

Creaking noise on front axle when driving slowly and turning-in slightly

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Function group	33.20 - Wheel location, wheel hubs
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	EQE (295)
	EQS SUV 296
	EQS (297)
	C (206)
	E (238)
	S (223)
	E (214)
Reason for change	Picture Nomenclature

Complaint

Creaking noise, in irregular sequence when driving slowly in combination with slight steering movements and/or Creaking/crackling noises from the area of the wheel bearing on the front axle when cornering/ maneuvering.

Sound file attached for comparison. MUST match noise for proper diagnosis.

NOTE: Steering functionality is not affected.

Attachments	
File	Description
Creaking Noise Front Axle.mp3	

Cause

Contact area between wheel bearing and steering knuckle.

See also:

LI35.30-P-058566 (Throttle Lift-Off Noise - Rear)

LI33.30-P-056665 (Throttle Lift-Off Noise - Front)

LI40.10-P-059248 (Wheel cracking noise when cornering)

Remedy

1. Perform Operation A and evaluate by testing vehicle.

2. If noise is still present after re-testing:

- If 192/232 chassis, verify FIN is in the listed range below in "Operation B" and perform.
- If not 192/232 chassis or vehicle is a 192/232 not in the listed FIN range, additional verifications of where the noise is coming from are needed. Use multiple channel NVH method to narrow down location. Verify the LI's listed above were completed or if there are other similar noises associated with the chassis (Example: 192/232 also has under panel noises and an associated LI).

Operation A:

1. Clean contact surfaces of wheel bearing and steering knuckle with brake cleaner as seen in the attached pictures.

NOTE: The front area of the wheel bearing and the seals must not come into contact with the cleaner, otherwise, the sealing rings will be damaged.

2. Clean threads of wheel bearing mounting.

3. Thinly coat contact surfaces of wheel bearing, steering knuckle, and axle mating face with Molykote (annular joint grease). See the attached steering knuckle and wheel hub pictures for reference.

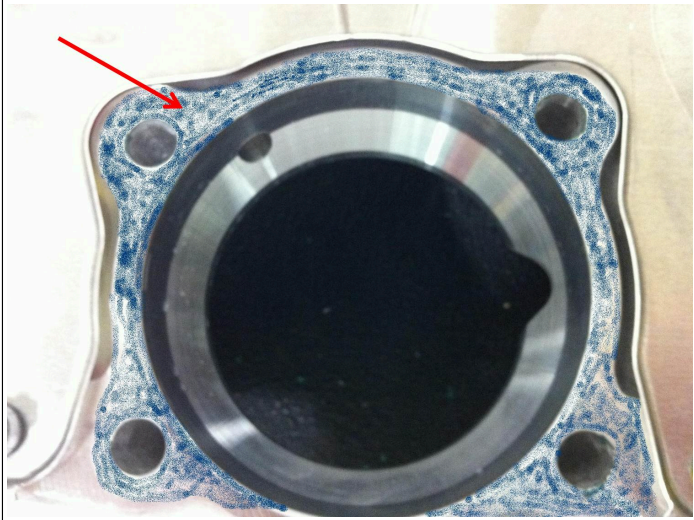
NOTE: Axle mating face greasing is also covered in LI35.30-P-058566 and LI33.30-P-056665.

Operation B (Only applies to 192 and 232 in listed FIN range):

Only affects vehicles up to FIN end number:

- Model series 192: xxx xxx xx 002 876
- Model series 232: xxx xxx xx 022 312

1. Replace steering knuckle.
2. Wheel bearings do not need to be replaced.

Attachments	
File	Description
Molykote on Steering Knuckle_2.jpg	
	
Molykote on Wheel Hub_1.jpg	
	

WIS-References

Document number	Title	Note
AR33.20-P-0302SLY	Remove/install wheel bearing	192/232
AR33.25-P-0400SLY	Remove/install steering knuckle	192/232
AR33.20-P-0302GQ	Remove/install wheel bearing	166
AR33.20-P-0302RK	Remove/install wheel bearing	231

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

Chassis/suspension > Noises > Cracking
Chassis/suspension > Axle > Front axle > Noises > Knocks
Chassis/suspension > Axle > Front axle > Noises > Cracking
Chassis/suspension > Axle > Front axle > Noises > Squeals
Chassis/suspension > Noises > Creaks

Parts

Part number	ES1	ES2	Designation	Quantity	Note	EPC
A001989035112			Annular joint grease			X

Operation numbers/damage codes

Op. no.	Operation text	Time	Damage code	Note
333000	REPLACE FRONT WHEEL BEARING	H	SeeNote	Damage Codes: 33C0236 33R0236
333003	REMOVE/INSTALL FRONT WHEEL BEARINGS (BOTH), REPLACE IF NECESSARY	H	3322436	MODEL SERIES 166, MODEL SERIES 231