

2.8L & 2.9L Engines



When removing the cylinder head, be sure to keep the pushrods in order



Remove the upper and lower intake manifolds. Don't forget any ground straps which may be bolted to the head



Finally loosen and remove all of the head bolts



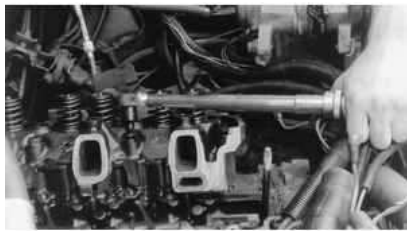
You may need to carefully pry the head upwards to break the gasket seal



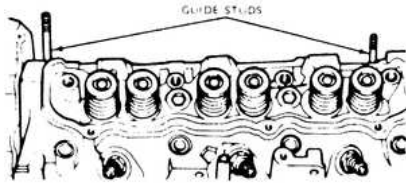
Once the head is loose, lift it from the engine



Remove all traces of the old gasket from the engine and the cylinder head

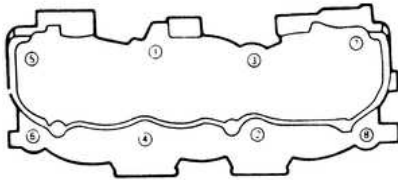


When installing the cylinder head, be sure to tighten the head bolts in the proper sequence with a torque wrench



Cylinder head alignment studs on the 2.8L & 2.9L engines

[Click to Enlarge](#)



Cylinder head bolt tightening sequence for the 2.8L

[Click to Enlarge](#)

| | | | |
|---|---|---|---|
| 8 | 1 | 4 | 6 |
| 5 | 3 | 2 | 7 |

Cylinder head bolt tightening sequence for the 2.9L

[Click to Enlarge](#)

1. Disconnect the battery ground cable.
2. Drain the radiator coolant.

CAUTION

When draining the coolant, keep in mind that cats and dogs are attracted by ethylene glycol antifreeze, and are quite likely to drink any that is left in an uncovered container or in puddles on the ground. This will prove fatal in sufficient quantity. Always drain the coolant into a sealable container. Coolant should be reused unless it is contaminated or several years old.

3. Remove the air cleaner from the carburetor and disconnect the throttle linkage on the 2.8L. Remove the intake tube from the throttle body and disconnect the throttle linkage and cover on the 2.9L.
4. Remove the distributor.
5. Remove the radiator hose and the by-pass hose from the thermostat housing and intake manifold.
6. Remove the rocker arm covers and the rocker arm shafts as described in this section.
7. Remove the fuel line from carburetor and remove the carburetor on the 2.8L. Depressurize the fuel system and remove the fuel line from the fuel rail on the 2.9L.
8. Remove the intake manifold as described in this section.
9. Remove and label the pushrods in order to keep them in sequence for proper assembly.
10. Remove the exhaust manifolds as described in this section.
11. Remove the cylinder head attaching bolts. Remove the cylinder heads and discard the head gaskets.

To install:

12. Clean the cylinder heads, intake manifold, valve rocker arm cover and cylinder block gasket surfaces.
13. Place the cylinder head gaskets in position on the cylinder block.

Gaskets are marked with the words FRONT and TOP for correct positioning. Left and right cylinder head gaskets are not interchangeable. Use new cylinder head bolts.

14. Install the fabricated alignment dowels in the cylinder block and install the cylinder head assemblies on the cylinder block, one at a time.
15. Remove the alignment dowels and install the cylinder head attaching bolts. Tighten the bolts to specification following the torque sequence.
16. Install the intake manifold as described in this section.
17. Install the exhaust manifolds as described in this section.
18. Apply Lubriplate®, or equivalent, to both ends of the pushrods and install the pushrods.
19. Install oil baffles and rocker arms as described in this section under Rocker Arm Shaft Assembly.
20. Install the distributor.
21. Adjust the valves as described in Section 1 under Valve Lash adjustment.
22. Install the rocker arm covers.
23. Install the carburetor and connect the fuel line to the carburetor on the 2.8L engine. Connect the fuel line to the fuel rail on the 2.9L engine.
24. Install the distributor cap with spark plug wires attached. Coat the inside of each spark plug boot with silicone lubricant and install them on the spark plug.
25. Install the throttle linkage and, the air cleaner or air cleaner intake tube.
26. Fill the cooling system according to instructions on the underhood decal and bleed the cooling system.
27. Connect the battery ground cable.
28. Operate the engine at fast idle and check for oil, fuel and coolant leaks.
29. Check and adjust, if necessary the ignition timing and idle speed.