

TECHNICAL BULLETIN

Number 1033

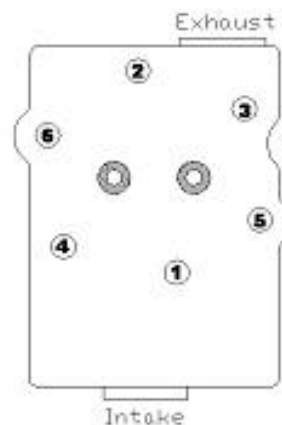
Rev. 1

Subject: Head Torquing Procedures for 10.5" Stroke Superior Engines

PROBLEM: Improper torquing procedures resulting in warped cylinder heads and premature valve failure.

SOLUTION:

- 1) With cylinder head and gaskets in place, lubricate stud and nut threads with a thin film of SAE 30 or SAE 40 lubricating oil. Do not use Molybdenum-disulfide lubricants (i.e. Never Seize, etc.) as over torquing and excessive stresses will result when using the specified torque.
- 2) Run the cylinder head nuts down to the head by hand, and install the intake and exhaust manifold to square the head, then torque each head nut in numerical sequence per sketch below. Course thread cylinder head studs have been used since 1989. A step-up or gradual torquing process is required, and the increment depends on whether the stud and nut is course or fine thread.



Power Cylinder Head (Top End)

Torque value for Head to Block Gasket P/N -(P-909-981-230)

<u>Course Thread</u>	<u>Fine Thread</u>
(1"-8 UNC)	(1"-14 UNS-3A)
25 FT-LBS*	25 FT-LBS*
75 FT-LBS*	150 FT-LBS
150 FT-LBS	250 FT-LBS
250 FT-LBS	380 FT-LBS
380 FT-LBS	

***Go around all nuts twice at these torque levels.**

After engine has been run and while still hot, retorque cylinder head stud nuts to 380 FT-LBS.

Torque value for Head to Block Gasket P/N -(P-4A-1404)

<u>Course Thread</u>	<u>Fine Thread</u>
(1"-8 UNC)	(1"-14 UNS-3A)
25 FT-LBS*	25 FT-LBS*
75 FT-LBS*	150 FT-LBS
150 FT-LBS	250 FT-LBS
250 FT-LBS	380 FT-LBS
380 FT-LBS	450 FT-LBS**

***Go around all nuts twice at these torque levels.**

****The increased radial width requires the torque to be increased to achieve the same gasket crush.**

After engine has been run and while still hot, retorque cylinder head stud nuts.

For further information or questions concerning Superior engine head torquing procedures contact EnDyn's Technical Department or your local EnDyn PowerParts® Distributor.