

Technical product information

Topic	Air spring fault finding
Market area	Russische Föderation (5RU),Australia E04 Bentley rest Asia and Australia (6E04),Germany E02 Bentley rest Europe (6E02),Russian Federation 935 Volkswagen Group RUS (6935),United Arab Emirates E06 Bentley Middle East and Africa (6E06),United Kingdom E01 Bentley UK (6E01),United States E05 Bentley USA and rest America (6E05)
Brand	Bentley
Transaction No.	2030217/3
Level	EH
Status	Approval
Release date	

New customer code

Object of complaint	Complaint type	Position
Running gear -> Shock absorber/suspension control -> Self-levelling suspension	functionality -> without function / defect	
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	rear left
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	rear right
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	front left
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	front right
Running gear -> Shock absorber/suspension control -> Automatic shock absorber adjustment	functionality -> without function / defect	
Running gear -> Running gear, springs, shock absorbers	leaks	
Running gear -> Self-levelling suspension, pitch and roll compensation	functionality	

New workshop code

Object of complaint	Complaint type	Position
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	front left
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	rear left
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	front right
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	rear right
Running gear -> Running gear, springs, shock absorbers -> Shock absorber	leaks -> leaking	> not specified <
Running gear -> Self-levelling suspension, pitch and roll compensation -> Ride height / shock absorber control unit	functionality -> without function / defect	

Vehicle data

Continental Series and Flying Spur

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
39*	2012	E		*	*	*
39*	2013	E		*	*	*
39*	2014	E		*	*	*
39*	2015	E		*	*	*
39*	2016	E		*	*	*
39*	2017	E		*	*	*
39**	2018	E		*	*	*
3W*	2004	E		*	*	*
3W*	2005	E		*	*	*
3W*	2006	E		*	*	*
3W*	2007	E		*	*	*
3W*	2008	E		*	*	*
3W*	2009	E		*	*	*
3W*	2010	E		*	*	*
3W*	2011	E		*	*	*
3W*	2012	E		*	*	*
3W*	2013	E		*	*	*

4W2*	2014	E		*	*	*
4W2*	2015	E		*	*	*
4W2*	2016	E		*	*	*
4W2*	2017	E		*	*	*
4W2*	2018	E		*	*	*

Documents

Document name
master.xml

Customer statement / workshop findings

The front and/or rear suspension appears to have dropped

Technical background

The Continental Series suspension system is fitted with air springs. Should air leak from the air springs, this will cause the suspension to drop. However, the dropping of the suspension does not necessarily mean that the air spring is faulty.

The Measure section of this TPI describes how and where to check for air leaks on the front and rear air springs, this includes potential air leak points on the air spring and also the locations of an air leak that can be repaired without the need to replace an air spring.

Please follow and complete the check list within the Measure section of this TPI to help in diagnosing the issue, (The check list does not need to be sent as an attachment should a DISS ticket be raised) should a leak be found from an air spring please raise a DISS ticket and include as much information as possible including photograph/s of the leaks location to support your Warranty claim, once the DISS ticket has been submitted please await clarification from your TSC before commencing with replacing any of the suspected faulty air springs.

NOTE: Mandatory reporting is applicable for all air spring related issues.

Production change

Not applicable

Measure

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Always select Jack Mode before raising the vehicle and exhausting air from the suspension system Refer to Workshop Manual Rep - Gr 43 Jack mode - To set

Front suspension air spring fault finding






Note: Before any other checks are made to the front air springs push check to confirm the pipes are fully inserted home within the brass fitting

Air leakage may not be audible. A possible symptom of air leakage is excessive operation of the air pump located above the rear diffuser. If no air leakage is apparent at the pipe unions and there is excessive operation of the air pump located above the rear diffuser, there may be a damaged air supply pipe to an air spring.

With the air suspension fully charged, use leak detector spray or a mild soap solution to check the connections for leaks (Place an X in the appropriate box)

Air spring check points

Brass fitting to the air spring	Yes	No	Comment
			
			
 <p data-bbox="92 2083 379 2130">If this part is leaking Refer to the workshop manual Rep.Gr</p>			

43 – Air supply pipe to repair			
Top of the air spring 	Yes	No	Comment
Air spring gaiter 	Yes	No	Comment
Air canister and canister to air spring 	Yes	No	Comment
Bottom of the air spring 	Yes	No	Comment
Top of the air spring 	Yes	No	Comment

Rear suspension air spring fault finding

Note: Before any other checks are made to the rear air spring push check to confirm the pipes are fully inserted home within the brass fitting

Which part of the rear air spring is leaking? (Place an X in the appropriate box) with the air suspension charged use leak detector spray or a mild soap solution to determine exactly where the air spring is leaking

Air spring check points

<p>Brass fitting to air Spring</p> 	<p>Yes</p>	<p>No</p>	<p>Comment</p>
<p>Top of the air spring to body</p> 	<p>Yes</p>	<p>No</p>	<p>Comment</p>
<p>Air spring bellows</p> 	<p>Yes</p>	<p>No</p>	<p>Comment</p>
<p>Air feed hose to brass fitting connection</p>  <p>If this part is leaking Refer to the workshop manual Rep. Gr 43 – Air supply pipe to repair</p>	<p>Yes</p>	<p>No</p>	<p>Comment</p>
<p>Air spring gaiter</p> 	<p>Yes</p>	<p>No</p>	<p>Comment</p>
<p>Air canister (If Applicable)</p> 	<p>Yes</p>	<p>No</p>	<p>Comment</p>

Section 2 - Air Supply unit check points:

-Are there any air leaks on or around the air supply unit? (Figure 1)

(Place an X in the appropriate box)

<p>Yes</p>	<p>No</p>	<p>Comment</p>
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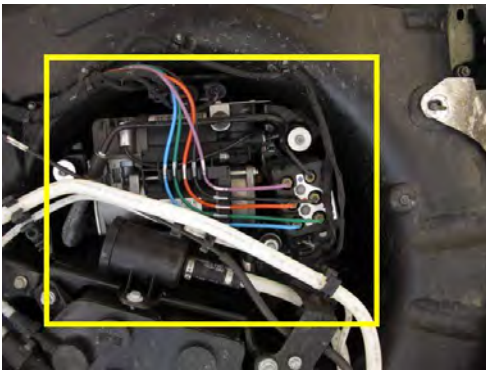


Figure 1

NOTE: In the event of an air leak from the air pipe/brass fittings on the supply unit the brass fittings and internal olive can be replaced individually, please follow instructions below

The air that is released is under high pressure.

- Unscrew the leaking brass connection from the air supply unit and remove the brass nut and olive from the pipe and discard NOTE: to prevent dirt ingress, the air supply unit ports must be capped when the brass connection has been removed
- Caution: The next procedure involves cutting the air pipe, check before cutting the pipe that the pipe will refit into the air supply unit without any kinks or bends, cut no more than 5MM from the end of the pipe
- Using Part number 3W0 616 335 unscrew one end of the union (Figure 2) ensure the white bung is not removed from the assembly until fitted



Figure 2

- Fit and secure the brass connection into the air supply pump and remove the white bung
- Refit the air pipe until fully home
- Recharge the air system using Offboard Diagnostic Information System – Guided Functions > Axle Fill/Drain