



**INSTALLATION INSTRUCTIONS
 "H" BEAM STEEL CONNECTING ROD
 WITH ARP BOLTS**

01/26/10

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 clearanced 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 PREVENT ROD FAILURE!! Ninety percent of all rod failure are due to incorrect fastener installation and/or maintenance. Fasteners supplied are as follows:

Bolt Part No.	Bolt Diam.	Material	U.H.L.	Torque Value w/30wt. Oil		Recommended Bolt Stretch	Torque Value Range w/30wt. Oil In ft./lbs.
				Manley Performance	During Final Assembly At		
42239	7/16"	8740	1.800"	90 ft. lbs.		.0059" - .0063"	85 - 95
42386	7/16"	8740	1.650"	80 ft. lbs.		.0050" - .0054"	80 - 85
42361	7/16"	8740	1.600"	80 ft. lbs.		.0052" - .0056"	80 - 85
42354	7/16"	8740	1.450"	95 ft. lbs.		.0050" - .0054"	90 - 100
42383	3/8"	8740	1.500"	55 ft. lbs.		.0047" - .0052"	50 - 60
42350	3/8"	ARP 2000	1.500"	60 ft. lbs.		.0058" - .0062"	55 - 65
42351	3/8"	ARP 2000	1.600"	65 ft. lbs.		.0058" - .0062"	60 - 70
42390	7/16"	ARP 2000	1.450"	90 ft. lbs.		.0050" - .0060"	90 - 100
42344	7/16"	ARP 2000	1.550"	95 ft. lbs.		.0060" - .0065"	90 - 100
42249	7/16"	ARP 2000	1.600"	95 ft. lbs.		.0060" - .0065"	90 - 100
42384	7/16"	ARP 2000	1.650"	95 ft. lbs.		.0064" - .0068"	90 - 100
42391	7/16"	ARP 2000	1.850"	105 ft. lbs.		.0069" - .0073"	100 - 110

The parting line area and threads should be THOROUGHLY cleaned prior to assembly and **be sure to seat the rod cap to the body of the rod 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. Fasteners MUST be submerged in 30 wt. oil or equivalent. **Do not use moly or engine lube**. Bolt stretch value should be checked against torque prior to installation. DO NOT OVER TORQUE!

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.