

TECHNICAL INFORMATION



No: 51/02/00/NAS
 Ref: 51/01/98/NAS
 Issue: 1
 Date: 05/12/00

Click Noise from Rear Axle Area

AFFECTED VEHICLE RANGE:

Hub/Axle Shaft Range Rover (LP)	Up to YA 434637
Differential Pinion Flange Range Rover (LP)	Up to YA 435750
Discovery II (LT)	Up to YA 260194 Up to XA 907212

SITUATION:

REAR AXLE CLICKING NOISE

When moving the gear selector lever from the "D" (drive) position to "R" (reverse) or from "R" to "D", a clicking noise may be heard from the rear axle area. The noise may be the result of movement between the axle shaft spline and the drive flange. The differential flange to pinion spline can exhibit the same symptoms.

RESOLUTION:



NOTE: This TIB supersedes and replaces the information contained in TIB 51/01/98/NAS

SECURE AXLE SHAFT SPLINE TO HUB JOINT

When a customer complains of these symptoms, or if the axle is apart for other work, Range Rover vehicles prior to the above VIN should have the axle shaft spline-to-hub joints secured using Loctite® 648. Apply the Loctite® using the procedure outlined below.

The rear differential flange to pinion spline for Range Rover and Discovery Series II models up to the above VINs can be corrected for a "click" sound with assembly using Loctite® 648 also. When a vehicle after the above VINs is disassembled for repair, Loctite® 648 should be used as part of the assembly process.

PARTS INFORMATION:

CDU1534L	Stake Nut	Qty. 2
NY116041L	Nyloc nut	Qty 1 Rear Differential flange RR up to VA37071
FS112301P	Bolt	Qty 1 Rear differential flange

Locally Sourced:

- Loctite® 648

WARRANTY CLAIMS:


64.15.01	Time 1.15 each side	Range Rover only
		Rear hub installation with Loctite
51.15.36	Time 0.55	Range Rover
		Differential flange installation with Loctite
51.20.01	Time 0.50	Discover Series II
		Differential flange installation with Loctite

FAULT CODE: G


Normal warranty policy and procedures apply

TIB	CIRCULATE:	Service Mgr	Warranty	Workshop	Body Shop	Parts
51/02/00/NAS	TO	X	X	X	X	X


REPAIR PROCEDURE

 **NOTE:** Loctite has been applied to Discovery II rear hub splines since the introduction of the model. Should a Discovery Series II rear hub be dismantled for any reason, regardless of VIN, Loctite® 648 should be used during assembly as detailed below.

CLICKING NOISE FROM REAR AXLE SHAFT TO HUB SPLINE

 **CAUTION:** Care must be exercised when disassembling the axle assemblies to avoid damage to the oil seal.

1. Refer to WSM Section 64.15.01 and disassemble rear axle.
2. Remove axle shaft from hub assembly to expose shaft splines.
3. Thoroughly clean & degrease the shaft and flange spline.

 **CAUTION:** Ensure that *only* the spline area is covered when applying the Loctite® 648. Ensure that from this stage the repair can be completed without delay so that work is completed within Loctite 648 cure time.

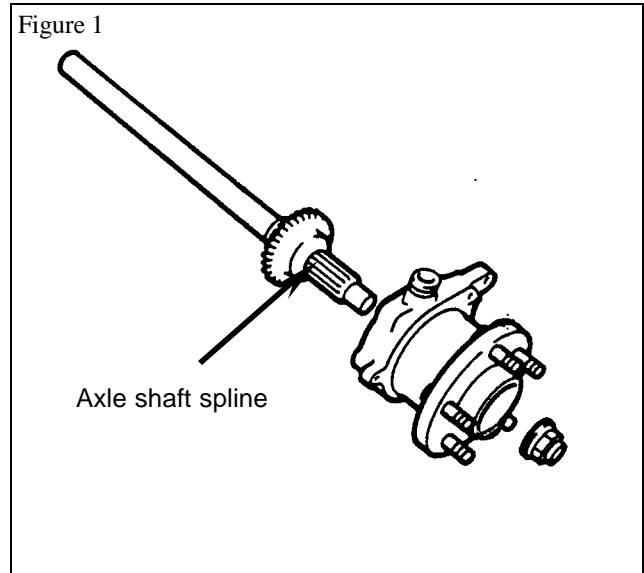
4. Apply Loctite® 648 to the shaft spline taking care not to coat beyond the spline area. (Figure 1)
5. Reassemble shaft to flange assembly.
6. Install new stake-nut (CDU1534).
7. Tighten the nut to initial torque of **100 Nm (75lbf. ft.)**.

 **CAUTION:** Exercise care to avoid damage to the oil seal during axle assembly process.

8. Carefully refit hub and shaft assembly to axle case.
9. Install tires and lower vehicle to the ground.

 **NOTE:** The torque value given in the next step is increased over the value in the Workshop Manual.

10. Torque stake-nut to **340 Nm (250 lbf. ft.)** and stake the nut.
11. Allow the Loctite® 2 hours to cure before driving the vehicle.



CLICKING NOISE FROM REAR DIFFERENTIAL FLANGE TO PINION SPLINE:



CAUTION: Care must be exercised when removing the flange to avoid damage to the oil seal.

1. Refer to Workshop Manual repair number 51.20.01 and remove pinion flange taking care not to damage the seal.
2. With pinion flange removed, thoroughly clean and degrease the pinion shaft and flange spline.



NOTE: Ensure that from this stage the repair can be completed without delay so that work is completed within Loctite 648 cure time.

3. Apply Loctite 648 to the pinion shaft spline ensuring that only the spline area is coated. ('B' in Figure 2)



CAUTION: Range Rover vehicles up to VIN VA370719 have pinion flanges secured with a nut. Later vehicles use a flange bolt, (refer to Figure 2). It is essential that each fastener type be tightened to the correct torque as specified below.

4. If pinion flange is secured by a bolt, install flange and tighten the bolt to **100Nm (73.8 lbf.ft.)**.
5. If pinion flange is secured with a nut, install flange and tighten the nut to **135Nm (99.5 lbf.ft.)**.
6. Allow 2 hours for the Loctite to cure before driving vehicle.

