

## Knocking/Rattling noise from rear axle steering when driving on uneven roadway

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Topic number	LI46.80-P-079280
Version	2
Function group	46.80 - Auxiliary rear axle steering, auxiliary steering axle (ZL), electro-hydraulic auxiliary steering (EHZ)
Date	5/8/25
Validity	Model 223, 294, 295, 296, 297 with code 201 (Rear axle steering) or with code 216 (Rear axle steering with large angle)
Reason for change	Updating title noises

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### Complaint

Rattling/knocking noise from the rear axle steering is audible when driving on rough terrain or cobblestones.

Attachments	
File	Description
MOV.mp4	Flapping/knocking noise on cobblestones

### Cause

Relative movement of toothed rack relative to housing.

### Remedy

1. Detach underfloor paneling under rear axle steering.
2. Remove heat shield.
3. Remove large clamps from left bellows.
4. Open small clamps on left using a suitable tool and slide to side.
5. Slide bellows to side.
6. A second person sits in the veh. and steers with activated drive, automatic transmission in N position, to left limit stop.  
Careful! Risk of entrapment when steering at the same time! Do not move steering wheel during operation steps 7 and 8!
7. Clean screw-on stud of any grease using a clean, lint-free rag.

=> Up to the area where the stud enters the bearing!

Then completely remove grease from screw-on stud with a lint-free rag soaked in safety cleaner (A 000 986 56 01).

=> Up to the area where the stud enters the bearing!

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Important: The surface must be entirely clean and free of grease!

8. Then apply Hylomar (A 001 989 25 20 09) all around the degreased screw-on stud using a clean brush.  
=> Up to the area where the stud enters the bearing!



9. Move steering wheel from end stop to end stop several times. Then steer to left limit stop again.  
Careful! Risk of entrapment when steering at the same time!
10. Then apply Hylomar again.
11. Bellows installation: Coat contact surfaces of bellows and rack-and-pinion steering lightly with Renolit (A094 989 38 00). When doing so, ensure that the grease is underneath the edges of the bellows.

Replace large clamps (A 001 995 15 35). The small clamp can be reused.

12. Repeat operation steps 3 to 5 on the other side.
13. A second person sits in the veh. and steers with activated drive, automatic transmission in N position, to right limit stop.  
Careful! Risk of entrapment when steering at the same time!
14. Then repeat operation steps 7 to 11 for the screw-on stud on the other side.
15. Attach heat shield.
16. Attach underfloor paneling.
17. When relocating the vehicle on the premises, please use Snow Chain Mode through the head unit.
18. Leave the Hylomar to dry for approx. 90 minutes.

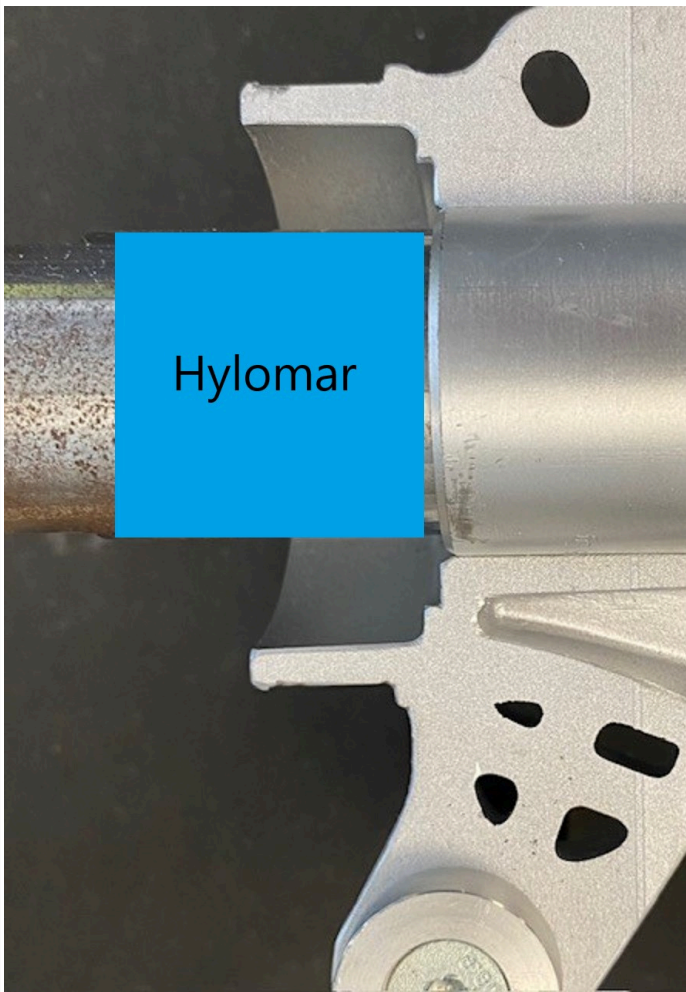
Note: Deactivate Snow Chain Mode after parking!

19. Then perform a test drive.

Attachments	
File	Description
<a href="#">Hylomar.JPG</a>	



Hylomar Application Area.jpg



## Disclaimer

NOTE: The information contained in this document is intended for use by trained, professional technicians with the knowledge to properly and safely perform diagnosis and repairs on Mercedes-Benz vehicles, using Mercedes-Benz approved tools and equipment. It informs service technicians about conditions that could occur in certain vehicles and provides information that could assist in proper vehicle diagnosis, service, or repair. It does not indicate that a defect is present in any vehicle referenced in this document nor does it imply warranty coverage. DO NOT assume that a

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symptom or condition, or a described cause of a symptom or condition, affects any particular vehicle or groups of vehicles, or that a described repair applies to any particular vehicle or groups of vehicles. There can be multiple causes resulting in the same or similar symptoms or conditions described in this document, and trained professional service technicians must use their diagnostic skills to make evaluations on a case-by-case basis. The information contained in this document does not guarantee warranty coverage nor does it extend the vehicle's warranty in any way.

Symptoms
Chassis/suspension > Noises > Knocks
Chassis/suspension > Steering system > Noises > Cracking
Chassis/suspension > Steering system > Noises > Chattering/knocking
Chassis/suspension > Steering system > Noises > Clattering
Chassis/suspension > Noises > Clattering
Chassis/suspension > Steering system > Rear axle steering (HAL) > Noises > Operating noise
Chassis/suspension > Steering system > Rear axle steering (HAL) > Noises > On rough road

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 000 986 56 01			Assembly cleaner/assembly power cleaner	1	Must be degreasing	X
A001 989 25 20	09		Hylomar (100 g)	1		X
A001 995 15 35			One-ear clamp	2		X
A094 989 38 00	11		Complex grease (e.g. Renolit CX-EP 2)	1	As needed and enough for several veh.	X

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note