

Tension-releasing impact of the propeller shaft after vehicle has stopped

Topic number	LI27.00-P-074450
Version	3
Function group	27.00 - General
Date	10/1/24
Validity	Diverse model series S-Class, E-Class and C-Class with derivatives with transmission 725 or 722.9 with two-piece propeller shaft, EXCEPT SUV model series 253/166/292/167/463
Reason for change	Clarify Wording

Complaint

Tension-releasing impact of the propeller shaft with the force-free in D "KID" function, after vehicle has stopped.

Attachments	
File	Description
KID Function.pdf	

Cause

The tension-releasing jolt in the drivetrain originates as a result of the "release" of energy stored when braking through the force-free switch after stopping. It is suspected that the longitudinal bearing is being placed under tension here as a result of the vehicle "dropping off".

Remedy

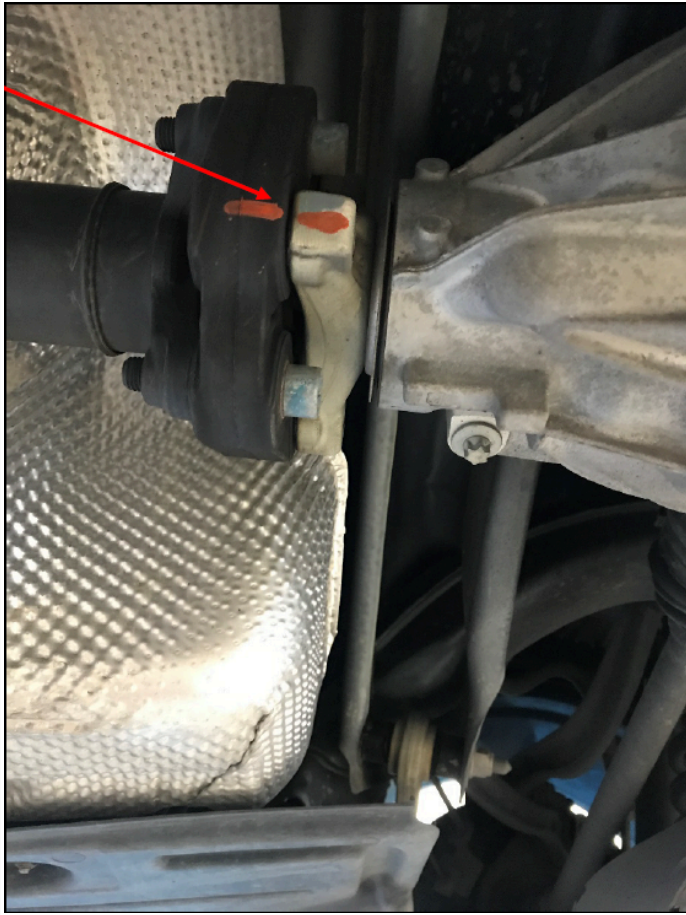
1. Mark the installation position of the joint prior to the removal (picture a+b). This is important for vehicles with a weighted drivetrain ex factory to ensure correct installation after operations have been completed.
2. Clean and degrease propeller shaft toothing. The toothing must be free of grease, e.g. through the use of a brake cleaner. Do not use wire brushes, else the surface could be damaged (picture c).
3. Coat propeller shaft toothing with A 000 989 16 08 Antifriction coating. Coat the entirety, ensuring that the sub-surface is no longer visible. When doing so, only coat the outer toothing. Ensure that the coat is not too thick, otherwise the coating could chip (picture d).
4. Observe the drying time of at least 1 hour.
5. Lightly grease the propeller shaft toothing at the outer and inner toothing with A 001 989 44 51 12 Grease (picture e).

Attachments	
File	Description
Einbauposition_Installation_Position.png	Picture a: Mark installation position



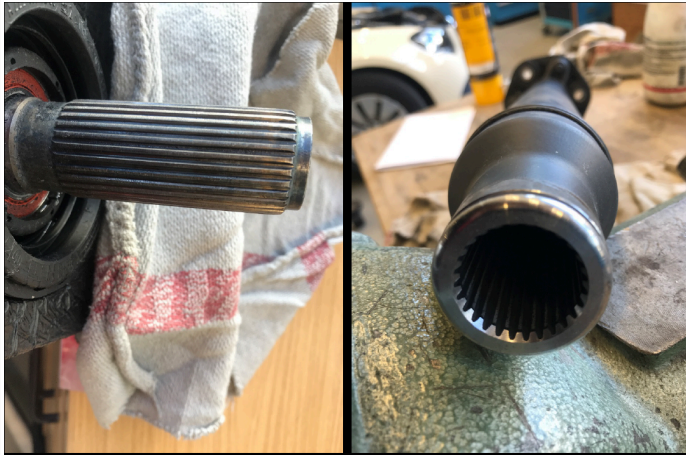
[Einbauposition_Installation_Position_2.png](#)

Picture b: Mark installation position 2



Gelenkwellenverzahnung reinigen und entfetten_Cleaning propeller shaft tothing.png

Picture c: Clean and degrease propeller shaft tothing



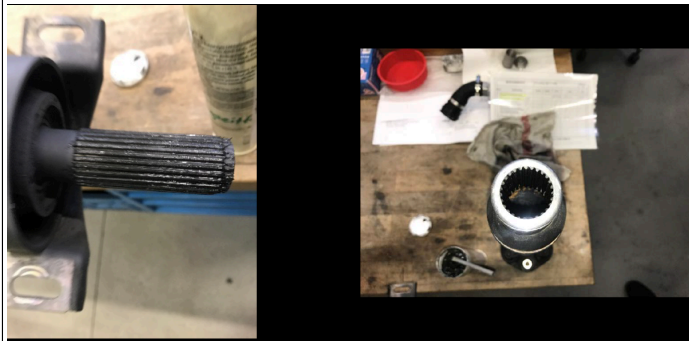
Gelenkwellenverzahnung mit Gleitlack beschichten_Coat prop shaft gears.png

Picture d: Coat propeller shaft tothing with antifriction coating



[Gelenkwellenverzahnung_fetten_Grease_Propeller shaft toothing.png](#)

Picture e: Grease propeller shaft toothing



WIS-References

Document number	Title	Note
AR41.10-P-0050LW	Remove/install propeller shaft	Model 205, 213, 238
AR41.10-P-0050OIB	Remove/install propeller shaft	Model 257 with engine 654, 656
AR41.10-P-*****	Remove/install propeller shaft	Additional documents as per WIS

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 > Drive shaft > Propeller shaft > Function > Vibration/out-of-balance

Power transmission > Automatic transmission > Function > Shifting is rough

Power transmission > Automatic transmission > Function > Poor shift quality

XENTRY Tips

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC
A 000 989 16 08			LUBRICATING OIL	1	400 ml tinplate spray can (antifriction coating)	X
A 001 989 44 51	12		GREASE	1		X

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
			41002H5	Sliding piece of propeller shaft, stuck