

TECHNICAL BULLETIN



Mfg : FORD
Model: F-SERIES TRUCK
Liter : 6.8
VIN : S
Year : 1997-09

TB # 2054 CYLINDER HEAD BOLT REPLACEMENT FOR 6.8L FORD

Cylinder Head Bolt Replacement For 1997-2003 Ford 6.8L VIN S Engines

The AERA Technical Committee offers the following information regarding cylinder head bolt replacement for 1997-2003 Ford 6.8L VIN S engines. This engine requires NEW replacement cylinder head bolt fasteners anytime the head is re-installed.

Follow the procedure listed below after all components have been thoroughly cleaned and prepped for re-installation. Ensure that all surfaces of the cylinder block, cylinder head, and gasket are fully free of any solid or liquid contamination and have been prepared for assembly using Motorcraft Metal Surface Cleaner, F4AZ-19A536-RA, or equivalent solvent. Also ensure that any residual dirt on the engine was removed successfully from the surrounding areas of the block to head face on the head and the block. Verify the cylinder head flatness and surface finishes are adequate for the MLS (multi-layered steel) gasket seal.

NOTE: The four center bolts must be installed in the cylinder head before positioning the cylinder head on the block if engine is in the vehicle for van applications. To install the cylinder head without damaging the gasket or the gasket-mating surfaces, lift bolts 1-4 slightly above the cylinder head gasket-mating surface and hold in place by using a large rubber band.

The new head bolt shanks and threads should be thoroughly cleaned, dried, and lightly lubricated with clean engine oil. Oil the bolts and let oil drip for a minimum of 5 minutes as use of too much oil may cause hydraulic lockup in the bolt holes. Install the cylinder head on the head gasket and loosely install all of the NEW fasteners finger tight.

NOTE: Be sure to tighten the bolts in the following three stages and reference the illustration show in Figure 1.

1. Tighten all bolts in sequence to 30 ft/lbs. (40 Nm).
2. Rotate all bolts in sequence an additional 85-95°.
3. Rotate all bolts in sequence an additional 85-95°.

NOTE: Steps 2 and 3 not to exceed 190° total rotation.

As noted above, this engine requires head bolt replacement. Until recently those bolts were only available from Ford, but now, AERA is currently aware of at least one aftermarket supplier of those head bolt fasteners.

The AERA Technical Committee

Related Diagrams

CYLINDER HEAD BOLT TORQUE
SEQUENCE

