
**TORQUE SPECIFICATIONS (4.3L, 5.0L & 5.7L)**

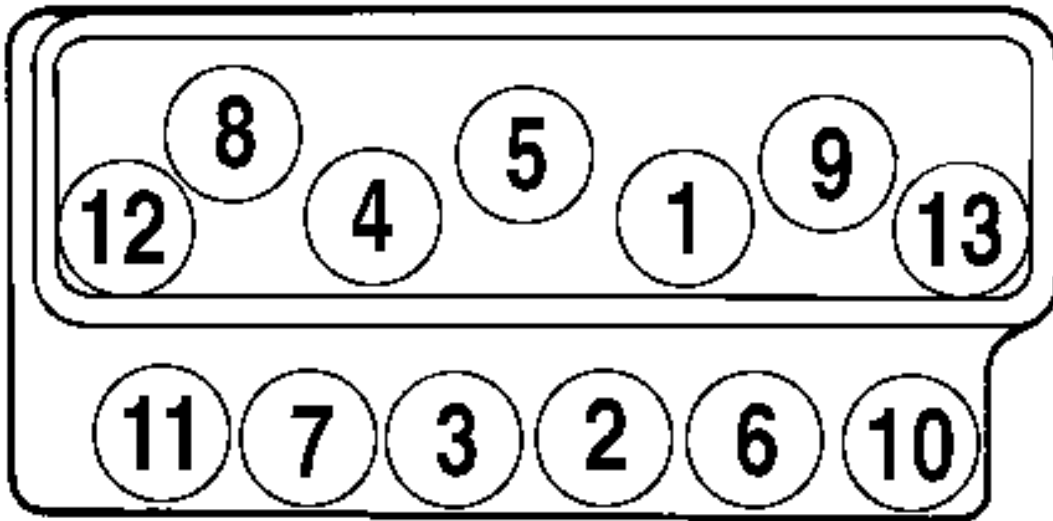
<b>Application</b>	<b>Ft. Lbs. (N.m)</b>
Balance Shaft Gear Bolt	
Step 1	15 (20)
Step 2	Additional 35 Degrees
Bellhousing Bolt	35 (47)
Camshaft Sprocket Bolt	18 (25)
Connecting Rod Cap Nut	
4.3L	
Step 1	20 (27)
Step 2	Additional 70 Degrees
5.0L & 5.7L	
Step 1	20 (27)
Step 2	Additional 55 Degrees
Crankshaft Damper Bolt	74 (100)
Crankshaft Oil Deflector Bolt/Nut	27 (36)
Cylinder Head Bolts <sup>(1)</sup>	
Step 1	24 (34)
Step 2	45 (61)
Step 3	65 (90)
Exhaust Manifold Bolt	
Step 1	11 (15)
Step 2	22 (30)
Flywheel Bolt	74 (100)
Main Bearing Cap Bolt	
4.3L	
Step 1	15 (20)
Step 2	Additional 73 Degrees
5.0L & 5.7L	
2-Bolt Main	77 (105)
4-Bolt Main Inner	77 (105)
4-Bolt Main Outer	67 (90)
Oil Filter Adapter Bolt (4.3L)	15 (20)
Oil Filter Adapter Bolt (5.0L & 5.7L)	18 (25)
Oil Pan Nut/Bolt	18 (25)
Oil Pump Bolt	66 (90)

Rocker Arm	
4.3L With Press-In Studs	
Rocker Stud	35 (47)
Rocker Nut	18 (25)
4.3L With Screw-In Studs	
Rocker Stud	35 (47)
Rocker Nut	19 (26)
5.0L & 5.7L	(2)
Thermostat Housing Bolt	21 (28)
Valve Lifter Retainer Bolt	
4.3L	12 (16)
5.0L & 5.7L	18 (25)
Water Pump Bolt	33 (45)
<b>INCH Lbs. (N.m)</b>	
Balance Shaft Retainer Plate Bolts (4.3L)	106 (12)
Camshaft Retainer Bolt	106 (12)
Front Cover Bolt	106 (12)
Intake Manifold	
Upper (4.3)	
Step 1	44 (5)
Step 2	88 (10)
Upper (5.0 & 5.7)	
Step 1	44 (5)
Step 2	88 (10)
Lower <sup>(3)</sup>	
Step 1	27 (3)
Step 2	106 (12)
Step 3	133 (15)
Oil Pan Front & Rear Stud (5.7L)	106 (12)
Oil Pump Cover Bolt	106 (12)
Rear Crankshaft Oil Seal Retainer Bolt	106 (12)
Valve Cover Bolt	106 (12)
<p>(1) Apply GM Sealant (1052080) to head bolt threads. Tighten bolts in sequence. See <a href="#">Fig. 8</a> or <a href="#">Fig. 9</a>.</p> <p>(2) See <b>VALVE CLEARANCE ADJUSTMENT</b> under ADJUSTMENTS.</p> <p>(3) Tighten bolts in sequence. See <a href="#">Fig. 7</a>.</p>	

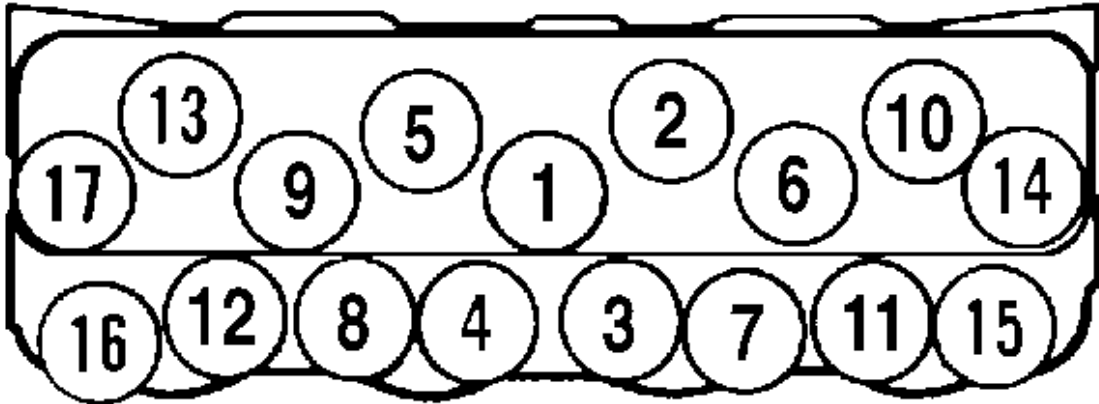
### TORQUE SPECIFICATIONS (7.4L)

Application	Ft. Lbs. (N.m)
Bellhousing Bolt	30 (41)
Camshaft Sprocket Bolt	22 (30)
Connecting Rod Cap Nut	47 (64)

Crankshaft Damper Bolt	110 (149)
Cylinder Head Bolts (1998) <sup>(1)</sup>	
Step 1	30 (41)
Step 2	59 (80)
Step 3	92 (125)
Exhaust Manifold Center Bolt	40 (54)
Exhaust Manifold Nut	22 (30)
Flywheel Bolt	66 (90)
Intake Manifold Bolt <sup>(2)</sup>	
Upper	
Step 1	6 (8)
Step 2	13 (18)
Lower	
1998	30 (40)
1999	
Step 1	22 (30)
Step 2	30 (40)
Main Bearing Cap Bolt	102 (138)
Oil Pan Bolt	18 (25)
Oil Pump Bolt	65 (90)
Rocker Arm Bolt	40 (54)
Starter Motor	30 (40)
Thermostat Housing Bolt	27 (37)
Water Pump Bolt	30 (41)
	<b>INCH Lbs. (N.m)</b>
Camshaft Retainer Bolt	124 (14)
Crankshaft Position Sensor	106 (12)
Camshaft Retainer Bolt	106 (12)
Front Cover Bolt	89 (10)
Oil Pump Cover Bolt	106 (12)
Valve Cover Bolt	
1998	71 (8)
1999	106 (12)
<p>(1) For 1999 7.4L installation specifications, see appropriate procedure under <b>CYLINDER HEAD</b> under REMOVAL &amp; INSTALLATION. Apply GM Sealant (1052080) to head bolt threads.</p> <p>(2) Tighten bolts in sequence. See <a href="#">Fig. 5</a>.</p>	

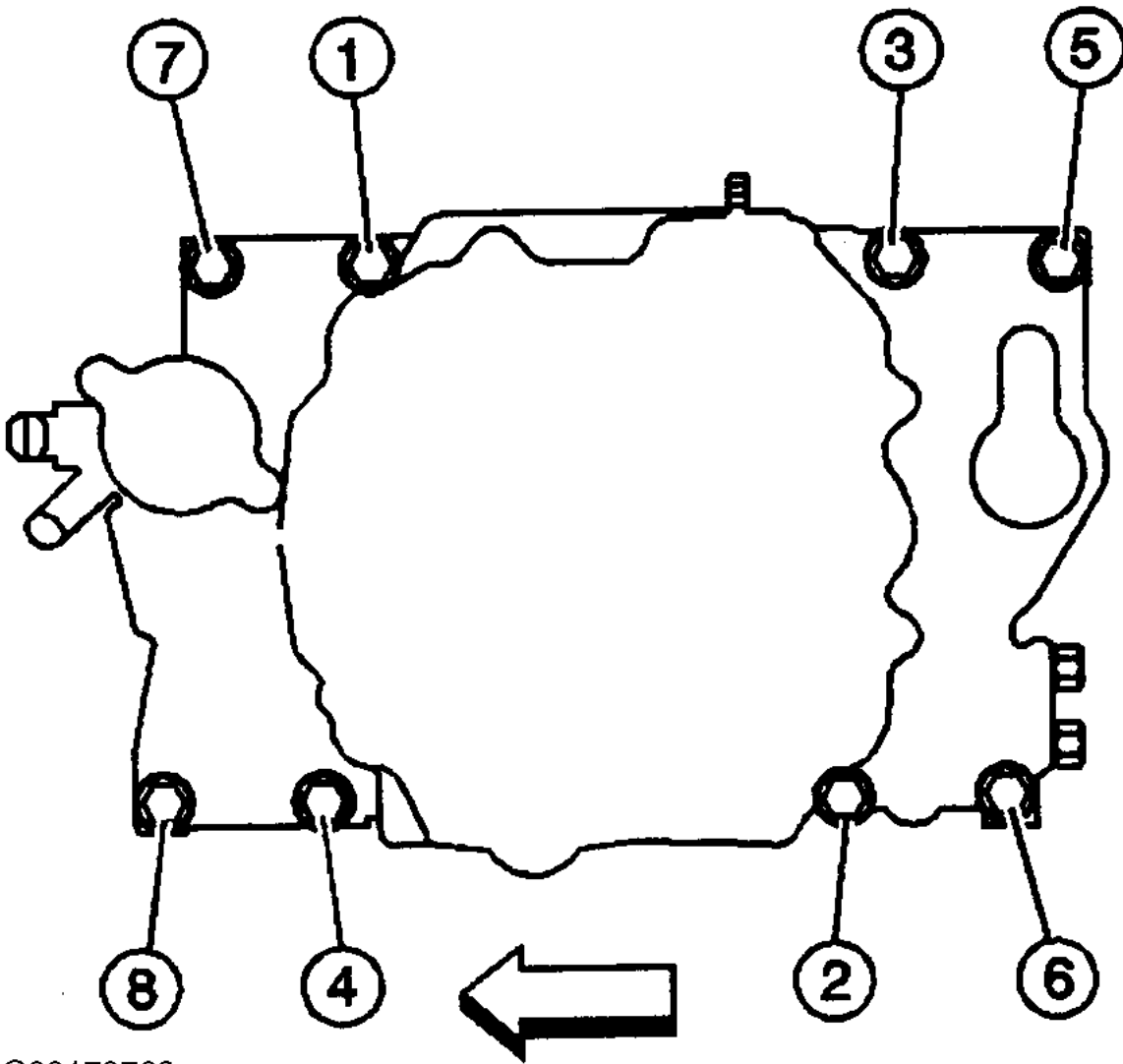


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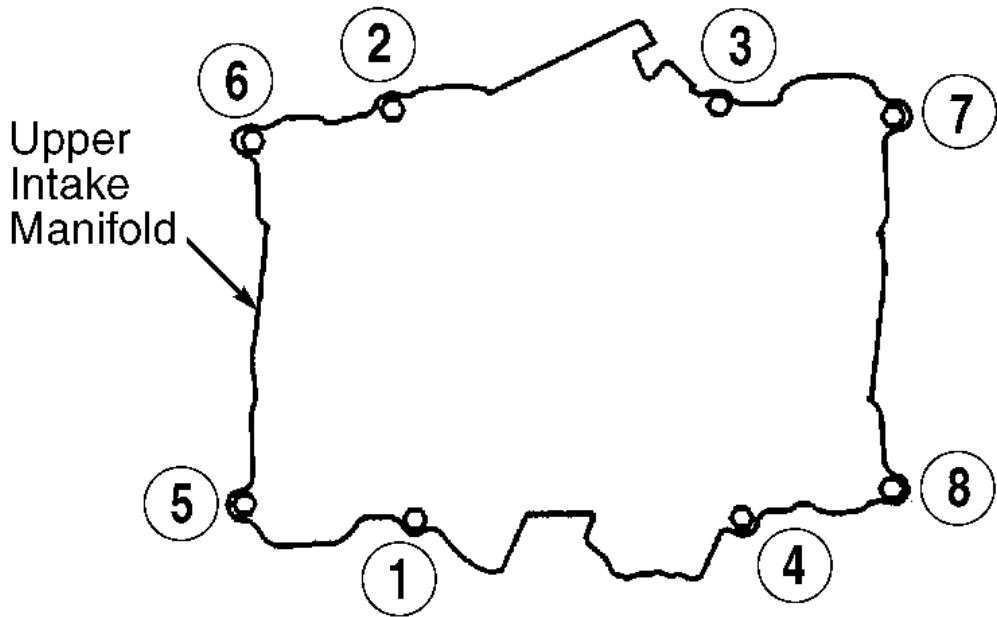


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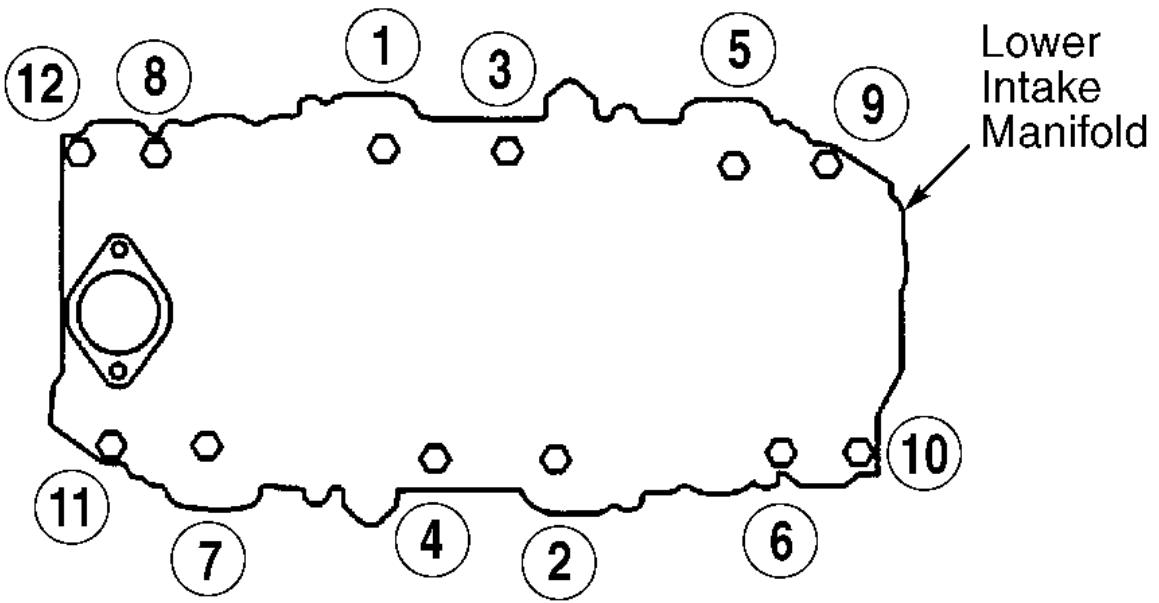
**Fig. 9: Cylinder Head Bolt Tightening Sequence (5.0L & 5.7L)**  
Courtesy of GENERAL MOTORS CORP.



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← FRONT OF ENGINE



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