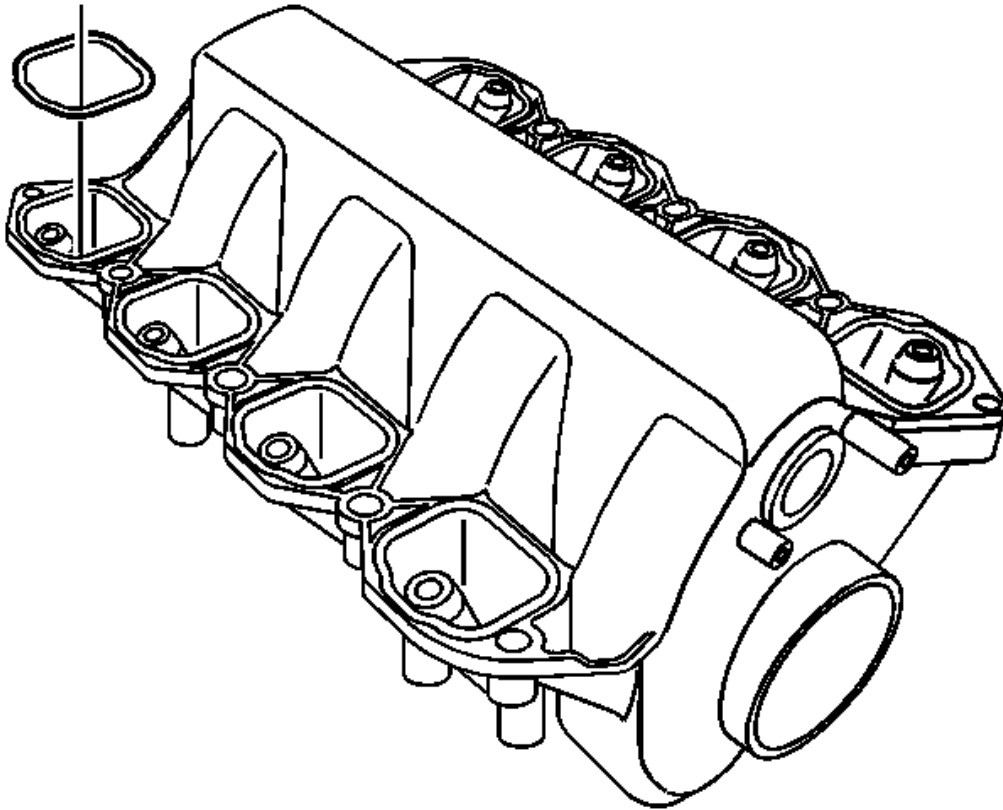


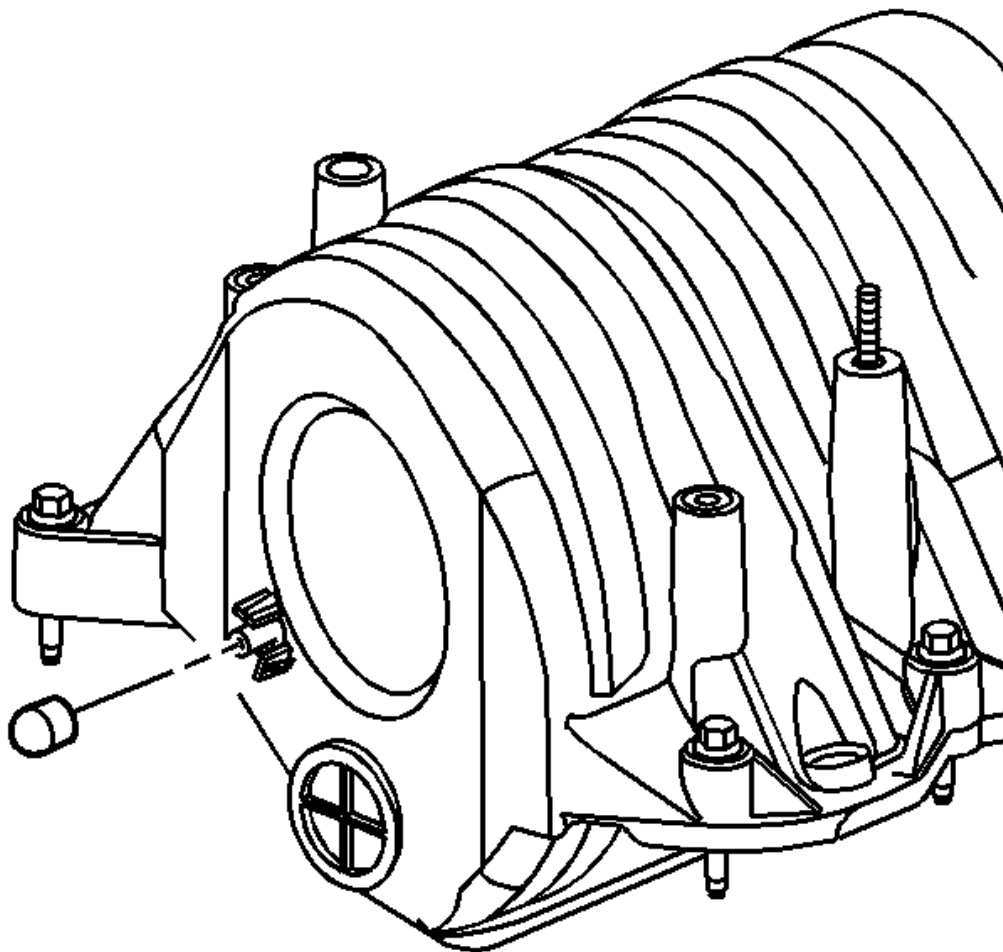
## INTAKE MANIFOLD DISASSEMBLE



**Fig. 114: View Of Intake Manifold-To-Cylinder Head Gaskets**  
Courtesy of GENERAL MOTORS CORP.

**IMPORTANT: Do not reuse the intake manifold-to-cylinder head sealing gaskets.**

1. Remove and discard the intake manifold-to-cylinder head gaskets.



**Fig. 115: View Of Vacuum Cap**  
Courtesy of GENERAL MOTORS CORP.

2. Remove the vacuum cap.

## INTAKE MANIFOLD CLEANING AND INSPECTION

### Cleaning Procedure

**IMPORTANT: Do not reuse the intake manifold-to-cylinder head sealing gaskets.**

1. Remove any remaining gasket and/or gasket material from the intake manifold.
2. Clean the following intake manifold areas in solvent.

## 2005 Cadillac DeVille DTS

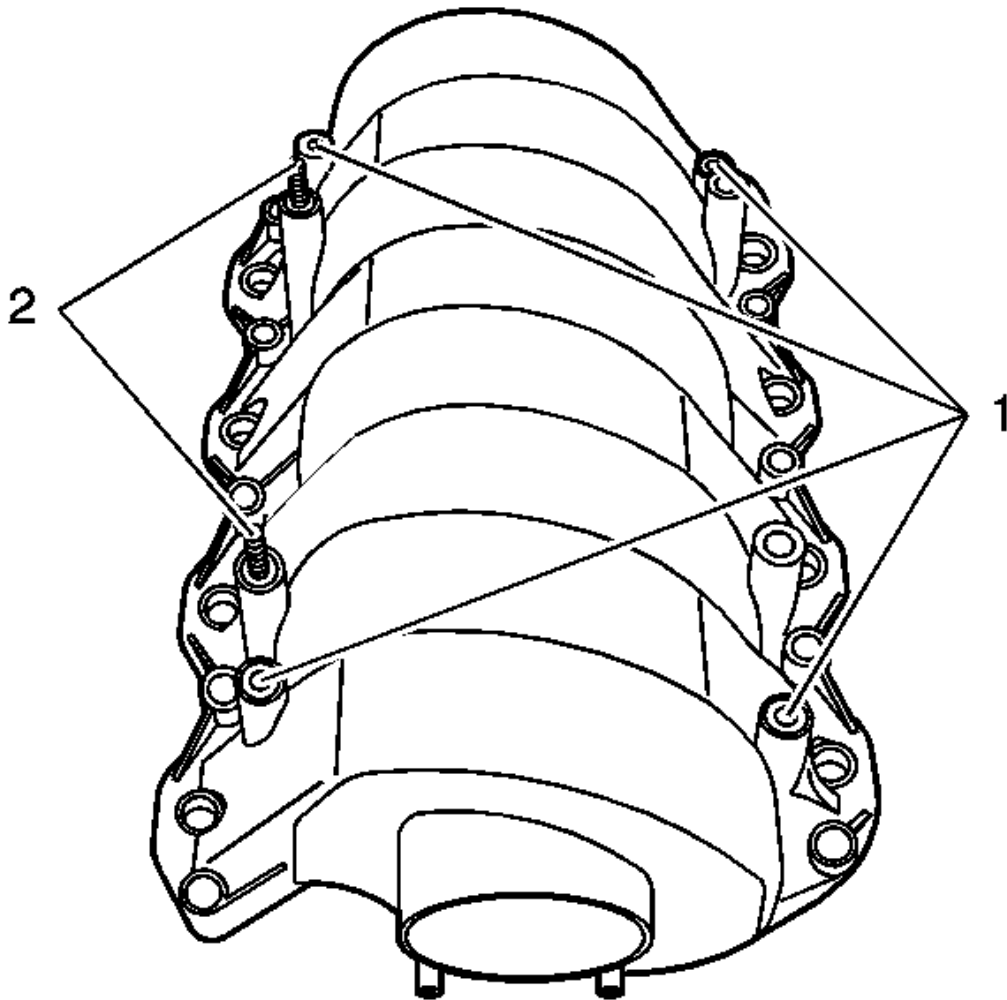
2005 ENGINE Engine Mechanical (Repair Instructions - 3 Of 4) - 4.6L - DeVille

- Intake manifold gasket grooves
- Intake manifold passages
- PCV vacuum hose passage
- Vacuum hose fitting passage

**CAUTION: Refer to Safety Glasses Caution in Cautions and Notices.**

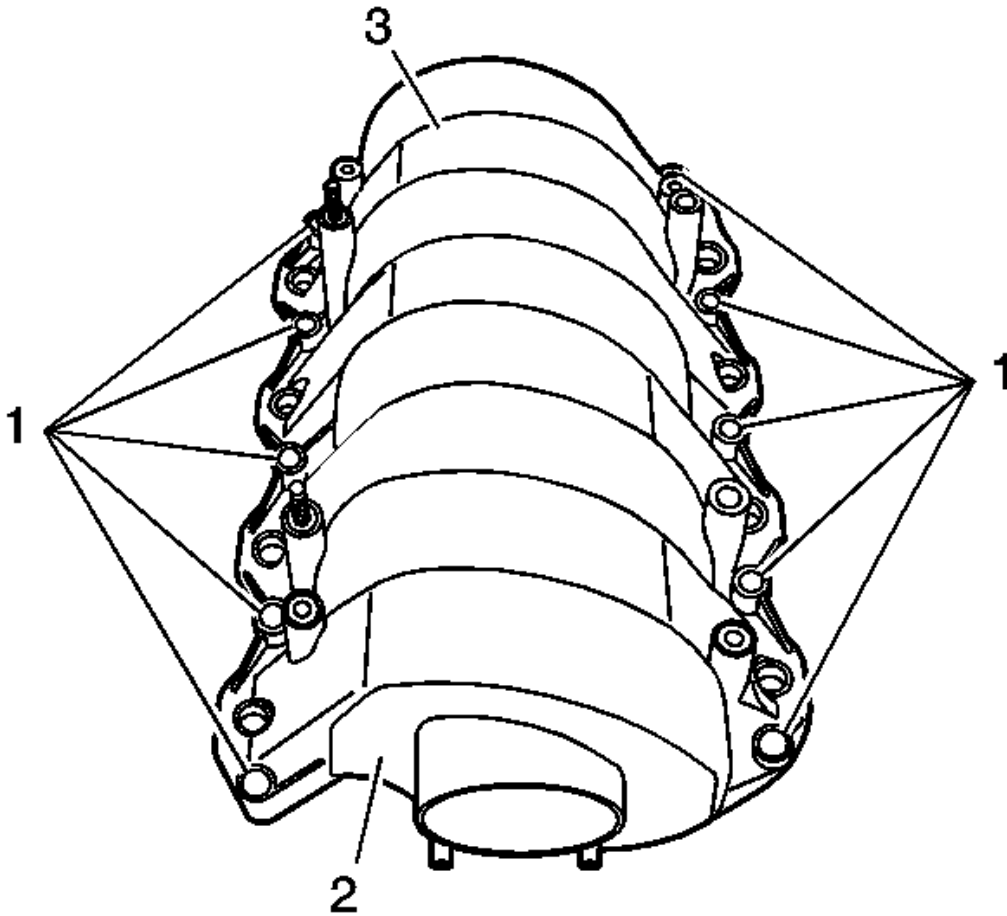
3. Dry the intake manifold with compressed air.

### **Inspection Procedure**



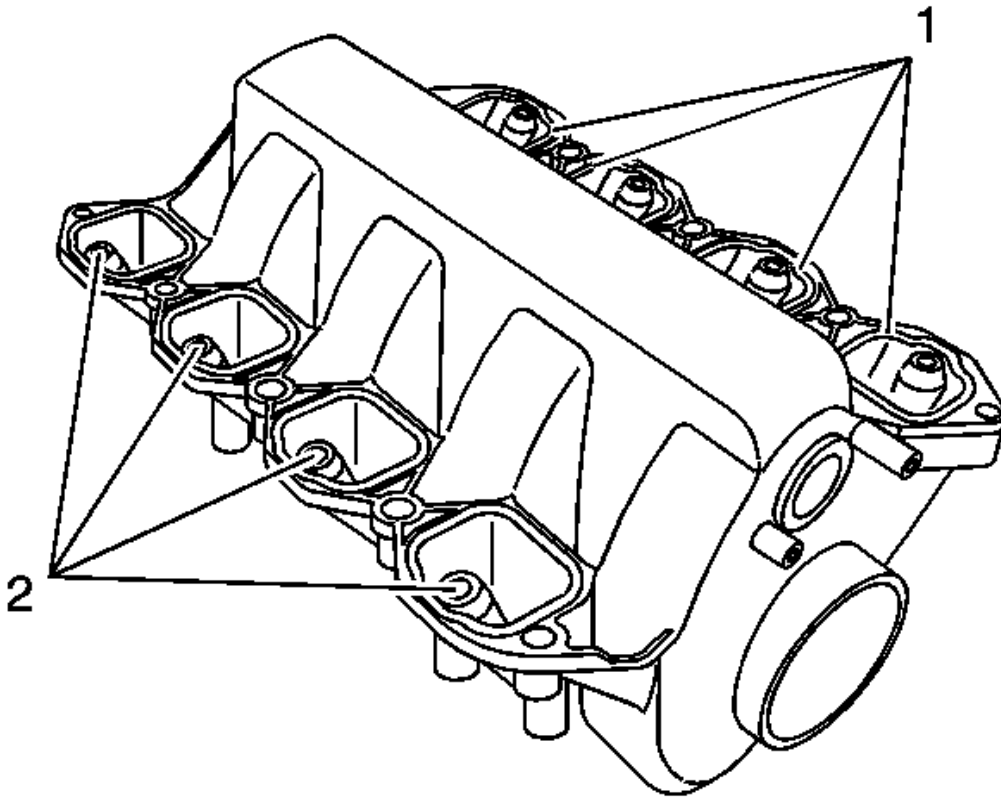
**Fig. 116: Inspecting Intake Manifold For Damage To Fuel Rail Mounting Inserts & Studs**  
Courtesy of GENERAL MOTORS CORP.

1. Inspect the intake manifold for the following conditions:
  - Damage to the fuel rail mounting inserts (1)
  - Damage to the studs (2)



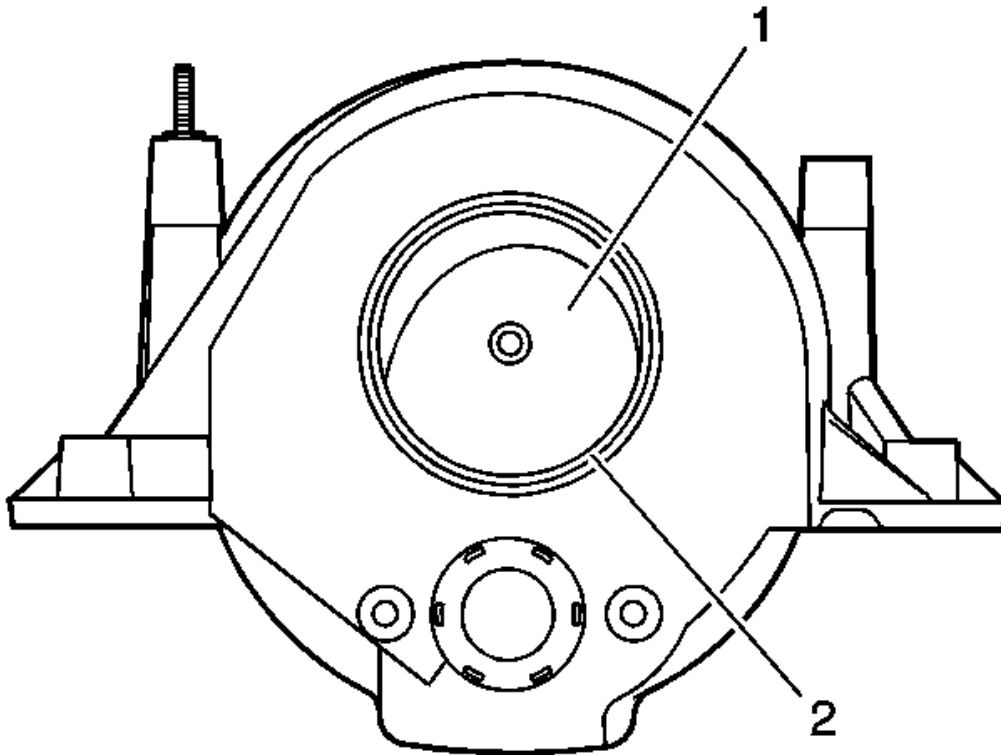
**Fig. 117: Inspecting Intake Manifold For Cracks & Damage To Bolt Bosses**  
Courtesy of GENERAL MOTORS CORP.

2. Inspect the intake manifold for the following conditions:
  - Damage to the intake manifold bolt bosses (1)
  - Damage or cracks to the composite intake manifold assembly (2)
  - Damage in areas between the intake runners (3)



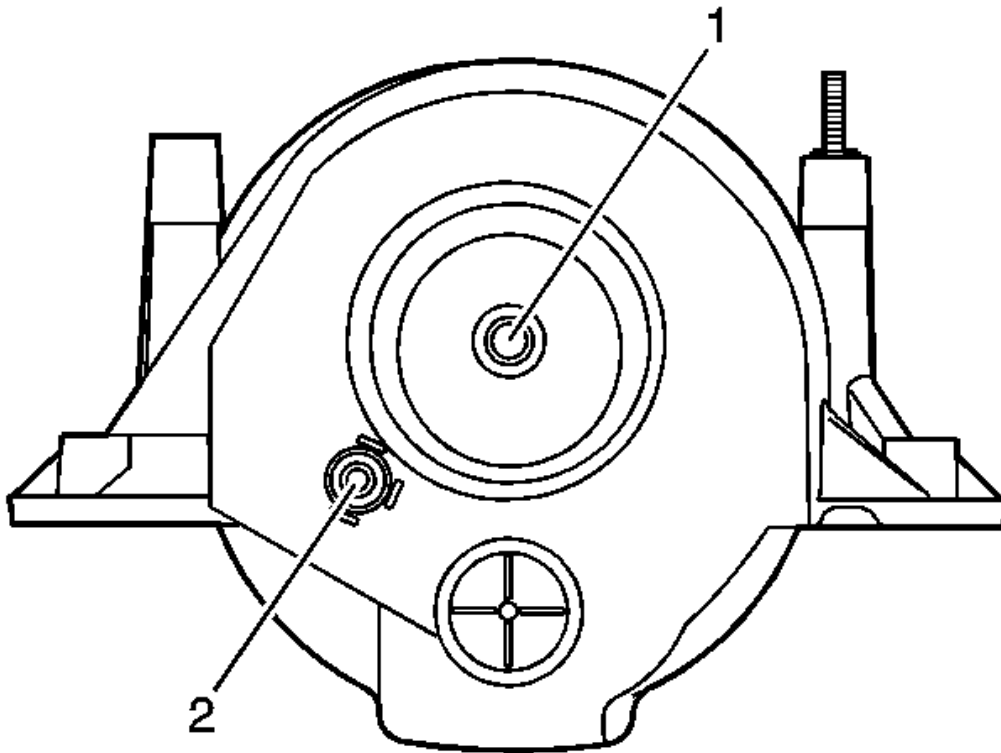
**Fig. 118: Inspecting Intake Manifold For Damage To Sealing Surfaces & Fuel Injector Bores**  
Courtesy of GENERAL MOTORS CORP.

3. Inspect the intake manifold for the following conditions:
  - Damage, gouges or cracks to the intake manifold sealing surfaces and grooves (1)
  - Damage or excessive scoring to the fuel injector bores (2)



**Fig. 119: Inspecting Front Intake Manifold For Damage To Passage & Plenum Duct Neck**  
Courtesy of GENERAL MOTORS CORP.

4. Inspect the front of the intake manifold for the following conditions:
  - Damage, debris or restrictions to the intake manifold passage (1)
  - Damage to the plenum duct neck (2)

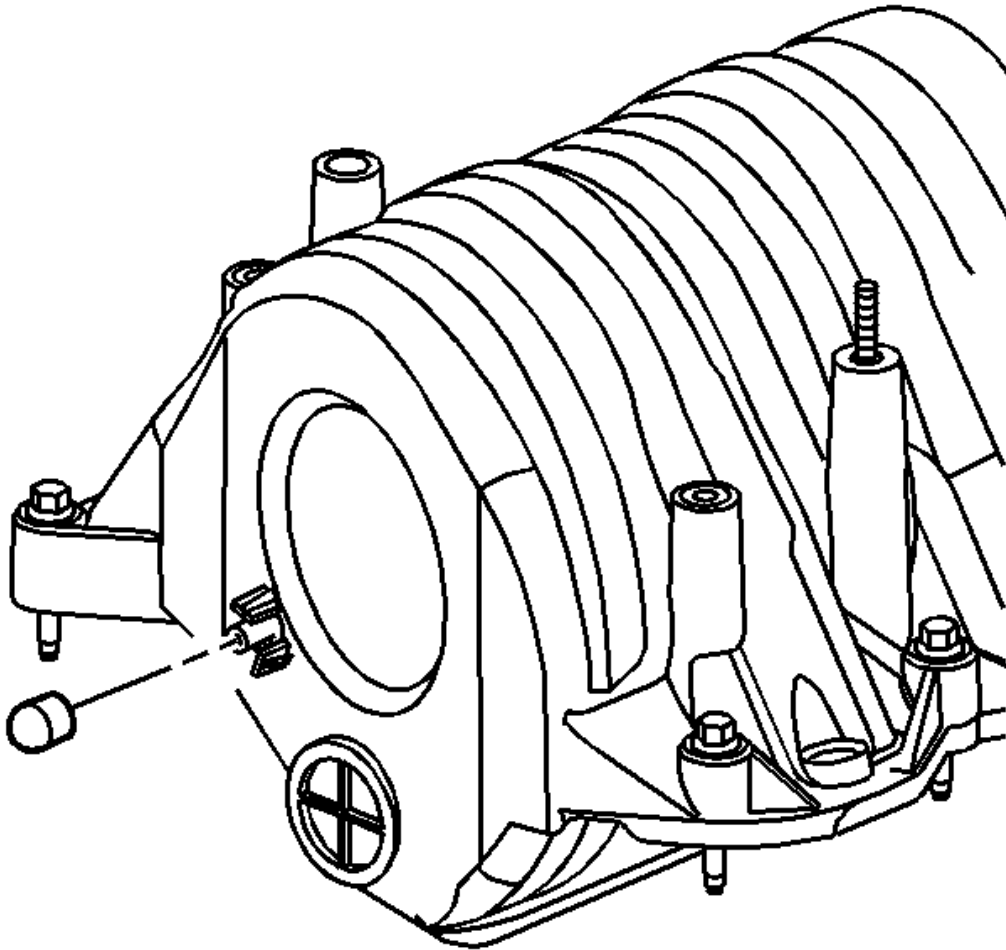


**Fig. 120: Inspecting Intake Manifold For Damage To PCV System Hose & Vacuum Ports**  
Courtesy of GENERAL MOTORS CORP.

5. Inspect the intake manifold for the following conditions:
  - Damage, debris or restrictions to the PCV system hose port (1)
  - Damage, debris or restrictions to the vacuum port (2)
6. Inspect the intake manifold cylinder head deck for warpage.
  1. Locate a straight edge across the intake manifold cylinder head deck surface.
  2. Insert a feeler gage between the intake manifold and the straight edge. An intake manifold with warpage in excess of 0.25 mm per 25 mm (0.010 in per 1.00 in) must be replaced.
7. Repair or replace the intake manifold as necessary.

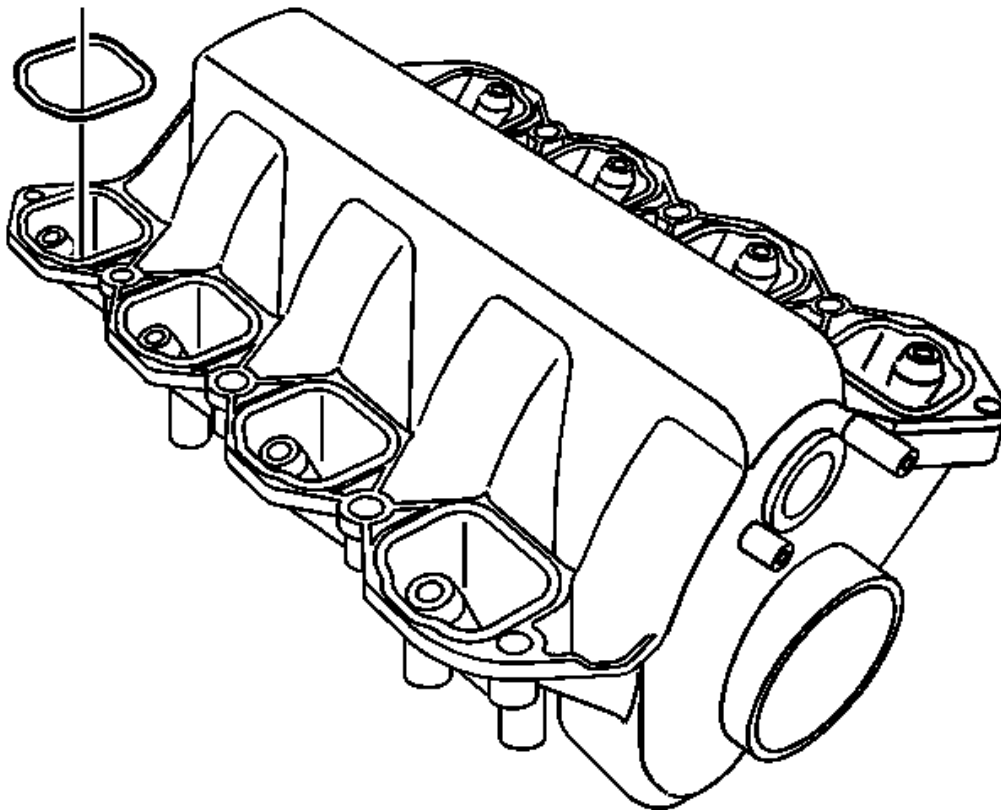
## INTAKE MANIFOLD ASSEMBLE





**Fig. 121: View Of Vacuum Cap**  
Courtesy of GENERAL MOTORS CORP.

1. Install the vacuum cap.



**Fig. 122: View Of Intake Manifold-To-Cylinder Head Gaskets**  
Courtesy of GENERAL MOTORS CORP.

**IMPORTANT: Do not reuse the intake manifold-to-cylinder head sealing gaskets.**

2. Install NEW intake manifold-to-cylinder head gaskets.

#### **EXHAUST MANIFOLD CLEANING AND INSPECTION - LEFT**

##### **Cleaning Procedure**

1. Clean the exhaust manifold in solvent.

**CAUTION: Refer to Safety Glasses Caution in Cautions and Notices.**