



How to change water  
pump & timing belt kit  
on **FORD Transit Courier**  
**Van** – replacement guide

**SIMILAR VIDEO TUTORIAL**



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

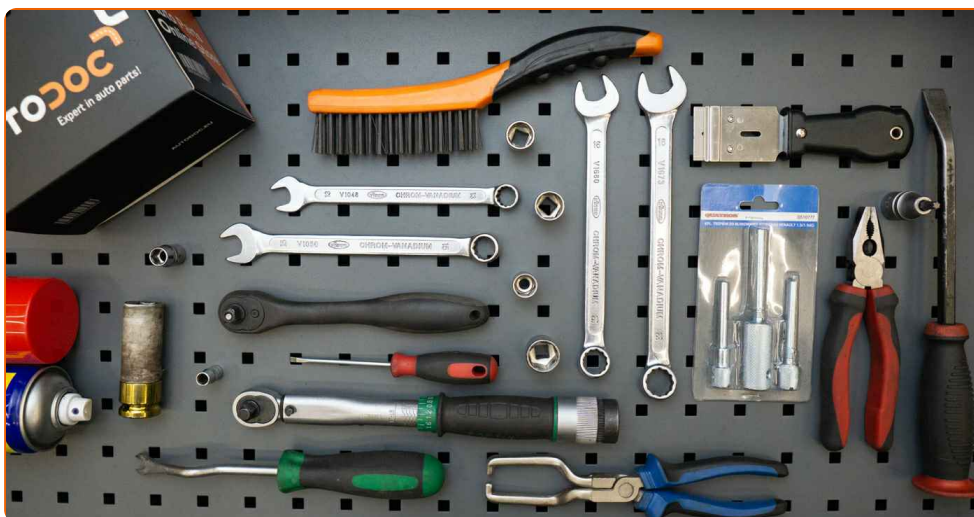
** Important!**

This replacement procedure can be used for:  
 FORD Transit Courier Van 1.6 TDCi, FORD Transit Courier Van 1.5 TDCi

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: FORD Fiesta Mk6 Hatchback (JA8, JR8) 1.6 TDCi

REPLACEMENT: WATER PUMP & TIMING BELT KIT –  
FORD TRANSIT COURIER VAN. LIST OF THE TOOLS  
YOU'LL NEED:



- All-purpose cleaning spray
- WD-40 spray
- Sealant
- Combination spanner #13
- Combination spanner #15
- Combination spanner #16
- HEX bit no.H6.
- Drive socket # 7
- Drive socket # 8
- Drive socket # 10
- Drive socket # 13
- Drive socket # 15
- Drive socket # 16
- Drive socket # 18
- Torx bit T30
- Ratchet wrench
- Torque wrench
- Engine timing tool set
- Funnel
- Clip removal tool
- Flat Screwdriver
- Seal scraper
- Combination pliers
- Crow bar
- Fluid container
- Hydraulic transmission jack
- Fender cover

**Buy tools**

Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
AUTODOC recommends:

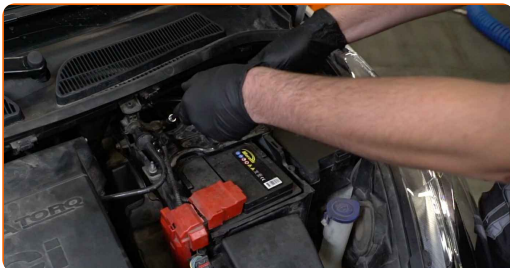
- Follow the terms, recommendations and requirements of the part operation provided by the manufacturer.
- Please note: all work on the car – FORD Transit Courier Van – should be done with the engine switched off.

**CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:**

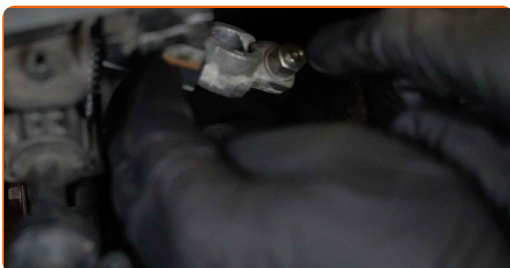
**1** Open the bonnet.

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

**3** Unscrew the fasteners of the car battery terminals. Use a drive socket #10. Use a ratchet wrench.

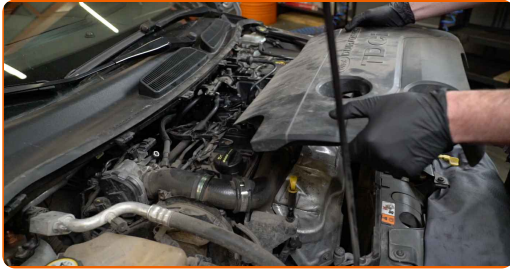


**4** Remove the battery terminals.



5

Remove the engine cover.

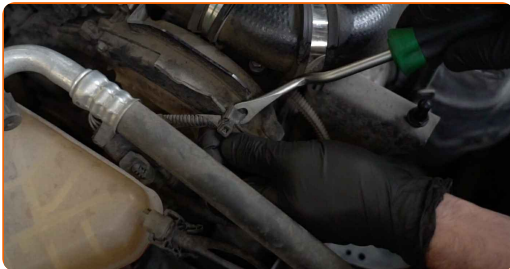


Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
Professionals recommend:

- Raise the engine cover, holding it on two sides simultaneously.
- Do not apply excessive force when removing the part. Otherwise you may damage it.

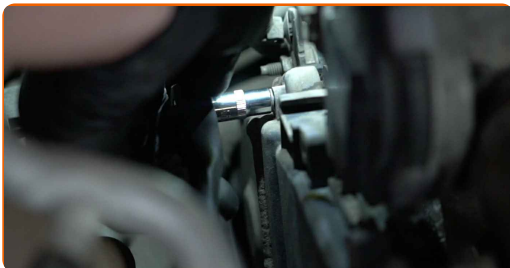
6

Detach the engine wiring harness from the upper timing cover. Use a clip removal tool.



7

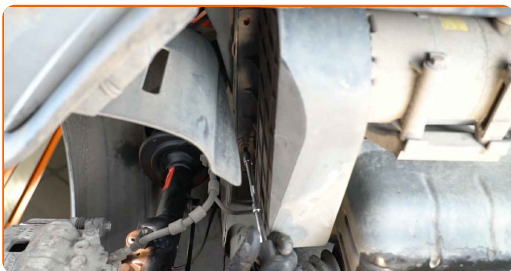
Unscrew the fasteners of the upper timing cover. Use a drive socket #7. Use a ratchet wrench.



**8** Remove the upper timing cover.



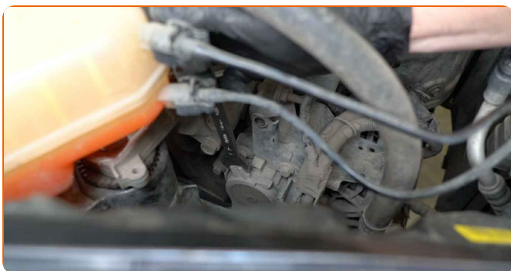
**9** Unscrew the fasteners of the lower serpentine belt cover. Use Torx T30. Use a ratchet wrench.



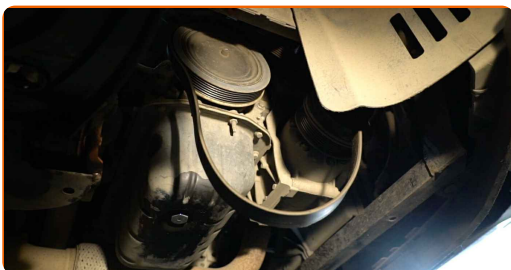
**10** Remove the lower serpentine belt cover.



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



**12** Remove the V-ribbed belt.



**13** Return the tensioner pulley to its initial position.



**14** Disconnect the connector of the air conditioner compressor.



**15** Disconnect the alternator connector.



**16** Remove the cap from the alternator wiring harness fastener.



**17** Unscrew the alternator wiring harness fastener. Use a drive socket #13. Use a ratchet wrench.



**18** Detach the alternator wiring harness.



**19** Detach the alternator wiring harness clip from the bracket. Use a clip removal tool.



**20** Disconnect the engine wiring harness connector.

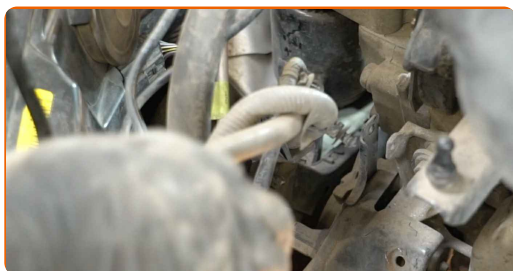


**21** Unscrew the fasteners of the engine wiring harness bracket. Use a drive socket #10. Use a ratchet wrench.

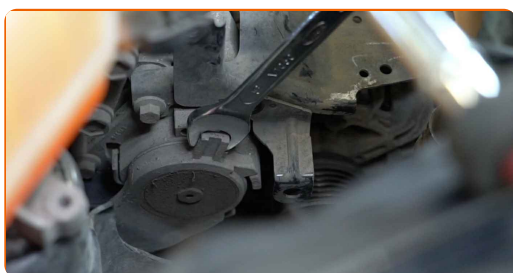




**22** Detach the engine wiring harness clip from the timing cover. Use a clip removal tool.



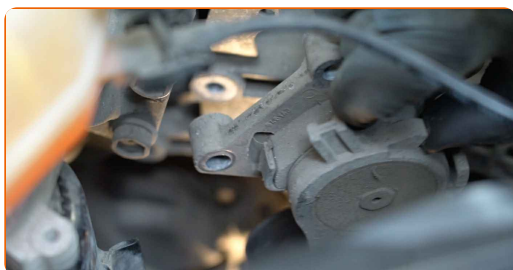
**23** Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #15.



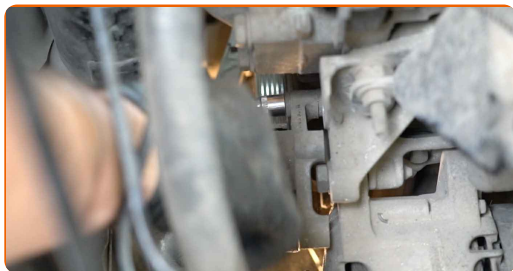
**24** Unscrew the fasteners of the alternator wiring harness bracket. Use a drive socket #10. Use a ratchet wrench.



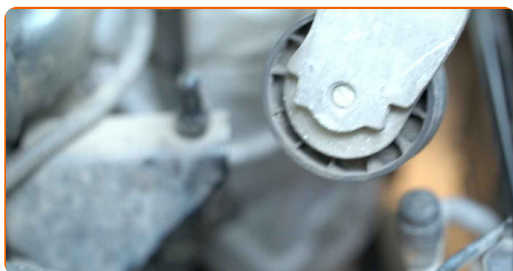
**25** Remove the alternator wiring harness bracket.



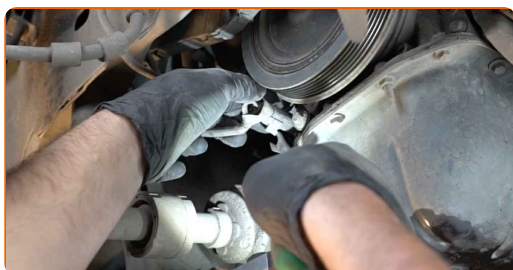
**26** Unscrew the fastener of the serpentine belt tensioner pulley. Use a drive socket #10. Use a ratchet wrench.



**27** Remove the serpentine belt tensioner pulley.

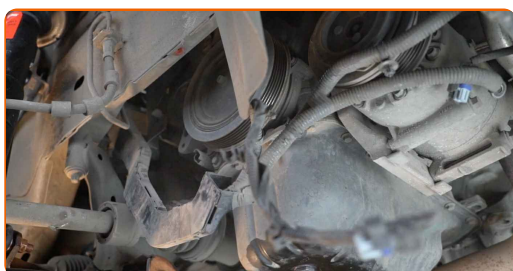


**28** Disconnect the connector of the crankshaft position sensor. Use a clip removal tool.

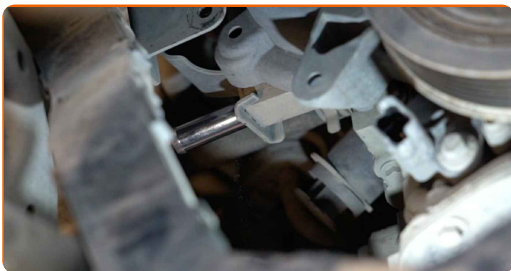


**29** Detach the crankshaft position sensor wiring. Use a clip removal tool.

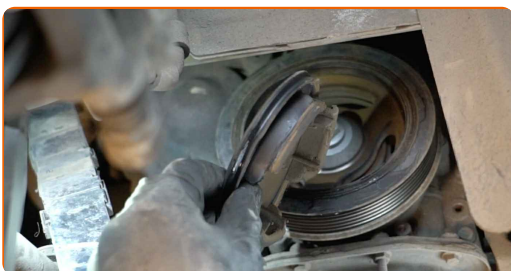
**30** Detach the engine wiring harness.



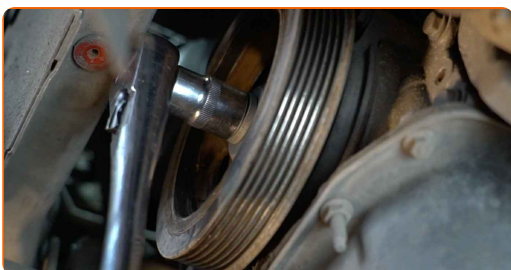
**31** Unscrew the fasteners of the engine wiring harness bracket. Use a drive socket #8. Use a ratchet wrench.



**32** Remove the crankshaft pulley cap. Use a flat screwdriver.



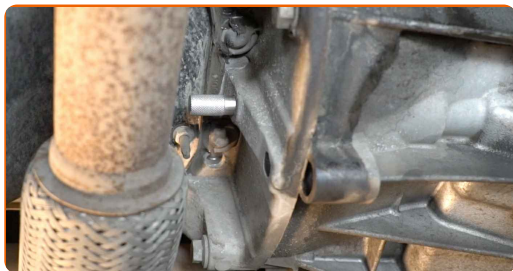
**33** Turn the crankshaft pulley. Use a drive socket #18. Use a ratchet wrench.



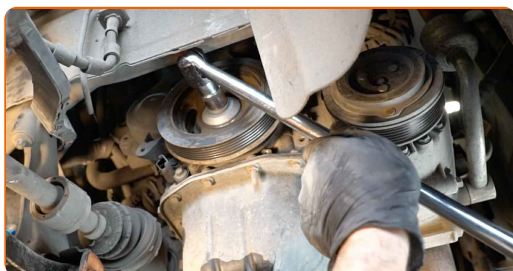
**Please note!**

- The piston should be at its bottom dead centre (BDC).
- Adjust the valve timing according to the factory marks.

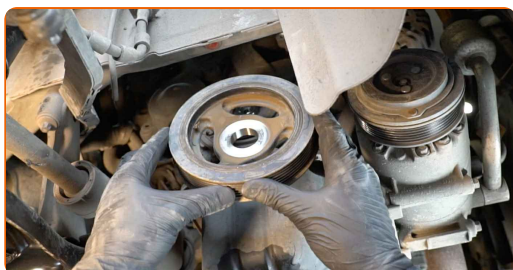
**34** Install the flywheel locking tool according to the factory marks. Use an engine timing tool set.



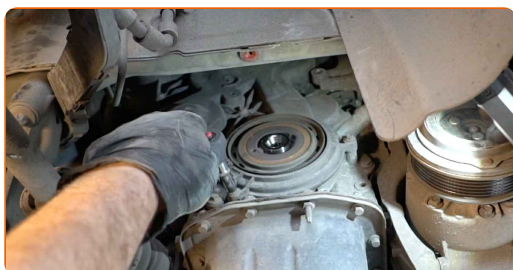
**35** Unscrew the crankshaft pulley fastener. Use a drive socket #18. Use a ratchet wrench.



**36** Remove the crankshaft pulley.



**37** Unscrew the fasteners of the lower timing cover. Use a drive socket #7. Use a ratchet wrench.



**38** Remove the lower timing cover.



**39** Unscrew the fastener of the crankshaft position sensor. Use a drive socket #8. Use a ratchet wrench.



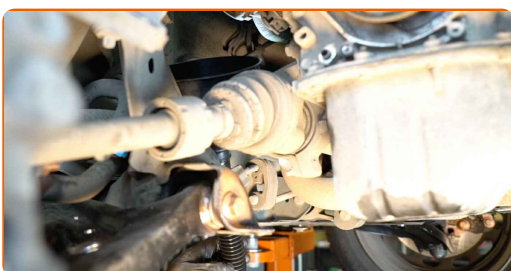
**40** Remove the crankshaft position sensor.



**41** Unscrew the coolant reservoir cap.



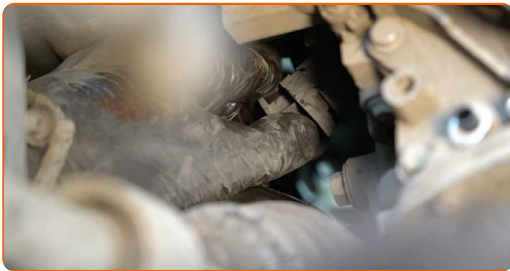
**42** Prepare a container for fluids.



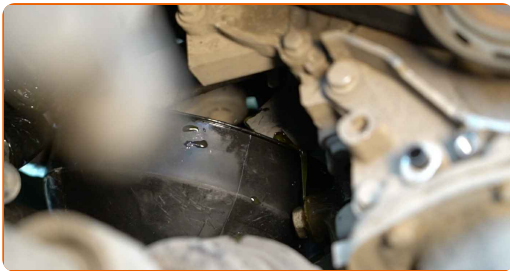
**43** Clean the coolant drain plug. Use all-purpose cleaning spray.



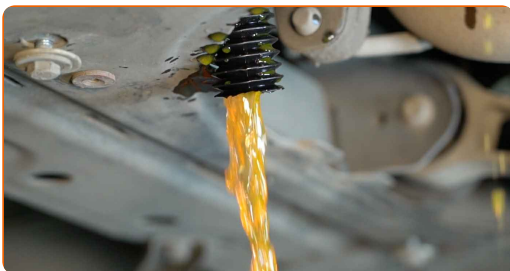
**44** Remove the coolant drain plug retaining clip.



**45** Remove the coolant drain plug.



**46** Drain the coolant from the engine.



Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
AUTODOC recommends:

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

47

Clean the connectors of the coolant hoses. Use all-purpose cleaning spray.



48

Detach the coolant hoses from the coolant reservoir.



49

Detach the clamp of the lower coolant pipe. Use combination pliers.



**50** Detach the lower coolant pipe.



**51** Unscrew the fasteners of the air conditioner piping bracket. Use a drive socket #10. Use a ratchet wrench.



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



**53** Remove the coolant reservoir.





54

Remove the flywheel locking tool. Use an engine timing tool set.



55

Turn the crankshaft gear. Use a drive socket #18. Use a ratchet wrench.

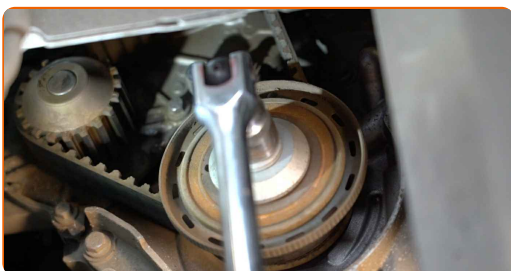


Please note!

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

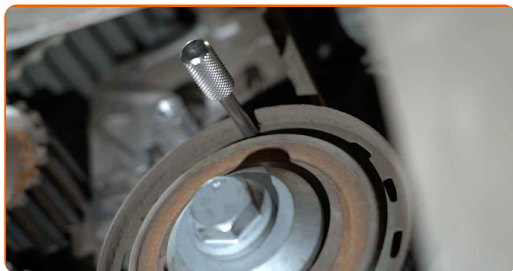
56

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



57

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



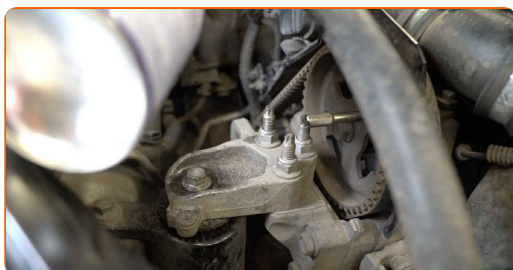
58

Support the engine in the oil pan area. Use a hydraulic transmission jack.



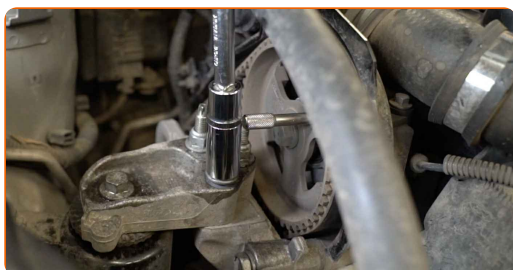
59

Clean the engine mount fasteners. Use WD-40 spray.

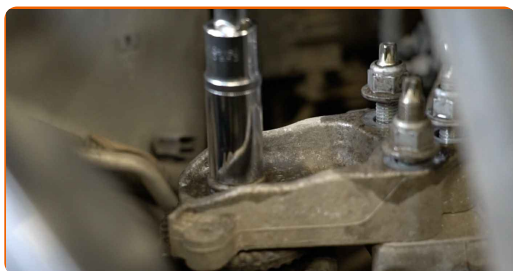


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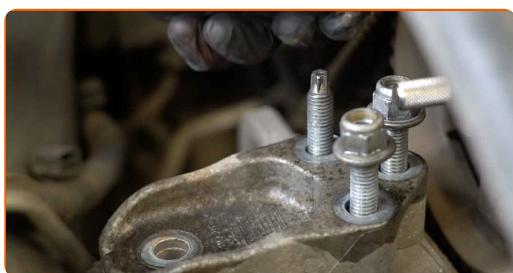
Unscrew the upper fastener of the engine mount. Use a drive socket #15. Use a ratchet wrench.



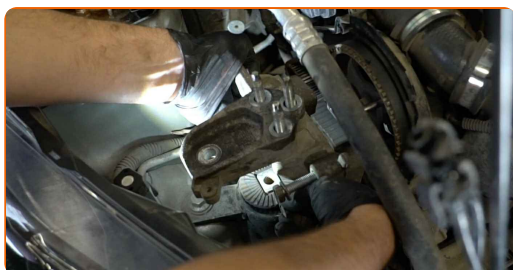
**61** Unscrew the engine mount fasteners. Use a drive socket #16. Use a ratchet wrench.



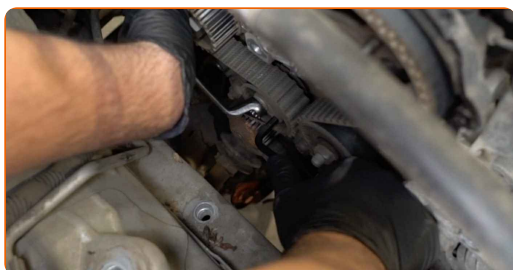
**62** Remove the fastening bolts.



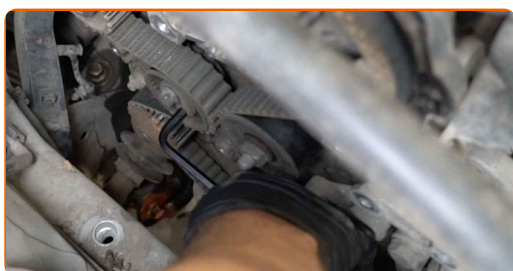
**63** Remove the engine mount.



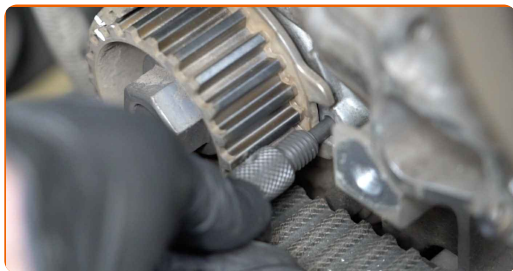
**64** Loosen the fastener of the timing belt tensioner pulley. Use a combination spanner #13. Use HEX No.H6.



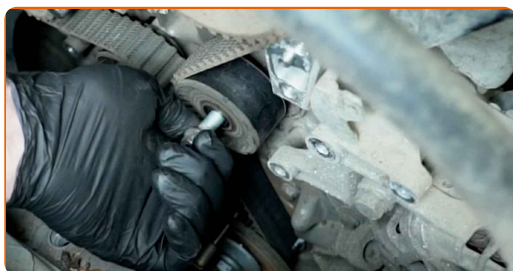
**65** Pull aside the timing belt tensioner pulley.



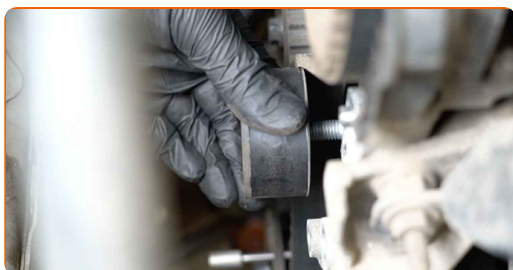
**66** Install the timing belt tensioner pulley locking tool. Use an engine timing tool set.



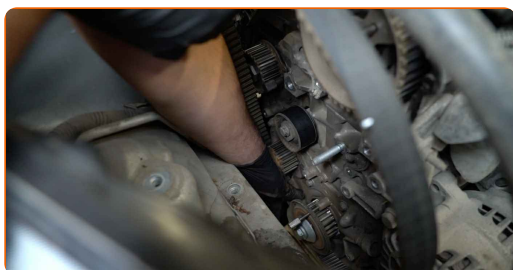
**67** Unscrew the fastener of the timing belt idler pulley. Use a combination spanner #16.



**68** Remove the timing belt idler pulley from its mounting seat.



**69** Remove the timing belt.

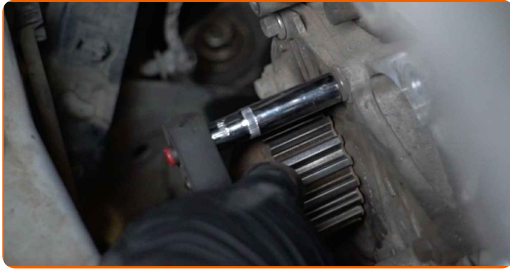


**70** Remove the timing belt tensioner pulley.



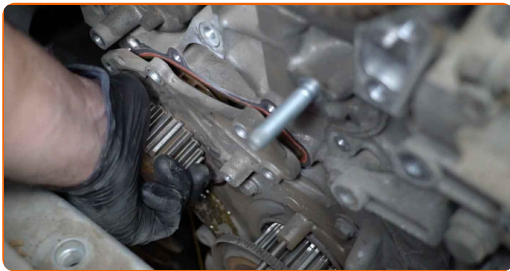
71

Unscrew the water pump fasteners. Use a drive socket #8. Use a ratchet wrench.



72

Remove the water pump. Use a crowbar.

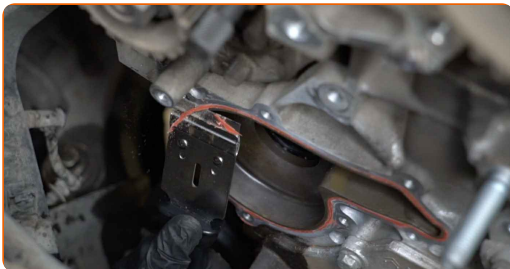


Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
AUTODOC experts recommend:

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

73

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



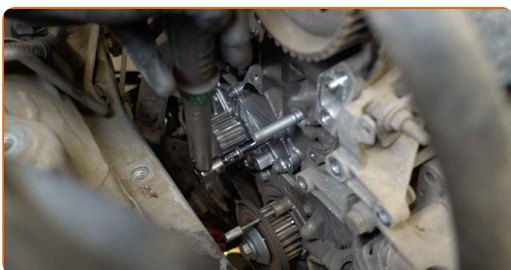
**74** Install the water pump gasket.



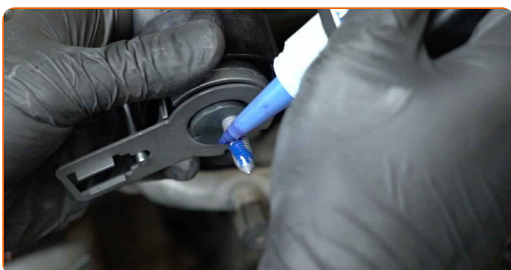
**75** Install the new water pump.



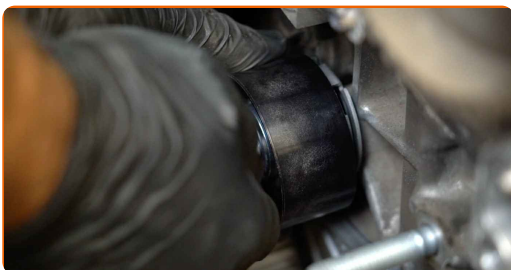
**76** Tighten the water pump fasteners. Use a drive socket #8. Use a torque wrench. Tighten it to 10 Nm torque.



**77** Treat the fastening bolt. Use a sealant.



**78** Install the timing belt tensioner pulley.



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



**80** Install the timing belt idler pulley.



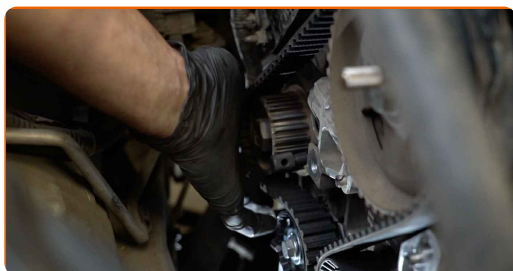
**81** Treat the fastening bolt. Use a sealant.



**82** Tighten the fastener of the timing belt idler pulley. Use a drive socket #16. Use a torque wrench. Tighten it to 37 Nm torque.



**83** Install the new timing belt.



Replacement: water pump & timing belt kit – FORD Transit Courier Van. Tip from AUTODOC:

- Be careful not to damage the timing belt.

84

Adjust the timing belt tension by moving the tensioner pulley.



AUTODOC recommends:

- Make sure that the timing belt is properly tensioned.

85

Tighten the fastener of the timing belt tensioner pulley. Use a combination spanner #13. Use HEX No.H6. Use a torque wrench. Tighten it to 30 Nm torque.



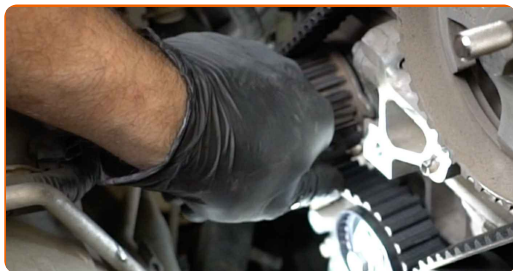
86

Remove the timing belt tensioner pulley locking tool.

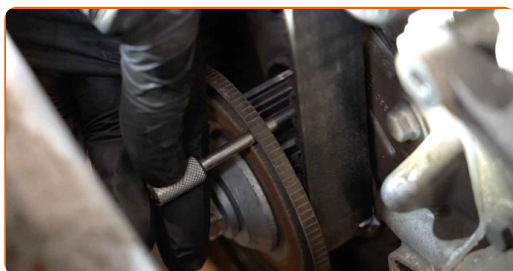




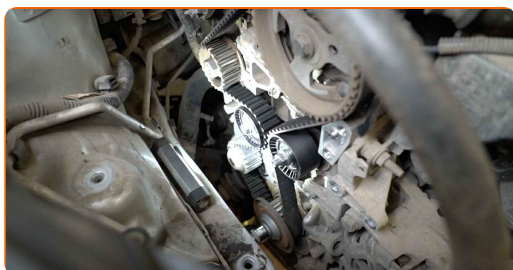
**87** Remove the camshaft gear locking tool.



**88** Remove the crankshaft gear locking tool.



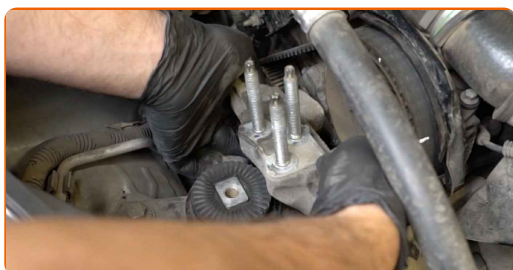
**89** Turn the crankshaft pulley. Use a drive socket #18. Use a ratchet wrench.



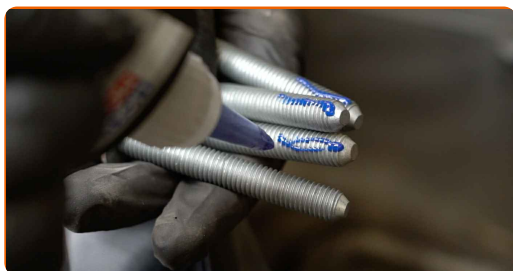
Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
Professionals recommend:

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

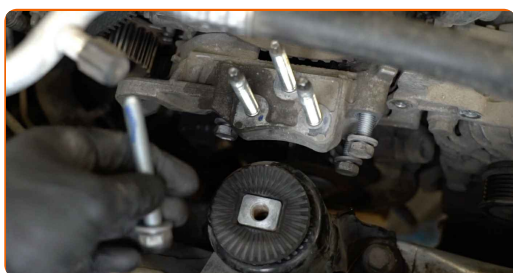
**90** Install the engine mount to its mounting seat.



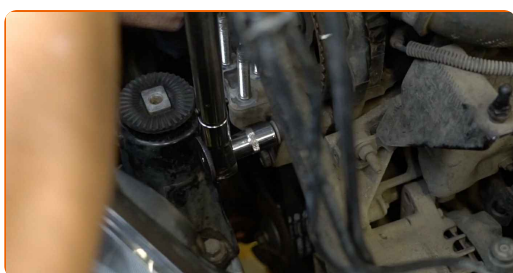
**91** Treat the engine mount fasteners. Use a sealant.



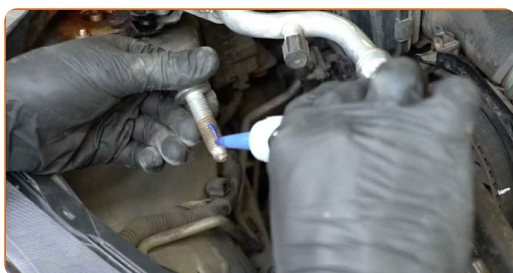
**92** Install the fastening bolts.



**93** Tighten the engine mount fastening bolts. Use a drive socket #16. Use a torque wrench. Tighten it to 55 Nm torque.

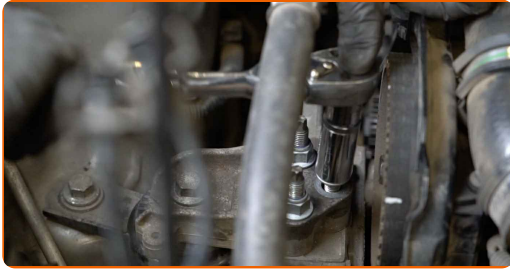


**94** Treat the fastening bolts. Use a sealant.



95

Screw in the upper fasteners of the engine mount. Use a drive socket #15. Use a ratchet wrench.



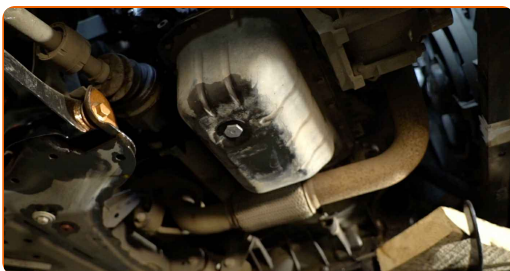
96

Tighten the upper fastener of the engine mount. Use a drive socket #15. Use a torque wrench. Tighten it to 50 Nm torque.



97

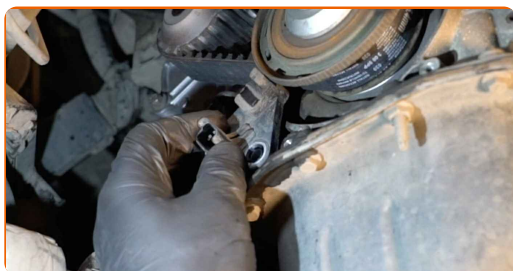
Remove the support from under the engine.



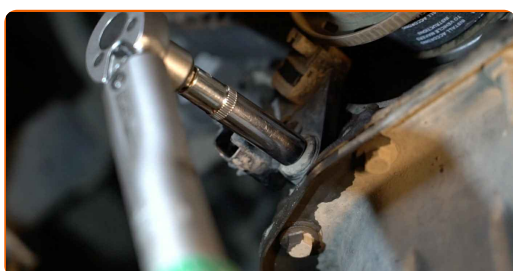
**AUTODOC recommends:**

- FORD Transit Courier Van – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

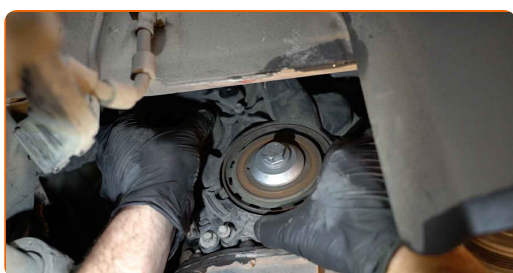
**98** Install the crankshaft position sensor.



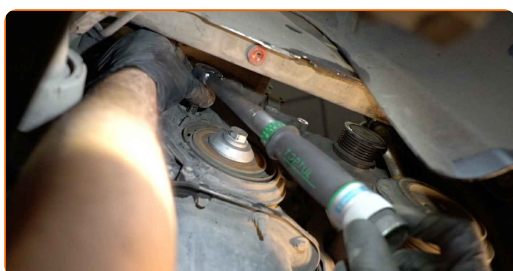
**99** Tighten the fastener of the crankshaft position sensor. Use a drive socket #8. Use a torque wrench. Tighten it to 9 Nm torque.



**100** Install the lower timing cover.

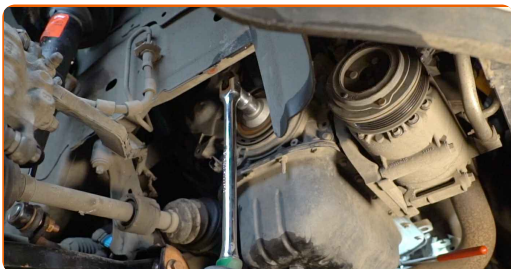


**101** Tighten the fasteners of the lower timing cover. Use a drive socket #7. Use a torque wrench. Tighten it to 6 Nm torque.



102

Turn the crankshaft gear. Use a drive socket #18. Use a ratchet wrench.

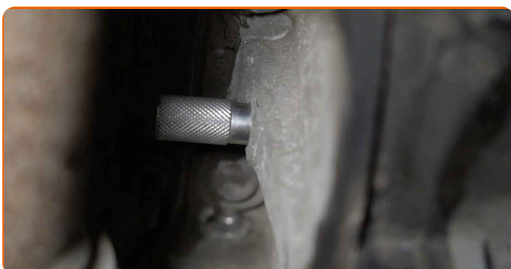


Please note!

- The piston should be at its bottom dead centre (BDC).
- Adjust the valve timing according to the factory marks.

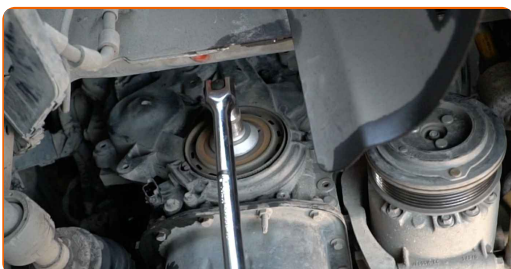
103

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



104

Unscrew the crankshaft pulley fastener. Use a drive socket #18. Use a ratchet wrench.



105

Install the crankshaft pulley according to the factory marks.



106

Tighten the crankshaft pulley fastener. Use a drive socket #18. Use a torque wrench. Tighten it to 35 Nm torque.+190°



**AUTODOC recommends:**

- Important! Be sure to use new fasteners.

107

Remove the flywheel locking tool.



108

Install the serpentine belt tensioner pulley.



**109** Install the alternator wiring harness bracket.



**110** Screw in the fasteners of the engine wiring harness bracket. Screw in the fasteners of the alternator wiring harness bracket. Use a drive socket #10. Use a ratchet wrench.



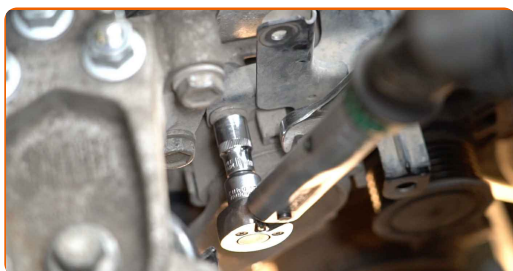
**111** Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #15.



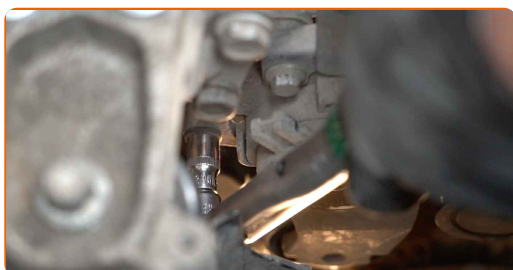
**112** Screw in the fastener of the serpentine belt tensioner pulley. Use a drive socket #10. Use a ratchet wrench.



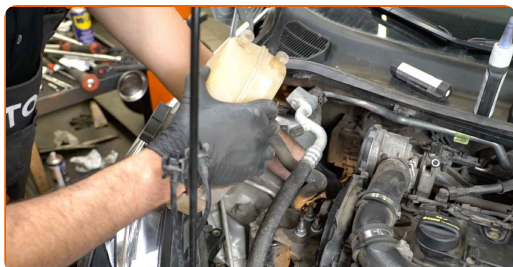
- 113** Tighten the fasteners of the engine wiring harness bracket. Tighten the fasteners of the alternator wiring harness bracket. Use a drive socket #10. Use a torque wrench. Tighten it to 14 Nm torque.



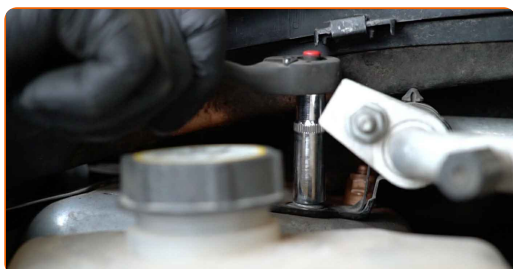
- 114** Tighten the fastener of the serpentine belt tensioner pulley. Use a drive socket #10. Use a torque wrench. Tighten it to 16 Nm torque.



- 115** Install the coolant reservoir. Make sure you hear a click indicating that it is locked in place.



- 116** Screw in the fasteners of the air conditioner piping bracket. Use a drive socket #10. Use a ratchet wrench.





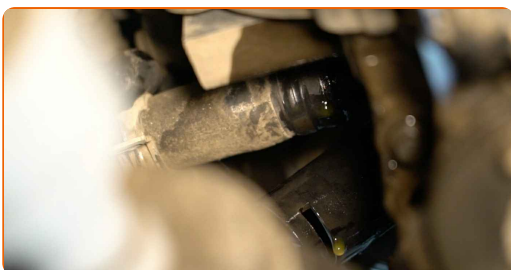
**117** Attach the coolant hoses to the coolant reservoir.



**118** Clean the lower coolant pipe mounting seat. Use all-purpose cleaning spray.



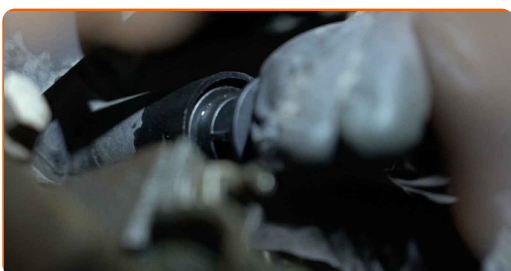
**119** Attach the lower coolant pipe.



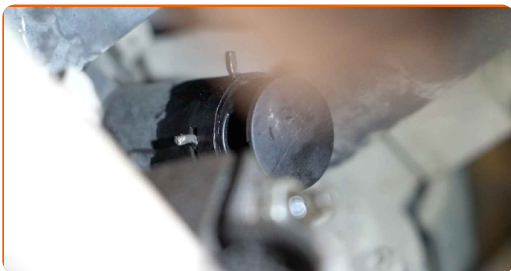
**120** Attach the clamp of the lower coolant pipe. Use combination pliers.



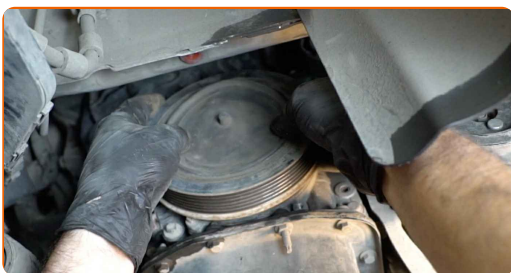
**121** Install the coolant drain plug.



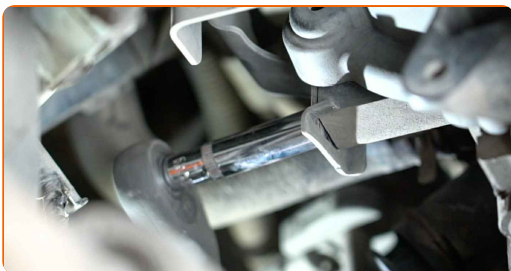
**122** Install the coolant drain plug retaining clip.



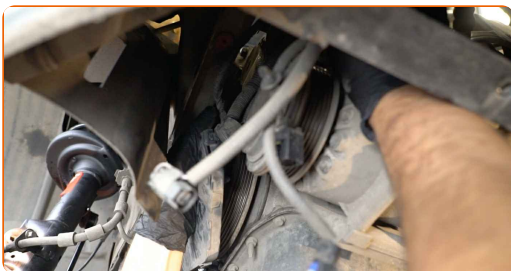
**123** Install the crankshaft pulley cap.



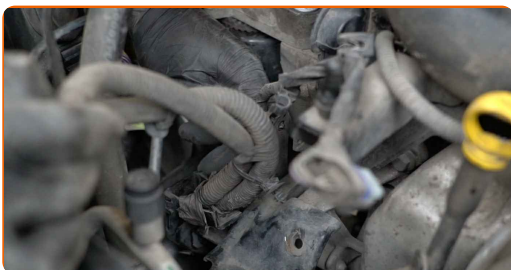
**124** Screw in the fasteners of the engine wiring harness bracket. Use a drive socket #8. Use a ratchet wrench.



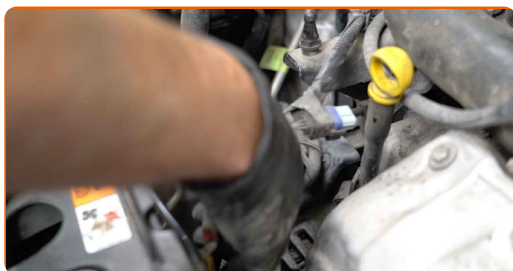
**125** Attach the engine wiring harness.



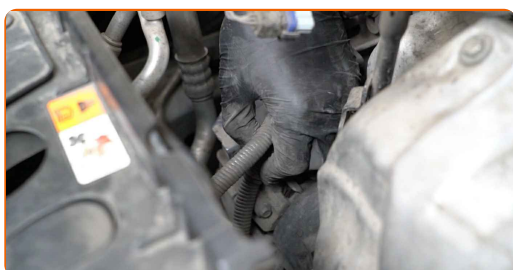
**126** Attach the alternator wiring harness.



**127** Attach the engine wiring harness clip to the timing cover.



**128** Attach the alternator wiring harness clip to the bracket.



**129** Connect the connector of the crankshaft position sensor.



**130** Attach the crankshaft position sensor wiring.



**131** Screw in the alternator wiring harness fastener. Use a drive socket #13. Use a ratchet wrench.



**132** Install the cap on the alternator wiring harness fastener.



**133** Connect the connector of the air conditioner compressor.



**134** Connect the alternator connector.



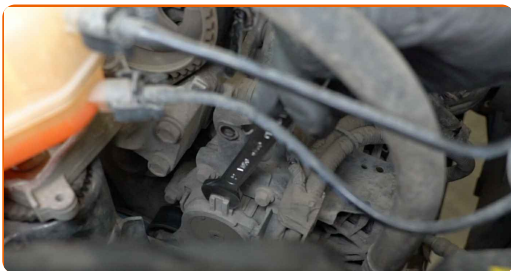
**135** Install the V-ribbed belt.



Replacement: water pump & timing belt kit – FORD Transit Courier Van. Tip from AUTODOC experts:

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

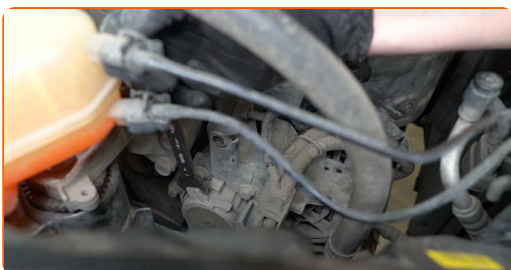
**136** Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #15.



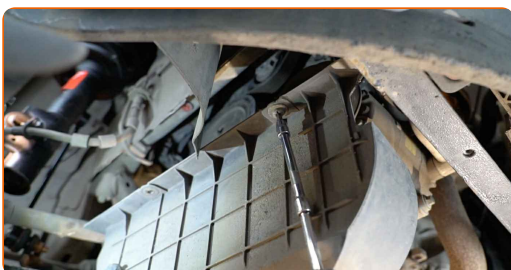
**137** Place the V-ribbed belt on the tensioner pulley.



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

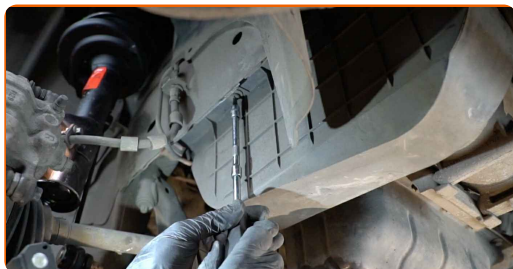


**139** Install the lower serpentine belt cover.



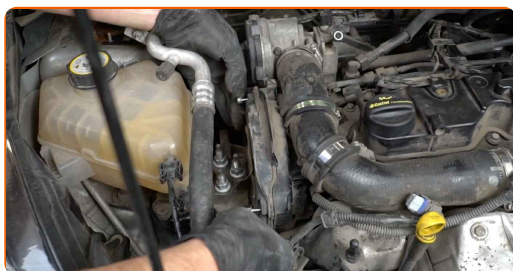
140

Screw in the fasteners of the lower serpentine belt cover. Use Torx T30. Use a ratchet wrench.



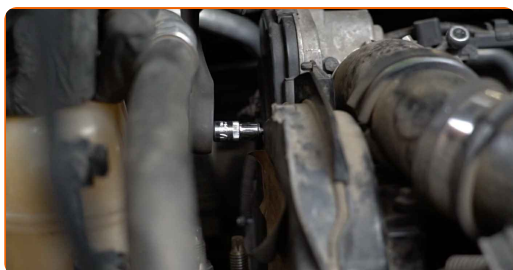
141

Install the upper timing cover.



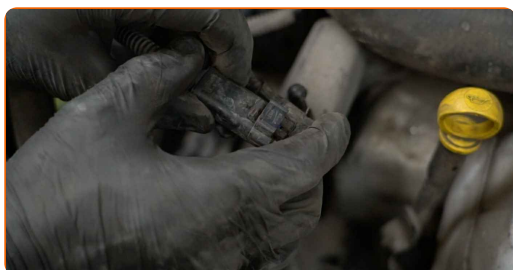
142

Screw in the fasteners of the upper timing cover. Use a drive socket #7. Use a ratchet wrench.



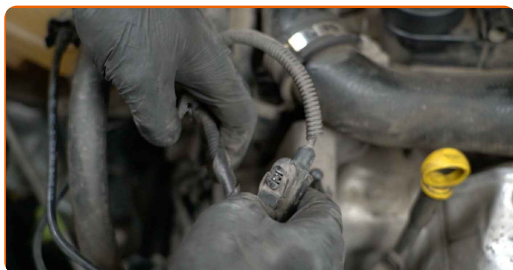
143

Attach the engine wiring harness to the upper timing cover.



144

Connect the engine wiring harness connector.



**145** Remove the coolant reservoir cap.



**146** Insert the funnel.



**147** Pour coolant in the coolant reservoir.



**Replacement: water pump & timing belt kit – FORD Transit Courier Van. Tip:**

- Only use the coolant recommended by the manufacturer.
- The coolant level should be at the MAX mark.
- Wait until the air goes out of the system.

**148** Install the coolant reservoir cap.



**149** Screw on the coolant reservoir cap.



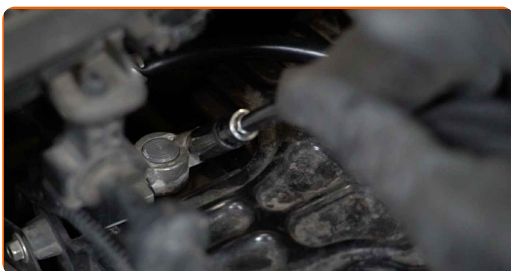
**150** Attach the terminals to the battery.



Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
AUTODOC experts recommend:

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

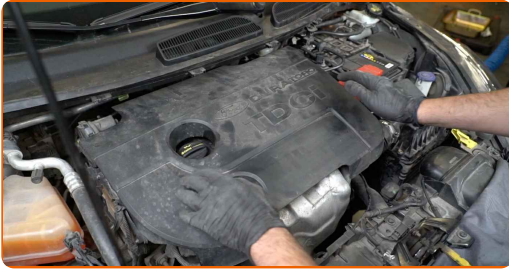
**151** Screw in the fasteners of the battery terminals. Use a drive socket #10. Use a ratchet wrench.





152

Install the engine cover and secure it.



**AUTODOC recommends:**

- Make sure the engine cover is properly seated. It should not be displaced with respect to the guiding fasteners.
- Warning! To avoid damaging the fasteners of the car during installation, do not use excessive force. FORD Transit Courier Van

153

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.



154

Shut off the engine.

155

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



**Please note!**

- The coolant level should be at the MAX mark.

**156**

Remove the fender protection cover.

**157**

Close the hood.

Replacement: water pump & timing belt kit – FORD Transit Courier Van.  
Professionals recommend:

- Be sure to record the mileage at which you replaced the timing belt and water pump kits.

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