



Technical Service Bulletin

42 Booming noise from rear area while vehicle is moving (depending on vehicle speed/wheel speed) DTC P18F100

42 22 50 2068250/1 November 4, 2022.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q4 e-tron, and Q4 e-tron quattro	2022 – 2023	All	Not Applicable

Condition

Customer states:

- Depending on the vehicle speed/wheel speed, a booming noise can be heard from the rear of the vehicle.

and/or

- The vehicle judders slightly (only noticeable when driving slowly), both when driving forwards and in reverse.



Note: To ensure the noise/complaint can be clearly assigned, please scan the QR Code below (Figure 1):



Figure 1: This QR Code directs to <https://audi-external.kzoplatform.com/player/medium/2338505660880131388> when scanned.



Technical Service Bulletin

Workshop findings:

- The customer statement can be reproduced.

The following DTC (passive/intermittent) may be logged in the electric drive control unit J841 (diagnostic address 0051):

- **P18F100:** Function limitation due to deviating wheel speeds (passive/intermittent).

The noise can no longer be heard in the following circumstances:

- If the vehicle is rolling in position "N".
- If the wiring harness connector of any wheel speed sensor of the affected axle (front/rear) is disconnected (this affects the control behavior of the electric drive motor).

Technical Background

Foreign metallic particles in the area of the wheel speed sensor/wheel hub/wheel bearing/drive shaft (see figure 1, red circle) lead to implausible wheel speed signals.

The foreign metallic particles may be in non-visible areas.



Note:

- In order to test/analyze whether foreign metallic particles are present, it is necessary to expose/remove the corresponding components.
- If there are additional DTCs stored, please follow GFF to solve the issues.



Technical Service Bulletin



Figure 2: Metallic particles in the speed sensor.



Figure 3: Metallic particles in the hub.



Technical Service Bulletin



Figure 4: Metallic particles/damage in the wheel hub/bearing.



Figure 5: Metallic particles/damage in the wheel hub/bearing.

Production Solution

Not applicable.

Service

1. Check components for foreign metallic particles:



Technical Service Bulletin

- a. Expose/remove the relevant components (wheel speed sensor/wheel hub/wheel bearing/drive shaft) according to the Repair Manual
 - b. Check components (wheel speed sensor/wheel hub/wheel bearing drive shaft) for foreign metallic particles.
 - c. If there are no foreign metal particles, this TSB does not apply.
 - d. Go to Step 2 if foreign metallic particles are found.
2. **Remove foreign metallic particles, check components for damage, and replace components if necessary.**
- a. Thoroughly remove foreign metallic particles from the components with workshop materials.
-  **Note:** Do not use magnetic tools to remove metallic particles from components.
3. **Check components for damage:**
- a. If there is no damage to the components, no further work is required. In this case, reinstall the previously removed/exposed components according to the Repair Manual.
 - b. Delete DTCs.
4. **Replace components (if necessary):**
- a. If there is damage to the components, replace them according to the Repair Manual (only if necessary).
 - b. Delete all DTCs.

Warranty

Claim Type	• 110 up to 48 Months/50,000 Miles. • G10 for CPO Covered Vehicles – Verify Owner. • If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.
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Technical Service Bulletin

Service Number:	4267		
Damage Code:	0010		
Labor Operations:	Remove and install 1 wheel speed sensor	4315 1999	10 TU
	Remove and install wheel hubs with bearings	4267 19XX	See SRT
	Check 1 wheel hub and speed sensor for foreign metallic particles and clean	4267 0199	10 TU
	Remove and install 2 wheel speed sensors	4315 2099	20 TU
	Remove and install 2 wheel hubs with bearings	4267 20XX	See SRT
	Check 2 wheel hubs and speed sensors for foreign metallic particles and clean	4267 0299	20 TU
	Remove and install 1 drive shaft	4221 19XX	See SRT
	Remove and install 2 drive shafts	4221 20XX	See SRT
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic protocol (Max 70 TU)
	Road test prior to the service procedure	0121 0002	10 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB 2068250/1		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.



Technical Service Bulletin

Required Parts and Tools

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.		
Part Number	Part Description	Quantity
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA
See ETKA	Wheel Speed Sensor(s)	(if necessary)
See ETKA	Wheel Hub with Bearing(s)	(if necessary)

Additional Information

All part and service references provided in this TSB (2068250) are subject to change and/or removal. Always check with your Parts Department and/or ETKA for the latest information and parts bulletins. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.

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