



Technical Service Bulletin

44 Vibrations and rotational steering wheel vibrations

44 24 06 2074846/1 August 9, 2024.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
All Audi Vehicles	2000 – 2025	All	Not Applicable

Condition

Customer states:

Vibrations at 35 - 70 mph. Vehicle occupants may notice the vibrations in the seat surface, the vehicle floor, the footwell, the pedal cluster or the steering wheel. The vibrations may be stronger when braking or accelerating or only occur in these phases.

Technical Background 1

Radial force variation:

Due to the characteristics of their construction and production, tires have softer and stiffer areas in radial direction around their circumference. The change to the tire's compression force is referred to as radial force variation. To measure the radial force variation, the tire is turned while a constant force is applied to it using the counter pressure roller of vibration control system VAS6230(A). This simulates the rolling of the tire on the road surface. The variation of the radial force does not depend on the direction of rotation and is measured as the difference between the maximum and minimum radial force (peak to peak value). **The peak-to-peak value must be 120N or less.**

The first harmonic vibration is the part of the radial force variation which causes the strongest vibrations. **It must be 80N or less.**

Flat spots caused by storage:

Even after a short stationary period (a few hours) flat spots develop after the warm tire has cooled down. This is more, or less pronounced depending on the type, dimension and make of the tire. Flat spots falsify the radial force variation measurement. It is **very important** to drive them out prior to **every** wheel balancing procedure.





Technical Service Bulletin

Flat spots are normal and not faults covered under warranty.

Please also note the information on flat spots in the Workshop Manual > *Wheels and tires/Flat spots caused by storage or handling.*

Production Solution

100% wheel balancing from week 01/2008.

Service

Please complete the following steps in the order specified:

1. Perform a test drive of up to 20 miles in various speed ranges (up to 65 mph).
2. Raise the vehicle immediately after the test drive so that the wheels are off the ground.
3. After removing the wheels, mount them on the vibration control system VAS6230(A).
4. Measure, balance and (if necessary) match the wheel according to the instructions given by the equipment. Use the above reference values to do so.
5. Fit the wheels on the vehicle according to the instructions given by the Hunter equipment.
6. Restore the tire pressure required for the vehicle.
7. Assess the vehicle in the speed range where the complaints occurred.

If the first harmonic vibration of the radial force cannot be brought to the specified limit of 80N by matching, a new tire must be used.



When tightening the wheel on the vibration control system, make sure that the flange and wheel contact surfaces are clean, that the wheel is correctly centered and that a suitable taper and tensioning device is used. We recommend the use of a five-finger tensioning device.

Warranty

Claim Type:



Technical Service Bulletin

Service Number:	4440		
Damage Code:	0013		
Labor Operations:	1 wheel balanced	4405 9300	See SRT with associated operations
	1 wheel matched	4405 9351	See SRT with associated operations
	2/3/4 wheels balanced	4405 940x	See SRT with associated operations
	2/3/4 wheels matched	4405 945x	See SRT with associated operations
	Replace 1 tire	4440 5550	See SRT with associated operations
	Replace 2/3/4 tires	4440 565x	See SRT with associated operations
Diagnostic Time:	GFF	No allowance	0 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 2074846/1		

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.

Only repairs on components which were part of the vehicle when it was delivered can be claimed under warranty.



Technical Service Bulletin

The VAS6230 logs for each wheel and the information sheets (as described above) must be marked with the VIN number and attached to the warranty claim.

Required Parts and Tools

Tool Number	Tool Description
VAS 6230 (GSP9700)	Road Force Measurement System
VAS 6243	Clamping Plate

Additional Information

All part and service references provided in this TSB (**2074846**) 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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