

Enginotech Inc
For Technical Assistance Call:
1-800-410-3664 ext 340 or ext 237

TECHNICAL BULLETIN	
	February 1998 TB 1546
Mfg:	TOYOTA
Model:	4-RUNNER
Liter:	3.0L
V I N:	3V-ZE
Year:	88-95

Cylinder Head Installation On
1987-94 Toyota 3.0L 3VZE Engines

The AERA Technical Committee offers the following information regarding cylinder head installation on 1987-94 Toyota 3.0L 3VZE engines. Apparently, some service manual information is inaccurate in the torque values listed for mounting this engine's cylinder heads. A previous AERA publication, ES-40R also lists an incomplete value for cylinder head bolt torque.

This engine uses a torque-turn method of tightening the cylinder head mounting bolts. The final bolt movement involves rotating the bolt 90° tighter than the previous turn. This engine requires two additional 90° rotations from the initial torque of 33 ft/lbs. Some previously published information has omitted the second 90° turn. The manufacturer of this engine does not dictate cylinder head bolt replacement unless they are damaged. Follow the procedures and torque sequence illustration listed below for cylinder head installation.

1. Install each head gasket on block deck at their intended cylinder bank (See AERA Technical Bulletin TB 1197).
2. Apply engine oil to bolt threads and head underside and install.
3. In sequence tighten all bolts except bolt "A" to 33 ft/lbs.
4. In sequence tighten all bolts except bolt "A" an additional 90°.
5. In sequence tighten all bolts except bolt "A" an additional 90°.
6. Install bolt "A" and tighten to 27 ft/lbs.

If an engine is assembled and placed into service with a deduced amount of applied torque to the cylinder head bolts, premature head gasket failure will result.

The AERA Technical Committee

For Additional Information See AERA Technical Bulletins TB 1445 & 1197

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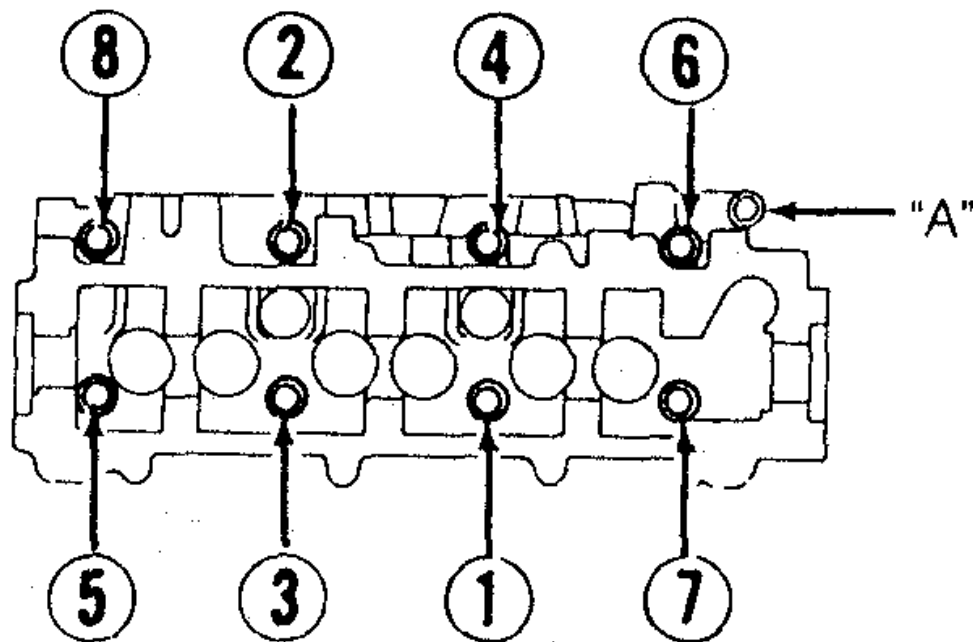
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Bulletin Diagram: Untitled Graphic #2296 for TB 01546

◀ FRONT OF ENGINE



INSTALLATION

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