

ADJUSTMENTS (Continued)

11. Inspect cylinder head cover gaskets and replace if damaged.
12. Install cylinder head covers and intake manifold assembly. Refer to Section 03-01B.
13. Connect negative battery cable.

OVERHAUL

Service Limit Specifications

Service limit specifications are intended to be a guide only, to be used when overhauling or reconditioning an engine or engine component. A determination can be made whether a component is suitable for continued service or should be replaced for extended service while the engine is disassembled.

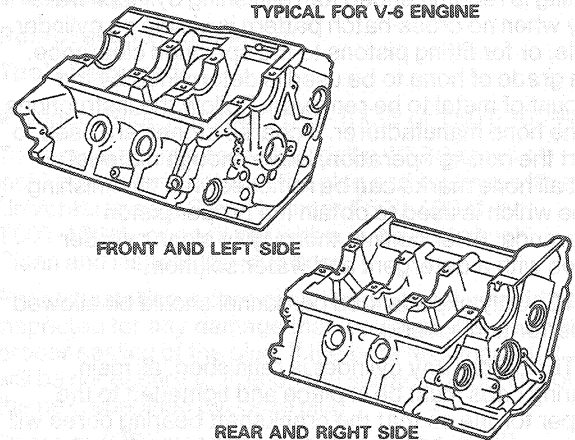
Cylinder Block

Servicing Sand Holes or Porous Engine Castings

Porosity or sand hole(s) which will cause oil seepage or leakage can occur with modern casting processes. A complete inspection of engine and transaxle should be made. If the leak is attributed to the porous condition of the cylinder block or sand hole(s), service can be made with an epoxy sealer meeting specification M3D35-A (E) or equivalent. **Do not service cracks with this material.** Service with this metallic plastic epoxy resin must be confined to those cast iron engine component surfaces where the inner wall surface is not exposed to engine coolant pressure or oil pressure, for example:

- a. Cylinder block surfaces extending along the length of the block, upward from the oil pan rail to the cylinder water jacket but not including machined areas.
- b. Lower rear face of the cylinder block.
- c. Intake manifold casting. **Service is not recommended to the intake manifold exhaust crossover section, since temperatures can exceed the recommended temperature limit of 260°C (500°F).**
- d. Cylinder front cover on engines using cast iron material.
- e. Cylinder head, along the valve rocker arm cover gasket surface.

The following procedure should be used to service porous areas or sand holes in cast iron.



A14133-1A

1. Clean the surface to be serviced by grinding or rotary filing to a clean bright metal surface. Chamfer or undercut the hole or porosity to a greater depth than the rest of the cleaned surface. Solid metal must surround the hole. Openings larger than 6.35mm (1/4 inch) should not be serviced using metallic plastic (epoxy resin). Openings in excess of 6.35mm (1/4 inch) can be drilled, tapped and plugged using common tools. Clean the service area thoroughly. Metallic plastic (epoxy resin) will not stick to a dirty or oily surface.
2. Mix the metallic plastic (epoxy resin) base and hardener as directed on the container. Stir thoroughly until uniform.
3. Apply the service mixture with a suitable clean tool (putty knife, wood spoon, etc.), forcing the epoxy into the hole or porosity.
4. Allow the service mixture to harden. This can be accomplished by two methods. Heat cure with a 250-watt lamp placed 254mm (10 inches) from the serviced surface, or air dry for 10-12 hours at temperatures above 10°C (50°F).
5. Sand or grind the serviced area to blend with the general contour of the surrounding surface.
6. Paint the surface to match the rest of the block.

Cylinder Walls, Refinishing

Tools Required:

- Engine Cylinder Hone Set T73L-6011-A