PRODUCT TECHNICAL INFORMATION

SUBJECT
Mounting instruction

PRODUCTS DESIGNATIONS
VKM 12390
VKMA 02390 / VKMC 02390

CAR MANUFACTURERS - BRANDS

FIAT : DUCATO BUS 2,3 JTD ; DUCATO VAN 2,3 JTD ; DUCATO BUS Platform/Chassis
IVECO: DAILY (III;IV;VI;V) VAN

SKF Kit	OE number (equivalency)
VKM 12390 VKMA 02390 VKMC 02390	71771581 ; 71736716 ; 504010846 ; 5802473355

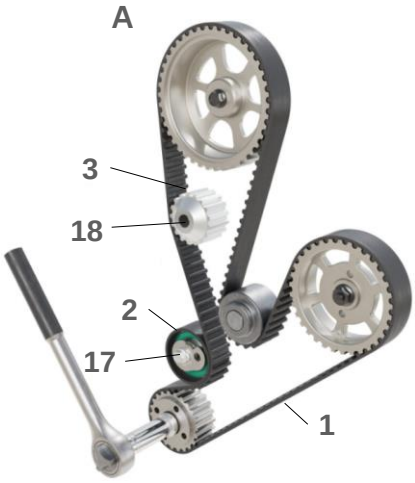
Tensioner improved apperance design following OE

VKM 12390

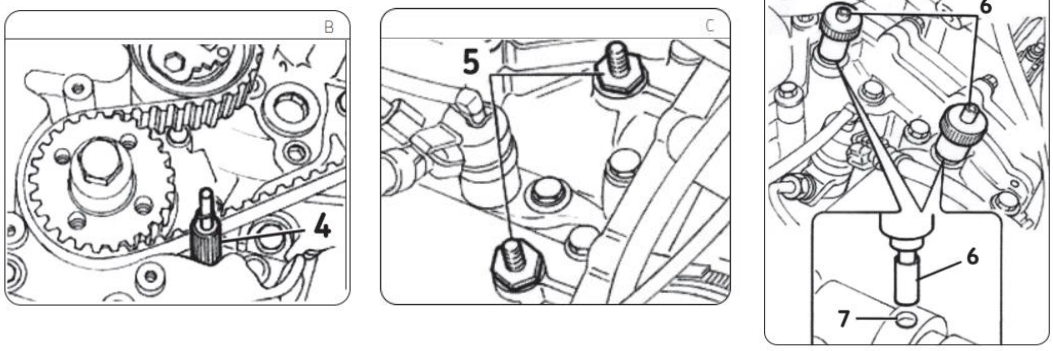
VKMA 02390

VKMC 02390

Removal recommendations

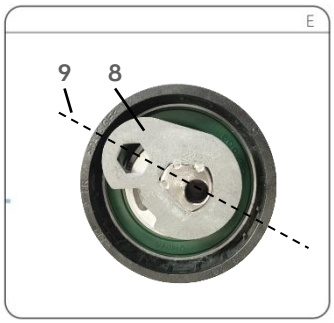


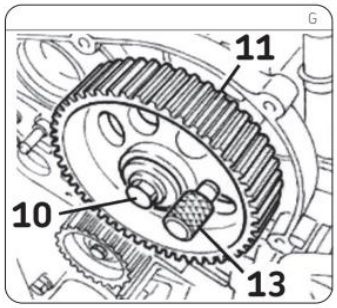
1) Disconnect the battery according to the vehicle manufacturing guidelines.
2) Prepare the vehicle for the timing replacement according to the vehicle manufacturing guidelines.
3) Remove the TDC plug. Insert and screw in the TDC pin (4) ***(Fig. B).*** Turn the engine clockwise slowly and smoothly until the crankshaft bears against the tool (4).
4) Unscrew and remove the studs (5) located on the cylinder head cover ***(Fig. C)*** then fit the timing tools (6) being careful to correctly position them in the camshaft holes (7) ***(Fig. D)***.
5) Loosen the bolt (17) fastening the tensioner roller (2) ***(Fig. A).*** Move the tensioner roller (2) to slacken the timing belt (1) and remove it.
6) Remove the tensioner roller (2) and idler roller (3) ***(Fig. A)***

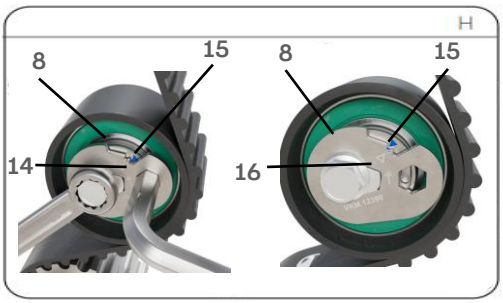


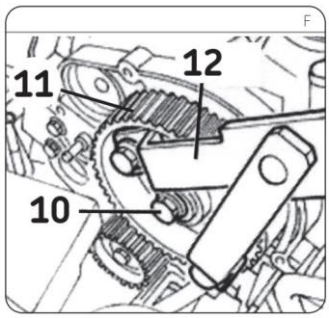
Mounting recommendations

1) Refit the new idler roller number 3. Tighten the fastening bolt number 18 to 25 Nm **(Fig. A).**
2) Refit the new tensioner roller number 2. Turn the adjustment dial (8) with an Allen key to the "10 o'clock" position (9) **(Fig. E).** Tighten slightly its fastening bolt (17) ***(Fig. A).***
3) Check that the timing tools (4) and (6) are correctly installed **(Fig. B and Fig. D).**
4) Loosen, but do not remove, the fastening bolt (10) of the camshaft sprocket (11) using the tool (12) **(Fig. F).** Separate the camshaft sprocket from the hub and check it turns freely around its shaft without rocking.
5) Turn the camshaft sprocket (11) in order to insert the pin (13) (**Fig. G**).
6) Fit the new timing belt (1).
7) Remove the pin (13) **(Fig. G)** and retighten the fastening bolt (10) of the camshaft sprocket (11) to a torque of 90 Nm using the tool (12) **(Fig. F).**
8) Tighten the timing belt (1): turn the dial (8) on the tensioner roller (2) anticlockwise with an Allen wrench, while holding the roller fastening bolt (17) in position with a hex nut wrench. Continue turning the dial until the arrow (15) is in line with the notch (14) ***(Fig. H)***. Tighten the tensioner roller fastening bolt (17) to 36 Nm.
9) Remove the timing tools (4) and (6) ***(Fig. B and Fig. D).***









10) Turn the crankshaft clockwise 8 turns to the timing position: Insert and tighten the TDC tool (4), then turn the engine slowly and smoothly until the crankshaft bears against the tool ***(Fig.B).***
11) Hold the tensioner roller (2) in position with an Allen wrench while slightly loosening the tensioner roller fastening bolt (17). Next, turn the dial (8) to align the two arrow (15) & (16) ***(Fig. H).***
12) Tighten the tensioner roller fastening bolt (17) to 36 Nm while at the same time holding the adjusting dial in position with an Allen key.
13) Remove the TDC tool (4) ***(Fig. B).***
14) Turn the crankshaft clockwise through 2 rotations until timing tools (4) and (6) can be inserted ***(Fig. B and Fig. D).***
15) Check the tensioner roller setting: the arrow (16) in the dial (8) must be aligned with the arrow (15) **(Fig. H)**
16) Note: The timing belt tension is properly set when the arrow (16) is aligned with the arrow (15) of the tensioner roller **(Fig. H).**
17) If the marks are not aligned, loosen the tensioner roller fastening bolt then turn the dial (8) with an Allen key to the "10 o'clock" position (9) **(Fig. E).** Restart the tension setting operation from step 1).
18) Remove the timing tools (4) and (6) **(Fig. B and Fig. D).**
19) Refit the elements removed in reverse order to removal.
20) Fill the cooling circuit with the permanent fluid recommended.
21) 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)