NT 03001
VKMA/C 03214
VKMA/C 03216

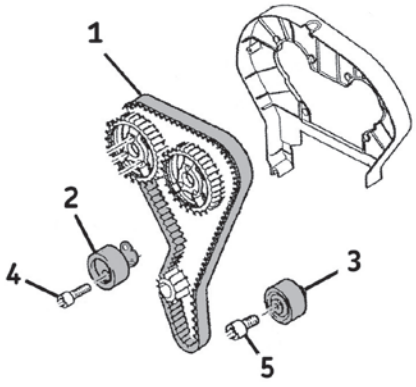
Citroën / Peugeot

VKMA 03214

VKMA 03216

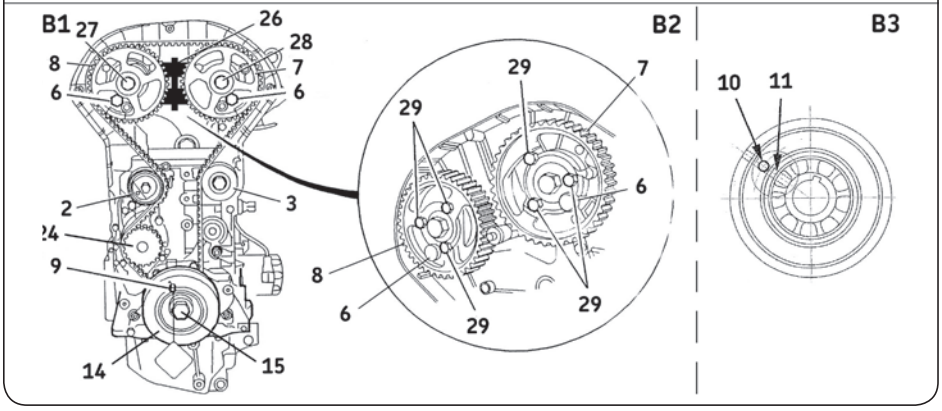
A

(6): Camshaft sprocket gauges (Citroën n° 9041-TZ) (Peugeot n° 0153AB).
(9): Crankshaft pulley timing gauge (Citroën n° 7014-TN) (Peugeot n° 0153G).
(13): Flywheel locking tool (Citroën n° 9044-T) (Peugeot n° 0153AF).
(21): Tensioner roller pin (Citroën n° 4200-TH) (Peugeot n° 0153AL).
(26): Camshaft sprockets locking tool (Citroën n° 4200-TG) (Peugeot n° 0153AJ).
–Hex wrench (7 mm).
–Belt securing pin (Peugeot n° 0153AK).
–Crankshaft pulley puller.



(4): 21 Nm
(15): 130 Nm
(27)/(28): 40 Nm
(29): 10 Nm

B



Important note: The XU7JP4 engines should be now fitted with an **Automatic** tensioner roller which is included in these SKF timing belt kits replacing the original manual tensioner roller fitted in accordance with the car manufacturer specifications.

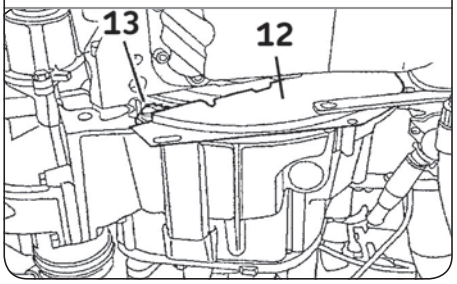
Removal

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 crankshaft in the engine direction until you can insert the gauges (**6**) on the camshaft sprockets (**7**) and (**8**) (**Fig. B1** and **B2**).
4) Insert the gauge (**9**) through the crankshaft pulley (**14**) (**Fig. B1**).

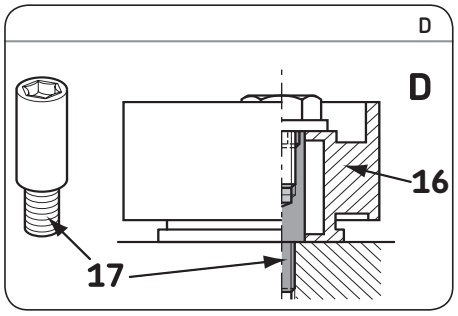
Note: the crankshaft pulley is a "Damper" pulley, i.e. with a damping mechanism. If the pulley is in bad condition, if you cannot insert the crankshaft gauge (**9**) (**Fig. B1**) or if there is a misalignment between the gauging hole (**10**) and the index (**11**) (**Fig. B3**), change this pulley.

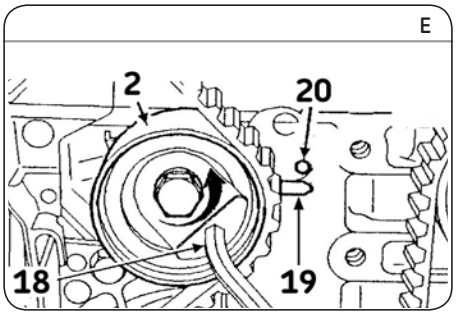
5) Remove the lower clutch casing closing panel (**12**) (**Fig. C**) and lock the flywheel using tool (**13**) (**Fig. C**).
6) Remove the gauge (**9**) (**Fig. B1**) and the crankshaft pulley (**14**) using the pulley puller if required.
7) Remove the lower timing belt casing, then refit the crankshaft pulley (14) and its bolt (**15**) without locking it (**Fig. B1**).
8) Refit the gauge (**9**) (**Fig. B1**) and remove the flywheel locking tool (**13**) (**Fig. C**).
9) Version with camshaft sprockets fastened by one bolt (**Fig. B1**):
– Remove the spacer screw located between the sprockets.
10) **Version with original manual tensioner roller already fitted**:
– Loosen the fastening bolt then remove the manual tensioner roller (**16**) and the spacer screw (**17**) behind (**Fig. D**) using a 7 mm hex wrench.
Version with automatic tensioner roller:
– Loosen the bolt on the tensioner roller (**2**) then turn it **anti-clockwise**, using a hex wrench in the hole (**18**), until the pointer (**19**) is located under the hole (**20**) (**Fig. E**).
– Insert the pin (**21**) (**Fig. F**) into the hole (**20**) (**Fig. E**), then turn the tensioner roller **clockwise** to slacken the belt completely.
– Tighten the automatic tensioner roller (**2**) in the slackened belt position. Remove the automatic tensioner roller.
11) Remove the timing belt (**1**), and the idler roller (**3**) (**Fig. A**).

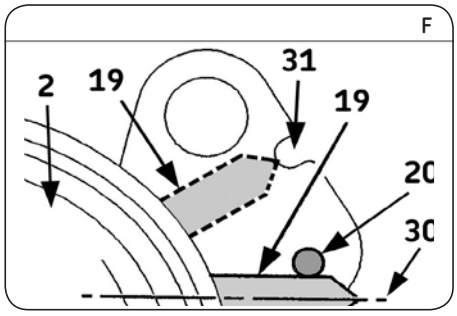
C



Install Confidence





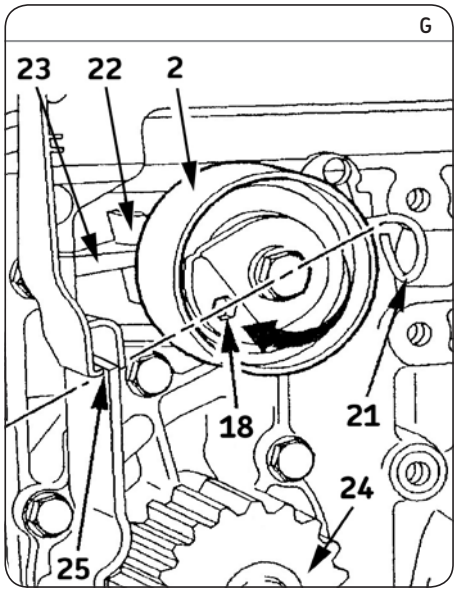


Refitting
Caution! First carefully clean thoroughly the bearing surfaces of the rollers and of the tensioning device.

12) Fit the new idler roller (**3**) and tighten the new fastening bolt provided (**5**) (M10 length 35 mm) at **37 Nm**, after smearing it with Loctite.
13) Fit the new automatic tensioner roller (**2**) without tightening fully the new fastening bolt (**4**) (M8 length 60 mm) and washer (**Fig. A**). The slot of the automatic tensioner roller back plate (**22**) should be inserted in the rib (**23**) located above the water pump sprocket (**24**) (**Fig. G**)
14) Set the pointer (**19**) (**Fig. G**) on the new automatic tensioner roller (**2**) under the hole (**20**), then insert the pin (**21**) into the hole (**20**) (**Fig. F** and **G**).
15) Turn the tensioner roller (**2**) **clockwise** until the hex hole (**18**) is positioned opposite the edge (**25**) of the cylinder casing (**Fig. G**).
16) Tighten the automatic tensioner bolt (**4**) at **21 Nm**.
17) Fit the new timing belt (**1**) onto the crankshaft sprocket, and lock it using the maintaining pin.
18) **Version with camshaft sprockets fastened by one bolt (Fig. B1)**:
– Lock the sprockets using tool (**26**) then loosen the bolts (**27**) and (**28**) without removing them.
– Remove tool (**26**).
Version with camshaft sprockets fastened by three bolts (Fig. B2):
– Loosen the six bolts (**29**).
19) Check the free rotation of the sprockets on the hubs, then hand tighten the bolts (**27**), (**28**) or (**29**) without locking them (**Fig. B1** or **B2**).
20) Push the camshaft sprockets fully onto the oblong holes, by turning them in the engine's rotation direction.
21) Continue fitting the timing belt (**1**) through the idler roller (**3**), the camshaft sprockets (**7**) then (**8**), the automatic tensioner roller (**2**) and the water pump sprocket (**24**) (**Fig. B1**).

Note: To facilitate the belt fitting onto the camshafts sprockets (**7**) and (**8**) , turn the sprockets slightly **counter-clockwise**. The angular displacement of the sprockets in respect of the belt must not exceed one tooth.

22) Lock the flywheel using the tool (**13**) (**Fig. C**) then remove the gauge (**9**) and the crankshaft pulley (**14**) (**Fig. B1**).
23) Refit the lower timing casing.
24) Refit the crankshaft pulley (**14**) and tighten the fastening bolt (**15**) at **130 Nm**, after smearing it with Loctite. Refit the gauge (**9**).
25) Remove the flywheel locking tool (**13**), the pin (**21**) (**Fig. F**) on the automatic tensioner roller (**2**) then turn it **anti-clockwise** until you position the pointer (**19**) in its position (**30**) without exceeding it (**Fig. C, F** and **G**)
26) Tighten the automatic tensioner roller bolt at **21 Nm**.
27) **Version with camshaft sprockets fastened with one bolt (Fig. B1)**:
– Refit the tool (**26**) and tighten the fastening bolts (**27**) and (**28**) of the camshaft sprockets at **40 Nm**.
Version with camshaft sprockets fastened by three bolts (Fig. B2):
– Tighten the six bolts (**29**) to **10 Nm**.
28) Remove the tools (**6**), (**9**) and (**26**) (**Fig. B1**).
29) Turn the crankshaft by four revolutions in the engine rotation direction, up to the timing point.
30) Refit the gauges (**6**) and (**9**) (**Fig. B1**).
31) **Version with camshaft sprockets fastened by one bolt (Fig. B1)**:
– Lock the sprockets using the tool (**26**).
32) Loosen the bolts (**27**), (**28**) or (**29**) (**Fig. B1** or **Fig. B2**).
33) Hand tighten the bolts (**27**), (**28**) or (**29**) without locking them (**Fig. B1** or **Fig. B2**).
34) **Version with camshaft sprockets fastened by one bolt (Fig. B1)**:
– Remove the tool (**26**).
35) Loosen the fastening bolt (**4**) of the automatic tensioner roller (**2**) then turn it, using the hole (**18**) (**Fig. F**) using a hex wrench, **clockwise** up to alignment of the pointer (**19**) and the centre of the notch (**31**) (**Fig. F** and **G**).
36) Tighten the automatic tensioner roller bolt (**4**) at **21 Nm**
37) **Version with camshaft sprockets fastened by one bolt (Fig. B1)**:
– Lock the sprockets using tool (**26**) and tighten the fastening bolts (**27**) and (**28**) at **40 Nm**.
Version with camshaft sprockets fastened by three bolts (Fig. B2):
– Tighten the six bolts (**29**) at **10 Nm**.
38) Remove the tools (**6**), (**9**) and (**26**) (**Fig. B1**).
39) Turn the crankshaft by two rotations in the engine's rotation direction, up to the timing point, check it by positioning the gauges (**6**) and (**9**) (**Fig. B1**).
40) Check the proper alignment of the pointer (**19**) and centre of the notch (**31**) on the automatic tensioner roller (**2**) (**Fig. G**).



41) If the marks are not aligned, remove the new timing belt, the new tensioner roller, return to step **13**) and repeat process.
42) Refit the elements removed in reverse order to removal.
43) Fill the cooling circuit with the permanent fluid recommended.
44) 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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