


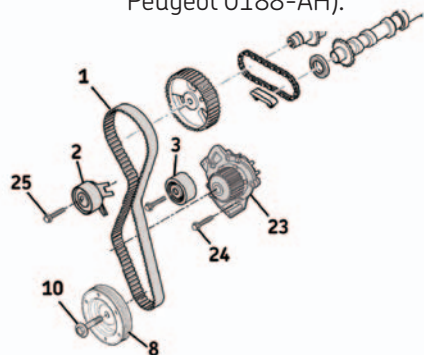
VKMA 03257

VKMC 03257



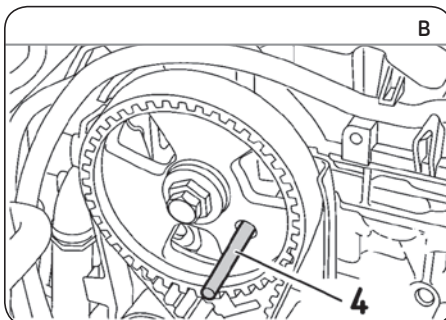
A

-  (4): Camshaft sprocket centring pin (ref. Peugeot 0188-M/ ref. Ford 303-735/ ref. Volvo 999 7122).
- (5): Flywheel timing pin (ref. Peugeot 0188-X/ ref. Ford 303-1059/ ref. Volvo 999 7121).
- (6): Flywheel locking tool (ref. Peugeot 0188-F/ ref. Ford 303-393 and 303-393-01/ ref. Volvo 999 7119 and 999 7120).
- (12): Puller (ref. Peugeot 0188-P).
- (17): Tensioner roller pin (ref. Peugeot 0153 AL).
- (19): Crankshaft pin (ref. Peugeot 0188-AH).



- (10): Crankshaft bolt: 70 Nm + 62°.
- (14): Idler bolt: 55 Nm
- (24): Waterpump bolts: 16 Nm
- (25): Tensioner bolt: 21 Nm

B



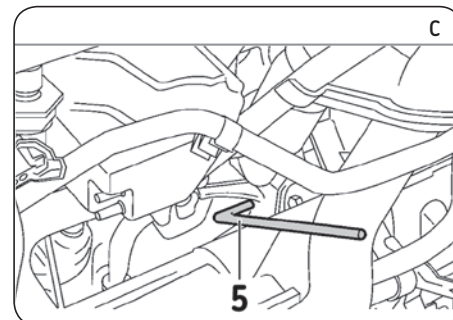
Removal

- 1) Disconnect the battery according to the vehicle manufacturing guidelines.
- 2) Prepare the vehicle for the timing replacement according to the vehicle manufacturing guidelines.
- 3) Turn the engine **clockwise** until you can insert the camshaft pin (4) (Fig. B) and the flywheel pin (5) (Fig. C).
- 4) Lock the flywheel using the tool (6) or a suitable locking device (Fig.D).
- 5) Remove the engine speed sensor (7), the crankshaft pulley (8) and the lower timing casing (9) (Fig. E).
- 6) Refit the crankshaft pulley (8) and the used bolt (10) torque to 50 Nm (Fig. E).
- 7) Remove the reluctor (11) using the tool (12) (Fig. F).

Caution: The surface of the reluctor (11) must not be damaged (Fig. F). If it is, you must replace the reluctor (11).

- 8) Remove the locking tool (6) (Fig.D).
- 9) Slacken the tensioner roller fastening bolt (25) and remove the timing belt (1) (Fig. A).
- 10) On some vehicles, remove the plate (13) from the engine bracket (Fig. F).
- 11) Remove the tensioner roller (2) and idler roller (3) (Fig. A).
- 12) **Removing the water pump (VKMC 03257):** firstly bleed the cooling circuit, check it is clean, and clean if required; secondly fully loosen the water pump (23) fastening bolts and remove the pump (24) (Fig. A).

C



Refitting

Caution! First clean the bearing surfaces of the rollers.

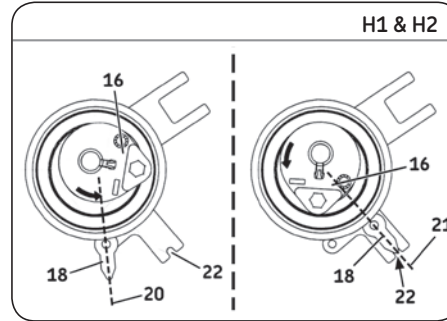
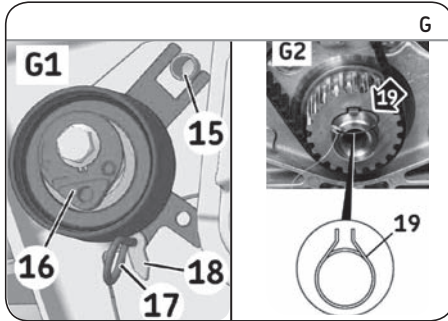
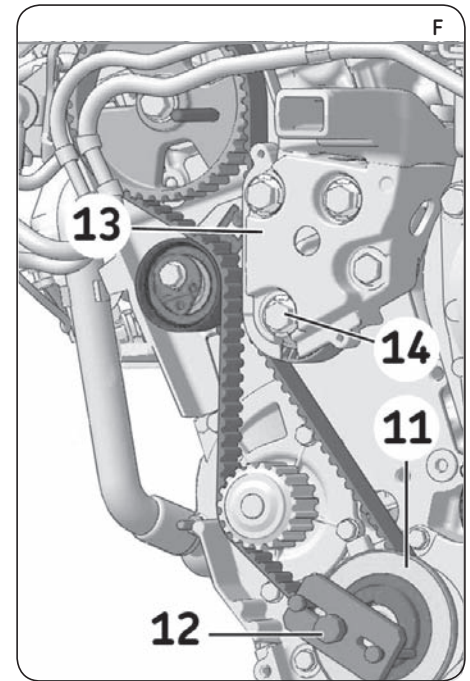
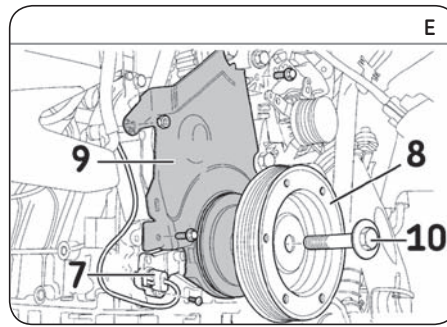
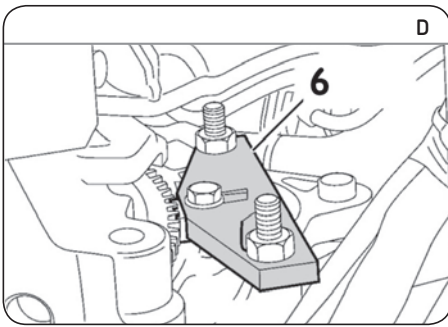
- 13) **Refitting the water pump:** Firstly, fit the new water pump (23), apply the torque 16 Nm to the water pump bolts (24); then check that the water pump pulley runs properly, and has no hard or locking spots.
- 14) Check that the engine is at TDC: the timing pins (4) and (5) (Fig. B and Fig. C) are positioned correctly.
- 15) Fit the new idler roller (3) Torque the retaining bolt to 55 Nm. (Fig. A). Refit the plate (13) on the engine bracket (Fig. F). Torque the fastening bolt (14) to 55 Nm (Fig. F).

Note: When refitting the new tensioner roller (2), adjust the notch of the rear plate of the tensioner on the pin (15) located on the engine block (Fig. G1).

- 16) Fit the new tensioner roller (2). Using an Allen key, turn the adjustment dial (16) until you can insert the pin (17) into the holes on the mobile pointer (18) and the rear plate of the roller (Fig. G1).
- 17) Ensure crankshaft sprocket is degreased and has free movement on keyway, then center the crankshaft sprocket using the tool (19) (Fig. G2) (Citroen, Fiat and Peugeot).
- 18) Secure the new timing belt (1) to the camshaft sprocket by using the tool (26) (Fig. I).
- 19) **Note:** If marked, ensure directional arrows on belt, are in the direction of rotation! Then fit the new timing belt in the following order: idler roller, crankshaft sprocket, water pump pulley and tensioner roller

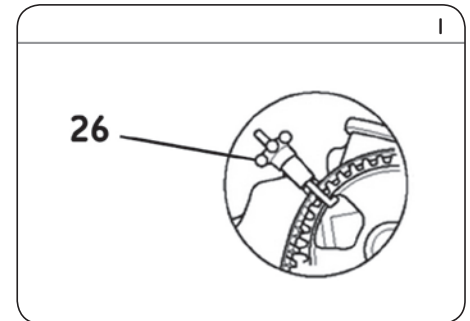
Install Confidence





- 20) Remove the pin (17) (Fig. G1), and if necessary, the centering pin (19) (Fig. G2) and the tool (26) (Fig. I).
 - 21) Lightly tighten the tensioner roller fastening bolt (25) (Fig. A).
 - 22) Using an Allen key, turn the adjustment dial (16) anticlockwise until the moving pointer (18) is in position (20) and make sure the alignment of the holes on the mobile pointer (18) and the rear plate (Fig. H1).
 - 23) Torque the tensioner roller fastening bolt (25) to 21 Nm.
 - 24) Remove the pins (4) and (5) (Fig. B and Fig. C).
 - 25) Turn the crankshaft through 10 revolutions in the engine rotation direction. Insert the pins (4) and (5) (Fig. B and Fig. C).
 - 26) Lock the rotation of the adjustment dial (16) using an Allen key (Fig. H2) and slacken the tensioner roller fastening bolt (25) (Fig. A).
 - 27) Turn the adjustment dial (16) on the tensioner roller clockwise using an Allen key until the moving pointer (18) is in position (21) (Fig. H2).
- Note:** The moving pointer (18) must be aligned with the notch (22) on the tensioner roller plate (Fig. H2).
- 28) Torque the tensioner roller fastening bolt (25) to 21 Nm.
 - 29) Remove the pins (4) and (5) (Fig. B and Fig. C)
 - 30) Turn the crankshaft through two revolutions in the engine rotation direction. Insert the pins (4) and (5) (Fig. B and Fig. C).

- 31) Check the tensioner roller setting (2): The moving positioner (18) must be in position (21) (Fig. H2).
- Note:** The timing belt tension is set when the moving pointer (18) on the tension roller is aligned with the notch (22) (Fig. H2).
- 32) If the marks are not aligned, remove the new timing belt and adjust the belt tension again, by returning to step 18.
 - 33) Lock the flywheel using the tool (6) (Fig. D). Remove the old crankshaft pulley bolt, and discard.
 - 34) Refit the reluctor (11) (Fig. F).
 - 35) Refit the lower timing casing (9) and the engine speed sensor (7) (Fig. E).
 - 36) Refit the crankshaft pulley (8): coat the new fastening bolt (10) (Fig. E) with thread lock paste and torque to 70 Nm + 62°.
 - 37) Remove the pins (4) and (5). Remove the flywheel locking tool (6) (Fig. D)
 - 38) Refit the elements removed in reverse order to removal.
 - 39) Fill the cooling circuit with the permanent fluid recommended.
 - 40) 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).



Note: 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.