

# Technical product information

<b>Topic</b>	Rumble noise and/or floor pan/steering column vibration
<b>Market area</b>	Australia E04 Bentley rest Asia and Australia (6E04),China 723 Volkswagen (Anhui) Automotive CO (6723),China 796 VW Import Comp. Ltd (Vico), Beijing (6796),Germany E02 Bentley rest Europe (6E02),Japan E03 Bentley Japan (6E03),Korea, (South) E08 Bentley South Korea (6E08),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)
<b>Brand</b>	Bentley
<b>Transaction No.</b>	2055540/4
<b>Level</b>	EH
<b>Status</b>	Released for publishing
<b>Release date</b>	28-Sep-2023

## New customer code

Object of complaint	Complaint type	Position
running gear -> steering system	noise, vibration	
body -> vehicle front end, vehicle rear end	component / consumables	
power transmission -> transfer box, differential, torque split	component / consumables	

## Vehicle data

### Bentayga series

#### Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4V1*	2017	E		*	*	*
4V1*	2018	E		*	*	*
4V1*	2019	E		*	*	*
4V1*	2020	E		*	*	*
4V1*	2021	E		*	*	*
4V1*	2022	E		*	*	*
4V1*	2023	E		*	*	*
4V1*	2024	E		*	*	*
ZV1*	2023	E		*	*	*
ZV1*	2024	E		*	*	*

## Documents

Document name
<a href="#">master.xml</a>

## Customer statement / workshop findings

Floor pan or steering column/steering wheel vibration when manoeuvring/steering at slow speeds with steering wheel input

## Technical background



**Prior to carrying out the assessments within the Measure section, the retailer must check and confirm the following:**

- The engine has not been chip tuned
- The vehicle is in standard condition (as per factory specification) ensuring that NO non approved accessories are fitted
- The suspension, steering and brake components are in a serviceable condition
- The engine, transmission mounts, powertrain and all wheel bearings are in a serviceable condition
- The exhaust system and all wheels and tyres are in a serviceable condition (as per factory specification)

**Once confirmed that all the afore mentioned criteria has been met the assessment can then be conducted**



**The assessment should be completed on a flat, dry, good quality surface**

**The following road surfaces are not acceptable:**

- Uneven tarmac, concrete
- Gravel
- Sand
- Snow/Ice

**The assessment should only be performed in suitable weather conditions:**

- Dry (no rain/snow).
- No wind (high wind can be detrimental to the assessment)

## Production change

Not applicable

## Measure



Where possible please attempt to conduct Sections 1 and 2, however due to geographical location a small amount of retailers will not be able to conduct Section 1 due to the engine and transmission reaching operating temperature before suitable space to perform the manoeuvres can be reached.

Therefore in this case only Section 2 of the assessment can be conducted



**IMPORTANT:** Please note that should the steering column/steering wheel vibrate at any point when conducting Sections 1 and/or 2, the operative can **STOP** the assessment and go straight to Section 3

### Section 1 – Conduct this section with the engine and transmission cold

*\* Cold temperature is defined as follows:*

*When the engine has been switched off for a period of four hours or more*

*\*\* Normal operating temperature is defined as follows:*

*After the vehicle has been driven at 50kp/h or 30 mph for a period of 30 minutes*



**Ensure the location chosen for the onward procedure is suitable ensuring there is enough space to conduct the manoeuvres safely**

**1) Test Method – Cycle 1 – Left hand lock – Forward gear selected**

- Referring to Figure 1 - With the vehicle in a stationary position - Apply the footbrake – Turn the steering wheel to full left lock (hold the steering wheel onto the lock stop)
- Release the footbrake and allow the vehicle to accelerate to its natural creeping speed with no accelerator pedal input
- The vehicle should complete (one) 360° circle at this speed
- Should the noise/vibration occur, release the full lock to confirm if the noise/vibration decreases – if the noise decreases go straight to Section 3

**Cycle 2**

- With the vehicle in a stationary position - Apply the footbrake – Turn the steering wheel to full left lock (hold the steering wheel onto the lock stop)
- Release the footbrake and allow the vehicle to accelerate swiftly to 15 kp/h or 10 mph
- The vehicle should complete (one) 360° circle at this speed
- Should the noise/vibration occur, release the full lock to confirm if the noise/vibration decreases – if the noise decreases go straight to Section 3

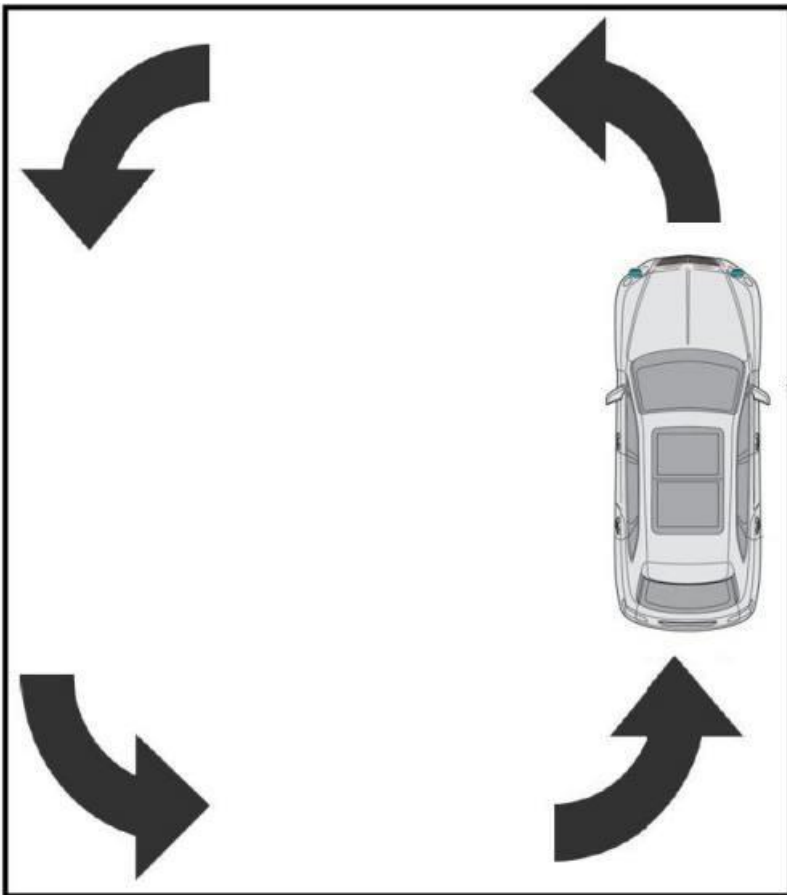


Figure 1

- 2) Repeat Cycles 1 and 2 with full right hand lock – Forward gear selected
- 3) Repeat Cycles 1 and 2 with full left hand lock – Reverse gear selected
- 4) Repeat Cycles 1 and 2 with full right hand lock – Reverse gear selected

**Section 2- Engine and transmission should be at Normal operating temperature**

**1) Test Method – Cycle 1 – Left hand lock – Forward gear selected**

- Referring to Figure 1 - With the vehicle in a stationary position - Apply the footbrake – Turn the steering wheel to full left lock (hold the steering wheel onto the lock stop)
- Release the footbrake and allow the vehicle to accelerate to its natural creep speed with no accelerator pedal input
- The vehicle should complete (one) 360° circle at this speed
- Should the noise/vibration occur, release the full lock to confirm if the noise/vibration decreases – if the noise decreases go straight to

## Section 3

### Cycle 2

- With the vehicle in a stationary position - Apply the footbrake – Turn the steering wheel to full left lock (hold the steering wheel onto the lock stop)
  - Release the footbrake and allow the vehicle to accelerate swiftly to 15 kp/h or 10 mph
  - The vehicle should complete (one) 360° circle at this speed
  - Should the noise/vibration occur, release the full lock to confirm if the noise/vibration decreases – if the noise decreases go straight to Section 3
- 2) Repeat Cycles 1 and 2 with full right hand lock – Forward gear selected  
3) Repeat Cycles 1 and 2 with full left hand lock – Reverse gear selected  
4) Repeat Cycles 1 and 2 with full right hand lock – Reverse gear selected

### Section 3 - Front and centre differential - To check and fill

**Within this procedure there are single use items (Drain/fill plugs and differential oil cooler feed pipe seals) ensure that new replacements are available prior to starting this procedure.**

- 1) Referring to Rep.Gr 39 - Front and centre differential – To check and fill - locate the front and centre differential oil drain points
- Drain the oil from the front and centre differentials
- 2) Referring partially to Repair.Gr 39 – Differential oil cooler – To remove and fit – Disconnect the oil cooler pipes to drain all the oil from the cooler and cooler pipes (Do not remove the cooler)
- Once all the oil is drained from the pipes and cooler, refit the differential cooler pipes ensuring new cooler feed pipe seals are fitted as per Repair.Gr 39 – Differential oil cooler – To remove and fit instructions
- 3) Referring to Repair.Gr 39 – Carry out the Front and centre differential – To check and fill procedure

### Warranty accounting instructions

#### Road test

Warranty Type	110 or 910
Labour operation code	01 21 00 00
Damage Service Number	39 90
Damage code	00 55
Time	50 Time units

#### Front and centre differential oil drain/check and fill

Warranty Type	110 or 910
Labour operation code	39 90 55 10
Damage Service Number	39 90
Damage code	00 55
Time	200 Time units

### Parts information

Please refer to Elsa pro instruction regarding single use items, Refer to ETKA parts catalogue for the required single use parts (Drain/fill plugs and differential oil cooler feed pipe seals) and the front/centre differential oil

*NOTE: The drain and fill plugs are not provided individually as they are supplied in a kit which has all the required plugs for this procedure, extra plugs will also be provided however only the front and rear differential drain and fill plugs are required*