

## INSTALLATION METHOD FOR MAIN STUD KITS

**Part Number: 150-5801    Application: Ford 6.0L Powerstroke Diesel**

1. To ensure proper thread engagement and accurate torque readings, clean **ALL** threads in the block. Chase the threads if necessary with a Thread Chaser.
2. Clean and inspect all hardware prior to installation. Look for obvious defects or shipping damages, plus proper fit, length and dimension.
3. Screw the studs into the block "HAND TIGHT ONLY". Inner studs are 5.645 in. long. Outer studs are 5.165 in. long. **NOTE: LOCTITE MAY BE USED IF A PERMANENT MOUNTING OF THE STUDS IS PREFERRED.**
4. Install the main caps and check for binding or misalignment.
5. Lubricate the stud threads and the nuts with ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT. Then install the nuts onto the studs 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 studs 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 nuts and bolts in three equal steps to the specifications listed below with ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT.

**Step 1: Studs (1-20) 60 ft-lbs**

**Step 3: Final Tighten Studs (1-20) 180 ft-lbs**

**Step 2: Studs (1-20) 120 ft-lbs**

**Step 4: M8 Bolts (21-28) 25 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 studs 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.

**Note:** Always check for clearance between the oil pan adapter and the top of the main studs. Modify the oil pan adapter to clear the studs if necessary.

## Bolt Torque Sequence

