

TECHNICAL BULLETIN
LTB00317v6
21 JUN 2012



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This reissue replaces all previous versions. Please destroy all previous versions. Only refer to the electronic version of this Technical Bulletin in TOPIx.
This bulletin supersedes TSB LTB00317v5/2011 dated 22 DEC 2011, which should either be destroyed or clearly marked to show it is no longer valid (e.g. with a line across the page). Only refer to the electronic version of this Technical Bulletin in TOPIx.

SECTION: 206-00

Vibration And Or Judder Whilst Braking

AFFECTED VEHICLE RANGE:

Discovery 4/LR4 (LA)	Model Year:	2010-2012
	VIN:	AA513326-CA629632
Range Rover Sport (LS) - R/R Sport Vehicles With Standard Brakes Only	Model Year:	2010-2012
	VIN:	AA215623-CA756237
Range Rover Sport (LS) - R/R Sport Vehicles With High Performance Brakes Only	Model Year:	2010 Onwards
	VIN:	AA215623 Onwards

MARKETS:

All Except MENA and North America

CONDITION SUMMARY:

Situation:

A customer may report a concern of a vibration and or judder whilst braking.



NOTE: For Discovery 4 and Range Rover Sport only - for vibration and or judder whilst braking issues.

For vehicles which require the steering gear, steering wheel and lower arm Hydrabush replacement, refer to the VIN Range numbers below. For all other applicable vehicles follow the service instructions but do not replace the steering gear, steering wheel or lower arm hydrabushes.



NOTE: Vehicles with standard brakes only (except 2.7 Diesel, 4.0 Gasoline). Where it is found necessary to replace the brake discs, it is VERY IMPORTANT to install new brake pads LR032063 in conjunction with new discs. Brake pads LR032063 are manufactured using a new material designed specifically to assist with brake judder concerns. These brake pads are fitted to production vehicles from CA629633 Discovery 4 and CA756238 Range Rover Sport.



NOTE: Brake linings, brake discs, and any other friction-related components are not covered when due to wear and tear but are covered for manufacturing, material defects, or the failure of another warranted part during the lifetime of the warranty. Refer to Warranty Policies and Procedures Manual.

For further details.

Discovery 4/LR4

Lower Arm Hydra Bush. VIN - AA513326 - to VIN - BA550987

Steering Gear LHD. VIN - AA513326 - to VIN - BA551693

Steering Gear RHD VIN - AA513326 to BA552787

Steering Wheel. VIN AA513326 - to VIN - BA555717

Range Rover Sport

Lower Arm Hydra Bush. VIN - AA215623 - to VIN - AA262114

Steering Gear LHD VIN - AA215623 - to VIN - BA276665

Steering Gear RHD VIN - AA215623 to BA276763

Steering Wheel. VIN - AA215623 - to VIN - BA267671

This version has been issued for a change to the VIN Range and Summary.



NOTE: The front wheels must be installed when carrying out the brake disc run out procedure.

Cause: Various. **Suggested Customer Concern Code N27.**

Action: Should a customer express concern, follow the Service Instruction outlined below.

PARTS:

LR031744	Steering Gear - Left-hand drive -Range Rover Sport	Quantity: 1
LR031745	Steering Gear - Right -hand drive -Range Rover Sport	Quantity: 1
LR025794	Steering Gear - Left-hand drive - Discovery 4/LR4	Quantity: 1
LR025793	Steering Gear - Right -hand drive - Discovery 4/LR4	Quantity: 1
LR024056	Steering Wheel - Discovery 4 MY10 - CUERO Ebony - Personal Telephone integration (PTI) +PHONE+HEATED	Quantity: 1
LR024056	Steering Wheel - Discovery 4 MY10 - CUERO Ebony -	Quantity: 1
LR023953	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony / Personal Telephone integration (PTI) +PHONE	Quantity: 1
LR023953	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony / Personal Telephone integration (PTI) +PHONE+HEATED	Quantity: 1
LR023951	Steering Wheel - Range Rover Sport MY10 - CUERO Arabica / Personal Telephone integration (PTI) +PHONE+HEATED	Quantity: 1
LR023952	Steering Wheel - Range Rover Sport MY10 - CUERO Ocean / Personal Telephone integration (PTI) +PHONE+HEATED	Quantity: 1
LR023954	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Tan / Personal Telephone integration (PTI) +PHONE+HEATED	Quantity: 1
LR023955	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Pimento - Adaptive Cruise Control (ACC) / Personal Telephone integration (PTI) +PHONE+HEATED	Quantity: 1
LR023958	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	Quantity: 1
LR023956	Steering Wheel - Range Rover Sport MY10 - CUERO Arabica +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	Quantity: 1
LR023959	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Tan +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	Quantity: 1
LR023960	Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Pimento +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	Quantity: 1
LR023957	Steering Wheel - Range Rover Sport MY10 - CUERO Ocean - Adaptive Cruise Control (ACC)+Paddle-	Quantity: 1

	shift / Personal Telephone integration (PTI) +PHONE+HEATED	
LR025986	Lower Arm Hydra Bushing Range Rover Sport - Discovery 4/LR4	Quantity: 2
SDB000624	Front Disc Single Discovery 4/LR4 - (except 2.7 Diesel - 4.0L Gasoline)	Quantity: 2
LR032063	Front Pads Set Discovery 4/LR4 (except 2.7 Diesel - 4.0L Gasoline)	Quantity: 1
SDB000624	Front Disc Single Range Rover Sport	Quantity: 2
LR032063	Front Pads Set Range Rover Sport	Quantity: 1
LR020362	Front Pads Set High performance Range Rover Sport	Quantity: 1
LR027106	Front Disc Single Range Rover Sport - High Performance Brakes - Low - Disc Thickness Variation (DTV)	Quantity: 2
SDB000604	Front Brake Disc Single Discovery 4/LR4 (2.7 diesel - 4.0L gasoline only)	Quantity: 2
LR019618	Front Pads Set Discovery 4/LR4 (2.7 diesel only - 4.0L gasoline only)	Quantity: 2


WARRANTY:

 **NOTE: Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to TOPIx to obtain the latest repair time.**

 **NOTE: DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.**

DESCRIPTION	SRO	TIME	CONDITION CODE	CAUSAL PART
Road wheels balance single wheel - All vehicles	60.25.05	0.3 hours	42	SDB000624
Road wheels balance front set - All vehicles	60.25.10	0.6 hours		
Road wheels vehicle set balance - All vehicles	60.25.11	1.1 hours		
Road wheel - one - balance - including radial force variation (RFV) check	60.25.89.49	0.5 hours		
Road wheels - pair - balance - including radial force variation (RFV) check	60.25.89.50	0.9 hours		
Road wheels - vehicle set - balance - including radial force variation (RFV) check	60.25.89.51	2 hours		
Steering gear renew - 5.0L AJV8 N/A - Discovery 4	57.10.01	0.9 hours		
Steering gear renew - 4.0L V6 - Discovery 4	57.10.01	0.9 hours		
Steering gear renew - 5.0L AJV8 N/A - S/C - Range Rover Sport	57.10.01	1 hour		
Steering gear renew - 3.6 TDV8 - Range Rover Sport	57.10.01	1.4 hours		
Steering gear renew - 3.0 TDV6 - Range Rover Sport	57.10.01	1.2 hours		
Steering gear renew - 2.7 TDV6 - Range Rover Sport	57.10.01	1.1 hours		
Steering gear renew - 3.0 TDV6 - Discovery 4	57.10.01	1.2 hours		
Steering gear renew - 2.7 TDV6 - Discovery 4	57.10.01	1.1 hours		
Steering Wheel - Range Rover Sport - 10 MY Onwards	57.61.01	0.4 hours		

Steering Wheel - Discovery 4/LR4	57.61.01	0.3 hours
Steering Wheel - Leather Cruise - Control - Range Rover Sport	57.61.01	0.4 hours
Steering Wheel - Leather Cruise - Control - Discovery 4/LR4	57.61.01	0.3 hours
Hydra Bush Lower Control Arm - Vehicle Set - Renew - Discovery 4/LR4	60.35.36	1.3 hours
Hydra Bush Lower Control Arm - Vehicle Set - Renew - Range Rover Sport - Only	60.35.36	1.4 hours
Front Wheel alignment - Discovery 4 - Range Rover Sport	57.65.01	1.1 hours
Front Brake Disc Run-out Check - With Wheels Fitted - Performance Brakes Only	70.12.44.36	0.3 hours
Front Brake Disc Run-out Check - With Wheels Fitted - Standard Brakes Only	70.12.44	0.3 hours
Front Hub Run-out Check	60.25.08.06	0.5 hours
Range Rover Sport 10MY Onwards - Without Brembo Brakes Discs and Brake Pads - Renew	70.12.31	0.7 hours
Discovery 10MY Onwards - Brakes Discs and Brake Pads - Renew	70.12.31	1.1 hours
Range Rover Sport 10MY Onwards - With Brembo Brakes Discs and Brake Pads - Renew	70.12.31.36	1 hour

 **NOTE: Normal Warranty policies and procedures apply.**

SERVICE INSTRUCTION:

1. Drive the vehicle for approximately 10 miles (15 Km) using a variation of braking manoeuvres.

2.  **NOTE: Before changing any parts refer to the VIN table in the Summary.**

If the vehicle has a judder and or vibration whilst braking only. Renew the steering gear assembly, (see TOPIx, section 211 - 02 power steering gear) and steering wheel, (see TOPIx, section 211-04) and front lower arm rear hydra bushes (see TOPIx, section 204 - 01) then continue from step 4 in this bulletin.

3. **If the vehicle has a wheel shimmy whilst driving and a judder and or vibration whilst braking.** Follow the Service Instruction outlined in bulletin LTB00316, (wheel shimmy Bulletin) appendix 1 and 2, Renew the steering gear assembly, (see TOPIx, section 211 - 02 power steering gear) and steering wheel, (see TOPIx, section 211-04) and front lower arm rear hydra bushes (see TOPIx, section 204 - 01), then continue from step 4 in this bulletin.

4. Drive the vehicle for approximately 10 miles (15 Km) using a variation of braking manoeuvres. If the problem is corrected return the vehicle to the customer. If the problem still occurs, continue from step 5.

5. Remove the front discs (follow the procedure outlined in TOPIx section 206-03 **Removal** - follow steps 1 to 4 in TOPIx).

6. Check the front hub and discs mounting faces are clean and free from damage.

7. Install the new front brake discs and pads, follow the procedure outlined in TOPIx section 206-03.

8.  **CAUTION: The front wheels must be fitted correctly, if not fitted correctly brake disc distortion may occur.**

Install the front wheels, follow step four in TOPIx section 206-00 front brake discs runout check with wheels fitted.

9.  **NOTE: The front wheels must be installed to carry out this Service Instruction correctly.**

Using a suitable tool, check the run out of the front discs, (see TOPIx section 206-00 front brake discs runout check with wheels fitted). If the front disc run-out is more than 0.03mm go to sub step 1, if its less than 0.03mm go to sub step 2.

1. If the run-out is more than 0.03mm remove front wheel and rotate on hub by 2 studs, follow step four in TOPIx section 206-00 front brake discs runout check with wheels fitted. Check front brake discs runout with wheels fitted (see TOPIx 206-00), if run out is still more than 0.03mm go to **step 10 in this Service Instruction.**

2. If the run-out is less than 0.03mm, continue from **step 11 in this Service Instruction.**

10. Using a suitable tool, check the run-out of the front hubs, (follow the procedure outlined in TOPIx section 204-00). If the front hub run-out is more than 0.0135mm go to sub step 1 and follow the procedure sub step 1-3, if its less than 0.0135mm go to sub step 4.

1. Replace the front hubs, (follow the procedure outlined in TOPIx section 204-01) and install the new front discs (follow the procedure outlined in TOPIx section 206-03 **Installation**, install the front wheels, follow step four in TOPIx section 206-00 front brake discs runout check with wheels fitted, and using a suitable tool, check the run out of the front discs, (follow the procedure outlined in TOPIx section 206-00).

2. If the front disc run out is more than 0.03mm, submit a technical request for assistance.

3. If the front disc run-out is less than 0.03mm continue from **step 11 in this Service Instruction.**

4. Install the front calipers and new front brake pads, (follow the procedure outlined in TOPIx section 206-03 **Installation**, step 3 to step 5 in TOPIx), and submit a technical request for assistance.

11.  **CAUTION: Take care to 'bed' the brakes in correctly and not overheat them.**

Test the system for brake judder and bed the brakes in, see TOPIx section 206-00 brake pad bedding procedure. If the vehicle does not operate normally under braking, submit a technical request for assistance.