1980 Fuel Evaporation Systems

RENAULT

Le Car

DESCRIPTION

The Fuel Evaporation Control System is designed to prevent fuel vapors from escaping into the atmosphere. The system includes a fuel tank with non-vented cap, a vapor expansion tank with 2-way check valve, a return line with check valve, a charcoal canister with vacuum controlled purge valve, a float bowl vent line with solenoid operated vent valve, and a purge hose with orifice.

OPERATION

When the engine is not running, fuel vapors that expand in the fuel tank pass through the expansion tank, check valves, and into the charcoal canister. Carburetor vapors are also routed to the canister when the engine is stopped or idling. When the throttle is moved off idle, the vent valve solenoid is energized and float bowl is vented to atmosphere.

At low engine loads, a ported vacuum line opens the canister purge valve, and intake manifold vacuum pulls the stored vapors into the air cleaner and intake manifold. When engine load is high or throttle wide open, vapors are routed through the intake manifold primarily.

The check valves in the expansion tank and fuel lines allow replacement air to enter the fuel tank as fuel is removed, and prevent fuel from escaping the tank should the car roll.

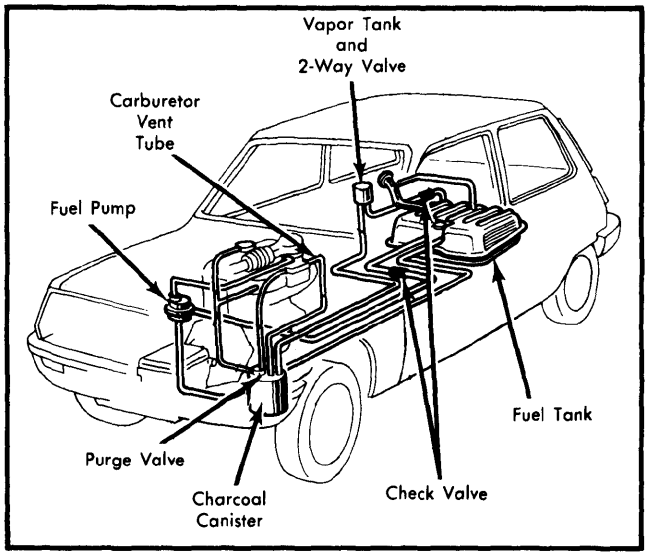

Fig. 1 Le Car Fuel Evaporation Control System

MAINTENANCE

The system should be checked every 12,000 miles. The filter located at the air inlet of the charcoal canister should be cleaned at each service.

SAAB

All Models

DESCRIPTION

Saab Evaporation Loss Control Device (ELCD), along with a special sealed fuel filler cap, is used to prevent the escape of fuel vapors into the atmosphere. The ELCD consists of the following components: A charcoal canister, located in the engine compartment, used to store fuel vapors, an air flow sensor, a roll over valve, a pressure valve, and lines connecting the various components.

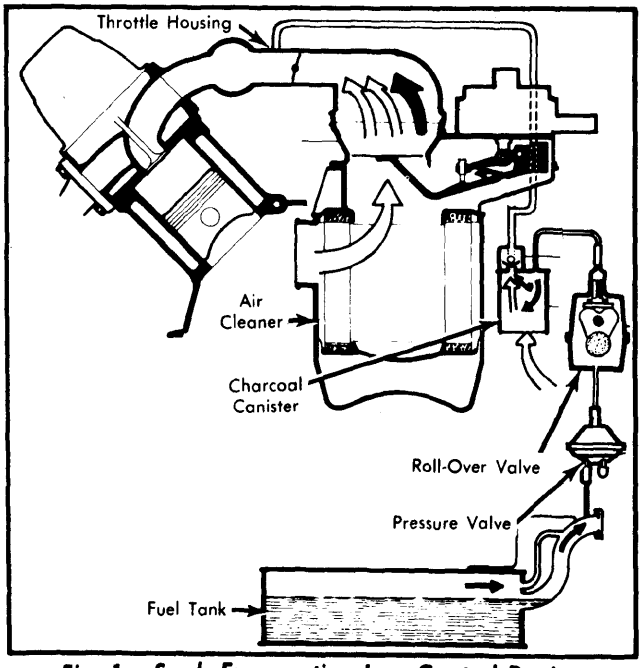

Fig. 1 Saab Evaporation Loss Control Device

OPERATION

When engine is stopped, fuel vapors from fuel tank flow through vapor line into charcoal canister where they are stored. When the engine is running, fresh air drawn through the charcoal canister, creates a vacuum that pulls the stored fuel vapors into the engine.

A roll-over valve, located in the trunk or in the rear left corner piller, shuts off the fuel ventilation hose, preventing escape of fuel in the event of an accident.

A pressure valve located in the ventilation hose between the filler pipe and the charcoal canister serves to equalize fuel tank pressure and avoid fuel tank collapse.

The special fuel tank filler cap contacts a spring loaded valve in the filler neck. Installing the filler cap, opens the valve, allowing fuel vapors to be vented to the charcoal canister when high temperatures cause the fuel to expand.

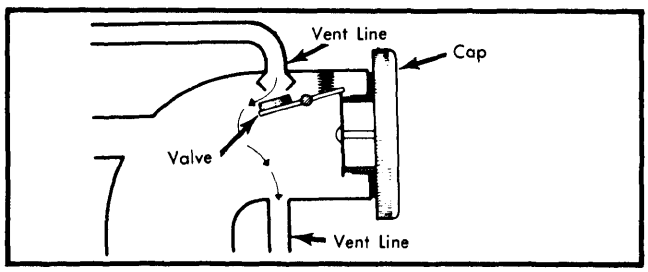

Fig. 2 Saab Fuel Filler Cap and Valve

MAINTENANCE

The system should be checked and the charcoal canister replaced at 60,000 miles.