

2010 Chevrolet Corvette | Corvette VIN Y Service Manual | Engine | Engine Mechanical - 4.8L, 5.3L, 6.0L, 6.2L, or 7.0L
 | Specifications | **Document ID: 2296271**

Fastener Tightening Specifications (7.0L LS7)

Application	Specification	
	Metric	English
Camshaft Position (CMP) Sensor Bolt	10 N·m	89 lb in
Camshaft Retainer Bolts – TORX® Head Bolts	15 N·m	11 lb ft
Camshaft Sprocket Bolts	30 N·m	22 lb ft
Clutch Pressure Plate Bolts	70 N·m	52 lb ft
Connecting Rod Bolts – First Pass	20 N·m	15 lb ft
Connecting Rod Bolts – Final Pass	110 degrees	
Coolant Air Bleed Pipe and Cover Bolts	12 N·m	106 lb in
Coolant Temperature Sensor	20 N·m	15 lb ft
Crankshaft Balancer Bolt – Step 1	150 N·m	111 lb ft
Crankshaft Balancer Bolt – Step 2	Loosen 360 degrees	
Crankshaft Balancer Bolt – Step 3	80 N·m	59 lb ft
Crankshaft Balancer Bolt – Step 4	200 degrees	

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Crankshaft Bearing Cap M8 Bolts – First Pass in Sequence	20 N·m	15 lb ft
Crankshaft Bearing Cap M8 Bolts – Final Pass in Sequence	30 N·m	22 lb ft
Crankshaft Bearing Cap M10 Bolts – First Pass in Sequence	20 N·m	15 lb ft
Crankshaft Bearing Cap M10 Bolts – Final Pass in Sequence	80 degrees	
Crankshaft Bearing Cap M10 Studs – First Pass in Sequence	20 N·m	15 lb ft
Crankshaft Bearing Cap M10 Studs – Final Pass in Sequence	51 degrees	
Crankshaft Oil Deflector Nuts	25 N·m	18 lb ft
Crankshaft Position (CKP) Sensor Bolt	25 N·m	18 lb ft
Crankshaft Rear Oil Seal Housing Bolts	25 N·m	18 lb ft
Cylinder Head Coolant Plug	20 N·m	15 lb ft
Cylinder Head M8 Bolts – in Sequence	30 N·m	22 lb ft
Cylinder Head M11 Bolts – First Pass in Sequence	30 N·m	22 lb ft
Cylinder Head M11 Bolts – Second Pass in Sequence	90 degrees	
Cylinder Head M11 Bolts – Final Pass in Sequence	70 degrees	
Engine Block Coolant Drain Hole Plug	60 N·m	44 lb ft
Engine Block Oil Gallery Plugs	60 N·m	44 lb ft

Engine Mount Bracket Bolts	50 N·m	37 lb ft
Engine Mount to Front Suspension Cross Member Nut	58 N·m	43 lb ft
Engine Mount-to-Mount Bracket Nut	100 N·m	74 lb ft
Engine Oil Tank Bolts	25 N·m	18 lb ft
Engine Oil Tank Bracket Bolts	25 N·m	18 lb ft
Engine Oil Tank Clamp Nut	21 turns	
Engine Oil Tank Transfer Tube Fittings	35 N·m	25 lb ft
Engine Oil Temperature Sensor	20 N·m	15 lb ft
Evaporative (EVAP) Emission Canister Purge Solenoid Valve Bracket Bolt	50 N·m	37 lb ft
Exhaust Manifold Bolts – First Pass	15 N·m	11 lb ft
Exhaust Manifold Bolts – Final Pass	20 N·m	15 lb ft
Exhaust Manifold Studs	20 N·m	15 lb ft
Flywheel Bolts – First Pass	30 N·m	22 lb ft
Flywheel Bolts – Second Pass	50 N·m	37 lb ft
Flywheel Bolts – Final Pass	100 N·m	74 lb ft
Front Cover Bolts	25 N·m	18 lb ft

Fuel Injection Fuel Rail Bolts	10 N·m	89 lb in
Ignition Coil Bracket-to-Valve Rocker Arm Cover Studs	12 N·m	106 lb in
Ignition Coil-to-Bracket Bolts	10 N·m	89 lb in
Intake Manifold Bolts – First Pass in Sequence	5 N·m	44 lb in
Intake Manifold Bolts – Final Pass in Sequence	10 N·m	89 lb in
J41798 M8 Bolt	25 N·m	18 lb ft
J41798 M10 Bolts	50 N·m	37 lb ft
Knock Sensor Bolts	25 N·m	18 lb ft
Oil Filter	30 N·m	22 lb ft
Oil Filter Fitting	55 N·m	40 lb ft
Oil Pan Closeout Cover Bolt – Left Side	9 N·m	80 lb in
Oil Pan Closeout Cover Bolt – Right Side	9 N·m	80 lb in
Oil Pan Drain Plugs	25 N·m	18 lb ft
Oil Pan M6 Bolts – Oil Pan-to-Rear Oil Seal Housing	12 N·m	106 lb in
Oil Pan M8 Bolts – Oil Pan-to-Engine Block and Oil Pan-to-Front Cover	25 N·m	18 lb ft
Oil Pressure Sensor	35 N·m	26 lb ft

Oil Pump Cover Bolts	10 N·m	89 lb in
Oil Pump Relief Valve Plug	14 N·m	124 lb in
Oil Pump Suction Pipe-to-Oil Pan Bolts	12 N·m	106 lb in
Oil Pump-to-Engine Block Bolts	25 N·m	18 lb ft
Spark Plugs	20 N·m	15 lb ft
Throttle Body Bolts	10 N·m	89 lb in
Timing Chain Dampener Bolts	25 N·m	18 lb ft
Valley Cover Bolts	25 N·m	18 lb ft
Valve Lifter Guide Bolts	12 N·m	106 lb in
Valve Rocker Arm Bolts	30 N·m	22 lb ft
Valve Rocker Arm Cover Bolts	12 N·m	106 lb in
Water Inlet Housing Bolts	15 N·m	11 lb ft
Water Pump Bolts – First Pass	15 N·m	11 lb ft
Water Pump Bolts – Final Pass	30 N·m	22 lb ft