

## SPECIFICATIONS

## TORQUE SPECIFICATIONS

Description	N·m	Lb·Ft
Accelerator Cable Mounting Bracket—Bolt	20-30	15-22
Upper Intake Manifold	26-38	19-28
Balance Shaft Thrust Plate—Bolt	8-14	6-10
Oil Pan Drain Plug	20-34	15-25
Camshaft Sprocket to Camshaft—Bolt	40-50	30-37
Low Level Oil Sensor	25-34	18-25
Camshaft Thrust Plate—Bolt	8-14	70-124 (Lb·In)
Connecting Rod—Nut	41-49	31-36
Main Bearing Cap—Bolt	88-110	65-81
Coolant Temp. Switch	11-16	8-12
MTC Sensor	8-13	6-9.5
Crankshaft Damper to Crankshaft—Bolt	140-180	103-132
Oil Filter Adapter to Front Cover—Bolt	25-30	18-22
Crankshaft Pulley to Damper—Bolt	26-38	103-132
Oil Filter to Oil Filter Adapter		(2)
Cylinder-Head Bolt	—	(1)
Oil Inlet Tube to Cylinder Block—Bolt	20-30	15-22
Distributor Cap	2.0-2.6	18-23 (Lb·In)
Oil Inlet Tube to Main Bearing Cap—Nut	40-55	30-40
Distributor Hold-Down Bolt	27-40	20-29
Oil Pan to Cylinder Block —Bolt	9-12	80-106 (Lb·In)
Distributor Rotor	2.8-3.9	25-35 (Lb·In)
PVS Valve	8-13	6-9.5
ECT Sensor	8-13	6-9.5
PVS Valve	8-13	6-9.5
EGR Valve to Intake Manifold—Nut	20-30	15-22
Rocker Arm Cover to Cylinder Head—Bolts / Studs	9-12	80-106 (Lb·In)
Exhaust Manifold—Bolt / Stud	20-30	15-22
Rocker Arm Function to Cylinder Head—Bolt	—	(4)
Fan Clutch Assembly—Bolt	16-24	12-18
Spark Knock Sensor	20-26.5	15-19
Flywheel to Crankshaft—Bolt	73-87	54-64
Spark Plug to Cylinder Head	7-15	62-132 (Lb·In)
Front Cover to Cylinder Block—Bolt	20-30	15-22
Thermostat Housing to Intake Manifold—Bolt	20-30	15-22
Fuel Pump to Front Cover—Bolt	20-30	15-22

(Continued)

## TORQUE SPECIFICATIONS (Cont'd)

Description	N·m	Lb·Ft
Throttle Body—Nut	20-30	15-22
Fuel Tube Fitting	20-24	15-32.5
Vacuum Fitting to Intake Manifold	17-25	13-19
Fuel Tube Fitting—Inlet	16-20	12-15
Vacuum Tree to Intake Manifold	8-13	6-9.5
Fuel Tube Fitting—Return	12-16	9-12
Vacuum Tree to Intake Manifold—Studs/Bolts	10-15	7-11
Heater Elbow	8.5-13.5	6.5-10
Water Pump to Front Cover—Bolt	20-30	15-22
Heater Tube to Intake Manifold Stud—Bolt	10-15	7-11
Wiring Retainer Bracket—Nut	10-15	8-11
Intake Manifold to Cylinder Head—Bolt	—	(3)
Oil Pump Cover—Bolt	25-30	18-22
Tappet Guide Plate Bolt	8-14	6-10
Engine Lifting Eye Nuts	20-30	15-22
Engine to Transaxle Bolts	55-68	41-50
Wheel Lug Nuts	115-142	85-105
Exhaust Pipe to Manifold	21-32	16-24
Tensional Mounting Bolts	8-14	6-10
Guide Plate Retainers	8-14	6-10
Fuel Rail	8-11	6-8
Secondary Air Injection Tube Support Bracket Bolt	40-55	30-40
Thrust Plate Screws	8-14	70-124 (Lb·In)

1.
  - a. Tighten in (4) Steps: 50 N·m (37 Lb·Ft), 60 N·m (45 Lb·Ft), 70 N·m (52 Lb·Ft), 80 N·m (59 Lb·Ft)  
**CAUTION: Do not loosen all of the bolts at the same time, only work on one bolt at a time.**
  - b. In sequence, one at a time loosen each bolt two or three revolutions.
  - c. Tighten long bolts to 15-25 N·m (11-18 Lb·ft) then an additional 85-95 degrees. Tighten short bolts to 10-20 N·m (7-15 Lb·Ft) then an additional 85-95 degrees. Go to next bolt in sequence.
2. Advance half turn after gasket contacts sealing surface.
3. Tighten in Two Steps:
  - a. 11 N·m (8 Lb·Ft)
  - b. 15 N·m (11 Lb·Ft)
4. Tighten in Two Steps:
  - a. 5 N·m maximum (44 Lb·In)
  - b. 25-35 N·m (19-25 Lb·Ft)