

## Torque specifications

Ft-lbs (unless otherwise indicated)

**Note:** One foot-pound (ft-lb) of torque is equivalent to 12 inch-pounds (in-lbs) of torque. Torque values below are expressed in inch-pounds, because most foot-pound torque wrenches are not accurate at these smaller values.

### Camshaft bearing cap bolts

2009 and earlier

Number 1 journal ..... 17

All others ..... 110 in-lbs

2010 and later

Bearing cap-to-cylinder head bolts ..... 20

Bearing cap-to-camshaft housing bolts ..... 144 in-lbs

Camshaft housing-to-cylinder head bolts ..... 20

### Camshaft sprocket/timing gear bolts

2009 and earlier ..... 47

2010 and later ..... 40

### Crankshaft pulley/vibration damper bolt

2009 and earlier ..... 95

2010 and later ..... 140

### Cylinder head bolts

2009 and earlier

Step 1 ..... 21

Step 2 ..... Tighten an additional 90 degrees

Step 3 ..... Tighten an additional 90 degrees

2010 and later

Step 1 ..... 36

Step 2 ..... Tighten an additional 90 degrees

Step 3 ..... Tighten an additional 45 degrees

### Damper-to-flywheel bolts

2009 and earlier ..... 15

2010 and later ..... 22

Drivebelt tensioner bolts (2009 and earlier) ..... 30

### Driveplate/flywheel bolts (use locking compound on threads)

2001 and 2002

Step 1 ..... 62

Step 2 ..... Tighten an additional 90 degrees

2003 and later

Step 1 ..... 36

Step 2 ..... Tighten an additional 90 degrees

Step 3 ..... 44

Engine mount bolts ..... 35

### Engine mount bracket-to-timing chain cover bolts (2009 and earlier) .....

Exhaust manifold fasteners ..... 20

2009 and earlier ..... 15

2010 and later .....

Exhaust manifold heat shield bolts ..... 71 in-lbs

2009 and earlier ..... 108 in-lbs

2010 and later ..... 32

Exhaust pipe-to-manifold bolts .....

Intake manifold fasteners ..... 15

2009 and earlier ..... 21

2010 and later .....