

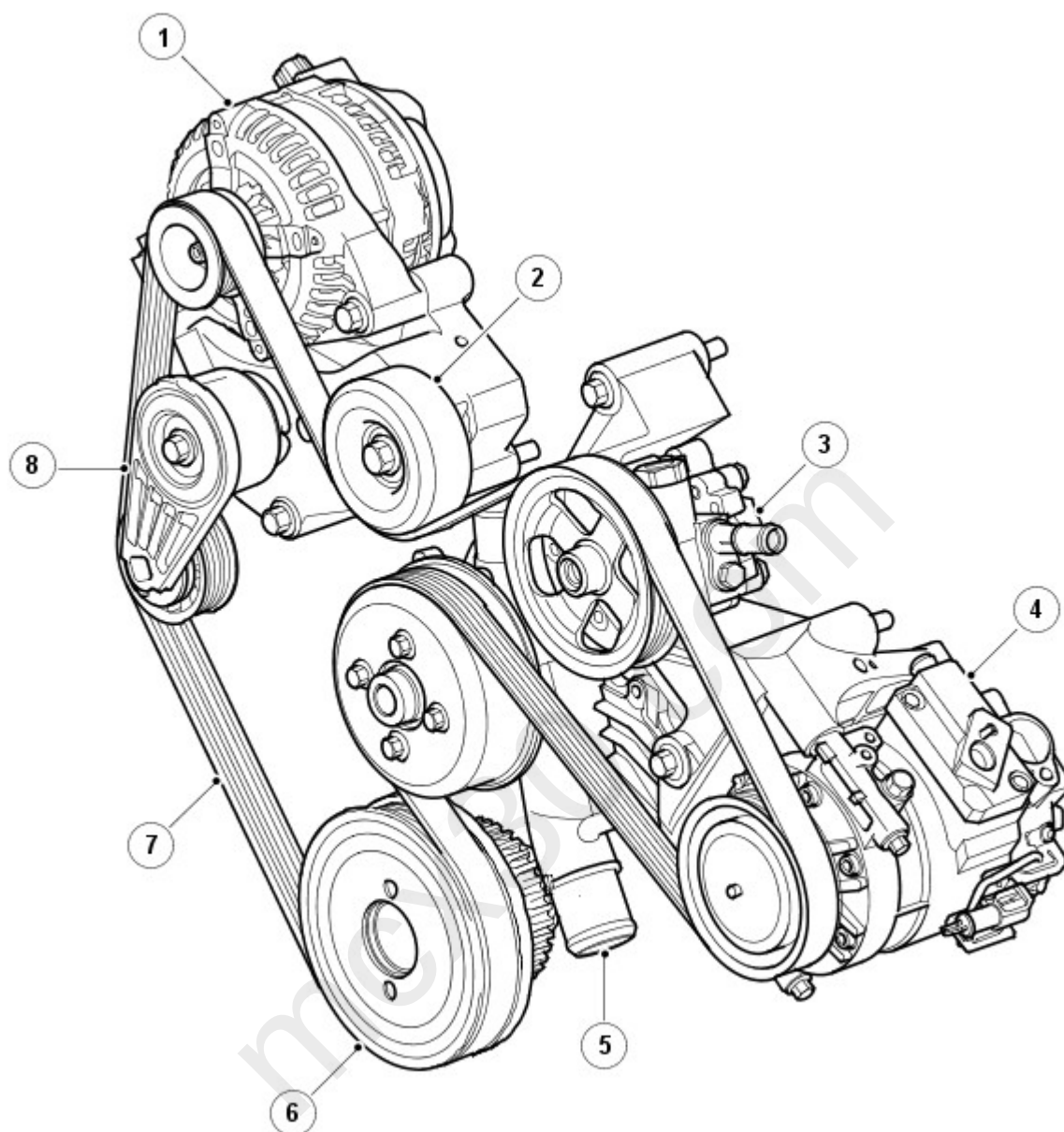
**Accessory Drive - V6 4.0L Petrol -****Torque Specifications**

| <b>Description</b>                     |  | <b>Nm</b> | <b>lb-ft</b> |
|----------------------------------------|--|-----------|--------------|
| Generator drive belt tensioner bolt    |  | 45        | 33           |
| Accessory drive belt idler pulley bolt |  | 45        | 33           |

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## Accessory Drive - V6 4.0L Petrol - Accessory Drive

Description and Operation



E50592

| Item | Part Number | Description          |
|------|-------------|----------------------|
| 1    | -           | Generator            |
| 2    | -           | Deflection pulley    |
| 3    | -           | Power steering pump  |
| 4    | -           | A/C compressor       |
| 5    | -           | Coolant pump         |
| 6    | -           | Crankshaft pulley    |
| 7    | -           | Accessory drive belt |
| 8    | -           | Tensioner assembly   |

The engine crankshaft pulley drives the accessory components, which comprise the torsional vibration damper, generator, power steering pump, A/C compressor and coolant pump, via the accessory drive belt.

The belt, which is maintenance free poly-V type belts, are automatically pre-loaded by the tensioning rollers and are routed over deflection pulleys in order to maintain sufficient adhesion about the drive wheels. This ensures slip-free drive of the accessory components.

## Accessory Drive - V6 4.0L Petrol - Accessory Drive

Diagnosis and Testing

### Principles of Operation

For a detailed description of the accessory drive system and operation, refer to the relevant Description and Operation section of the workshop manual.

REFER to: [Accessory Drive](#) (303-05C Accessory Drive - V6 4.0L Petrol, Description and Operation).

### Inspection and Verification



**CAUTION:** Diagnosis by substitution from a donor vehicle is **NOT** acceptable. Substitution of control modules does not guarantee confirmation of a fault and may also cause additional faults in the vehicle being checked and/or the donor vehicle.

• **NOTE:** Check and rectify basic faults before beginning diagnostic routines involving pinpoint tests.

1. **1.** Verify the customer concern.
2. **2.** Visually inspect for obvious signs of mechanical damage.

#### Visual Inspection

| Mechanical                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none"> <li>● Belt drive belt condition (cracking/damage/contamination)</li> <li>● Belt tension</li> <li>● Pulley alignment</li> <li>● Coolant pump</li> <li>● Belt tensioner assembly</li> <li>● Air conditioning compressor</li> <li>● Power steering pump</li> <li>● Crankshaft pulley</li> <li>● Generator</li> <li>● Dynamic response pump pulley</li> <li>● Deflection pulley</li> <li>● Cooling fan pulley</li> </ul> |  |

3. **3.** If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.



**CAUTION:** If the engine is run without the accessory drive belts connected to eliminate driven components, diagnostic trouble codes, (DTCs) may be set which must be cleared before the vehicle is returned to the owner. The engine should not be run for more than 2-3 minutes with the belts disconnected. Failure to follow this instruction may result in damage to the vehicle.

4. **4.** If the cause is not visually evident, verify the symptom and refer to the Symptom Chart, alternatively check for Diagnostic Trouble Codes (DTCs) and refer to the DTC Index.

### Symptom Chart

| Symptom                          | Possible Causes                                                                                                                                                              | Action                                                                                                                                                                                              |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Noise                            | <ul style="list-style-type: none"> <li>● Belt condition</li> <li>● Belt tension</li> <li>● Pulleys misaligned</li> <li>● Driven components (including tensioners)</li> </ul> | Check the belt condition (see visual inspection). Check the tensioner function. Check the pulley alignment. Check the driven components for excessive resistance to rotation. Rectify as necessary. |
| Drive belt does not hold tension | <ul style="list-style-type: none"> <li>● Belt condition</li> <li>● Tensioner fault</li> </ul>                                                                                | Check the belt condition (see visual inspection). Check the tensioner function. Rectify as necessary.                                                                                               |

### DTC Index

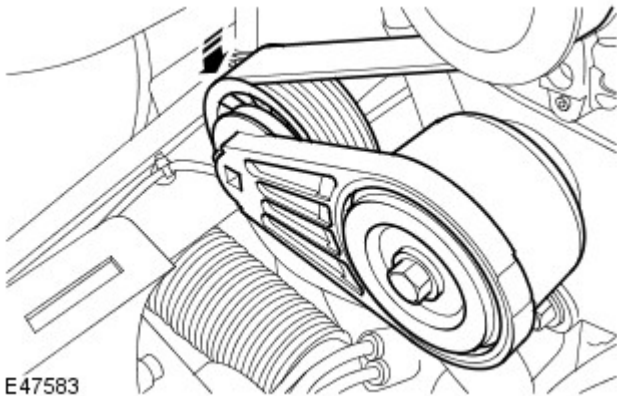
For a list of Diagnostic Trouble Codes (DTCs) that could be logged on this vehicle, please refer to Section 100-00.

## Accessory Drive - V6 4.0L Petrol - Accessory Drive Belt

### Removal and Installation

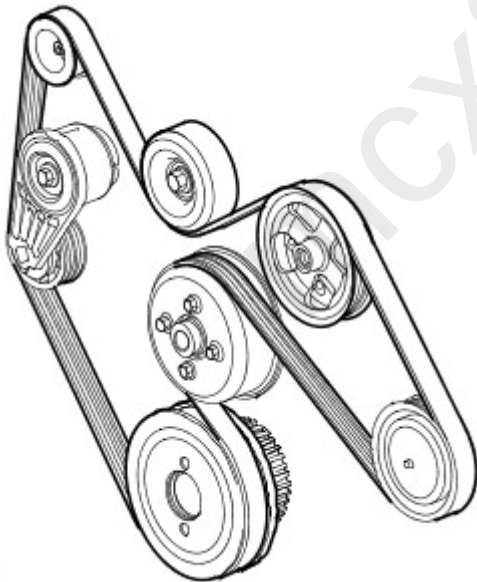
#### Removal

1. Disconnect the battery ground cable.  
For additional information, refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).
2. Remove the viscous fan assembly.  
For additional information, refer to: [Cooling Fan](#) (303-03C Engine Cooling - V6 4.0L Petrol, Removal and Installation).
3. Release the accessory drive belt.
  - Rotate the accessory drive belt tensioner counterclockwise.
4. Remove the accessory drive belt.



#### Installation

1. To install, reverse the removal procedure.
  - Clean and inspect the drive pulleys for damage.



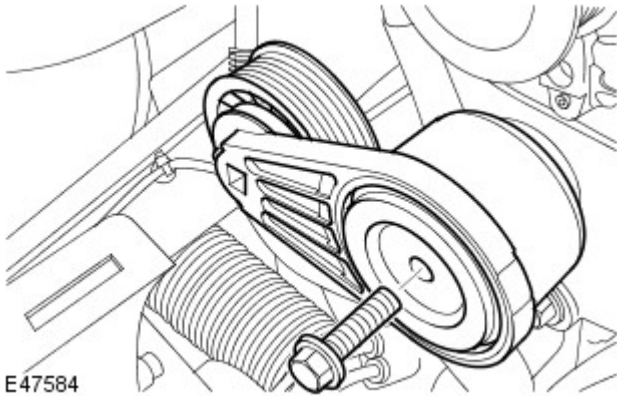
2. Connect the battery ground cable.  
For additional information, refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

## Accessory Drive - V6 4.0L Petrol - Accessory Drive Belt Tensioner

Removal and Installation

### Removal

1. Disconnect the battery ground cable.  
For additional information, refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).
2. Remove the generator drive belt.  
For additional information, refer to: [Accessory Drive Belt](#) (303-05C Accessory Drive - V6 4.0L Petrol, Removal and Installation).
3. Remove the generator drive belt tensioner.
  - Remove the generator drive belt tensioner bolt.



### Installation

1. Install the generator drive belt tensioner.
  - Clean the component mating faces.
  - Tighten the bolt to 45 Nm (33 lb.ft).
2. Install the generator drive belt.  
For additional information, refer to: [Accessory Drive Belt](#) (303-05C Accessory Drive - V6 4.0L Petrol, Removal and Installation).
3. Connect the battery ground cable.

## Accessory Drive - V6 4.0L Petrol - Accessory Drive Belt Idler Pulley

Removal and Installation

### Removal

1. Disconnect the battery ground cable.  
For additional information, refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).
2. Remove the generator drive belt.  
For additional information, refer to: [Accessory Drive Belt](#) (303-05C Accessory Drive - V6 4.0L Petrol, Removal and Installation).
3. Remove the accessory drive belt idler pulley.
  - Remove the bolt.



### Installation

1. Install the accessory drive belt idler pulley.
  - Tighten the bolt to 45 Nm (33 lb.ft).
2. Install the generator drive belt.  
For additional information, refer to: [Accessory Drive Belt](#) (303-05C Accessory Drive - V6 4.0L Petrol, Removal and Installation).
3. Connect the battery ground cable.  
For additional information, refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).