1974-79 EXHAUST EMISSION SYSTEMS
Jensen-Healey Fuel Evaporation

1974 Interceptor

DESCRIPTION

System is designed to reduce fuel vapor emissions from entering atmosphere through use of a closed system in which fuel vapors from fuel tank and carburetor flow through a vent line to an activated charcoal canister. When engine is running, these vapors are drawn into combustion system through intake manifold.

OPERATION

Charcoal canister traps and holds fuel vapors when engine is not running. When engine is running with high vacuum conditions, vacuum from intake manifold purges charcoal canister. A fluid restrictor stops fuel from contaminating canister.

When fuel tank is filled to base of filler tube, vapors can no longer escape as they become trapped above fuel. Vapor flow through vent line is blocked by limiting valve. Filler tube is blocked by fuel preventing more fuel from entering tank. Any time pressure in tank goes above operating pressure of limiting valve, about 1/2 psi, valve opens and vapors flow to charcoal canister.

VAPOR SEPARATOR TANK

On some models, each corner of fuel tank is vented and each of the hoses from these vents its connected to vapor separator. Other models use a domed fuel tank with an internal separator. On each, a tube from separator carries vapor from tank through separator to canister.

NOTE: Due to fuel tank configuration on some models, vapor separator tanks are not required.

CHARCOAL CANISTER

A charcoal canister is used on all models. Fuel vapors from fuel tank are stored in activated charcoal while engine is not operating. When engine is running, vapor is purged from charcoal canister into engine where it is burned with air/fuel mixture.

OVERFILL LIMITING VALVE

Valve is located in engine compartment in some models and may be replaced if necessary by cutting it out of vent line. On systems where overfill limiting valve is attached to vapor separator, replacement of valve requires a new vapor separator.

NOTE: It is important that all overfill limiting valves be installed as vertically as possible.

FUEL TANK FILLER CAP

Relief valves in cap are a safety feature and operate only to prevent excessive pressure or vacuum in tank caused by a malfunction in system or damage to vent lines. To release pressure or vacuum from fuel tank, turn cap a partial turn. To remove cap from tank, turn an additional 90 degrees. This cap works in the same way as a radiator cap.

MAINTENANCE

Inspect hoses every 6000 miles or 6 months and replace if necessary. On Interceptor, replace filter located in bottom of charcoal canister each 12 months or 12,000 miles. Replace more often if vehicle is driven in dusty areas.

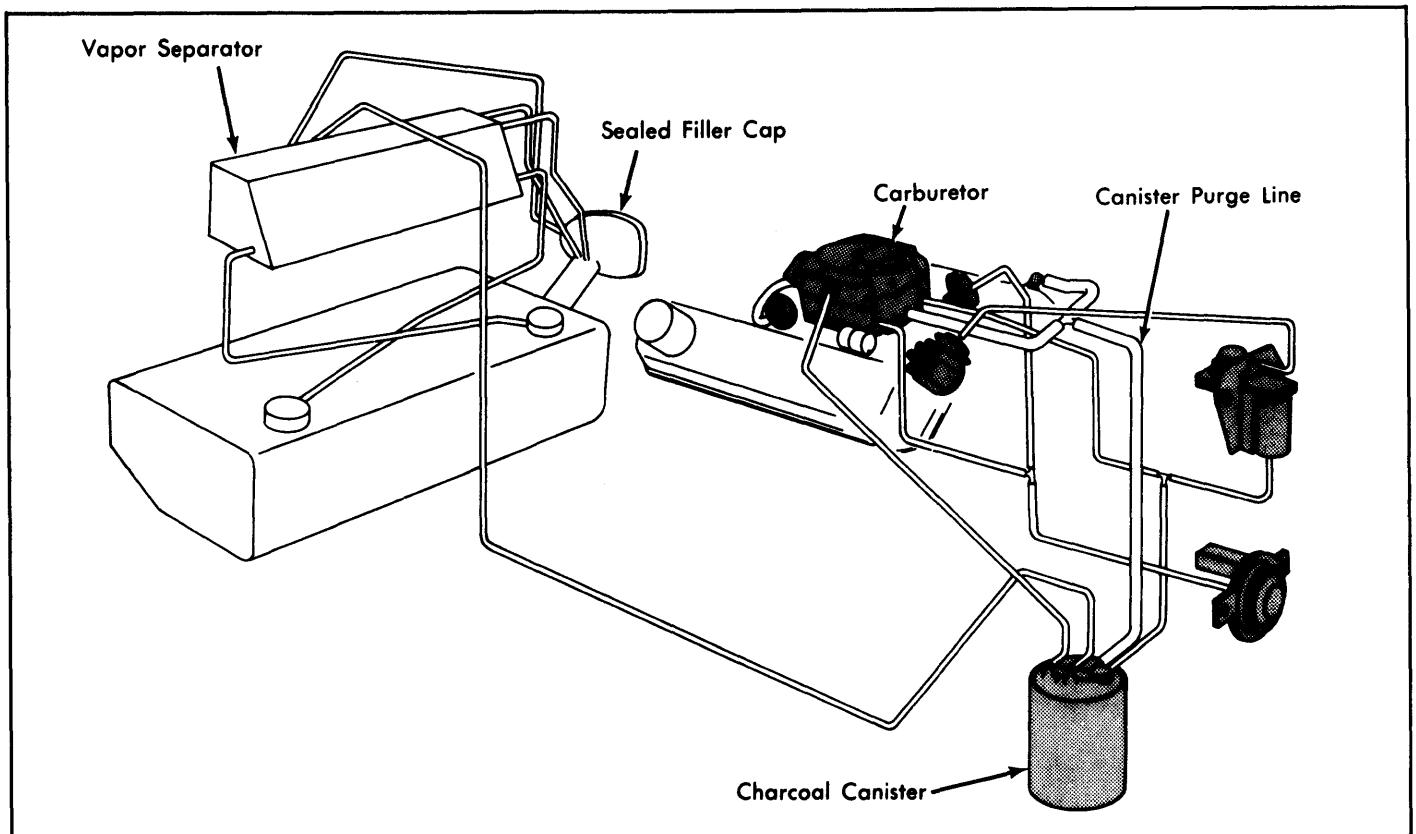

Fig. 1: Interceptor Fuel Evaporation System