

1980 Fuel Evaporation Systems

COURIER

All Models

DESCRIPTION

The evaporative emission control system is designed to prevent raw fuel vapors from being emitted to the atmosphere. The system consists of a sealed fuel tank, fuel vapor valve, a vapor controlling orifice, a pressure/vacuum relief fuel cap, a charcoal canister and lines to connect the components. A purge control valve, thermo valve and evaporative shutter (2.3L engine) are also installed on California models.

OPERATION

The fuel vapor valve, located on top of the fuel tank, controls the flow of fuel vapors from the tank to the charcoal canister for storage. During normal vehicle operation, fuel vapors are drawn from the charcoal canister into the engine through a hose connected to the air cleaner.

On California models, the thermo valve opens the intake manifold vacuum after engine reaches normal operating temperature. Intake manifold vacuum then opens the purge control valve, which draws air through bottom of canister and directs fuel vapors to manifold. On California 2.3L engines, an air cleaner mounted shutter valve prevents carburetor fuel vapors from escaping to atmosphere by closing the air cleaner inlet pipe when the engine is not running. During engine operation, intake manifold vacuum holds the shutter open to purge the canister.

A float valve designed into the fuel vapor valve, prevents liquid fuel from entering the vapor delivery line during severe vehicle operation.

The sealed fuel filler cap contains a vacuum and a pressure relief valve. The vacuum valve relieves tank vacuum caused by a high rate of fuel consumption or cooling of the fuel or fuel vapors.

The pressure relief valve in the filler cap prevents excessive fuel tank pressure during heavy engine load or high ambient temperature. The vacuum relief valve begins to open at .5 psi (.035 kg/cm²) vacuum and the pressure relief valve opens at 1.8 psi (.126 kg/cm²).

MAINTENANCE

System should be checked for proper operation and all hoses and connections checked for leaks and deterioration every 15,000 miles or 15 months. Canister should be checked and replaced if necessary every 30,000 miles or 30 months.

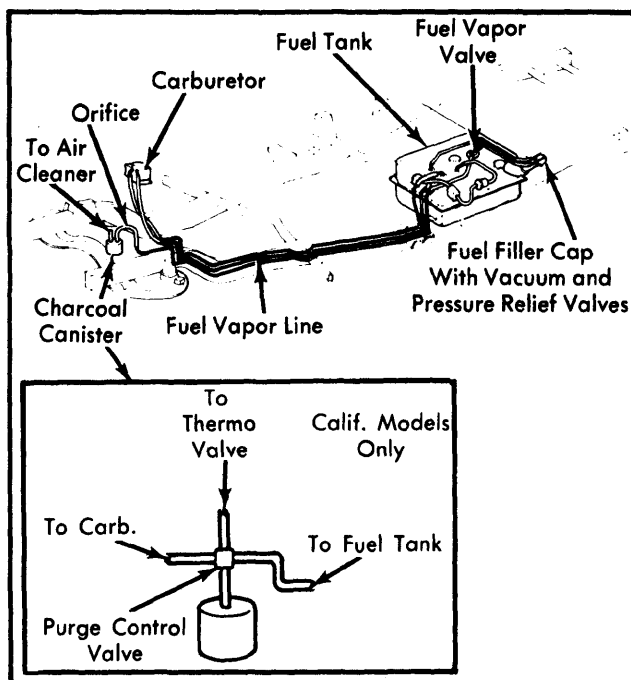


Fig. 1 Courier Fuel Evaporation System