

CHRYSLER AND DODGE

300 Series • Magnum

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SPECIFICATION AND MAINTENANCE CHARTS

ENGINE AND VEHICLE IDENTIFICATION

Engine							Model Year	
Code ①	Liters (cc)	Cu. In.	Cyl.	Fuel Sys.	Engine Type	Eng. Mfg.	Code ②	Year
R	2.7 (2736)	167	6	MPI	DOHC	DaimlerChrysler	5	2005
G	3.5 (3507)	214	6	MPI	SOHC	DaimlerChrysler	6	2006
H	5.7 (5654)	345	8	MPI	OHV	DaimlerChrysler		

SMFI: Sequential Multi-port Fuel Injection

① 8th position of VIN

② 10th position of VIN

06009-300C-C01

GENERAL ENGINE SPECIFICATIONS

Year	Model	Engine Displacement	Engine Series	Net Horsepower	Net Torque @ rpm	Bore x Stroke	Com-pression Ratio	Oil Pressure
		Liters	VIN	@ rpm	(ft. lbs.)	(in.)		@ rpm
2005	300, Magnum SE	2.7	R	190@6400	190@4000	3.386x3.091	9.67:1	45-105@3000
	300, Magnum SXT	3.5	G	250@6400	250@3800	3.780x3.189	10:01	45-105@3000
	300C, Magnum RT	5.7	H	340@5000	390@4000	3.910x3.580	9.6:1	25-110@3000

06009-300C-C02

GASOLINE ENGINE TUNE-UP SPECIFICATIONS

Year	Engine Displacement	Engine VIN	Spark Plug Gap	Ignition Timing	Fuel Pump	Idle Speed	Valve Clearance	
	Liters		(in.)	(deg.)	(psi)	(rpm)	Intake	Exhaust
2005	2.7	R	0.048-0.058	①	53-63	②	HYD	HYD
	3.5	G	0.048-0.058	①	53-63	②	HYD	HYD
	5.7	H	0.045	①	53-63	②	HYD	HYD

NOTE: The Vehicle Emission Control Information (VECI) label often reflects specification changes made during production. The label figures must be used if they differ from those in this chart.

HYD: Hydraulic

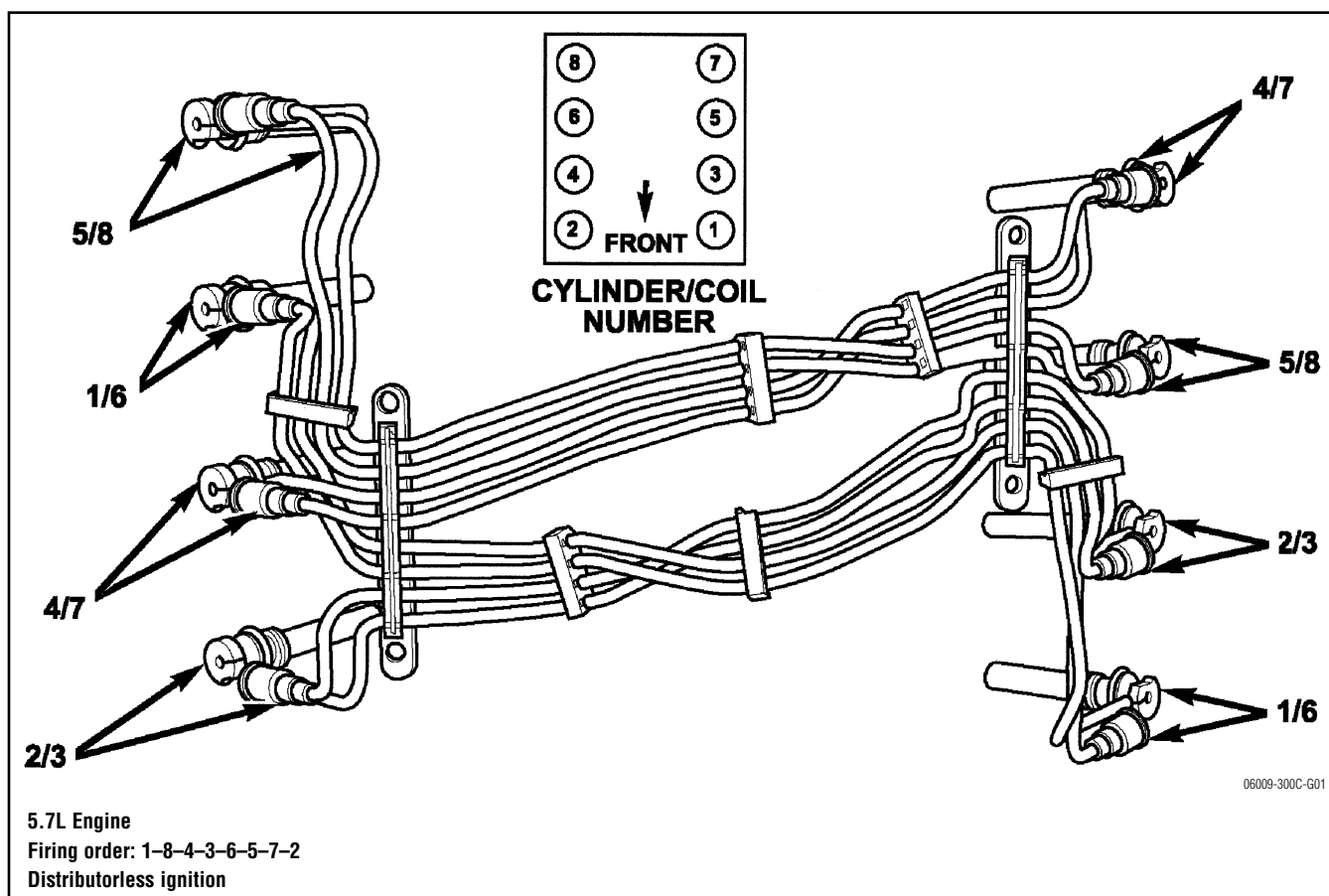
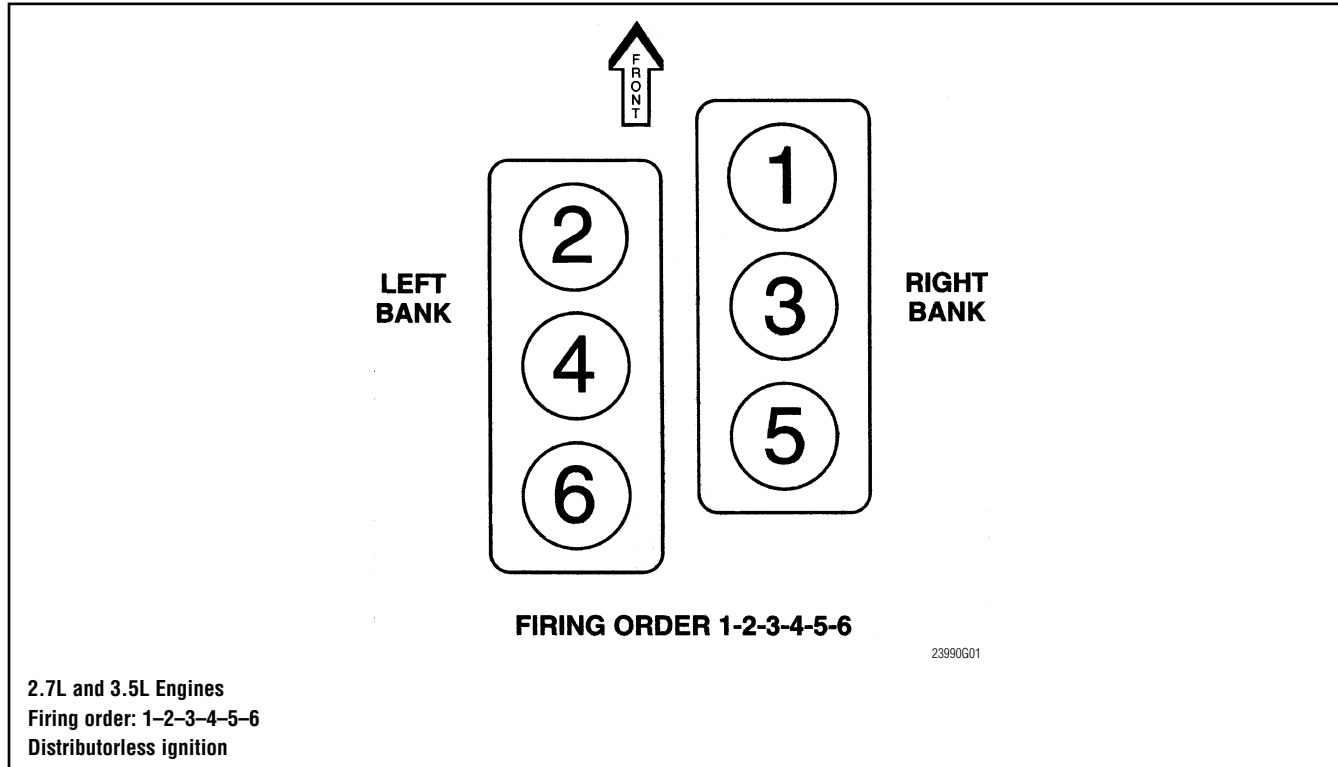
① Ignition timing is controlled by the PCM and is not adjustable.

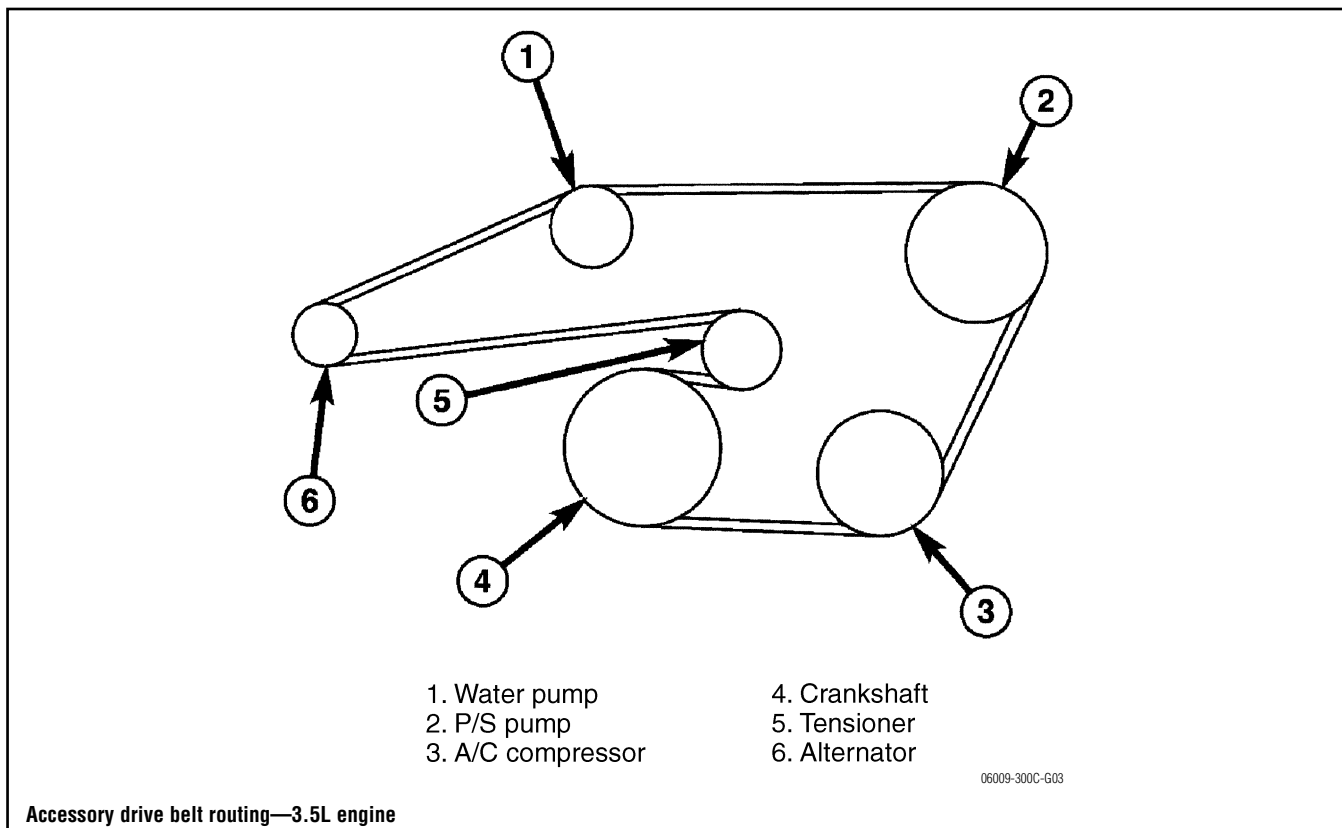
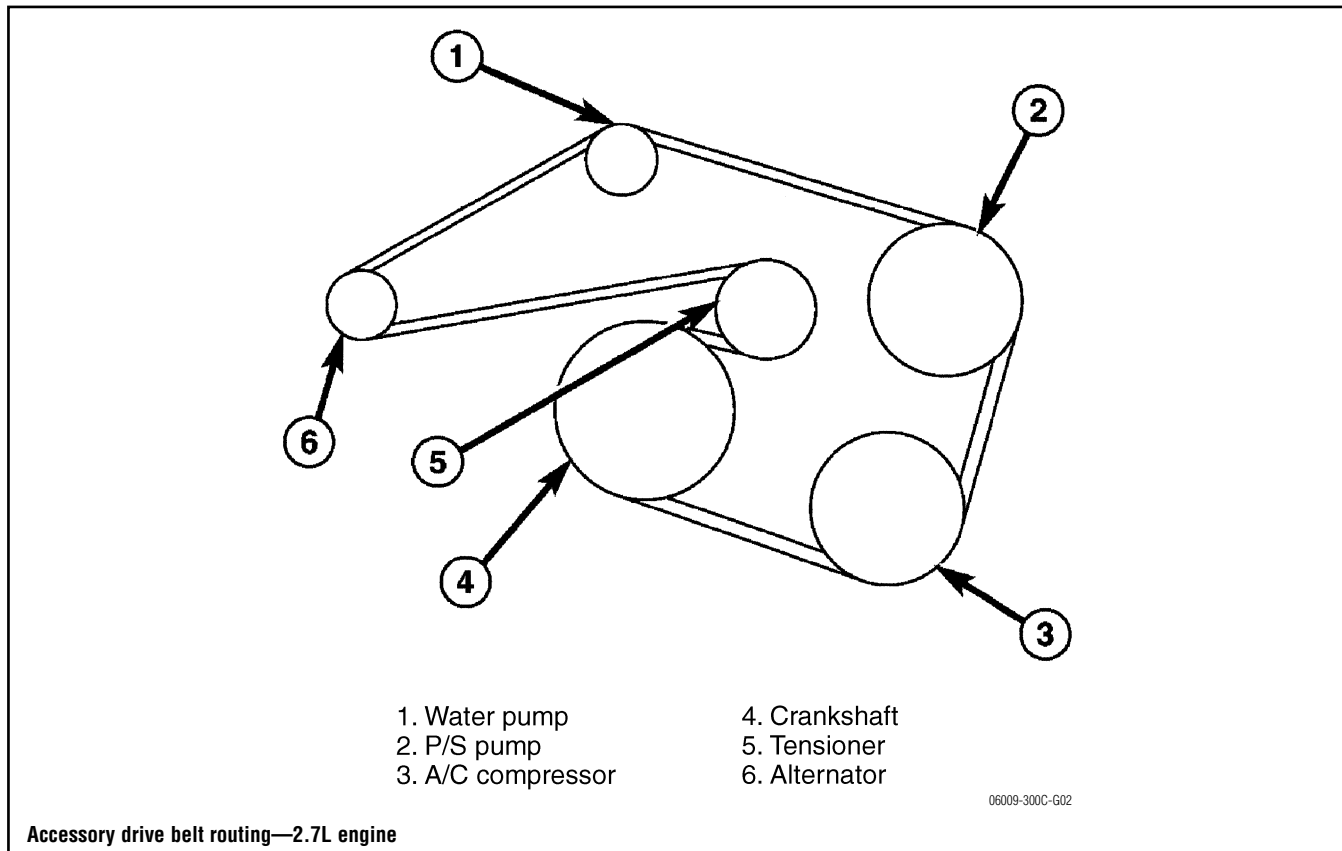
② Idle speed is controlled by the PCM and is not adjustable

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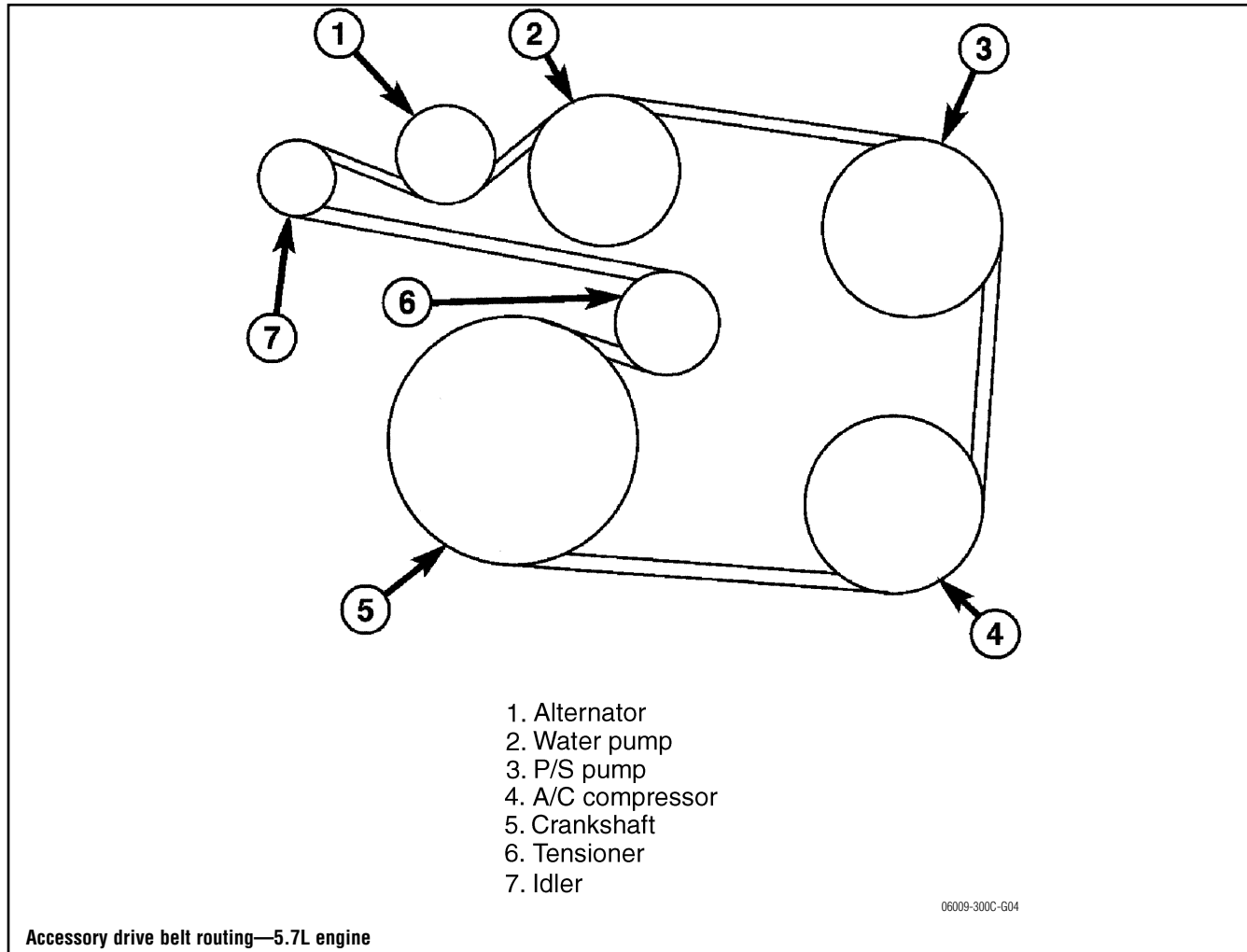
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CAPACITIES

Year	Engine Displacement	Engine VIN	Engine Oil with Filter (qts.)	Transmission pts. ①	Transfer Case (pts.)	Front Axle (pts.)	Rear Axle (pts.)	Fuel Tank (gal.)	Cooling System (qts.)
	Liters								
2005	2.7	R	6.0	②	1.3	1.26	③	18.0	9.7
	3.5	G	6.0	②	1.3	1.26	③	18.0	10.6
	5.7	H	7.0	②	1.3	1.26	③	19.0	14.6

NOTE: All capacities are approximate. Add fluid gradually and check to be sure a proper fluid level is obtained.

① For fluid drain and filter replacement only.

② NAG1: 10.6 pts.
42RLE: 8.0 pts.

③ 198mm axle: 3.0 pts.
210mm axle: 3.4 pts.

VALVE SPECIFICATIONS

Year	Engine Displacement Liters	Engine VIN	Seat Angle (deg.)	Face Angle (deg.)	Spring Test Pressure (lbs. @ in.)	Spring Installed Height (in.)	Stem-to-Guide Clearance (in.)		Stem Diameter (in.)	
							Intake	Exhaust	Intake	Exhaust
2005	2.7	R	45-	44.5-	①	1.496	0.0009-	0.0020-	0.2337-	0.2326-
			45.5	45.5			0.0026	0.0037	0.2344	0.2333
	3.5	G	45-	44.5-	②	1.496	0.0009-	0.0020-	0.2730-	0.2719-
			45.5	45			0.0026	0.0037	0.2737	0.2726
	5.7	H	44.5-	45-	242@1.322	1.811	0.0008-	0.0019-	0.3120-	0.3110-
			45	45.5			0.0025	0.0037	0.3130	0.3120

① Intake: 148-162@1.1417
Exhaust: 138-151@1.1811

② Intake: 130-144@1.239
Exhaust: 140-155@1.239

06009-300C-C05

CRANKSHAFT AND CONNECTING ROD SPECIFICATIONS

All measurements are given in inches.

Year	Engine Displacement Liters	Engine VIN	Crankshaft				Connecting Rod		
			Main Brg. Journal Dia.	Main Brg. Oil Clearance	Shaft End-play	Thrust on No.	Journal Diameter	Oil Clearance	Side Clearance
2005	2.7	R	2.4997-	0.0012-	0.0019-	3	2.1060-	0.0013-	0.0052-
			2.5004	0.0022	0.0108		2.1067	0.0027	0.0150
	3.5	G	2.5190-	0.0014-	0.0040-	3	2.2282-	0.0010-	0.0153 max.
			2.5120	0.0026	0.0120		2.2283	0.0030	
	5.7	H	2.5585-	0.0009-	0.0020-	3	2.1250-	0.0007-	0.0030-
			2.5595	0.0020	0.0110		2.1260	0.0023	0.0137

06009-300C-C06

PISTON AND RING SPECIFICATIONS

All measurements are given in inches.

Year	Engine Displacement Liters	Engine VIN	Piston Clearance	Ring Gap			Ring Side Clearance		
				Top Compression	Bottom Compression	Oil Control	Top Compression	Bottom Compression	Oil Control
2005	2.7	R	0-0.0016	0.0080-	0.0146	0.010-	0.0013-	0.0016-	0.0022-
				0.0140	0.0249	0.030	0.0032	0.0031	0.0080
	3.5	G	0-0.0018	0.0080-	0.0078-	0.010-	0.0016-	0.0016-	0.0015-
				0.0140	0.0157	0.030	0.0031	0.0031	0.0073
	5.7	H	0.0008-	0.0090-	0.0137-	0.006-	0.0007-	0.0007-	0.0007-
				0.0019	0.0149	0.0236	0.026	0.0026	0.0022

06009-300C-C07

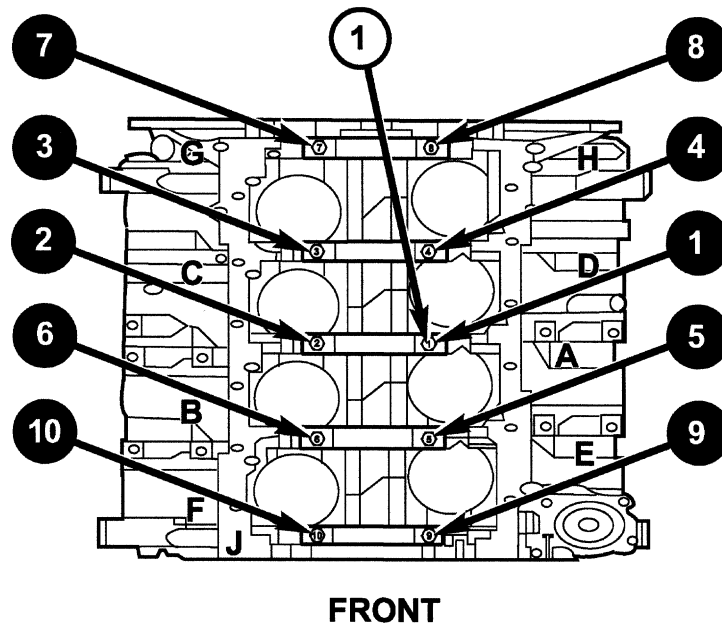
1-8**CHRYSLER AND DODGE
300 SERIES • MAGNUM****TORQUE SPECIFICATIONS**

All readings in ft. lbs.

Year	Engine		Cylinder Head Bolts	Main Bearing Bolts	Rod Bearing Bolts	Crankshaft		Manifold		Spark Plugs	Oil Pan Drain Plug
	Displacement Liters	Engine VIN				Damper Bolts	Flywheel Bolts	Intake	Exhaust		
2005	2.7	R	①	②	③	125	70	④	16	15	20
	3.5	G	⑤	②	③	70	70	⑥	16	20	20
	5.7	H	①	⑦	⑧	129	70	⑨	18	13	20

- ① See the text section
- ② First, tighten the main cap bolts to 15 ft. lbs. +90 degrees
Second, tighten the windasge tray bolts to 20 ft. lbs. +90 degrees
Third, tighten the tie (horizontal) bolts to 250 inch lbs.
- ③ 20 ft. lbs. + 90 degrees
- ④ Upper and Lower: 105 inch lbs.
- ⑤ Step 1: 45 ft. lbs.
Step 2: 65 ft. lbs.
Step 3: Verify 65 ft. lbs.
Step 4: + 90 degrees
- ⑥ Upper: 105 inch lbs.
Lower: 250 inch lbs.
- ⑦ First, install the main bearing cap bolts, and torque them, in sequence, to:
Step 1: 20 ft. lbs.
Step 2: +90 degrees
Then, install the crossbolts and torque them, in sequence, to 21 ft. lbs.
- ⑧ 15 ft. lbs. +90 degrees
- ⑨ 105 inch lbs.

06009-300C-C08



06009-300C-G05

5.7L engine crankshaft torque sequence