

09 - Engine, 6.4L / Technical Specifications

TORQUE SPECIFICATIONS

ENGINE BLOCK

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Camshaft Phaser Bolt	122	90	—	
Camshaft Thrust Plate Bolts	12	—	106	
Coolant Drain Plugs ¼ x 18 NPT	34	25	—	
Connecting Rod Cap Bolts	40 plus 90° Turn	30 plus 90° Turn	—	
Crankshaft Main Bearing Cap Bolts	Specific torque and fastener pattern required; follow installation sequence (Refer to 09 - Engine/Engine Block/CRANKSHAFT - Installation).			
Engine Oil Cooler to Engine Block	33	24	—	
Lifter Guide Holder	12	9	—	
MDS Solenoid - Bolts	11	8	—	
Oil Pan Bolts	Specific torque and fastener pattern required; follow installation sequence (Refer to 09 - Engine/Lubrication/PAN, Oil/Installation).			Do not reuse these fasteners. If removed, a NEW fastener must be installed and tightened to specifications.
Oil Dipstick Tube	12	9	—	

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Oil Gallery Plugs ¼ x 18 NPT	20	15	—	
Oil Pan Drain Plug	27	20	—	
Oil Pressure Sensor	15	11	—	
Oil Pump to Engine Block Bolts	19	14	—	
Oil Pump Cover Bolts.	15	11	—	
Oil Pump Pickup Tube Bolt	28	21	—	
Oil Pump Pickup Tube Nut	28	11	—	
Oil Temperature Sensor	50	37	—	
Piston Oil Cooler Jet Bolts	13	10	—	
Plugs 3/8 x 18 NPT	27	20	—	
Timing Chain Guide Bolts	12	9	—	
Timing Chain Tensioner Bolts	12	9	—	
Variable Valve Timing Solenoid Bolt	11	8	—	

CYLINDER HEAD

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Cylinder Head Bolts	Specific torque and fastener pattern required (Refer to 09 - Engine/Cylinder Head - Installation).			
Cylinder Head Cover Bolts	11	—	97	
Exhaust Manifold Bolts	30	22	—	
Exhaust Manifold Heat Shield Bolts	9	—	80	
Ignition Coil Bolts	7	—	62	
Intake Manifold Bolts	Specific torque and fastener pattern required (Refer to 09 - Engine/Manifolds/MANIFOLD, Intake - Installation).			
Lifter Guide Holder Bolts	12	9	—	
Rocker Arm Bolts	Specific torque and fastener pattern required (Refer to 09 - Engine/Cylinder Head/ROCKER ARM, Valve/Installation).			

FRONT ENGINE

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Timing Chain Cover Bolts	28	21	—	
Lifting Stud	55	41	—	
Vibration Damper Bolt	176	130	—	

REAR ENGINE

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Flexplate Bolts	95	70	—	Do not reuse these fasteners. If removed, a NEW fastener must be installed and tightened to specifications.
Inspection Cover to Transmission Bolt	11	8	—	
Rear Crankshaft Oil Seal Retainer Bolts	15	11	—	
Torque Converter Bolts	42	31	—	
Transmission to Oil Pan Bolts	45	33	—	
Transmission Bell Housing to Engine Bolts	45	33	—	

ENGINE MOUNTS

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Engine Mount Bracket to Block Bolts	61	45	—	
Engine Mount to Engine Mount Bracket	52	38	—	
Engine Mount to Cradle Bolts	48	35	—	
Engine Mount Heat Shield Nuts	25	18	—	
Transmission Crossmember Bolts - Automatic	65	48	—	
Transmission Crossmember Bolts - Manual	61	45	—	

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Rear Isolator Bracket to Transmission Bolts (Automatic)	61	45	—	
Rear Isolator to Bracket Bolts (Automatic)	31	23	—	
Rear Isolator to Crossmember Bolts (Automatic)	61	45	—	
Rear Isolator to Transmission Bolts (Manual)	54	40	—	
Rear Isolator to Crossmember Bolts (Manual)	54	40	—	

ACCESSORY DRIVE

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Generator Support Bracket Bolt	65	48	—	
Generator Support Bracket to Engine Mount Nut	25	18	—	

MISCELLANEOUS COMPONENTS

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Air Cleaner Body Bolt	5	—	44	
Air Cleaner Cover	3	—	30	
Air Cleaner Tube Clamps	4	—	35	
Catalytic Converter to Exhaust Manifold Nuts	11	8	—	
Engine Wiring Harness Bracket to Engine	18	13	—	

DESCRIPTION	N·m	Ft. Lbs.	In. Lbs.	COMMENT
Oil Control Valve Bolt	11	8	—	
Heater Tube Bolt	18	13	—	
Strut Tower Support Bolts	38	28	—	