

NT 06015

VKMA /VKMC 06127
VKMA /VKMC 06129

Nissan / Renault

VKMA 06127

VKMC 06127

VKMA 06129

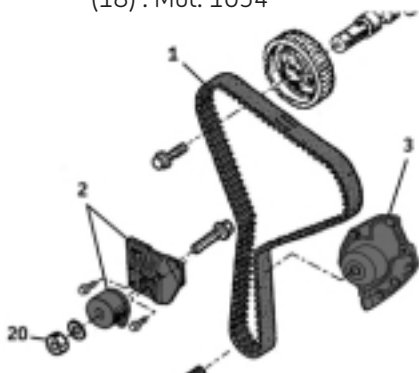
VKMC 06129



A



(14) : Mot. 1543
(17) : Mot. 1505
(18) : Mot. 1054



(3) : 13 Nm
(19) : 20 Nm + 115°
(Trafic/Vivaro)
40 Nm + 110°
(Scénic II/Mégane II/
Espace)
(20) : 45 Nm

Removal

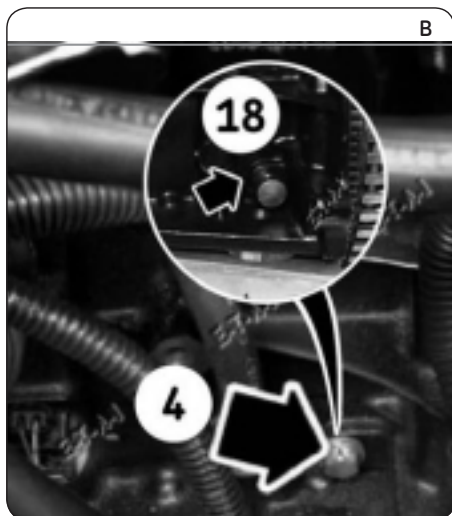
- 1) Disconnecting the battery according to the vehicle manufacturing guidelines.
- 2) Prepare the vehicle for the timing replacement according to the vehicle manufacturing guidelines.
- 3) Remove the cap (4) (Fig. B)
- 4) Rotate the crankshaft clockwise. When mark (5) on the camshaft sprocket appears in the window (6) on the timing cover, insert the TDC gauge (18) until the crankshaft is timed (mark (5) on the camshaft sprocket must be at the center of the window (6)) (Fig. C).
- 5) Remove the tensioner and idler rollers on the auxiliary belt.
- 6) Remove the crankshaft pullet bolt (19) (Fig. A) and crankshaft pulley by locking the flywheel.

- 7) Remove the timing cover.

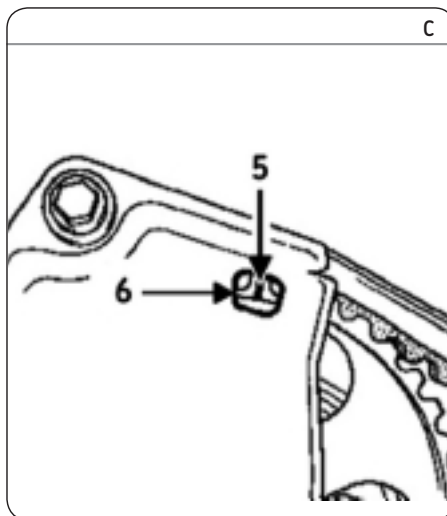
Note: Trace a mark on the lower cover, aligned with that on the camshaft sprocket.

- 8) Loosen the belt by untightening the tensioner-roller nut (20) (Fig. A).
- 9) Remove the belt (1) and tensioner roller (2) (Fig. A).
- 10) **Removing the waterpump (VKMC 06127/ 06129):** Firstly, bleed the cooling circuit, check it is clean, and clean if required; then fully loosen the 5 bolts securing the water pump (3) and remove it (Fig. A).

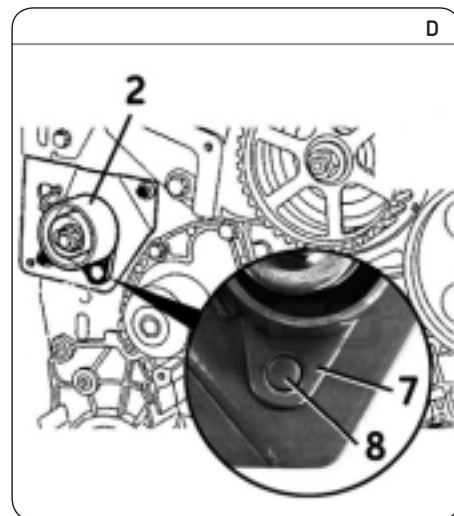
B



C



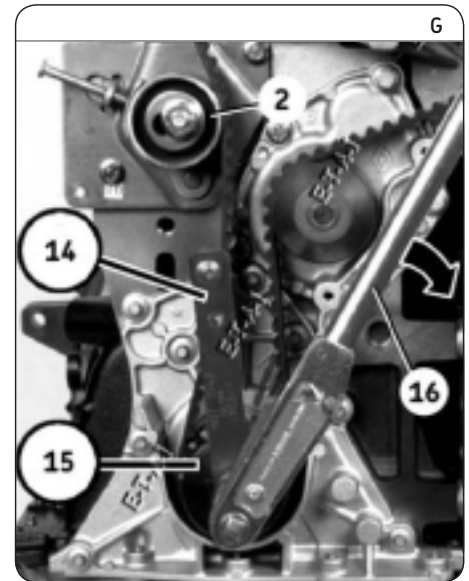
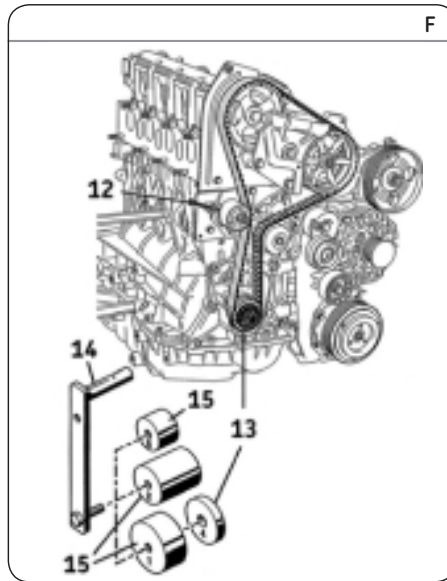
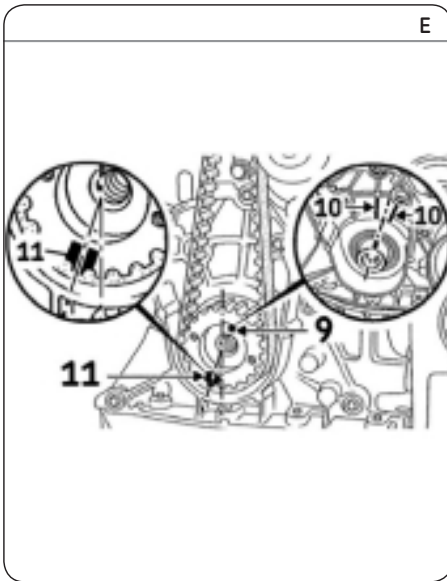
D



Install Confidence

VKN 1008





Refitting

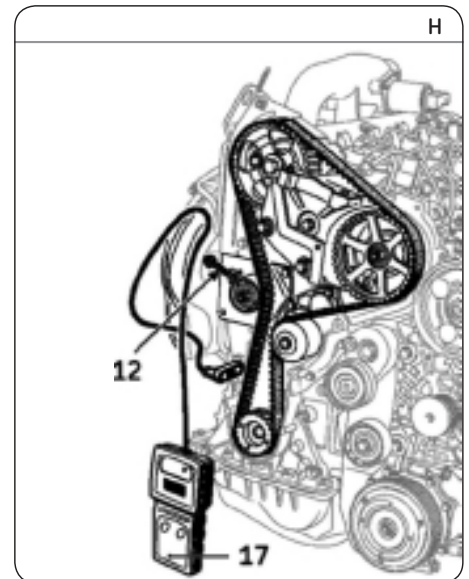
Caution: First clean the bearing surfaces of the tensioner roller.

- 11) **Refitting the waterpump:** Firstly fit the new water pump (3), apply the torque **13 Nm** and then check that the water pump pulley (3) runs properly, and has no hard or locking spots.
- 12) Check that the crankshaft is in the timing position (**the TDC gauge must be in place**).
- 13) Fit the new tensioner roller (2). The hole in the plate (7) of the roller must be placed on the positioning pin (8) (Fig. D).
- 14) Check that groove (9) on the crankshaft is centered between the two ribs (10) of the engine cover. In this position, mark (11) on the timing sprocket must be offset by one tooth to the left of the vertical axis of the engine (Fig. E).
- 15) Fit the new timing belt (1) while aligning the belt marks with those on the camshaft and crankshaft sprockets.
- 16) Put the tensioner roller in contact with the belt by tightening bolt (12) on the tensioner roller bracket (Fig. F).
- 17) Remove the TDC gauge (18) (Fig. B).
- 18) **Refit the crankshaft pulley bolt (19)** If the bolt is not fitted with a washer, use washer (13) in the belt pre-tension tool kit (14/15) (Fig. F).
- 19) Fit tool (14) with part (15) on the crankshaft pulley bolt (Fig. G).
- 20) Apply pre-tension to the timing belt, between the crankshaft sprocket and the tensioner roller (2), using tool (14) and a torque wrench (16) set to **11 Nm** (Fig. G).
- 21) Place the sensor of the tension controller (17). Follow the recommendations of the machine manufacturer to position the sensor (Fig. H).

- 22) Turn adjustment bolt (12) of the tensioner to obtain the recommended tension value **95 Hz** (Fig. H).
- 23) Tighten the nut (20) on the tensioner to **10 Nm**, remove the sensor of the tension controller (17) then turn the crankshaft by four turns up to TDC.
- 24) Refit the TDC gauge (18) (Fig. B).

Note: Before reaching TDC, place the timing gauge a half-tooth before the alignment of the camshaft sprocket marker with the one located on the inner timing cover, to prevent falling into a crankshaft balancing hole.

- 25) Remove the TDC gauge.
- 26) Apply pre-tension to the timing belt, between the crankshaft sprocket and the tensioner roller (2), using tool (14) and a torque wrench set to **11 Nm** (Fig. G).
- 27) Place the sensor of the tension controller (17) (Fig. H).
- 28) Check the tension value of the belt: **90 ± 3 Hz**. If incorrect, readjust this value using the bolt (12) (Fig. H).
- 29) Tighten the nut (20) of tension roller (2) with a torque of **45 Nm**.
- 30) To refit the removed elements, proceed in reverse order to removal.
- 31) Fill the cooling circuit with the permanent fluid recommended.
- 32) 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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