

ATTENTION: 753420-5005S and 49173-07506 PLEASE READ BEFORE SELLING THESE TURBOS

The PSA 1.6HDi, DV6TED4 engine is a highly sophisticated low emission, high power diesel unit. It is used in many different applications; Citroën, Ford, Mazda, Mini, Peugeot and Volvo.

Due to the engine being clean and powerful, it is designed to operate at high temperatures, which demands the very best lubricants. These lubricants must be maintained in peak condition and PSA have fitted an in-line oil filter to the turbo and an integral oil cooler/oil filter to this engine to ensure this. However there is a drawback to this; reports in the field indicate that if the engine has been operated with the oil level below normal limits, this may potentially cause a high concentration of carbon in the oil. This may then lead to blockage of the in-line filter, oil cooler and main oil filter, which will eventually bring on premature turbo failure. The vacuum pump may also suffer from this same type of contamination.

However, due to its high operating speeds (230,000 revs per minute) the turbo will usually be the first to show signs of damage. This can happen from 45/50,000 km (30,000 miles) onwards if the oil level and correct oil change intervals/procedure have not been adhered to.

Experience to date suggests that the carbon build up in this application is particularly difficult to remove. To try to eliminate the potential for further turbo failure, the following MUST be undertaken by the installer, in addition to the normal recommended turbo fitting instructions:

- Turbo oil feed pipe & banjo bolts must be changed.
- Oil pump should be removed and checked.
- Sump must be removed and oil strainer (pick up) should be cleaned/replaced before refitting new turbo to remove residual carbon/sludge build up.
- Oil cooler and filter assembly should be removed and cleaned.
- Remove charge air cooler, drain off any oil inside and clean thoroughly.
- Check and clean all inlet and outlet hoses.
- If oil has leaked from previously damaged turbo or engine into exhaust, check exhaust system for contamination/blockage (catalyst, DPF etc.)
- Remove brake vacuum pump to check for debris/carbon and clean as necessary.
- Fit new oil filter and oil.
- Check fuel injector gaskets are not burnt or compromised. Replace as necessary.
- Oil flow must be checked:
 - › Fit turbo to engine leaving oil return pipe off
 - › Install a longer oil return line and feed into suitable container
 - › Start engine and idle for 60 seconds, then switch off engine
 - › Measure volume of oil in container
 - 60 Seconds of idle should produce at least 0.3 Litres of oil.
 - › Repeat test two or three times to confirm oil flow is correct
 - › During this test, do not allow engine to run below minimum oil level
- Vehicle should be driven 30 to 50 km (20 to 30 miles) then the oil/filter replaced again.

Feedback shows, that even after the above has been carried out, not all of the carbon/sludge will have been removed; resulting in a further turbo failure, despite the turbo unit not being defective. These units will NOT be covered under warranty as the failure is caused by external influences and not faulty turbo components.

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