1982 Fuel Evaporation Systems

FORD

DESCRIPTION

All models are equipped with fuel evaporation emission control systems. This closed system is designed to limit the amount of fuel vapor released to the atmosphere. The system consists of a special fuel filler cap, a specially designed fuel tank, a carbon-filled canister, an orifice valve and necessary fuel vent vapor lines. All 6-cylinder models with dual fuel tanks and all V8 models use 2 carbon canisters.

FUEL FILLER CAP

The fuel filler cap has a one-way vent. This prevents tank collapse, by allowing air to enter the tank as fuel is consumed.

FUEL TANK

In most installations, the fuel tank is constructed with a dome in the top. Fuel vapors rise and tend to gather in this dome.

ORIFICE VALVE

On all vehicles, liquid fuel is prevented from entering the vapor lines by restricted orifices. Orifices usually take the form of a .050" (1.27 mm) orifice valve, located in emission control valve in fuel tank dome.

CARBON CANISTER

The carbon-filled canister acts as a storage system for fuel vapors vented from the fuel tank and carburetor. The outlet of the canister is connected to the carburetor bowl vent.

OPERATION

Fuel vapors, trapped in the sealed fuel tank, are vented through the orifice vapor separator assembly in the top of the tank.

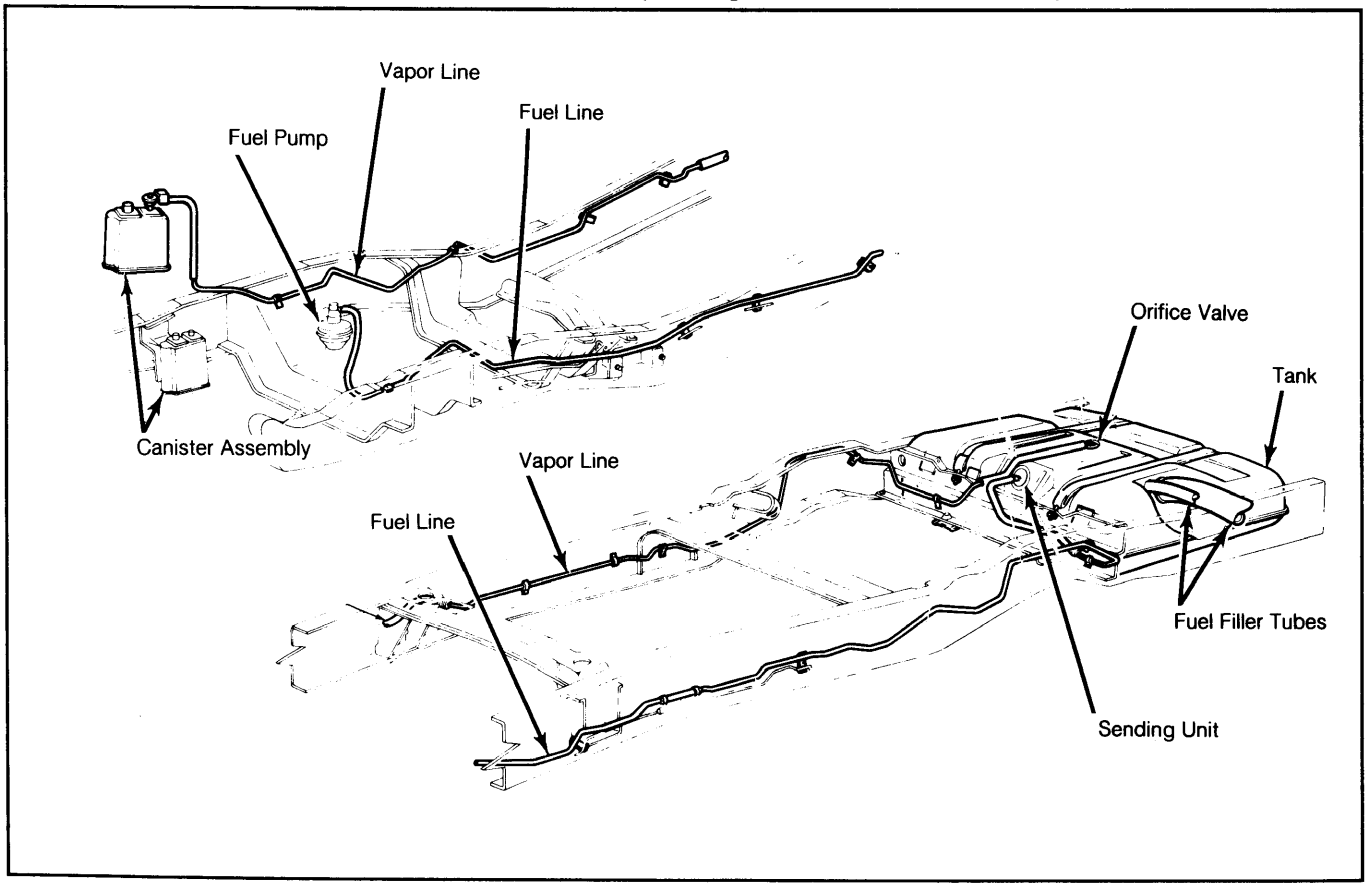
Vapors then leave the separator through a single vapor line, and continue to the carbon canister in the engine compartment.

There, they are absorbed by carbon granules, until they are purged from the canister by carburetor vacuum once the engine is started.

MAINTENANCE

No regular replacement of components is required with this system. Periodically inspect components for proper functioning.

Fig. 1: Ford Evaporation Emission Control System (F100/250 Reg. Cab Shown, Others Similar)



Canister must be at lowest point in system.