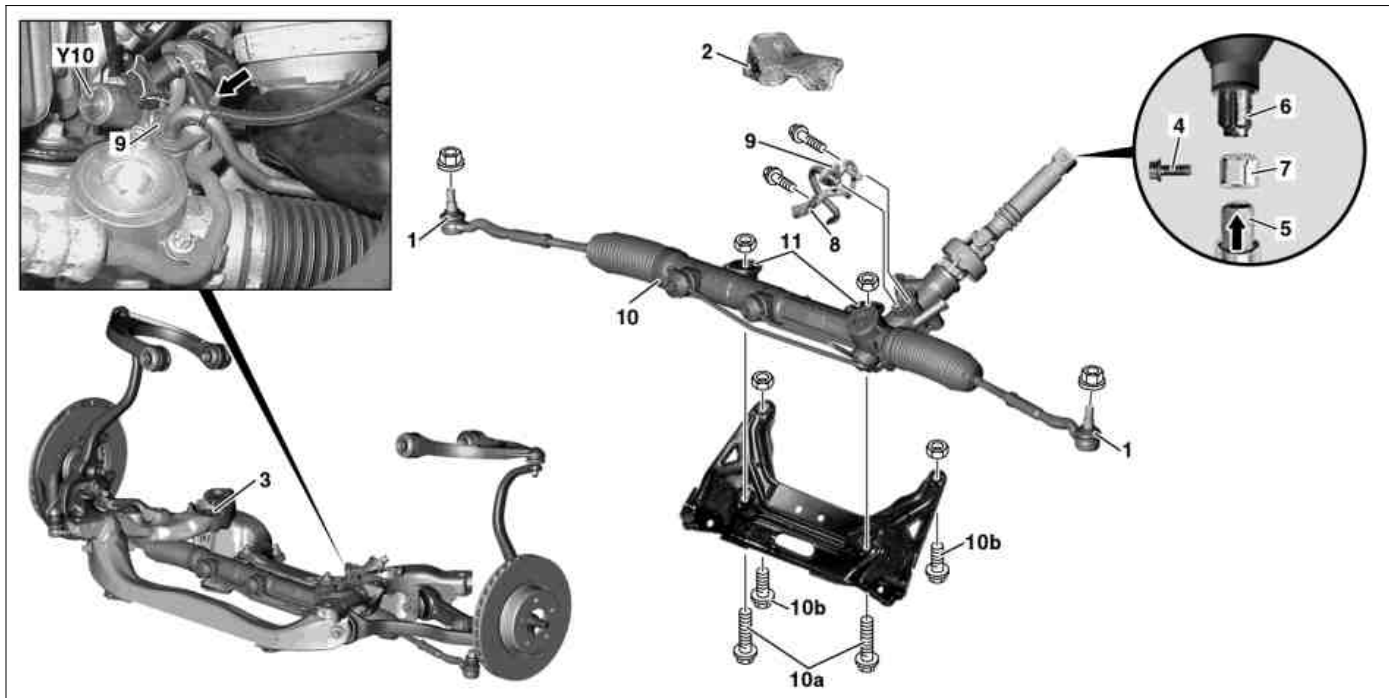


MODEL 211 (except 211.08 /09 /28 /29)



P46.20-2143-09

**Shown on model 211.016**

- |   |                    |    |                          |     |                          |
|---|--------------------|----|--------------------------|-----|--------------------------|
| 1 | Tie rod joints     | 5  | Steering coupling        | 10a | Bolts                    |
| 2 | Right heat shield  | 6  | Lower steering shaft     | 10b | Screw                    |
| 3 | Front axle carrier | 7  | locking plate            | 11  | Rubber bushing           |
| 4 | Screw              | 8  | Bracket                  | Y10 | SPS [PML] solenoid valve |
|   |                    | 9  | Retaining plate          |     |                          |
|   |                    | 10 | Rack-and-pinion steering |     |                          |

**Modification notes**

14.6.10	Value changed: Self-locking nut for tie rod to steering knuckle, 2nd stage		*BA46.40-P-1001-01E
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	Remove/install		
<b>Danger!</b>	<b>Risk of death</b> 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.	AS00.00-Z-0010-01A
	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
1	Fully extend or pull out adjustable steering column	Required to separate the steering coupling (5) from the lower steering shaft (6).	
2	Deactivating entry/exit aid	On vehicles with Memory package (driver seat, steering column, mirrors), code 275. If the vehicle is equipped with the easy entry and exit feature, this will have to be deactivated first. Otherwise the driver seat and steering wheel move into a different position when the driver door is open or closed. The upper frame may be damaged when the holding device is installed. Deactivation is carried out via the buttons on the steering wheel in the "Comfort" menu of the multifunction display.	
3	Turn steering wheel to center position (front wheels in straight-ahead position) and fix in place with clamping device	With a disengaged steering coupling (5) the steering wheel should not be turned because the spiral contact coil will be irreparably damaged. 	*129589012100
4	Open engine hood		AR88.40-P-1000T
5.1	Remove front engine cover	Engine 272 Pull the front engine cover upward and out of the mountings.	
5.2	Remove engine trim panel	Engine 629	AR01.10-B-240ET-L

		Engine 642	AR01.10-P-2405TI
6.1	Remove air filter housing	Engine 113.990	AR09.10-P-1150SVK
6.2	Remove cylinder head cover trim	Engine 646, 647 Engine 648	AR01.20-P-5014-02A AR01.20-P-5014-02C
6.3	Remove intake air duct leading to left air filter	Engine 112, 113.967, 272	
6.4	Remove intake air ducts upstream of air filter	Engine 629	
7	Suction off oil from expansion reservoir of power steering		*210589007100
8	Remove front wheels Remove/install wheels, rotate if necessary		AP40.10-P-4050Z
9.1	Remove bottom section of soundproofing	Vehicles with diesel engine	AR94.30-P-5300T
9.2	Remove engine compartment paneling	Vehicles with gasoline engine	AR61.20-P-1105T
10	Press tie rod joints (1) off steering knuckles	  	AR46.40-P-0200-02I *BA46.40-P-1001-01E *140589006300 *124589033300
11.1	Detach right heat shield (2) from front axle carrier (3)	Vehicles with diesel engine	
11.2	Detach left heat shield from front axle carrier (3)	Vehicles with gasoline engine	
12	Detach steering coupling (5) from lower steering shaft (6)	To do this, remove bolt (4). The locking plate (7) is available as a replacement part. <b>Installation:</b> Insert a new self-locking nut into the existing locking plate (7). Push on locking plate (7) until the lug engages in the steering coupling (5). 	*BA46.10-P-1001-01E
13	Pull the lower steering shaft (6) upward to extract it from the steering coupling (5)	Do not use force (hammer blows, a lot of leverage) as the lower steering shaft (6) is sensitive to the effects of side force. This would cause distortion and render the lower steering shaft (6) unusable. <b>Installation:</b> Rotate rack-and-pinion steering (10) to the center position. Push lower steering shaft (6) into steering coupling (5) as far as the stop, observing the pins of the steering coupling (5) and groove of the lower steering shaft (6): ↓ Rotate rack-and-pinion steering to central position and install steering coupling.	AR46.20-P-0600-01P
14	Separate electrical connector from SPS [PML] solenoid valve (Y10)	On vehicles with speed-sensitive power steering, code 213 Remove cable tie (arrow).	
15	Remove the bracket (8) from the rack-and-pinion steering (10)		
16	Remove the bracket (9) for the oil lines on the rack-and-pinion steering (10) and then pull out the oil lines	Seal oil lines and rack-and-pinion steering (10) with stop plugs. <b>Installation:</b> Replace O-rings.  	*BA46.20-P-1001-01F *129589009100
17	Support rack-and-pinion-steering (10) using transmission jack and platform	Transmission plate <a href="http://gotis.aftersales.mercedes-benz.com">http://gotis.aftersales.mercedes-benz.com</a> Telescopic lifter <a href="http://gotis.aftersales.mercedes-benz.com">http://gotis.aftersales.mercedes-benz.com</a>	
18	Detach rack-and-pinion steering (10) from front axle carrier (3)	To do so undo bolts (10a, 10b). <b>Installation:</b> The bolts (10a, 10b), nuts and area around the bolted joint must be free from oil and grease. Under exposure to heat the lubricants can liquify, allowing bolts and nuts to loosen. 	*BA46.20-P-1002-01F
19	Carefully lower rack-and-pinion steering (10) and remove	Transmission plate <a href="http://gotis.aftersales.mercedes-benz.com">http://gotis.aftersales.mercedes-benz.com</a> Telescopic lifter <a href="http://gotis.aftersales.mercedes-benz.com">http://gotis.aftersales.mercedes-benz.com</a>	

20	Inspect rack-and-pinion steering (10)  Evaluating steering rack when repairing accident vehicles	After removal following damage due to accident.	AH46.20-P-9409-01A
21	Check rubber mount (11) of rack-and-pinion steering mounting for damage.	<b>i</b> Replace rubber mount (11) in event of damage: ↓ Remove/install rubber mount of rack-and-pinion mounting. Lubricant paste	AR46.20-P-0600-02I *BR00.45-Z-1002-06A
22	Check protective cap on input shaft of rack-and-pinion steering (10) for damage	<b>i</b> Replace if necessary: ↓ Remove/install protective cap for input shaft on steering gear.	AR46.20-P-0004P
23	Install in the reverse order		
24	Fill power steering pump and bleed	Model 211.00 /016 /023 /026 /028 /029/ 04 /20 /216 /223 /226 /24 /60 /61 Model 211.020 /220 /022 /222 /06 /26 /62 /070 /270 /076 /276 Model 211.05 /25 /072 /272	AR46.30-P-0010T AR46.30-P-0010P AR46.30-P-0010TS
<b>⚠ Danger!</b>	<b>Risk of accident</b> caused by vehicle starting off by itself when engine is running. <b>Risk of injury</b> caused by contusions and burns during starting procedure or when working near the engine as it is running Carry out engine test run and check steering for function and leaks	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.	AS00.00-Z-0005-01A
25			
26	Check front axle toe and adjust if necessary	<b>i</b> When installing new parts. See: ↓ Perform wheel alignment check	AR40.20-P-0200T

#### **Nm** Steering shaft

Number	Designation	Model 211 except 211.08/09/ 28/29
BA46.10-P-1001-01E	Bolt, steering coupling to steering shaft	Stage 1 Nm 30
		Stage 2 Δ° -

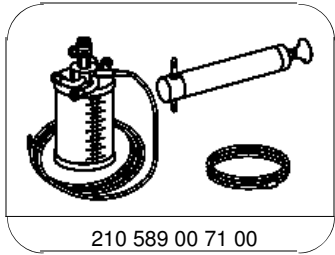
#### **Nm** Steering gear

Number	Designation	Model 211 except 211.08/09/ 28/29
BA46.20-P-1001-01F	Bolt, oil line retaining plate to rack-and-pinion steering	Nm 18
BA46.20-P-1002-01F	Bolted connection, rack-and-pinion steering to front axle carrier	Stage 1 Nm 70
		Stage 2 Δ° 90

#### **Nm** Tie rod

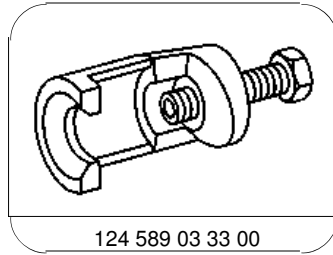
Number	Designation	Model 211 except 211.08/09/
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BA46.40-P-1001-01E	Self-locking nut, tie rod to steering knuckle	Stage 1	Nm	50
		Stage 2	∠°	90



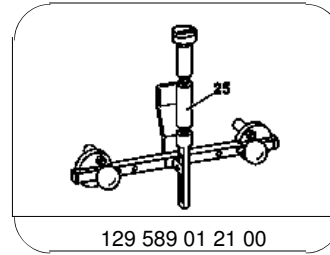
210 589 00 71 00

Hand pump



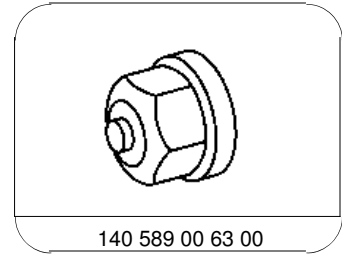
124 589 03 33 00

Puller



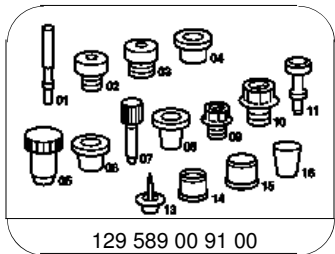
129 589 01 21 00

Holding device



140 589 00 63 00

Thrust piece



129 589 00 91 00

Set of stop plugs

### Repair materials

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