

## WHAT YOU WILL NEED...

Apart from the typical tools you will need (assorted wrenches, sockets, hammers, screw drivers, slide calipers, feeler gauges, and the like...), there are some specialized tools you will also require:

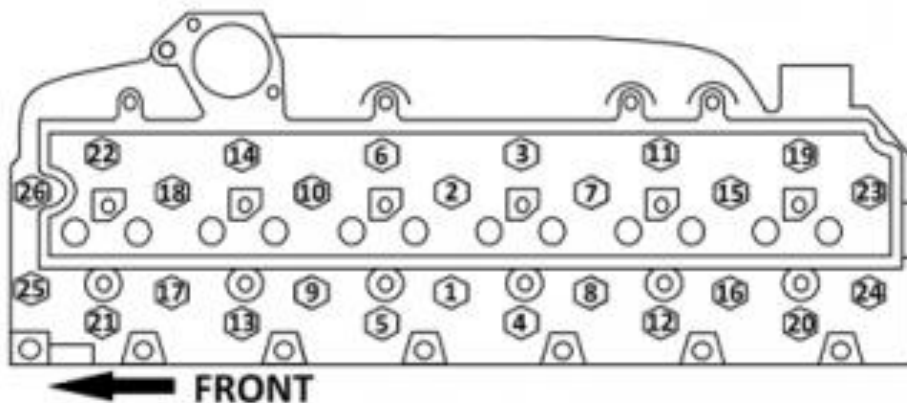


Also, it is a good idea to have some type of cleaning and/or degreasing solution on hand as well as lint-free rags. One of the most important aspects of engine assembly is, **KEEP IT CLEAN!**

### ENGINE BUILD SPECIFICATIONS – JOHN DEERE® 6.8L POWERTECH® TIER-2 4-VALVE

<b>MAIN CAP BOLTS:</b>	100 ft/lbs
<b>CONNECTING ROD BOLTS:</b>	43 ft/lbs + 95°
<b>INTAKE MANIFOLD BOLTS:</b>	54 ft/lbs
<b>EXHAUST MANIFOLD BOLTS:</b>	52 ft/lbs
<b>FLYWHEEL BOLTS:</b>	102 ft/lbs
<b>VIBRATION DAMPER MOUNTING SCREW:</b>	Tapered Nose Crankshaft: 369 ft/lbs
<b>SECONDARY VIBRATION DAMPER:</b>	To Main Damper Capscrews: 52 ft/lbs
<b>PULLEY TO VIBRATION DAMPER:</b>	Capscrews: 52 ft/lbs
<b>CYLINDER LINER PROTRUSION/RECESSION:</b>	Protrusion: .001" - .004"
<b>PISTON PROTRUSION:</b>	.003" - .010" Above Fire Deck
<b>CRANKSHAFT (TRUST) END PLAY:</b>	.002" - .008"
<b>ROCKER ARM ADJUST SCREW JAM NUT:</b>	20 ft/lbs
<b>ROCKER ARM SUPPORT STUDS:</b>	44 ft/lbs
<b>ROCKER ARM COVER NUTS:</b>	62 in/lbs
<b>ROCKER ARM CARRIER SCREWS:</b>	44 ft/lbs
<b>ROCKER SHAFT CLAMPS:</b>	44 ft/lbs
<b>ROCKER SHAFT END CLAMPS:</b>	27 ft/lbs
<b>PISTON COOLING JETS:</b>	8 ft/lbs
<b>VALVE CLEARANCE (Set Cold):</b>	Intake: .012" - .015"   Exhaust: .016" - .019"
<b>CYLINDER HEAD BOLTS:</b>	75, 110 ft/lbs, Wait 5-Min., 110 ft/lbs + 50°-70°
<b>FIRING ORDER:</b>	1 – 5 – 3 – 6 – 4 – 2
<b>OIL PRESSURE AT IDLE:</b>	15 PSI Minimum

#### CYLINDER HEAD TORQUE SEQUENCE:



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