

Tips & Technology

For Bosch Partners

Current topics for successful workshops No. 11/2015

Miscellaneous Subject



BOSCH

Invented for life

What should you pay attention to when using water pumps

Tips from Bosch for maintenance and repair:

Water pump is not sealed or shows signs of limescale / rust



Cause:

- Water with a high mineral content is supplied to the system for a certain duration

Consequence:

- Development of deposits
- Restriction of the flow of the cooling liquid
- Damage to the pump seal

Recommendation:

- Always clean the cooling system before changing a water pump
- Check the system pressure; use the correct cooling liquid mixture
- Do not use tap water under any circumstances

Leakage after filling the cooling liquid



Cause:

- The ceramic seal is damaged due to the addition of cold coolant in a hot system
- The engine is running with an insufficient quantity of cooling liquid in the cooling system

Consequence:

- Abrupt temperature fluctuations lead to broken seals

Recommendation:

- Fill only fresh or cold coolant when the system has cooled down
- Do not start the motor under any circumstances with an insufficient amount of cooling liquid

The water pump is leaking or shows cavitation damage



Cause:

- Damage to the housing due to inappropriate cooling liquid, wrong mixture or tap water in the cooling system

Consequence:

- Cooling liquid overheats or boils
- Reaction with the housing of the pump results in cavitation

Recommendation:

- Always clean the cooling system before changing a water pump
- Check the system pressure; use the correct cooling liquid mixture
- Do not use tap water under any circumstances

Water pump leaks immediately after the installation



Cause:

- Use of too much sealing compound when installing the water pump

Consequence:

- Contamination of the seal
- Premature failure

Recommendation:

- Use the correct amount of sealing compound for installation

Water pump does not turn loose



Cause:

- Voltage of the drive belt is too high
- Overload/failure due to vibration or imbalance
- Wrong alignment of the shaft and impeller in the housing

Consequence:

- Broken bearing

Recommendation:

- Make sure the belt tension is correct
- Inspection of the ventilator
- Check the condition and correct alignment of all components: Roller, idling actuator, belt, etc.