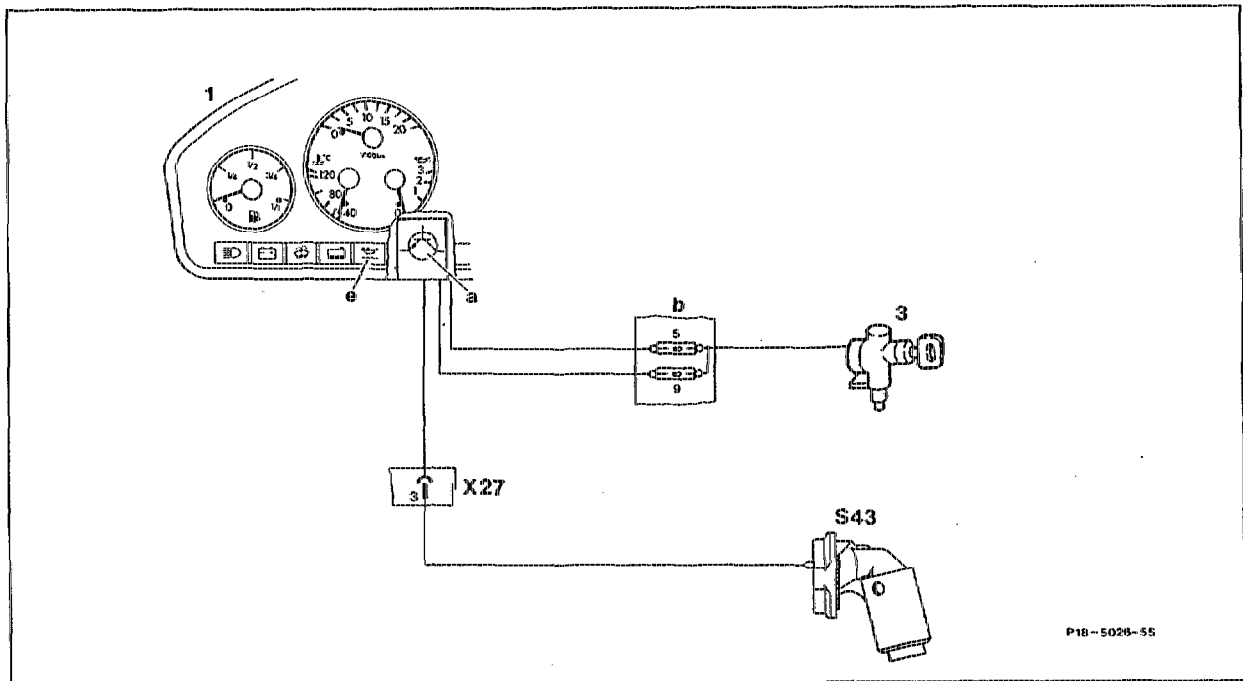


18-3100 Function of electrical oil level indicator



1 Instrument panel unit
3 Ignition lock

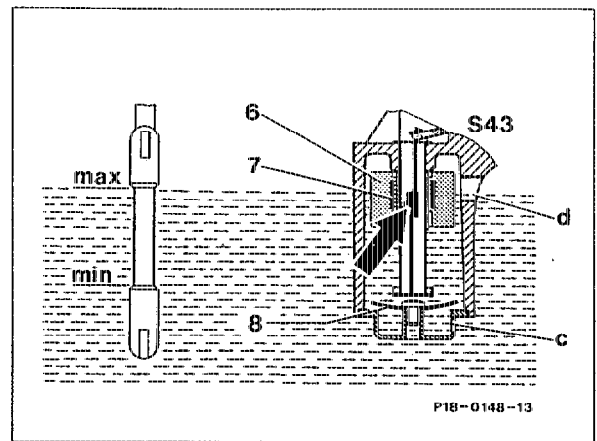
a Microprocessor
e Oil level indicator lamp
S43 Oil level sensor

General

The electrical oil level indicator monitors the engine oil level in the sump when the engine is running and when the engine oil temperature is above 60 °C. If the ignition is switched on, the indicator lamp comes on and goes out as soon as the engine has started.

Function

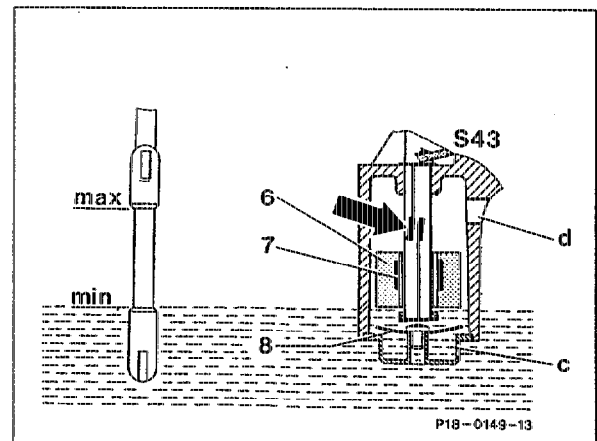
The engine oil in the engine oil level sensor (S43) is matched to the engine oil level in the sump through the drain drilling (c). If the engine oil is at the correct level, the contact (arrow) is closed by the float (6) with a solenoid (7) and a permanent input signal (vehicle ground) is supplied to microprocessor (a) in the electrical base plate of the instrument panel unit (1).



If the engine oil level is too low, the float (6) moves down and opens the contact (arrow). The input signal is thus interrupted and after 60 seconds (switching delay controlled by microprocessor (a) in instrument panel unit) the oil level indicator lamp (e) comes on. If the engine oil level is too low or if the wiring has an open circuit, the oil level indicator lamp (e) remains on after the engine has started.

The drain drilling (c) is opened by the bi-metal snap plate (8) as from an engine oil temperature of 60 °C and the engine oil level in the oil level sensor is matched to that in the sump.

A delay circuit of about 60 seconds is integrated in the electrical base plate of the instrument panel unit (1) in order to prevent the oil level warning lamp lighting up briefly when the oil is at the correct level and e.g. when cornering fast.



⚠ Changing engine oil

Below 60 °C the engine oil is viscous and only flows back slowly into the sump; i. e. the oil level measured below 60 °C does not correspond to the actual quantity of oil in the system. When changing the engine oil, the oil level sensor (S43) is filled through the vent drilling (d) as the drain drilling (c) closes at approx. 30 °C as a result of the cold engine oil.