

Technical product information

Topic	Brake noise identification
Market area	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)
Brand	Bentley
Transaction No.	2052785/8
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	

Vehicle data

All Models

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
*	2004	E		*	*	*
*	2005	E		*	*	*
*	2006	E		*	*	*
*	2007	E		*	*	*
*	2008	E		*	*	*
*	2009	E		*	*	*
*	2010	E		*	*	*
*	2011	E		*	*	*
*	2012	E		*	*	*
*	2013	E		*	*	*
*	2014	E		*	*	*
*	2015	E		*	*	*
*	2016	E		*	*	*
*	2017	E		*	*	*
*	2018	E		*	*	*
*	2019	E		*	*	*
*	2020	E		*	*	*
*	2021	E		*	*	*
*	2022	E		*	*	*
*	2023	E		*	*	*
*	2024	E		*	*	*

Documents

Document name
master.xml

Customer statement / workshop findings

Customer statement:

Noise/squeal complaint from the braking system

Workshop findings:

The noise/squeal can be reproduced and clearly assigned to the braking system

Technical background

Brake noises can be attributed to many causes, the most common causes are as follows:

- Brake discs or pads are close to their wear limit
- New brake pads and/or discs have not been properly bedded in after installation
- Aftermarket pads or discs are installed
- There is debris such as small stones, grit, road salt or sand between the brake disc and pad
- Discs are covered in rust. Rust can form when the vehicle has been stationary for long periods of time (Figure 1)



Figure 1

- Discs have a groove in them (Figure 2)



Figure 2

- There is chemical contamination on the braking surface of the disc due to a wheel or tyre cleaner being sprayed directly onto the disc (Figure 3)



Figure 3

- There are 'pad marks' on the brake disc as a result of the brake pad material transferring to the discs. This can occur when a vehicle has been stood for long periods of time in a wet or snowy environment (Figure 4)



Figure 4

Production change

-

Measure

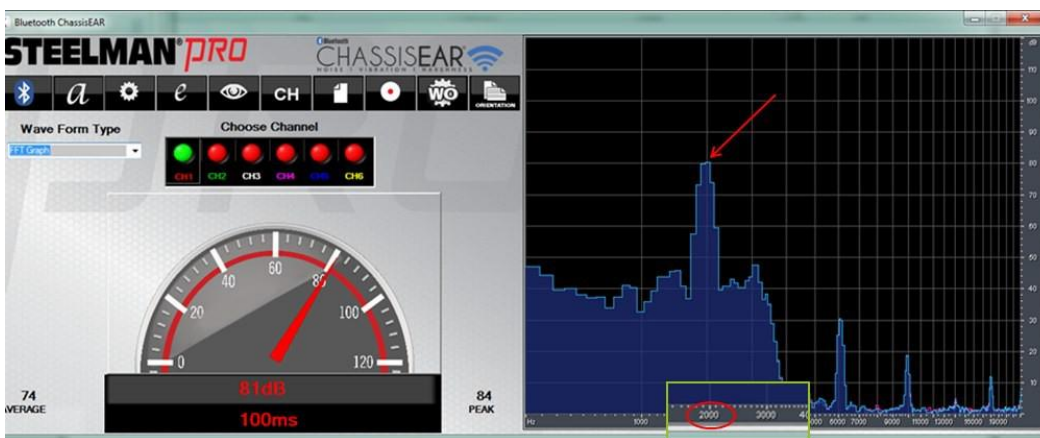
1) Check the overall condition of the brakes to determine if the brake noise can be attributed to one of the causes listed in the *Technical Background* section of this TPI. If the noise is not a result of one these causes, proceed with point 2

2) Record the noise and frequency

For the frequency analysis and the noise recording we recommend using the Chassis Ear Tool **WT 10437**

To record the noise and measure the frequency using WT 10437 Chassis Ear Tool follow these instructions;

Refer to 'File recording' in the WT 10437 user instructions



Using the microphone provided in the kit, record the noise from outside of the vehicle

If the noise is only replicable during a road test, the microphone still needs to be positioned outside of the cabin for the best results. The assistance of a second technician is required



WARNING

Do NOT attempt to carry out the road test alone. The driver's concentration MUST be focused on the road at ALL times



WARNING

Observe usual road safety procedures and speed limits

Select 'FFT Graph' as **Wave Form Type** and read the peak achieved during the recording as highlighted in the example above (in this case brake squeal peak frequency is 2000Hz)

Save the file to your device.

The sound recording/video can also be taken from a mobile telephone as long as the noise is clearly identifiable

If the noise cannot be reproduced a customer recording of the noise is also acceptable

3) Check to see if a TPI is available that matches the customer complaint and recorded frequency. If there is an applicable TPI available the operative must conduct the TPI to completion

Should there be no applicable TPI's and further assistance is required the operative must raise a technical DISS query and await feedback before conducting any further work

Warranty accounting instructions

To identify the correct Warranty accounting instruction the operative must refer to the applicable VIN related brake noise TPI depending on the symptom and frequency