



# VKPC 81420

Technical Bulletin – February 2013



Volkswagen



Water pump replacement - fitting recommendations



OE #: 070 121 011 D

Car Maker	Main model	Engine
VW	Multivan V, Touareg, Transporter V	2.5 TDI

For detailed application, please refer to TecDoc or the latest SKF catalogue.

To avoid potential failure on the engine, due to a premature mixing of fluids, specific fitting recommendations must be followed when setting up the water pump VKPC 81420. The following information are supported with pictures taken during a garage test on a Volkswagen Transporter V. Ensure cooling system is thoroughly drained.



## Fluids

The oil, and coolant passages, are separated only by the 2 seals of the water pump. Thoroughly clean the pump opening.

Coolant tank  
Oil tank



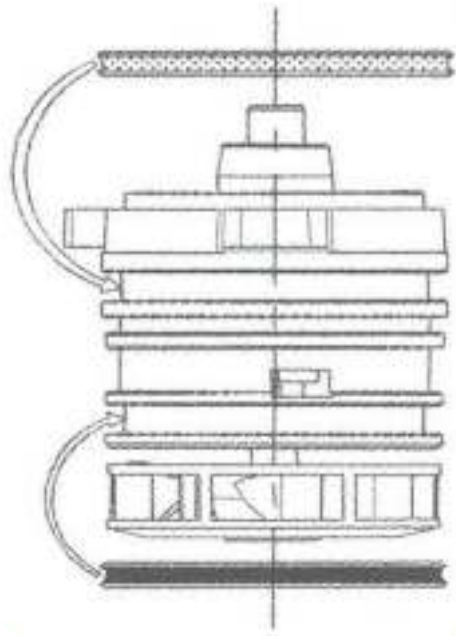
Example of used pump shows signs of the oil seal side failing

- due to wear
- or
- caused by misplacement of the joint

Signs of mixing fluid



## Water pump seal arrangement



- It is recommended to fit the black seal first. Then install the grey seal.
- Do not use a screw driver or other sharp instrument
- Do not allow the seals to 'roll over' and thereby causing them to be fitted incorrectly!
- Install seal as per visual instructions below.



Good fitting



Incorrect fitting

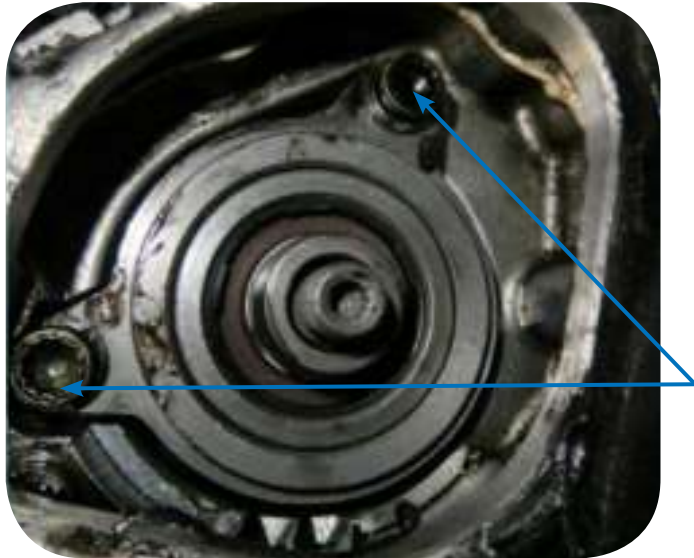




## Position and torque

Apply clean anti freeze to the 2 seals.  
Carefully fit the pump into the opening.  
Do not force the pump into the opening  
at an angle.

To do so could crack, or damage the  
impeller and damage the seals.



Once seated fully by hand, alternately  
tighten the 2 retaining bolts, turning  $\frac{1}{4}$   
turn each, until the pump is fully seated.  
Sometimes it might be necessary to  
gently tap the lower housing to assist  
in fitting the pump squarely.

Torque to 20 Nm. + 90 degrees



Refit the water pump drive gear,  
and torque to 84 Nm.  
Refill cooling system  
with new correctly mixed antifreeze.  
Bleed as per manufacturers  
recommendations.

Torque to 84 Nm.



When renewing the cooling system components, always ensure that the engine and radiators are completely flushed with clean water. Any remaining residue IE: metal particles, calcium deposits, etc. can destroy the seal in the new water pump!

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