



Installation instructions

Conversion to AMG sports suspension

Model 129 without level control

32.10

on rear axle

Models 129.058/060/061/063/066/067 - USA versions are excluded.

These installation instructions apply to the mounting of the following suspension kits:

- Set 1: B6 602 0033 - Front axle rating number up to 32
- Set 2: B6 602 0030 - Front axle rating number from 33 to 52
- Set 3: B6 602 0031 - Front axle rating number from 53

The installation instructions are divided up into the following sections:

- A. AMG sports suspension
- B. Installation of AMG sports suspension
- C. Test and adjustment values
- D. Appendix to installation instructions

Note

An entry in the vehicle documents is required in the Federal Republic of Germany. In addition, a copy of the respective sample report and confirmation from the Mercedes-Benz workshop must be submitted (refer to form in appendix).



The AMG sports suspension may only be installed in vehicles with the reinforced "front axle damper

strut to **upper** steering knuckle" bolted connection with the hexagon socket bolt M14 ×1.5×45-12.9

(previously: hexagon bolt dimensioned M12 ×1.5×40-12.9).

Production breakpoint of the reinforced bolted connection as of 29.01.1992 with chassis number

WDB 129 066 1F 050 768.

Note

Vehicles with an earlier production date must be converted appropriately.

Basically this involves replacing the left and right steering knuckles.

A. AMG sports suspension

The following parts of the suspension have been tuned to a sporting driving style:

- Front axle/rear axle springs
- Front axle damper struts
- Front axle torsion bar
- Rear axle shock absorbers

The vehicle level has been lowered relative to the standard production version.

Test and adjustment values can be obtained from chapter C of these installation instructions.

Trailer operation

Trailers may not be operated in conjunction with AMG sports suspension.

Wheel/tire combinations

The following wheel/tire combinations can be used.

1. AMG 17 inch tires

	Combination 1	Combination 2
Tire dimensions	Front axle 245 /45 ZR 17 Rear axle 245 /45 ZR 17	Front axle 235 /45 ZR 17 Rear axle 255 /40 ZR 17
Information "Summer tires in conjunction with AMG special equipment and AMG light alloy wheels from the range of accessories".	Recommended tire brands can be obtained from Service	
Wheel dimensions 18 17	Fr. ax. 81/2 J × 17 H2 ET 18 R. axle 81/2 J × 17 H2 ET 18	Fr. ax. 81/2 J × 17 H2 ET R. axle 10 J × 17 H2 ET
(multi-piece AMG light-alloy disk wheel, forged)	All wheel-related details such as tightening torques, wheel bolts, inflation pressures, etc. are listed in the installation instructions 40.06 "Conversion to 17 inch wheels" - model 129.	

2. MB 16 inch standard production tires

Use of snow chains

Snow chains may only be used in conjunction with MB standard production tires.

B. Installation of AMG sports suspension

1. Springs, front damper strut and/or rear shock absorber on front and rear axle

Front axle		Rear axle	
Spring part no./color code	Damper strut ²⁾⁵⁾ part no.	Spring part no./color code	Shock absorber part no.
H WA129 321 01 04 ⁴⁾ (1 × yellow) replaced by: H WA129 321 04 04 (1 × green)		H WA129 324 01 04 ⁴⁾ (1 × yellow) replaced by: H WA129 324 03 04 ¹⁾ (1 × green)	
H WA129 321 02 04 ⁴⁾ J1 31 (2 × yellow) replaced by: H WA129 321 05 04 ¹⁾ (2 × green)	H WA129 320 02 30 optional H WA129 320 03 30	H WA129 324 02 04 ^{3) 4)} (2 × yellow) replaced by: H WA129 324 04 04 ^{1) 3)} (2 × green)	H WA129 320
H WA129 321 03 04 ^{3) 4)} (3 × yellow) replaced by:			

H WA129 321 06 04 1)3)
(3 × green)

- 1) As of approx. 06/93
- 3) Refer to note 2, installation of AMG damper strut
- 3) Applies to vehicles with additional special equipment
- 4) Part is not stocked by parts dept.
- 3) May only be fitted in pairs

Important note

Front axle/rear axle springs with the same part no. or same color code according to the assignment (refer to chapter C) may only be installed **per axle**.

2. Removal and installation of suspension parts

- Front axle torsion bar
- Front axle damper struts
- Rear axle shock absorbers
- Front axle/rear axle springs

Proceed in accordance with MB guidelines.

For this, refer to current repair microfilm
"Steel suspension, model 129" - main group 32.

For assignment of springs or spring rubber mounts on the front and rear axle refer to chapter C of these installation instructions.

Notes on installation of AMG damper strut

The standard production front axle stop buffer is no longer being used.
It has been replaced by buffer part no. H WA129 323 99 44



Note revised tightening torque for bolted connection "front axle damper strut to upper steering knuckle" in the case of bolt dimension M14 × 1.5 × 45-12.9.

Tightening torque 200 ± 10 Nm

Note on installation of inner, frame-side rubber mount of the front axle torsion bar, dia. 32 mm, part no. H WA129 323 99 85.

Rubber mounts are provided with a lubrication coating on the inside diameter and **under no circumstances** must they come into contact with oil, grease or other lubricants before being pushed onto the torsion bar.

Note

If, in individual cases, the vehicle level should be outside the specified tolerance band after the installation of the AMG sports suspension, despite correct assignment of springs and spring rubber mounts, the vehicle level is to be retroactively corrected by means of the spring rubber mounts:

The vehicle level is always to be checked at the front and rear axle in the ready-to-drive condition

Front axle:

A 5 mm change at the front spring rubber mount (corresponds to one stud) raises or lowers the vehicle level by approx. 9 mm.

Rear axle:

A 5 mm change at the rear spring rubber mount (corresponds to one stud) raises or lowers the vehicle level by approx. 8 mm.

The specified values can be obtained from chapter C of these installation instructions.

3. Chassis measurement

Proceed in accordance with MB guidelines.

For this, refer to repair microfilm "Chassis measurement, model 129" - main group 40.

The adjustment values can be found in chapter C of these installation instructions.

C. Test and adjustment values

**Models 129 with steel suspension
Special equipment "AMG sports suspension"**

Vehicle level in mm

Front axle	Rear axle
ready-to-drive	without level control ready-to-drive
+5	+5
- 15 - 10	- 10 - 10

Wheel alignment at front axle - ready-to-drive

Camber ¹⁾)	Wheels in straight-ahead position	- 1°	+10'	(- 1.00°	+0.15°
	(Toe-in value 0)		- 20'	- 0.35°	
	Permissible difference between left and right	0° 20'		(0.35°)	
Caster ¹⁾	Wheels in straight ahead position (Toe-in value 0)	10° 35' ± 30'		(10.60° ± 0.50°)	
	With wheels turned	10° 20' ± 30'		(10.35° ± 0.50°)	
	Permissible difference between left and right	0° 30'		(0.50°)	
Toe-in ¹⁾ (Front wheels pressed apart with 90-110 N)		0° 20' ± 10'		(0.35° ± 0.15°)	
Toe difference angle for 20° steer angle of the wheel on the inside of the curve ²⁾		- 0° 45' ± 30'		(0.75° ± 0.50°)	
Maximum permissible steer angle of the wheel on the inside of the curve ³⁾		40°		(40.00°)	
Ball point position ⁴⁾		23	± 2 mm		
Permissible height deviation of the ball point position between the pitman arm and steering idler arm		3 mm			

Values in brackets in decimal degrees

¹⁾ Tolerances only for test. Aim for specified value during adjustment.

²⁾ Value without toe-in.

³⁾ On the wheel on the outside of the curve, a 7° to 11° smaller steer angle results from the toe difference angle.

⁴⁾ Correction upwards and downwards by shifting the steering idler arm on the bearing tube.

Wheel alignment at rear axle

Total toe-in (ready-to-drive level)	+10'	+0,15°	
Distribute value evenly between both wheels	0° 25'	(0,40°)
	- 05'	- 0,10°	

Values in brackets in decimal degrees

Camber values at rear axle at vehicle level

Camber (°)	Vehicle level (mm)
· 0° 15' ± 30' (- 0.25°	± 0.50°) +50
· 0° 30' ± 30' (- 0.50°	± 0.50°) +40
· 0° 45' ± 30' (- 0.75°	± 0.50°) +30
· 1° ± 30' (- 1.00°	± 0.50°) +20
· 1° 15' ± 30' (- 1.25°	± 0.50°) + 10
· 1° 30' ± 30' (- 1.50°	± 0.50°) 0
· 1° 45' ± 30' (- 1.75°	± 0.50°) - 10
· 2° ± 30' (- 2.00°	± 0.50°) - 20
· 2° 15' ± 30' (- 2.25°	± 0.50°) - 30
· 2° 30' ± 30' (- 2.50°	± 0.50°) - 40

√values in brackets in decimal degrees

Survey of front axle spring rubber mounts

Part no.	Number of studs	Height "s" (mm)
A201 321 09 84	1	8
A201 321 10 84	2	13
A201 321 11 84	3	18
A201 321 12 84	4	23

Front axle rating system for model and version

Model 129.	058	060	061	063	066	067
Basic rating	28	18	25	33	34	38
Auxiliary heater	2 p.					
Air conditioner	7 p.					
Sound system	1 p.					
Front passenger airbag	1 p.					
Undersield	1 p.					
Telephone installation parts	1 p.					
Fire extinguisher	1 p.					
Electr. adjustable steering column	1 p.					
Hardtop	1 p.					
AMG styling package	1 p.					

Assignment of front springs to spring rubber mounts

Total rating	Front spring part no. Part no./color code	Spring rubber mount Part no. for front spring	
		Load group blue	Load group red
up to 18	H WA129 321 01 04 ²⁾³⁾ (1 × yellow)	A201 321 09 84	A201 321 10 84
up to 25	replaced by:	A201 321 10 84	A201 321 11 84
up to 32	H WA129 321 04 04 ¹⁾²⁾ (1 × green)	A201 321 11 84	A201 321 12 84
up to 38	H WA129 321 02 04 ²⁾³⁾ (2 × yellow)	A201 321 09 84	A201 321 10 84
up to 45	replaced by:	A201 321 10 84	A201 321 11 84
up to 52	H WA129 321 05 04 ¹⁾²⁾ (2 × green)	A201 321 11 84	A201 321 12 84
up to 58	H WA129 321 03 04 ²⁾³⁾ (3 × yellow)	A201 321 09 84	A201 321 10 84
up to 66	replaced by:	A201 321 10 84	A201 321 11 84

¹⁾ As of approx. 06/93

Front axle/rear axle springs

²⁾ with the same part no. or same color code may only be installed by axle.

³⁾ Part is not stocked by parts dept.

Survey of rear axle spring rubber mounts

Part no.	No. of studs	Height "s" (mm)
A201 325 09 44	1	8
A201 325 10 44	2	13
A201 325 11 44	3	18

Rear axle rating system for model and version

Model 129.		058	060	061	063	066	067
Basic rating		29	28	35	38	35	38
Refrigerator box in trunk	7 p.						
Hard top	6 p.						
Telephone installation parts	1 p.						
CD changer in trunk	1 p.						
Sound system	1 p.						
Rear seats	1 p.						
Large battery	1 p.						
Auxiliary heater	1 p.						
Draught-stop in trunk	1 p.						
AMG styling package	1 p.						

Assignment of rear springs to spring rubber mounts

Total rating	Rear spring part no. Part no./color code	Spring rubber mount Part no. for rear spring	
		Load group - blue	Load group - red
up to 33	H WA129 324 01 04 ²⁾ ³⁾ (1 × yellow) replaced by:	A201 325 09 44	A201 325 10 44
up to 41	H WA129 324 03 04 ¹⁾ ²⁾ (1 × green)	A201 325 10 44	A201 325 11 44
up to 50	H WA129 324 02 04 ²⁾ ³⁾ (2 × yellow) replaced by:	A201 325 09 44	A201 325 10 44
up to 58	H WA129 324 04 04 ¹⁾ ²⁾ (2 × green)	A201 325 10 44	A201 325 11 44
from 59		A201 325 11 44	- -

¹⁾ as of approx. 06/93
²⁾

Front axle/rear axle springs

³⁾ with the same part no. or same color code may only be installed by axle.

³⁾ Part is not stocked by parts dept.