Audi / Skoda / Seat / Volkswagen

VKMA 01018

VKMA 01918

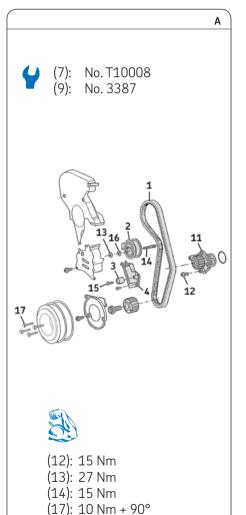
VKMC 01918-1

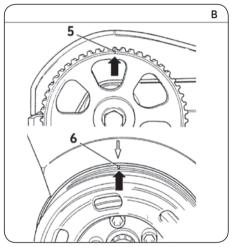
VKMC 01918-2

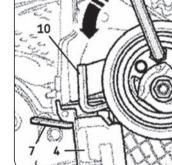












Removal

- 1) Disconnect the battery according to the vehicle manufacturing guidelines.
- Prepare the vehicle for the timing replacement according to the vehicle manufacturing quidelines.
- Turn the crankshaft in the engine rotation direction (clockwise) up to TDC. The marks (5) and (6) of the camshaft sprocket and the crankshaft sprocket must be aligned (Fig. B).
- 4) Remove the crankshaft pulley.
- 5) Remove the middle and lower timing covers.
- 6) Loosen the tensioner roller fastening nut (13) and turn the roller (2) anti-clockwise with an Allen key until the locking tool (7) can be inserted in the tensioning device (4) (Fig. C).

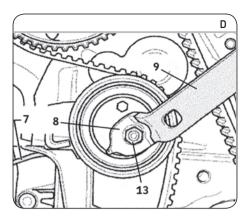
Caution: Be careful to turn the tensioner roller slowly so as not to damage the tensioning device (4) (Fig. C).

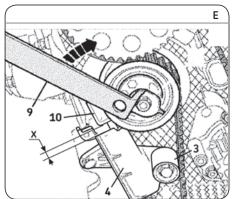
- Turn the adjustment dial (8) of the tensioner roller (2) clockwise with the wrench (9) to loosen the belt (1) (Fig. D).
- Remove the tensioner roller (2) and the timing belt (1) (Fig. A).
- 9) Remove the stud (14) (Fig. A).
- 10) If proceeding to fit kit VKMA 01018:

 Remove the tensioner roller (3) (Fig. A).
- 11) If proceeding to fit kit VKMA 01918/VKMC 01918-1/-2:
 - Remove the tensioning device (4) equipped with the idler roller (3) (Fig. A) and the locking tool (7) (Fig. C).
- 12) Removing the water pump (VKMC 01918-1/-2): firstly bleed the cooling circuit, check it is clean, and clean if required; secondly fully loosen the water pump fastening bolts (12) and remove the pump (11) (Fig. A).

Install Confidence







Refitting

Caution! First carefully clean thoroughly the bearing surfaces of the rollers and of the tensioning device

- 13) Refitting the water pump: firstly fit the new water pump (11), apply the torque 15 Nm to the waterpump bolts (12); then check that the water pump pulley runs properly, and has no hard or locking spots.
- **14)** Check the alignment of the timing mark (5) on the camshaft sprocket (**Fig. B**).
- 15) If proceeding to fit kit VKMA 01918/VKMC 01918-1/-2:
 - Fit the new tensioning device (4) equipped with the new idler roller (3) (Fig. A) and the locking tool (7) (Fig. C).
- 16) If proceeding to fit kit VKMA 01018:
 - Fit the new idler roller (3) and its new bolt (15) (Fig. A).
- **17)** Fit the new stud **(14)** (**Fig. A)** and tighten to 15 Nm.
- 18) Fit the new tensioner roller (2), its new washer (16) and its new nut (13) (Fig. A): turn the tensioner anti-clockwise, with an Allen key, until its back plate (10) bears against the tensioning device (4) (Fig. C).
- **19)** Fit the new timing belt **(1)** on the crankshaft sprocket.
- Refit the lower timing casing and crankshaft pulley. Lightly tighten the crankshaft pulley fastening bolts (17) (Fig. A).
- **21)** Check the alignment of the crankshaft pulley timing marks **(6)** (**Fig. B**).

- 22) Fit the new belt (1) in the following order: water pump sprocket, tensioner roller and camshaft sprocket.
- 23) Tighten the timing belt (1): Turn the adjustment dial (8) of the tensioner roller (2) in an anti-clockwise direction using the wrench (9) (Fig. D). Lightly tighten the tensioner roller fastening nut (13) (Fig. D). Remove the locking tool (7) (Fig. D) and turn the tensioner roller clockwise with the wrench (9) until the distance "X" between the back plate (10) and the upper edge of the tensioning device (4) is equal to 8 mm (Fig. E) (check the distance "X" with an 8 mm diameter rod).
- 24) Tighten the fastening nut (13) of tensioner roller, without altering its position, to a torque of 27 Nm
- 25) Rotate the crankshaft two turns in the engine rotation direction up to TDC (marks (5) and (6) aligned (Fig. B)).
- **26)** Check the distance "X" (**Fig. E**), it should be equal to 8 mm.
- 27) If the distance "X" is not reached, loosen the tensioner roller fastening nut (13) and turn the tensioner anti-clockwise with an Allen key until the locking tool (7) can be inserted in the tensioning device (4) (Fig. C).

Caution: Be careful to turn the tensioner roller slowly so as not to damage the tensioning device (4) (Fig. C).

- 28) Remove the belt (1) from the camshaft sprocket, tensioner roller and water pump sprocket and repeat the belt tensioning procedure from step 22) to step 24).
- 29) Rotate the crankshaft two turns in the engine rotation direction up to TDC (marks (5) and (6) aligned (Fig. B)).
- **30)** Check the distance "X" (**Fig. E**), it should be equal to 8 mm.
- 31) Tighten the crankshaft pulley fastening bolts (17) to 10 Nm + 90° (Fig. A).
- **32)** Refit the elements removed in reverse order to removal.
- **33)** Fill the cooling circuit with the permanent fluid recommended.
- 34) 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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