

# Compressor, air conditioning, oil filled

suitable for: MAN, VW

replaces  
Sanden 8117



A driver's concentration and responsiveness greatly depend on climatic conditions, e.g. temperature and humidity. If your air conditioning system is set correctly, it ensures that the air temperature inside the vehicle remains pleasant, even if outside temperatures are high.

In addition, the air conditioning system dehumidifies the air and thus helps to prevent fogging of the windows.

The air conditioning compressor plays an important role in the climate control system. The air conditioning compressor is driven by a belt from the crankshaft of the vehicle. The drive pulley has an electromagnetic circuit that ensures that the compressor only works when the air conditioning system is switched on.

The pistons inside the compressor are pressed back and forth by a rotating swash plate. Reed valves regulate the in- and outflow of the refrigerant. Air conditioning compressors of the DT Spare Parts brand are known for their high-

quality workmanship and long service life. The air conditioning compressor circulates the refrigerant through the air conditioning system. It sucks in the refrigerant in a gaseous state, compresses it and passes it on to the condenser under high pressure.

The condenser cools down the heated and high-pressure refrigerant. The heat is released into the environment through the cooling fins. The pressure of the refrigerant is reduced as it cools and its state changes from gaseous to liquid. The dryer cleans the refrigerant by capturing foreign parts. Because its capacity is limited, the dryer should be replaced every time maintenance or repairs are performed. The refrigerant is injected into the evaporator via the expansion valve. The amount that is injected depends on the thermal load.

The refrigerant, which is still under high pressure, expands when it enters the evaporator. Here it changes from a liquid to a gaseous state. The cooling that is then caused by evaporation is released into the environment and conducted into the interior of the vehicle by the air flow from the fan.

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Tips & tricks:

Before removing the compressor, extract the refrigerant and then check the system for contamination, permeability and any solid substances it may contain. Then the entire air conditioning system must be flushed and all consumables and non-flushable elements replaced.

Before installing the new compressor, please take note of the following:

- Mount the filter screen in the suction hose
- Check the quantity and viscosity of the oil according to the manufacturer's instructions and top up if necessary
- Replace all O-rings and moisten them with refrigerant oil before installation
- Replace the expansion valve, throttle valve, filter dryer and accumulator

After the compressor has been installed, we recommend that an appropriate vacuum is created (for vacuum time, see the manufacturer's instructions), a leak test is carried out and the compressor is filled with refrigerant (for quantity and specification, see the manufacturer's instructions). In order to avoid damage immediately after installation, it is important to follow a specific running-in procedure when filling the compressor with the refrigerant.

- Set the temperature to max. cooling
- Set the fresh air blower to medium speed
- Start the engine without switching on the air conditioning, and keep the engine idling (for approx. 2 minutes)
- Switch on the air conditioning for 10 seconds, then switch it off for 10 seconds; repeat this process min. 5 times. Do not increase the engine speed.

Now you can test the air conditioning. Pay particular attention that the system has the correct pressure and is impermeable.

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