

INSTALLATION METHOD FOR HIGH PERFORMANCE SERIES MAIN BOLT KITS

Part Number: 157-5001 Application: Rover 4.0L & 4.6L V8

1. To ensure proper thread engagement and accurate torque readings, clean **ALL** threads in the block. Chase the threads if necessary with ARP Thread Chaser, part number 911-0005 (1/2-13) and 912-0003 (M10 X 1.5).
2. Clean and inspect all hardware prior to installation. Look for obvious defects or shipping damages, plus proper fit, length and dimension.
3. Position the chamfered side of the washer on the bolt so it faces the bolt head. This is done to clear the radius on the under head of the bolt. **Note:** Improper installation of the washer will cause premature bolt failure.
4. Install the main caps and check for binding or misalignment.
5. Lubricate the under head of the bolt, the washers and the bolt threads with ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT. Then install the bolts into the cylinder block and tighten them hand tight. **ARP recommends using the ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT that is provided with each kit as opposed to motor oil. This is due to higher friction on the bolts as well as inconsistencies in the clamping force of the fasteners when motor oil or other low quality lubricants are used.**

PRELOAD (TORQUE) RECOMMENDATIONS

6. Following the manufacturers recommended torque sequence tighten the bolts to the following specifications with ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT.

Step 1. Tighten bolts 1 thru 10 to 25 ft-lbs

Step 3. Tighten bolts 1 thru 10 to 65 ft-lbs

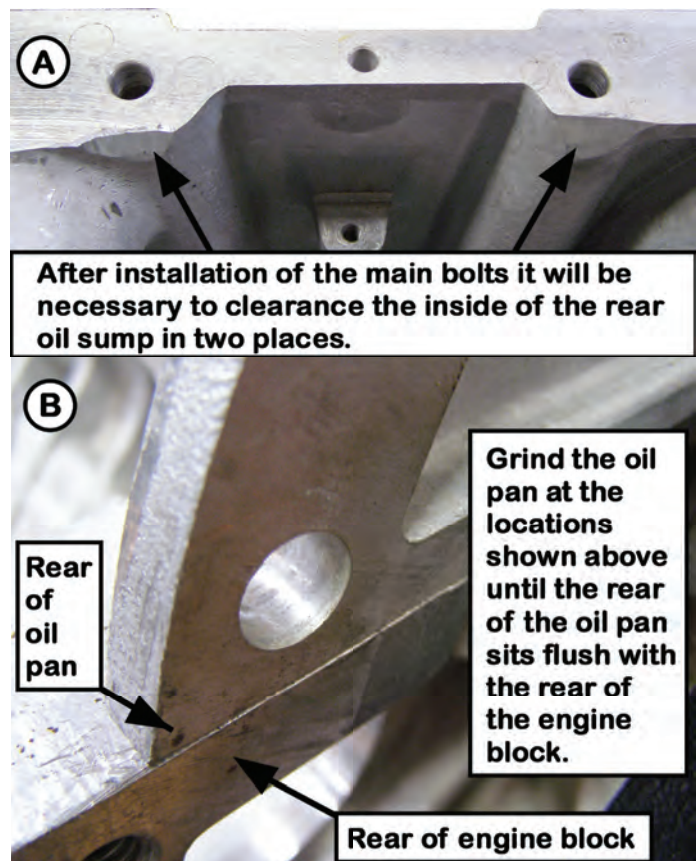
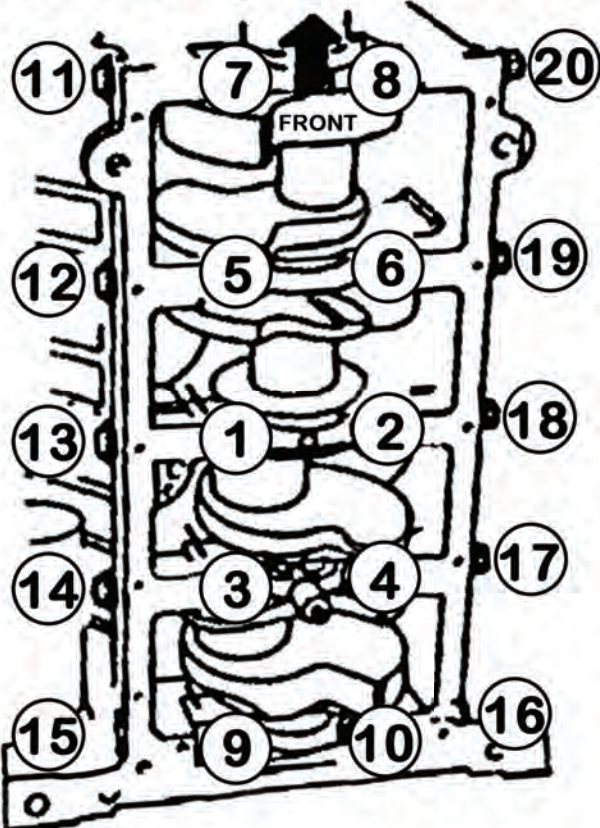
Step 2. Tighten bolts 1 thru 10 to 45 ft-lbs

Step 4. Final Tighten bolts 9 and 10 to 80 ft-lbs

Step 5. Tighten M10 side bolts 11 thru 20 to 45 ft-lbs

FOOTNOTE: When changing from factory fasteners to high strength fasteners, clamping force and tolerances will change, therefore it will be necessary to check the main bearing bores for proper size and out of round condition after installation of the bolts and align hone the cylinder block if necessary. The main bores should always be align honed using the same fasteners and lubricant which will be installed during final engine assembly at the recommended preload.

Bolt Torque Sequence



After installation of the main bolts it will be necessary to clearance the inside of the rear oil sump in two places.

Grind the oil pan at the locations shown above until the rear of the oil pan sits flush with the rear of the engine block.

Rear of engine block