



Technical Service Bulletin

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

42 24 59 2068250/4 November 21, 2024. Supersedes Technical Service Bulletin Group 42 number 24-58 dated November 11, 2024 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q4 e-tron, and Q4 Sportback e-tron	2022 – 2025	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
4	-	Revised <i>Warranty</i> (Updated labor operation)
3	11/06/2024	Revised header (Added Model Year) Revised <i>Condition</i> (Updated iconography) Revised <i>Technical Background</i> (Updated iconography) Revised <i>Service</i> (Updated iconography) Revised <i>Warranty</i> (Removed claim type, updated labor operation)
2	06/06/2023	Revised header (Added Model Year) Revised <i>Warranty</i> (Revised Labor Operations)

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.
- and/or
- When using the cruise control or adaptive cruise control, there are noticeable fluctuations in the vehicle's speed. This only occurs in a very small/restricted speed range, e.g. when the speed is set between 62 mph and 65 mph.



NOTICE

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



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Figure 1: The sound described above is demonstrated here: <https://audi-external.kzoplatform.com/player/medium/2338505660880131388>, or scan the above QR Code.

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 or 00CE):

- **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 1

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.

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.



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Figure 2: *Metallic particles in the speed sensor.*



Figure 3: *Metallic particles in the hub.*



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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:
2. Remove foreign metallic particles, check components for damage, and replace components if necessary.

Item 1: Check components for foreign metallic particles.

- Expose/remove the relevant components (wheel speed sensor, wheel hub, wheel bearing, drive shaft) according to ELSA.
- Check components (wheel speed sensor, wheel hub, wheel bearing, drive shaft) for metallic foreign particles:



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- If there are **no** foreign metallic particles, this TSB does not apply.
- Continue with ***Item 2*** if foreign metallic particles are found.

Item 2: Remove foreign metallic particles/check components for damage/replace components (if necessary).

- **Remove foreign metallic particles:**

- Thoroughly remove foreign metallic particles from the components with workshop materials.

NOTICE

Do not use magnetic aids/tools to remove the foreign metallic particles as this could cause secondary damage to the sensor ring in the wheel bearing.

- **Check components for Damage:**

- If there is **no** damage to the components, no further work is required. In this case, reinstall the previously removed/exposed components according to ELSA.
- Finally, delete the DTCs.
- If there is damage to the components, the corresponding components must be replaced, continue with ***“Replace components (if necessary)”***.

- **Replace components (if necessary):**

- If there is damage to the components, the corresponding components must be replaced according to ELSA/ETKA).
- Finally, delete the DTCs.

Warranty



- The labor times correspond to the specified times in the repair operations list at the time of the publication of this TSB. There may be differences if the repair operations list has been updated in the meantime. If this is the case, the current time specifications in the repair operations list apply. Times to be entered manually (... 99) are exempt from this.
- The time required to use the Offboard Diagnostic Information System tester is not included in the times specified below. This time must be billed separately via the diagnostic log of the Offboard Diagnostic Information System tester.
- If there are any other event memory entries that indicate other complaints, the costs of this work cannot be invoiced on the basis of this TSB.



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Claim Type	If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	4267		
Damage Code:	0010		
Labor Operations:	REAR AXLE		
	Remove and install 1 wheel speed sensor	4515 1999	10 TU
	Remove and install wheel hubs with bearings	4267 19XX	See SRT with associated operations.
	Check 1 wheel hub and speed sensor for foreign metallic particles and clean	4267 0199	10 TU
	Remove and install 2 wheel speed sensors	4515 2099	20 TU
	Remove and install 2 wheel hubs with bearings	4267 20XX	See SRT with associated operations.
	Check 2 wheel hubs and speed sensors for foreign metallic particles and clean	4267 0299	20 TU
	Remove and install 1 drive shaft (if necessary)	4221 19XX	See SRT with associated operations.
	Remove and install 2 drive shafts (if necessary)	4221 20XX	See SRT with associated operations.
	FRONT AXLE		
	Remove and install 1 front wheel speed sensor	4511 1999	10 TU
	Remove and install front wheel hub with bearing	4067 19xx	See SRT with associated operations.
	Check 1 wheel hub and speed sensor for foreign metallic particles and clean	4067 0199	10 TU



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	Remove and install 2 front wheel speed sensors	4511 2099	20 TU
	Remove and install 2 front wheel hubs with bearing	4067 20xx	See SRT with associated operations.
	Check 2 wheel hubs and speed sensors for foreign metallic particles and clean	4067 0299	20 TU
	Remove and install 1 front drive shaft (if necessary)	4041 19xx	See SRT with associated operations.
	Remove and install 2 front drive shafts (if necessary)	4041 20xx	See SRT with associated operations.
	Charge battery	2706 8950	See SRT with associated operations.
	GFF	0150 0060	Time stated on the diagnostic protocol
	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 2068250/4		

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.

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)



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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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