

## Tank ventilation on models with catalytic converter

The ventilation line of the fuel tank is connected to an activated carbon filter (carbon canister), in which the fuel vapours produced in the tank are collected. The activated carbon filter is connected by a further line to the intake system. A fuel tank vent valve activated by the engine control unit is located in this line.

The fuel tank vent valve is closed when no power is applied. It prevents fuel vapours collecting in the intake system when the vehicle is parked. A load and speed-dependent overpressure with respect to the ambient pressure prevails in the intake system when the engine is running. As soon as the engine control unit activates the fuel tank vent valve, fresh air is drawn through the carbon canister by the overpressure prevailing in the intake system. The fresh air flushes out the fuel collected in the filter and feeds it to the engine for combustion.

Since this additionally fed mixture greatly influences the combustion process, electrical activation of the fuel tank vent valve must take place dependent on the engine speed and load.

After starting, the first flushing phase is initiated in that the fuel tank vent valve is activated for approx. 6 minutes. The valve is then closed for 100 seconds in order to implement basic adaptation. Once basic adaptation has been completed successfully, the subsequent flushing phase has a duration of 90 minutes. Otherwise a further short flushing phase (approx. 6 minutes) takes place. In order to conclude basic adaptation successfully, the engine must idle and run in the part-load range.