

Atomic Performance Products

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Installation instructions for #306200, #306201, #306200-SF, #306201-SF, #356200 and #356201 Billet steel connecting rods.

Thank you for purchasing Atomic billet conrods. They have been manufactured using premium quality materials, machined to the highest standards and undergo numerous pre and post production checks to ensure these standards are maintained. To enjoy trouble free operation *it is imperative* the correct installation procedures are followed. Failure to follow these instructions may lead to failure of the component.

<u>Step 1.</u>

Remove the conrods from their individual packages, noting that each conrod has a pair of identifying numbers etched on one side only of the conrod. This is to match the conrod body to its own unique cap. Connecting rods are individually machined with the cap in place, and subsequently a cap is only compatible with its matching counterpart. **Under no circumstances** should number punches or any form of engraving/etching be used to identify the conrod and matching cap.

<u>Step 2.</u>

Remove bolts from conrod and then remove cap from conrod with a rod/cap splitter. Atomic rod/cap splitter – part #100102 is ideal for this job. Wash the conrods with a hydrocarbon based solvent and ensure the gudgeon pin oil feed passage is clear (if applicable) and then blow dry the conrods with compressed air. Do not use towels, rags or paper to dry the conrods. Lubricate the gudgeon pin and bushed end liberally with your preferred choice of engine assembly lubricant and assemble. When installing pistons on the conrods, please note the conrod design is symmetrical so there is no front or back to the conrod design.

<u>Step 3.</u>

The recommended method for tightening ARP bolts is by the stretch method. To employ this method, measure the lengths of the ARP bolts supplied with the conrods. This is best accomplished by the use of *Atomic Bolt stretch gauge part #100101.*



Fig 1 Measuring static length of bolt prior to torquing.

* <u>*Please note:*</u> Part # 306200-SF connecting rods are supplied with semi-finished big and little ends. They **CANNOT** be installed in an engine without first honing to the required sizes. If in doubt about the suitability of this product, please discuss with your engine builder or contact Atomic direct.



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Step 4.

Install bearings and fit the conrod/piston assembly to the engine and lubricate. Fit the correct cap to the corresponding rod, making sure the etched numbers are both on the same side of the conrod. Lubricate the ARP bolts with the ARP Moly assembly lube supplied, applying it to the threads, the bolt/conrod faces and tighten to 10 ft-lb torque.

<u>Step 5.</u>

Continue to tighten the conrod bolts until they stretch .0058" to .0062" (refer figure 2).



Fig 2 Checking torqued length of bolt following tensioning in conrod.

Note #1: If you choose not to follow ARP's recommendations of using a stretch gauge to correctly install the bolts, an alternative method is by tension wrench. Install the bolts as per steps 1, 2 and 4. Tighten the bolts to 45 ft-lbs and then loosen them. Retighten them to 45 ft-lbs again and loosen. Retighten them to 45 ft-lbs a third and final time.

Note #2:

Irrespective of the method of bolt installation, it is highly recommended that a log of the original nontorqued length of the bolts should be kept for future reference. Any bolts that have any permanent deformation or have increased in non-torqued length should be replaced.

If you encounter any problems whatsoever with the installation of the conrods, please call Atomic direct - we are here to help!

The Team at Atomic