

# Technical *Info*

## Installation tips: Golf IV 1,9 TDI BJ. 2001 Motor Code AHF

This engine is used extensively in various vehicles and variants. The fitter is subjected to certain risks when positioning the timing belting roller.

To ensure a smooth process flow when changing the timing belt, we therefore provide easy-to-follow installation tips here which we believe will be helpful.



Source: Volkswagen Corporation

### Preparation for removal:

- Remove the right-hand headlamp
- Dismantle the charge air hose
- Detach the coolant compensation tank
- Detach the power-steering reservoir from the fastener and place it to one side.
- Now remove the upper timing belt cover
- Dismantle the vacuum pump on the rear cylinder head
- Now dismantle the lower cowl
- Release and remove the multiple V-ribbed belt.
- Remove the three fastening bolts on the tensioning lever fastener
- Dismantle the tensioning device/drive unit belt
- Place the crankshaft to top dead center.
- The flywheel marking in the bell housing must be aligned with the reference mark on the housing (1+2) (Fig. 1).

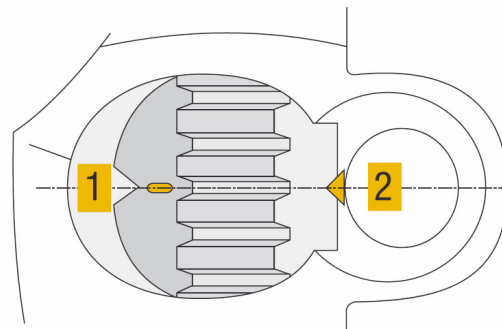


Fig. 1:  
Picture: ContiTech

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Insert the rear camshaft spacer (**Fig. 2**) and align to the right and left using appropriate feeler gauges. Spacer: OE (T 3418). The spacer is also contained in the ContiTech Tool Box. If you cannot insert the camshaft spacer, you have to turn the crankshaft a further complete turn.

Now place the lock ring tool onto the injection pump (apply a small amount of oil if necessary). Lock ring tool: OE (3359) Again, you can use a setting pin from the CONTI® TOOL BOX. Slightly undo the 3 screws in the slotted holes (**Fig. 3**).

### **Attention:**

Type A: Use new screws.

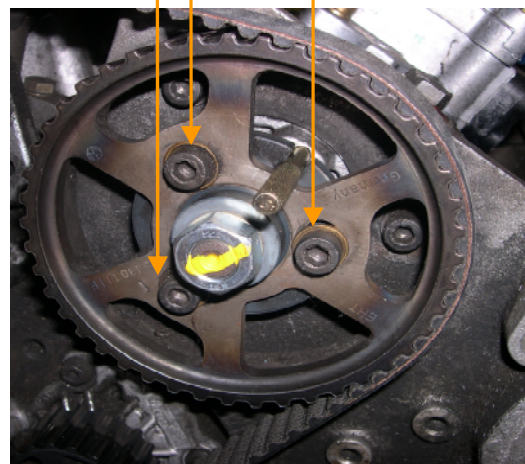
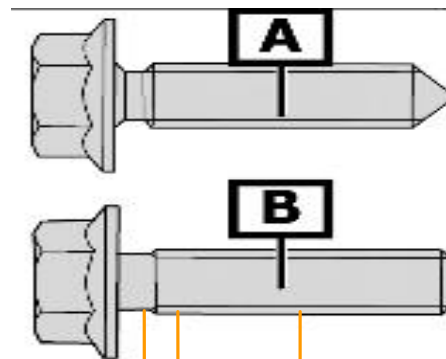
Type B: Screws can be reused.

### **Please note:**

You must never undo the central nut on the injection pump. Continuing procedure: Erect an engine stand or use a secure engine block.



**Fig. 2**  
Picture: ContiTech



**Fig. 3**  
Picture: ContiTech

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Then unscrew the inner (1) screws of the engine support and the outer mount (3). Remove the remaining, central screws (2). Remove the engine support (4). Now unscrew the engine mount from the engine block using the three retaining screws (Fig. 4).

Unscrew the crankshaft damper. Dismantle the central and lower timing belt guards.

Check the alignment of the markings on the bell housing again (Fig. 1).

Then loosen the nuts of the tensioner pulley a little. Unscrew the tensioner pulley in an anti-clockwise direction using a pin wrench (OE 3387 or from CONTI<sup>®</sup> TOOL BOX) (Fig. 5). Now remove the timing belt.

The crankshaft sprocket and camshaft sprocket must never be turned independently when no timing belt is installed. This could damage the engine.

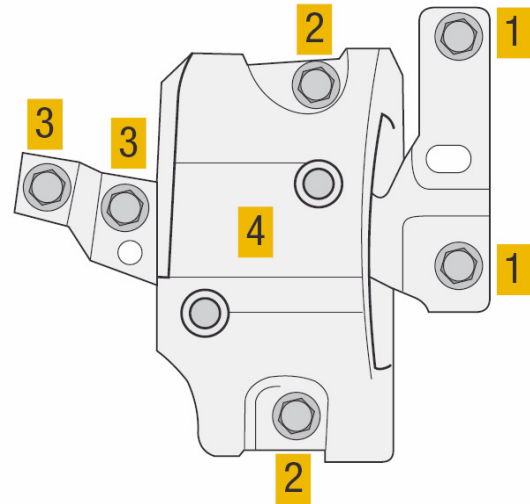


Fig. 4  
Picture: ContiTech



Fig. 5  
Picture: ContiTech

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### Installation:

Insert the arrester into the camshaft sprocket. (Arrester: OE 3036, or out of the CONTI<sup>®</sup> TOOL BOX) Undo the screw by a few turns only. If necessary, apply an extracting tool to the camshaft sprocket and press off the sprocket. (OE T- 40001 or use a uni-tool) (Fig. 6).

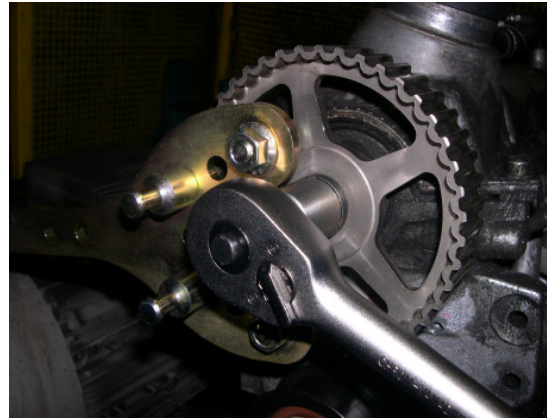


Fig. 6  
Picture: ContiTech

### Attention:

Never use the inserted camshaft spacer as an arrester when loosening or tightening the camshaft sprocket. Check the top dead center marking again (Fig. 1).

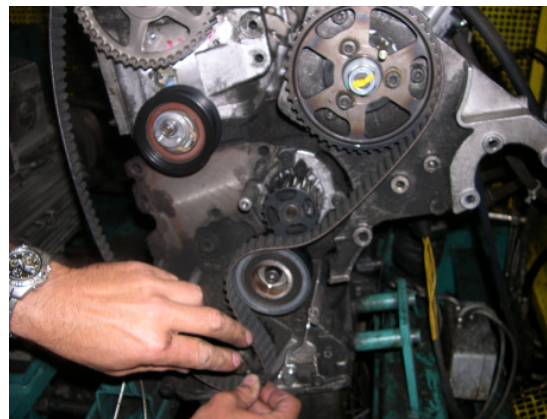


Fig. 7  
Picture: ContiTech

Now mount the new timing belt in an anti-clockwise direction. Notes on mounting the tensioner pulley:

The base plate arrester must lie in the hollow. Align the injection pump sprocket with the central position of the slotted holes. Replace the dismantled camshaft sprocket along with the timing belt and gently tighten the screw by hand. The camshaft sprocket must still be able to turn on the cone (Fig. 7).

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Now screw the tensioner pulley using the pin wrench in a clockwise direction. It is vital that the notch and the marking on the front plate of the tensioner pulley correspond. Tighten the nuts on the tensioning belt with a force of only 20 Nm (**Fig. 8**).

If the eccentric is accidentally turned too far, the tensioner pulley must first be completely loosened and then tightened again. Check the top dead center marking again (**Fig. 1**).

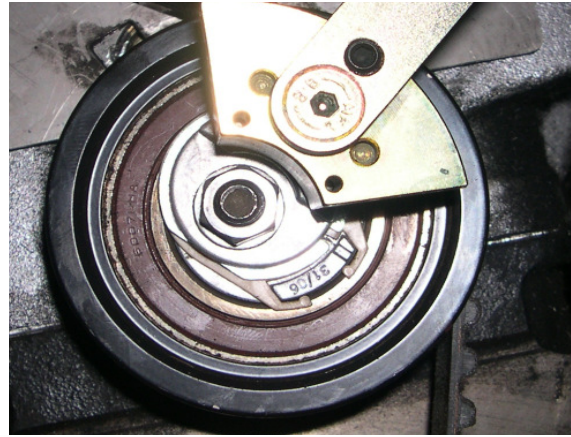
Tighten the camshaft sprocket to 45 Nm. Use the arrester in the same way as when you loosened the camshaft sprocket (OE 3036 or CT Tool Box) (**Fig. 9**).

Tighten the screws that are still loose on the injection pump sprocket (Attention: Use new screws if necessary!). Tightening torques:

Type A screws: 20 Nm + 90°

Type B screw(s): 25 Nm

(**Fig. 3**).



**Fig. 8**  
Picture: ContiTech



**Fig. 9**  
Picture: ContiTech

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Now remove the camshaft spacer (**Fig. 2**). Remove the lock ring tool on the injection pump. Turn the engine through two full crankshaft turns in the direction of engine rotation. The markings must coincide again.

The next step is extremely important when tensioning the timing belt. Errors can soon lead to the failure of the tensioner pulley due to insufficient tension on the belt drive.

### Procedure:

Insert the camshaft spacer. Insert the lock ring tools. Using a mirror if necessary, check the timing belt tension on the tensioner pulley. Important: The markings on the tension roller must coincide (**Fig. 10**).

The rest of the installation procedure takes place as for the disassembly procedure but in the reverse order. Check the headlamp position and correct if necessary. Carry out a test drive.

Apply a sticker documenting the timing belt change (**Fig. 11**).



**Fig. 10**  
Picture: ContiTech



**Fig. 11**  
Picture: ContiTech