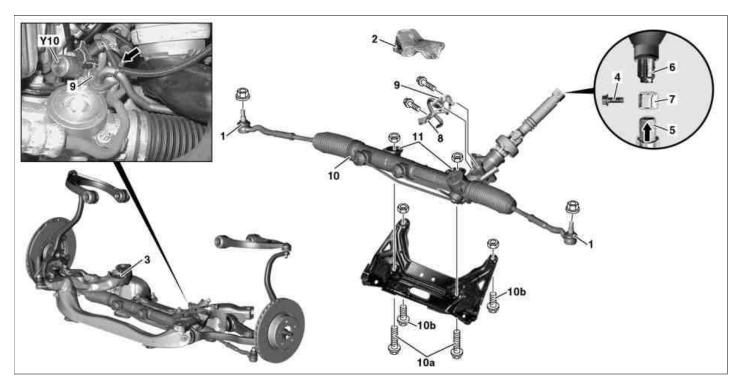
**MODEL** 219



P46.20-2143-09

- Tie rod joints Heat shield 1
- 3 Front axle carrier
- Screw
- 5 Steering coupling

- 6 Lower steering shaft
- Locking plate Bracket
- 8
- Oil lines retainer
- Rack-and-pinion steering

- 10a Bolts
- Bolts 10b
- Rubber bushing 11

Y10 SPS [PML] solenoid valve

## **Modification notes**

14.6.10	Value changed: Self-locking nut for tie rod to steering	*BA46.40-P-1001-01E
	knuckle, 2nd stage	

XX	Remove/install		
	<b>Risk of injury</b> to skin or eyes caused by hydraulic fluid spraying out under high pressure. <b>Risk of poisoning</b> caused by swallowing hydraulic fluid	Depressurize hydraulic system completely before starting any work on system. Wear protective clothing and safety glasses.	AS00.00-Z-0013-01A
(1)	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
1	Extend or pull out adjustable steering column fully	n i Needed for separating the steering coupling (5).	
2	Deactivating entry/exit aid	Vehicles with memory package (driver seat, steering column, mirrors) code 275	
		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.	
		i Disabling takes place via the buttons on the steering wheel in the "Comfort" menu of the multifunction display, see owner's manual.	
3	Turn steering wheel to central position (front wheels in straight ahead position) and secure with the retaining device	On a disengaged steering coupling (5) the steering wheel should not be turned because the spiral contact coil will be destroyed.	*129589012100
4	Remove front engine cover	Engine 156	
5	Extract oil from power steering reservoir	8	*210589007100
6	Remove the front wheels		

⊯AP	Remove/install wheels, rotate if necessary		AP40.10-P-4050TX
7.1	Remove bottom engine compartment paneling	Vehicles with gasoline engine	AR61.20-P-1105TX
7.2	Remove bottom sections of soundproofing	Vehicles with diesel engine	AR94.30-P-5300TX
8	Press tie rod joints (1) off steering knuckles	Ü	AR46.40-P-0200-02TX
	, , ,	Nm Nm	*BA46.40-P-1001-01E
		<b>3</b>	*140589006300
		3	*124589033300
9	Detach heat shield (2) from front axle carrier (3		
10	Detach steering coupling (5) from lower steering shaft (6); to do so, remove bolt (4)	The locking plate (7) is available as a replacement part.	
		<b>i</b> Installation: Insert a new self-locking nut into the existing locking plate (7). Push on locking plate (7) until the lug on the locking plate (7) engages in the steering coupling.	*DA 40 40 D 4004 04E
		Nm	*BA46.10-P-1001-01E
11	Pull the lower steering shaft (6) upward to extract it from the steering coupling (5)	Do not use force (hammer, strong lever action) since the lower steering shaft is sensitive to lateral impacts. This would cause distortion and render the lower steering shaft unusable.  Installation: Turn rack-and-pinion steering	AR46.20-P-0600-01TX
		(10) to center position and fit steering coupling.  i Installation: Watch the tab on the steering coupling and the groove in the lower steering shaft while sliding the lower steering shaft all the way into the steering coupling.	74440.201 0000 01170
12	Cut cable tie (arrow) and disconnect plug from SPS solenoid valve (Y10)		
13	Dismantle bracket (8) from rack-and-pinion steering (10)		
14	Detach oil line retaining plate (9) from rack- and-pinion steering (10) and pull out oil lines.	Before opening the hydraulic system, thoroughly clean the area around the separation point since even minute particles of dirt, introduced into the hydraulic components, can result in malfunctions and a total failure of the hydraulic system.  Installation: Replace O-rings.	
		i Seal off line connections with plugs.	*BA46.20-P-1001-01J *129589009100
15	Support rack-and-pinion-steering (10) using transmission jack and platform	Telescopic lifter gotis://H 00.10 01.0  Transmission plate for passenger cars and commercial vehicles gotis://A 25/35/49 02.0	
16	Detach rack-and-pinion steering (10) from front axle carrier (3) by unscrewing bolts (10a, 10b)		*BA46.20-P-1002-01J
17 <b>i</b>	Carefully lower rack-and-pinion steering (10). Evaluating steering rack when repairing accident vehicles		AH46.20-P-9409-01A
<u> </u>	Checking		
18	Check rubber mount (11) of rack-and-pinion steering mounting for damage.	Replace if necessary:	
		Remove rubber mount of rack-and-pinion steering fastening	AR46.20-P-0600-02TX
19	Install in the reverse order		
20	Fill power steering pump and bleed	Engine 272, 273, 642 Engine 113, 156	AR46.30-P-0010TX AR46.30-P-0010TY
21	Check steering for function and leaks	<u> </u>	111111111111111111111111111111111111111
22	Check front axle toe and adjust if necessary	When installing new parts. See:  ↓	
		Perform wheel alignment check	AR40.20-P-0200TX

## Nm Tie rod

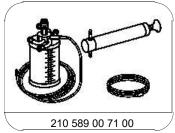
Number	Designation		Model 219
BA46.40-P-1001-01E	Self-locking nut, tie rod to steering knuckle	Stage 1 Nn	50
		Stage 2 🔏	90

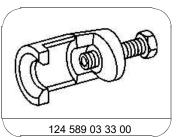
## Nm Steering shaft

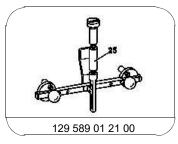
Number	Designation			Model 219
BA46.10-P-1001-01E	Bolt, steering coupling to steering shaft	Stage 1	Nm	30
		Stage 2	Ճ°	-

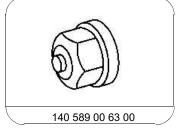
## Nm Steering gear

Number	Designation		Model 219
BA46.20-P-1001-01J	Bolt, oil line retaining plate to rack-and-pinion steering	Nm	18
BA46.20-P-1002-01J	-01J Bolted connection, rack-and-pinion steering to Stage 1 Ni front axle carrier		70
	Stage 2	Δ°	90







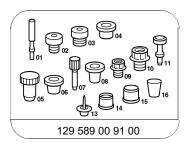


Hand pump

Puller

Holding device

Thrust piece



Set of stop plugs