

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

TECHNICAL BULLETIN	
	December 1999 TB 1701R
Mfg:	GM
Model:	NORTHSTAR
Liter:	4.6L
V I N:	9
Year:	93-08

Cylinder Head Installation For
1993-99 GM 4.0 & 4.6L VIN C, Y & 9 Engines

The AERA Technical Committee offers the following information regarding cylinder head installation for 1993-99 GM 4.0 & 4.6L VIN C, Y & 9 engines. AERA members have reported some confusion regarding the correct cylinder head installation procedure for these engines. It has been reported that different sources for information have published varying torque values and installation procedures.

Refer to the following installation procedure and illustrations below for the latest GM recommendations for each of the two cylinder heads. These procedures may be used on all GM 4.0 & 4.6L DOHC engines. GM also requires new cylinder head mounting bolts to be used anytime the head is installed.

1. The cylinder head should be cleaned in solvent and dried. Discard all old 11-mm head bolts and obtain new bolts.
2. The cylinder head and cylinder block mating surfaces should be flat and free of oil residue before the head gasket is placed on the block.
3. In sequence, torque all bolts to 30 ft/lbs.
4. In sequence, rotate all bolts an additional 70°.
5. In sequence, rotate all bolts an additional 60°.
6. In sequence, rotate all bolts an additional 60° (totaling 190° in steps 4, 5 & 6).
7. Torque the front three M6 cylinder head bolts to 106 in/lbs.

It is important to note if additional torque is applied during this installation process, the block bolt threads or casting will be damaged. Insufficient applied torque may allow combustion gases to enter the block coolant passages.

The AERA Technical Committee

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Reference:	
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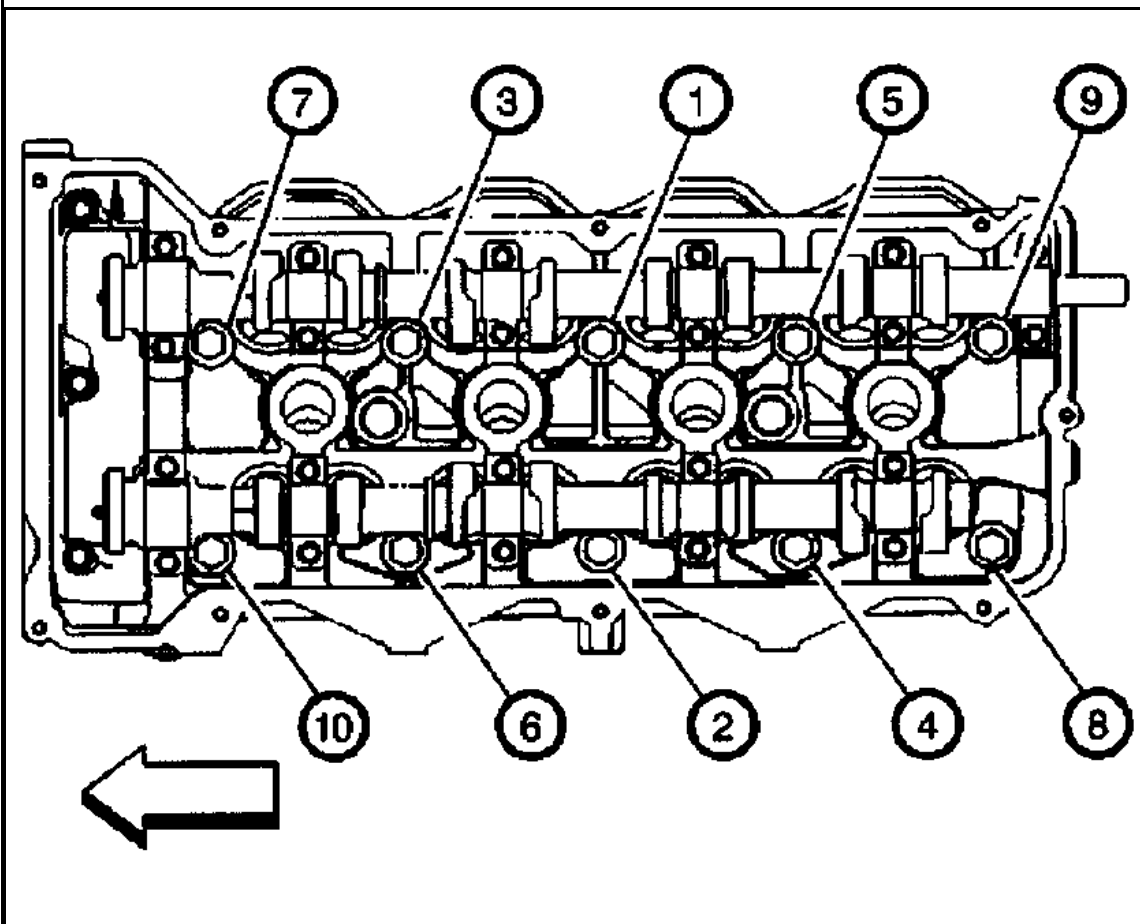


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Bulletin Diagram: Left Side Head Toque Sequence, Figure 1 - CYLINDER HEAD



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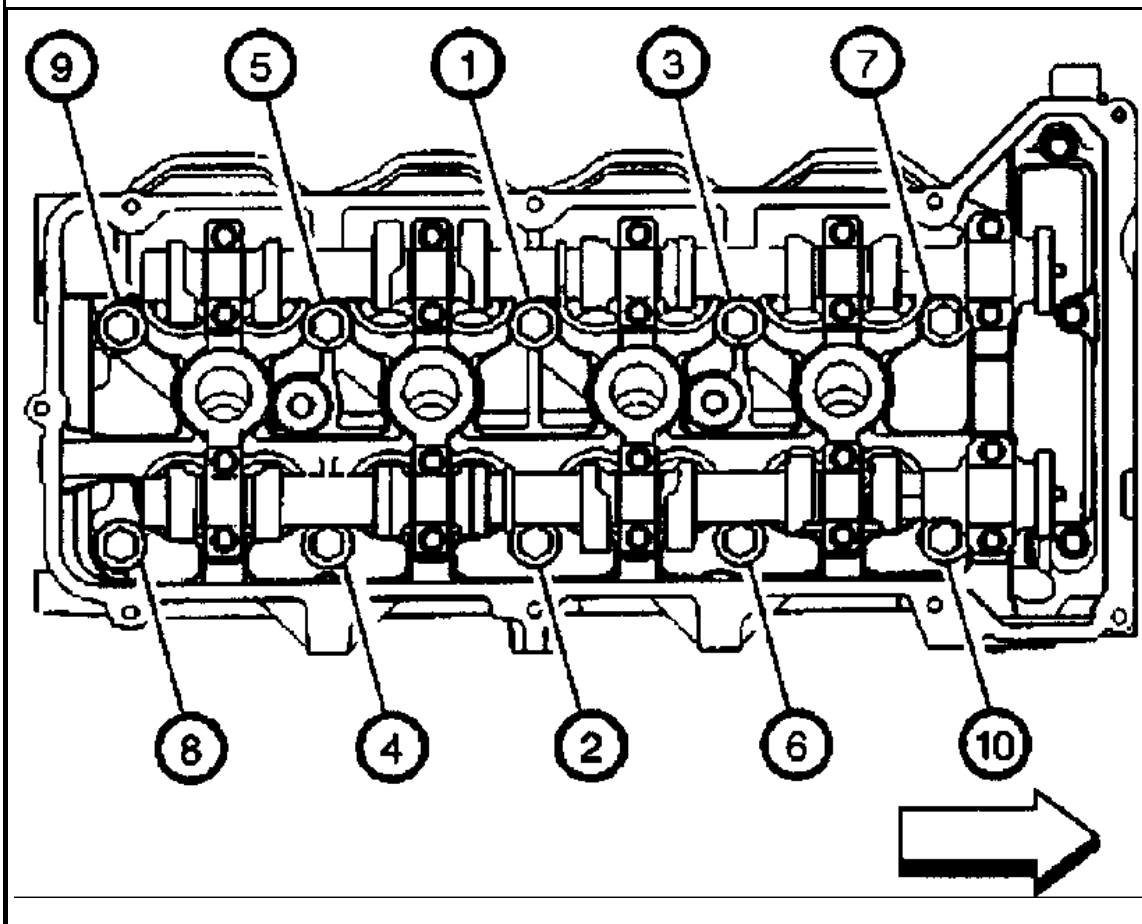


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Bulletin Diagram: Right Side Head Torque Sequence, Figure 2 - CYLINDER HEAD



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