## Installation Instructions for ARP fasteners

- To ensure proper thread engagement and accurate torque readings, clean and re-tap ALL threads in the block.
- 2. Clean and inspect all hardware prior to installation. Look for obvious defects or shipping damages, plus proper fit, length, and dimension.
- 3. If the cylinder head bolt holes protrude into the water jacket, lubricate the threads with ARP Thread Sealer or Fel-Pro Gray bolt prep.
- 4. If the cylinder head bolt holes are blind holes, lubricate the threads with ARP Ultra-Torque Assembly Lube.
- 5. When installing head studs, install the studs into the block finger tight only. DO NOT torque the studs into the block.
- 6. Install cylinder heads and check for binding or misalignment.
- 7. When using head bolts, make sure the chamfer side of the washer is placed "up" against the under side of the bolt head.
- 8. Torque the fasteners in 3 equal steps.
- 9. Retorque the fasteners after initial engine break-in and warm up.

Listed here are the general torque recommendations for most ARP fasteners. Recommended torque is equal 75% of the fastener's yield strength. Simply read down to the correct fastener size, then across to find the torque value for your application. Always lubricate the fasteners prior to applying torque to ensure accurate readings.

NOTE: The torque values represented here are intended to be for general information only, not for specific installations. On specific installations, where supplied instructions deviate from the torque values listed here, always follow the specific instructions packaged with each kit.

Fastener Tensile Strength	170,000/180,000 PSI (1,171 Nmm²)		190,000/200,000 PSI (1,309 Nmm <sup>2</sup> )		220,000 PSI (1,515 Nmm²)	
Fastener Diameter	Torque ARP lube (ft-lbs)	Preload (lbs)	Torque ARP lube (ft-lbs)	Preload (lbs)	Torque ARP lube (ft-lbs)	Preload (lbs)
1/4"	12	3,492	14	3,967	16	4,442
5/16"	24	5,805	28	6,588	32	7,371
3/8"	45	8,622	50	9,782	55	10,942
7/16" Most Rod Bolts	70	11,880	80	13,470	90	15,060
1/2" Most Head and Main Fasteners	110	16,391	125	18,515	140	20,639
9/16"	160	21,220	180	23,944	200	26,668
5/8"	210	26,372	240	29,756	270	33,140



If you have any questions, contact us!

Phone (309) 745-9558 Fax (309) 296-9990 www.Hughesengines.com