

Main Bearing Bolts on 2001-2017 GM 6.6L Duramax Diesel Engines

The AERA Technical Committee offers the following information regarding main bearing bolts on 2001-2017 GM 6.6L Duramax diesel engines. This information should be referenced anytime the main bearing bolts have been removed.

These engines use two designs of main bearing bolts as shown in Figure 1. It is important to use the proper design as bolt lengths are different between the designs. These main bearing bolts are a one-time use product and require replacement once they've been removed from the block.

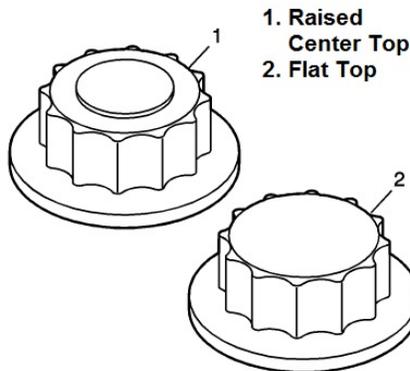


Figure 1. Main Bearing Bolt Tops

These NEW bolts come with a pre-applied molybdenum disulfide coating for thread lubrication. Do not remove the coating or use any additional lubricant. Improperly lubricated threads will adversely affect the bolt torque and clamp load. Improper bolt torque and clamp load can lead to engine damage.

There are two different length crankshaft bearing cap bolts in production depending on the counter bore of the threaded hole/block. Using the wrong bolt may lead to improper thread engagement, bottoming out or improper clamp load. Look at the bolt head surface to determine which bolt was used in production. The bolt head will have either a raised circle (1) or it will be unmarked (2). Be sure to replace the bolts with the same type.

These engines also use side bolts which may be reused, they should be cleaned in the bolt threads, sealing flange and mounting holes with GM P/N12377981 (Canadian P/N 10953463) or equivalent. Dry the bolts and mounting holes with compressed air.

The side bolts also require re-sealing with GM P/N 12346004 (Canadian P/N 10953480) to the threads and sealing flange of the bolts when installing. If new side bolts are used, the M8 side bolts have a

sealant patch applied to the bolt flange to prevent engine block oil leakage and require a different torque. Follow the steps below to install the crankshaft and bearing bolts.

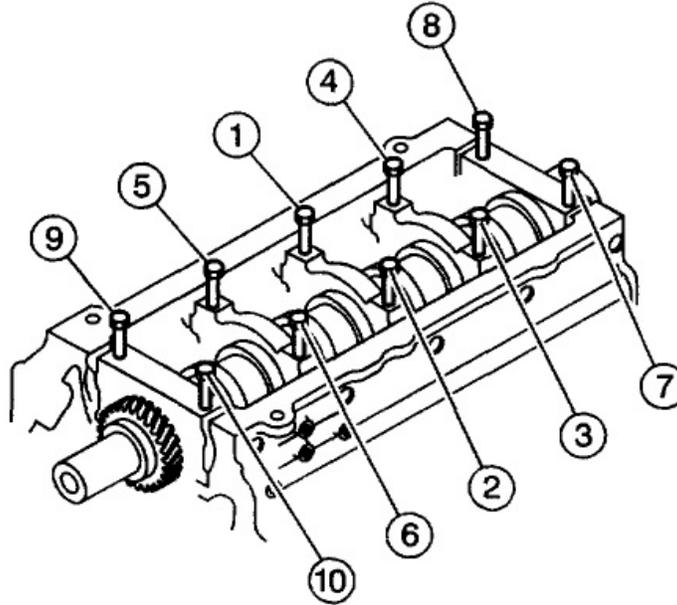


Figure 2. Main Bearing Bolt Torque Sequence

1. Tighten bolts in sequence to 72 FT/LBS (98 Nm).
2. Tighten bolts in sequence to 97 FT/LBS (132 Nm).
3. Tighten bolts in sequence an additional 60 degrees using J 45059 - meter.
4. Apply GM P/N 12346004 (Canadian P/N 10953480) to the threads and sealing flange of the side bolts and torque in sequence to 52 FT/LBS (70 Nm). If new side bolts are used, torque those new bolts to 58 FT/LBS (78 Nm).

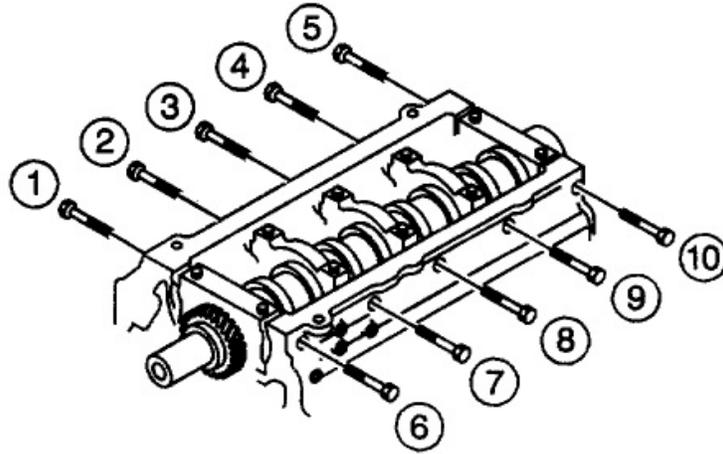


Figure 3. Side Bearing Bolt Torque Sequence