

Water pump damage and causes (Part 2)

Water pump quality depends upon the use of high grade components. These ensure competent repair, and satisfied customers. However, even the best selection of materials cannot prevent premature water pump damage caused by ignoring fitting instructions. In an ongoing dialogue with repair professionals, Meyle specialists identify the external factors primarily responsible for early water pump failure. The following is a continuing description of some more of the typical damage patterns and their causes.

MEYLE



Coolant and antifreeze

Problem

Improper use of coolant. The coolant used is not specified for the given engine or the mixing ratio is incorrect. At worst, there is no coolant at all or the water is contaminated. Mixing incompatible coolants results in even greater damage.

Possible Consequences

- Thermal damage
- Frost damage
- Chemical reactions
- Deposits
- Corrosion and cavitation damage

Solution

Use the MEYLE coolant and observe the mixing ratio specifications. To maintain optimal coolant performance, use water of drinking quality, preferably distilled water.

Important: Coolants must be treated as heavy metal waste and disposed of accordingly!



Corrosion and cavitation in the cooling system

Problem

Insufficient and/or incorrect coolant additives cause corrosion and cavitation in the cooling system, with negative effects on the water pump components and risk of radial seal contamination.

Possible Consequences

- Leakage
- Cavitation damage
- Damage to other cooling system components

Solution

Check the coolant condition on a regular basis and observe the replacement intervals specified by the vehicle manufacturer at all times. Note: Never blend different types of coolant.



Sealants

Problem

Cooling system contaminated, owing to incorrect use of silicon sealant.

Possible Consequences

- Radial seal damage
- Clogging of the coolant system

Solution

Only use the sealant provided with the MEYLE product, or recommended by the vehicle manufacturer.

Use silicon sealant sparingly and protect the cooling system from sealant ingress.