




Engine Dynamic Balance Shaft (12.65.38)

Special Service Tools

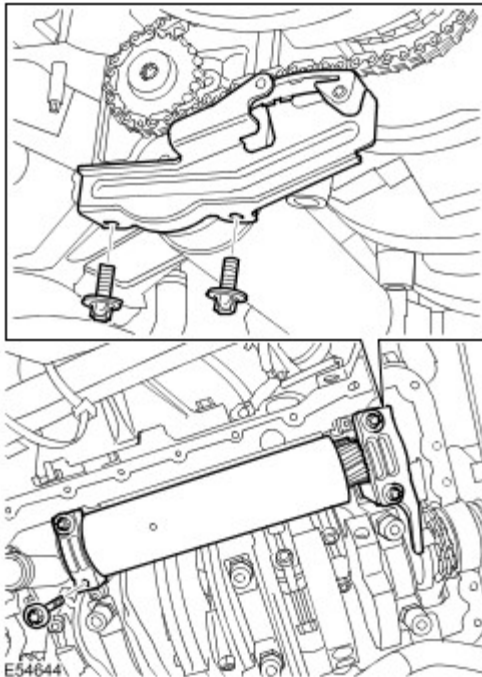


Crankshaft TDC timing/locking tool
303-565

Removal

- 1 . Disconnect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)
- 2 .  **WARNING: Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.**

Raise and support the vehicle.
- 3 . Remove the front wheels and tires.
- 4 . Remove the cylinder block cradle. For additional information, refer to [Cylinder Block Cradle \(12.25.06\)](#) (Section 303-01)
- 5 . Remove the balance shaft.
 - Remove and discard the 4 Torx bolts.
 - Remove the drive chain tensioner.
 - Remove the tensioner blade.



Installation

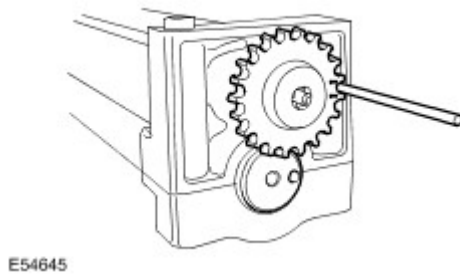
1 .

NOTE :

Due to the gear ratio, it may be necessary to rotate the balance shaft up to 7 complete turns to find the correct position.

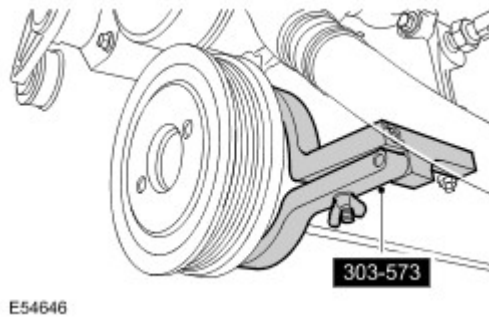
Align the balance shaft.

- Clean the components.
- Lubricate the components.
- Install a 4 mm (0.16 in) pin to lock the shaft as shown.



2 .

Rotate crankshaft clockwise until number one cylinder is at TDC and install the special tool.



- 3 . Install the balance shaft.
 - ▶ Clean the component mating faces.
 - ▶ Engage the drive chain.
 - ▶ Install the drive chain tensioner.
 - ▶ Tighten the new Torx bolts to 29 Nm (21 lb.ft)
 - ▶ Remove the locking pin.
 - ▶ Remove the special tool.
- 4 . Install the cylinder block cradle. For additional information, refer to [Cylinder Block Cradle \(12.25.06\)](#) (Section 303-01)
- 5 . Install the front wheels and tires.
- 6 . Connect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)