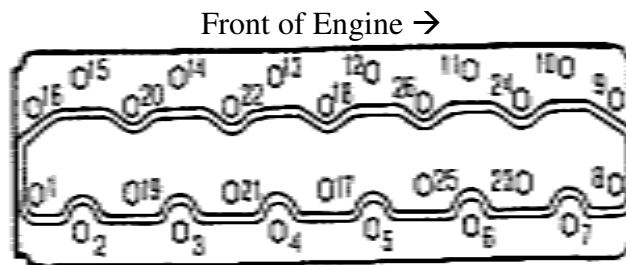


8.1L John Deere Powertech Engine Specs

	s/n <199,999	s/n > 2000,000
Intake Valve Lash (cold)	0.016 – 0.020	0.012 – 0.016
Exhaust Valve Lash (cold)	0.026 – 0.030	0.020 – 0.024
Intake Valve Recess	0.132 – 0.152	0.132 – 0.152
Exhaust Valve Recess	0.047 – 0.067	0.047 – 0.067
Cyl Head Min Thickness	6.090	6.090
Liner Height	0.002 – 0.005	0.002 – 0.005
T&G Connecting Rod	20ftlb, 55ftlb, +90 deg.	20ftlb, 55ftlb, +90 deg.
Snap Break Con Rod	71ftlb + 90 deg.	71ftlb + 90 deg.
Crankshaft End-play	0.0015 – 0.015	0.0015 – 0.015
Main Cap Torque	50ftlb, 170ftlb	50ftlb, 170ftlb

Cylinder Head Torque Procedure all SN's

Always use new cap screws when installing cylinder head



1. Lubricate cap screws with clean SAE30 engine oil and install in their proper locations.
2. Tighten #17 to 60 ft. lbs. then start at #1 and follow the sequence tightening each cap screw to 60 ft. lbs.
3. Beginning back at #1, turn each cap screw 90 degrees.
4. Again, beginning back at #1, turn each cap screw 90 degrees.
5. And finally, beginning back at #1, turn each cap screw 90 degrees.

Note; Total amount of rotation on each cap screw is 270 degrees after the initial 60 ft lb torque setting.

Cap Screws must not be tightened more than 270 +/- 5 degrees.