

P46.20-2123-09

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|-----|--|-----|---|------|---|
| 1 | Front axle carrier | 23b | Bolts, retaining plate to front axle carrier | 25 | Steering coupling |
| 1g | Retaining plate | 23g | Bolts, rack-and-pinion steering to front axle carrier | 25a | Bolt, steering coupling to steering shaft |
| 10a | Tie rod joints | 23n | Tapping plate | 25f | Locking plate |
| 21 | Rubber bushing | 23q | Oil lines retainer | 80a | Lower steering shaft |
| 23 | Rack-and-pinion steering | | | 105d | Exhaust shielding plate |
| 23a | Bolts, retaining plate to front axle carrier | | | | |

Modification notes

29.11.07	Value changed: Bolt, retaining plate of oil line to rack-and-pinion steering Value changed: Bolted connection, rack-and-pinion steering to front axle carrier, 1st stage Value changed: Bolted connection of rack-and-pinion steering to front axle carrier, 2nd stage	Model 203	*BA46.20-P-1001-01F *BA46.20-P-1002-01F *BA46.20-P-1002-01F
30.11.07	Torque, retaining plate to front axle carrier incorporated	Operation step 23, 24	*BA46.20-P-1004-01F

Icon	Removing		
	Danger!	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer.
	Danger!	Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near the engine as it is running	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.
		Notes on self-locking nuts and bolts	AH00.00-N-0001-01A
		Evaluating steering rack when repairing accident vehicles	AH46.20-P-9409-01A
	AP	Remove front wheels Remove/install wheels, rotate if necessary	AP40.10-P-4050Z
		2 Extract fluid out of the power steering pump's fluid reservoir	Hand pump *210589007100
		3 Extend or pull out adjustable steering column fully	Needed for separating the steering coupling (25).
		4 Deactivate easy entry/exit function	Vehicles with memory package (driver seat, steering column, mirrors) code 275

		<p>ⓘ Otherwise the driver seat and steering wheel move to a different position, e.g. when the driver door is opened/closed. The upper frame may be damaged when the holding device is installed.</p> <p>ⓘ It is switched off using the buttons on the steering wheel in the "Comfort" menu on the multifunction display, see vehicle owner's manual.</p>	
5	Turn steering wheel to central position (front wheels in straight ahead position) and secure with the retaining device	<p>ⓘ On a disengaged steering coupling (25) the steering wheel should not be turned because the spiral contact coil will be destroyed.</p> <p>☑ Holding device</p>	*129589012100
6.1	Remove lower engine compartment paneling	Model 203, 209 with gasoline engine	AR61.20-P-1105P
6.2	Remove bottom sections of soundproofing	Model 203, 209 with diesel engine	AR94.30-P-5300P
7	Remove diagonal strut at left and right front	Model 209.4 <p>ⓘ Installation: The diagonal struts may only be fitted when the vehicle is standing with the wheels on the ground.</p> <p>Nm</p>	*BA61.10-P-1011-01C
8	Press tie rod joints (10a) off steering knuckles	<p>☑ Thrust piece</p> <p>☑ Puller</p>	AR46.40-P-0200-02I *140589006300 *124589033300
9	Remove exhaust shielding plate (105d) to front plate over steering coupling (25)		
10	Remove the bolt of the steering coupling to steering shaft (25a)		
11	Pull the lower steering shaft (80a) upward to extract it from the steering coupling (25.)	ⓘ Do not apply excessive force (hammer blows, excessive lever action) because the lower steering shaft (80a) is sensitive to lateral loads and could be damaged.	
12	Detach oil lines to rack-and-pinion steering (23)		
13	Remove support bracket (1g) to front axle carrier (1)	ⓘ Remove bolts of retaining plate on front axle carrier (23a, 23b) to do this.	
14	Detach electrical connector to rack-and-pinion steering (23)	Vehicles with speed-sensitive power steering, code 213	
15	Remove bolts of rack-and-pinion steering at front axle carrier (23g)		
16	Detach oil line retaining plate (23q) from rack-and-pinion steering (23) and pull out oil lines	<p>ⓘ Seal off line connections with plugs.</p> <p>☑ Set of stop plugs</p>	*129589009100
17	Remove threaded hole plate (23n) of rack-and-pinion steering (23)		
18	Remove rack-and-pinion steering (23)		
19	Check rubber mount (21) of rack-and-pinion steering mounting for signs of damage	<p>ⓘ Damaged rubber mounts (21) must be replaced: ↓ Remove/install rubber mount of rack-and-pinion mounting. Lubricant paste</p>	AR46.20-P-0600-02I *BR00.45-Z-1002-06A
20	Check protective cap on input shaft of rack-and-pinion steering (23) for damage	<p>ⓘ Replace if necessary: ↓ Remove/install protective cap for input shaft on steering gear.</p>	AR46.20-P-0004P
☒	Install		
21	Insert threaded hole plate (23n) of rack-and-pinion steering (23)	ⓘ Replace threaded hole plate (23n).	
22	Insert rack-and-pinion steering (23) and fasten to front axle carrier (1) using bolts for rack-and-pinion steering to front axle carrier (23g)	<p>ⓘ The bolts for the rack-and-pinion steering to the front axle carrier (23g), threaded hole plate (23n) and the area around the bolted connections must be free of oil and grease. Under exposure to heat the lubricants can liquify, allowing bolts and nuts to loosen.</p> <p>Nm</p>	*BA46.20-P-1002-01F
23	Mount support bracket (1g) using bolts for support bracket to front axle carrier (23a)	<p>ⓘ The bolts for the support bracket to the front axle carrier (23a), threaded hole plate (23n) and the area around the bolted connections must be free of oil and grease. Under exposure to heat the lubricants can liquify, allowing bolts and nuts to loosen.</p> <p>Nm</p>	*BA46.20-P-1004-01F

24	Mount support bracket (1g) using bolts for support bracket to front axle carrier (23b)		*BA46.20-P-1004-01F
25	Insert oil lines and mount retaining plate for oil lines (23q) to rack-and-pinion steering (23)	Replace O-rings to prevent any escape of oil. 	*BA46.20-P-1001-01F
26	Mount oil lines onto rack-and-pinion steering (23)	Front left and right side.	
27	Fit steering coupling (25)	To do so turn rack-and-pinion steering (23) to center position.	AR46.20-P-0600-01P
28	Slide on new locking plate (25f)	Until the lug latches into the steering coupling (25).	
29	Insert lower steering shaft (80a) as far as the end stop in the steering coupling (25)	Do not apply excessive force (hammer blows, excessive lever action) because the lower steering shaft (80a) is sensitive to lateral loads and could be damaged. When doing so observe the steering coupling (25) journal and the groove of the lower steering shaft (80a) (arrows).	
30	Turn in bolt for steering coupling to steering shaft (25a)		*BA46.10-P-1001-01E
31	Mount exhaust shielding plate (105d) to front plate under steering coupling (25)		
32	Mount tie rod joints (10a) onto steering knuckles		AR46.40-P-0200-02I *BA46.40-P-1001-01E
33	Fill power steering pump and bleed	Except model 203.2 with rear axle level control system code 480	AR46.30-P-0010P
34	Check steering for function and leaks	There is a grease cushion under the cover cap. A slight escape of grease is to be regarded as normal and should not be confused with leakage.	
35	Mount front wheels Remove/install wheels, rotate if necessary		AP40.10-P-4050Z
36	Check front axle toe and adjust if necessary	When installing new parts. see: ↓ Perform a wheel alignment check	AR40.20-P-0200P
37.1	Install lower engine compartment paneling	Model 203, 209 with gasoline engine	AR61.20-P-1105P
37.2	Install bottom section of soundproofing	Model 203, 209 with diesel engine	AR94.30-P-5300P

Frame floor assembly

Number	Designation		Model 209 except 209.4	Model 209 .4
BA61.10-P-1011-01C	Self-locking bolt, front diagonal strut to frame floor assembly/front axle carrier	Nm	80	80

Steering shaft

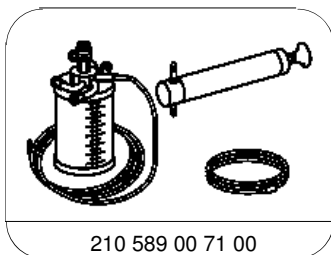
Number	Designation		Model 203 except 203.081/084/087/092/281/284/287/292	Model 209	
BA46.10-P-1001-01E	Bolt, steering coupling to steering shaft	Stage 1	Nm	30	30
		Stage 2	∠°	-	-

Nm Steering gear

Number	Designation		Model 203	Model 209	
BA46.20-P-1001-01F	Bolt, oil line retaining plate to rack-and-pinion steering	Nm	18	18	
BA46.20-P-1002-01F	Bolted connection, rack-and-pinion steering to front axle carrier	Stage 1	Nm	50	50
		Stage 2	Δ°	90	90
BA46.20-P-1004-01F	Bolted connection, supporting plate to front axle carrier	Stage 1	Nm	50	50
		Stage 2	Δ°	60	60

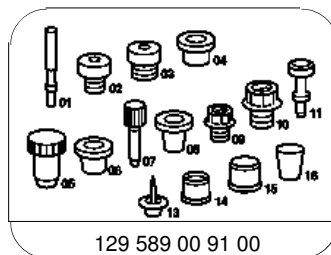
Nm Tie rod

Number	Designation		Model 203 except model 203.081/084/ 087/092/281/ 284/287/292	Model 209	
BA46.40-P-1001-01E	Self-locking nut, tie rod to steering knuckle	Stage 1	Nm	50	50
		Stage 2	Δ°	60	60



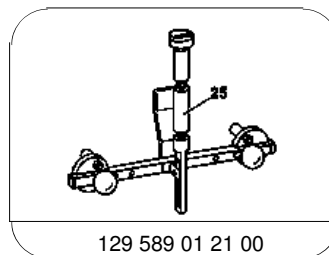
210 589 00 71 00

Hand pump



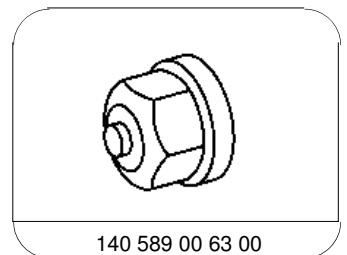
129 589 00 91 00

Set of stop plugs



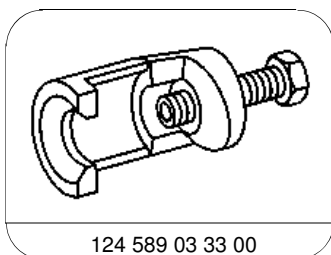
129 589 01 21 00

Holding device



140 589 00 63 00

Thrust piece



124 589 03 33 00

Puller

Repair materials

Number	Designation	Order number
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BR00.45-Z-1002-06A	Lubricating paste, rubber parts 2.5 kg, DB supply specification 6867.00	A 000 989 01 60
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