

Technical product information

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| Topic | Bentayga - 1.2 - 1.4KHz rear brake squeal |
| Market area | Bentley: worldwide (2WBE),Hongkong-Macau (5HK) |
| Brand | Bentley |
| Transaction No. | 2046299/9 |
| Level | EH |
| Status | Approval |
| Release date | |

New customer code

| Object of complaint | Complaint type | Position |
|--|---------------------------|----------|
| running gear -> brakes, brake control -> service brake | noise, vibration -> noise | |

New workshop code

| Object of complaint | Complaint type | Position |
|---|---------------------------|------------|
| running gear -> brake system -> brake pads (disc brake) | noise, vibration -> noise | rear left |
| running gear -> brake system -> brake pads (disc brake) | noise, vibration -> noise | rear right |

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 | | * | * | * |

Documents

| Document name |
|----------------------------|
| master.xml |

Customer statement / workshop findings

Squeal from the rear of the vehicle at low speed while braking.

Technical background

While braking at low speed, a vibration of 1.2 to 1.4 KHz can be produced by the friction between the rear brake pad and disc resulting in a complaint of brake noise from the customer

Production change

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Measure

- 1) Follow the 'Brake noise identification' TPI 2052785 - IMPORTANT: For frequency analysis the noise recording equipment Bentley Motors recommends is the Chassis ear tool WT 10437
- 2) If the sound recording produces a frequency of 1.2-1.4KHz
 - Remove the rear brake pads
 - Referring to Figure 1 - Take clear photographs of all four brake pad markings *NOTE: Although Figure 1 shows two brake pads, photographs of all four brake pads should be taken*



Figure 1

- Attach the photographs of each individual rear brake pad to a new or existing DISS query

IMPORTANT: Prior to ordering the shim set for the rear brake pads, please ensure all required information is attached to a new or existing DISS query including photographs of each individual brake pad and supporting evidence that the rear brake noise frequency is between 1.2 and 1.4KHz

- Fit the shim set 36A 698 219 to the rear brake pads (the kit consists of one shim per pad)

NOTE: G052 560 A2 "Vary Bond Regular Grade Grease"(100 gram tube) is also required to be used in conjunction with the shims

VERY IMPORTANT: The application of the grease **MUST** be exactly as shown/detailed, Ensuring the exact amount of grease is applied to the locations shown

NOTE: Warranty payments for repeat repairs will not be considered if the grease is deemed to have not been applied correctly

- 3) Remove the rear brake pads as per Repair manual Rep.Gr 46 - Rear Brake Pads - To Remove and Fit and check the actual condition of the brake pads - If the brake pads are to be refitted it will be necessary to make note of the position of the pads for installation purposes.

CAUTION: The performance of the car will be affected if the brake pads are installed in the incorrect position

If new brake pads are required, photographic evidence of the pad thicknesses and the back plate of the pads must be supplied through a DISS technical query.

IMPORTANT: The following instructions regarding grease application must also be followed regardless if the brake pads are to be replaced or renewed

4) Carefully clean the back plate of the pad using a suitable brake cleaner IMPORTANT: Take care not to damage the rubber on the bonded shim NOTE: In the event that the rubber is damaged from contact with the piston and there are loose rubber parts, it would be advised to fit new brake pads.

5) The next step is to install one shim from the shim kit 36A 698 219 to each rear brake pad, ensuring that when fitted the new shim is seated flat against the brake pad bonded shim

6) Referring to Figure 2 - Apply 6 dots of grease (< 1.0g in total) to the inside face of the clip on shim



Figure 2

- Referring to Figure 3 - Using a suitable spatula spread the grease to an even layer condition



Figure 3

7) Assemble the clip-on shim onto the pad - Squeeze together firmly to remove any excess grease which comes out from between the new shim and the brake pad bonded shim NOTE: Ensure the new shim is seated flat against the brake pad bonded shim

- Referring to Figures 4 and 5 Clean the pad abutments & the spring clips, then apply a small dot of grease to them



Figure 4



Figure 5

8) Clean the pad abutment faces on the calliper carrier –scrape off any dirt and brake dust which has accumulated, then use a suitable brake cleaner

9) Wipe the face of the piston to remove any brake dust or dirt.

- Refit the rear brake pads as per Repair manual Rep.Gr 46- Rear Brake Pads- To Remove and Fit, taking care not to dis-lodge the grease/shims before the pads are in position.
- Conduct a road test and carry out the brake conditioning process for Iron brake systems from operation 1 through to 7 observing all instructions relating to speed and brake effort
- For all vehicles with Iron brake systems the 100 km/h or 60 mph to 0 must be repeated twice

When carrying out the brake pad conditioning (bedding in) process you must adhere to all local speed limits and restrictions

Brake conditioning process (Iron brakes)

| Brake pedal operation | Initial Speed (km/h – mph) | Final speed (km/h – mph) | Deceleration | Cycle Distance | Number of cycles |
|-----------------------|-----------------------------|---------------------------|---|-------------------|------------------|
| Operation 1 | 100 km/h or 60 mph | 40 km/h or 25 mph | <i>(light braking) approximately 5% of total braking effort</i> | 1 km or 0.6 miles | 10 |
| Operation 2 | 120 km/h or 70 mph | 40 km/h or 25 mph | <i>Increase braking effort 10% above operation 1</i> | 1 km or 0.6 miles | 3 |
| Operation 3 | 120 km/h or 70 mph | 40 km/h or 25 mph | <i>Increase braking effort 10% above operation 2</i> | 1 km or 0.6 miles | 3 |

| | | | | | |
|-------------|--------------------------|-------------------|---|-------------------|-----|
| Operation 4 | 120 km/h or 70 mph | 40 km/h or 25 mph | Increase braking effort 10% above operation 3 | 1 km or 0.6 miles | 3 |
| Operation 5 | 100 km/h or 60 mph | 0 | (Full braking) | Repeat | 2 |
| Operation 6 | 120 km/h or 70 mph | 40 km/h or 25 mph | Braking effort to be 10% above operation 3 | 1 km or 0.6 miles | 10 |
| Operation 7 | Return to the dealership | 40 km/h or 25 mph | Normal braking applications | N/A | N/A |

10) On return to the workshop, visually check for any excess grease which may have come out from between the two shims and remove with suitable cleaner.

Warranty accounting instructions

4 Brake pads - Repaired

Warranty Type 110 or 910

Damage Service Number 46 38

Damage Code 00 20

Labour

Labour Operation Code 46 38 42 50

Time 20 Time units

4 Brake pads - Rear - Removed and Refitted

Labour

Labour Operation Code 46 38 20 50

Time 50 Time units

2 Wheels Removed and Refitted

Labour

Labour Operation Code 44 05 20 00

Time 10 Time units

Frequency diagnosis including road test

Labour

Labour Operation Code 47 01 01 00

Time 80 Time units (includes road test 01 21 00 00 - 50 Time units)

Parts information

| Part number | Description | Quantity |
|--------------|------------------------------|-----------------------|
| 36A 698 219 | Shim set for rear brake pads | 1 |
| G 052 560 A2 | Vary Bond grease | 1 = 1 x 100 gram tube |

Do not order x1 tube of grease for each individual vehicle as the grease must be used on multiple vehicles (minimum of three vehicles per tube)

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