

Humming/howling noise from ABC suspension up to approx. 2000 rpm

Topic number	LI32.50-P-048280
Version	1
Design group	32.50 Active body control (ABC)
Date	11-10-2009
Validity	MODEL 215, 216.37#, 220, 221, 230 with code 487 (ABC); all vehicles with Active Body Control (code 487)
Reason for change	Validity extended to current model series / Supersedes DTB P-B-32.50/24

Complaint:

Humming / howling noises can be heard from underfloor area.

Noise can be heard from idle up to approx. 2000 rpm. Above this, it is drowned out by the engine noise.

Note:

The noise is particularly noticeable at approx. 1400 rpm.

Cause:

As mileage increases (>100,000 km / 62,000 miles), the gas pressure in the pulsation damper ("pressure reservoir" / "damper") of the ABC system can decline, meaning that the full damping effect may no longer be available.

Note:

Noises may also be caused by touching/stressed ABC lines. Please check this before replacing any parts, and correct if necessary.

Aids:

Use clamp kit for noise diagnosis (STEELMAN ChassisEAR) as per WIS document (AR32.00-P-2000A).

Remedy:

If ABC lines are not touching / stressed,

replace pulsation damper at pressure supply valve block (ABC I) or at tandem pump (ABC-PLUS).

Note:

Pulsation damper can be replaced separately, sealing ring is included.

Note:

Replacement of the entire pressure supply valve unit or ABC tandem pump is not required.

Note:

With the introduction of ABC-PLUS (as of model year 2006), the pulsation damper is located on the tandem pump.

Attachments	
File	Designation
EPC Pulsationsdampfer 220_215.jpg	Pulsation damper: No. 410
EPC Pulsationsdampfer R230.jpg	Pulsation damper: No. 290 Valid up to model year 2006
EPC Pulsationsdaempfer 216_221.jpg	Pulsation damper: No. 15

Symptoms
Chassis/suspension / Humming/droning/throbbing / Chassis, noises /
Power generation / Engine noise / Humming/droning /
Howling / Power generation / Engine noise /
Power generation / Vibrating / Engine noise /
Chassis/suspension / Vibrating / Chassis, noises /
Chassis/suspension / Active body control / Grunting / Suspension/Dampening / ABC Noise /
Chassis/suspension / Active body control / Whistling/hissing/flowing / Suspension/Dampening / ABC Noise /
Chassis/suspension / Active body control / Tandem pump / Suspension/Dampening / ABC Noise /
Chassis/suspension / Chassis, noises / Howling /
Howling/whistling/squeaking / Chassis/suspension / Chassis, noises /

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Non-EPC
A2203270215			Pressure reservoir (ABC pulsation damper) (on valve block)	1	Valid for model series 215, 220, 230 up to chassis no. 230.### - #F- 122820	X	
A0004660010			Damper (on tandem pump)	1	Valid for model series 216, 221, 230 as of chassis no. 230.### - #F- 122820	X	

Work units				
Op. no.	Operation text	Time	Damage code	Note
32-7550	REPLACE PULSATION DAMPER FOR ACTIVE BODY CONTROL (ABC)	siehe AS-RA	32584 53	Refer to Warranty Matrix via Netstar - VMI - Enter VIN – DTB / LI - Find Document Number - “Related Warranty Information” link OR “Print Warranty Information” link

WIS-References			
Document number	Title	Note	Allocation
AR32.00-P-2000A	Localize noises on suspension	Adapt procedure for ABC components	Remedy
AR32.50-P-0013N	Remove/install pulsation damper	MODEL 215, 220	Remedy
AR32.50-P-0013R	Remove/install pulsation damper	MODEL 230 up to 806 (model year 2006)	Remedy
AR32.50-P-0013RX	Remove/install pulsation damper	MODEL 230 as of 806 (model year 2006)	Remedy
AR32.50-P-0013SX	Remove/install pulsation damper	MODEL 216, 221	Remedy