

NT 03002  
VKMA/C 03200  
VKMA 03201  
VKMC 03201-1/-2

Citroën / Fiat / Lancia / Peugeot

VKMA 03200



VKMC 03200



VKMA 03201



VKMC 03201-1



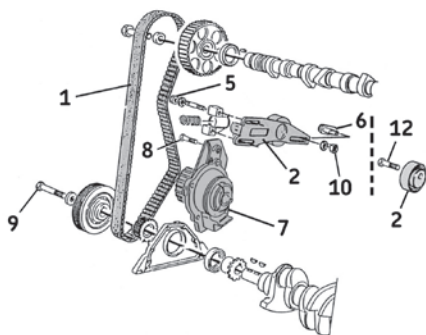
VKMC 03201-2



A

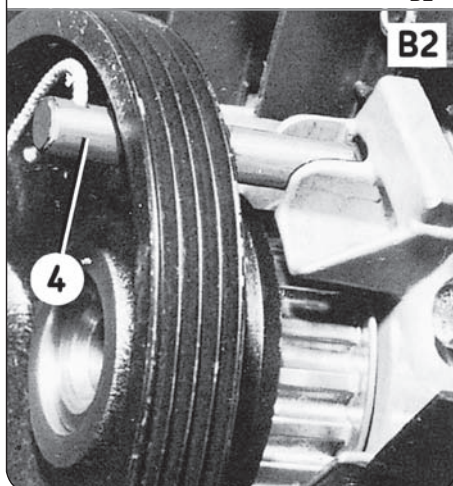


- (3): Flywheel blocking tool (Facom D86).
- (4): Centering pins  $\varnothing 8 / \varnothing 10$  mm, Length 70 mm. (11) 7017-T.W

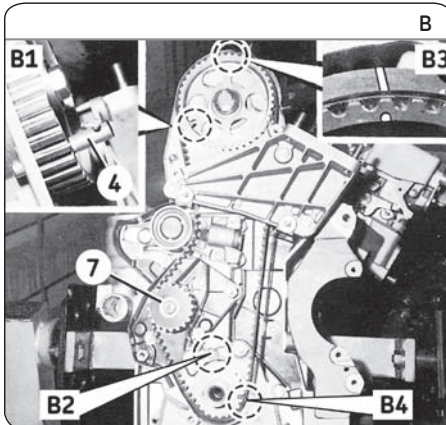


- (5): 16 Nm
- (9): 110 Nm (B2A: 100 Nm, LFZ/RFW: 120 Nm, LFW/LFX: 130 Nm).
- (10): 15 Nm
- (12): 20 Nm

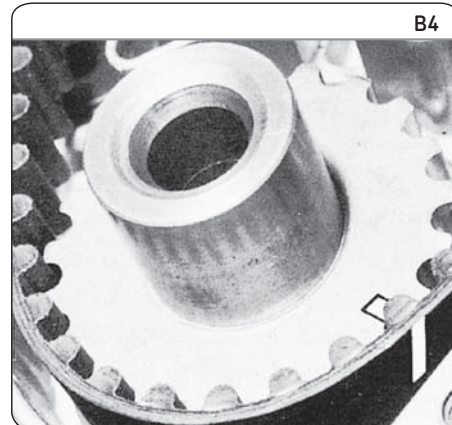
B2



B



B4



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) Remove the lower clutch housing cover. Clamp the flywheel using the blocking tool (3).
- 4) Loosen the crankshaft pulley bolt (9) (Fig. A).
- 5) Withdraw the flywheel blocking tool (3).
- 6) Bring the engine to the timing position.
- 7) Insert one centering pin (4) through the crankshaft pulley (Fig. B2) (The crankshaft pulley has multiple holes, make sure correct holes used:  $\varnothing 8$  mm for VKMA 03201/VKMC 03201-1/-2,  $\varnothing 10$  mm for VKMA/C 03200).
- 8) Remove the upper plastic timing cover(s).

For VKMA/C 03200 with the sliding tensioner (VKM 13200)

- 9) Loosen the nuts (5) of the bracket (Fig. C1) supporting the tensioning pulley. Loosen the locknut (10) of the adjuster cam (6) (Fig. C2).

- 10) To compress the tensioning spring, turn the square-headed stud of the adjuster cam (6) (Fig. C2).

For VKMA 03201/VKMC 03201-1/-2 with the eccentric tensioner (VKM 13100)

- 11) Loosen the tensioner bolt (12), and then remove the tensioner (2) from the belt, using the tool (11) (Fig. D), then lightly tighten the bolt.

For all the kits

- 12) Remove the crankshaft pulley, the lower timing cover and, for the XU7JP engine, the crankshaft sprocket cover.
- 13) Remove the timing belt (1).
- 14) Remove the tensioner roller (2) (complete with the spring unit for the VKM 13200).
- 15) Removing the water pump (VKMC 03200/VKMC 03201/VKMC 03201-1/-2): firstly bleed the cooling circuit, check it is clean, and clean if required; secondly fully loosen the water pump fastening bolts (8) and remove the pump (7) (Fig. A).

Install Confidence



## Refitting

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

- 16) **Refitting the water pump:** Firstly fit the new water pump (7), tighten the waterpump bolts (8); then check that the water pump pulley runs properly, and has no hard or locking spots.

### For VKMA/C 03200 with the sliding tensioner (VKM 13200)

- 17) Fit the new tensioner roller (2) complete with spring unit in the pushed-in position.

### For VKMA 03201/VKMC 03201-1/-2 with the eccentric tensioner (VKM 13100)

- 18) Fit the new tensioner roller (2).

### For all the kits

- 19) Fit the new timing belt (1) over the crankshaft sprocket and check the rotation direction (arrow) and the timing marks (Fig. B4).
- 20) Refit the crankshaft pulley but do not tighten the bolt (9) (Fig. A).
- 21) Insert a centering pin (4) through the crankshaft pulley (Fig. B2).
- 22) Insert the second centering pin (4) through the camshaft pulley (Fig. B1). Fit the new timing belt (1) over the camshaft sprocket and check alignment of timing marks (Fig. B3 and B4).

### For VKMA/C 03200 with the sliding tensioner (VKM 13200)

- 23) Loosen the locknut (10) of the adjuster cam (6) (Fig. C2). To tension the timing belt, turn the square-headed stud (Fig. C2) of the adjuster cam (6) (Fig. C1), so releasing the tensioning spring.
- 24) Remove the centering pins (4).
- 25) Tighten nuts (5) (Fig. C1) of the tensioner bracket and the locknut (10) of the adjuster (Fig. C2).
- 26) Turn the engine over twice and bring back to TDC. Check that the timing mark on the flywheel aligns with the "0" of the timing advance markings.
- 27) Loosen, then retighten the securing nuts (5) (Fig. C1) of the tensioning assembly to **16 Nm** and the locknut (10) of the adjuster cam (6) to **15 Nm** (Fig. C2).
- 28) Bring the engine to the timing position, then check timing by inserting and removing the two centering pins (4).

### For VKMA 03201/VKMC 03201-1/-2 with the eccentric tensioner (VKM 13100)

- 29) Loosen the tensioner bolt (12) (Fig. D).
- 30) Using the tool (11), turn the tensioner **anti-clockwise**, then lightly tighten the bolt (12).

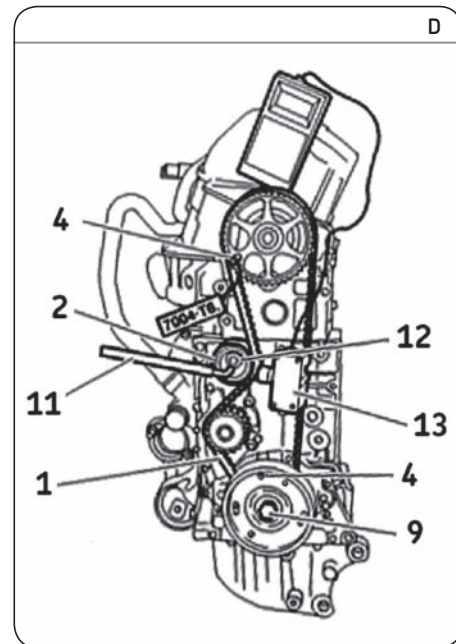
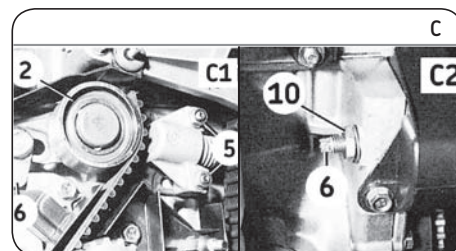
- 31) Attach the tension gauge (13) to the belt (Fig. D)
- 32) Turn the tensioner anti-clockwise until tensioner gauge shows the value **30+/- 2 SEEM** units.

**Note:** XU10J2-RFW/RFX, the tensioner value is 18 SEEM units.

- 33) Tighten the tensioner bolt (12) to **20 Nm**.
- 34) Remove the tensioner gauge (13) and remove the centering pins (4).
- 35) Turn the engine over twice and get TDC. Check that the timing mark on the flywheel aligns with the "0" of the timing advance markings.
- 36) Insert the centering pins (4), and re-attach the tension gauge (13) the tension value should be **44+/- 2 SEEM** units. If not, go back to step 29) repeating the tensioning procedure.
- 37) Remove the gauge (13) and pins (4) (Fig. D)

### For all the kits

- 38) Clamp the flywheel using the blocking tool (3). Remove the crankshaft pulley, refit the crankshaft sprocket cover (XU7JP engine) and refit the lower timing cover and the crankshaft pulley then tighten the bolt (9) to **110 N m** (B2A: **100 N m**, LFZ/RFW: **120 N m**, LFW/LFX: **130 N m**).
- 39) Remove the flywheel blocking tool (3).
- 40) Refit the upper timing cover(s).
- 41) Refit and tension the alternator belt.
- 42) Run the engine until the fan comes on. Allow engine to cool for at least two hours with the bonnet open.
- 43) Bring engine to timing position (cylinder Nr 1 at TDC), timing mark on the flywheel aligns with the "0" of the timing advance markings, hole of the centering pin on the crankshaft pulley at 2 o'clock position.
- 44) Loosen then retighten the nuts (5) of the tensioning assembly and the cam locknut (10) (Fig. C1 and C2).
- 45) Refit the elements removed in reverse order to removal.
- 46) Fill the cooling circuit with the permanent fluid recommended.
- 47) 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.