Mercedes-Benz

AMG

Installation Instructions

Conversion to AMG sports chassis
Model 201
32.01

Excluding vehicles with level control system on the rear axle and 201.034/035/036.

Towing equipment not permissible as special equipment.

These installation instructions are valid for assembly of the following chassis kits:
B6 602 00 00

B6 602 00 01

The installation instructions are divided up into the following sections:

A. Scope of conversion

B. Application range of chassis kits

C. Special tools

D. Front axle conversion

E. Rear axle conversion

F. Spring adjustment

G. Axle adjustment values

H. Information for ordering replacement parts

Note
An entry in the vehicle documents is required in the Federal Republic of Germany. A copy of the respective sample report and certificate issued by the Mercedes-Benz workshop must be submitted to the TÜV/TÜA.

A. Scope of conversion

1. Front axle

- Springs and rubber bearings

- Damper struts and PU supplementary springs

2. Rear axle

- Springs and rubber bearings

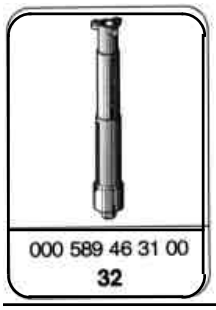
- Shock absorbers and PU supplementary springs

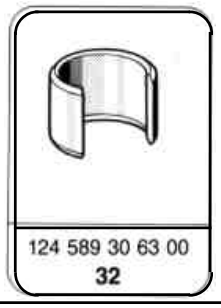
Note
The conversion parts listed in section A differ depending on the vehicle model and special equipment installed. The assignment of conversion parts to the individual vehicle models/equipment can be obtained from section F.

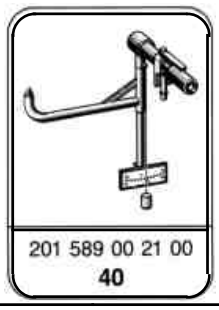
B. Application range of chassis kits

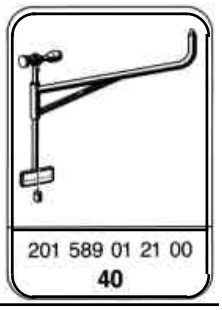
	4-cylinder model 201					5/6-cylinder model 201		
Chassis kit	018	023	024	028	122	029	126	128
B6 602 00 00	X	X	X	X	X			
B6 602 00 01						X	X	X

C. Special tools



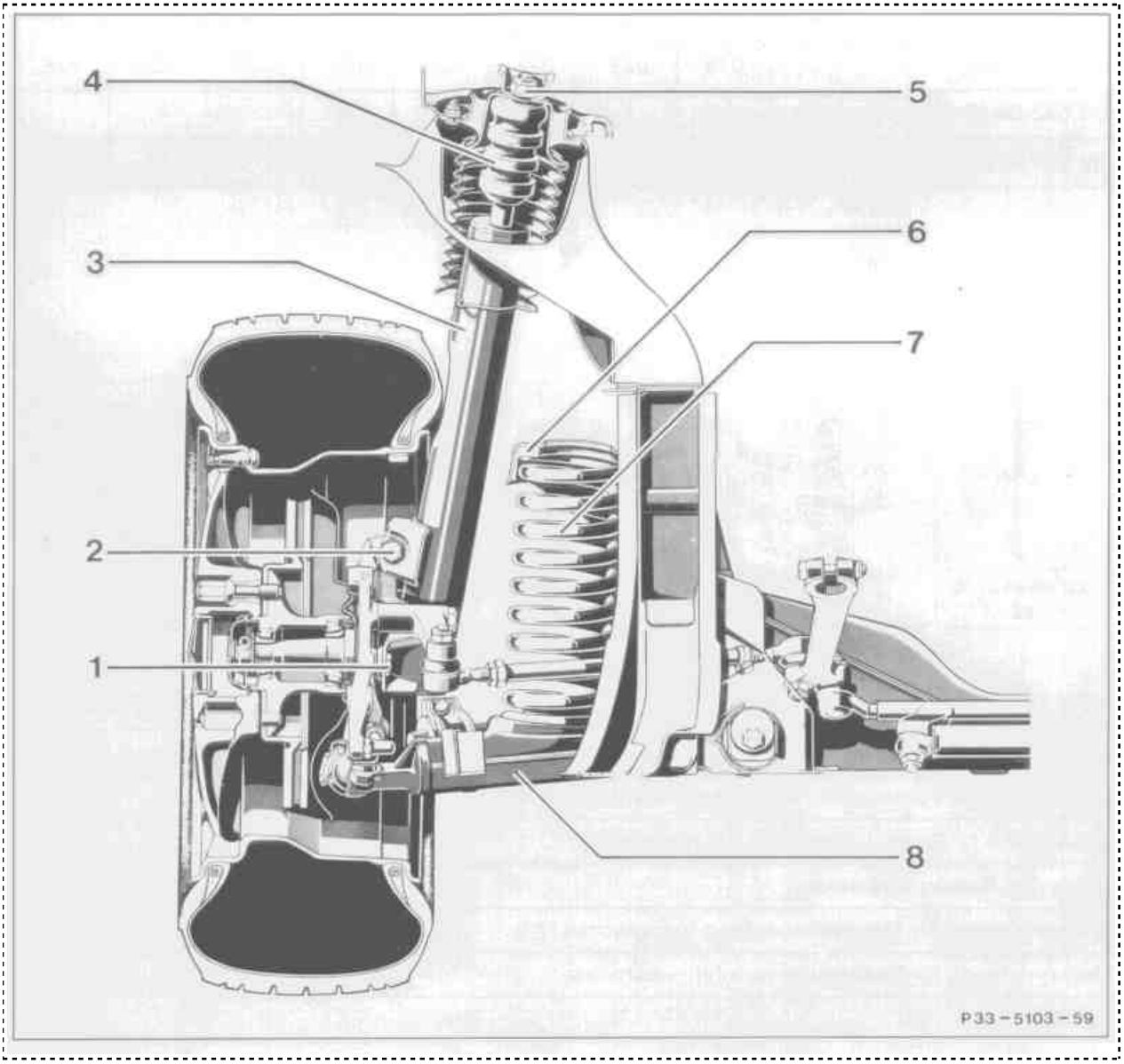






Description	Part no.
Clamp for front and rear springs (basic equipment)	000 589 46 31 00
Clamp plate (2 pieces) for front and rear springs	000 589 79 63 00
Sleeve (for removal of rear spring)	124 589 30 63 00
Measuring device for control arm position - front axle	201 589 00 21 00
Measuring device for spring link position - rear axle	201 589 01 21 00

D. Front axle conversion



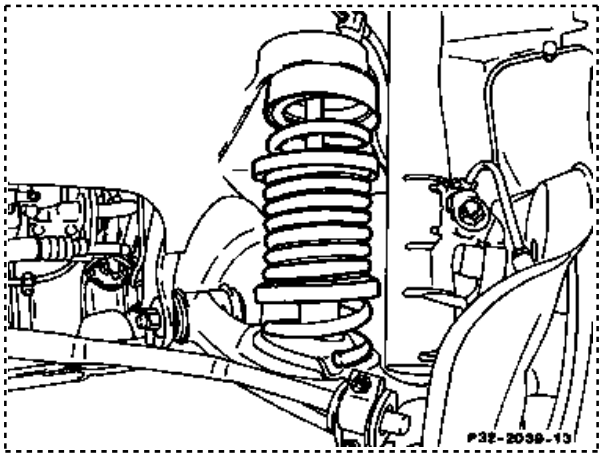
1 Hexagon bolts - steering knuckle/damper strut, lower
2 Hexagon bolt - steering knuckle/damper strut, upper
3 Damper strut
4 PU supplementary spring
5 Upper damper strut mounting
6 Rubber bearing
7 Coil spring
8 Control arm

⚠
The damper struts act simultaneously as rebound stops for the front wheels.
Therefore only slacken the upper mounting when the vehicle is on its wheels, the control arm is supported or the spring clamp is installed.

1. Removing springs and damper struts

1.1 Raise vehicle at front and detach front wheels.

1.2 Install clamp 000 589 46 31 00 and clamp spring until the control arm is relieved of load.
The spring clamp should engage at least 7½ spring coils.



⚠
Ensure correct seating of clamp.

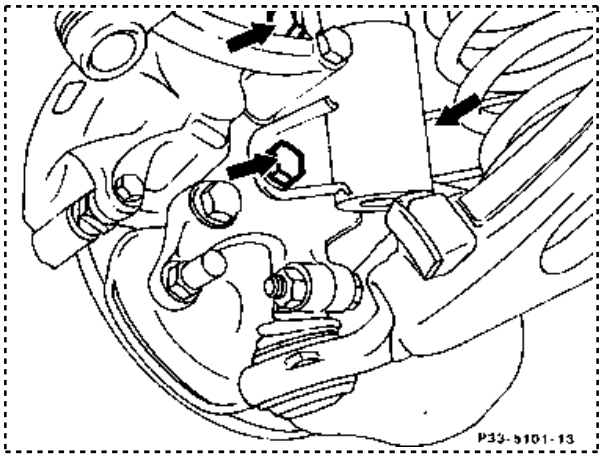
1.3 Support control arm with workshop jack.

1.4 Unscrew upper fixing nut of damper strut with deep-offset box wrench (WAF 22 mm), whilst steadying the piston rod using hexagon socket wrench (WAF 7 or 8 mm).

1.5 Lower control arm and remove clamped spring and rubber bearing.

1.6 Release spring carefully.

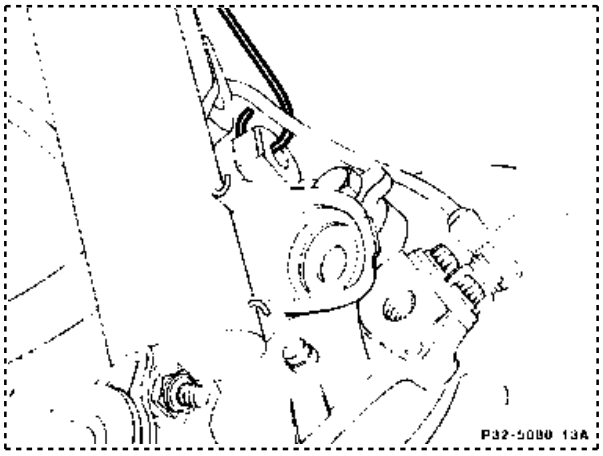
1.7 Detach lower damper strut mounting on steering knuckle, unscrew self-locking hexagon
nut and then unscrew microencapsulated hexagon bolts.



1.8 Remove damper strut downwards.

1.9 Secure steering knuckle with suitable bracket.

⚠
Protect brake hoses and electrical cables from damage.



2. Installing springs and damper struts

Note
Always replace self-locking nuts and microencapsulated bolts.

2.1 Fit stop ring for dust sealing cup to damper strut and slide PU supplementary springs onto the piston rod.

2.2 Install damper strut in the upper mounting bearing from below.

2.3 Mount steering knuckle on damper strut.

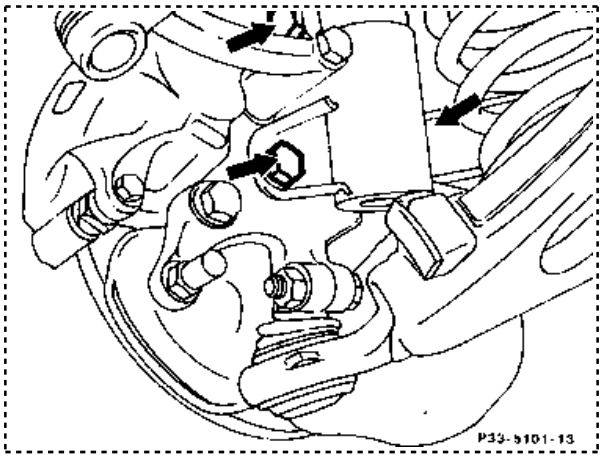
Note
The guide pin on steering knuckle must engage in the bore of the damper strut.

2.4 Screw in the two lower microencapsulated hexagon bolts and tighten slightly.

2.5 Install upper hexagon bolt with washers and new self-locking hexagon nut and tighten slightly.

2.6 Tighten the two lower bolts (tightening torque 110 Nm), then tighten upper clamp connection (tightening torque 110 Nm).

Note
Note tightening sequence.



2.7 Raise control arm using workshop jack. Secure damper strut piston rod with self-locking hexagon nut and washer in the upper damper bearing, whilst steadying piston rod using hexagon socket wrench (WAF 7 or 8 mm) (tightening torque 60 Nm).

2.8 Clamp coil spring with clamp 000 589 46 31 00 (at least 7½ coils).

⚠
Ensure correct seating of clamp.

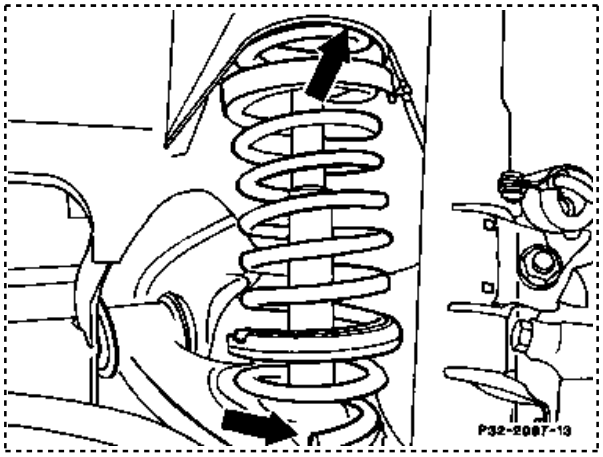
2.9 Install clamped spring and rubber bearing.

2.10 Release spring slowly.

⚠
Ensure that upper rubber bearing and lower coil runout are correctly seated in the frame floor and control arm respectively.

2.11 Fit front wheels.

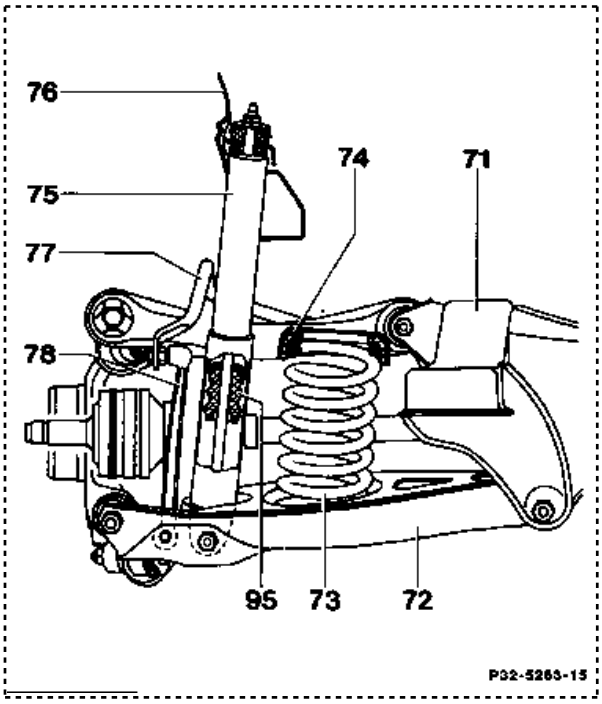
2.12 Lower vehicle and tighten wheel bolts in line with the rim manufacturer's specifications.



E. Rear axle conversion

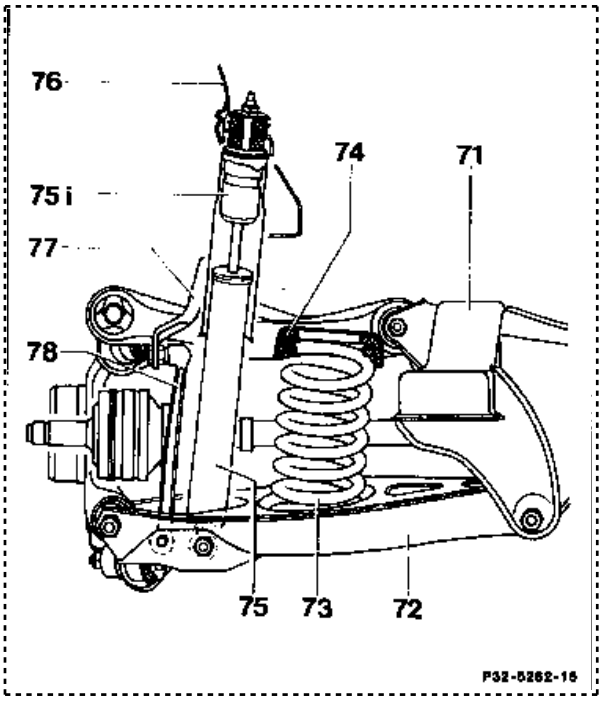
Version up to 11/86

71 Rear axle carrier
72 Spring link
73 Rear spring
74 Rear spring rubber bearing
75 Shock absorber
76 Dome on frame floor
77 Torsion bar
78 Connecting rod for torsion bar
95 Stop buffer



Version from 12/86

71 Rear axle carrier
72 Spring link
73 Rear spring
74 Rear spring rubber bearing
75 Shock absorber
75i Stop buffer
76 Dome on frame floor
77 Torsion bar
78 Connecting rod for torsion bar



Note

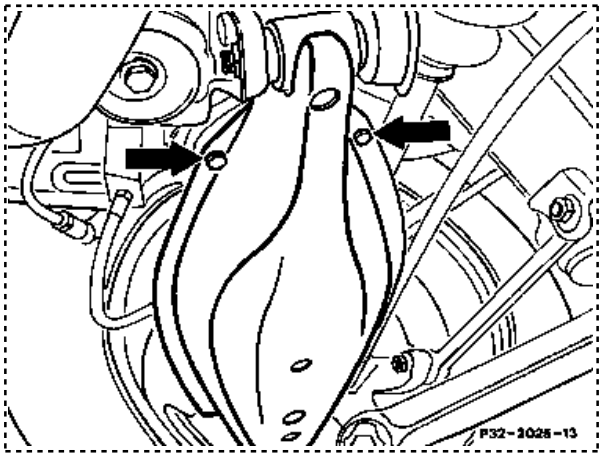
AMG shock absorbers are produced with overhead piston rod (corresponds to version from 12/86). These can also be installed in earlier vehicles (version up to 1/86).

⚠
The shock absorbers simultaneously act as rebound stops for the rear wheels. Therefore only slacken the upper mounting when the vehicle is on its wheels, the spring link is supported or spring clamp is installed.

1. Removing springs and shock absorbers

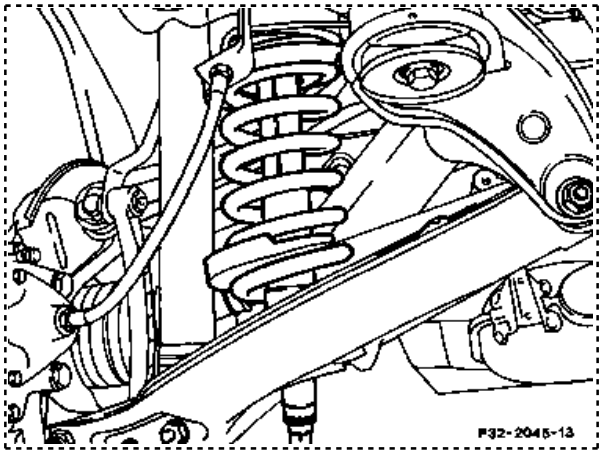
1.1 Raise vehicle at rear and detach rear wheels.

1.2 Unscrew hexagon bolts on spring link cover and remove spring link cover.



1.3 Install clamp 000 589 46 31 00 and clamp the spring until the spring link is relieved of load.
The spring clamp should engage at least 5½ spring coils.

⚠
Ensure correct seating of clamp.

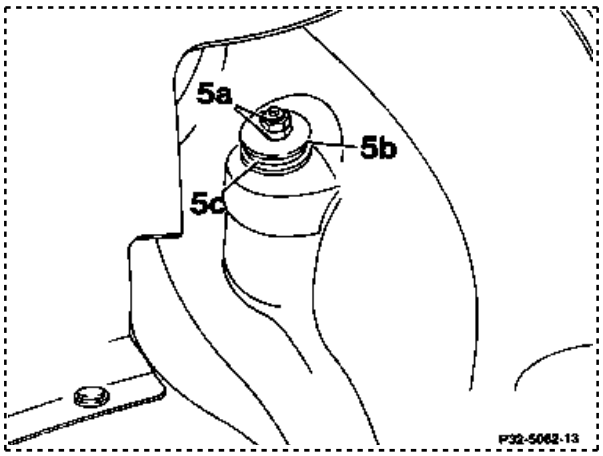


1.4 Support spring link using workshop jack.

1.5 Remove luggage compartment trim.

1.6 Unscrew upper fixing nuts (5a) on shock absorber.
Remove washer (5b) and rubber ring (5c).

1.7 Lower spring link.

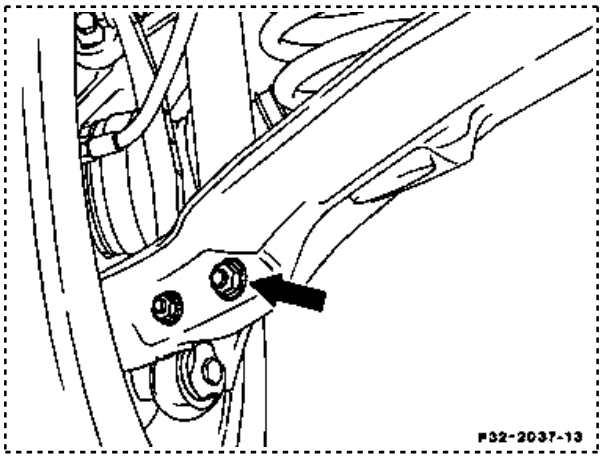


1.8 Unscrew hexagon nut on lower shock absorber mounting on spring link and press out fixing bolt.

1.9 Remove shock absorber from spring link.

1.10 Remove clamped spring and rubber bearing downwards.

1.11 Release spring carefully.



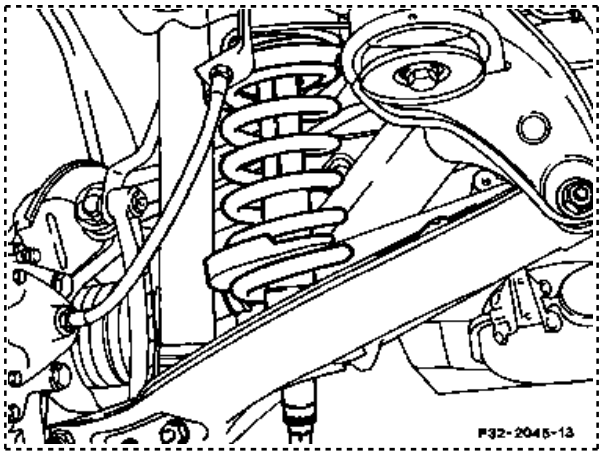
2. Installing springs and shock absorbers

Note
Always replace self-locking nuts and microencapsulated bolts.

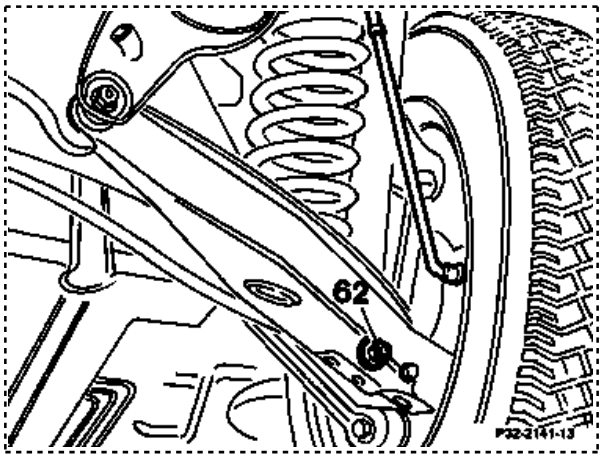
2.1 Clamp coil spring using clamp 000 589 46 31 00 (engage at least 5½ coils).

⚠
Ensure correct seating of clamp.

2.2 Install clamped coil spring and rubber bearing.

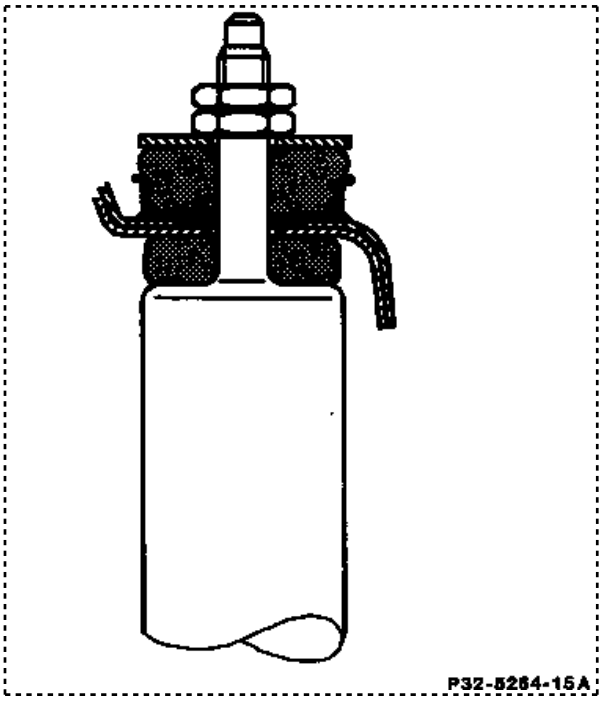


2.3 Fit upper rubber ring to shock absorber, install assembly in spring link and mount lower screw connection (62) (tightening torque
65 Nm).



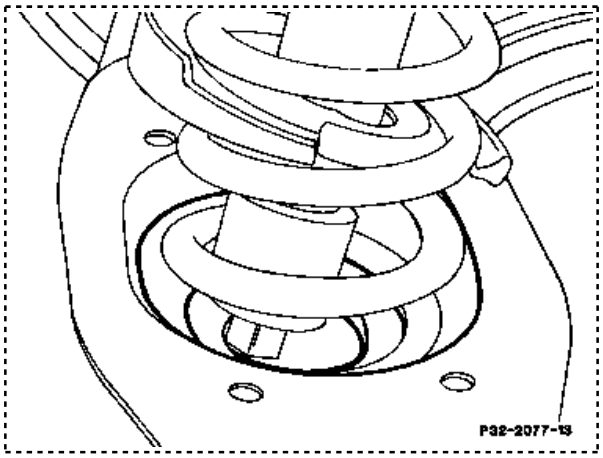
2.4 Assemble upper shock absorber mounting.
Tighten lower of the two hexagon nuts (tightening torque 15 - 18 Nm) and then lock with the upper nut (tightening torque 30 Nm).

2.5 Install luggage compartment trim.



2.6 Release coil spring slowly.

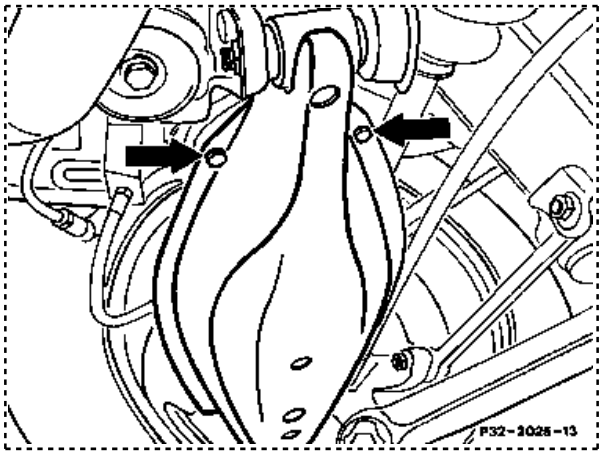
⚠
Ensure that upper rubber bearing and lower spring coil runout are correctly seated in the frame floor and control arm respectively.



2.7 Install spring link cover.

2.8 Fit rear wheels.

2.9 Lower vehicle and tighten wheel bolts in line with the rim manufacturer's specifications.



F. Spring adjustment

Depending on the vehicle model and special equipment, different rubber bearings are required when converting to AMG sports chassis.

Should the vehicle level specified in section G (axle adjustment values) not be achieved, thinner or thicker rubber bearings can also be installed.

If required, different rubber bearings may also be installed on the left and right-hand side.

1. Front axle rubber bearing

1.1 Rubber bearing points rating system

Model/ special equipment	4-cylinder model 201					5/6-cylinder model 201		
	018	023	024	028	122	029	126	128
Basic number of points	17	17	17	25	17	38	30	40
Air conditioner or automatic climate control	7	7	7	7	7	7	7	7
Automatic transmission	4	4	4	4	5	4	5	5
Auxiliary heater	4	4	4	4	4	4	4	4
Tilting/sliding sunroof	2	2	2	2	2	2	2	2
Anti-lock braking system (ABS)	2	2	S	S	2	S	S	S

S = standard production equipment

1.2 Allocation of front springs - rubber bearings

Model	Total number of points	Front spring Homologation no.	Height of spring-rubber bearing (mm) depend. on colour marking of spring blue	red
4-cylinder	17 - 24	001 201 321	8	13
	25 - 33	001 201 321	13	18
	34 - 42	001 201 321	18	23
5/6-cylinder	30 - 38	002 201 321	8	13
	39 - 47	002 201 321	13	18
	48 - 58	002 201 321	18	23

1.3 Front spring rubber bearing

Height mm	Number of lugs "n"	Part no.
8	1	201 321 09 84
13	2	201 321 10 84
18	3	201 321 11 84
23	4	201 321 12 84

2. Rear axle rubber bearing

2.1 Rubber bearing points rating system

Model/ special equipment	4-cylinder model 201					5/6-cylinder model 201		
	018	023	024	028	122	029	126	128
Basic number of points	12	12	13	19	14	17	15	18
Tilting/sliding sunroof	3	3	3	3	3	3	3	3
ASD	3	3	3	3	3	3	3	3

2.2 Allocation of rear springs - rubber bearings

Model	Total number of points	Rear spring without level control system Homologation-no.	Height of spring - rubber (mm) depend. on colour marking of springs blue	red
4-cyl.	12 - 18	002 201 322	8	13
5/6-cyl.	19 - 25	002 201 322	13	18

2.3 Rear spring rubber bearings

Height mm	Number of lugs "n"	Part no.
8	1	201 325 09 44
13	2	201 325 10 44
18	3	201 325 11 44

G. Axle adjustment values

1. Front axle

Camber	Wheels in straightahead position with 0 toe-in	- 0° 50'	+10' - 20'
	Permitted difference between left and right	0° 20'	
Caster	Wheels in straightahead position with 0 toe-in	10° 40'	±30'
	With steering at full lock	10° 25'	±30'
	Permitted difference between left and right	0° 30'	
Toe-in	Total	0° 20'	±10'
Toe-out on turns	at 20° steer angle [1)]	- 0° 35'	±30'
Control arm position		- 10 mm	+10 mm - 15 mm

1) No provision for adjustment

2. Rear axle

Camber	Ready-to-drive, unladen [1)]	- 1° 45'	±30'
Toe-in	Total	0° 25'	+10' - 05'
Spring link position	without level control system	- 10 mm	+10 mm - 12 mm

1) No provision for adjustment

Note

- Perform chassis measurement with vehicle in ready-to-drive condition.
- Tolerances apply only for test.

- Try to achieve nominal values during adjustment.

H. Information for ordering replacement parts

The parts needed for installation can be obtained under the following part numbers:

4-cylinder sedan

Quantity	Designation	Part no.
1	Chassis kit	B6 602 00 00 1)
2	Damper strut	H WA201 320 01 30
2	Shock absorber	H WA201 320 01 31
2	Front spring	H WA201 321 01 04
2	Rear spring	H WA201 324 01 04

1 Complete kit

5/6-cylinder sedan

Quantity	Designation	Part no.
1	Chassis kit	B6 602 00 01 1)
2	Damper strut	H WA201 320 01 30
2	Shock absorber	H WA201 320 01 31
2	Front spring	H WA201 321 02 04
2	Rear spring	H WA201 324 01 04

1 Complete kit

Available from: Plant 06 (ZVL Germersheim)