

NT 06001
VKMA 06501
VKMC 06501

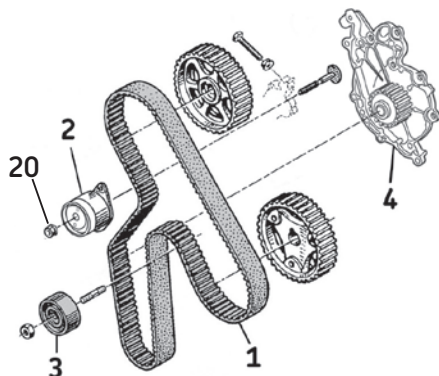
Renault

VKMA 06501

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- (9): T.D.C. thickness gauge \varnothing 7 mm or tool Mot.1318.
– Mot. Engine holding tools. 1367-01.
– Pendular suspension cover fitting tool Mot.1289-01.

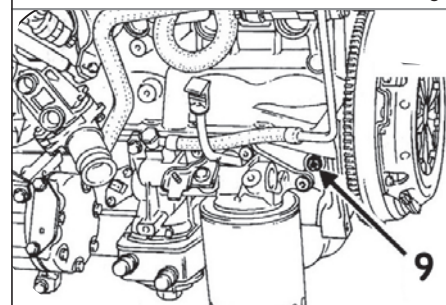
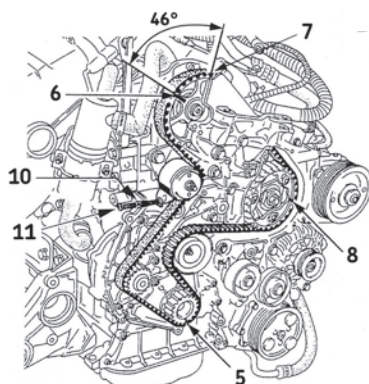


- (20): 30 Nm for the Laguna and the Espace,
– 32 Nm for the Safrane.

A

B

C



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) Rotate the engine to set cylinder Nr1 to Top Dead Center (TDC). The crank gear mark (5) is at the bottom, the camshaft's (6) is slightly to the left at 46° (the inner mark (7) of the camshaft gear is opposite the fixed point of the rocker cover). The mark (8) of the injection pump tooth wheel is opposite the mark on the injection pump cover (Fig. B).
- 4) Measure the crank using tool Mot.1318 (thickness gauge \varnothing 7). The valve timing cap (9) is located on the cylinder cover between the flywheel and the oil filter holder (Fig. C).
- 5) Remove the timing belt (1) by unscrewing nut (10) and bolt (11) (Fig. B).
- 6) Remove tensioner roller (2) and idler roller (3) (Fig. A).
- 7) **Removing the water pump (VKMC 06501):** Firstly bleed the cooling circuit, check it is clean, and clean if required; secondly fully loosen the water pump (4) fastening bolts and remove the pump (Fig. A).

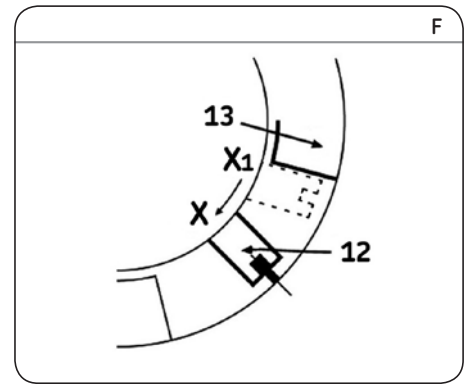
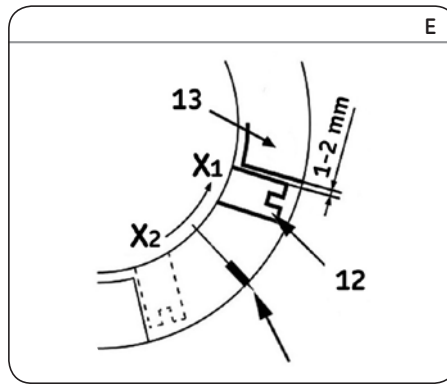
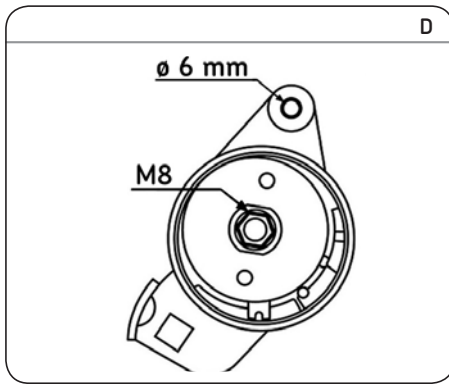
Refitting

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

- 8) **Refitting the water pump:** Firstly fit the new water pump (4), apply TORQUE to manufacturer recommendations; then check that the water pump pulley runs properly, and has no hard or locking spots.
- 9) Check the engine is still at TDC (crank locked and tool Mot.1318 fitted) (Fig. C). Check that the crank and camshaft gears are properly shimmed.
- 10) Fit the new idler roller (3).
- 11) Fit the new tensioner roller (2) while ensuring the hole diameter 6 mm in the rear plate is positioned properly on the engine block. Check that the tensioner is loosened, then tighten the M8 nut by hand (Fig. D).
- 12) Fit the new belt (1) while aligning the pulley-belt marks. The marks must be aligned with those on the new belt.

Install Confidence

SKF



13) To adjust the belt tension, act on the tension adjusting bolt (11) and set the tensioner dial (12), from position X2 to position X1, without forcing, and while setting a clearance of 1 to 2 mm between the dial (12) and the stop (13), and tighten the tensioner roller nut temporarily (Fig. B and E).

Caution: There must be a clearance of 1 to 2 mm between the dial (12) and the marked position (13). Do not align the dial with this mark, nor go beyond, as this would damage the tensioner.

14) Remove the TDC thickness gauge and rotate the engine **3 revolutions (clockwise, see on timing side)** until you return to the TDC position, without turning backwards. Fit the TDC thickness gauge (tool Mot. 1318).

15) Unscrew the tensioner roller nut, then push slowly, using the tension adjustment bolt, the roller from position X1 to the nominal tension position X, marker aligned on the center of the dial (Fig. F). Tighten the M8 nut (20) on the tensioner roller (Fig. D) with a torque of:

- 30 Nm for the Laguna and the Espace,
- 32 Nm for the Safrane.

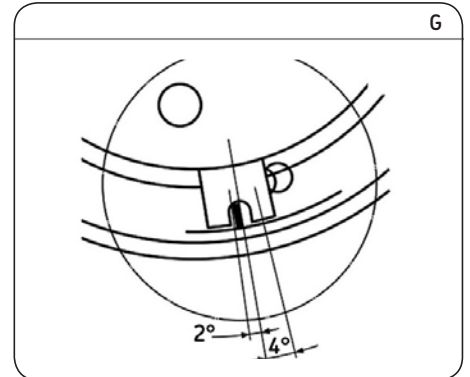
16) Lock the bolt (11) adjusting the tensioner roller tension using the locknut (10) (while maintaining the adjustment bolt (11)) (Fig. B).

17) Check the setting of the injection pump and remove the TDC thickness gauge.

18) Refit the removed elements in reverse order to removal :

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

20) 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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