

Enginetech Inc
Tech Assistance 800-410-3664 ext. 340 or 237

TECHNICAL BULLETIN	
	September 1998 TB 1613
Mfg:	GM
Model:	S10
Liter:	4.3L
V I N:	W
Year:	92-05

Cylinder Head Caution On
1989-96 GM 4.3L VIN W & Z Engines

The AERA Technical Committee offers the following information on cylinder heads for 1989-96 GM 4.3L VIN W & Z engines. During the years 1994-96 GM supplied two different engines with the same liter and VIN designations. One is a V-6 and the other a V-8 configuration. It is important to remember the information in this bulletin applies only to the V-6 engine.

AERA members have reported coolant loss shortly after supplying rebuilt cylinder heads or complete engine assemblies. Leaks have been reported on assemblies that had previously been pressure checked and were not leaking at the time of assembly. The source of this coolant loss has been through the cylinder head casting in a crack that developed after installation. This crack has been observed on both banks starting at a head bolt boss continuing over toward a spark plug hole machined taper. There have been no reports of this crack extending into the spark plug threads.

Not all cracks reported have been visible to the eye, even when magnetic crack detection equipment has been used. In some instances, the cylinder head mounting bolt torque was simulated to achieve coolant leakage during pressure testing. Some AERA shops have indicated the use of "wet" crack detection equipment has revealed a crack, whereas, the dry method would not show one in that location.

The cause of these cracks may be different stresses created by re-assembling the head to the cylinder block, as many heads did not exhibit a leak prior to installation. To reduce that possibility one AERA shop is using only new head bolts with a pre-applied lubricant/sealer. They're also using the three step torque procedure and sequence listed below.

1. Torque all bolts in sequence to 22 ft/lbs.

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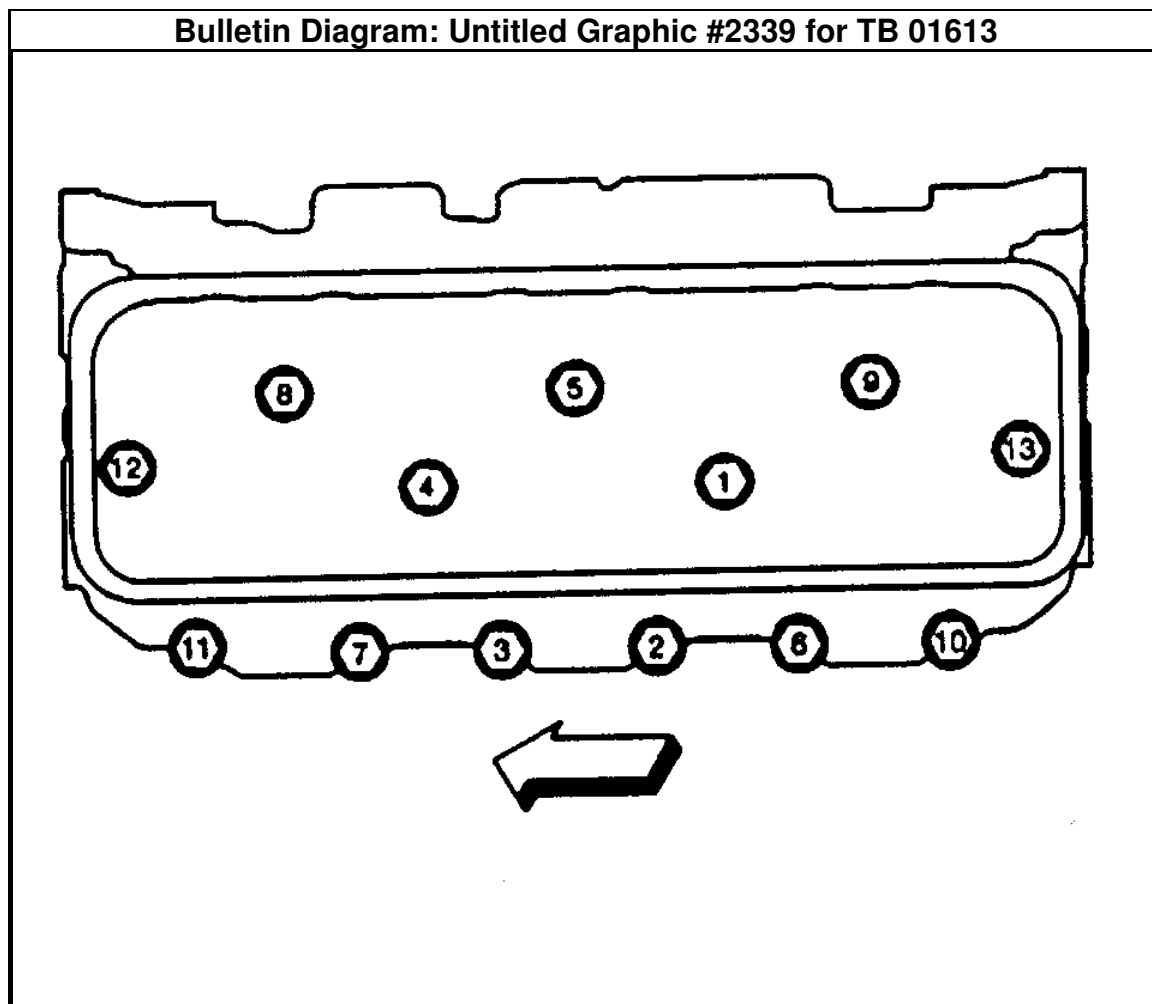
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2. Torque all bolts in sequence to 44 ft/lbs.
3. Torque all bolts in sequence to 66 ft/lbs.

The AERA Technical Committee

Bulletin Diagram: Untitled Graphic #2339 for TB 01613



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