

Halfshaft RH (47.10.02)

Special Service Tools



Ball joint separator
205-754 (LRT-54-027)



Halfshaft remover/replacer
204-506/1 (LRT-60-030/1)



Halfshaft remover/replacer
204-506/3 (LRT-60-030/3)



Retainers - halfshaft remover/replacer
204-506/5 (LRT-60-030/5)



Halfshaft installer adapter
204-506-01



E54135

Impulse extractor
100-012 (LRT-99-004)



E54136

Installer halfshaft oil seal
308-626/1



E54137

Installer/Guide halfshaft oil seal
308-626/2

Removal



CAUTION: Angularly Adjusted Roller (AAR) joints, used at the inboard end of some halfshafts have no internal retaining mechanism and can separate.



CAUTION: Do not allow halfshafts to hang unsupported at one end or joint damage will occur.



CAUTION: Do not store or install halfshafts with joints at maximum articulation or damage may occur to the joint

1.



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.

2.

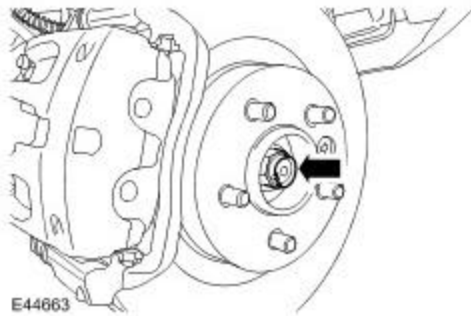
Drain the differential lubricant. For additional information, refer to [Differential Draining and Filling \(54.15.02\)](#) (Section 205-03)

3.

Remove the wheels and tires.

4. Remove the halfshaft retaining nut.

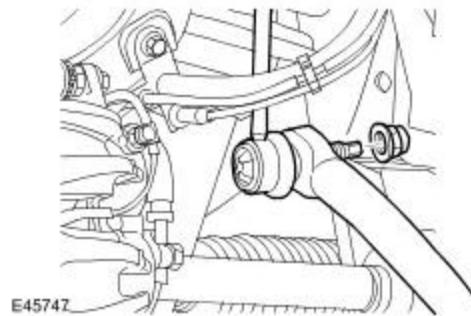
▶ Discard the nut.



5.  **CAUTION: Use a wrench on the hexagon provided to prevent the ball joint rotating.**

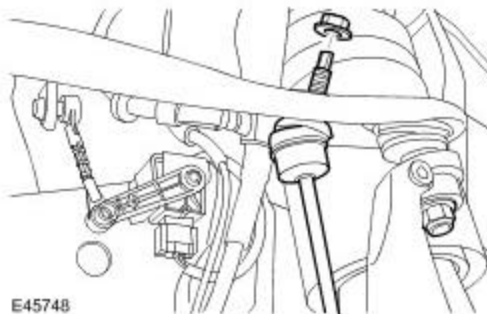
Disconnect the LH stabilizer bar link.

▶ Remove and discard the nut.



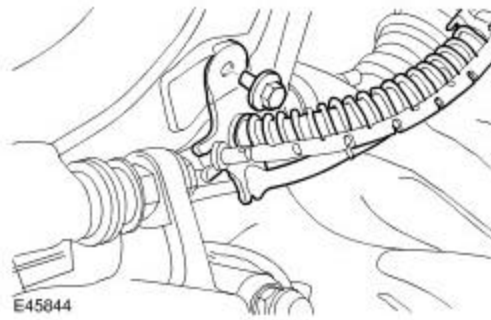
6.  **CAUTION: Use a wrench on the hexagon provided to prevent the ball joint rotating.**

Remove the stabilizer bar link nut.



7. Release the brake hose bracket from the wheel knuckle.

▶ Remove the bolt.

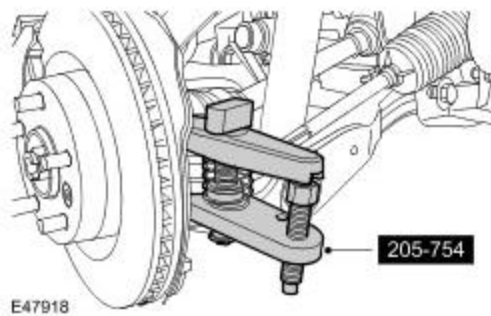



8. Loosen the tie-rod end ball joint retaining nut.

9.  **CAUTION: Ensure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.**


Using the special tool, release the tie-rod end ball joint from the wheel knuckle.

 Discard the nut.



10.  **CAUTION: To prevent the wheel knuckle falling outwards and disconnection of the halfshaft inner joint, support the wheel knuckle.**

Loosen the upper arm retaining nut.

11.  **CAUTION: Ensure the ball joint seal is not damaged. A damaged seal will lead to the premature failure of the joint.**

Using the special tool, release the upper arm ball joint.

 Remove and discard the retaining nut.

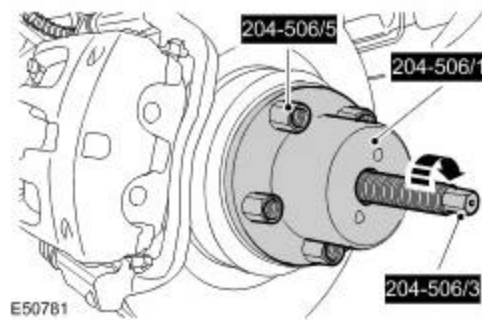


12.



CAUTION: The lower arm ball joint can be damaged by excessive articulation. The wheel knuckle must be fully supported at all times. Do not allow the wheel knuckle to hang on the lower arm. Failure to follow this instruction will result in damage to vehicle.

Using the special tools, release the halfshaft from the wheel hub.



13.

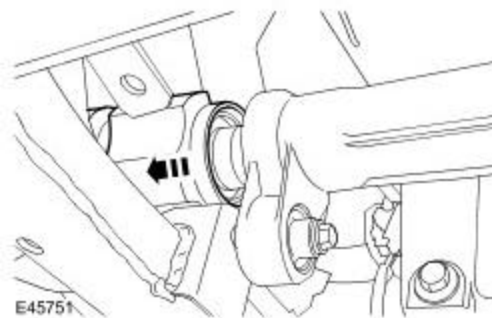
Release the halfshaft from the wheel knuckle.

14.

Position a container to collect the oil spillage.

15.

Release the halfshaft from the differential housing.



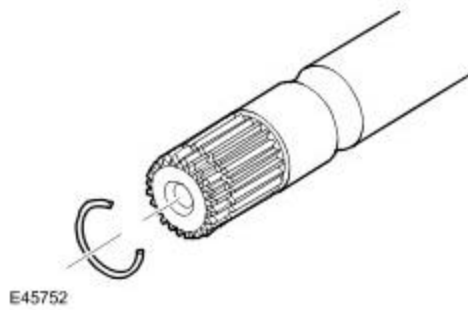
16.



CAUTION: Keep the halfshaft horizontal to avoid damaging the oil seal.

Remove the halfshaft.

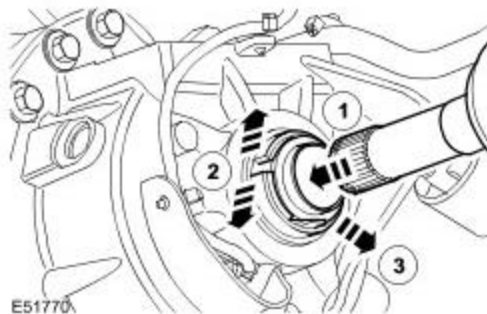
- ▶ Raise the stabilizer bar to allow removal of the halfshaft.
- ▶ Remove and discard the snap ring.




17. Using the special tools, remove and discard the halfshaft oil seal.

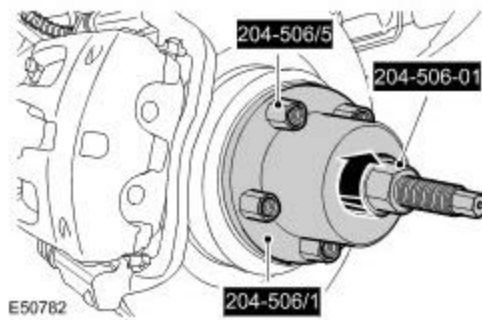
Installation

1. Clean the components.
2. Using the special tools, install a new halfshaft oil seal.
 - ▶ The halfshaft oil seal protector must be left in place, until the halfshaft is fully installed.
3. **NOTE:**
Do not fully engage the halfshaft until the oil seal protector has been removed.
Install the halfshaft.
 - ▶ Install the snap ring.
 - ▶ Lubricate the seal and the bearing running surfaces with clean axle oil.
 - ▶ Make sure the snap ring is fully engaged and retains the halfshaft.
 - ▶ Open the halfshaft oil seal protector.
4. **NOTE:**
The oil seal protector is designed to break into two pieces.
Remove and discard the halfshaft oil seal protector.



5.  **CAUTION:** The lower arm ball joint can be damaged by excessive articulation. The wheel knuckle must be fully supported at all times. Do not allow the wheel knuckle to hang on the lower arm. Failure to follow this instruction will result in damage to vehicle.

Using the special tools, install the halfshaft in the wheel hub.



6. Connect the upper arm and wheel knuckle.
 - ▶ Install a new nut and tighten to 70 Nm (52 lb.ft).
7. Secure the stabilizer bar link.
 - ▶ Install a new nut and tighten to 115 Nm (85 lb.ft).
8. Connect the tie-rod end ball joint.
 - ▶ Install a new nut and tighten to 70 Nm (52 lb.ft).
9. Install a new halfshaft retaining nut and lightly tighten.
10. Secure the brake hose retaining bracket to the wheel knuckle.
 - ▶ Tighten the bolt to 22 Nm (16 lb.ft).
11. Secure the LH stabilizer link.
 - ▶ Install a new nut and tighten to 115 Nm (85 lb.ft).
12. Tighten the new halfshaft retaining nut to 350 Nm (258 lb.ft).
 - ▶ Stake the nut to the halfshaft.
13. Install the wheels and tires.
 - ▶ Tighten the wheel nuts to 140 Nm (103 lb.ft).

14.



CAUTION: Do not fill the differential with lubricant up to the filler plug. The filler plug is only used to fill the differential with lubricant, and not to act as a level indicator.

Fill the differential with the correct amount of lubricant. For additional information, refer to [Differential Draining and Filling \(54.15.02\)](#) (Section 205-03)