



How to change water
pump & timing belt kit
on **CITROËN C4 I (LC_)** –
replacement guide

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

Important!

This replacement procedure can be used for:
CITROËN C4 I (LC_) 2.0 HDi

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: PEUGEOT 307 SW (3H) 2.0 HDi 135

REPLACEMENT: WATER PUMP & TIMING BELT KIT – CITROËN C4 I (LC_). LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- All-purpose cleaning spray
- Brake cleaner
- Sealant
- Copper grease
- Torque wrench
- Combination spanner #10
- Combination spanner #13
- Combination spanner #15
- Torx bit T20
- Torx bit T50
- HEX bit No.H6.
- Drive socket # 10
- Drive socket # 11
- Drive socket # 13
- Drive socket # E14
- Drive socket # 15
- Drive socket # 16
- Drive socket # 22
- Wheel impact socket #17
- Ratchet wrench
- Funnel
- Fluid container
- Clip removal tool
- Universal puller
- Seal scraper
- Flat Screwdriver
- Clic-R collar pliers
- Engine timing tool set
- Engine support beam
- Fender cover
- Wheel chock

Buy tools

Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). AUTODOC recommends:

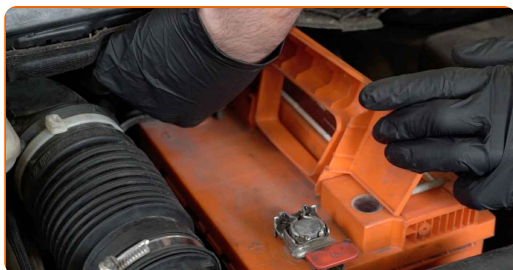
- Follow the terms, recommendations and requirements of the part operation provided by the manufacturer.
- All work should be done with the engine stopped.

REPLACEMENT: WATER PUMP & TIMING BELT KIT – CITROËN C4 I (LC_). RECOMMENDED SEQUENCE OF STEPS:

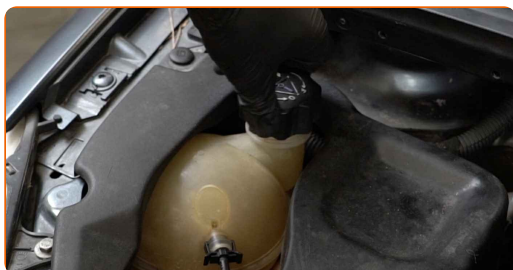
1 Open the bonnet.

2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

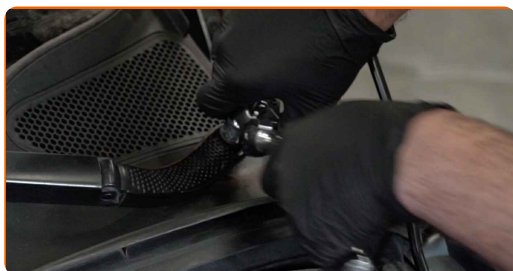
3 Remove the battery terminals.



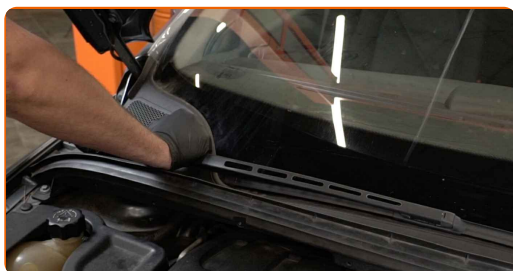
4 Unscrew the coolant reservoir cap.



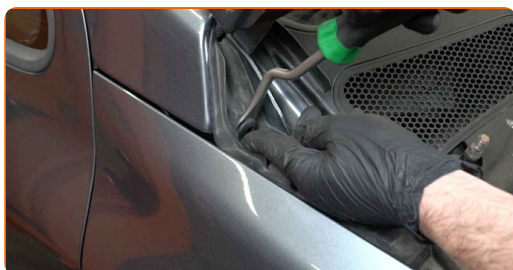
5 Unscrew the fasteners of the windscreen wiper arms. Use a drive socket #16. Use a ratchet wrench.



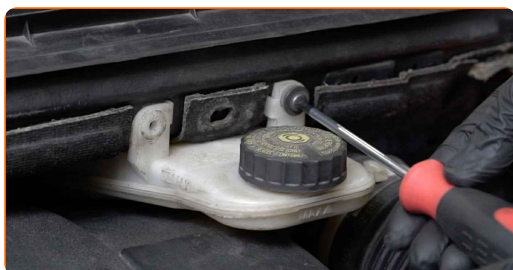
6 Remove the wiper arms. Use a universal puller.



7 Remove the clips of the plastic cowl grille. Use a clip removal tool.



8 Unscrew the fasteners of the brake fluid reservoir. Use Torx T20. Use a ratchet wrench.



9

Unscrew the fasteners of the cowl grille. Use a drive socket #10. Use a ratchet wrench.



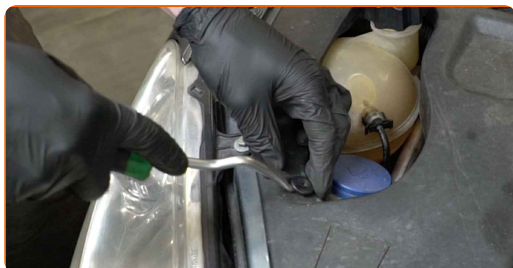
10

Raise up and remove the cowl grille.



11

Release the coolant reservoir retainers. Use a clip removal tool.



12

Remove the coolant tank protective cover.



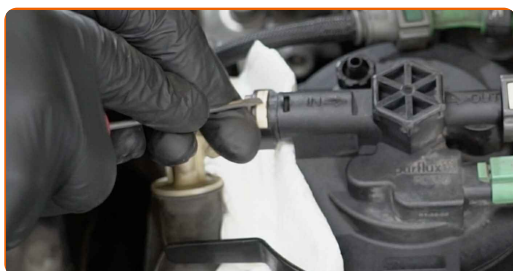
13 Remove the engine cover.



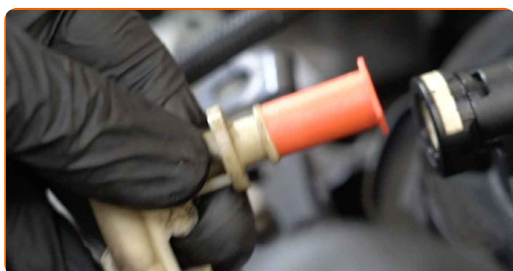
AUTODOC recommends:

- Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). Do not use excessive force when removing the part as this may damage it.

14 Squeeze the clips and detach the fuel supply lines from the fuel filter housing. Use a flat screwdriver.



15 Close the fuel lines with caps.

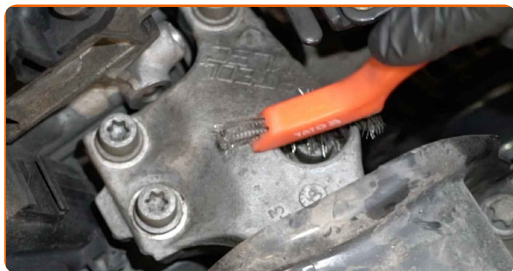


16 Secure the engine. Use an engine support beam.



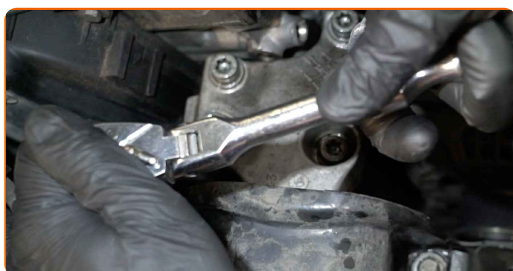
17

Clean the engine mount fasteners. Use a wire brush. Use WD-40 spray.



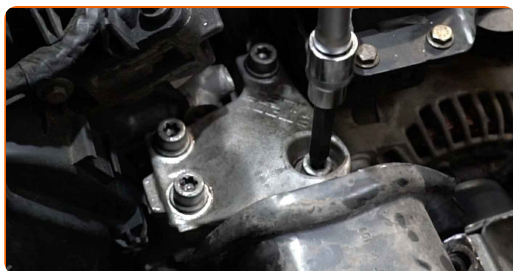
18

Unscrew the fasteners that connect the engine mount to the car body. Use a drive socket #E14. Use a ratchet wrench.



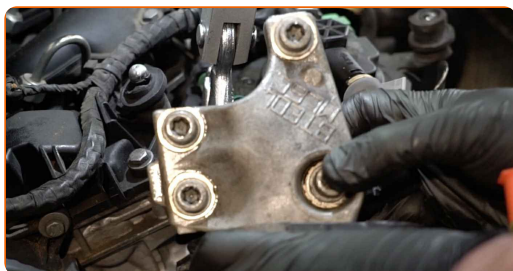
19

Unscrew the engine mount fasteners. Use Torx T50. Use a ratchet wrench.



20

Remove the engine mount.

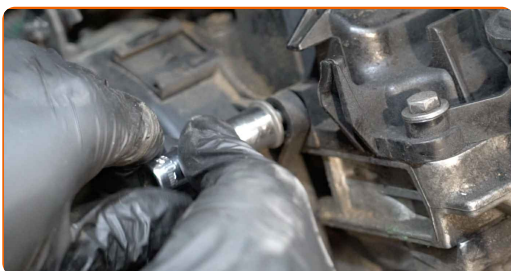


Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). Tip:

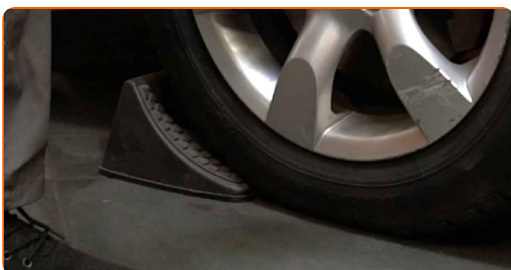
- Carefully check the other engine mounts and replace them if necessary.

21 Remove the fastening bolts.

22 Unscrew the fasteners of the upper timing cover. Use a drive socket #10. Use a ratchet wrench.



23 Secure the wheels with chocks.



24 Loosen the wheel mounting bolts. Use wheel impact socket #17.



25 Raise the front of the car and secure on supports.

26

Unscrew the wheel bolts.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
CITROËN C4 I (LC_)

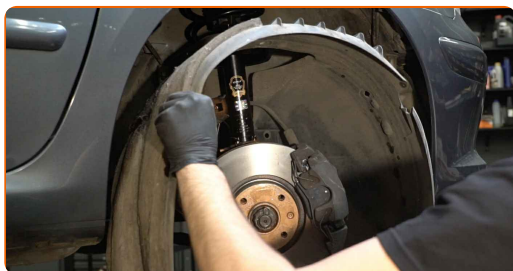
27

Remove the wheel.



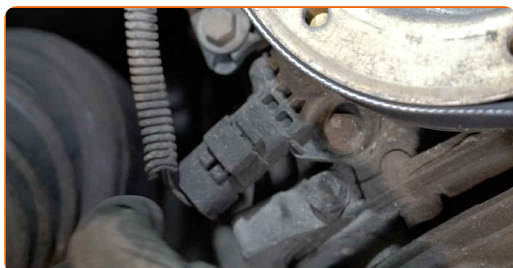
28

Remove the wheel arch cover.

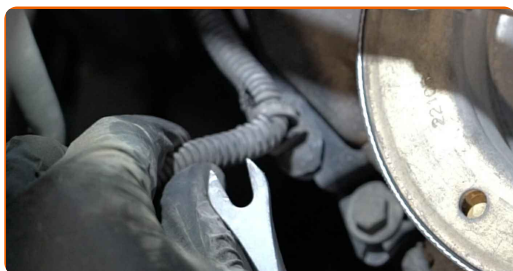


29

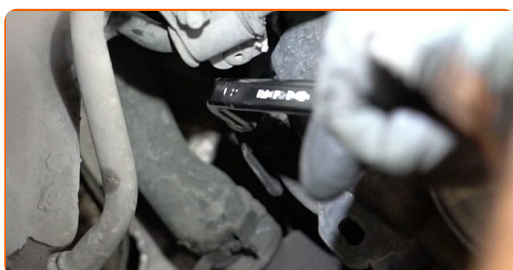
Disconnect the connector of the crankshaft position sensor.



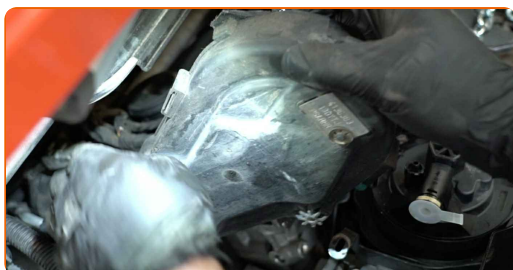
30 Detach the crankshaft position sensor wiring. Use a clip removal tool.



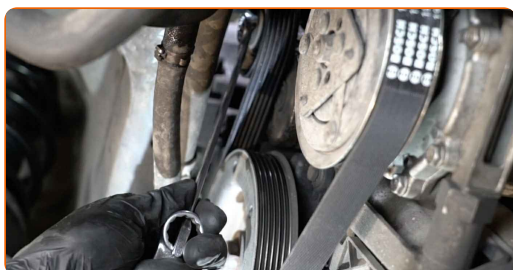
31 Unscrew the fasteners of the upper timing cover. Use a combination spanner #10.



32 Remove the upper timing cover.



33 Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #15.



34 Remove the V-ribbed belt.



35 Return the tensioner pulley to its initial position. Use a combination spanner #15.

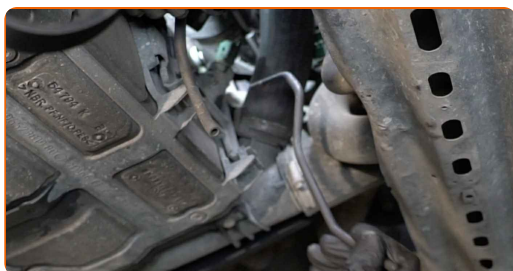
36 Turn the crankshaft gear. Use a drive socket #22. Use a ratchet wrench.



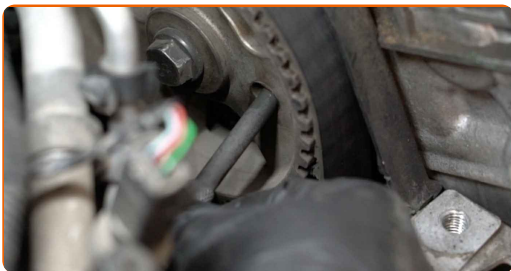
Please note!

- The piston should be at its top dead centre (TDC).

37 Install the crankshaft locking tool according to the factory marks. Use an engine timing tool set.



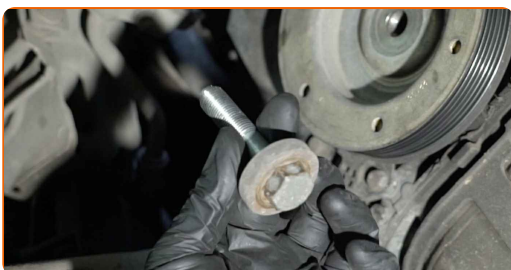
38 Install the camshaft gear locking tool according to the factory marks. Use an engine timing tool set.



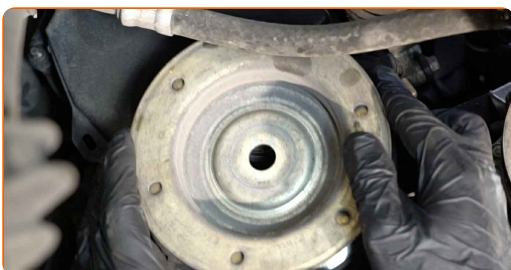
39 Unscrew the crankshaft pulley fastener. Use a drive socket #22. Use a ratchet wrench.



40 Remove the fastening bolt.



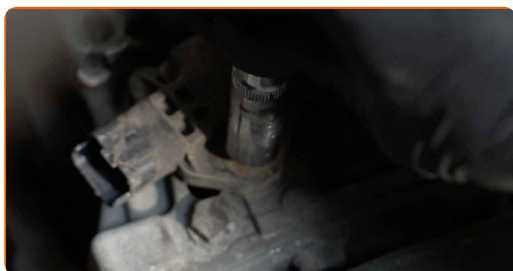
41 Remove the crankshaft pulley.



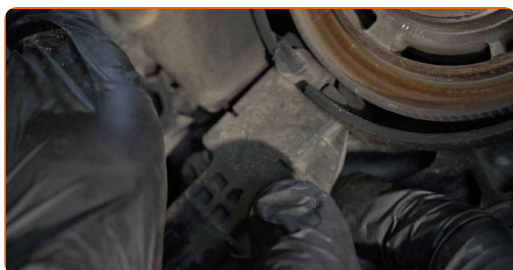
42 Unscrew the fasteners of the lower timing cover. Use a drive socket #10. Use a ratchet wrench.



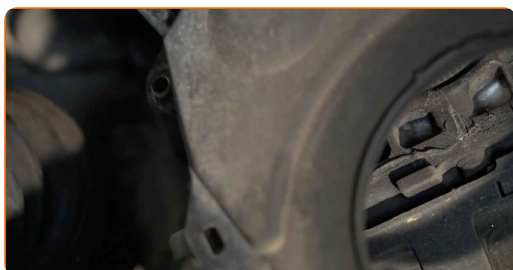
43 Unscrew the fastener of the crankshaft position sensor. Use a drive socket #10. Use a ratchet wrench.



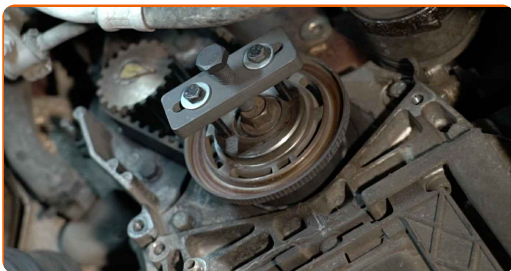
44 Remove the crankshaft position sensor.



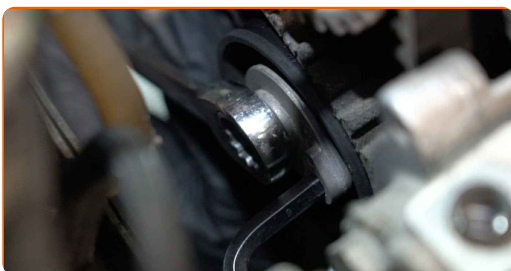
45 Remove the lower timing cover.



46 Remove the crankshaft gear locking tool. Use a universal puller.



47 Loosen the fastener of the timing belt tensioner pulley. Use a combination spanner #13. Use HEX No.H6.



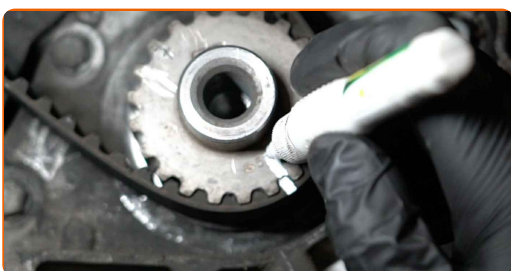
48 Make a mark on the timing belt.



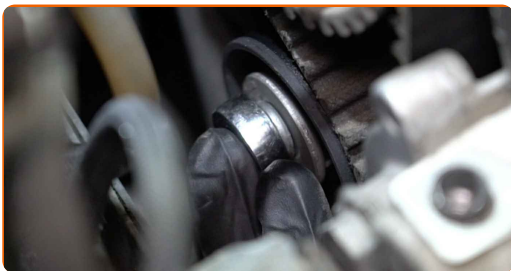
49 Make a mark on the camshaft gear.



50 Make a mark on the crankshaft gear.



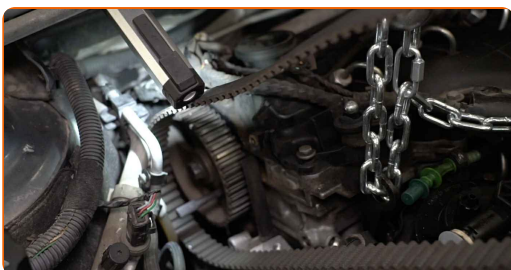
51 Unscrew the fastener of the timing belt tensioner pulley. Use a combination spanner #13.



52 Remove the timing belt tensioner pulley.



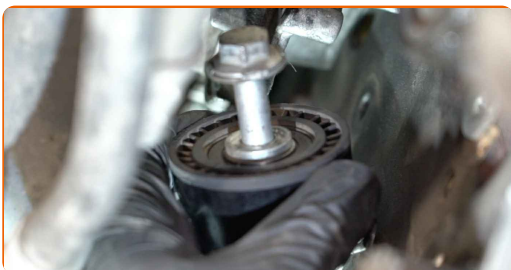
53 Remove the timing belt.



54 Unscrew the fastener of the timing belt idler pulley. Use a combination spanner #15.



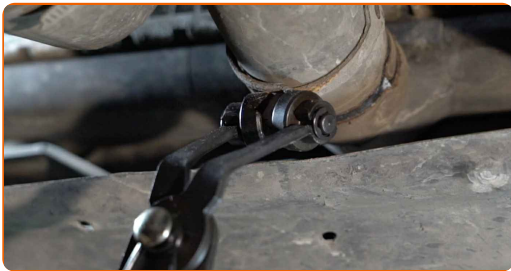
55 Remove the timing belt idler pulley from its mounting seat.



56 Prepare a container for fluids.



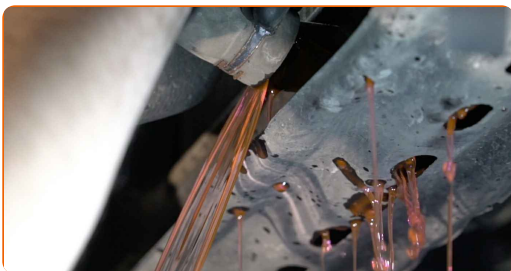
57 Detach the clamp of the lower coolant pipe. Use clic-R collar pliers.



58 Detach the lower coolant pipe.



59 Drain the coolant from the engine.



Replacement: water pump & timing belt kit – CITROËN C4 I (LC_).
Professionals recommend:

- Caution! The coolant can be very hot.
- Wear gloves to prevent contact with hot liquid.
- All work should be done with the engine stopped.

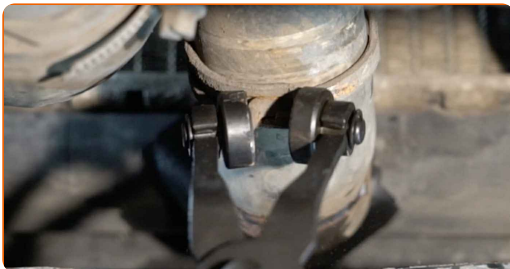
60

Attach the lower coolant pipe.



61

Attach the clamp of the lower coolant pipe. Use clic-R collar pliers.



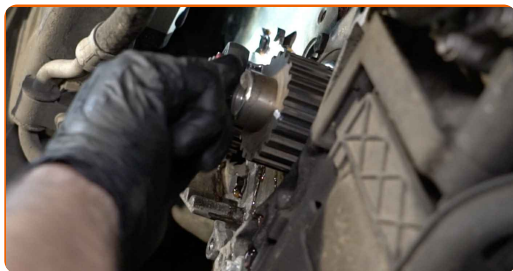
62

Clean the water pump fasteners. Use all-purpose cleaning spray.



63

Unscrew the water pump fasteners. Use a drive socket #11. Use a ratchet wrench.



64

Remove the water pump.



Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). AUTODOC experts recommend:

- Caution! Coolant may come out from the water pump channels and body.

65

Clean the water pump mounting seat. Use a seal scraper. Use all-purpose cleaning spray.



66 Clean the water pump. Use all-purpose cleaning spray.



67 Install the water pump gasket.



68 Treat the fastening bolts. Use a sealant.



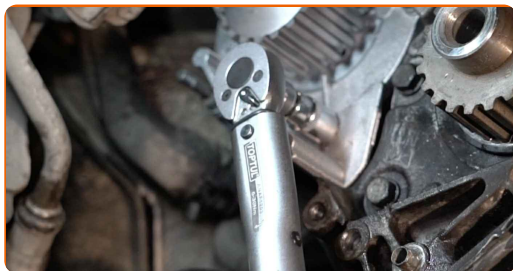
69 Install the new water pump.



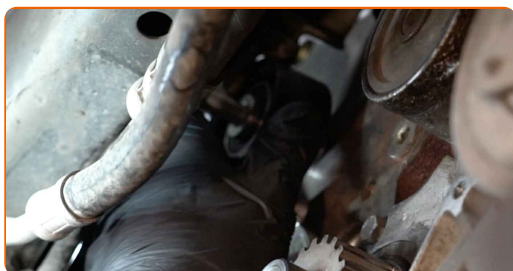
70 Screw in the water pump fasteners. Use a drive socket #11. Use a ratchet wrench.



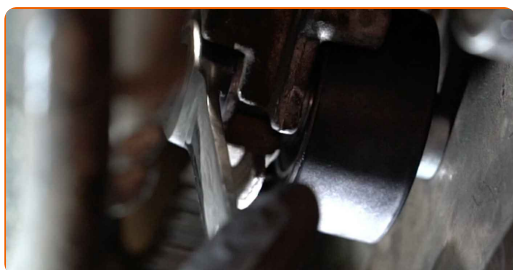
71 Tighten the water pump fasteners. Use a drive socket #11. Use a torque wrench. Tighten it to 12 Nm torque.



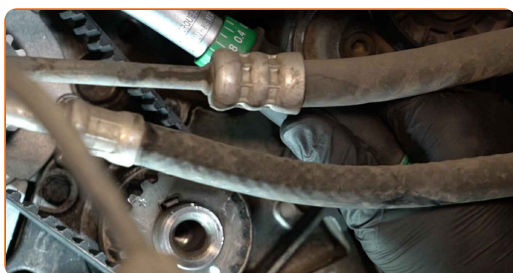
72 Install the timing belt idler pulley.



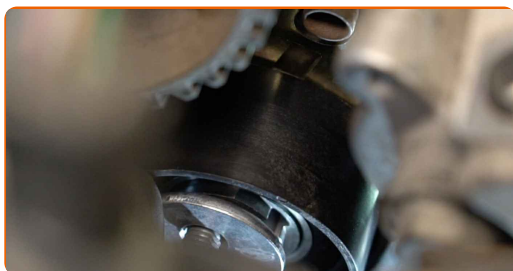
73 Screw in the fastener of the timing belt idler pulley. Use a combination spanner #15.



74 Tighten the fastener of the timing belt idler pulley. Use a drive socket #15. Use a torque wrench. Tighten it to 35 Nm torque.

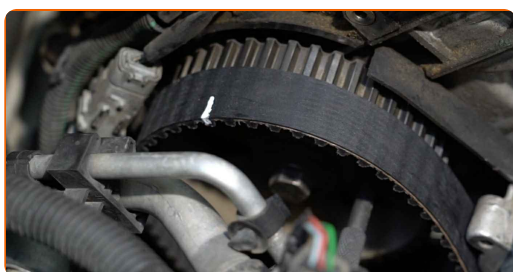


75 Install the timing belt tensioner pulley.



76 Screw in the fastener of the timing belt tensioner pulley. Use a combination spanner #13.

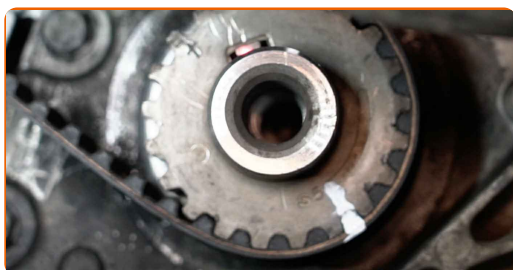
77 Install the new timing belt according to the factory marks.



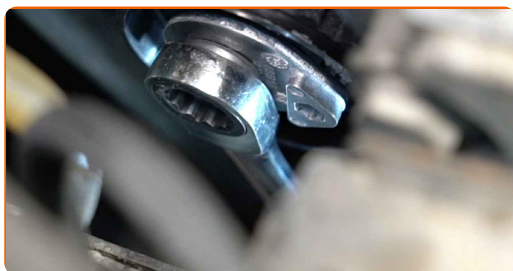
Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). Tip from AUTODOC:

- Be careful not to damage the timing belt.

78 Install the crankshaft gear locking tool according to the factory marks. Use an engine timing tool set.



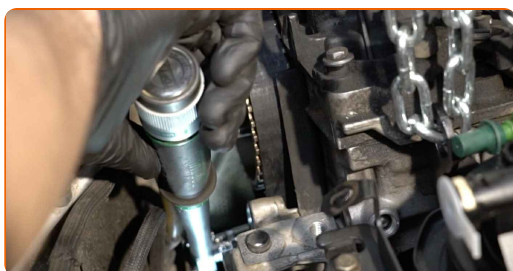
79 Adjust the timing belt tension by moving the tensioner pulley. Use a combination spanner #13. Use HEX No.H6.



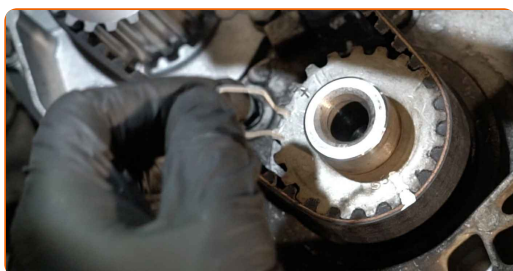
Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). Tip from AUTODOC experts:

- Make sure that the timing belt is properly tensioned.

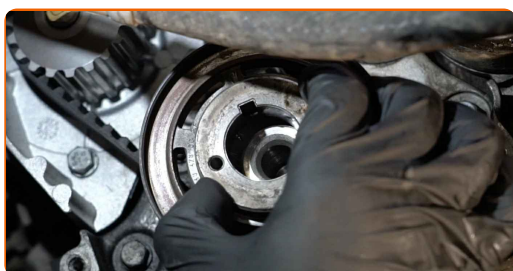
80 Tighten the fastener of the timing belt tensioner pulley. Use a drive socket #13. Use a torque wrench. Tighten it to 21 Nm torque.



81 Remove the crankshaft gear locking tool.



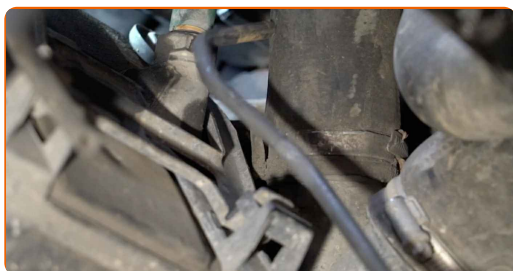
82 Install the crankshaft gear locking tool.



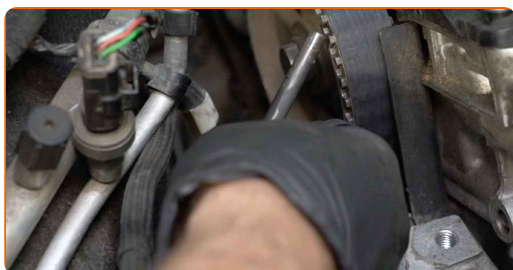
83 Install the fastening bolt.



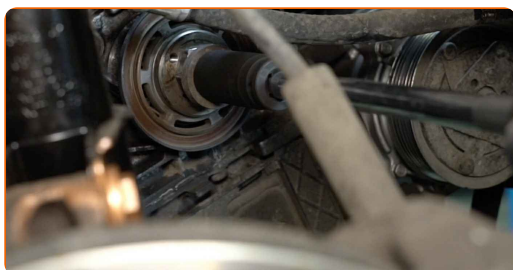
84 Remove the crankshaft locking tool.



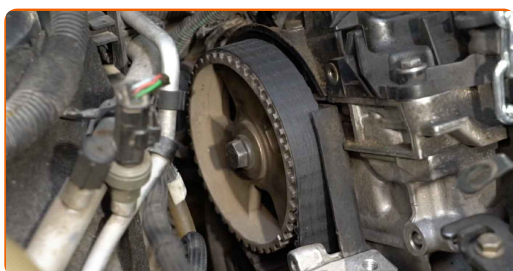
85 Remove the camshaft gear locking tool.



86 Screw in the crankshaft pulley fastener. Use a drive socket #22. Use a ratchet wrench.



87 Turn the crankshaft gear. Use a drive socket #22. Use a ratchet wrench.

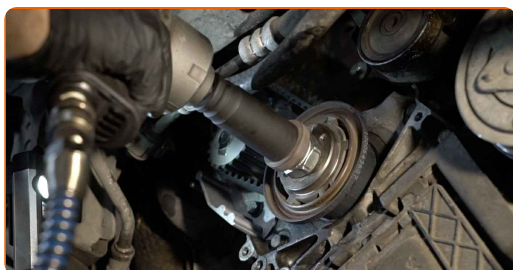


Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). AUTODOC experts recommend:

- Make sure all the timing belt components are mounted correctly.

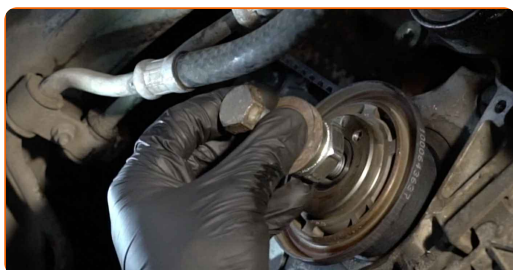
88

Unscrew the crankshaft pulley fastener. Use a drive socket #22. Use a ratchet wrench.



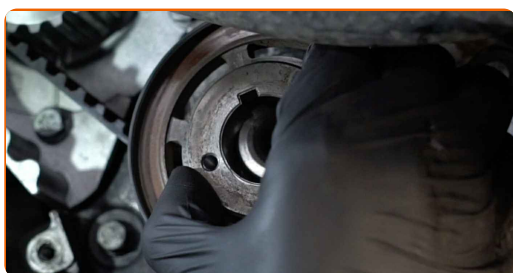
89

Remove the fastening bolt.



90

Remove the crankshaft gear locking tool.



91

Install the lower timing cover.



- 92** Tighten the fasteners of the lower timing cover. Use a drive socket #10. Use a torque wrench. Tighten it to 12 Nm torque.



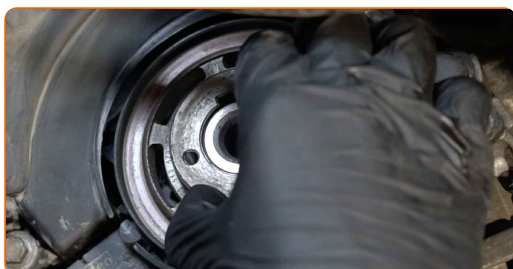
- 93** Install the crankshaft position sensor.



- 94** Tighten the fastener of the crankshaft position sensor. Use a drive socket #10. Use a torque wrench. Tighten it to 14 Nm torque.



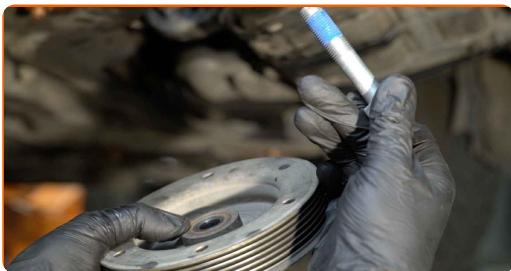
- 95** Install the crankshaft gear locking tool.



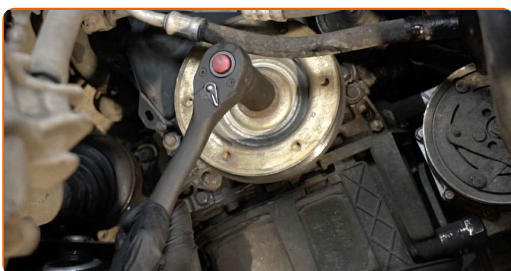
- 96** Install the crankshaft locking tool according to the factory marks. Use an engine timing tool set.

- 97** Install the crankshaft pulley according to the factory marks.

98 Install the fastening bolt.



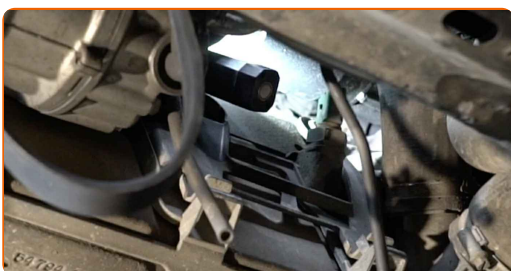
99 Tighten the crankshaft pulley fastener. Use a drive socket #22. Use a torque wrench. Tighten it to 80 Nm torque.+60°



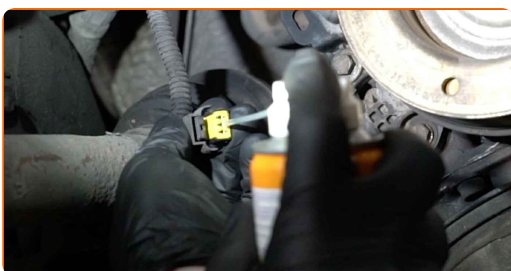
AUTODOC recommends:

- Important! Be sure to use new fasteners.

100 Remove the crankshaft locking tool.



101 Treat the connector of the crankshaft position sensor. Use all-purpose cleaning spray.



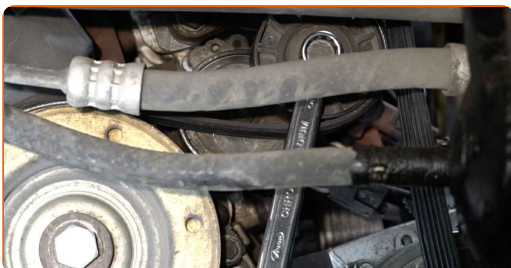
102 Connect the connector of the crankshaft position sensor.



103 Attach the crankshaft position sensor wiring.



104 Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #15.



105 Install the V-ribbed belt.

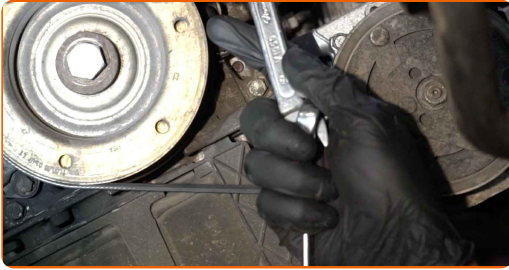


Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). Tip:

- Make sure that the V-ribbed belt fits all pulleys snugly.

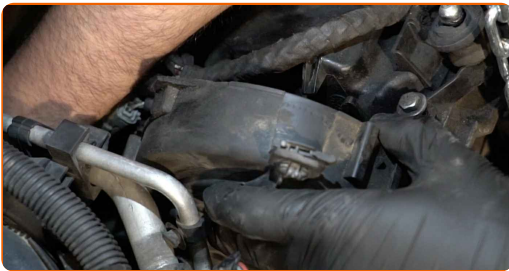
106

Return the tensioner pulley to its initial position. Use a combination spanner #15.



107

Install the upper timing cover.

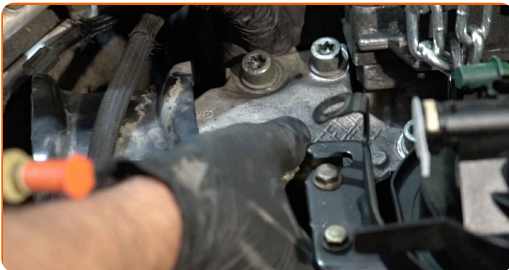


108

Tighten the fasteners of the upper timing cover. Use a drive socket #10. Use a torque wrench. Tighten it to 12 Nm torque.

109

Install the engine mount to its mounting seat.

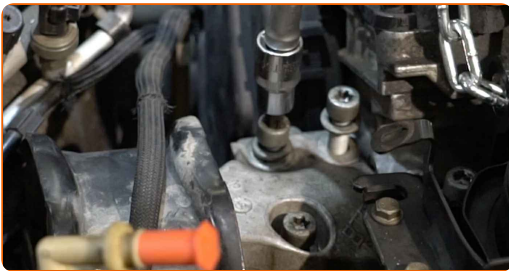


110

Install the fastening bolts.

111

Screw in the engine mount fasteners. Use Torx T50. Use a ratchet wrench.

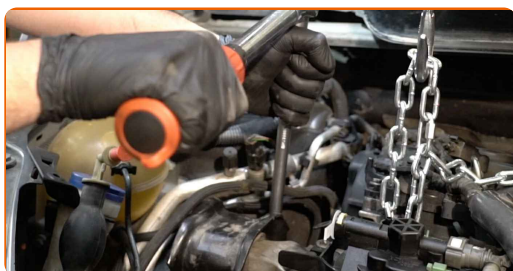


112

Screw in the fasteners that connect the engine mount to the car body. Use a drive socket #E14. Use a ratchet wrench.

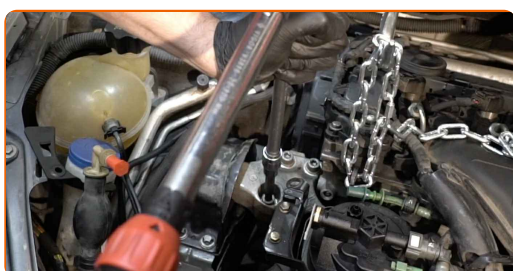
113

Tighten the fasteners that connect the engine mount to the car body. Use a drive socket #E14. Use a torque wrench. Tighten it to 60 nm torque.



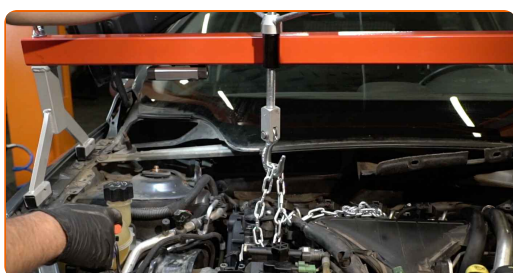
114

Tighten the engine mount fastening bolts. Use Torx T50. Use a torque wrench. Tighten it to 60 nm torque.



115

Remove the engine support beam.



Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). AUTODOC recommends:

- Be careful not to damage the paintwork and plastic parts of the car.

116 Remove the caps from the fuel lines.



117 Connect the fuel lines to the fuel filter and lock the fastening clips.



118 Press the fuel primer pump several times until it gets hard.



119 Install and secure the cowl grille.

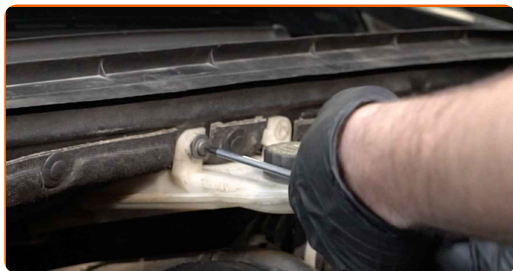


120 Install the fasteners of the wiper plastic cowl grille.



121

Tighten the brake fluid reservoir fasteners. Use Torx T20. Use a ratchet wrench.



122

Reinstall the wiper arms.

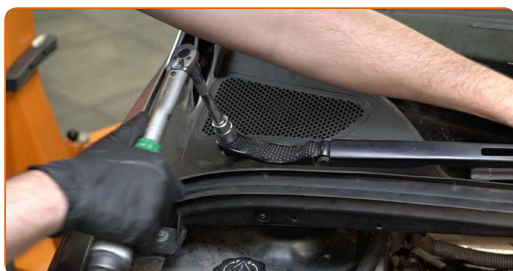


Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). AUTODOC experts recommend:

- Make sure not to mix up the wiper arms on the driver's and passenger's sides.

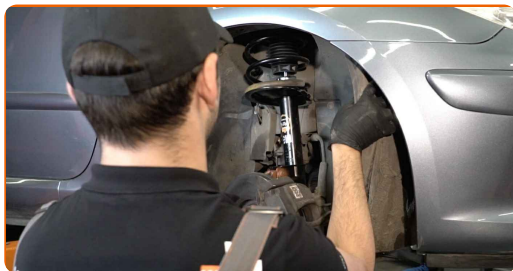
123

Tighten the fasteners of the wiper arms. Use a drive socket #16. Use a torque wrench. Tighten it to 35 Nm torque.



124

Install the wheel arch cover to its mounting seat. Make sure you hear a click indicating that it is locked in place.



125

Clean the wheel rim mounting seat. Use a wire brush.



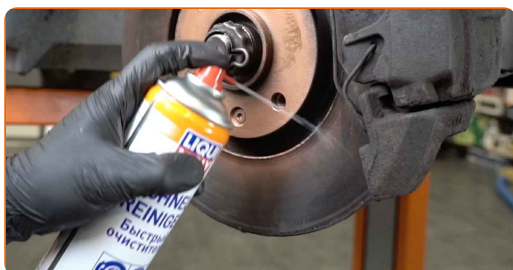
126

Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



127

Clean the brake disk surface. Use a brake cleaner.



AUTODOC recommends:

- Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). After applying the spray, wait a few minutes.

128

Install the wheel.



AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. CITROËN C4 I (LC_)

129

Screw in the wheel bolts. Use wheel impact socket #17.



130

Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 100 Nm torque.



131

Remove the jacks and chocks.



132 Remove the coolant reservoir cap.



133 Insert the funnel.



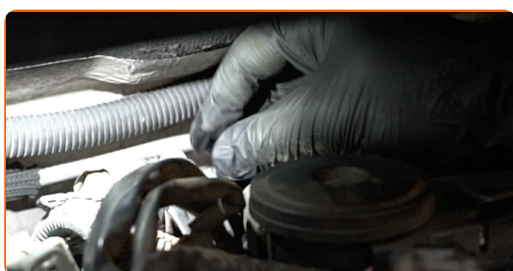
134 Pour coolant in the coolant reservoir.



Replacement: water pump & timing belt kit – CITROËN C4 I (LC_). Tip from AUTODOC:

- Only use the coolant recommended by the manufacturer.
- The coolant level should be at the MAX mark.

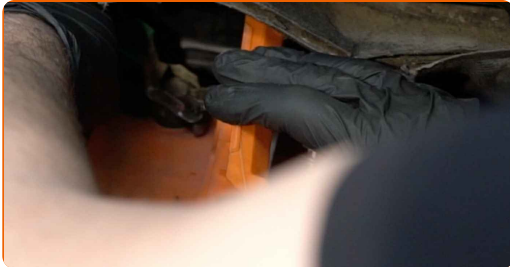
135 Open the coolant system bleed screw.



136 Wait until the air goes out of the system.

137 Close the coolant system bleed screw.

138 Attach the terminals to the battery.



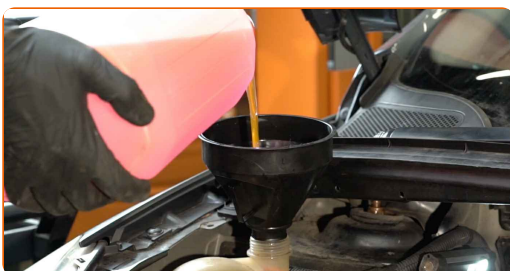
Replacement: water pump & timing belt kit – CITROËN C4 I (LC_).
Professionals recommend:

- Be careful! Do not mix up the positive and the negative terminals of the car battery.

139 Run the engine for a few minutes. This should be done in order to remove residual air from the cooling system and to check if the components are operating correctly.

140 Shut off the engine.

141 Check the coolant level. If necessary, top up to the required level.



Please note!

- The coolant level should be at the MAX mark.

142 Install the coolant reservoir cap.

143 Screw on the coolant reservoir cap.



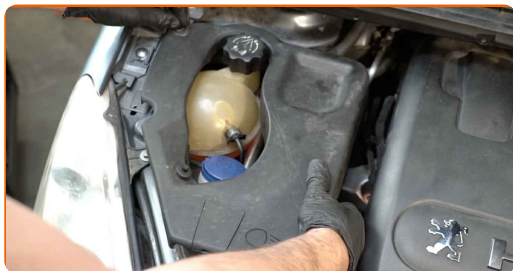
144 Install the engine cover and secure it. Make sure you hear a click indicating that it is locked in place.



AUTODOC recommends:

- Warning! To avoid damaging the fasteners of the car during installation, do not use excessive force. CITROËN C4 I (LC_)
- Make sure the engine cover is properly seated. It should not be displaced with respect to the guiding fasteners and the throttle body air intake hose.
- Be sure to record the mileage at which you replaced the timing belt and water pump kits.

145 Install the coolant tank protective cover.



146 Attach the coolant reservoir using its retainers.



147 Remove the fender protection cover.

148 Close the hood.

WELL DONE! 

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