

TECHNICAL SERVICE BULLETIN

reissue
No.LTB00317v4/2011
06 June 2011

Circulate to:	Service Manager	Parts Manager	Warranty Administrator	Service Reception	Technicians		

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This reissue replaces all previous versions. Please destroy all previous versions. Only refer to the electronic version of this TSB in TOPIx.

This bulletin supersedes TSB LTB00317v3/2010 dated 17 December 2011, which should either be destroyed or clearly marked to show it is no longer valid (e.g. with a line across the page).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 TSB in TOPIx.

Subject/Concern:	Vibration And Or Judder Whilst Braking		
Model:			
Range Rover Sport (LS)	Year: 2010 Onwards VIN Range: AA215623 Onwards		
Discovery 4 / LR4	Year: 2010 Onwards VIN Range: AA513326 Onwards		

Markets: All Except MENA and North America

Section: 206-00

Summary

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

For Discovery 4/LR4 and Range Rover Sport only - for vibration and or judder whilst braking issues.

Vehicles effected - refer to the VIN numbers below. Discovery 4/LR4 - Range Rover Sport.

Discovery 4/LR4

Lower arm Hydrabush VIN -AA513326 to BA550987

Steering gear LHD VIN - AA513326 to BA551693

Steering gear RHD VIN - AA513326 to BA552787

Steering wheel VIN -AA513326 to BA555717

Range Rover Sport

Lower arm Hydrabush VIN - AA215623 to AA262114

Steering gear LHD VIN - AA215623 to BA276665

Steering gear RHD VIN - AA215623 to BA276763

Steering wheel VIN - AA215623 to BA267671

This version has been issued for a change to the Summary, Parts Required, VIN Range, Labor Times and to add Model Years in the Model Section.

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

Action: Follow the Service Instruction outlined below.

Parts Required

Description	Part Number	Quantity
Steering Gear - Left-hand drive -Range Rover Sport	LR031744	1
Steering Gear - Right -hand drive -Range Rover Sport	LR031745	1
Steering Gear - Left-hand drive - Discovery 4/LR4	LR025794	1
Steering Gear - Right -hand drive - Discovery 4/LR4	LR025793	1
Steering Wheel - Discovery 4 MY10 - CUERO Ebony - Personal Telephone integration (PTI)+PHONE+HEATED	LR024056	1
Steering Wheel - Discovery 4 MY10 - CUERO Ebony -	LR024056	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony / Personal Telephone integration (PTI)+PHONE	LR023953	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony / Personal Telephone integration (PTI)+PHONE+HEATED	LR023953	1
Steering Wheel - Range Rover Sport MY10 - CUERO Arabica / Personal Telephone integration (PTI)+PHONE+HEATED	LR023951	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ocean / Personal Telephone integration (PTI)+PHONE+HEATED	LR023952	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Tan / Personal Telephone integration (PTI)+PHONE+HEATED	LR023954	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Pimento - Adaptive Cruise Control (ACC) / Personal Telephone integration (PTI)+PHONE+HEATED	LR023955	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	LR023958	1
Steering Wheel - Range Rover Sport MY10 - CUERO Arabica +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	LR023956	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Tan +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	LR023959	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ebony/Pimento +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	LR023960	1
Steering Wheel - Range Rover Sport MY10 - CUERO Ocean - Adaptive Cruise Control (ACC) +Paddle-shift / Personal Telephone integration (PTI)+PHONE+HEATED	LR023957	1
Lower Arm Hydra Bushing Range Rover Sport - Discovery 4/LR4	LR025986	2
Front Disc Single Discovery 4/LR4 - (except 2.7 Diesel - 4.0L Gasoline)	SDB000624	2
Front Pads Set Discovery 4/LR4 (except 2.7 Diesel - 4.0L Gasoline)	LR032063	1
Front Disc Single Range Rover Sport	SDB000624	2
Front Pads Set Range Rover Sport	LR032063	1
Front Pads Set High performance Range Rover Sport	LR020362	1
Front Disc Single Range Rover Sport - High Performance Brakes - Low - Disc Thickness Variation (DTV)	LRO27106	2
Front Brake Disc Single Discovery 4/LR4 (2.7 diesel - 4.0L gasoline only)	SDB000604	2
Front Pads Set Discovery 4/LR4 (2.7 diesel only - 4.0L gasoline only)	LR019618	2

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 DDW to obtain the latest repair time.

Labor Time		
Operation Description	Operation No.	Time
Road wheels vehicle set balance single wheel - All vehicles	60.25.05	0.3 hours
Road wheels vehicle set 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	70.12.15.01	0.4 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
Repair/Claim Coding		
Causal Part:	SDB000624	
ACES Condition Code:	42	

Service Instruction

1. Drive the vehicle for approximately 10 miles (15 Km) using a variation of braking manoeuvres.
2. 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**, 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 (see TOPIx, section 206-03 **Removal** - follow steps 1 to 4 in GTR).
6. Check the front hub and discs mounting faces are clean and free from damage.
7. Install the new front brake discs, (see TOPIx, section 206-03 **Installation** - follow steps 1 to step 2 in TOPIx).
8. Using a suitable tool, check the run out of the front discs, (see TOPIx, section 204-01). 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 the front discs (see TOPIx, section 206-03 **Removal** - follow step 4 in TOPIx) and then go to **step 9 in this Service Instruction**.

2. If the run-out is less than 0.03mm install the front calipers and new front pads (see TOPIx, section 206-03 **Installation** - follow steps 3 to step 5 in TOPIx) and then continue from

step 10 in this Service Instruction.


9. Using a suitable tool, check the run-out of the front hubs, (see TOPIx, section 204-01). 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, (see TOPIx, section 204-01) and install the new front discs (see TOPIx, section 206-03 **Installation**, step 1 to step 5), and using a suitable tool, check the run out of the front discs, (see TOPIx, section 204-01).

2. If the front disc run out is more 0.03mm, install the front calipers and new front brake pads, (see TOPIx, section 206-03 **Installation**, step 3 to step 5), and submit a technical request for assistance.

3. If the front disc run-out is less than 0.03mm install the front calipers and new front pads (see TOPIx, section 206-03 **Installation** - follow steps 3 to step 5) and then continue from **step 10 in this Service Instruction.**

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

10.  Take care to 'bed' the brakes in correctly and not overheat them.

Test the system for brake judder. If the vehicle operates normally under braking, return the vehicle to the customer. If the vehicle does not operate normally under braking, submit a technical request for assistance.