

Noises from the rear axle differential, particularly when cornering slowly

Topic number	LI35.31-P-074854
Version	2
Function group	35.31 - Rear axle center assembly
Date	6/11/25
Validity	AMG-specific rear axle differential on model series 177; 118; 247
Reason for change	Updated remedy with instructions to include mileage vehicle must be driven.

Complaint

Noises from the rear axle differential, particularly when cornering slowly

Cause

Small quantity of water entering into oil of multiplate clutches at right and left

Remedy

Carry out oil change of clutch oil on left and right sides (Shell TF0870B).

DO NOT change the gear set oil (at center), since this is a long-life oil that is unconnected to the complaint

Return the vehicle to the customer and inform them that they must drive a distance of at least 250 km (155mi); The complaint should then be rectified.

If the problem occurs again, create TIPS case and submit it to the Powertrain inbox with the following information:

- Create video in which the noise can be heard, with view of the instrument cluster (with speed, engine speed, drive program, gear).
- Quick test with fault freeze frame data
- EEPROM data from transmission control unit Y3/14 (dual-clutch transmission) AND all-wheel drive (AWD) control units N15/20 and N15/21

WIS-References		
Document number	Title	Note
AP35.00-P-3501E	Rear axle oil change	Only the clutch oil at the right and left needs to be changed, not the gear set oil

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 > Howling/whistling

Power transmission > Differential > Rear axle differential > Noises > Howling

Power transmission > Differential > Rear axle differential > Noises > Whistles

Power transmission > Noises > Humming/droning

Parts

Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 000 989 4406 11 CDNW			Clutch oil (Shell TF0870B)	1	Sufficient for right and left side	X

Operation numbers/damage codes

Op. no.	Operation text	Time	Damage code	Note
001227	Perform oil change in rear axle differential		3570001	Perform oil change at both clutches