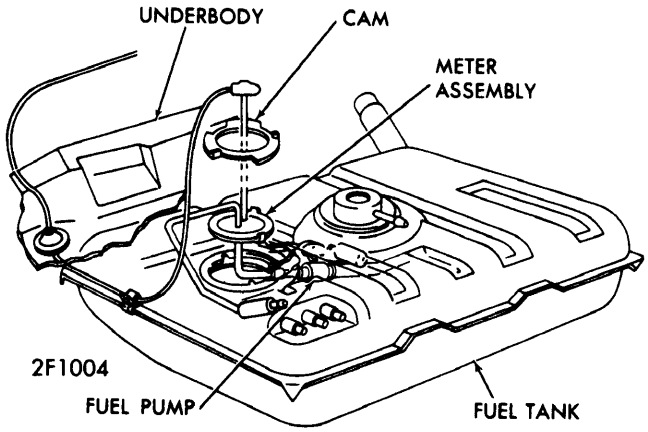
## ALL MODELS

### DESCRIPTION

Three types of fuel supply pumps are used in current production models. Pumps are either externally mounted mechanically operated, externally mounted electrically operated, or internally mounted in the fuel tank and electrically operated. With the exception of the internally mounted pumps in the fuel tank, all pumps make use of a pulsating diaphragm and intake and discharge check valves. In-tank pumps make use of a motor driven vane type unit.

Regardless of the type pump installed, vehicle manufacturers state that if a fuel pump does not meet specifications as to fuel pressure, volume flow (capacity) or vacuum (suction), no attempt should be made to repair or overhaul the pump. The pump should always be replaced as an assembly.




**CHEVROLET VEGA FUEL PUMP INSTALLATION**

### INSPECTION & TESTING

If a performance complaint is received that may be diagnosed as a fuel supply problem, the fuel pump and all fuel supply components must be tested and inspected before assuming that fuel pump replacement alone will correct the complaint. Make the following tests and inspections.

**Fuel Lines & Hoses** – Inspect all metal fuel lines for damage from vibration, impact, or kinking. Inspect fuel hoses for kinks or cracks. Remove fuel tank cap, disconnect fuel line at inlet side of fuel pump and blow out fuel lines with compressed air.

**Filters & Screens** – Inspect and clean or replace all fuel filters and screens in both the pump inlet and outlet lines and at the carburetor. In rare instances, the filter or screen in the fuel tank (where used) has been found to be clogged sufficiently to affect fuel delivery at continued high speed operation.

**Electric Pumps** – On systems using electrically operated fuel pumps, test for adequate voltage and current supply at the wiring terminal or connector at the fuel pump while the engine is running. Electric fuel pumps are energized through the ignition switch or starter solenoid while the engine is being started, then are supplied current through action of the oil pressure sender switch once the engine is running.

**Pump Pressure Test** – Connect a "T" fitting into the pump outlet line. Connect a fuel pressure gauge to the "T" fitting with a length of hose not over 6" long. Start the engine and observe the gauge. If the specified pressure (see specification in appropriate "Tune-Up" article) is not obtained, replace the pump. *NOTE – On fuel pumps equipped with a vapor return system, squeeze off return hose while making pressure test.*

**Pump Volume (Capacity) Test** – With "T" connector fitting inserted in pump outlet line, attach a length of hose to the "T" and place the free end of the hose in a suitable and safe container. If the specified amount of fuel is not pumped in the specified time (see specifications in appropriate "Tune-Up" article), replace the pump.

**Pump Vacuum Test** – Disconnect pump inlet line and connect a vacuum gauge to the pump inlet fitting. Disconnect the pump outlet fuel line from either the carburetor or the pump (this is necessary to allow the pump to operate at full capacity). Use a length of hose and suitable container to receive discharged gasoline. The pump should be capable of producing 10" of vacuum at idle RPM.