

Creaking, grating or grunting noise when steering

Topic number	LI46.40-P-055798
Version	1
Design group	46.40 Steering linkage
Date	02-28-2013
Validity	All, model 451
Reason for change	
Reason for block	

Complaint:

Creaking, grating or grunting noise while steering audible in the steering gear area. The noise can be transferred through the steering gear into the interior. The noise occurs, in particular, at high temperatures, e.g. in the summer.

Cause:

The outboard tie rod ball joints can exhibit an increased breakaway torque and moment of friction, and consequently cause noise (stick-slip effect)

Attachments	
File	Designation
KnarzenGelenk aussen - Kopie.mp3	Creaking or grunting noise when steering in installed condition

Remedy:

For vehicles from the production period between July 2010 to December 2010, in which the noise could not be localized, both outboard tie rod ball joints should be replaced.

Before this the rack-and-pinion steering with unhooked tie rod ends should be moved in both directions, to ensure that the noise does not emanate from the steering itself.

Symptoms
Chassis/suspension / Steering system / Steering noise / Chattering/knocking
Chassis/suspension / Steering system / Steering noise / Humming/vibrations
Chassis/suspension / Steering system / Steering System Function / Stiff movement
Chassis/suspension / Chassis, noises / Grunting
Chassis/suspension / Steering system / Steering System Function / Return too slow
Chassis/suspension / Chassis, noises / Creaking

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other make part

A 451 338 01 37			Repair kit for tie rod ball joint	2	Content of repair kit: 1x tie rod ball joint, 1x locknut	X	
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Work units				
Op. no.	Operation text	Time	Damage code	Note
46-7233	REPLACE BALL JOINT (BOTH) OF TIE ROD (TIE ROD RELEASED ON ONE SIDE)		46487 36	
40-6501	CONDUCT STANDARD WHEEL ALIGNMENT CHECK			

WIS-References			
Document number	Title	Note	Allocation
ar46.40-p-0210mcc	Remove/install tie rod end		Remedy

Validity		
Vehicle	Engine	Transmission
451.300	*	*
451.301	*	*
451.330	*	*
451.331	*	*
451.332	*	*
451.333	*	*
451.334	*	*
451.380	*	*
451.390	*	*
451.391	*	*
451.400	*	*
451.401	*	*
451.431	*	*
451.432	*	*
451.433	*	*
451.480	*	*
451.490	*	*
451.491	*	*

Full model designation breakdown		
Vehicle	Engine	Transmission
451.300	660.950	717.483
451.301	660.951	717.483

451.330	132.910	717.480
451.330	132.910	717.481
451.331	132.910	717.480
451.331	132.910	717.481
451.331	132.910	717.482
451.332	132.930	717.481
451.333	132.930	717.484
451.334	132.910	717.481
451.380	132.910	717.481
451.390	000.000	700.111
451.390	780.993	700.111
451.391	000.000	000.000
451.391	780.009	000.000
451.400	660.950	717.483
451.401	660.951	717.483
451.431	132.910	717.480
451.431	132.910	717.481
451.431	132.910	717.482
451.432	132.930	717.481
451.433	132.930	717.484
451.480	132.910	717.481
451.490	000.000	700.111
451.490	780.993	700.111
451.491	000.000	000.000
451.491	780.009	000.000