

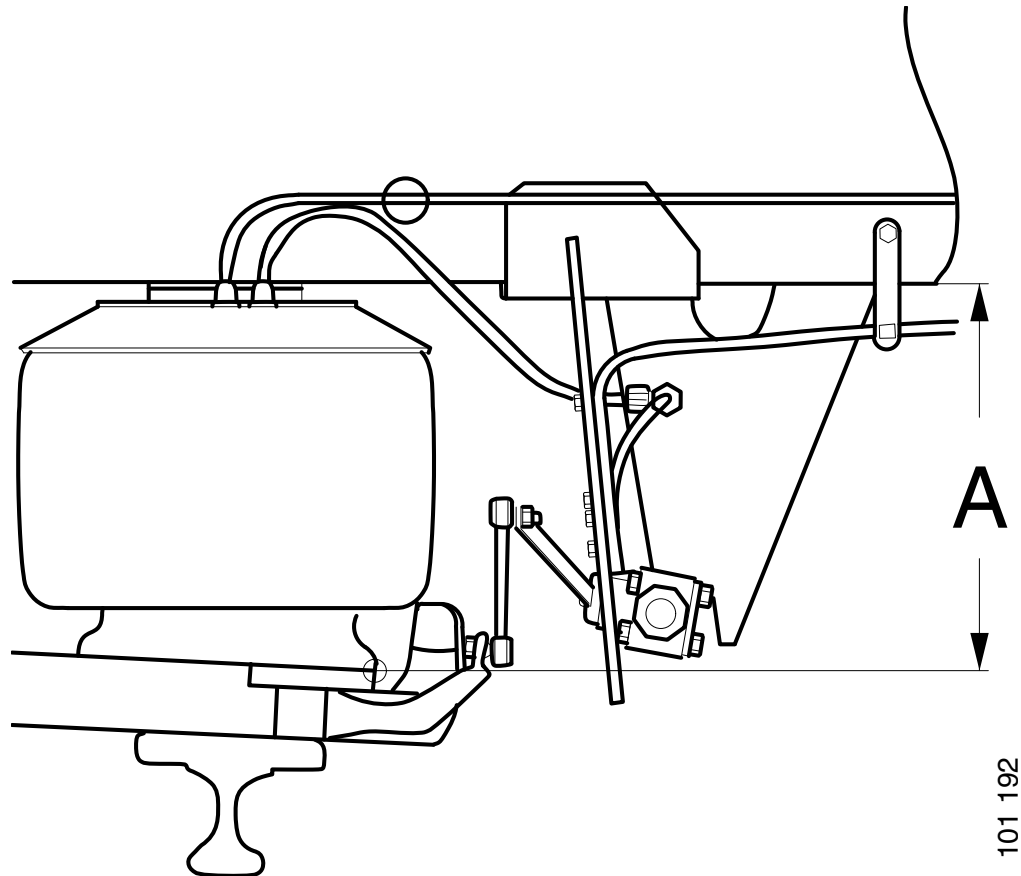
SCANIA

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Issue 5.1 en

Air spring heights

Setting of air spring heights



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Air spring heights

Truck

Chassis height

There are three different chassis heights which affect the calibration heights.

N stands for Normal, i.e. 4x2 N

L stands for Low, i.e. 4x2 L

E stands for Extra low, i.e. 4x2 E

Front axle

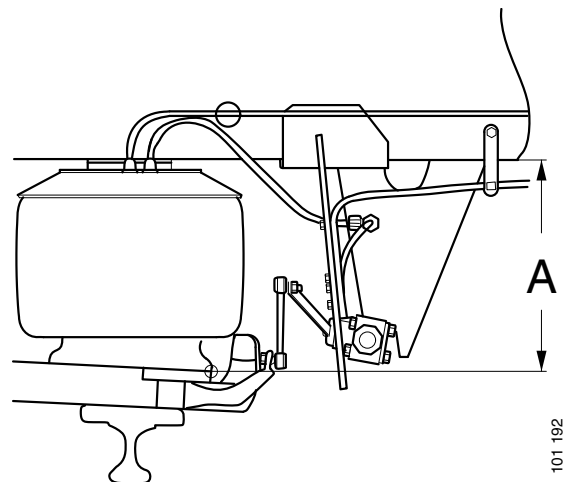
The front axle deflection determines which air spring heights should be selected when calibrating the front.

AMA 860 deflection 170 mm.

AMA 740 deflection 112 mm.

AMA 920 deflection 82 mm.

The front air spring heights are measured between the bottom of the frame and the bottom of the lower roller body of the bellows.



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Rear axle

The type of rear axle housing determines which air spring height to select when calibrating the rear. Measuring on vehicles with tag axles should be carried out with the axle lowered.

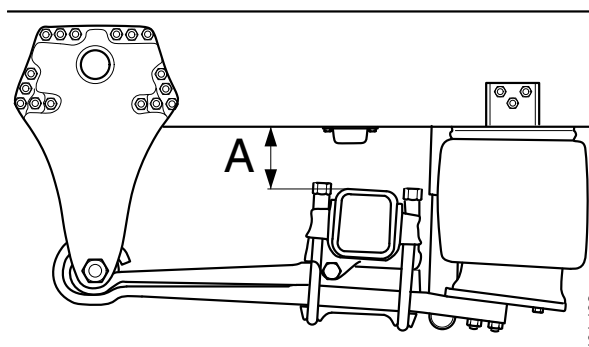
ADA 1300

ADA 1500

Tandem bogie

Another factor affecting calibration is the generation to which the rear axle suspension belongs.

- Generation 1 has shock absorbers on the inside of the frame.
- Generation 2 has shock absorbers on the outside of the frame.



The rear air spring height is measured between the top of the rear axle housing and the bottom of the frame, with the tag axle lowered.

Mechanically controlled air suspension - A suspension

Chassis	Rear axle	Drive level +/- 15 mm	Max. level +/- 15 mm	Remarks
4x2N	ADA 1100/ 1300 ^a	142	269	Generation 1
4x2N	ADA 1100/ 1300 ^b	128	288	Generation 2
4x2N	ADA 1500P ^b / 1501P ^b	122	282	Generation 2
4x2L	ADA 1100/ 1300 ^c	101	288	Generation 2 Manufactured before February 2000
4x2L	ADA 1100/ 1300 ^d	70	220	Generation 2 Manufactured after February 2000

a = Rear axle suspension generation 1.

b = Rear axle suspension generation 2.

c = Rear axle suspension generation 2,
manufactured **before** February 2000.

d = Rear axle suspension generation 2,
manufactured **after** February 2000.

ELC generation 1 - Front

Chassis	Front axle	Drive level	Max. level	Remarks
		+/- 10 mm	+/- 10 mm	
4x2N	AMA 740	265	452	
6x2N	AMA 860	317	537	

ELC generation 1 - Rear

Chassis	Rear axle	Drive level	Max. level	Remarks
		+/- 10 mm	+/- 10 mm	
4x2N	ADA 1300	142	262	
6x2N	ADA 1300	142	262	

ELC generation 2 - Front

Chassis	Air spring height	Front axle	Drive level	Max. level	Remarks
			+/- 10 mm	+/- 10 mm	
4x2N 6x2N 6x4N 6x2/4N 8x2/4N 6x2*4N 8x4*4N	Normal	AMA 860	317	537	
4x2N 6x2N 6x4N 6x2/4N 6x2*4N	Low	AMA 740	265	452	
8x2N 8x4N 8x2*6N	Normal	AMA 860	317	477	
8x2N 8x4N 8x2*6N	Low	AMA 740	265	425	
4x2L 6x2L 6x2*4L	Low	AMA 860	285	452	Manufactured before February 2000
4x2L 6x2L 6x2*4L	Low	AMA 860	265	452	Manufactured after February 2000
6x2/4L	Extra low	AMA 860	218	328	
4x2E	Extra low	AMA 860	218	328	

ELC generation 2 - Rear

Chassis	Rear axle	Drive level	Max. level	Remarks
		+/- 10 mm	+/- 10 mm	
4x2N	ADA 1100/1300	128	288	
6x2N				
8x2N				
6x2*4N				
8x2*6N				
4x2N	ADA 1500P/1501P	122	282	
6x2N				
8x2N				
6x4N	ADA 1100/1300	128	233	
8x4N				
8x4*4N				
6x2/4N	ADA 1100/1300	128	257	
8x2/4N				
8x2/4N	ADA1500P/1501P	122	251	
4x2L	ADA1100/1300	101	288	Manufactured before February 2000
6x2L				
6x2*4L				
4x2L	ADA1100/1300	70	225	Manufactured after February 2000
6x2L				
6x2*4L				
6x2/4L	ADA1100/1300	96	242	
4x2E	ADA1100/1300	78	239	

Buses

Checking air spring height

Conditions:

- Full working pressure in the compressed air system.
- Normal drive level, i.e. functions such as ground clearance height, lowering boarding step and similar must not be activated.

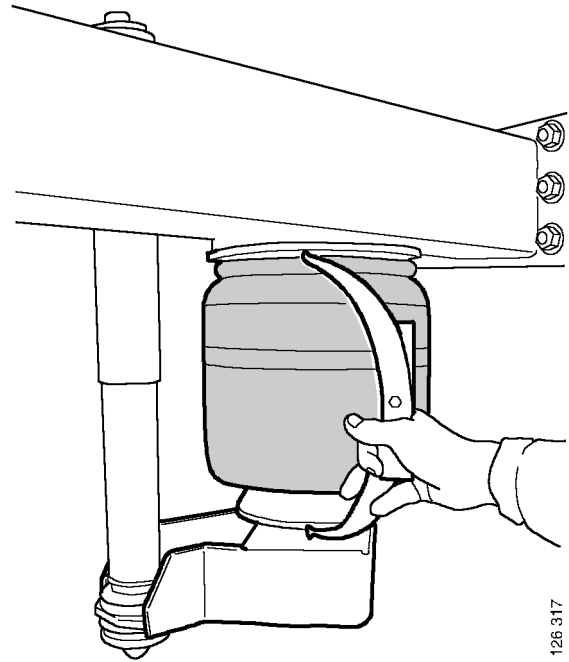
Measure the air spring height between the upper edge of the upper bellows plate and the lower edge of the roller body.

Drive level 2

Drive level 2 may be used on CN94UB with ELC. Drive level 2 means that the air spring height is automatically reduced when the speed of the bus is below a certain value (currently 47 km/h). Whether the drive level 2 function is to be used or not is programmed into the ELC system. The air spring heights for drive level 2 are:

When **checking**, the nominal dimensions -20 mm apply.

When setting, the standard dimensions apply.



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Air spring heights

Front axle	Air spring height	Remarks
Chassis-class I	218 mm	AMA 860, rigid axle.
Chassis-class U	243 mm*	AMA 780, rigid axle.
Chassis-class U (manufactured after chassis number 1 832 027 for articulated buses and chassis number 1 832 230 for other buses).	255 mm*	AMA 780, rigid axle.
Chassis class E	243 mm	AMI700D, independent front wheel suspension
Chassis class E	243 mm	AM/AMA60, rigid axle (8x2)

Rear axle	Air spring height	Remarks
All	290 mm*	ADA 1300, ADA 1350

Tag axle	Air spring height	Remarks
6x2, 6x2*4	243 mm	ASA701, ARA860
K94UB 6x2/4	218 mm	ARA660

Centre-axle	Air spring height	Remarks
Articulated bus	290 mm*	ASA 100X

* Can occur with the function drive level 2.

Tolerances

Air spring heights given are standard dimensions with tolerances.

Mechanically-controlled air suspension

The tolerance is +/- 5 mm. Though +/- 8 mm is allowed on one of the rear or centre-axle's bellows.

EDU

The tolerance is +/- 10 mm when checking and +/- 3 mm when setting. Though +/- 5 mm is allowed on one of the rear or centre-axle's bellows.

