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TECHNICAL REPORT

Tips for checking the oil cooler



introduction

Failure in the oil cooler is a type of failure that could easily be confused with a problem or deterioration in the head gasket, since they present very similar signs.

In this report we are going to give a series of tips to learn to distinguish them and avoid future problems.



oil cooler malfunction | identifying the problem

The oil cooler of a vehicle plays a fundamental role in the heat exchange between the cooling circuit and the lubrication circuit. A malfunction in the oil cooler can lead to significant problems such as:

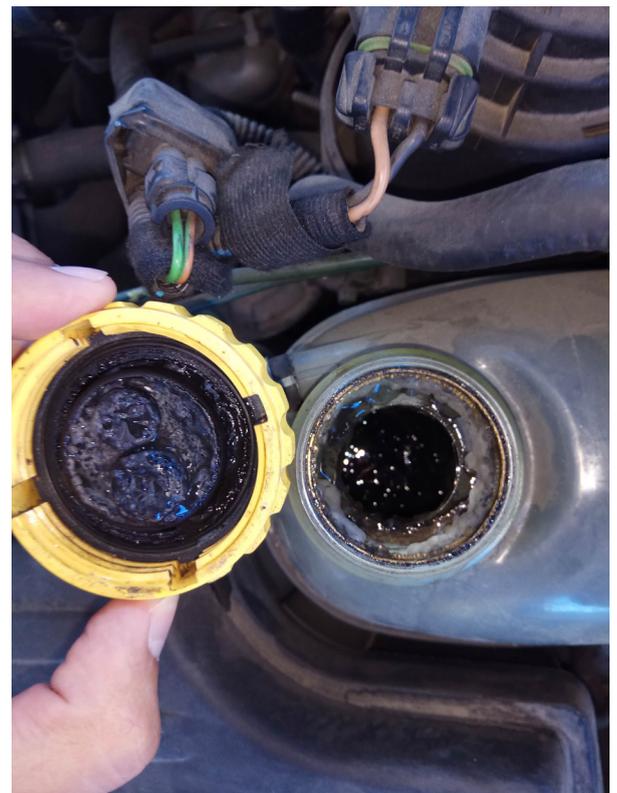
COOLANT CONTAMINATION

In many cases, oil can enter the cooling circuit, resulting in oil consumption and the creation of a substance similar to paste in the cooling system

OIL CONTAMINATION

The malfunction can cause the coolant to mix with the engine oil, resulting in oil dilution and **abnormal coolant consumption**.

It is crucial to distinguish these symptoms from those caused by a cylinder head gasket malfunction. In the case of a cylinder head gasket issue, in addition to coolant consumption, an increase in pressure will be experienced due to the presence of combustion gases in the system.



steps to diagnose an oil cooler problem

If you notice a **pasty substance or issues with the coolant**, it is essential to carry out an accurate check to determine if the cause is an oil cooler malfunction. Follow these steps:

1. Heat the cooler

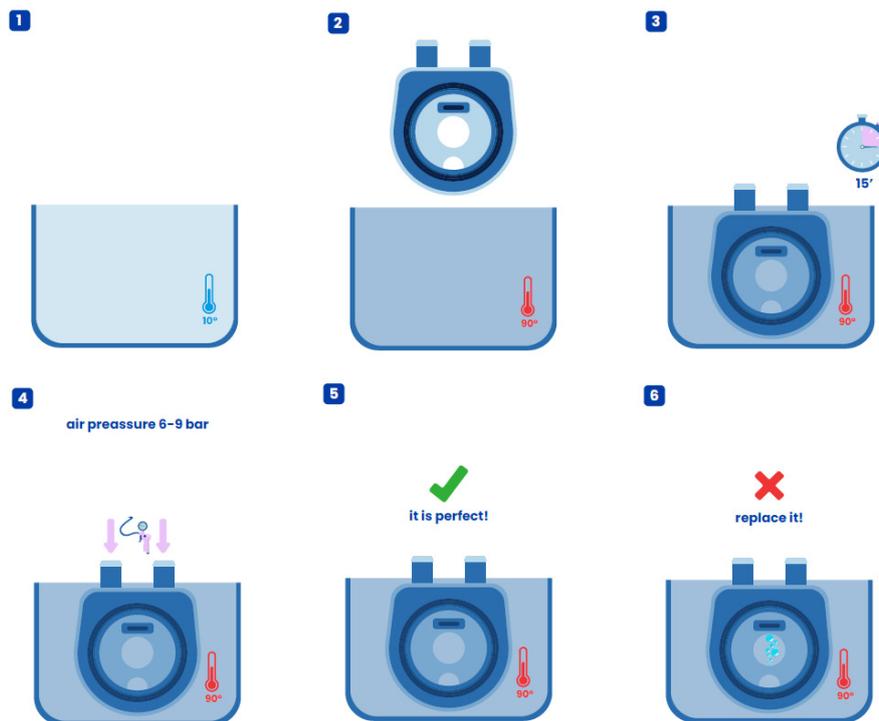
Heat a container of water until it reaches operating temperature (approximately 90°C).

2. Submerge the cooler

Immerse the oil cooler in the hot water for at least 15 minutes to allow it to expand.

3. Apply pressure

With the oil cooler submerged, apply pressure to the system. Observe closely if bubbles emerge from the cooler. **The presence of bubbles** indicates an oil cooler malfunction, which means it will need to be replaced.



Distinguishing between an oil cooler malfunction and a cylinder head gasket malfunction can be crucial for saving time and money in vehicle repairs.

If you notice unusual symptoms in the coolant or oil, follow the mentioned steps to properly diagnose the oil cooler problem. Early detection and precise diagnosis are essential to ensure optimal performance and extend the lifespan of your vehicle.