Published: Jan 30, 2009

Driveshaft

Description

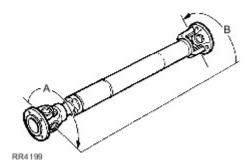
The front and rear drive shafts have non-constant velocity type universal joints, with needle roller bearings. The bearing cups are pre-packed with lubricant on assembly and a grease nipple is fitted for servicing as specified, in maintenance section.

Both shafts have ball splines to accommodate the variation in distance between the axles and transmission. The splines are pre-packed with lubricant and protected by a rubber gaiter.

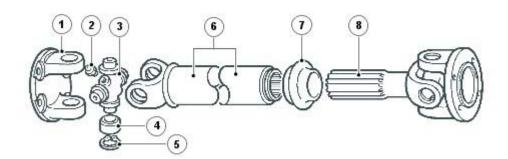
NOTE:

This joint does not require lubrication.

The front and rear driveshafts are 'phased', with the joints at each end, A and B mis-aligned as shown.



The phasing is necessary to allow for greater variation in angular changes. On reassembly it is essenital the driveshafts are realigned correctly.



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Item	Part Number	Description
1.		Flanged yoke
2.		Grease nipple
3.		Journal spider
4.		Needle roller bearing
5.		Circlip
6.		Splined shaft
7.		Rubber gaiter (dust cap)
8.		Ball spline shaft

Vibration Harshness

Check the propeller shaft universal joints are not seized or worn by checking for excessive radial and axial movement. This can be done by inserting a suitable lever into the joint and checking for movement. In the event that both shafts are satisfactory, but the vibration/harshness is still present, the transfer box operation and balance of the road wheels should be checked.

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Front Driveshaft (47.15.02)

Removal

1.

WARNING: Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

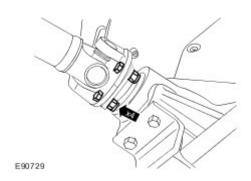
Raise and support the vehicle.

2 . **NOTE**:

Mark the front driveshaft to front differential drive flange.

Release the driveshaft from the front differential.

Remove and discard the 4 nuts.

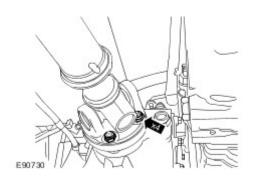


3 . **NOTE:**

Mark the front driveshaft to transfer case drive flange.

Remove the driveshaft.

Remove and discard the 4 nuts.



Installation

1 . **NOTE:**

Clean the driveshaft drive flanges and mating faces.

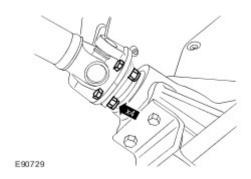
To install, reverse the removal procedure.

2 . **NOTE:**

Install new nuts.

Tighten to 47 Nm (35 lb.ft).

Align the position of the driveshaft in relation to the drive pinion flange.

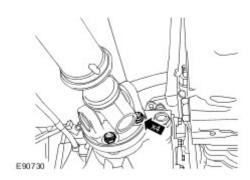


3 . **NOTE:**

Install new nuts.

Tighten to 47 Nm (35 lb.ft).

Align the position of the driveshaft in relation to the drive pinion flange.



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Rear Driveshaft (47.15.03)

Removal

1.



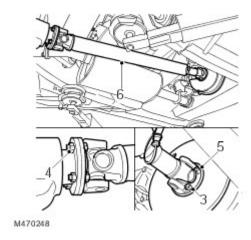
WARNING: Support on safety stands and chock front wheels.

Raise rear of vehicle.

2 . **NOTE**:

Mark the rear driveshaft to parking brake flange.

Remove and discard 4 nuts securing driveshaft to parking brake flange.



NOTE:

Rotation of driveshaft may be required during the above procedure.

3 . **NOTE**:

Mark the rear driveshaft to rear differential flange.

NOTE:

Rotation of driveshaft may be required during the procedure.

Remove and discard 4 nuts securing driveshaft to rear axle flange.

- 4 . Release driveshaft from parking brake flange.
- 5. Remove driveshaft.

Installation

- 1 . Clean driveshaft flange mating faces.
- 2 . Fit driveshaft to park brake flange bolts.

NOTE:

Ensure relationship marks align.

3. Position driveshaft to rear axle flange and fit bolts.

4 . **NOTE**:

Rotation of driveshaft may be required during the procedure.

Fit nuts and bolts securing driveshaft to rear axle flange and tighten to 47 Nm (35 lbf.ft).

5 . Fit nuts securing driveshaft to park brake and tighten to 50 Nm (37 lbf.ft).

NOTE:

Rotation of driveshaft may be required during the procedure.

- 6. Remove stands and lower vehicle.
- 7. Apply parking brake.

Driveshaft Universal Joint (47.15.06)

Disassembly

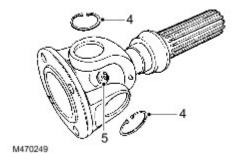
1 . Remove driveshaft. For additional information, refer to Front Driveshaft (47.15.02)

For additional information, refer to

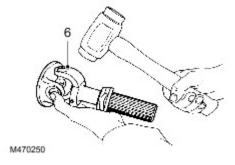
- 2 . Thoroughly examine universal joints for signs of damage or wear.
- 3 . Clean universal joint bearing cups and circlips.

CAUTION: To ensure correct assembly and reduce possibility of imbalance, before removing driveshaft joint mark position of spider pin relative to journal yoke ears.

- 4. Remove circlips.
- 5. Note position and remove grease nipple.



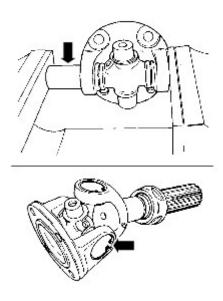
6 . Tap yokes to eject bearing cups.



- 7 . Remove bearing cups.
- 8 . Remove spider.
- 9. Clean yokes and bearing cup locations.

Assembly

- 1. Remove bearing cups from new spider.
- 2. Check all needle rollers are present and positioned in bearing cups.
- 3. Enter new spider with seals into yokes of propeller shaft flange.



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- 4 . Partially insert one bearing cup into flange yoke and enter spider trunnion into bearing cup.
- 5. Insert opposite bearing cup into flange yoke.
- 6. Press both cups into place.
- 7 . Press each cup into its respective yoke up to lower land of circlip groove. Damage may be caused to cups and seals if cups pass this point.
- 8 . Fit circlips and check no end float exists.
- 9 . Fit grease nipple and lubricate
- 10. Repeat instructions for opposite end of driveshaft as described in 3 to 9.
- Fit driveshaft.
 For additional information, refer to <u>Front Driveshaft (47.15.02)</u>

For additional information, refer to