

NT 01019

VKMA 01250 -  
VKMC 01250-1 /-2 /-3 /-4

Audi / Ford / Seat / Volkswagen

VKMA 01250



VKMC 01250-1



VKMC 01250-2



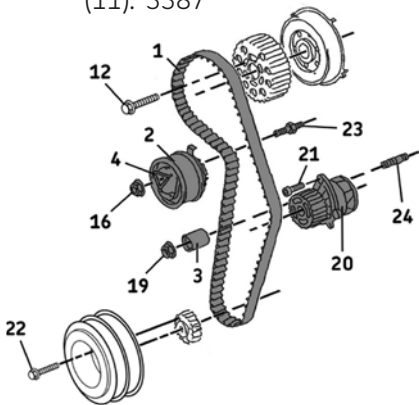
VKMC 01250-3



VKMC 01250-4



- (7): 3359
- (8): T 10050
- (11): 3387



- (16): 20 Nm + 45°
- (19): 20 Nm
- (12): 25 Nm
- (21): 15 Nm
- (22): 10 Nm + 90°
- (23): 15 Nm
- (24): 10 Nm



**Removal**

- 1) Disconnecting the batteries according to the vehicle manufacturing guidelines.
- 2) Prepare the vehicle for the timing replacement according to the vehicle manufacturing guidelines.
- 3) Turn the crankshaft in the engine rotation direction (clockwise) to TDC on the 1st cylinder, by aligning the marks on the camshaft sprocket and the rear timing casing (Fig. B):
  - All types (except engines: ANY and AJM): Mark (5) "4Z",
  - Engines ANY and AJM: Mark (6) "3Z".
- 4) Lock the camshaft sprockets using pin (7) and the crankshaft sprocket using tool (8) (Fig. B).
- 5) Loosen the fastening nut (16) of the tensioner roller (2) and turn the adjustment dial (10) **anti-clockwise** direction using the wrench (11) (Fig. C).
- 6) Remove the idler roller (3) (Fig. A).
- 7) Remove the timing belt (1) then the tensioner roller (2) (Fig. A).
- 8) Remove the studs (23) and (24) (Fig. A).
- 9) **Removing the water pump**  
(VKMC 01250-1/2/3/4): Firstly bleed the cooling circuit, check it is clean, and clean if required; secondly fully loosen the water pump (20) fastening bolts (21) and remove the pump (Fig. A).

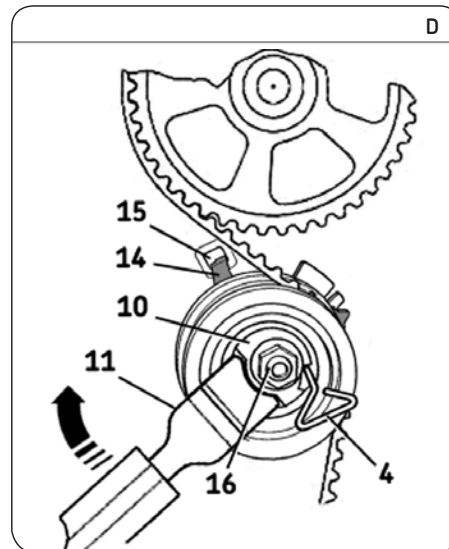
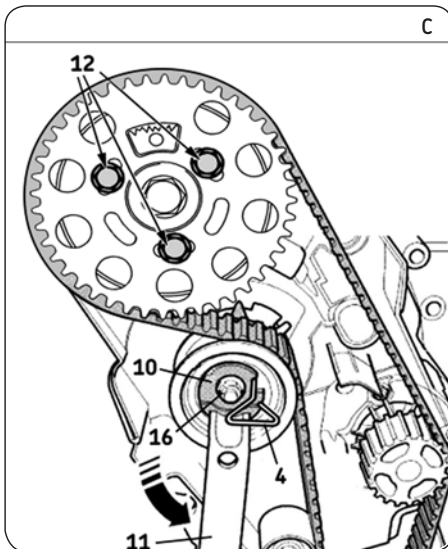
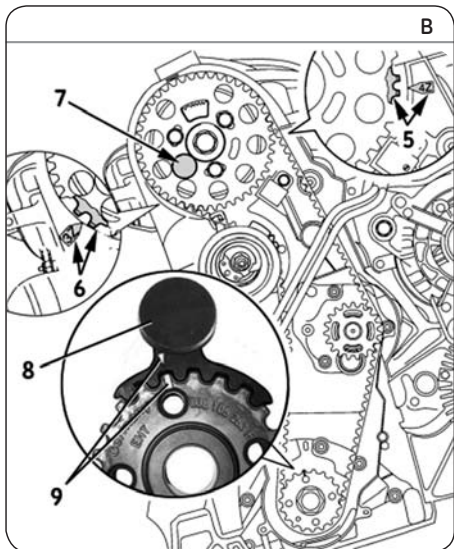
**Note:** The marks (9) on the crankshaft sprocket and on the tool (8) must be aligned (Fig. B).

A

B

C

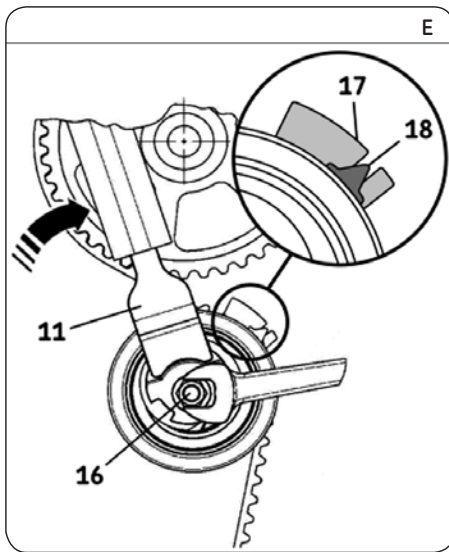
D



**Install Confidence**

VKN 1000





### Refitting

**Caution!** Clean the bearing surfaces of the rollers.

- 10) **Refitting the water pump:** Firstly fit the new water pump (20), apply the torque **15 Nm** to the waterpump bolts (21); then check that the water pump pulley runs properly, and has no hard or locking spots.
- 11) Fit the new studs (23) and (24) and tighten them respectively to **15 Nm** and **10 Nm** (Fig. A).
- 12) Undo the camshaft sprocket bolts (12), and turn the pulley to have the bolts in the middle of the oblong holes, then tighten slightly the bolts (12) (Fig. C).
- 13) Insert the pin (4) in the hole of the new tensioner roller (2) (Fig. A).
- 14) Refit the new tensioner roller (2): Fit the positioning pin (14) in slot (15) on the engine block (Fig. D).
- 15) Turn the adjustment dial (10) of the tensioner roller (2) in a **clockwise** direction as far as it will go, using the wrench (11) (Fig. D). Lightly tighten the fastening nut (16) by hand (Fig. D).
- 16) Fit the new belt (1) in the following order: Camshaft sprocket, tensioner roller, crankshaft sprocket and water pump.
- 17) Refit the new idler roller (3) and tighten the nut (19) to **20 Nm** (Fig. A).
- 18) Loosen the tensioner roller fastening nut (16). Turn the adjustment dial (10) of the tensioner roller (2) in an **anti-clockwise** direction with the wrench (11) until the pin (4) can be removed (Fig. C). Remove the pin (4).
- 19) Tighten the timing belt (1): Turn the adjustment dial (10) of the tensioner roller (2) **clockwise** using the wrench (11), until the moving pointer (17) is aligned with the notch (18) (Fig. E). Then tighten the fastening nut (16), without altering its position, to a torque of **20 Nm plus an angular tightening of 45°**, to make sure the belt tension is correct.
- 20) Tighten the bolts (12) of the camshaft sprocket to **25 Nm** (Fig. C).
- 21) Remove tools (7) and (8) (Fig. B), then rotate the crankshaft two turns in the engine rotation direction to TDC (marks (5) and (6) aligned (Fig. B)).
- 22) Refit tools (7) and (8) then check the alignment of the timing marks (9) (Fig. B).

**Note:** If tool (8) is in place and pin (7) cannot be inserted (Fig. B), loosen the camshaft sprocket and move the hub slightly until the pin (7) can be inserted. Re-tighten the camshaft sprocket then turn the crankshaft through two turns and re-check that the timing system is properly adjusted.

23) If the marks on the tensioner roller are not aligned, proceed as follows:  
Maintain the tensioner roller (2) in position with the wrench (11) while slightly loosening the retaining nut (16) (Fig. E). Then repeat the tension adjustment operation from step (15) after refitting the pin (4) (Fig. C).

24) Refit the middle and lower timing covers. Refit the crankshaft pulley and tighten its fastening screws (22) (Fig. A) to a torque of **10 Nm + 90° angular tightening**.

25) Refit the elements removed in reverse order to removal.

**Note:** The engine brackets and anti-torque rods must be refitted using new bolts.

26) Fill the cooling circuit with the permanent fluid recommended.

27) Check the circuit's leak-tightness when the engine reaches its running temperature and secure the level of coolant when the engine is at ambient temperature (20 °C).

**Notice: Always follow the vehicle manufacturer instructions when working on the engine.** The SKF KITS are designed for the automotive repair professional and must be fitted using tooling used by these professionals. These instructions are to be used as a guideline only. This document is the exclusive property of SKF. Any representation, partial or full reproduction, is forbidden without prior written consent from SKF.