

GENERAL MOTORS

BUICK

4-CYLINDER MODELS

2.5L (151") - 1 Raise vehicle on hoist and drain crankcase. Remove cradle-to-front motor mount nuts. Disconnect exhaust pipe at manifold and at rear transaxle mount. Disconnect starter and remove transaxle housing inspection cover.

2) Remove upper alternator bracket. Install engine lifting tool (J-22825-40 or equivalent) and raise engine. Remove lower alternator bracket and engine support bracket. Remove oil pan bolts, wiring harness guide, and remove oil pan.

V6 MODELS

2.8L (173") - 1 Disconnect negative battery cable at battery. Raise vehicle on hoist and drain crankcase. Remove exhaust crossover pipe. Remove transaxle housing inspection cover. Remove starter motor.

2) On manual transaxle, remove motor mount nuts and raise engine $\frac{3}{4}$ ". On all models, remove front cover-to-oil pan and oil pan bolts. Remove oil pan.

3.8L (231") & 4.1L (252") Exc. Riviera - 1 Raise vehicle and support with safety stands. Drain crankcase. Remove converter housing inspection cover and disconnect exhaust crossover pipe at manifold. Remove oil pan bolts and remove oil pan.

3.8L (231") & 4.1L (252") Riviera - 1 Disconnect negative battery cable at battery. Remove 3 final drive-to-transmission bolts. Raise and support vehicle on safety stands. Disconnect both frame braces. Disconnect idler and pitman arm at relay rod using suitable tool (J-24319-01 or equivalent).

2) Disconnect drive axles at output shafts and battery cable bracket at output shaft support. Disconnect output shaft support at engine block. Remove 3 final drive-to-transmission bolts. Remove final drive using transmission jack. Remove splash shield and starter motor. Drain crankcase, remove oil pan bolts and remove oil pan.

V8 MODELS

4.3L (265") - 1 Disconnect negative battery cable at battery. Remove fan. If necessary on A/C equipped models, remove compressor from mounting brackets and position aside, leaving refrigerant lines connected. Remove distributor cap. Raise vehicle on hoist and drain crankcase.

2) Disconnect exhaust pipes at manifolds. Remove starter motor. Remove transmission housing inspection cover. Position No. 1 cylinder at bottom dead center. Loosen fuel pump-timing cover bolts for clearance.

3) Install engine lifting tool (J-23515-2 or equivalent) to engine with adapter tool (J-23515-16 or equivalent) bolted to lifting tool. Tighten tool to timing chain cover bolts. Remove motor mount through bolts.

4) Remove oil pan bolts and, allowing tool to swing freely, raise engine using jack screw in tool until oil pan can be removed. Support engine with blocks of wood and remove oil pan.

NOTE - Do not exceed 35 ft. lbs. torque on engine lifting tool jack screw when raising engine assembly.

5.0L (307") Exc. Riviera - 1 Remove distributor cap and align rotor to No. 1 firing position. Disconnect negative battery cable at battery and remove engine oil dipstick. Remove upper radiator support and fan shroud screws. Raise vehicle on hoist and drain crankcase.

2) Remove converter housing inspection cover. Disconnect exhaust and crossover pipes at manifolds. Remove starter motor. Install engine lifting tool (J-23515 or equivalent) to engine with adapter tool (J-23515-20 or equivalent) bolted to lifting tool.

3) Remove motor mount through bolts and raise front of engine as far as possible. Remove motor mounts from engine block. Remove oil pan bolts and remove oil pan.

5.7L (350") Exc. Riviera - 1 Disconnect negative battery cable at batteries. Remove engine oil dipstick. Remove oil pump drive and vacuum pump. Remove upper radiator support and fan shroud screws. Raise vehicle on hoist and drain crankcase. Remove converter housing inspection cover.

2) Disconnect exhaust and crossover pipes at manifolds. Remove engine oil cooler lines at filter base. Remove starter motor. Install engine lifting tool (J-23515 or equivalent) and adapter to engine.

3) Remove motor mount through bolts and raise front of engine as far as possible. Remove motor mounts from engine block. Remove oil pan bolts and remove oil pan.

Riviera (All Engines) - 1 Disconnect negative battery cable at battery or batteries. Remove 3 final drive-to-transmission bolts. Raise and support vehicle on safety stands. Disconnect both frame braces. Disconnect idler and pitman arm at relay rod using suitable tool (J-24319-01 or equivalent).

2) Disconnect drive axles at output shafts and battery cable bracket at output shaft support. Disconnect output shaft support at engine block. Remove 3 final drive-to-transmission bolts. Remove final drive using transmission jack. Remove splash shield and starter motor. Drain crankcase, remove oil pan bolts and remove oil pan.

BUICK

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
2.5L (151") 4-Cyl.	
Oil Pan Bolts	6
Timing Cover-to-Oil Pan Bolts	7
V6 Engines	
2.8L (173")	
6 mm Bolts	6-9
8 mm Bolts	14-22
3.8L & 4.1L (231" & 252")	14
V8 Engines	
4.3L (265")	12
5.0L & 5.7L (307" & 350")	10