

Technical Service Bulletin



44 Wheel alignment

44 23 98 2056386/8 April 18, 2023. Supersedes Technical Service Bulletin Group 44 number 21-86 dated December 23, 2021, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
All Audi Vehicles	2010 – 2024	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
8	-	Revised header (Added Model Year) Revised Service (Updated Procedure)
7	12/23/2021	Revised header (Added Model Year)
6	08/17/2021	Revised <i>Warranty</i> (Updated Damage Code)

Customer states:

- The vehicle pulls to one side.

And/or

- The steering wheel is crooked.

Technical Background

This bulletin applies to axle alignment only.

Complaints regarding suspension which are not caused by a fault for which the manufacturer is responsible cannot be billed under warranty.

For the reasons specified above, wheel alignment can therefore only be billed under warranty if specific conditions are fulfilled.

Deviations of $\pm 2^\circ$ in the steering wheel position are within the permitted tolerances for the individual toe settings and therefore do not constitute a fault.

When assessing the customer statement “the steering wheel is not straight or is crooked”, **make sure that the steering column is in the top position and is pushed as far as it will go toward the dash panel.**

If the steering wheel/steering column is in a different position, there may be a misalignment within the tolerance of $\pm 2^\circ$.



Background: When setting the axle geometry in production, this position is selected to reduce the influence of the movement of the steering shaft joints on the steering wheel position.



Note:

During the production of Audi vehicles, only the total toe is considered and adjusted during the pre-assembly of the rear axle. During a workshop visit, if the total toe is OK but one of the individual toe settings on the rear axles is not OK, **this is not a valid reason to perform wheel alignment under warranty.**

Below are some examples of the Steering wheel off center by 2° to the left and 2° to the right. (Figures 1 to 5).











Figures 1 to 5: Examples of Steering wheel off center by 2° to the left and 2° to the right with VAS 6458 and VAS 6826 installed.

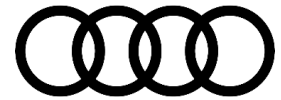
Production Solution

Not Applicable

Service

Before every wheel alignment, proceed as follows:

1. Test drive the vehicle to reproduce the concern.
2. Pay attention to the road camber during the road test as this has a considerable effect on vehicle handling. The vehicle will always tend to try to follow it.

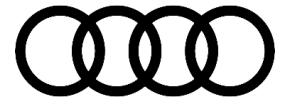


3. Always hold the steering wheel with both hands; never attempt to assess whether the vehicle travels in a straight line by taking your hands off the steering wheel. It is not possible to perform an assessment in this way due to the low friction of the axle components and the design of the steering rack.
4. If the vehicle pulls to one side when accelerating or braking, this can also be caused by the tires.
5. Review the complaint according to Elsa at Repair Manual, *Chassis >> Suspension, Wheels, Steering >> 44 Wheels, Tires, Wheel Alignment*.
6. Use steering wheel scales VAS 6826 and VAS 6828.
7. Make sure that the software of the wheel alignment equipment is up-to-date.
8. Perform a wheel alignment only after excluding all other factors.
9. Perform an initial measurement during which you align the individual toe settings of the front wheels by turning the steering wheel.
10. Take a photo of the misalignment of the steering wheel with the steering wheel scales attached.
11. Save the measurements and give this document an appropriate name (Ex: VIN + Initial measurements).
12. Now straighten the steering wheel and measure the individual toe values.
13. Also save these measurements and give this document an appropriate name (EX: VIN + Final measurements).
14. Upload all documents **related to the VIN to DOC-IT**. (Only for vehicles at PDI and/or below 1000 miles).

Warranty

Claim Type:	<ul style="list-style-type: none"> • 910 before delivery. • 110 up to 12 months/12,000 Miles. • If the vehicle is outside any warranty, this Technical Service Bulletin is informational only. 		
Service Number:	4485		
Damage Code:	0011		
Labor Operations:	Use applicable SRTs for wheel alignment and predecessors if necessary	See Elsa	See SRT with associated operations
Diagnostic Time:	GFF	0150 0000	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

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Claim Comment:	As per TSB 2056386/8
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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

Tool Number	Tool Description
VAS 6458	Steering Wheel scale
VAS 6826	Steering Wheel Scale
VAS 61XX	Vehicle Diagnostic Tester

Additional Information

All part and service references provided in this TSB (**2056386**) 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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