Cylinder Head Replacement

Meets NATEF Task: (A1-B-1) Remove cylinder head; inspect gasket condition; install cylinder head and gasket; tighten according to manufacturer's specifications. (P-1)

Name _____ **Date** _____ **Time on Task** _____

Make/Model/Year _____ **VIN** _____ **Evaluation: 4 3 2 1**

The cylinder head gasket will have to be replaced if there is one or more of the following problems:

- An internal coolant leak into the combustion chamber
- An external oil or coolant leak at the head gasket

_____ **1.** Allow the engine to cool and drain the coolant into a suitable container to be disposed of properly or recycled.

_____ **2.** Remove the air cleaner assembly and other components as necessary to gain access to the cylinder head and retaining bolts. Items that required removal:

_____ _____ _____

_____ _____ _____

_____ **3.** Remove the intake manifold and cylinder head(s) following the tightening torque sequence in reverse.

_____ **4.** Clean all gasket surfaces.

CAUTION: Do not use fiber abrasive pads to clean the gasket surfaces. Particles of the fiber disc can get into the engine and cause serious engine wear and damage. Do not use steel tools to scrape gaskets from an aluminum surface.

_____ **5.** Install the replacement cylinder head and intake manifold gaskets following the vehicle manufacturer's recommended procedure.

_____ **6.** Torque the retaining bolts to factory specifications. _____

Intake manifold bolt torque specification = _____
Cylinder head bolt torque specification = _____

_____ **7.** Reassemble the top of the engine.

_____ **8.** Refill the cooling system with new coolant and check for leaks and proper engine operation.

CAUTION: Be sure to open cooling system bleeder valves(s), if equipped, to avoid trapping air.