PROTIPS

EN

febi 186675, 186659

To fit:
Mercedes-Benz Sprinter 906, 907,
Volkswagen T5, T6.



Turbocharger

Problem
Reduced engine power at low engine speed.
Oil loss from the turbocharger.
Turbocharger damage caused by the turbine wheels rubbing against the housing. Radial bearing worn out.

Cause
Since the introduction of Long-life Servicing, not every drop of oil is filtered immediately. Ensuring oil pressure at all bearing points is a top priority. The oil needs to circulate through the engine approximately three times before it is completely filtered.

After a complete engine overhaul or when a replacement engine is fitted in conjunction with a replacement turbocharger, the following damage pattern can occur due to the possibility of metal particles of swarf being left in the oil ways from any machining or honing processes.

When new pistons slide in the machined cylinder wall, the tips of the honing marks are removed as fine metal dust is absorbed by the engine oil. This mainly happens during the first few kilometres after the repair.

As a result, metal particles are deposited in the radial bearings of the turbocharger and rub the bearing pairs. This causes the turbine wheels to rub against the respective housings, leading to premature turbo failure. High-pressure turbochargers are particularly affected as they are subjected to much higher loads due to their smaller bearings.

Solution
When a repaired or exchange engine is fitted, carry out an extensive test drive (minimum of 50 km) and then change the engine oil and filter for a second time before handing the vehicle over to the customer. It is then recommended that the service interval for the next oil and filter change is half that of the recommended interval.

The movement of the pistons smooths the cylinder wall, and the abrasion gets into the oil. (Fig.1)

The surfaces of the turbine shafts are worn in by the particles in the radial bearings, and the turbine wheel of the high-pressure turbocharger is already rubbing against the housing. (Fig.2)

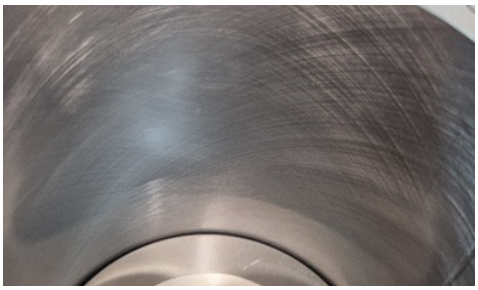


Fig. 1

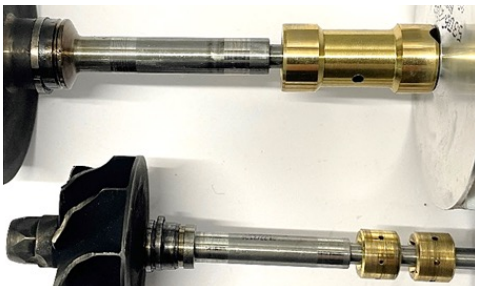


Fig. 2

For more technical information please visit: **partsfinder.bilsteingroup.com**

Technical data can be subject to change

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