

## INSTALLATION METHOD FOR MAIN STUD KITS

**Part Number: 251-5801 Application: Ford 2.5L (B5254) 5-Cylinder**

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 912-0003 (M10 X 1.5) and 912-0001 (M8 X 1.25).
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 M10 studs into the block "HAND TIGHT ONLY". Install the intermediate section/bedplate as described in the Volvo factory service manual. Then check for binding or misalignment  
**NOTE: LOCTITE MAY BE USED IF A PERMANENT MOUNTING OF THE STUDS IS PREFERRED.**
4. Install the M8 and M7 studs using the hex broach located at the top of each stud. **Note: Install the three long (3.550 in.) M8 studs in the No. 15, 18 & 22 positions in the torque sequence shown below.**
5. Lubricate the stud threads, nuts and both sides of the washers with ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT. Then install the washers and 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 to the specifications listed below with ARP ULTRA-TORQUE FASTENER ASSEMBLY LUBRICANT.

**Step 1. Tighten (M10) studs 1 thru 12 to 30 ft-lbs**

**Step 3. Tighten (M7) studs 25 thru 29 to 15 ft-lbs**

**Step 2. Tighten (M8) studs 13 thru 24 to 25 ft-lbs**

**Step 4. Tighten (M10) studs 1 thru 12 to 65 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.

## Bolt Torque Sequence

