

**MILODON**  
2250 Agate Court  
Simi Valley, Ca 93065  
(805) 577-5950

## **STRAIGHT SIDE BOLT MAIN CAP INSTALLATION INSTRUCTIONS**

Congratulations, you have purchased the highest quality 4-bolt performance main caps available. The tensile strength of the ductile iron that Milodon uses in these main caps is 85,000 PSI. This is considerably stronger than other mild steel "Billet Caps". Also the expansion rate of ductile iron is equal to that of the cylinder block, eliminating engine bearing failure due to irregular bearing bore expansion when the engine reaches operating temperature.

Before beginning your installation check the parts list. Milodon supplies complete bolt kits with all main cap sets. However, if maximum strength and durability are required, studs should be used. Studs are available for all applications, refer to the Milodon catalog for specific part numbers.

Your Main Cap Kit includes:     3 - Center main caps (#2, #3, #4)  
  6 - Center main bolts & washers  
  6 - Outer main bolts & washers

STEP 1   Clean all main bolt holes with a tap. A bottoming tap is recommended on all blocks. Bolts should be checked on each hole to be sure the bolts do not bottom out in the holes or an incorrect torque reading will result. For maximum strength main studs should be used.

STEP 4   Clean block and caps thoroughly removing all burrs. Install the main caps on the block.

STEP 5.   Torque all bolts with a conventional inside to outside pattern, using oil.  
                  7/16" bolts torque to 65 ft lbs.  
                  1 / 2" bolts torque to 110 ft lbs

STEP 6   The block is now ready to be align bored. Align bore block initially with a rough cut to .010 under finished size. On the second pass, align bore exactly to finish size. Align honing should not necessary if bore can be done close enough. If not, rough align bore then hone for the final finish. Debur and clean as necessary.