



**INSTALLATION INSTRUCTIONS**  
**“H” BEAM STEEL CONNECTING ROD**  
**WITH ARP CUSTOM AGE 625+ BOLTS**  
**AND 40172 LUBE**

06/28/11

Forged from 4340 chrome moly steel, fully machined and shot peened, Manley rods are designed for use in today's high performance engines. The following guidelines will insure service and longevity expected of this premium rod.

**FITTING IN BLOCK**

A minimum of .060" clearance **MUST** be maintained between the connecting rod and the engine block or camshaft. If clearance problems exist between the connecting rod and engine block, it is highly recommended that the block be cleared for the rod, not vice-versa, in order to maintain the structural integrity of the rod.

**CHECKING CLEARANCES**

The following clearances **MUST** be maintained to insure proper connecting rod performance.

The big end housing bore is sized to provide proper "crush"; connecting rod bearing to crankshaft clearance should be set at .002" minimum to .003" maximum during assembly.

Side clearances on both rods should be a minimum of .015" to a maximum of .025" per pair. Recommended side clearances for the Ford 4.6L and 5.4L are .010" - .020" and .015" - .025" respectively per pair. (Actual side clearances are subject to variation based on personal preferences of the engine builder.)

The recommended wrist pin clearance is .0008" minimum to .0015" maximum. In some cases, depending upon actual wrist pin diameter, this **MAY NOT** provide adequate clearance and may require sizing at the time of installation.

**FASTENERS**

**PROPER FASTENER INSTALLATION WILL HELP TO PREVENT A ROD FAILURE!** The vast majority of all rod failures are due to incorrect fastener installation. The parting line area and threads should be thoroughly cleaned prior to assembly and **be sure to seat the rod cap to the rod body evenly, otherwise the cap can become cocked and could result in cross threading of the fastener(s)**. This is best achieved by alternately tightening the fasteners until the cap is fully seated to the rod body. Apply the supplied lube to threads and under head of fasteners before assembly.

Additional lube can be purchased separately as Manley part number **40172**.

When tightening the fastener, bolt stretch is the singular most important value to be considered. Torque the fastener within the indicated torque range until specified stretch is achieved. When the desired stretch has been achieved by applying a torque load that falls within the allowable range, the fastener is properly tightened.

<b>Bolt Part No.</b>	<b>Bolt Diam.</b>	<b>Material</b>	<b>U.H.L</b>	<b>Torque Value</b>	<b>Recommended</b>	
				<b>w/Lube 40172</b>	<b>Torque Value Range</b>	
				<b>During Final</b>	<b>Bolt</b>	<b>w/Lube 40172</b>
				<b>Assembly At</b>	<b>Stretch</b>	<b>In ft./lbs.</b>
42320	3/8"	ARP 625+	1.500"	55 ft. lbs.	.0063" - .0067"	50-60
42252	7/16"	ARP 625+	1.450"	95 ft. lbs.	.0060" - .0065"	95-100
42397	7/16"	ARP 625+	1.750"	95 ft. lbs.	.0068" - .0072"	90-100

If recommended bolt stretch is only achieved by applying torque that is outside of the recommended torque range, there is a problem either with the fastener, the bolt threads, the application of the lube, or the torque wrench.

**IMPORTANT:** Free length of fasteners should be measured and recorded prior to installation. If free length of fasteners increases by more than .001" at any time the fastener in question should be replaced immediately or failure may result.

**NOTE:** It is not recommended to remove any material from the connecting rod cap for balancing purposes.