



Installation Instructions

Conversion to AMG sports chassis

Model 124 (4MATIC)

32.04

Models 124.226/230/330/333

Excluding vehicles with level control system on the rear axle.

Towing fixture not permitted as special equipment.

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

B6 602 00 06

The installation instructions are divided up into the following sections:

- A. Scope of conversion
- B. Special tools
- C. Front axle conversion
- D. Rear axle conversion
- E. Spring adjustment
- F. Axle adjustment values
- G. 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

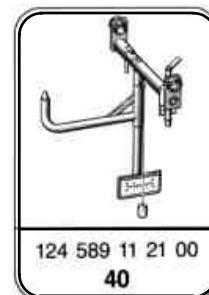
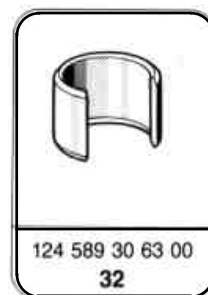
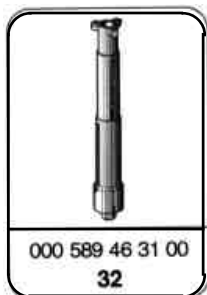
2. Rear axle

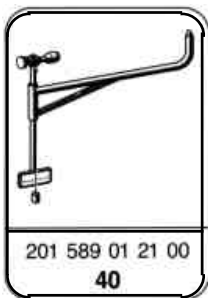
- Springs and rubber bearings
- Shock absorbers and PU supplementary springs

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 E.

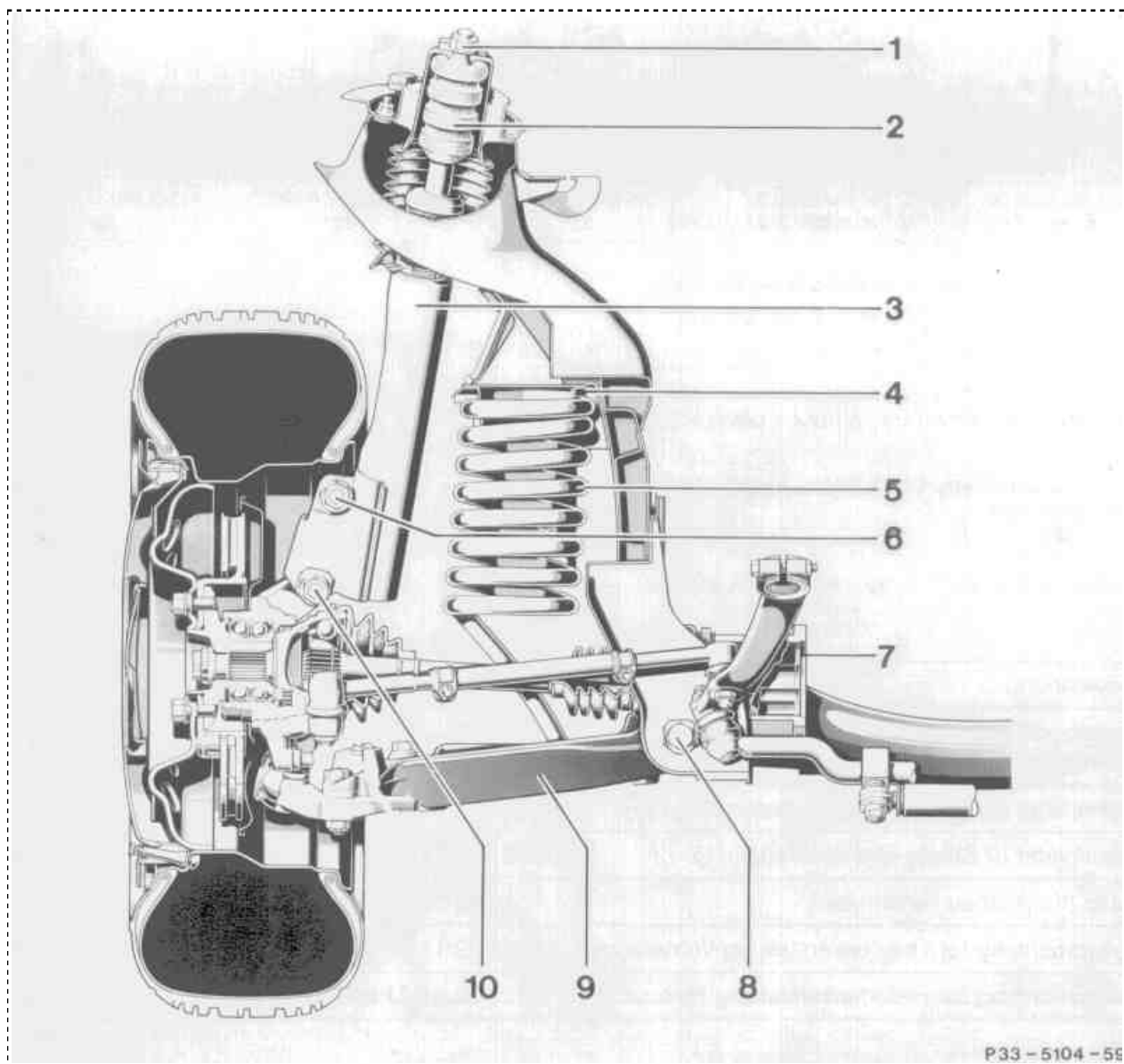
B. Special tools





Description	Part no.
Clamp for front and rear springs (basic equipment)	000 589 46 31 00
Clamp plate (2 pieces) for front spring on 4MATIC	000 589 80 63 00
Clamp plate (2 pieces) for rear spring	000 589 79 63 00
Sleeve (for removal of rear spring)	124 589 30 63 00
Measuring device for control arm position - front axle	124 589 11 21 00
Measuring device for spring link position - rear axle	201 589 01 21 00

C. Front axle conversion



P33 - 5104 - 55

- 1 Upper damper strut mounting
- 2 PU supplementary spring
- 3 Damper strut
- 4 Rubber bearing
- 5 Coil spring

lower)



- 6 Hexagon bolt (steering knuckle/damper strut, upper)
- 7 Axle shaft flange
- 8 Eccentric bolt for camber and caster adjustment
- 9 Control arm
- 10 Eccentric bolt (steering knuckle/damper strut,

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 Mark installed position of all eccentric bolts to facilitate subsequent installation (up to vehicle end number 042 264).

1.2 Remove lower engine compartment cover.

1.3 Raise vehicle at front and detach front wheels.

1.4 Detach stabilizer at control arm.

1.5 Install clamp 000 589 46 31 00 and clamp spring until the control arm is relieved of load.

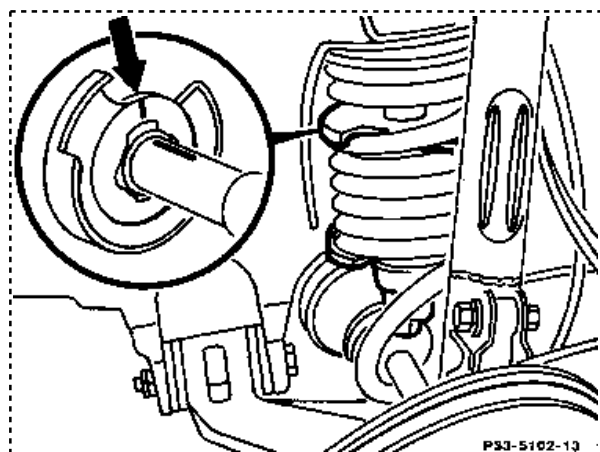
The spring clamp should engage as many spring coils as possible.



Ensure correct seating of clamp.

1.6 Unscrew nuts from eccentric bolts. Press out eccentric bolts on front and rear control arm bearing and lower control arm.

Note



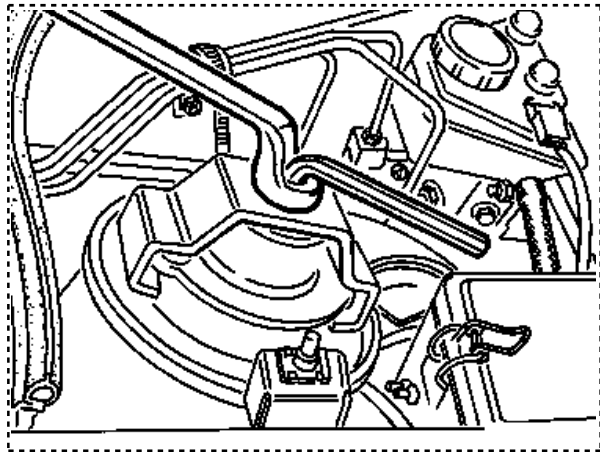
If there is inadequate assembly clearance, unbolt left axle shaft (inner) at axle shaft flange.

1.7 Remove clamp spring and rubber bearing forwards.

1.8 Release spring carefully.

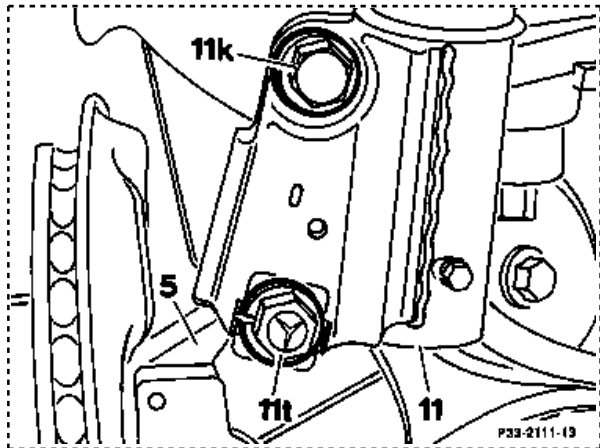
1.9 Unscrew upper fixing nut on damper strut using box wrench (WAF 22 mm), whilst steadying the piston rod using hexagon socket wrench (WAF 7 or 8 mm).

1.10 Unscrew brake hose support and cable support on damper strut.




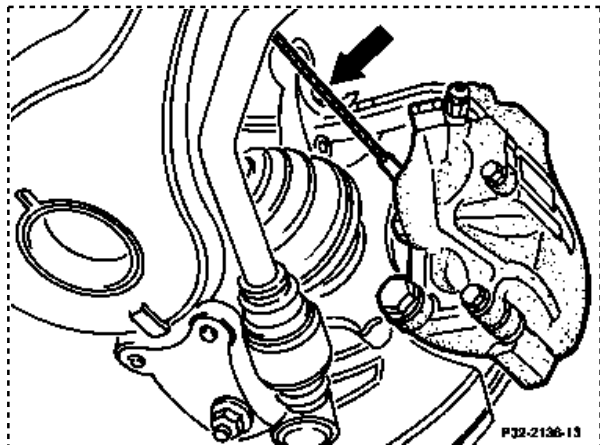
1.11 Unscrew eccentric bolt (11t) and hexagon bolt (11k) on lower mounting of damper strut (11) at steering knuckle (5).

1.12 Remove damper strut downwards.



1.13 Secure steering knuckle using 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 the PU supplementary spring onto piston rod.

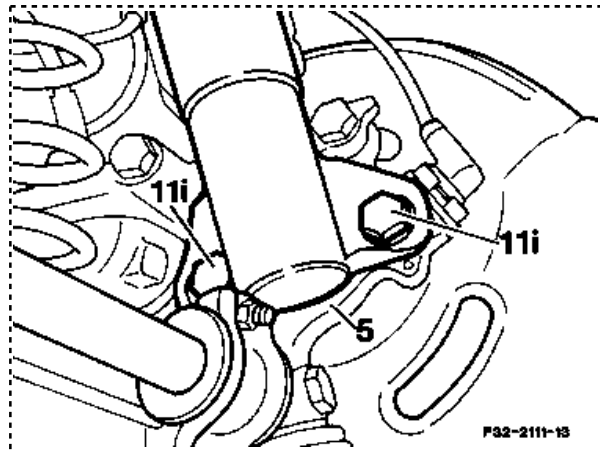
Note

In conjunction with AMG 17- inch rims additional compression travel limiting washers (part no. H WA 124 323 01 44) are required which are pushed onto the piston rod above the PU supplementary spring.

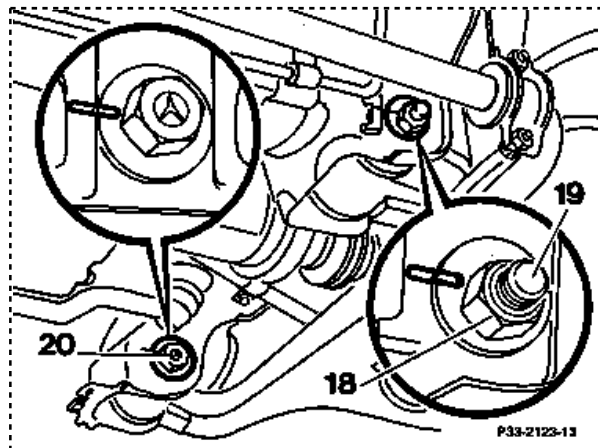
Information can be obtained from the relevant installation instructions for rims, if required.

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

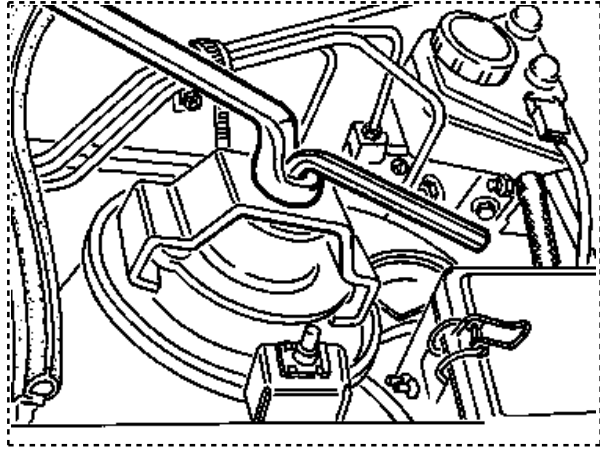
2.3 Install eccentric bolt (11t) and hexagon bolt (11k) of the lower damper strut mounting (11) to steering knuckle (5) with self-locking nuts (tightening torque 135 Nm).



2.4 Raise control arm, press in eccentric bolts (19, 20) of camber and caster adjustment and tighten with self-locking hexagon nuts (18) (tightening torque 120 Nm).



2.5 Secure damper piston rod to upper damper bearing with self-locking hexagon nut, whilst steadying piston rod using hexagon socket wrench (WAF 7 or 8 mm) (tightening torque 60 Nm).



2.6 Screw brake hose and cable support onto damper strut.

2.7 If required secure left axle shaft (inner) at axle flange (tightening torque 70 Nm).

2.8 Use clamp 000 589 46 31 00 to clamp coil spring (engage as many coils as possible).



Ensure correct seating of clamp.

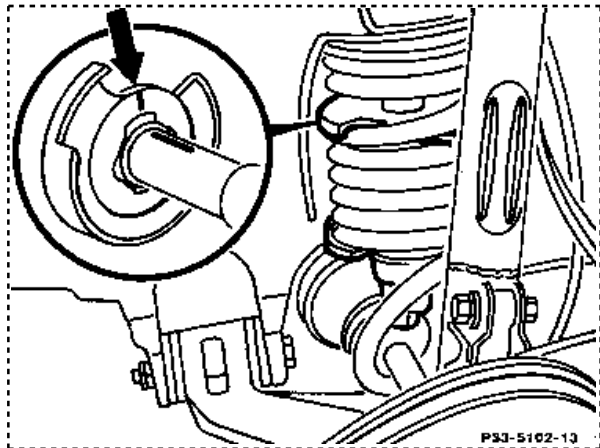
2.9 Install clamped spring and rubber bearing.

2.10 Release spring slowly.



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

2.11 Fasten stabilizer to control arm (tightening torque 20 Nm).



2.12 Install lower engine compartment cover.

2.13 Fit front wheels.

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

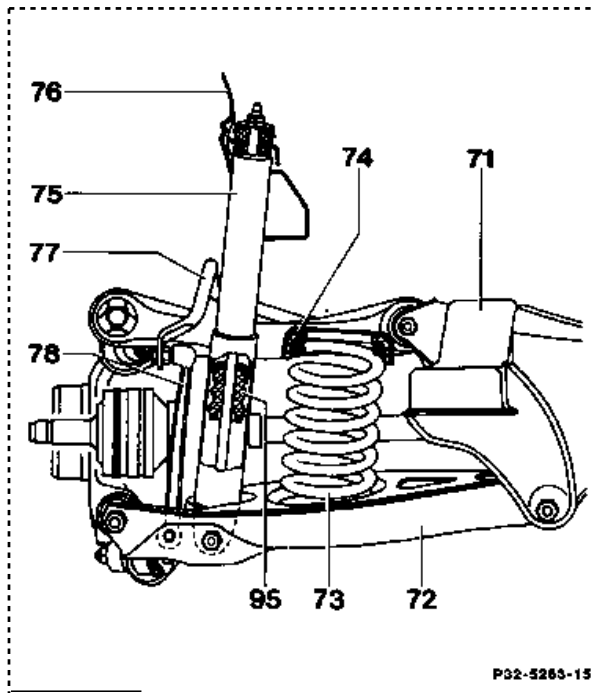
D. Rear axle conversion

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

- 95 Stop buffer

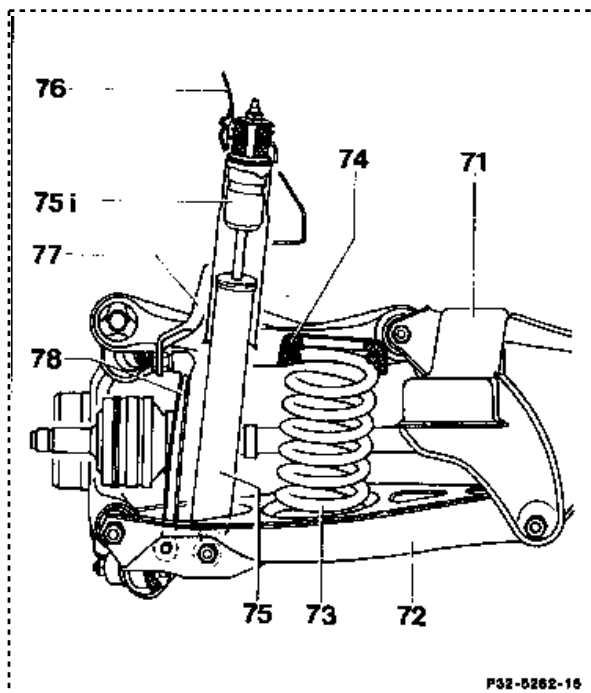
bar



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 11/86).

earlier vehicles (version up to 11/86).



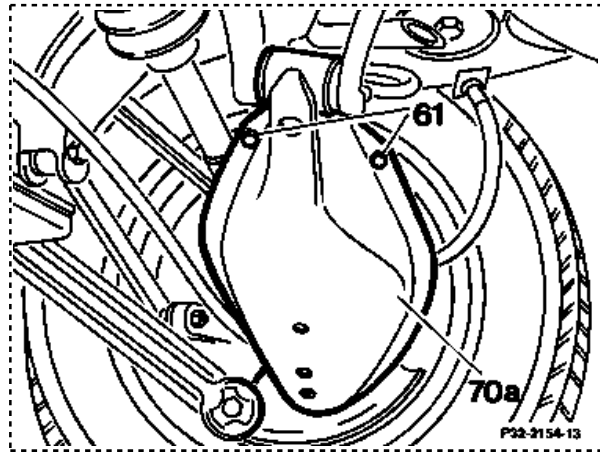
The shock absorbers act simultaneously as rebound stops for the rear wheels.

Therefore only slacken the upper mounting when the vehicle is on its wheels, the control arm is supported or spring clamp is installed.

1. Removing springs and shock absorbers

11 Raise vehicle at rear and remove rear wheels.

1.2 Unscrew hexagon bolts (61) in spring link cover (70a) and remove spring link cover.



1.3 Install clamp 000 589 46 31 00 and clamp spring until spring link is relieved of load.

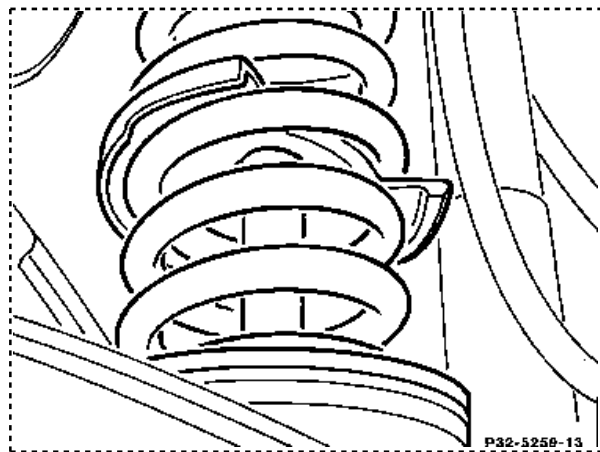
The spring clamp should engage at least 5½ spring coils.



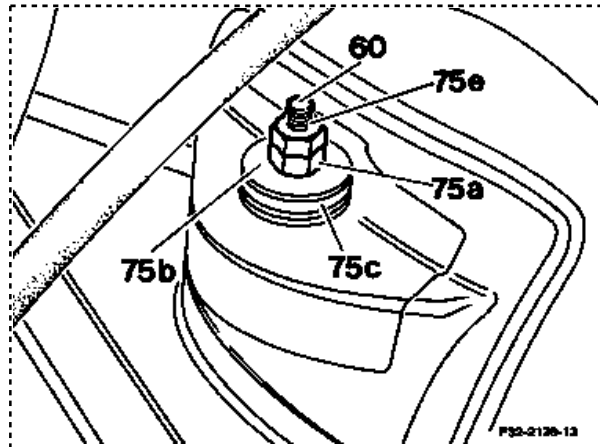
Ensure correct seating of clamp.

1.4 Support spring link using workshop jack.

1.5 Remove luggage compartment trim.



1.6 Unscrew upper fixing nuts (75a, 75e) of piston rod (60).
Remove washer (75b) and rubber ring (75c).



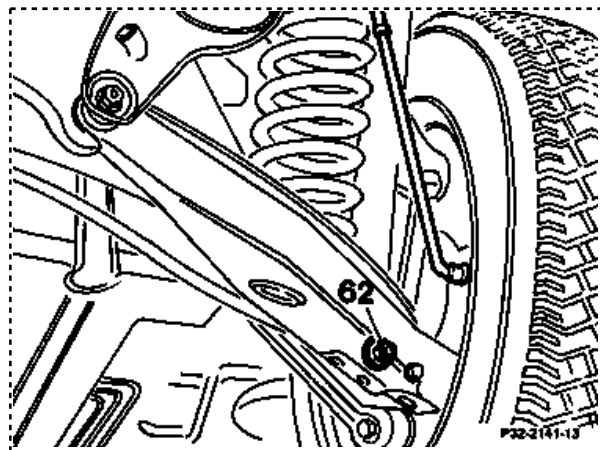
1.7 Lower spring link.

1.8 Unscrew hexagon nut (62) of lower shock absorber mounting on spring link and press out fixing bolt.

1.9 Remove shock absorber from spring link.

1.10 Remove clamp spring and rubber bearing downwards.

1.11 Release spring carefully.



2. Installing springs and shock absorbers

Note

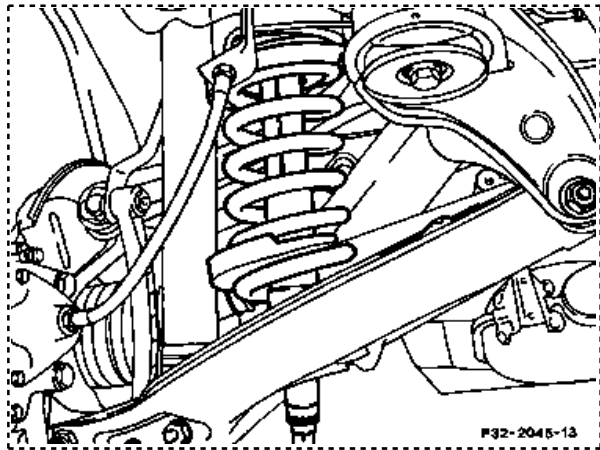
Always use self-locking nuts and microencapsulated bolts.

2.1 Use clamp 000 589 46 31 00 to clamp coil spring (at least 5½ coils).

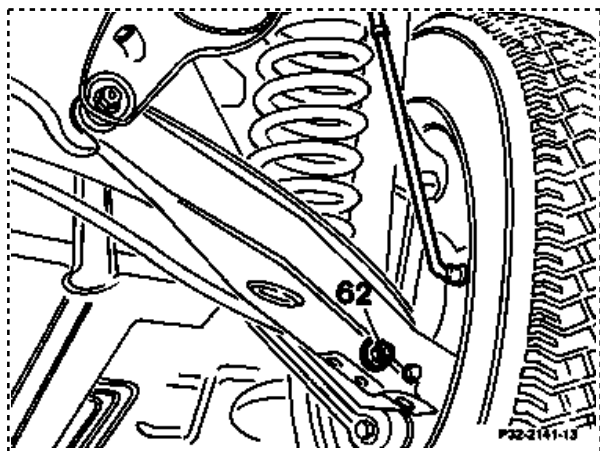


Ensure correct seating of clamp.

2.2 Install clamped coil spring and rubber bearing.

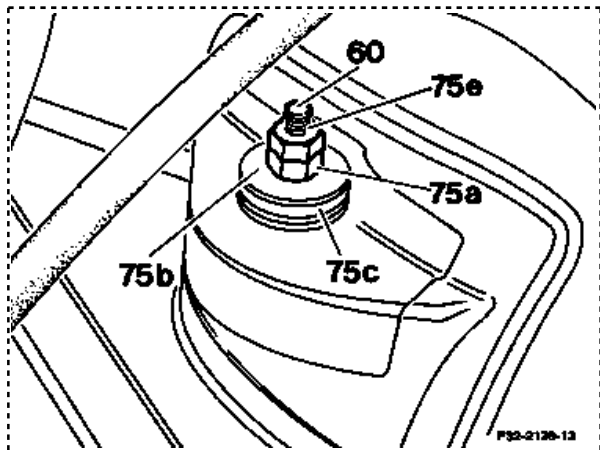


2.3 Fit upper rubber ring to shock absorber, install in spring link and assemble lower screw connection (62) (tightening torque 65 Nm).



75b Washer
75c Rubber
ring

2.4 Insert piston rod (60) in upper shock absorber mounting. Tighten lower of the two hexagon nuts (75a) (tightening torque 15 - 18 Nm) and then lock with the upper nut (75e) (tightening torque 30 Nm).

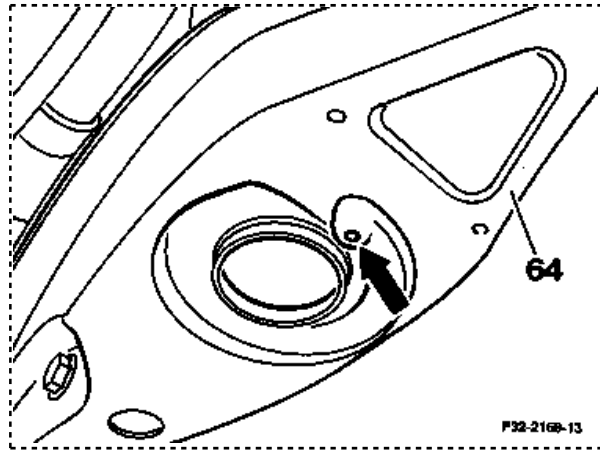


2.5 Install luggage compartment trim.

2.6 Release coil spring slowly.



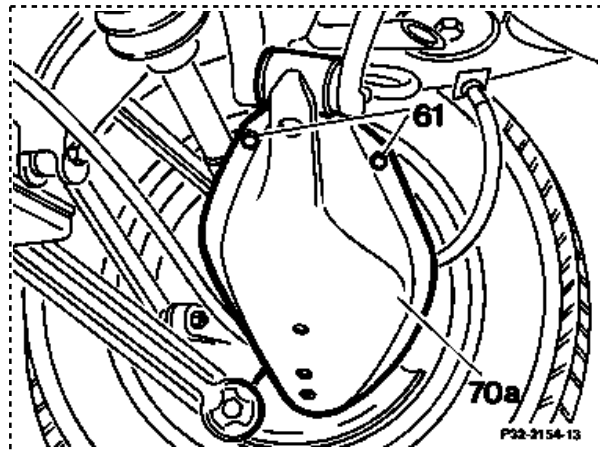
Ensure that upper rubber bearing and lower spring coil runout are correctly seated in the frame floor and control arm (64) respectively.



2.7 Mount spring link cover (70a) with bolts (61).

2.8 Fit rear wheels.

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



E. 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 F (axle adjustment values) not be achieved, thinner or thicker rubber bearings can also be installed.

If required it is also possible to install different rubber bearings on the left and right-hand side.

1. Front axle rubber bearing

1.1 Rubber bearing points rating system

Model/ special equipment	Model 124			
	226	230	330	333
Basic number of points	36	39	50	55

Air conditioner or automatic climate control	7	7	7	7
Automatic transmission	4	4	5	S
Auxiliary heater	4	4	4	4
Tilting/sliding sunroof	3	3	3	3
Larger battery	2	2	2	2

S = standard production equipment

1.2 Allocation of front springs - rubber bearings

Total number of points	Front spring Homologation no.	Height of spring-rubber bearing (mm) depending on colour marking of spring	
		blue	red
36 - 47	003 124 321	8	13
48 - 59	003 124 321	13	18
60 - 71	003 124 321	18	23

1.3 Front spring rubber bearings

Height mm	Number of lugs "n"	Part no.
8	1	124 321 12 84
13	2	124 321 13 84
18	3	124 321 14 84
23	4	124 321 15 84

2. Rear axle rubber bearings

2.1 Rubber bearing points rating system

Model/ special equipment	Model 124			
	226	230	330	333
Basic number of points	21	21	21	23
Refrigerator box	6	6	6	6
Telephone	3	3	3	3
Tilting /sliding sunroof	3	3	3	3
ASD	3	S	S	S

S = standard production equipment

2.2 Allocation of rear springs - rubber bearings

Total number of points	Rear spring without level control system Homologation no.	Height of spring rubber bearings (mm) depending on colour marking of springs	
		blue	red
21 - 28	002 124 322	8	13
29 - 36	002 124 322	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
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F. Axle adjustment values

1. Front axle

	Wheels in straightahead position with 0 toe-in	- 0° 50'	+10' - 20'
Camber	Permitted difference between left and right	0° 20'	
	Wheels in straightahead position with 0 toe-in	10° 20'	± 30'
Caster	with steering at full lock	10° 05'	± 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° 55'	± 30'
Control arm position		- 5 mm	+10 mm - 15 mm

¹⁾ No provision for adjustment

2. Rear axle

Camber	Ready-to-drive, unladen ¹⁾	- 1° 30'	± 30'
Toe-in	Total	0° 25'	+10' - 05'
Spring link position	without level control system	- 5 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.

G. Information for ordering replacement parts

The parts required for installation can be obtained from the following part numbers:

Quantity	Designation	Part no.
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1	Chassis kit	B6 602 00 06 ¹⁾
2	Damper strut	HWA124 321 03 04
2	Shock absorber	HWA124 324 03 04
2	Front spring	HWA124 320 07 30
2	Rear spring	HWA124 320 02 31

1) Complete kit

Available from: Plant 06 (ZVL Germersheim)