



BRITISH LEYLAND MOTORS INC.

SERVICE DIVISION

DEALER TRAINING

AID # SST 2

SUBJECT: CRANKCASE EMISSION VALVE

MODEL: TRIUMPH SPITFIRE MK 3, GT 6+, and TR 6

AUSTIN

JAGUAR

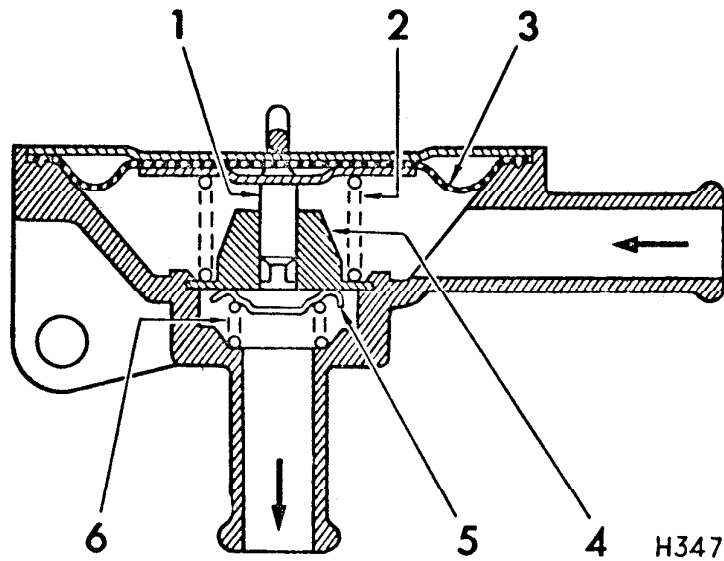
MG

ROVER

LAND ROVER

TRIUMPH

CRANKCASE EMISSION CONTROL VALVE



- | | |
|--------------|------------------|
| 1. Valve pin | 4. Orifice plate |
| 2. Spring | 5. Plate valve |
| 3. Diaphragm | 6. Spring |

Fig. 2. Crankcase emission control valve

General Details

1. Valve pin and pressure plate
2. Spring
3. Diaphragm
4. Orifice plate
5. Plate valve (outlet)
6. Spring

Operation

When vacuum is applied the lightly loaded plate valve (5) is sucked off its seat creating a depression beneath the diaphragm (3).

When this depression exceeds the diaphragm spring (2) force it reduces the controlling orifice.

In normal operation it maintains a reasonable depression (or suction) in the crankcase acting on any blow by gas.

The plate valve (5) acts as a non-return valve against a backfire within the intake manifold by isolating the crankcase. It also limits flow at cold starting.

On the TR 250 and TR 6 the oil filler cap is sealed and ventilation air is drawn into the crankcase through a restrictor hole on the clean air side of the air cleaner. This air together with crankcase gas is drawn via the emission valve into the combustion chamber.

In the event of the blow by gas exceeding the valve capacity the excess emission reverses the cycle and escapes into the air cleaner and is drawn into the engine and consumed.

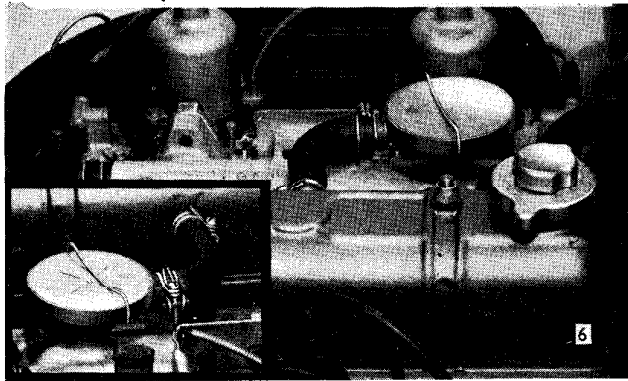
On the Spitfire and the GT 6+ crankcase ventilation air is drawn through a filter in the oil filler cap.

In the event of blow by gas exceeding the valve capacity the cycle is reversed and gas is exhausted through the air intake on the cap.

SERVICING THE EMISSION CONTROL VALVE

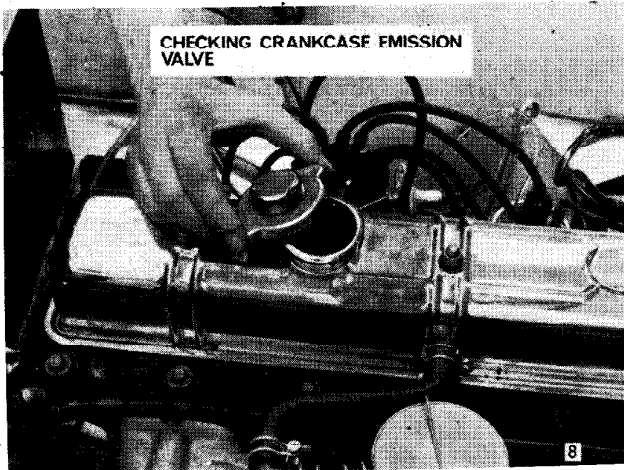
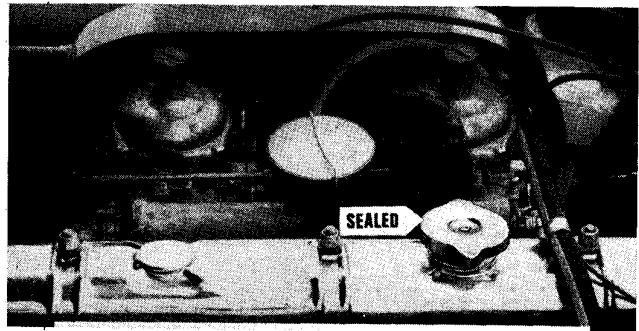
Every 12,000 Miles

1. Remove the control valve and connecting pipes.
2. Remove spring clip and cover plate.
3. Remove diaphragm noting correct position of the top face.
4. Remove valve plate and spring.
5. Clean the body, pipes and all remaining components in clean gasoline. Wipe diaphragm clean, do not wash in gasoline.
6. Check that valve plate is free and is maintained in upward position by the spring.
7. Re-assemble by reversing the procedure, taking care to locate the plunger in the center of the guides in the orifice plate.



← SPITFIRE MK-3 and GT-6+
VENTED OIL FILLER CAP

TR-6 SEALED OIL FILLER CAP →



IN ORDER TO CHECK THAT THE VALVE IS FUNCTIONING NORMALLY, REMOVE THE OIL FILLER CAP WITH THE ENGINE AT IDLING SPEED. THERE SHOULD BE A NOTABLE CHANGE IN IDLE SPEED. IF THERE IS NO CHANGE IN IDLE SPEED, THE VALVE COULD BE FAULTY.

DIFFICULT STARTING OR UNEVEN IDLE SPEED COULD INDICATE EXCESS AIR PASSING PAST VALVE INTO INTAKE MANIFOLD. EXAMINE UNIT FOR CORRECT ASSEMBLY AND CHECK THAT DIAPHRAGM IS NOT PUNCTURED.