

OVERHAUL (Continued)

Inspection

Inspect the cylinder heads for cracks or excessively burned areas in the exhaust outlet ports.

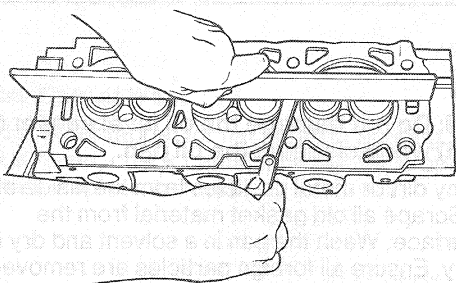
Check the cylinder head for cracks and inspect the gasket surface for burrs and nicks. Small imperfections of this type can be dressed down using an oil stone. Replace the head if it is cracked.

The following inspection procedures are for a cylinder head that is to be completely overhauled. For individual repair operations, use only the pertinent inspection procedure.

Cylinder Head Flatness**Tools Required:**

- Straight Edge D83L-4201-A

When a cylinder head is removed because of gasket leaks, check the flatness of the cylinder head gasket surface for conformance to specification using Straight Edge D83L-4201-A or equivalent and a feeler gauge. For Specifications, refer to Section 03-01A (3.0L), 03-01B (3.0L / 3.2L SHO) or 03-01C (3.8L). If necessary to refinish the cylinder head gasket surface, do not plane or grind off more than 0.254mm (0.010 inch).



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Cylinder Head—3.0L

Replace the head if it is cracked. Do not plane or grind the cylinder head gasket surface. Remove all burns or scratches with an oil stone.

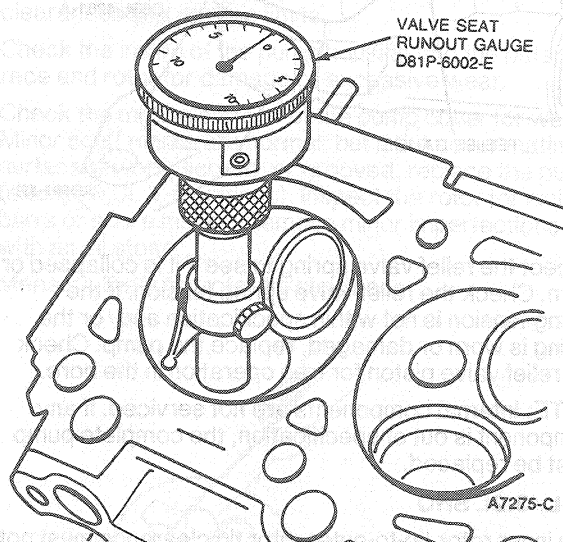
When checking cylinder head gasket surfaces, warpage is not to exceed the following specifications. If warpage exceeds these specifications, the head must be replaced.

- Cylinder block side: 0.2mm (0.008 inch)
- Intake manifold side: 0.2mm (0.008 inch)
- Exhaust manifold side: 0.3mm (0.012 inch)

Valve Seat Runout**Tools Required:**

- Valve Seat Runout Gauge D81P-6002-E

Check the valve seat runout with Valve Seat Runout Gauge D81P-6002-E or equivalent as illustrated below. Follow the instructions of the gauge manufacturer. If the runout exceeds the wear limit, reface the valve and valve seat. For specifications, refer to Section 03-01A.

**Valve Stem-to-Guide Clearance****Tools Required:**

- Valve Stem Clearance Tool TOOL-6505-E
- Rotunda Dial Indicator with Bracketry 014-00282.

Check the valve stem-to-valve guide clearance of each valve in its respective valve guide with Valve Stem Clearance Tool TOOL-6505-E or equivalent. Use a flat end indicator point.