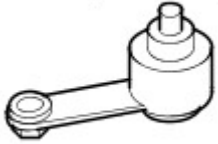



Accessory Drive - TDV6 3.0L Diesel - Rear End Accessory Drive (READ)

Removal and Installation

Special Tool(s)

 <p>303-1117 E54540</p>	<p>303-1117 Timing Peg, Automatic Transmission</p>
 <p>E116926</p>	<p>310-212 Rear End Accessory Drive (READ) belt Timing Tool</p>

Removal

WARNINGS:



Do not carry or operate cellular phones when working on or near any fuel related components. Highly flammable vapors are always present and may ignite. Failure to follow these instructions may result in personal injury.



Do not carry out any repairs to the fuel system with the engine running. The fuel pressure within the system can be as high as 1650 bar (23,931 lb-sq-in). Failure to follow this instruction may result in personal injury.



Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel related components. Highly flammable vapors are always present and may ignite. Failure to follow these instructions may result in personal injury.



This procedure involves fuel handling. Be prepared for fuel spillage at all times and always observe fuel handling precautions. Failure to follow these instructions may result in personal injury.

CAUTIONS:



Make sure the workshop area in which the vehicle is being worked on is as clean and as dust free as possible. Foreign matter from work on clutches, brakes or from machining or welding operations can contaminate the fuel system and may result in later malfunction.



Always carry out the cleaning process before carrying out any repairs to the fuel injection system components. Failure to follow this instruction may result in foreign matter ingress to the fuel injection system.



Diesel fuel injection equipment is manufactured to very precise tolerances and fine clearances. It is therefore essential that absolute cleanliness is observed when working with these components. Always install blanking plugs to any open orifices or lines. Failure to follow this instruction may result in foreign matter ingress to the fuel injection system.



Do not disassemble or clean inside the fuel pump, even with an ultrasonic cleaner. Always install a new fuel pump when required.

1. Disconnect the battery ground cable.

Refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

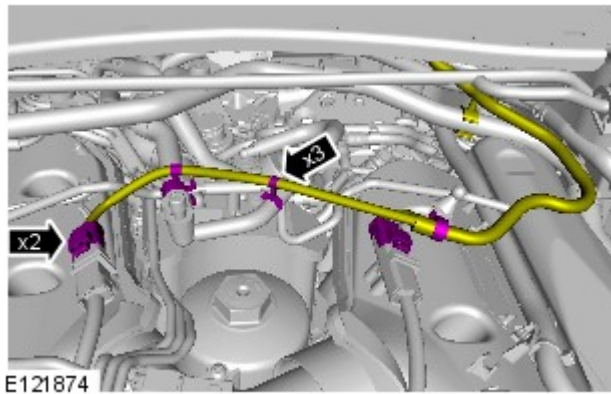
2. Refer to: [Engine Cover - TDV6 3.0L Diesel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

3.  **WARNING:** Make sure to support the vehicle with axle stands.

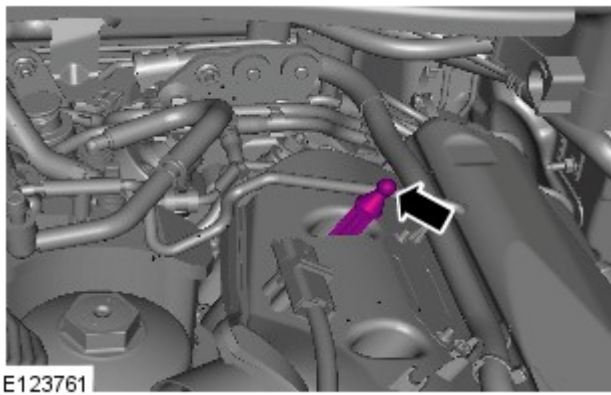
Raise and support the vehicle.

4. Refer to: [Starter Motor](#) (303-06B Starting System - TDV6 3.0L Diesel, Removal and Installation).

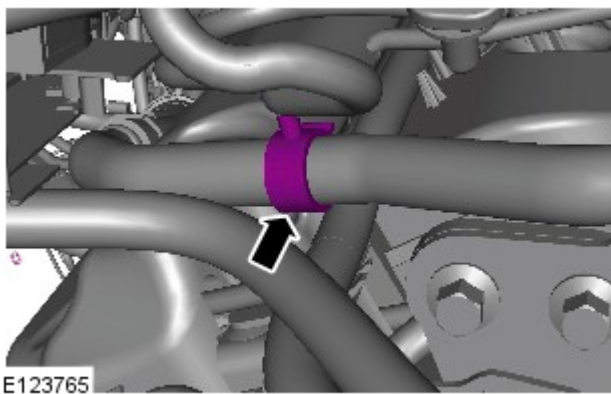
5. Lower the vehicle.



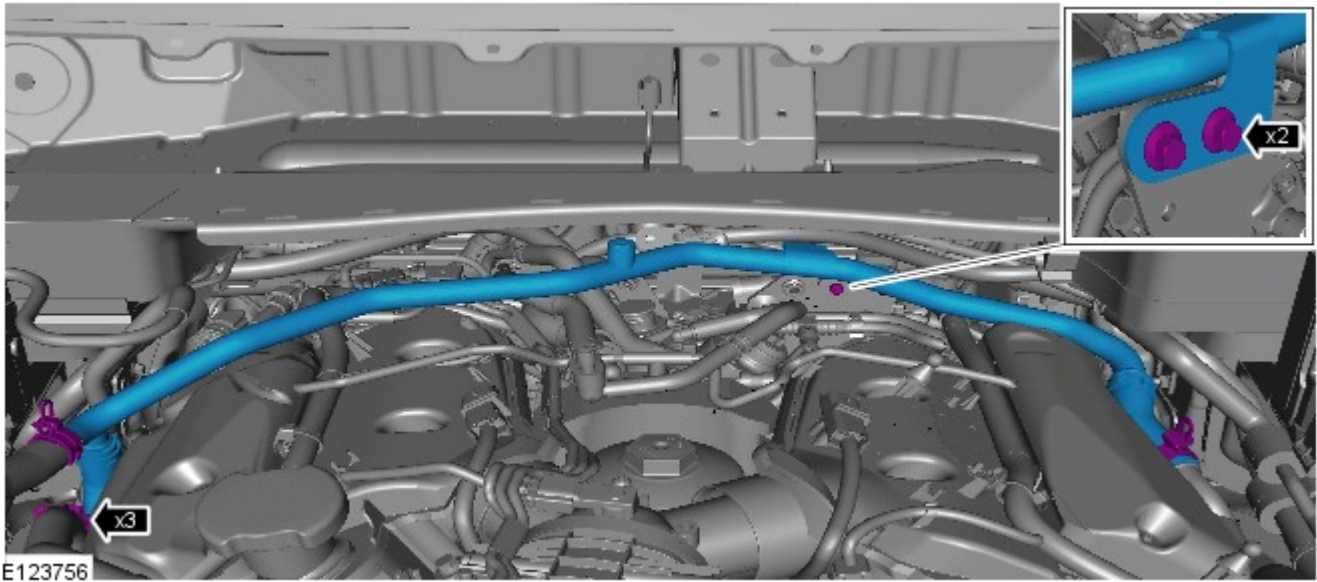
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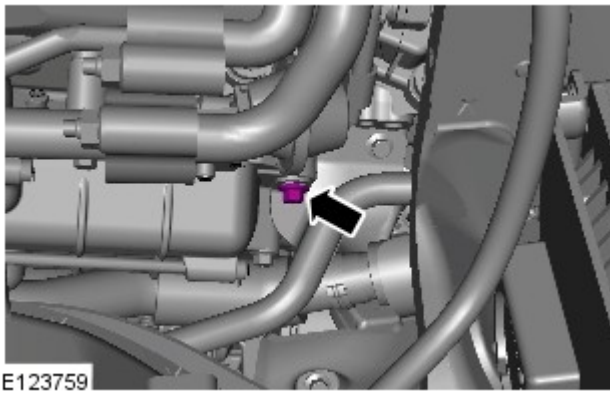
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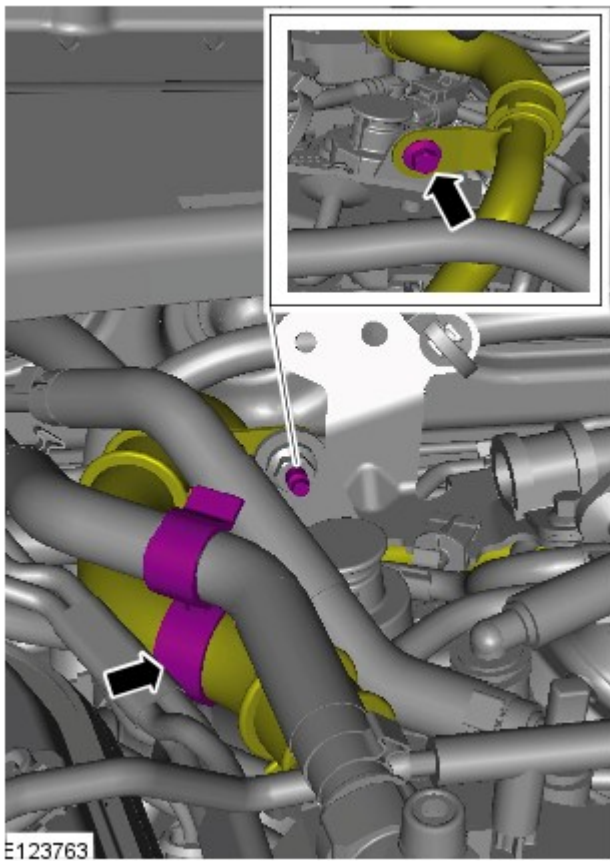
8.  **NOTE:** Engine shown removed for clarity.

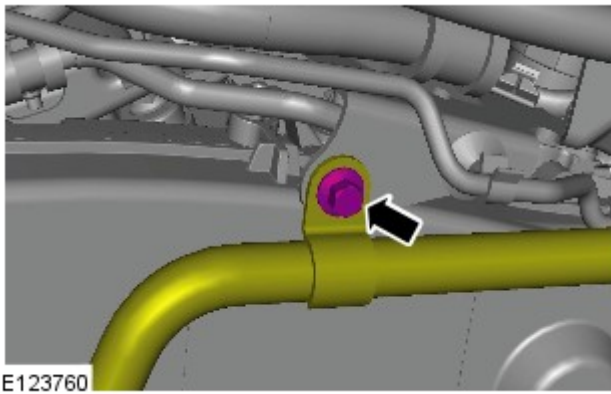



10.

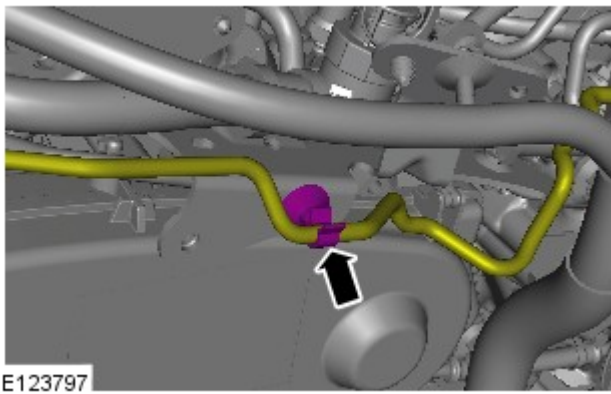



11.

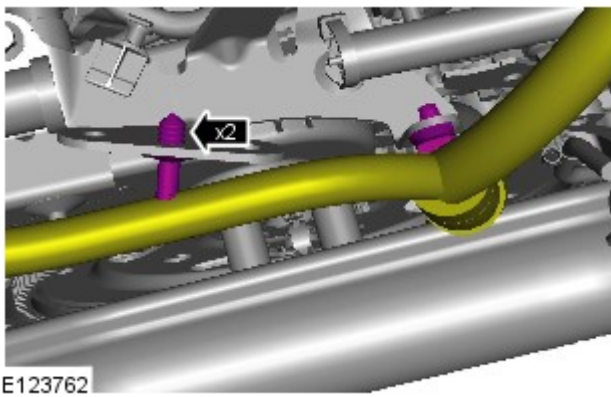





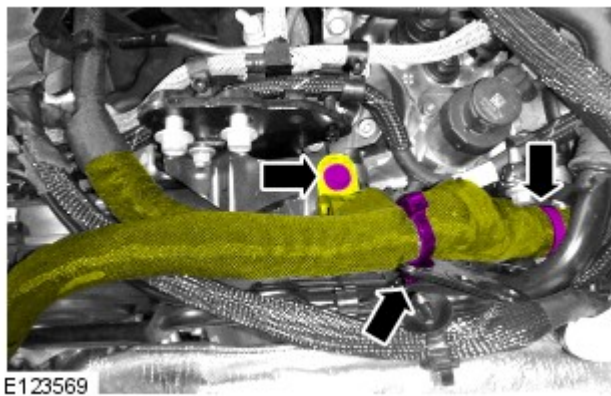
12.  NOTE: Engine shown removed for clarity.




13.  NOTE: Engine shown removed for clarity.

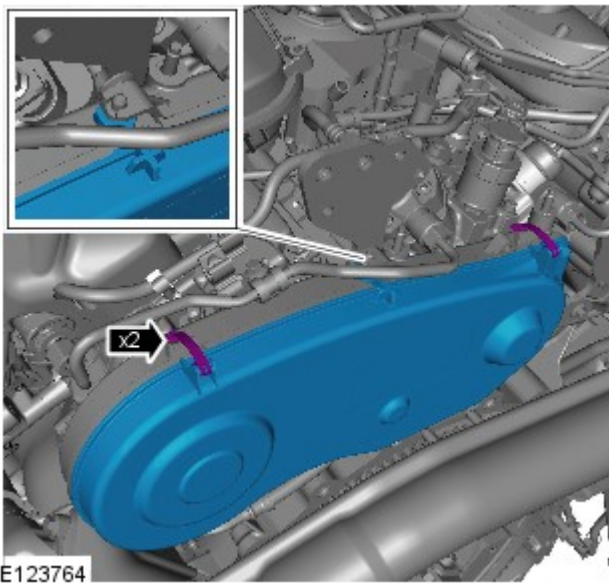
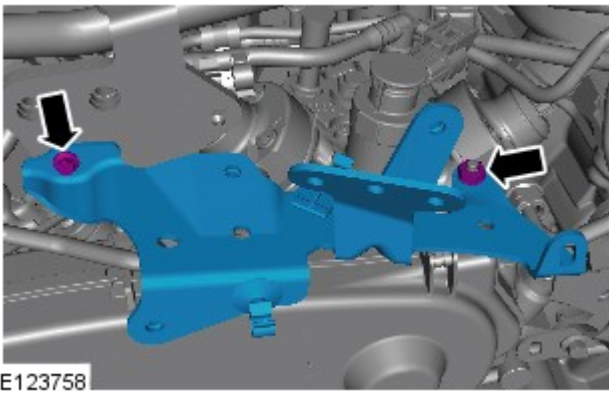
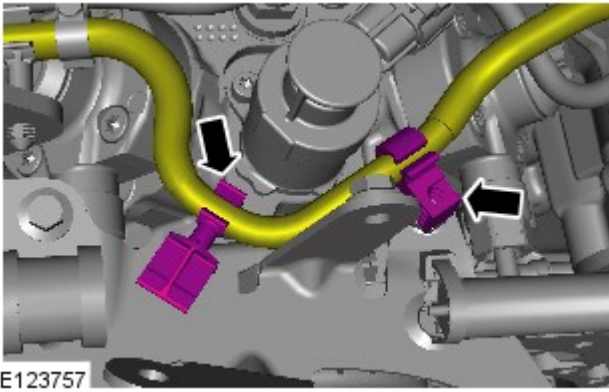



14.  NOTE: Engine shown removed for clarity.



15.  NOTE: Engine shown removed for clarity.

16.  NOTE: Engine shown removed for clarity.



17.  NOTE: Engine shown removed for clarity.

18.

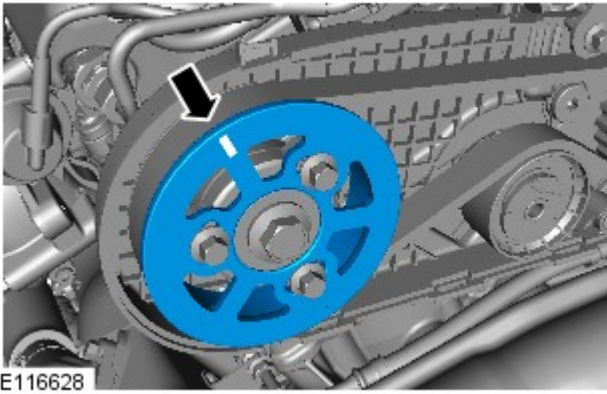
19.  CAUTION: Only rotate the crankshaft clockwise.

NOTES:

 This step requires the aid of another technician.

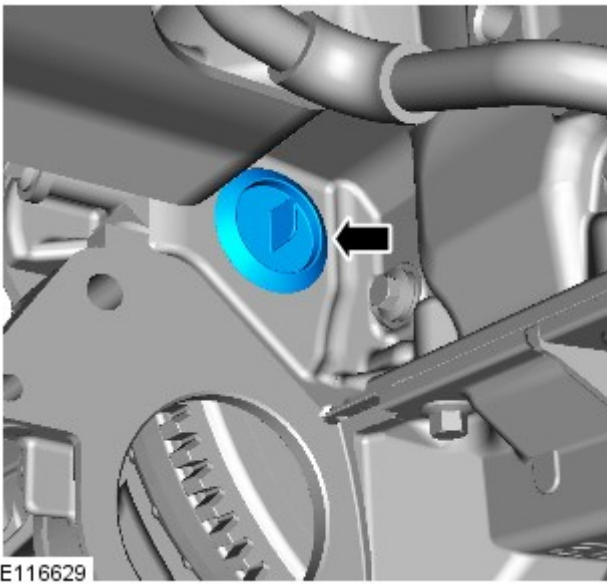
 Engine shown removed for clarity.

Rotate the crankshaft until the mark on the rear camshaft pulley is in the illustrated position.

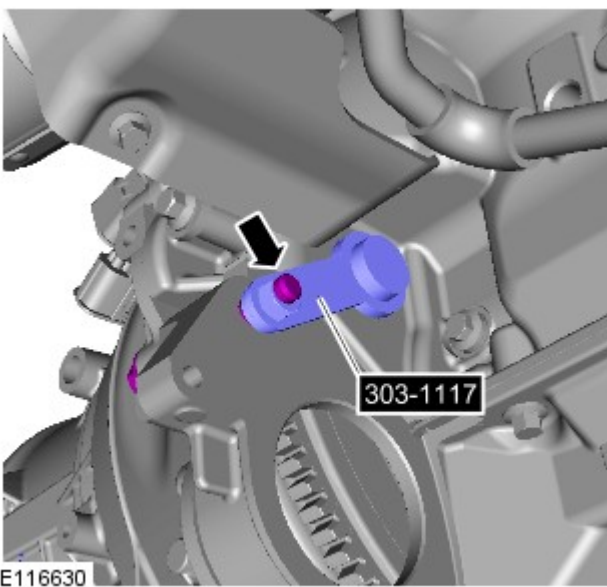


20.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

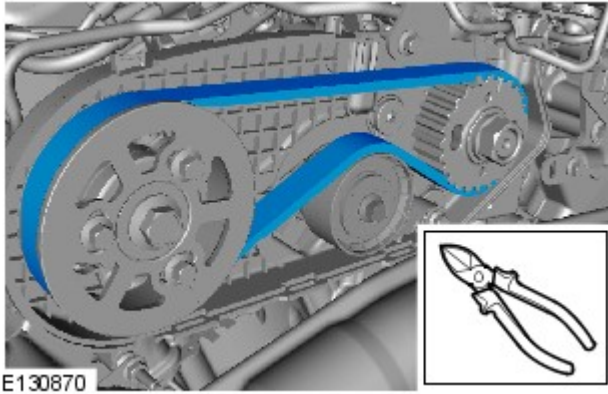



21.

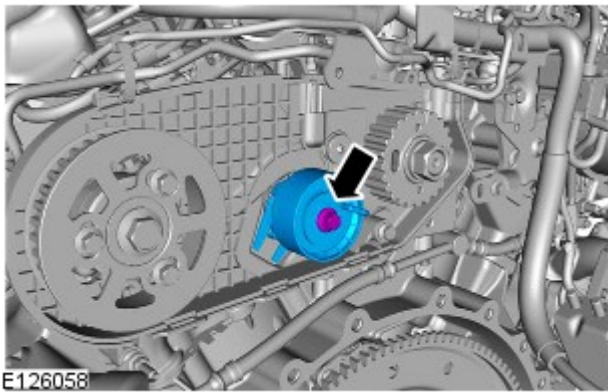



- 22.
- Install the special tool.
 - *Special Tool(s):* [303-1117](#)

23. Lower the vehicle.

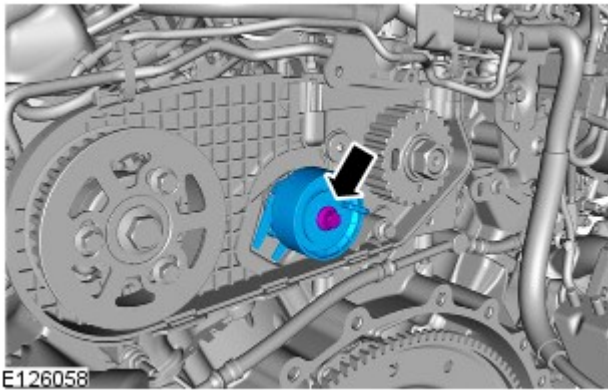



24.  NOTE: Engine shown removed for clarity.




25.  NOTE: Engine shown removed for clarity.

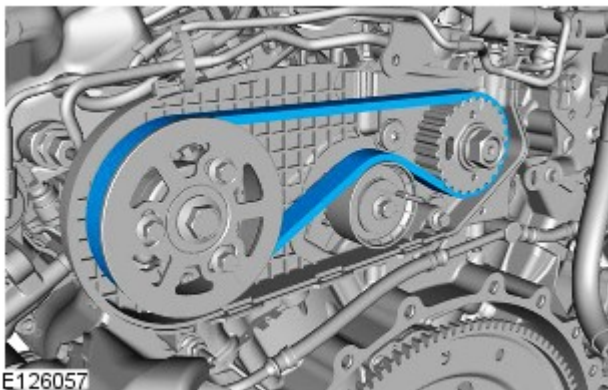
Installation




1.  CAUTION: Make sure that the READ belt tensioner tang is correctly located to the READ belt rear cover. Failure to follow this instruction may result in damage to the engine.


 NOTE: Make sure that the rear end accessory drive (READ) belt tensioner locking pin is not removed until the READ belt tensioner is fully installed.

- Torque: 23 Nm

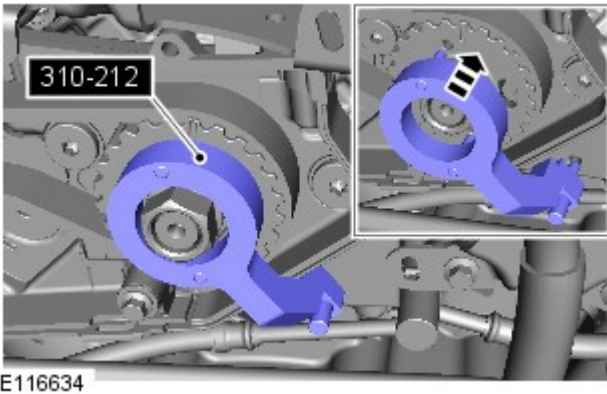


2.  CAUTION: Do not install the new READ belt to the pulleys with the READ belt tensioner installed. Failure to follow this instruction may result in damage to the READ belt.

NOTES:

 The READ rotates in a counter-clockwise direction when viewed from the rear of the engine.

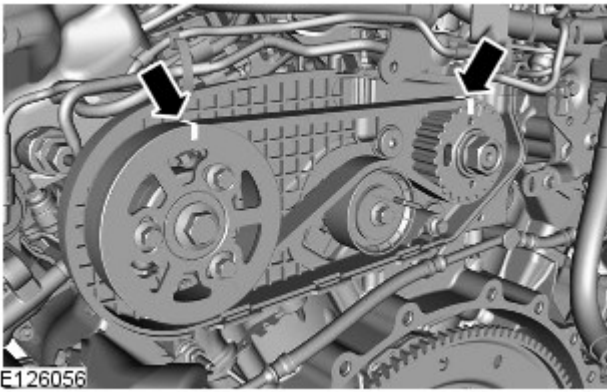
 Make sure the new READ belt is correctly seated onto the camshaft and fuel pump pulleys.




3.  NOTE: Engine shown removed for clarity.

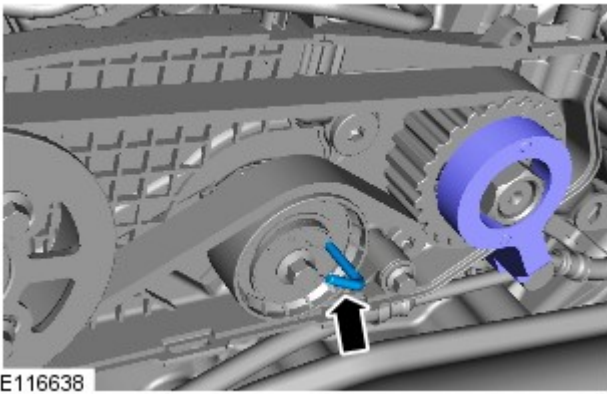
Install the special tool.

Special Tool(s): [310-212](#)

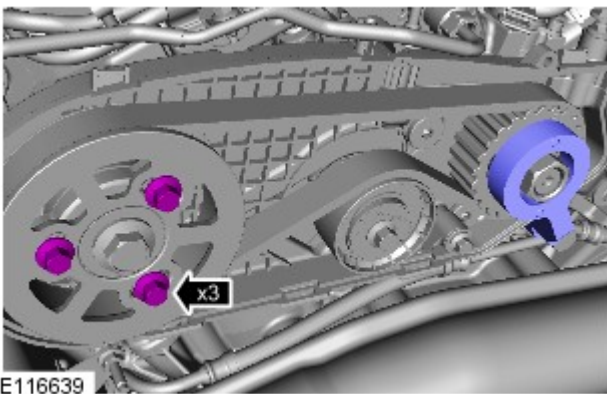


4.  NOTE: Make sure that the READ belt tensioner locking pin is not removed until the READ belt tensioner is fully installed.

Make sure that the READ belt is aligned with the marks on the rear camshaft pulley and READ pulley as illustrated.



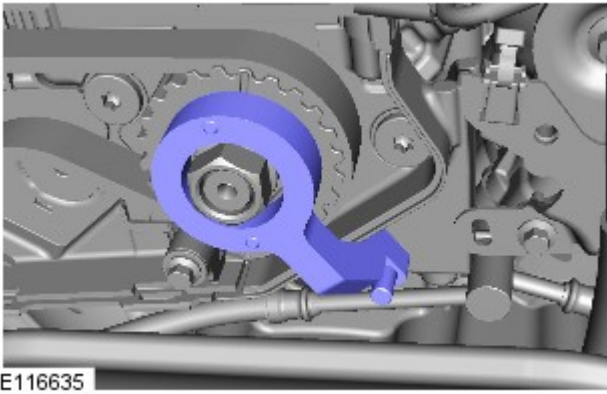
5.  NOTE: Engine shown removed for clarity.



6.  NOTE: Engine shown removed for clarity.

Torque: 23 Nm

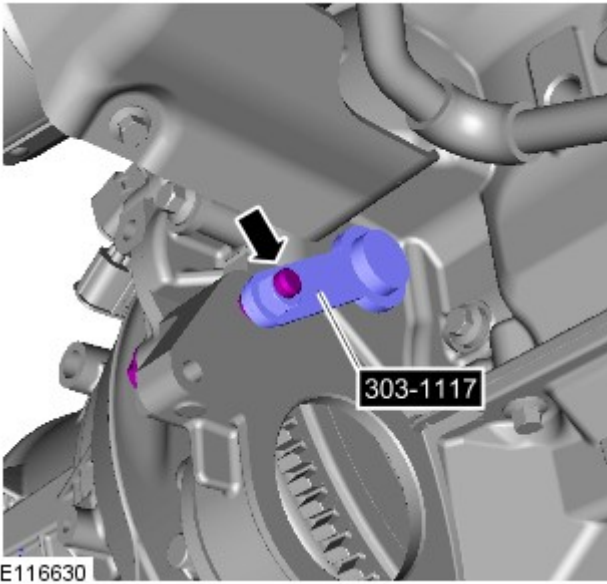
7.  NOTE: Engine shown removed for clarity.



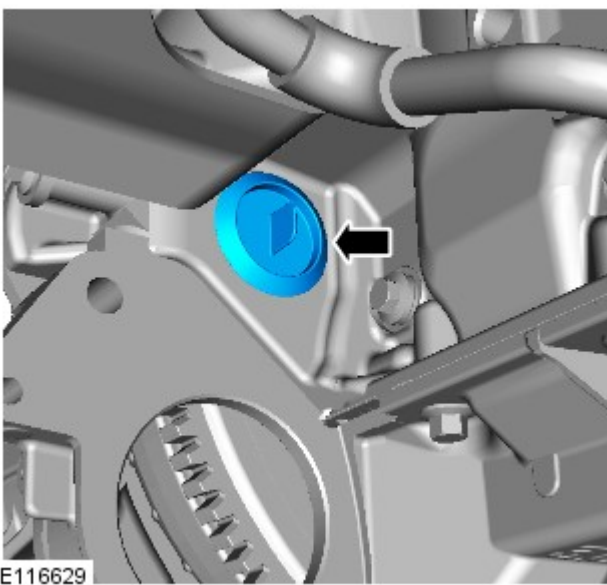
- Remove the special tool.

8.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

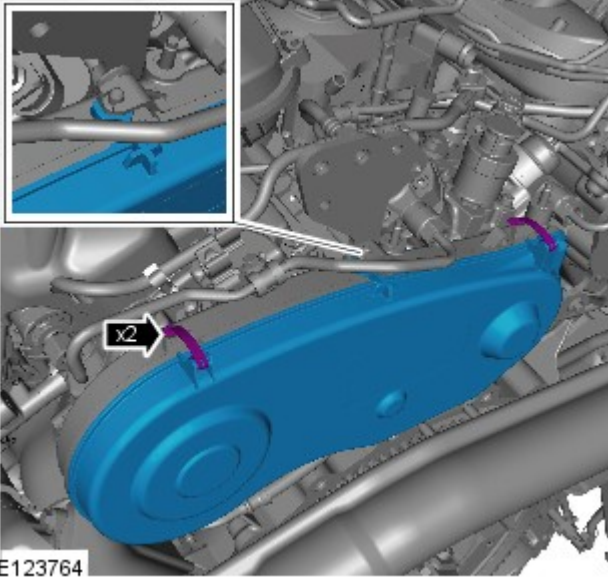


9. Remove the special tool.

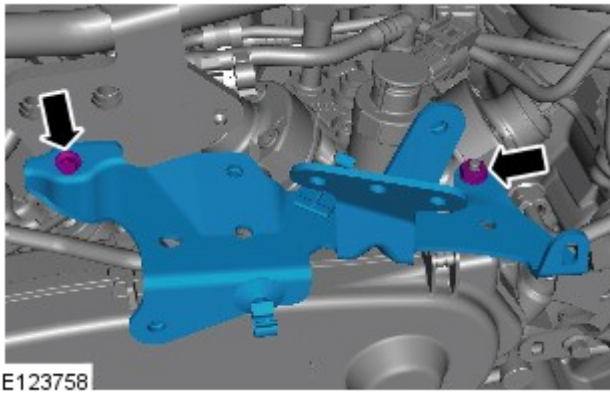



- 10.

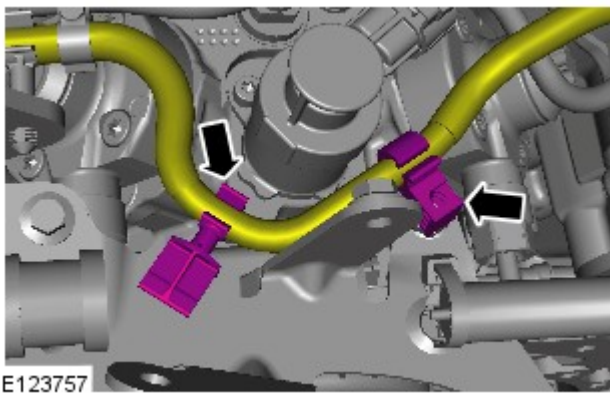
11. Lower the vehicle.




12.

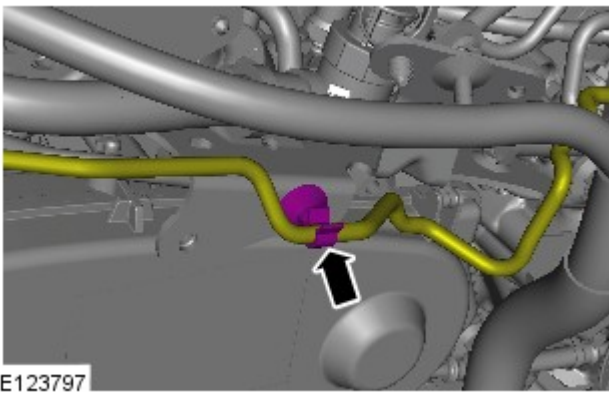
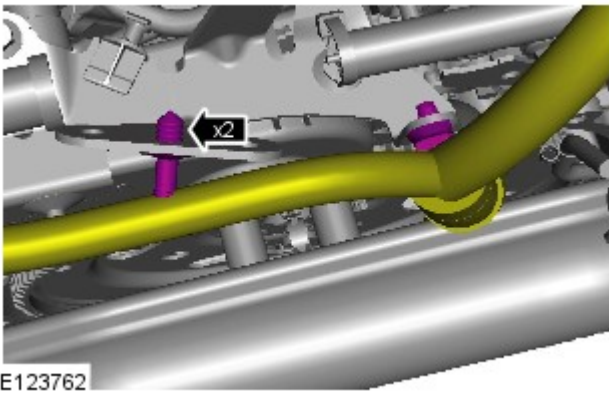
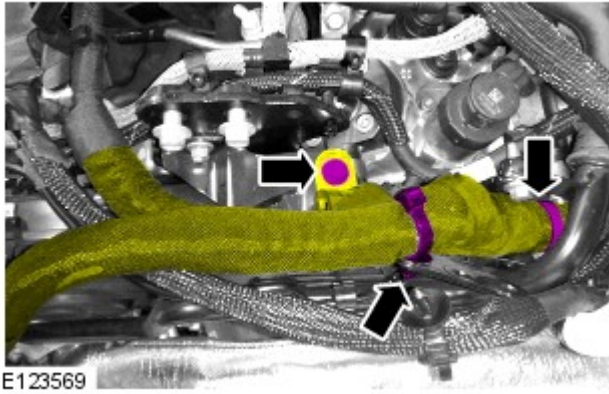
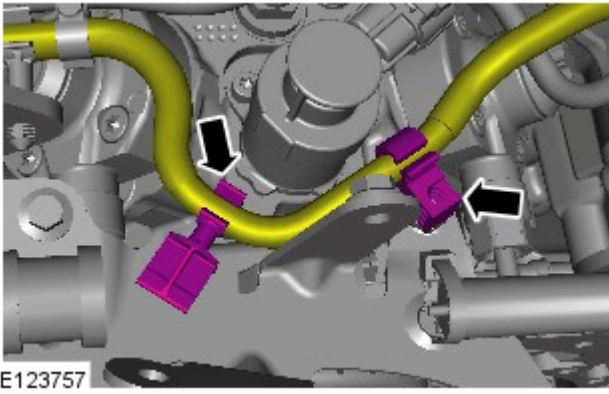



13.  NOTE: Engine shown removed for clarity.
- Torque: 10 Nm




14.  NOTE: Engine shown removed for clarity.


15.  NOTE: Engine shown removed for clarity.



16.  NOTE: Engine shown removed for clarity.

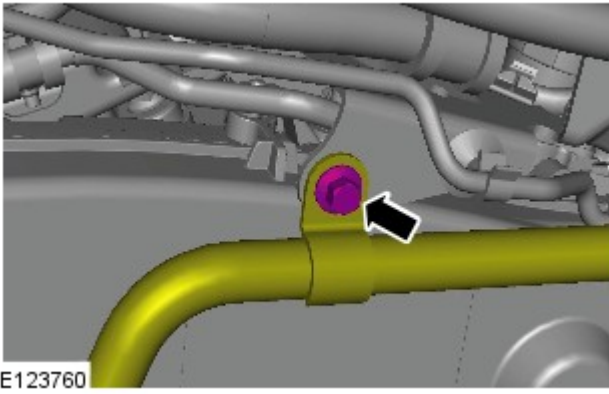
- Torque: 5 Nm

17.  NOTE: Engine shown removed for clarity.

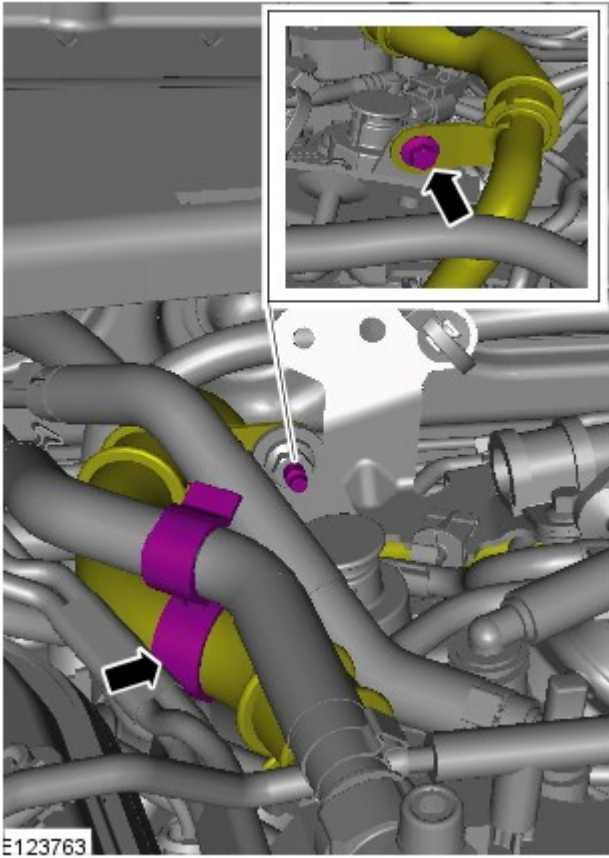
18.  NOTE: Engine shown removed for clarity.

19.  NOTE: Engine shown removed for clarity.

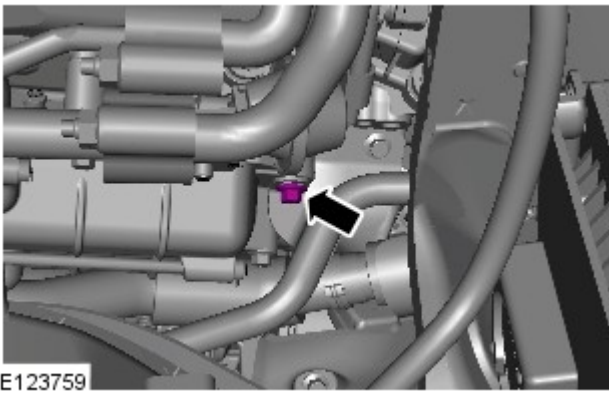
- Torque: 10 Nm

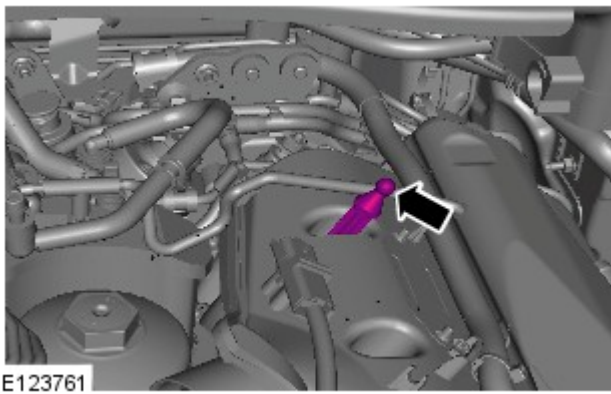
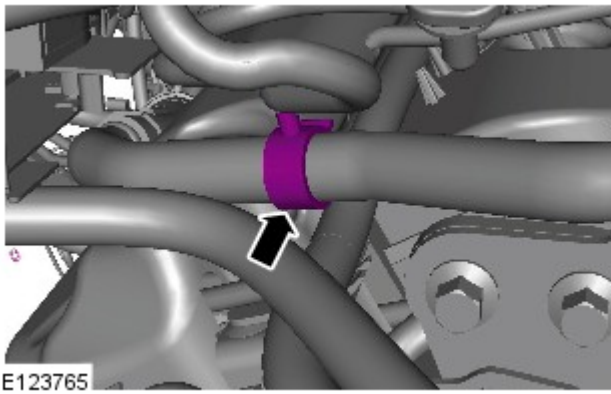
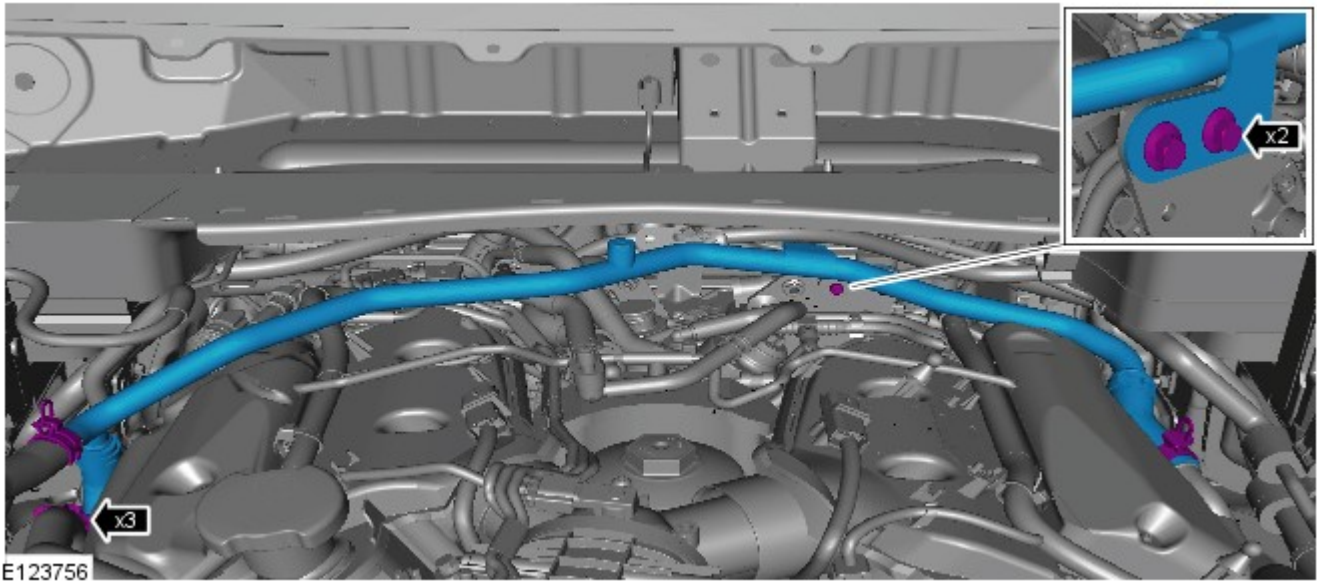



- 20.
- Torque: 10 Nm



- 21.
- Torque: 10 Nm



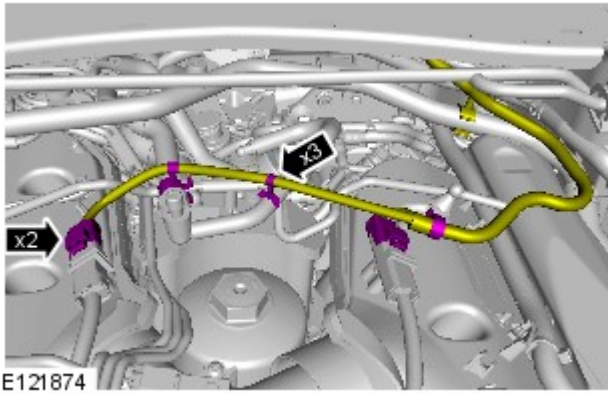


23.  NOTE: Engine shown removed for clarity.

24.

- Torque: 5 Nm

25.



26.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

27. Refer to: [Starter Motor](#) (303-06B Starting System - TDV6 3.0L Diesel, Removal and Installation).

28. Lower the vehicle.

29. Refer to: [Engine Cover - TDV6 3.0L Diesel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

30. Connect the battery ground cable.

Refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

31. Check and top-up the coolant.