Technical product information

Topic	Rumble noise and/or floor pan/steering column vibration
Market area	Bentley: worldwide (2WBE)
Brand	Bentley
Transaction No.	2055540/3
Level	EH
Status	Released for publishing
Release date	02-Nov-2022

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		*	*	*

Documents

Document name
master.xml

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

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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

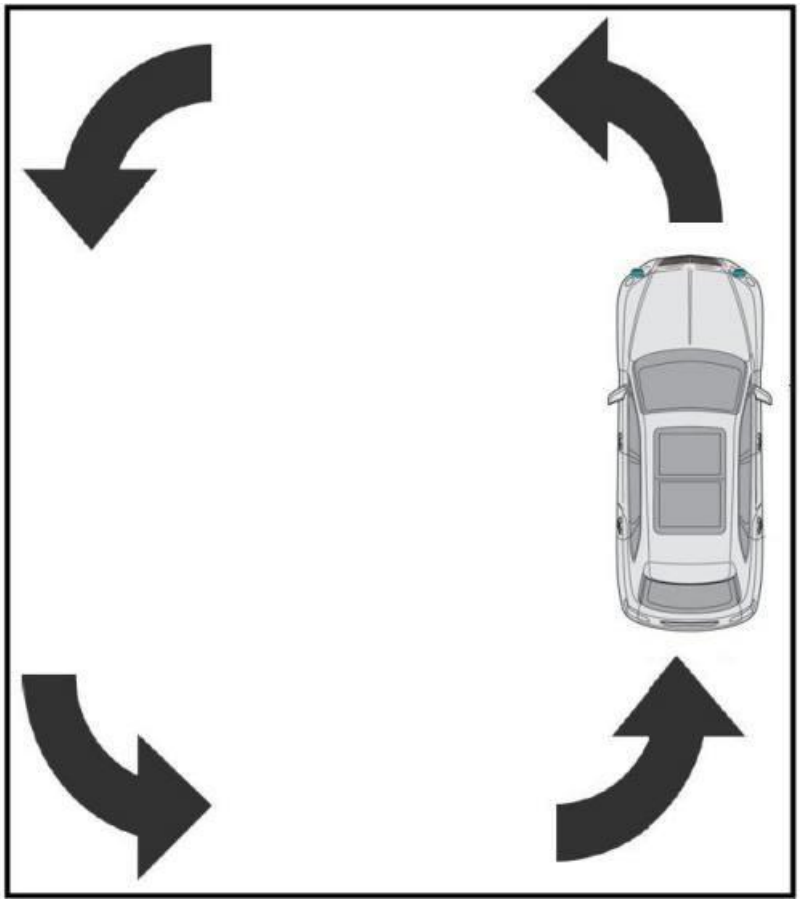

Figure 1

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