



7.3L Powerstroke Torque Ratings

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Bolt torque for the 7.3 Powerstroke shouldn't be a mystery. So we collected everything from Ford's service manuals and other reputable sources, and listed them all below. Here's your one-stop shop resource for everything nut and bolt torque-related.

Important Notes:

- What is listed below assumes factory original parts and hardware are being used. If you're using aftermarket parts, always refer to the manufacturer's recommendations.
- Always make sure your fasteners and threaded areas (threads cut into the block, front cover, etc) are in good condition. Stripped threads, more often than not, are due to damaged and/or contaminated threads or fasteners.
- The info below has been taken from the most official sources we can find, mainly Ford and International service manuals. However, use this info at your own discretion. There's no replacement for common sense.
- Inch pounds as well as foot pounds are mentioned. Make sure to use the correct rating.



OBS 7.3L (1994.5–1997)

Cylinder heads & valvetrain

Cylinder head bolts (done in three stages): Stage One 65 ft-lbs, Stage Two 85 ft-lbs, Stage Three 105 ft-lbs

Rocker arm pedestal attaching bolts: 20 ft-lbs

Valve cover retaining bolts/nuts: 8 ft-lbs

Injector retaining/hold-down bolt: 120 in-lb (approx 10 ft-lb)

Glow plugs: 14 ft-lbs

Bottom end / rotating assembly

Main bearing cap bolts (done in two stages): Stage One 76 ft-lbs, Stage Two 96 ft-lbs

Connecting rod cap nuts Forged (done in two stages): Stage One 53 ft-lbs, Stage Two 80 ft-lbs

Crankshaft rear oil seal retaining bolts: 15 ft-lbs

Crankshaft harmonic balancer bolt: 212 ft-lbs

Flywheel/Flexplate bolts: 89 ft-lbs

Flywheel housing mounting bolts: 15 ft-lbs

High-pressure oil system

HPOP drive gear mounting bolt: 95 ft-lbs

HPOP mounting bolts: 18 ft-lbs

HPOP reservoir mounting bolts: 18 ft-lbs

High-pressure oil line connector (at head): 19 ft-lbs

High-pressure hose fittings: 19 ft-lbs

Lubrication system

Oil cooler retaining bolts: 18 ft-lbs

Oil pan mounting bolts: 18 ft-lbs

Oil pump body plate bolts: 15 ft-lbs

Oil pump screen cover & tube flange bolts: 18 ft-lbs

Oil pump screen cover & tube retaining nut: 38 ft-lbs



Fuel system fittings

Fuel return hose fitting: 19 ft-lbs

Fuel pump mounting bolts: 18 ft-lb

Fuel pump banjo bolt (rear of pump, feeds the hard lines): 37 ft-lb

Intake/turbo/exhaust

Intake manifold cover mounting bolts: 18 ft-lbs

Turbocharger mounting bolts (turbo to pedestal): 18 ft-lbs

Turbo pedestal assembly mounting bolts: 18 ft-lbs

Turbo exhaust inlet pipe to exhaust manifold, bolts: 21 ft-lbs

Exhaust manifold to head: 45 ft-lbs

Cooling (engine-mounted)

Water pump bolts: 18 ft-lbs

Cooling fan: 74 ft-lbs

Front accessories (engine-mounted)

Belt tensioner mounting bolt: 32 ft-lbs

Idler pulley mounting bolt: 41 ft-lbs

Power steering pump mounting nuts: 41 ft-lbs

Power steering pressure hose fitting: 24 ft-lbs

Sensors

Camshaft Position Sensor (CPS / CMP) retaining bolt: 18 ft-lbs

Injection Control Pressure (ICP) sensor: 22 ft-lbs

Engine Coolant Temperature (ECT) sensor: 12–18 ft-lbs

Water temp gauge sender (where separate from ECT, mainly OBS applications): 12–18 ft-lbs

Fuel Filter Restriction sensor: 35–45 in-lbs

Water-in-Fuel (WIF) sensor: 18–24 in-lbs

IPR (Injection Pressure Regulator) valve fastener torque: 55 in-lbs

ICP solenoid nut (tin nut): 53 in-lbs



Super Duty 7.3L (1999–2003)

Cylinder heads & valvetrain

Cylinder head bolts (done in three stages): Stage One 65ft-lbs, Stage Two 85 ft-lbs, Stage Three 95 ft-lbs

Rocker arm pedestal attaching bolts: 20 ft-lbs

Valve cover retaining bolts/nuts: 8 ft-lbs

Injector retaining/hold-down bolt: 120 in-lb (10 ft-lb)

Glow plug: 14 ft-lbs

Bottom end / rotating assembly

Main bearing cap bolts (done in two stages): Stage One 76 ft-lbs, Stage Two 96 ft-lbs

Connecting rod cap bolts PMR (done in two stages): Stage One 52 ft-lbs, Stage Two 90 ft-lbs

Connecting rod cap nuts Forged (done in two stages): Stage One 53 ft-lbs, Stage Two 80 ft-lbs

Crankshaft rear oil seal retaining bolts: 15 ft-lbs

Crankshaft harmonic balancer bolt: 212 ft-lbs

Flywheel/Flexplate bolts: 85-89 ft-lbs

Flywheel housing mounting bolts: 15 ft-lbs



High-pressure oil system

HPOP drive gear mounting bolt: 95 ft-lbs

HPOP mounting bolts: 18 ft-lbs

HPOP reservoir mounting bolts: 18 ft-lbs

High-pressure oil line connector (at head): 19 ft-lbs

High-pressure hose fittings: 19 ft-lbs

Lubrication system

Oil cooler retaining bolts: 18 ft-lbs

Oil pan mounting bolts: 18 ft-lbs

Oil pump body plate bolts: 15 ft-lbs

Oil pump screen cover & tube flange bolts: 18 ft-lbs

Oil pump screen cover & tube retaining nut: 38 ft-lbs



Fuel system fittings

Fuel return hose fitting: 19 ft-lbs

Fuel supply hose fitting: 37 ft-lbs



Intake / turbo / exhaust

Intake manifold cover mounting bolts: 18 ft-lbs

Turbocharger mounting bolts (turbo to pedestal): 36 ft-lbs

Turbo pedestal assembly mounting bolts: 18 ft-lbs

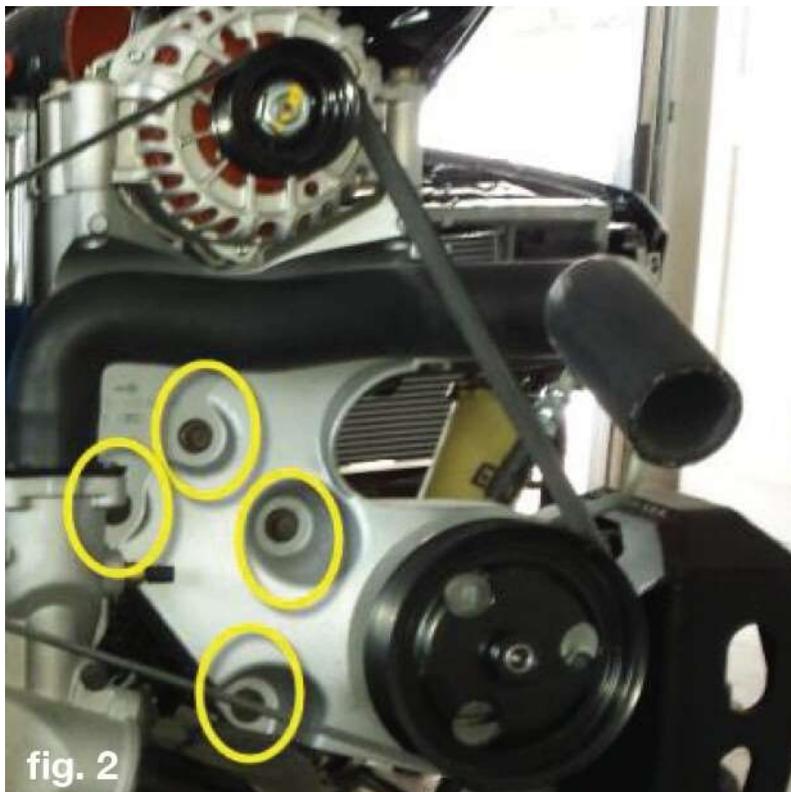
Turbo exhaust inlet pipe to exhaust manifold bolts: 20-30 ft-lbs

Exhaust manifold to head: 45 ft-lbs

Cooling (engine-mounted)

Water pump bolts: 18 ft-lbs

Cooling fan: 74 ft-lbs



Front accessories (engine-mounted)

Belt tensioner mounting bolt: 32 ft-lbs

Idler pulley mounting bolt: 41 ft-lbs

Power steering pump mounting nuts: 41 ft-lbs

Power steering pressure hose fitting: 24 ft-lbs



Sensors

Camshaft Position Sensor (CPS / CMP) retaining bolt: 18 ft-lbs

Injection Control Pressure (ICP) sensor: 22 ft-lbs

Engine Coolant Temperature (ECT) sensor: 12–18 ft-lbs

Water temp gauge sender (where separate from ECT, mainly OBS applications): 12–18 ft-lbs

Fuel Filter Restriction sensor: 35–45 in-lbs

Water-in-Fuel (WIF) sensor: 18–24 in-lbs

IPR (Injection Pressure Regulator) valve fastener torque: 55 in-lbs

ICP solenoid nut (tin nut): 53 in-lbs