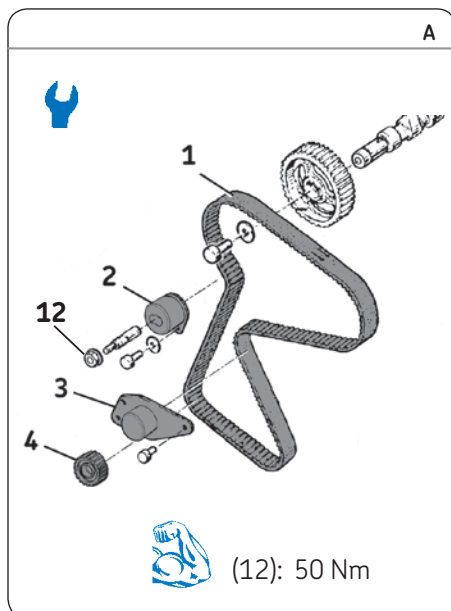


VKMA 06115



VKMA 06125



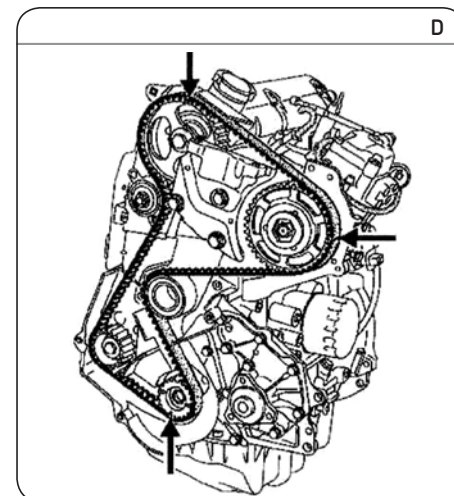
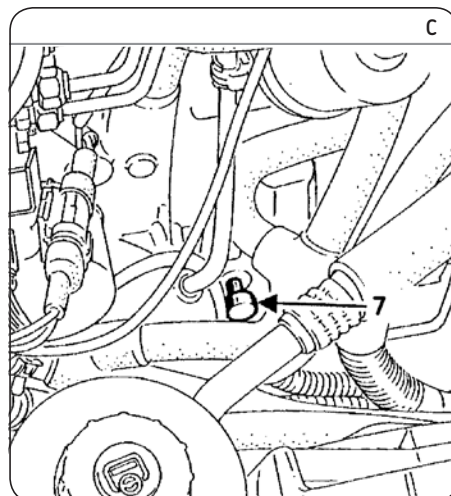
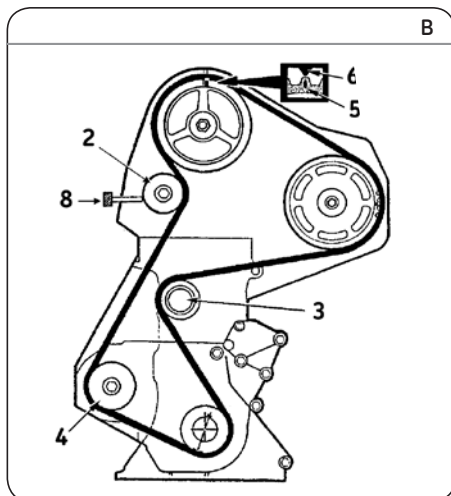
Removal

- 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 crankshaft clockwise until the mark (5) on the camshaft sprocket is aligned with the mark (6) in the window of the upper timing cover (Fig. B).
- 4) Remove the TDC gauge cap then insert the TDC gauge (7) to lock the crankshaft (Fig. C).
- 5) Remove the crankshaft pulley and the timing casings.
- 6) Loosen the tensioner nut (12), remove the tensioner rollers (2) and idler roller (3) (Fig. A). If you are fitting the VKMA 06125, also remove the idler roller (4) (Fig. A).
- 7) Remove the belt (1) (Fig. A).

Refitting

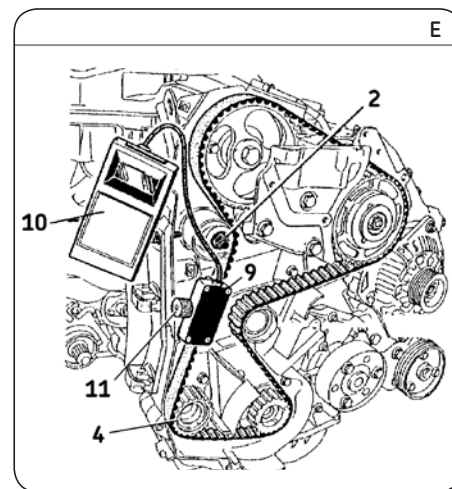
Caution! Clean the bearing surfaces of the rollers.

- 8) Check that the TDC gauge (7) is properly installed (Fig. C).
- 9) Refit the tensioner rollers (2) and idler roller (3). If you are fitting the VKMA 06125, also refit the new idler roller (4) (Fig. A).
- 10) Fit the new timing belt (1) by aligning the marks on the belt with the fixed marks on the camshaft, injection pump and crankshaft sprockets (Fig. D). Place the belt so that it turns in the correct direction (see arrows on the belt) and follow the following fitting sequence: crankshaft sprocket, idler roller (3), injection pump and camshaft sprockets, tensioner roller (4) then tensioner roller (2) (Fig. A).
- 11) Tighten the timing belt: Insert and tighten the bolt (8) in the rear timing cover (Fig. B).



Install Confidence

- 12) Remove the TDC gauge (7) (Fig. C) then push hard on the edge of the side of the belt between the tensioner roller (2) and the idler roller (4) (Fig. B).
- 13) Fit the sensor (9) of the tension gauge (10) on the belt (1) (Fig. E).
- 14) Turn knob (11) on the sensor (9) until you hear three "clicks" (Fig. E).
- 15) Tighten the belt (1) by turning the bolt (8) (Fig. B) until the tension gauge (10) indicates a reading of **42 SEEM** units (Fig. E).
- 16) Tighten the nut (12) of tension roller (2) to a torque of **50 Nm**.
- 17) Remove the sensor (9) (Fig. E).
- 18) Turn the crankshaft through four revolutions in the engine rotation direction.
- 19) Insert the TDC gauge (7) (Fig. C) to check the timing system adjustment.
- 20) Remove the TDC gauge (7) (Fig. C) then push hard on the edge of the side of the belt between the tensioner roller (2) and the idler roller (4) (Fig. E).
- 21) Refit the sensor (9) then turn the knob (11) until you hear three "clicks" (Fig. E).
- 22) Check the belt tension, which must be **37 SEEM** units. If it is incorrect, it needs to be readjusted.
- 23) Remove the sensor (9) of the tension gauge. (Fig. E).
- 24) Check the timing of the injection pump.
- 25) Refit the removed elements in the opposite order to removal respecting the crankshaft pulley tightening torque of **20 Nm + 115° ± 15°**
- 32) Fill the cooling circuit with the permanent fluid recommended.
- 33) 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.

© SKF is a registered trademark of the SKF Group.

© SKF Group 2014

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein. Any cost savings and revenue increases in this publication are based on results experienced by SKF customers and do not constitute a guarantee that any future results will be the same.

PUB 80/11 15038 EN · November 2014

