

Humming, droning, vibrating, throbbing in various operating states

Topic number	LI35.30-P-059149
Version	2
Design group	35.30 Final drive, drive shafts
Date	07-18-2014
Validity	Only affects vehicles of model series C117, 156, 176, 246 with 4Matic (SA code M005)
Reason for change	Re-release
Reason for block	

Complaint:

1. Low-frequency throbbing or vibration at 1200 - 1400 rpm under light load, primarily noticeable in the rear compartment.
2. Throbbing at a constant speed of 75 - 86 km/h under light load, also possible when accelerating (all gear ranges affected).

Cause:

Several causes are possible:

1. Unfavorable setup of the rubber mounts at the rear axle differential.
 - 1a. Hollow axle side shaft installed on the rear axle.
2. Slight imbalance between propeller shaft and rear axle differential.

Remedy:

1. Install rear axle damper (A 246 350 54 01) in model series 117, 156 and 246 (Figure 2); this measure is not possible on model series 176 because the installation space is too small.
 - 1a. Only for vehicles up to production date 31.12.2013!: Check tube diameter of both side shafts on rear axle. Shafts with a diameter of 23 mm should be installed. If shafts with a diameter of 33 mm are installed, these must be replaced (Figure 1).
2. Rotate the propeller shaft at the 3-arm flange of the rear axle differential (the 3-arm flange allows three possible assembly positions).

Attachments	
File	Description
Rear Axle Shaft Type.pdf	Rear axle side shaft (solid shaft)
Mounting Position of Rear Axle Damper.pdf	Installation location of rear axle damper

Symptoms
Power transmission / Power transmission, noise / Throbbing/intermittent humming
Power transmission / Power transmission, noise / Humming/droning

Power transmission / Drive shaft / Propeller shaft / Propeller shaft - noises / Humming/droning

Power transmission / Drive shaft / Axle shaft / Axle shaft, noise / Humming/droning

Parts

Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other ma- ke part
A 246 350 95 00			Left side shaft	1		X	
A 246 350 96 00			Right side shaft	1		X	
A 246 350 54 01			Rear axle differential damper	1		X	
N 910105 014022			Bolt for rear axle damper	1	The bolt must be renewed at the same time.	X	
A 230 990 00 40			U-washer	1		X	

Validity

Vehicle	Engine	Transmission
156.902	*	*
156.903	*	*
156.905	*	*
156.908	*	*
156.912	*	*
156.943	*	*
156.944	*	*
156.945	*	*
156.946	*	*
156.952	*	*
242.848	*	*
242.890	*	*
246.200	*	*
246.201	*	*
246.203	*	*
246.207	*	*
246.211	*	*
246.212	*	*
246.242	*	*
246.243	*	*
246.244	*	*
246.247	*	*
A (176)	*	*
CLA (117)	*	*