

Service Bulletin.

ENGINE

B16

Coolant Temperature, B16 Engine

Due to widely varying ideas concerning suitable coolant temperatures in the B16 engine, we are issuing the following information.

The B16 engine is fitted with a thermostat which regulates the coolant temperature and ensures a suitable working temperature for the engine. Under normal operating conditions the temperature of the water leaving the cylinder block is about 75°C, i.e. the temperature shown on the gauge which the thermostat reacts for. Since the cylinder block cooling channels are not affected to any extent by the pressure from the water pump but primarily by convectional circulation, the cooling water round the cylinder walls is 5-10° warmer than the temperature of the water leaving the block. This cooling system which maintains an even and rather high cylinder temperature is one of the reasons for the very good results with this engine as far as cylinder wear is concerned. There is no risk for increased wear even if the indicated temperature should sink to 60°C, which may occur in very cold weather when the heater is in full operation. Since the temperature gauge is only simply calibrated and has a margin of error of $\pm 5^{\circ}$, check that the thermostat is operating properly, i.e. opening at 74° $\pm 2^{\circ}$ before you complain about excessively low engine temperatures. If the thermostat is operating correctly, then there is not the slightest risk of rapid wear in the engine due to abnormally low temperatures.

During the winter, the time required to warm up the interior of the car may be reduced by preventing cold air from passing through the radiator and circulating round the engine. For this reason the PV 444 is fitted with a radiator blind. This blind may also be used to increase engine temperature to max 80°C, thus increasing the heater effect in cold weather. There is, however, a risk of abnormally high engine temperatures if the blind is used too much. We recommend instead the use of a thermostat, part no 403325 which opens at 80°C, during particularly cold weather.

This thermostat may not be used during the summer since it can cause "after-boiling", i.e. the cooling water can boil after the engine has been stopped due to the absorption of heat from the cylinder block and the termination of air and water circulation.