



Published : Aug 5, 2004

Crankshaft Front Seal (12.21.14)

Special Service Tools

303-1123

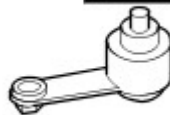
E54546

Locking Tool - Flywheel
303-1123

303-1116

E54539

Timing Pin - Manual Transmission
303-1116

303-1117

E54540

Timing Pin - Automatic Transmission
303-1117

303-1120

E54543

Crankshaft Front Seal Remover
303-1120

303-1122

E54545

Crankshaft Front Seal Sleeve
303-1122




Crankshaft Front Seal Installer
303-1121

Removal

All vehicles

1. Disconnect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)
2. Remove and discard the timing belt. For additional information, refer to [Timing Belt \(12.65.18\)](#) (Section 303-01)

3.  **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.

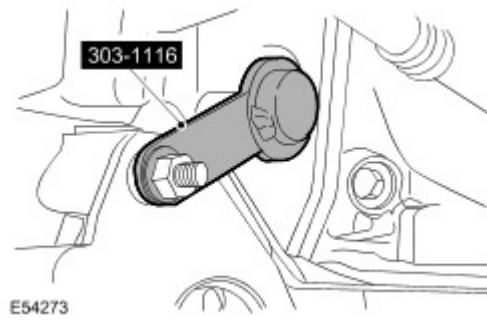
Vehicles with automatic transmission

1. Remove the special tool.



Vehicles with manual transmission

1. Remove the special tool.

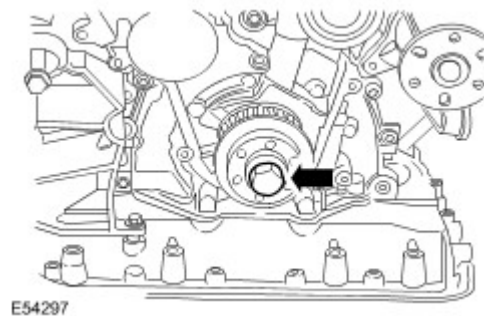


All vehicles

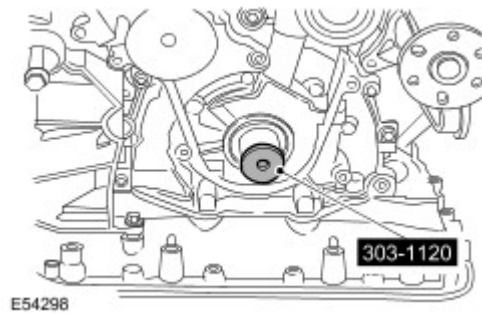
1. Install the special tool.



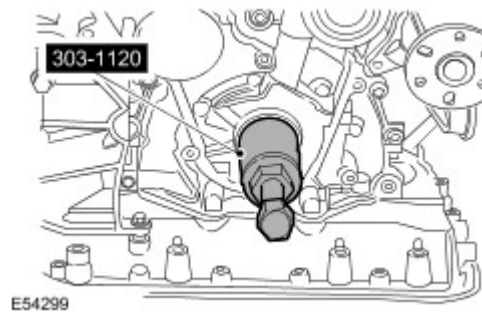
2. Loosen the crankshaft pulley retaining bolt.
3. Using a suitable tool, release the crankshaft pulley.
4. Remove the crankshaft pulley.
 - Remove the crankshaft pulley retaining bolt.
 - Discard the bolt.



5. Install the special tool to the crankshaft.




- 6 . Using the special tool, remove the crankshaft front seal.
- Remove the special tool.
 - Remove and discard the seal from the special tool.

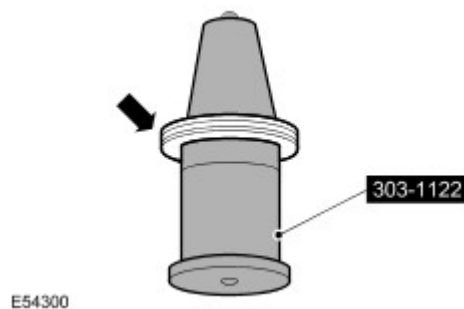


Installation

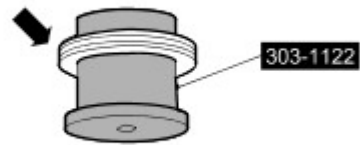
All vehicles

- 1 .  **CAUTION:** Do not use any lubricant on the crankshaft front seal, special tools or the crankshaft. Failure to follow this instruction may result in damage to the vehicle.

NOTE :
Make sure all component mating faces are clean.
Install a new crankshaft front seal to the special tool.



- 2 . Reposition the crankshaft front seal along the special tool.
- Remove the sleeve from the special tool.

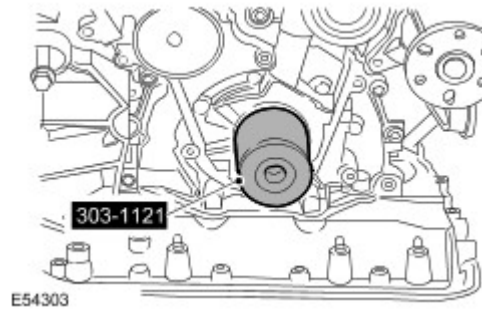



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3. Install the special tool to the crankshaft.




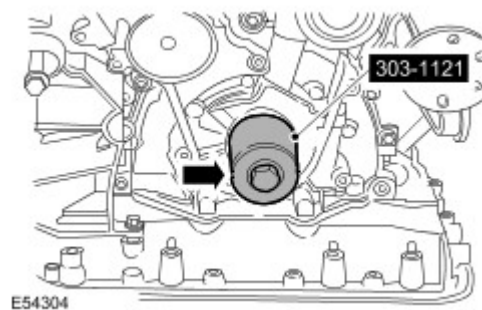
4. Install the special tool to the crankshaft.



5.  **CAUTION: Make sure the seal is installed correctly.**

Using the special tool, install the crankshaft front seal.

 Use the discarded crankshaft bolt with the service tool.



- 6.



CAUTION: Make sure the seal is installed correctly.

Remove the special tool.

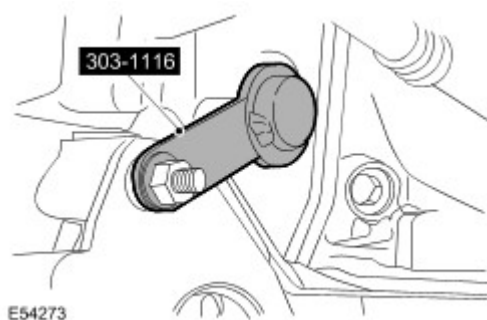
- Remove and discard the crankshaft pulley retaining bolt.

7. Install the crankshaft pulley.
 - Install a new crankshaft pulley retaining bolt.
 - Tighten the retaining bolt in two stages:
 - Stage one: Tighten to 100 Nm (74 lb.ft).
 - Stage two: Tighten a further 90 degrees.

8. Remove the special tool.

Vehicles with manual transmission

1. Install the special tool.



Vehicles with automatic transmission

1. Install the special tool.



All vehicles

1. Install the new timing belt. For additional information, refer to [Timing Belt \(12.65.18\)](#) (Section 303-01)
- 2.

Connect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)