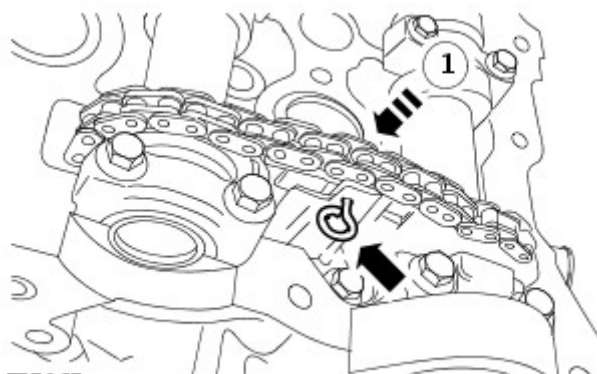


## Engine - 2.7L V6 - TdV6 - Camshaft RH

In-vehicle Repair

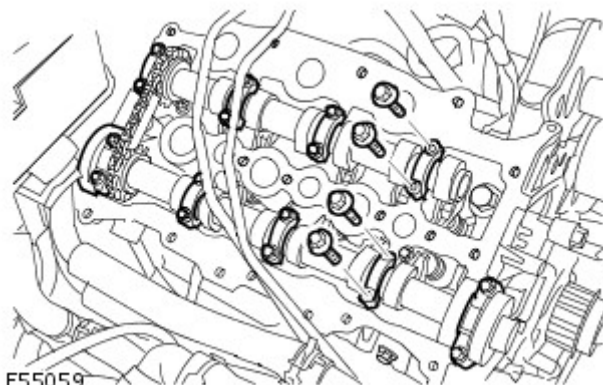
### Removal

1. Disconnect the battery ground cable.  
For additional information, refer to: [Specifications](#) (414-00 Charging System - General Information, Specifications).
2. Remove the camshaft front seal.  
For additional information, refer to: [Camshaft Front Seal](#) (303-01C Engine - 2.7L V6 - TdV6, In-vehicle Repair).
3. Remove the brake vacuum pump.  
For additional information, refer to: [Brake Vacuum Pump - 2.7L V6 - TdV6](#) (206-07 Power Brake Actuation, Removal and Installation).
4. Remove the RH valve cover.  
For additional information, refer to: [Valve Cover RH](#) (303-01C Engine - 2.7L V6 - TdV6, In-vehicle Repair).
5. Retain the secondary timing chain tensioner piston.




E55065

- Reposition the secondary timing chain tensioner.
- Install a 1.5 mm (0.060 in.) diameter pin into the secondary timing chain tensioner piston.

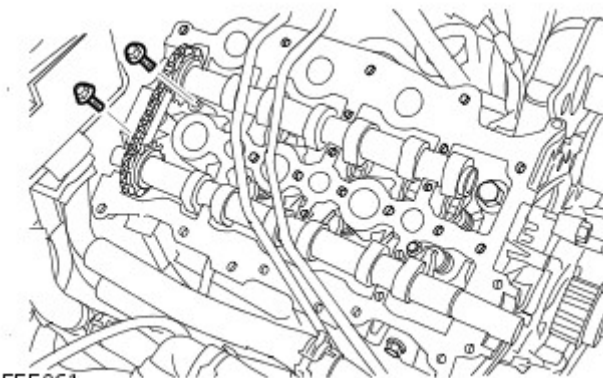


E55059

6.  **CAUTION:** Evenly and progressively, release the camshaft bearing caps.

Remove the camshaft bearing caps.

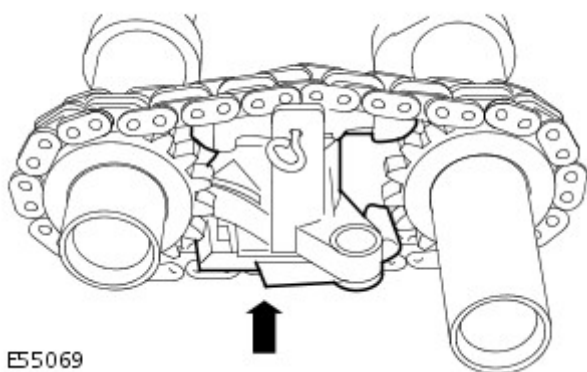
- Remove the 18 retaining bolts.



E55061

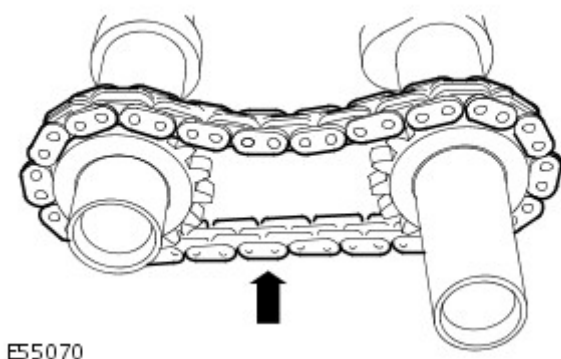
7. Remove the camshafts and secondary timing chain tensioner assembly.
- Remove the two retaining bolts.
  - Release the RH secondary timing chain tensioner.

8. Remove the secondary timing chain tensioner.




#### 9. Remove the RH camshafts.

- Release the secondary timing chain from the RH camshafts.



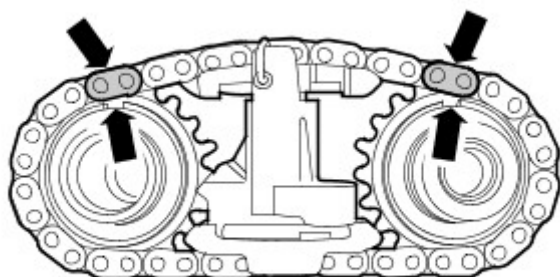
### Installation

#### 1. Install the secondary timing chain onto the camshafts.

2.  **CAUTION:** Do not release the secondary timing chain tensioner locking pin until all of the camshaft bearing caps have been installed.

Install the secondary timing chain tensioner.

- Align the marks on the camshafts with the marks on the secondary timing chain.



#### 3. Install the camshafts and secondary timing chain tensioner assembly.

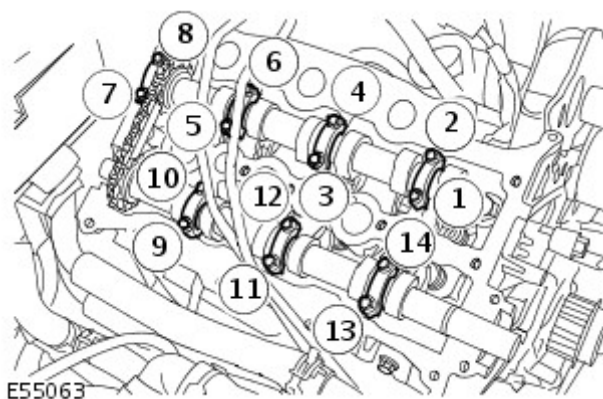
- Lubricate the journals and camshaft lobes.

#### 4. Attach the RH secondary timing chain tensioner.

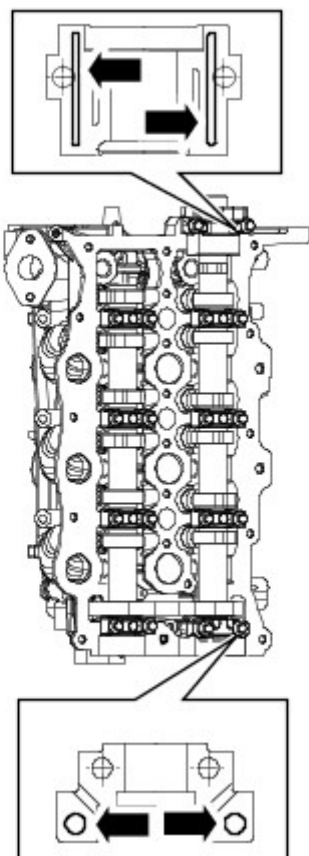
- Tighten the two retaining bolts to 10 Nm (7 lb.ft).

#### 5. Install the camshaft bearing caps.

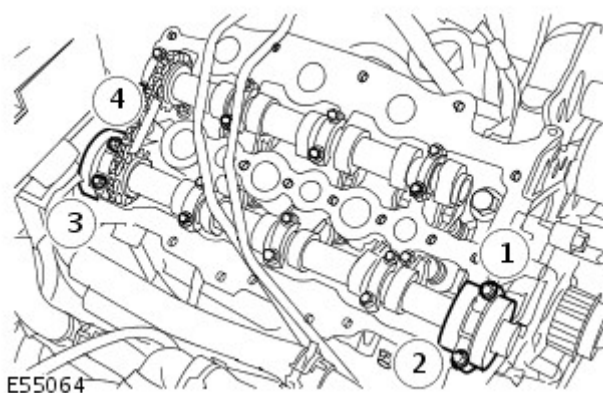
- Do not install the two exhaust camshaft end bearing caps at this stage.
- Tighten the bolts evenly in three stages in the sequence shown.
- Stage one: Tighten to 1 Nm (1 lb.ft).



- Stage two: Tighten to 5 Nm (4 lb.ft).
- Stage three: Tighten to 10 Nm (7 lb.ft).



6. Apply sealant to the two exhaust camshaft end bearing caps at the positions shown.  
For additional information, refer to: [Specifications](#) (303-01C Engine - 2.7L V6 - TdV6, Specifications).



7. Install the camshaft bearing caps.
- Tighten the bolts evenly in three stages in the sequence shown.
  - Stage one: Tighten to 1 Nm (1 lb.ft).
  - Stage two: Tighten to 5 Nm (4 lb.ft).
  - Stage three: Tighten to 10 Nm (7 lb.ft).

8. Release the secondary timing chain tensioner piston.

- Remove the locking pin.

9. Install the RH valve cover.  
For additional information, refer to: [Valve Cover RH](#) (303-01C Engine - 2.7L V6 - TdV6, In-vehicle Repair).

**10.** Install the brake vacuum pump.

For additional information, refer to: [Brake Vacuum Pump - 2.7L V6 - TdV6](#) (206-07 Power Brake Actuation, Removal and Installation).

**11.** Install the camshaft front seal.

For additional information, refer to: [Camshaft Front Seal](#) (303-01C Engine - 2.7L V6 - TdV6, In-vehicle Repair).

**12.** Connect the battery ground cable.

For additional information, refer to: [Specifications](#) (414-00 Charging System - General Information, Specifications).