



**Service and repair tips:
Water pumps**

Water pump leaks, shows signs of calcium or rust



Cause
Water with a high mineral content is added to the system, over a period of time

Effect

- Formation of deposits
- Restrictions to the flow of the coolant
- Damage of the seal of the pump

Recommendation

- Clean the cooling system before replacing a new water pump
- Check system pressure, use correct coolant mixture
- Use distilled water only

Water pump leaks after topping up with coolant



Cause

- The ceramic seal is damaged by adding cold coolant to a hot system
- Engine runs with insufficient volume of coolant in the system

Effect
Sudden change in temperature can cause the ceramic seal to crack

Recommendation

- Always allow the engine and cooling system to cool before adding fresh or cold coolant
- Never start the engine without coolant

Water pump leaks, shows cavitation



Cause
Housing damage due to inadequate coolant, the incorrect mixture or usage of tap water to fill the system

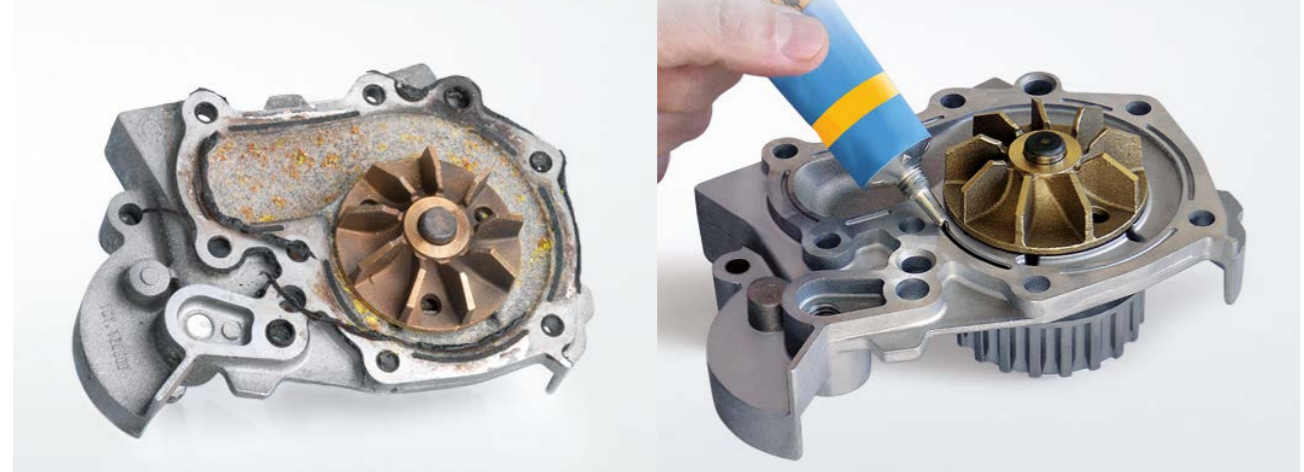
Effect

- Overheating or boiling of the coolant
- Reaction with the body of the pump resulting in cavitation

Recommendation

- Clean the cooling system before replacing a new water pump
- Check system pressure, use correct coolant mixture
- Use distilled water only

Water pump leaks shortly after installation



Cause
Usage of excess sealant during the water pump installation

Effect

- Contamination of the ceramic seal ring
- Premature failure

Recommendation
Usage of the correct amount of sealant when installing

Water pump doesn't turn freely



Cause


- Excessive drive belt tension
- Overload/failure due to vibration or imbalance

Effect
Broken bearing

Recommendation

- Ensure correct belt tension
- Check condition and ensure correct alignment of all elements: pulleys, idler, belt, etc.

The Bosch competence



As a strong partner with extensive expertise Bosch offers everything for the efficient maintenance and repair: first-class products, service instructions and efficient diagnostic technology.

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