

167

TECHNICAL REPORT

Ajusa gaskets for the oil cooler

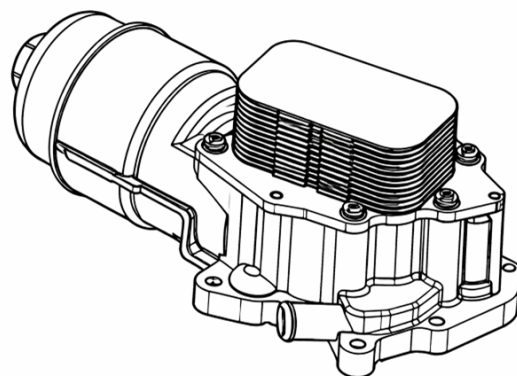


01 introduction

The oil cooler is a heat exchanger whose function is to keep the temperature of the engine oil within an optimal operating range (typically 90–120 °C).

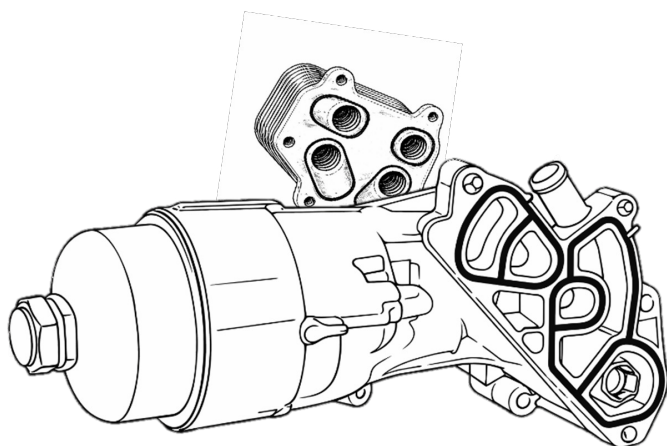
Thanks to the cooler, the **thermal degradation of the oil is reduced**, maintaining its stable viscosity to improve the durability of the engine.

In this type of 1.4/1.6 HDi engine, cooling is carried out with coolant, through a radiator. That's why you need gaskets to ensure the tightness of the component.

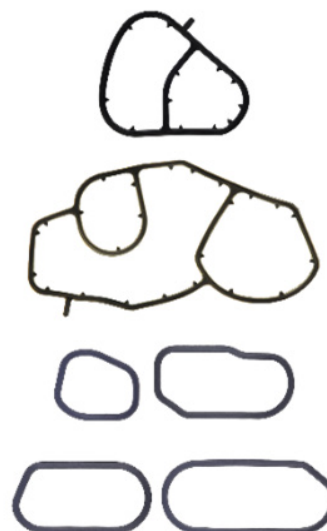


Oil cooler

00001103K0	00001103K2	00001103L1	00001103N9
00001103S7	0096879112	1103K0	1103K2
1103L1	1103N9	96879112	9687911280
1145941	2S6Q6A642AA	AV6Q6L625AA	1653073J01



1103K0 cooler



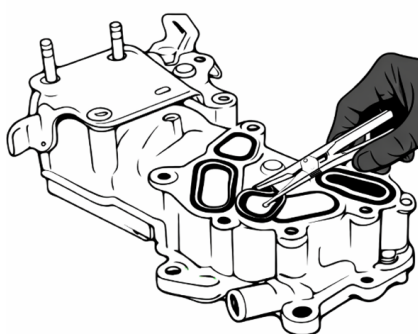
Ajusa gasket set 77026700

02 main causes of failure

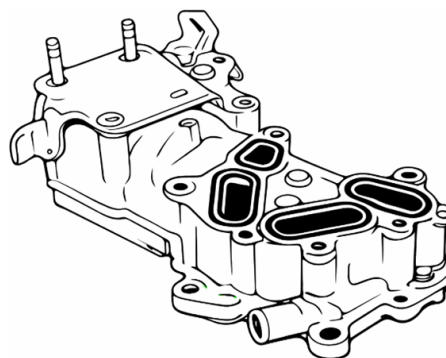
- ✕ **Internal corrosion:** caused by the degradation of oil or coolant and the presence of contaminants. This problem can be detected by the mixture of oil and coolant, emulsions in the expansion vessel, or residue when disassembling the cooler.
- ✕ **Thermal fatigue:** the component works under continuous temperature cycling. Over time, micro-cracks can appear in the exchanger plates, causing internal leaks between the oil and coolant circuits.
- ✕ **Internal clogging:** caused by degraded oil sludge, sealant debris or metal particles. This reduces the oil flow rate and decreases the cooling capacity of the system.
- ✕ **Deterioration of cooler seals:** which can harden or deform over time, causing external leakage of oil or fluid mixture. In practice, in many engines, the failures associated with the cooler are more related to these seals than to the exchanger itself.

03 assembly procedure

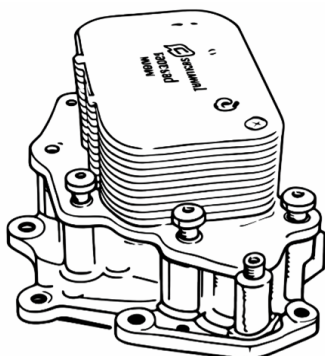
01 | Remove the old gaskets and clean the surface.



02 | We place the new gaskets.

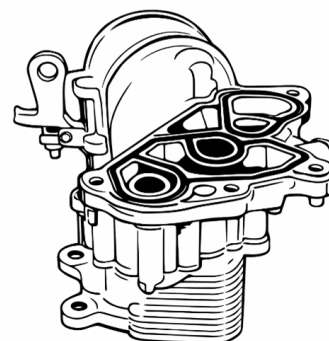


03 | Screw the cooler onto the housing by applying a tightening torque of 10 Nm.

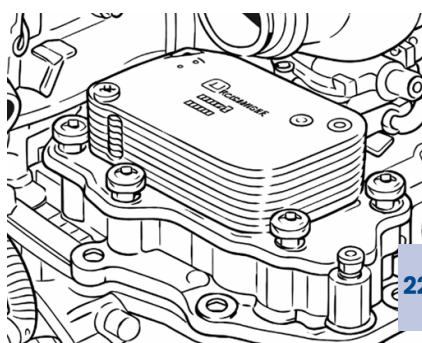


10 Nm

04 | We prepare the surface and assemble the gaskets that go to the radiator.

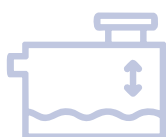


05 | Screw the assembly to the engine block applying a tightening torque of 22 Nm.



22 Nm

04 checks after assembly



Refrigerant circuit check

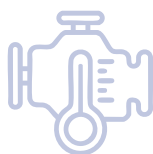
Refill the coolant and check:

- Correct level in the expansion vessel.
- System purging.
- Check for leak.



Oil circuit check

- Check oil level
- Check that the oil pressure is correct
- Inspect for possible leaks in the cooler base



Thermal check

When the engine reaches temperature:

- Verify that the refrigerant circulates correctly.
- No abnormal overpressure in the circuit.
- The motor maintains normal working temperature.



Cross-contamination check

One of the typical failures of these systems is that oil and coolant are mixed.