

AMG 214 236 with throttle lift-off cracking noise from rear axle shaft

|                   |                                                                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic number      | LI35.30-P-078692                                                                                                                                                                |
| Version           | 5                                                                                                                                                                               |
| Function group    | 35.30 - Final drive, drive shafts                                                                                                                                               |
| Date              | 4/15/26                                                                                                                                                                         |
| Validity          | Model series 214 and 236 AMG up to production date 12/9/2024                                                                                                                    |
|                   | Only vehicle model designations 214063, 214263, 236362 and 236462 are affected                                                                                                  |
| Reason for change | Added video of noise and molykote application photos, title updated to separate from similar LIs Original Title: Throttle lift-off clunking noises at drive shafts of rear axle |

Complaint

Cracking noises on load change from rear axle (can be heard from wheel side).

See attached reference video

| Attachments                 |               |
|-----------------------------|---------------|
| File                        | Description   |
| Rear Axle Shaft Ticking.mp4 | Noise Example |

Cause

Unfavorable manufacturing tolerances in the production process of the drive shaft.

A long term solution is being investigated with high priority

Remedy

If the above-mentioned customer complaint is present, a test drive and thorough NVH diagnosis must be performed in order to verify the root cause of the noise. If the axle shafts have been identified as the source of the noise, determine the vehicle production date and perform the following steps:

(Date format > MM/DD/YYYY)

Vehicles up to production date 12/09/2024:

- 1. Replace both rear axles with A 214 350 44 06

2. Tighten the axle shaft bolt to a torque of 80 Nm + 90°

Note! This bolt must be replaced after removal due to the angle torque per AH00.00-P-0020-01A: Notes on threaded connections fastened using a tightening angle-based tightening process

Vehicles as of production date 12/10/2024:

Do not replace any parts (wheel bearing, axle shaft) as it will not resolve the concern. A 214 350 44 06 must not be replaced.

- 1. Remove both axle shafts
- 2. Clean the contact surface of the axle shaft and wheel bearing (remove old molykote with potential debris from wheel bearing)
- 3. (Stir molykote in container before use) Apply a generous layer of Molykote to the axle shaft from the contact surface up to the middle of the splines (Attachment Figure 1). Allow to dry for 30 minutes.
- 4. Apply a second layer and allow to dry completely for at least 1 hour
- 5. Reinstall both axle shafts
- 6. Tighten the axle shaft bolt to a torque of 80 Nm + 90°

Note! This bolt must be replaced after removal due to the angle torque per AH00.00-P-0020-01A: Notes on threaded connections fastened using a tightening angle-based tightening process

If rear axle shafts A214 350 44 06 are installed and the above molykote application has already been performed, please submit a TIPS case to the [Powertrain inbox](#) with the following information:

- Initial Quick Test w/ Freeze Frame Data
- Video or Sound file of the noise concern with details of where the recording was taken (ex. inside/outside vehicle, where sensors were placed)
- Clear photos of part labels on both rear axle shafts
- If possible, breakaway torque when loosening the axle bolt
- Clear photos of the mating surfaces of rear axle shafts and wheel bearings

| Attachments                                                                         |             |
|-------------------------------------------------------------------------------------|-------------|
| File                                                                                | Description |
| <a href="#">Coating Application.jpg</a>                                             | Figure 1    |
|  |             |

| WIS-References     |                                                                                          |      |
|--------------------|------------------------------------------------------------------------------------------|------|
| Document number    | Title                                                                                    | Note |
| AH00.00-P-0020-01A | Notes on threaded connections fastened using a tightening angle-based tightening process |      |

## 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 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                                                                  |
|---------------------------------------------------------------------------|
| Power transmission > Noises > Throttle lift-off clunking noise            |
| Power transmission > Drive shaft > Axle shaft > Noises > Knocking/banging |

| Parts              |     |     |                               |          |      |     |
|--------------------|-----|-----|-------------------------------|----------|------|-----|
| Part number        | ES1 | ES2 | Designation                   | Quantity | Note | EPC |
| A 000 989 01 52 10 |     |     | Low-friction paint (Molykote) | 1        |      | X   |
| A2143504406        |     |     | Rear Axle Shaft               | 2        |      | X   |

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