

The top cover is attached to the swirl pot assembly by two spring loaded steel pillars. The springs ensure the swirl pot locates positively on the bottom of the tank.

The swirl pot is capped by a housing which locates the fuel gauge sender unit.

The function of the swirl pot is to act as a fuel reserve ensuring the fuel pick-up is always covered by fuel. This is achieved by the return flow being directed into the swirl pot and a jet pump provides additional flow into the pot from the fuel remaining in the tank, the jet pump is powered by the return flow. In addition a non-return valve is located in the base of the swirl pot assembly. When the fuel tank is full, fuel pressure keeps the valve lifted from its seat allowing fuel to flow into the swirl pot. As the tank level reduces, the fuel pressure in the tank reduces causing the valve to close. When the valve is closed fuel is retained in the swirl pot.

Flexible pipes connected to the top cover provide the feed and return from the swirl pot.

The fuel gauge sender unit comprises a potentiometer operated by a float. The float rises and falls with the fuel level in the tank and moves the potentiometer accordingly.

A voltage is supplied to the potentiometer from the instrument pack. The output resistance from the potentiometer varies according to the fuel level. The resistance is displayed by the fuel gauge in the instrument pack.

A warning lamp is incorporated in the instrument cluster and illuminates when the fuel level is at or below 10 liters (2.64 US gallons).

ROLL OVER VALVES (ROVs)

Two ROVs are located on the carrier and are connected via pipes to a liquid vapor separator. The separator, which is also attached to the carrier, is connected via a pipe to the tank breather outlet in the pump module flange. The ROVs contain non-return valves which close in the event of the vehicle overturning, preventing liquid fuel escaping from the tank via the breather pipe.

FUEL FILTER



E86472

The fuel filter removes particulate matter from the fuel and also separates water which accumulates at the bottom of the filter.

The fuel filter is positioned on the chassis to the right of the fuel tank. The fuel feed and return to and from the engine passes through the filter. Connections are made using quick fit connectors.

A steel rear cover is attached to the chassis longitudinal by four M8 screws.

The filter is screwed to the back plate by two M8 bolts.

A steel protection cover is fixed onto the back cover using a ¼ turn fastener.

The filter has an internal air bleed feature which allows air into the fuel supply to the engine in small, manageable amounts.

The thermostatic diverter valve is fully closed at 45 degrees Celsius and sends fuel directly to the tank. When the diverter is open fuel is re-circulated through the filter to the engine.

The fuel filter has a replaceable twist-on canister filter element which is sealed to the filter body with rubber seals. The lower part of the canister has a screw-in cap for water draining.

The service interval for the canister change is 24,000 miles.

For markets with poor quality fuel the service interval may need to be reduced.

FUEL COOLER