NT 06017
VKMA 06002 – VKMC 06002

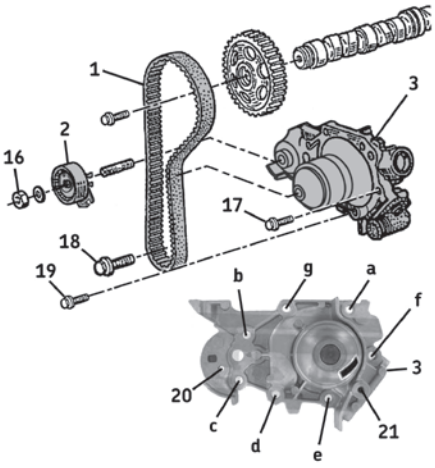
Dacia / Nissan / Renault

VKMA 06002

VKMC 06002

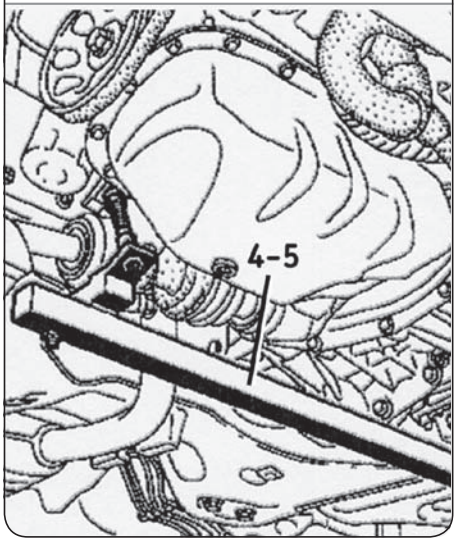
A

(4): Mot 1399 /
(5): Mot 1379 /
(8): Mot 1054 /

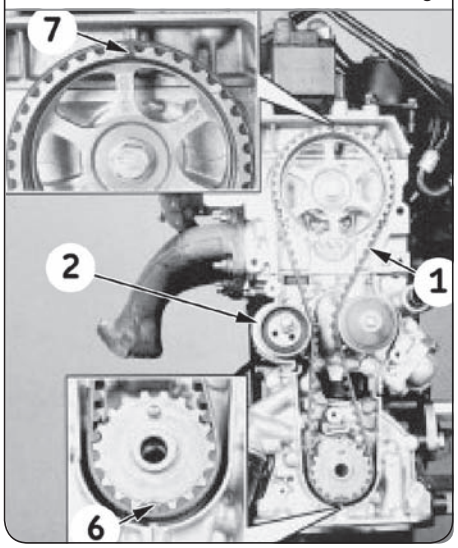


(16): 24 Nm
(17): 10 Nm
(18): 40 Nm + 125° ± 6°
(Clio II/III, Modus, Twingo I, Sandero)
40 Nm + 70° ± 5°
(Kangoo I, Kubistar)

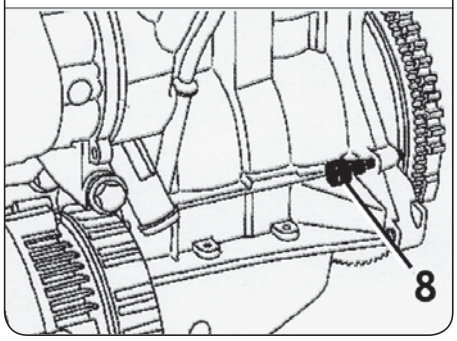
B



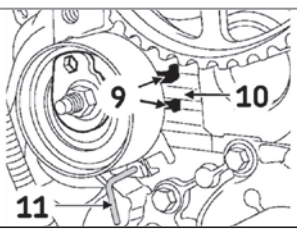
C



D



E



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) Place the engine securing tool: (**4**) for Twingo, (**5**) for Clio II and Kangoo (**Fig. B**).
4) Remove the auxiliary belt(s), the crankshaft pulley, the right-hand engine bracket, and the timing casings.
5) Turn the engine to TDC: align the marks on the crankshaft sprocket (**6**) and on the camshaft sprocket (**7**) with the fixed indicator marks (**Fig. C**).
6) Insert the TDC pin (**8**) in the flywheel (**Fig. D**).
7) Untighten the tensioner roller fastening nut (**16**) (**Fig. A**).
8) Slacken and remove the timing belt (**1**) (**Fig. A**).
9) Remove the tensioner roller (**2**).
10) **Removing the water pump (VKMC 06002)**: firstly bleed the cooling circuit, check it is clean, and clean if required; secondly fully loosen the water pump fastening bolts (**17**) and remove the pump (**3**) (**Fig. A**).

Refitting

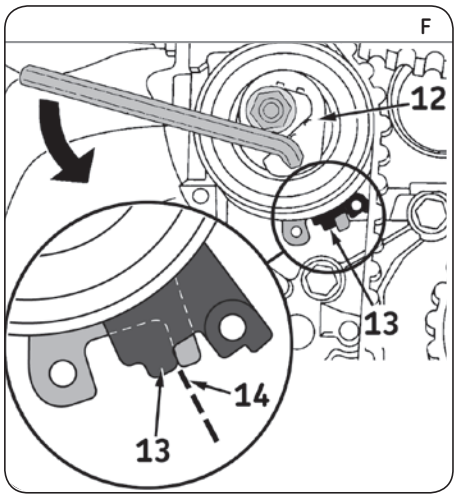
Caution! First clean the bearing surfaces of the tensioner rollers.

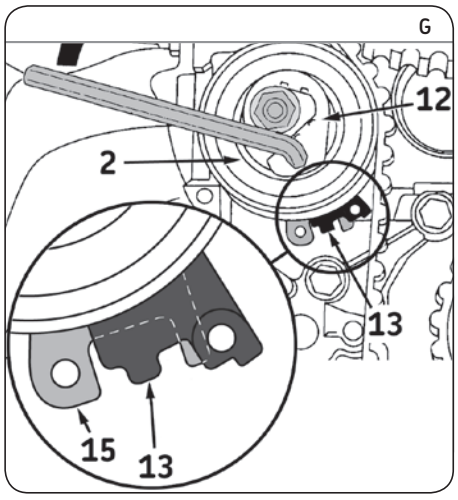
11) **Refitting the water pump:**
   – Using 2 **new** timing casing tapping screws (**19**), tap the 2 holes (**20**) and (**21**) of the new pump (**3**) (**Fig. A**).
   – Fit the new water pump (3), tighten the 7 waterpump bolts (**17**) to **10 Nm** following the appropriate order (**Fig. A**), then check that the water pump pulley runs properly, and has no hard or locking spots.

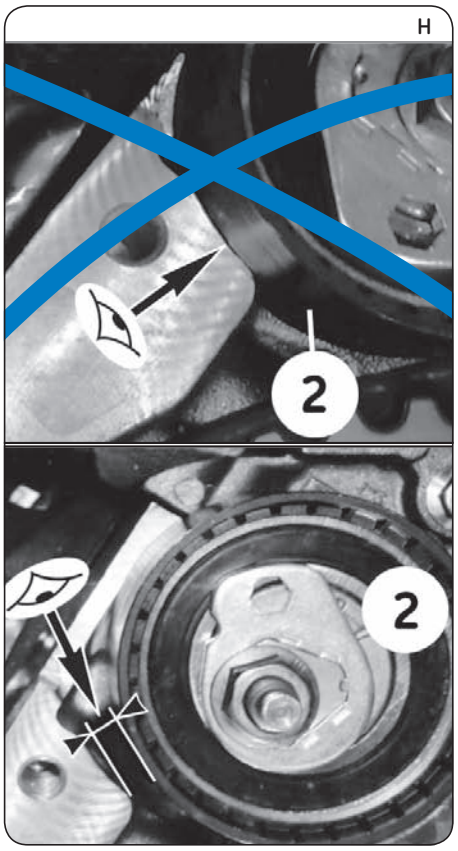
12) Fit the new tensioner roller (**2**).

Note: When fitting the new tensioner roller (**2**), check that:
   – The positioning pin (**9**) of the roller plate engage correctly with the rib (**10**) of the engine block cylinder head (**Fig. E**).
   – The pin (**11**) is in place (the pin must not be removed until the new timing belt is in place) (**Fig. E**).

Install Confidence







13) Check the alignment of the timing marks (6) and (**7**) (**Fig. C**). Check that pin (**8**) is in place (**Fig. D**).
14) Refit and tighten the crankshaft pulley bolt (**18**) with its washer to a torque of **15 Nm**.

Note: Fit a new crankshaft pulley bolt.

15) Fit the new timing belt (**1**), aligning its marks with marks (**6**) and (**7**) on the crankshaft and camshaft sprockets (**Fig. C**).
16) Remove the TDC pin (**8**) (**Fig. D**) and pin (**11**) from the tensioner roller (**Fig. E**).
17) Turn the adjustment dial (**12**) of the tensioner roller **anti-clockwise** with a 6 mm hexagonal key until the moving pointer (**13**) reaches the maximum tension position. The moving pointer (**13**) will then be in position (**14**) (**Fig. F**).
18) Tighten the tensioner roller fastening nut (16) to **24 Nm** (**Fig. A**).

Note: Make sure the tensioner is not touching the cylinder head, if it is, the procedure must be restarted (**Fig. H**).

19) Turn the crankshaft through **6 revolutions** to TDC.
20) Check the alignment of marks (**6**) and (**7**) (**Fig. C**). Insert the TDC pin (**8**) (**Fig. D**).
21) Loosen the tensioner roller fastening nut (**16**) no more than one turn, while holding it's adjustment dial in position with a hexagonal key. Next turn the adjustment dial (**12**) **clockwise** to position the moving pointer (**13**) of the tensioner roller at the centre of the notch (**15**) (**Fig. G**).
22) Tighten the tensioner roller fastening nut (**16**) to **24 Nm** (**Fig A**).
23) Remove the TDC pin (**8**) (**Fig. D**).
24) Turn the crankshaft through **2 revolutions** to TDC.
25) Check the alignment of marks (**6**) and (**7**) (**Fig. C**). Insert the TDC pin (**8**) (**Fig. D**).
26) Check the tensioner roller setting: the moving pointer (**13**) must be aligned with the centre of the notch (**15**) of the tensioner roller (**Fig. G**).
27) If the marks are not aligned, remove the new timing belt and adjust the belt tension again, by returning to step **12**).

Note: Also remove the tensioner roller (**2**). Be sure to insert pin (**11**) (**Fig. E**) in the holes in the rear roller plates.

28) Remove the TDC pin **(8**) (**Fig. D**).
29) Remove the crankshaft pulley bolt (**18**) and refit the timing casings. Refit the crankshaft pulley and tighten its bolt (**18**) to a torque of **40 Nm + 125° ± 6°** (Clio II/III, Modus, Twingo I, Sandero) or **40 Nm + 70° ± 5°** (Kangoo I, Kubistar) (**Fig. A**).
30) Refit the elements removed 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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