

1974-79 EXHAUST EMISSION SYSTEMS

Triumph Fuel Evaporation

3-509

All Models

DESCRIPTION

The fuel evaporation system is completely sealed and is designed to prevent fuel vapors from entering atmosphere. System consists of a modified fuel tank, vapor separator, carbon canisters, sealed filler cap, and an anti-run-on control valve.

FUEL TANK & FILLER CAP

Fuel tank filler cap is a non-vented type. Fuel tank incorporates an internal capacity limiting device which provides an air chamber within the tank to prevent tank being completely filled and to ensure space for fuel expansion.

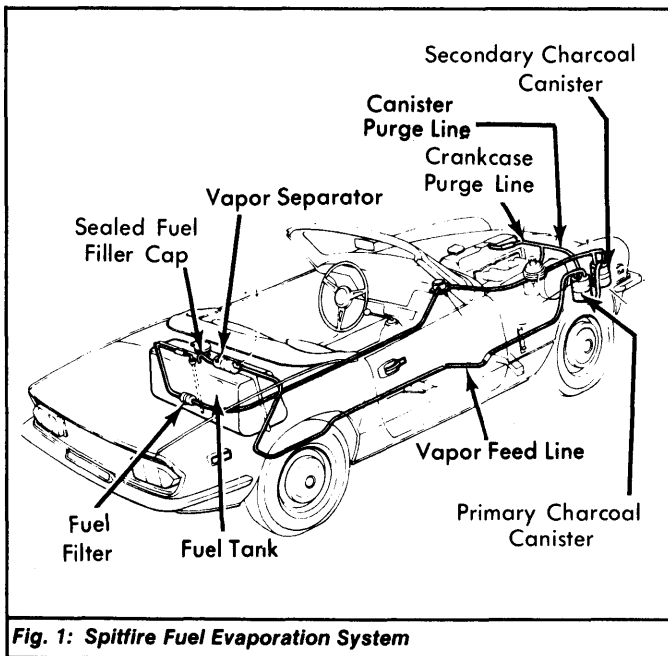


Fig. 1: Spitfire Fuel Evaporation System

VAPOR SEPARATOR

The vapor separator is located in vent line between fuel tank and primary carbon canister. Vapor separator prevents liquid fuel from flowing through vent line and into carbon canister.

CARBON CANISTERS

Canisters are mounted in engine compartment and consist of containers filled with activated carbon. Vent line from fuel tank is connected to top of primary canister and fuel vapors from tank are absorbed by activated carbon when engine is not running.

A second vent line from top of primary canister is connected to constant vacuum area of carburetor so that when engine is running, fuel vapors will be drawn into the engine and burned. This line is also connected to the crankcase ventilation system. A third vent valve line on top of secondary canister connects to front of carburetor. A line at bottom of secondary canister connects to the anti-run-on control valve.

ANTI-RUN-ON CONTROL VALVE

This valve controls purging of carbon canisters and also prevents engine run-on when ignition is turned off. Valve will close when ignition is turned off which will create a slight vacuum in float chamber of carburetor to prevent run-on. When oil pressure drops to zero, or engine is turned off, valve will be deactivated.

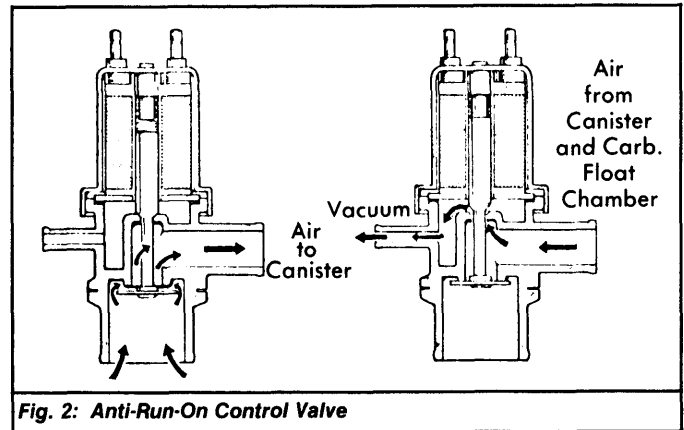


Fig. 2: Anti-Run-On Control Valve

MAINTENANCE

Every 12,500 miles, check all fuel lines and connections for chafing, leakage, or deterioration. Also check fuel cap for proper sealing. Every 50,000 miles, replace carbon canisters.

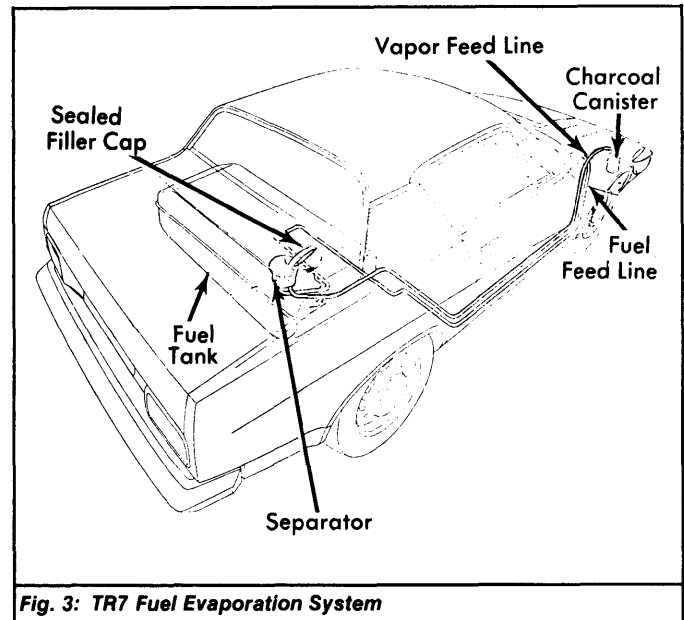


Fig. 3: TR7 Fuel Evaporation System