheel cover and starter assembly. Remove engine mount bracket. Remove oil pan bolts and oil pan.

V8 MODELS

4.3L (260") & 5.0L (307") Exc. Toronado — 1) Remove distributor cap and align rotor to number 1 firing position. Disconnect negative battery cable at battery and remove engine oil dipstick. On Cutlass model, disconnect upper fan shroud. On 88 and 98 model, remove upper radiator support and fan shroud screws.

2) On all models, raise vehicle on hoist and drain crankcase. Remove converter housing inspection cover. Disconnect exhaust and crossover pipes at manifolds. Remove starter motor. Install engine lifting tool (BT-6501 or equivalent).

3) Remove motor mount through bolts and raise front of engine as far as possible. On Cutlass model, remove motor mounts from engine block. On all models, remove oil pan bolts and remove oil pan.

4.3L (260") & 5.0L (307") Toronado — 1) Disconnect negative battery cable. Remove top and 2 left final drive-to-transmission bolts. Raise vehicle on hoist, support with safety stands and lower hoist. Disconnect idler and pitman arm from relay rod. Disconnect drive axles at output shafts. Remove battery cable bracket from output shaft support and output shaft support from engine block.

2) Remove 3 remaining final drive-to-transmission bolts and remove splash baffle. Remove final drive upper support bracket bolts. Remove final drive using a transmission jack. Remove starter motor and drain crankcase. Remove oil pan bolts and remove oil pan.

5.7L (350") Diesel, Exc. Toronado — 1) Remove oil pump drive and vacuum pump. Disconnect battery cables and remove dipstick. Remove upper radiator support and fan shroud attaching screws. Raise vehicle on hoist and drain crankcase. Remove flywheel inspection cover.

2) Disconnect exhaust and crossover pipes and remove oil cooler lines at filter base. Remove starter motor and engine mounts from engine block. Jack up front of engine, remove oil pan bolts and remove oil pan.

5.7L (350") Diesel, Toronado — 1) Disconnect negative battery cable. Remove top and 2 left final drive-to-transmission bolts. Raise vehicle on hoist, support with jack stands and lower hoist. Disconnect idler and pitman arms from relay rod.

2) Disconnect drive axles from output shafts. Remove battery cable bracket from output shaft support and output shaft support from engine block. Remove 3 final drive-to-transmission bolts and remove splash shield. Remove final drive upper support bracket bolts.

3) Remove final drive using a transmission jack. Remove starter motor and drain crankcase. Remove 2 nuts from front motor mount and loosen front motor mount bolts at side of block. Raise engine 1-1 1/2", remove oil pan bolts and remove oil pan.

OLDSMOBILE

TIGHTENING SPECIFICATIONS

Application	INCH Lbs. (N•m)
Oil Pan	
4-Cylinder	
1.8L (112")	
6 mm Bolts	72-108 (8-12)
8 mm Bolts	156-216 (18-24)
2.5L (151")	
Oil Pan Bolts	53 (6)
Timing Cover-to-Oil Pan Bolts	90 (10)
V6 Engines	
2.8L (173")	
6 mm Bolts	72-108 (8-12)
8 mm Bolts	168-264 (19-30)
3.0L (181")	168 (19)
3.8L (231") & 4.1L (252")	168 (19)
4.3L (262") Diesel	120 (14)
V8 Engines	
4.3L (260") & 5.0L (307")	120 (14)
5.7L (350") Diesel	120 (14)

PONTIAC

4-CYLINDER MODELS

1.6L (98") Exc. Models With 200 Auto. Trans. — 1) Disconnect negative battery cable and drain cooling system. Remove upper radiator support. If equipped with A/C, remove upper fan shroud half. If

equipped, disconnect transmission oil cooler lines. Remove radiator hoses, radiator and grill.

2) If equipped, remove A/C condensor from radiator support and lay on top of engine. Remove heater core housing and lay on top of en-

GENERAL MOTORS (Cont.)

PONTIAC (Cont.)

gine. Remove motor mount nuts and clips. Raise vehicle on hoist and drain crankcase. Disconnect exhaust pipe at manifold.

3) Remove body-to-crossmember braces. Remove front steering rack and pinion assembly from crossmember and steering shaft. Pull rack and pinion assembly down out of way. Remove stabilizer from vehicle. Install a suitable engine lifting tool on front of engine and raise engine.

4) Remove oil pan bolts and pull oil pan down, away from engine block. Remove oil pump suction pipe and screen. Remove oil pan through front of vehicle.

1.6L (98") Models With 200 Auto. Trans. — 1) Disconnect negative battery cable. Remove heater housing assembly from front of firewall and lay on top of engine. Pull back motor mount wire restraints and remove motor mount nuts.

2) Remove upper radiator support and fan shroud. Raise vehicle on hoist and drain crankcase. Remove converter housing inspection cover. Remove front steering rack and pinion assembly from crossmember. Loosen converter-to-rear exhaust pipe clamp bolts.

3) Install engine lifting tool on front of engine and raise engine. Remove oil pan bolts and remove oil pan.

1.8L (112") — Disconnect negative battery cable at battery. Raise vehicle on hoist and drain crankcase. Remove air conditioning bracket. Remove exhaust pipe and shield at manifold. Remove flywheel inspection cover. Remove oil pan bolts and remove oil pan.

1.8L (111") Diesel — Remove complete engine and support on a suitable stand. Remove oil pan bolts and nuts and remove oil pan.

2.5L (151") Exc. Firebird — 1) Raise vehicle and drain crankcase. Remove cradle-to-front engine mount nuts. Disconnect exhaust pipe at exhaust manifold and at rear transaxle mount. Disconnect starter and remove flywheel inspection cover. Remove upper generator bracket.

2) Install engine support fixture (J22825-40 or equivalent) and raise engine. Remove lower generator bracket and engine support bracket. Remove oil pan bolts and remove oil pan.

2.5L (151") Firebird — Disconnect negative battery cable, raise vehicle and drain crankcase. Disconnect exhaust pipe at manifold and loosen hanger bracket. Remove front engine mount through bolts. Raise engine with a suitable lifting tool, remove oil pan bolts and remove oil pan.

NOTE — Upon reinstallation of oil pan, timing gear cover bolts should be installed last. Cover bolts are installed at an angle and holes align after other pan bolts are snugged.

V6 MODELS

2.8L (173") Exc. Firebird — Disconnect negative battery cable, raise vehicle and drain crankcase. Remove starter motor and flywheel inspection cover. Support engine and remove engine mount bracket-to-engine bolts. Remove oil pan bolts, raise engine and remove oil pan.

2.8L (173") Firebird — Disconnect negative battery cable and remove fan shroud. Raise vehicle on hoist and drain crankcase. Remove A.I.R. pipe at converter and remove converter hanger bolts. Remove starter motor and motor mount through bolts. Raise engine, remove oil pan bolts and remove oil pan while turning crankshaft to provide removal clearance.

3.8L (231") & 4.1L (252") — Raise vehicle on hoist and drain crankcase. Remove flywheel housing inspection cover. Remove exhaust crossover pipe. Remove oil pan bolts and remove oil pan.

4.3L (262") Diesel — 1) Install engine support fixture (BT-6603 or J-22825-1, J-22825-45, and J-22825-48 or equivalent) to right front side of cylinder head as shown in Fig. 1. Raise vehicle on hoist but keep rear slightly lower than front. Install suitable support stands at front lift points.

2) Drain crankcase. Remove left side steering gear-to-cradle bolt and loosen right side steering gear-to-cradle bolt. Remove front stabilizer bar. Drill through spot weld, located between rear holes at left hand front stabilizer bar mounting point, using a 1/2" drill bit. Remove nuts attaching engine and transaxle to cradle mounts.

3) Disconnect lower left ball joint from knuckle. Place a suitable jack under transaxle oil pan, with block of wood between pan and jack, and raise transaxle until mount studs clear cradle. Remove bolts attaching front crossmember to right side of cradle. Remove bolts from left side body mounts.

4) Remove left and front crossmember assembly. It will be necessary to lower the rear crossmember below the left crossmember for removal clearance. Remove flywheel cover and starter assembly. Remove engine mount bracket. Remove oil pan bolts and oil pan.

V8 MODELS

5.0L (305") — Disconnect negative battery cable and remove fan shroud. Raise vehicle on hoist and drain crankcase. Remove A.I.R. pipe at converter and remove converter hanger bolts. Remove starter motor and motor mount through bolts. Remove oil pan bolts and remove oil pan while turning crankshaft to provide removal clearance.

5.7L (350") Diesel — 1) Remove oil pump drive and vacuum pump. Disconnect negative battery cables and remove dipstick. Remove upper radiator support and fan shroud attaching screws. Raise vehicle on hoist and drain crankcase.

2) Remove flywheel inspection cover and disconnect exhaust and crossover pipes. Remove oil cooler lines at filter base. Remove starter motor and remove motor mounts from engine block. Raise front of engine, remove oil pan bolts and remove oil pan.

PONTIAC	
TIGHTENING SPECIFICATIONS	
Application	INCH Lbs. (N•m)
Oil Pan	
4-Cylinder	
1.6L (98")	55 (6)
1.8L (112")	
6 mm Bolts	72-108 (8-12)
8 mm Bolts	156-216 (18-24)
1.8L (111") Diesel	60 (7)
2.5L (151")	
Oil Pan Bolts	55 (6)
Timing Cover-to-Oil Pan Bolts	90 (10)
V6 Engines	
2.8L (173")	
6 mm Bolts	72-108 (8-12)
8 mm Bolts	168-264 (19-30)
3.8L (231") & 4.1L (252")	168 (19)
4.3L (262") Diesel	120 (14)
V8 Engines	
5.0L (305")	
1/4" Bolts	80 (9)
5/16" Bolts	165 (19)
5.7L (350") Diesel	120 (14)