BRITISH LEYLAND

Jaguar XJ6
Triumph TR7
Triumph TR8

DESCRIPTION

The fuel evaporation system is designed to keep fuel vapors from escaping the crankcase and fuel tank. On Jaguar models, the system consists of fuel tanks with expansion space, vapor separators, orifice at each fuel filter cap, pressure relief valve, canister, canister purge solenoid valve and purge orifice. Triumph models use a vapor separator, orifice, 2 canisters and a purge line.

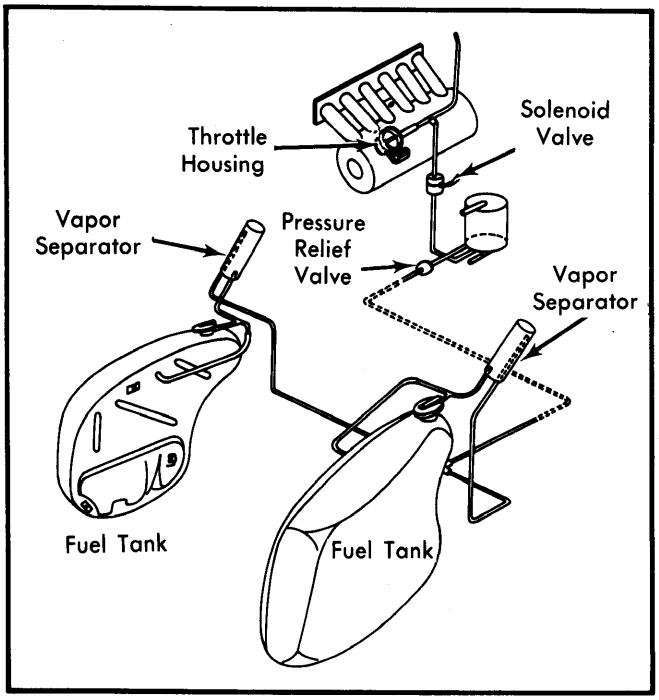

Fig. 1 Jaguar Fuel Evaporation System

OPERATION

JAGUAR MODELS

Fuel vapors in the tank build up until they exceed the pre-set limit of the pressure relief valve, then are vented to the canister for storage. The relief valve also allows air to enter the tank, replacing fuel drawn out during engine operation. When the engine is warming up, the purge hose is shut off by an energized solenoid valve. After engine coolant temperature exceeds 113° F (45° C), the valve opens since current no longer passes through a thermal switch (also part of air injection system on Federal models).

TRIUMPH MODELS

Crankcase and fuel tank vapors flow into the charcoal canisters when the engine is not running. When the engine is started, fresh air is drawn through the canisters, purging the vapors which pass through an orifice and into the throttle valve housing.

TESTING

JAGUAR MODELS

1) Ensure all connections and hoses are clean and tight. Connect vacuum gauge to purge hose at canister. Start cold engine and observe gauge. No vacuum should be present at 2000 RPM or idle.

2) As engine warms up, a small vacuum should be indicated on gauge with engine at 2000 RPM. If system does not operate correctly, check that thermal switch is open above 113° F (45° C). If so, replace solenoid valve.

TRIUMPH MODELS

NOTE – *No testing procedures were available for Triumph fuel evaporation systems.*

MAINTENANCE

Every 12,500 miles, check all lines and connections for chafing, leakage, or deterioration. Check fuel cap seal. At 50,000 miles, replace charcoal canisters.

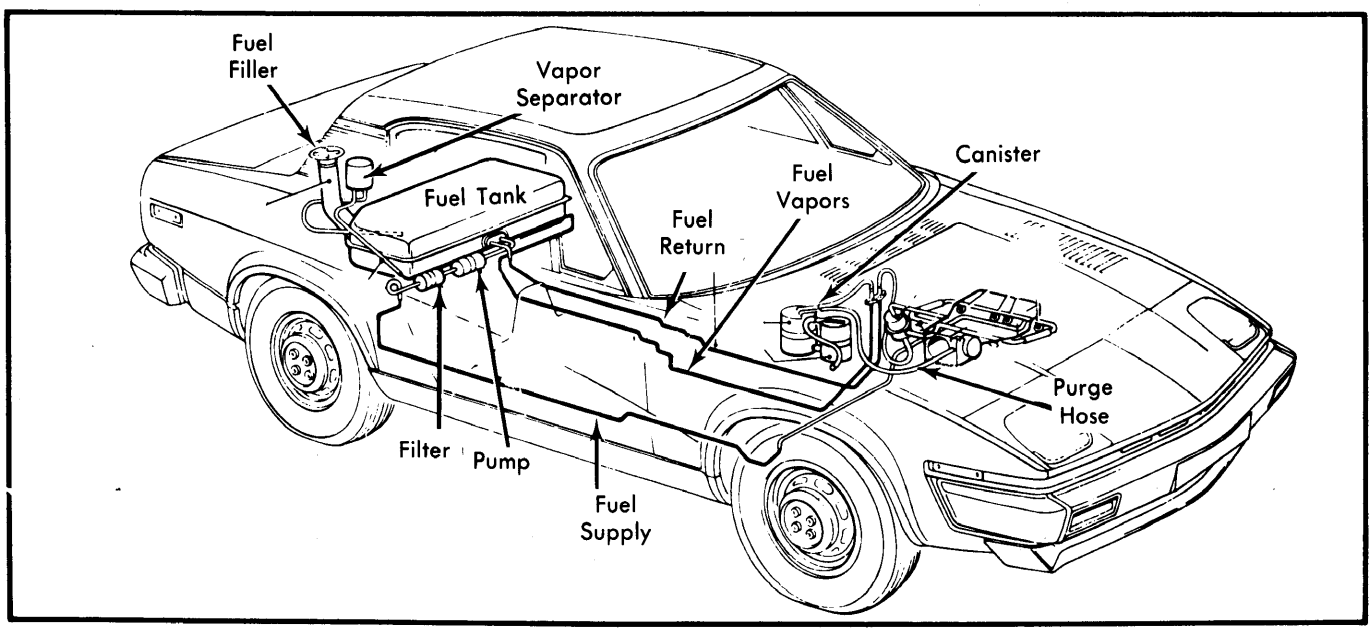

Fig. 2 Triumph TR8 Fuel Evaporation System