

P46.20-2294-09

- 1 Rack-and-pinion steering
- 2 Retaining plate to front-axle carrier
- 3 Bolt for retaining plate
- 4 Steering joint bolt
- 5 Electrical connector

Modification notes

25.9.09	"Remove tie rod" changed to "Loosen tie rod"	Operation step 6
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		Remove/install	
⚠	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.
⚠	Danger!	Risk of injury to skin or eyes caused by hydraulic fluid spraying out under high pressure. Risk of poisoning caused by swallowing hydraulic fluid	Depressurize hydraulic system completely before starting any work on system. Wear protective clothing and safety glasses.
📌		Notes on self-locking nuts and bolts	AH00.00-N-0001-01A
1		Deactivate easy entry/exit function	<p>i Vehicles with code (275) memory package (driver seat, steering column, mirrors).</p> <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>i 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>
⚠	Danger!	Risk of injury caused by fingers being pinched or crushed when removing, installing or aligning hoods, doors, trunk lids, liftgates or sliding roof	Keep body parts and limbs well clear of moving parts.
2		Open engine hood	AS00.00-Z-0010-01A
3		Remove engine trim panel	AR88.40-P-1000GZ
4		Remove engine trim panel	<p>i Engine 642 only.</p> <p>☑ Hand pump</p>
4		Extract fluid out of the power steering pump's fluid reservoir	*210589007100
5.1		Detach lower engine compartment paneling	<p>i Vehicles with gasoline engine.</p>
5.2		Remove bottom section of soundproofing	<p>i Vehicles with diesel engine.</p>

6	Loosen outer tie rod		AR46.40-P-0200GZ
7	Unplug electrical connector (5) from control valve of rack-and-pinion steering (1)		
8	Remove lower bolt of steering coupling (4) from rack-and-pinion steering (1)	<p>i To do so, turn steering coupling to appropriate position and then turn it back to its original position.</p> <p>Nm</p>	*BA46.10-P-1002-01J
9	Turn steering wheel to central position (front wheels in straight ahead position) and secure with the retaining device	<p>! The steering wheel must not be turned when the steering coupling is detached, otherwise the clock spring contact will be destroyed.</p> <p>S Holding device</p>	*129589012100
10	Remove catalytic converter diesel particulate filter unit	i On engine 629 in model 164.1/8.	AR49.10-P-5501GZB
11	Push steering coupling together and carefully pull it out of rack-and-pinion steering (1)	<p>i Installation: Turn rack-and-pinion steering (1) to center position and mount steering coupling.</p> <p>i Do not use force (hammer impact, strong lever action).</p>	AR46.20-P-0600-01GZ
12	Remove bolt securing retaining plate (3) for oil lines from rack-and-pinion steering (1) and pull out oil lines	<p>i Seal off line connections with plugs.</p> <p>i Installation: replace O-rings.</p> <p>Nm</p> <p>S Set of stop plugs</p>	*BA46.20-P-1001-01K *129589009100
13	Remove front axle gear		AR33.30-P-0525GZ
14	Detach retaining plate of rack-and-pinion steering (1) and retaining plate from front axle carrier (2); to do so, remove bolts	<p>Nm</p> <p>Nm</p>	*BA46.20-P-1002-01K *BA46.20-P-1003-01K
15	Guide the rack-and-pinion steering (1) as far as possible to the right, then swivel to the lower left out of the front axle carrier	! Installation: The bolts, nuts and contact surfaces of the retaining plate and front axle carrier must be free of oil, grease and preservative. Heating causes the lubricants to melt and spread, which may cause the bolted connections to work loose.	
16	Check rubber mounts of rack-and-pinion steering mounting for damage		
17	Install in the reverse order		
18	Fill power steering pump	⊠	AR46.30-P-0010GZ *BF46.20-P-1001-01C
19	Check steering for function and leaks		
20	Perform wheel alignment check	i After installation of new parts.	AR40.20-P-0200GZ

Nm Tie rod

Number	Designation	Model 164.1/8		
BA46.40-P-1002-01K	Self-locking nut, tie rod to steering knuckle	Stage 1	Nm	45
		Stage 2	∠°	90

Nm Steering shaft

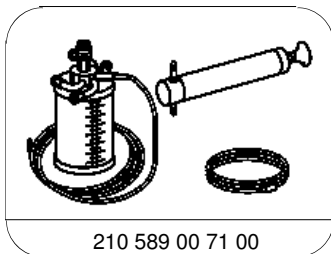
Number	Designation	Model 164.1/8	
BA46.10-P-1002-01J	Bolt, steering coupling to rack-and-pinion steering	Nm	33

Nm Steering gear

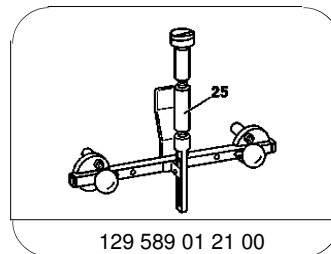
Number	Designation		Model 164.1/8
BA46.20-P-1001-01K	Screw/bolt, oil line retaining plate to control head	Nm	18
BA46.20-P-1002-01K	Bolted connection, rack-and-pinion steering to front axle carrier	Stage 1	Nm 50
		Stage 2, loosen	∠° -180
		Stage 3	Nm 50
		Stage 4	∠° 90
BA46.20-P-1003-01K	Bolted connection, supporting plate to front axle carrier	Nm	32

Steering gear

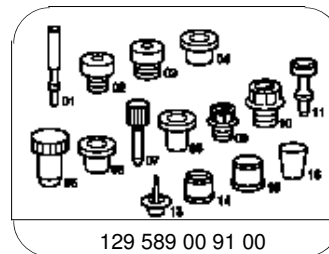
Number	Designation	Model 164
BF46.20-P-1001-01C	Power steering	
	Filling capacity	Liters ≈ 1.2
	MB steering gear oil	Sheet BB00.40-P-0236-03A



Hand pump



Holding device



Set of stop plugs