

NT 01020
VKMA 01113 –
VKMC 01113-1
VKMC 01113-2

Audi / Seat / Skoda / Volkswagen

VKMA 01113



VKMC 01113-1



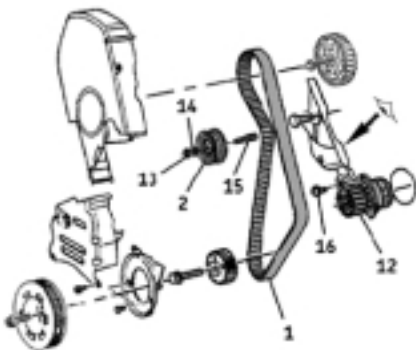
VKMC 01113-2



A



(8) : T 10020/U-30009A



(13) : 20 Nm
(15) : 15 Nm
(16) : 15 Nm

Removal

- 1) Disconnecting the battery according to the manufacturing guidelines.
- 2) Prepare the vehicle for the timing replacement according to the manufacturing guidelines.
- 3) Turn the crankshaft in the engine rotation direction up to TDC. Check the alignment of the timing marks of the camshaft sprocket (3) (Fig. B) and of the crankshaft pulley (4) (Fig. C)

Note: If necessary, turn the crankshaft one extra turn to align the marks.

- 4) Remove the crankshaft pulley.
- 5) Slacken the tensioner roller nut (13) (Fig. D) and remove the timing belt
- 6) Remove the tensioner roller (2)
- 7) Remove the stud (15) (Fig. A).
- 8) **Removing the water pump (12)**
(VKMC 01113-1/2): firstly bleed the cooling circuit, check it is clean, and clean if required; secondly, fully loosen the water pump (12) fastening bolts (16) and remove the pump (Fig. A).

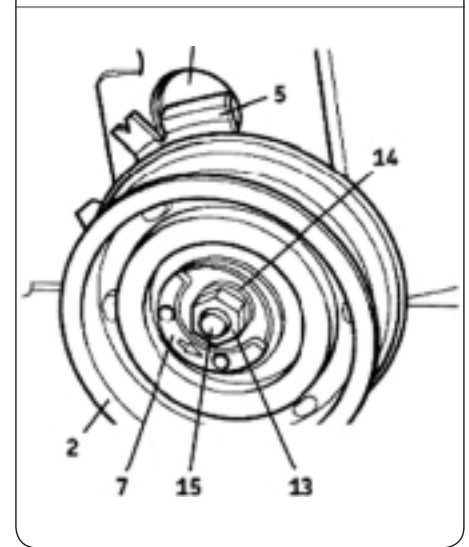
B



C

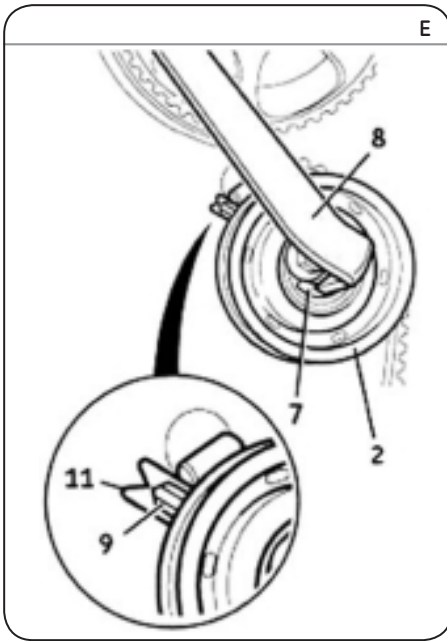


D



Install Confidence





Refitting

Caution: Clean the bearing surfaces the tensioner roller.

- 9) **Refitting the water pump:** Firstly fit the new water pump (12), tighten the waterpump bolts (16) to the torque of **15 Nm**, then check that the water pump pulley runs properly, and has no hard or locking spots.
- 10) Fit and tighten the new stud (15) to the torque of **15 Nm (Fig. A)**.
- 11) Check the alignment of the timing marks (3) (Fig. B)
- 12) Fit the new tensioner roller (2): Fit the positioning pin (5) in the hole (6) of the engine block (Fig. D).
 - Fit the new washer (14) and the new nut (13) (Fig. D).
- 13) Fit the new belt (1) on the crankshaft sprocket.
- 14) Refit the lower timing casing and refit then tighten the crankshaft pulley.
- 15) Check the alignment of the timing marks (4) (Fig. C) Continue installing the belt in the following order: water pump sprocket, tensioner roller and camshaft sprocket.
- 16) Tighten the timing belt (1):
 - Turn the adjustment dial (7) of the tensioner roller anti-clockwise and clockwise fully **5 times from stop to stop** by using the wrench (8).
 - Turn the adjustment dial (7) of the tensioner roller (2) fully anti-clockwise then **slowly clockwise** until the moving pointer (9) is aligned with the notch (11) (Fig. E)
- 17) Tighten the new fastening nut (13) of the tensioner roller (2) to a torque of **20 Nm (Fig. D)**.
- 18) Rotate the crankshaft two turns in the engine rotation direction up to TDC. Check the alignment of the marks (3) (Fig. B) and (4) (Fig. C).
- 19) Check the tensioner roller setting (2): The Moving pointer (9) must be aligned with the notch (11) to make sure the tension is set (Fig. G).
- 20) If the marks of the tensioner roller are not aligned, remove the timing belt. Then restart the adjustment operation from step 13.
- 21) Refit the elements removed in reverse order to removal.
- 22) Fill the cooling circuit with the permanent fluid recommended.
- 23) 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).

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