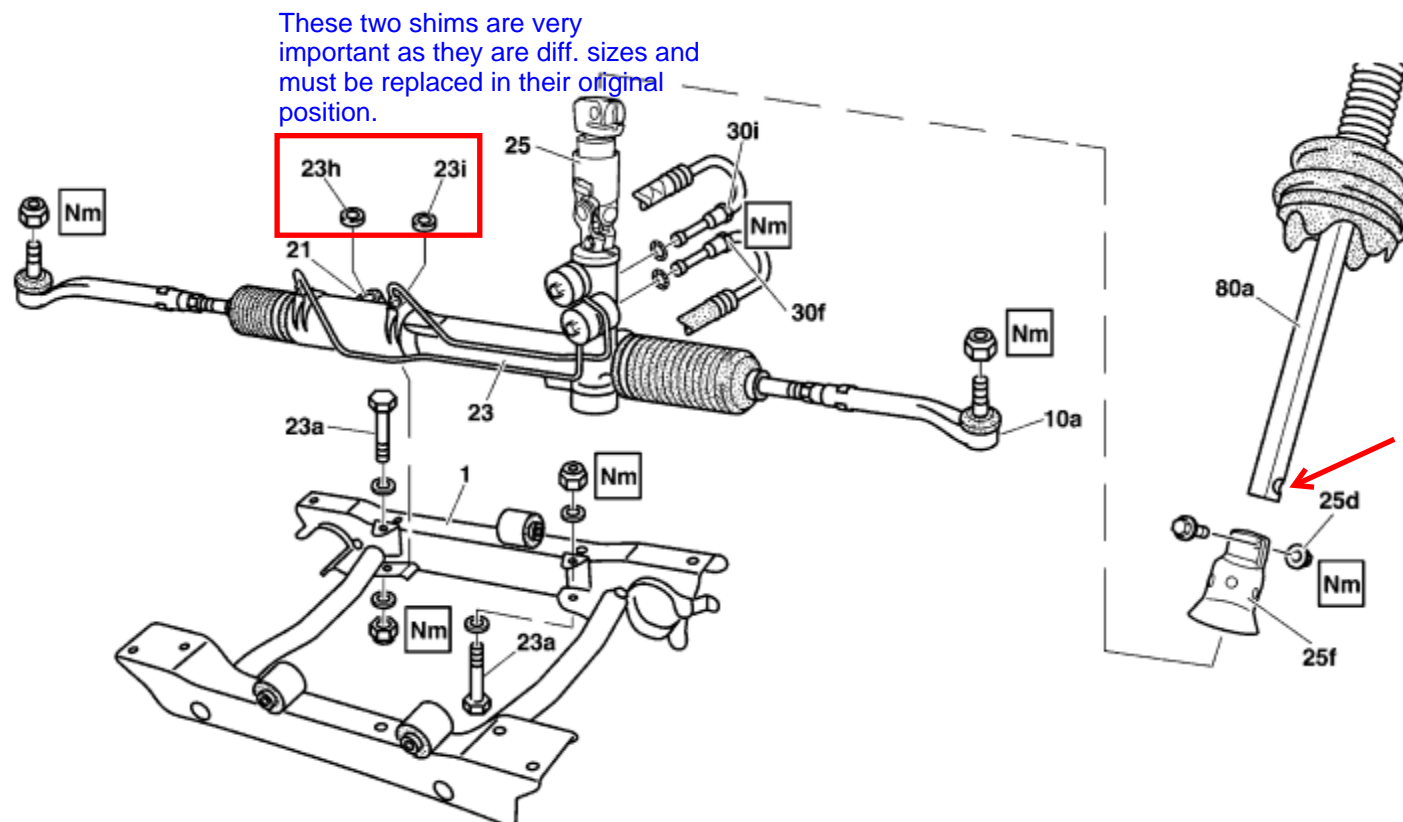


AR46.20-P-0600GH

Removing and installing rack-and-pinion steering

1.3.97

## MODEL 163













P46.20-2126-09













**Shown on model 163.154 (vehicles without speed-sensitive power steering)**

1 Front axle carrier  
10a Tie rod joint  
21 Rubber mount

23 Rack-and-pinion steering  
23a Bolts  
23h Shim  
23i Shim  
25 Steering coupling

25d Nut  
25f Steering coupling shield  
30f Return line  
30i High-pressure expansion hose  
80a Lower steering shaft

	<b>Removing, installing</b>		
 <b>Danger!</b>	<b>Risk of fatal injury</b> if the vehicle slips or topples off the lifting platform	Align vehicle between the columns of the lifting platform and position the four support plates at the lifting platform support points specified by the vehicle manufacturer.	<a href="#">AS00.00-Z-0010-01A</a>
 <b>Danger!</b>	<b>Risk of injury with trapped or crushed fingers</b> when removing and installing or aligning hoods, doors, trunk lid/tailgate and sliding roof.	When moving components ensure that no body parts or limbs are in the area of movement.	<a href="#">AS00.00-Z-0011-01A</a>
1	Open engine hood		<a href="#">AR88.40-P-1000GI</a>
2	Extract oil from power steering pump supply reservoir	 Hand pump	<a href="#">210 589 00 71 00</a>
3	Raise vehicle		
4	Remove front axle gear		<a href="#">AR33.30-P-0525GH</a>
5	Press tie rod joints (10a) off steering knuckles	 <b>Installation:</b> Replace self-locking nuts.	<a href="#">AR46.40-P-0200-02C</a>
			<a href="#">BA46.40-P-1001-01C</a>
		 Thrust piece	<a href="#">140 589 00 63 00</a>
		 Puller	<a href="#">202 589 02 33 00</a>
6	Turn steering wheel to horizontal position (front wheels in straight-ahead position)		
7	Remove key and engage steering lock		
8.1 <b>ML 55 only</b>	Unplug speed-sensitive power steering connector from timing case	On vehicles with speed-sensitive power steering code 213a	<b>ML 55 only</b>
9	Detach return line (30f) and high-pressure expansion hose (30i)	 Connection fittings or banjo bolts depending on the version. Seal off line connections with plugs.	
		 <b>Installation:</b> Replace sealing rings.	

		 Connection fitting, return line	<a href="#">BA46.20-P-1001-01D</a>
		 Connection fitting, high-pressure expansion hose	<a href="#">BA46.20-P-1002-01D</a>
		 Banjo bolt, return line	<a href="#">BA46.20-P-1004-01D</a>
		 Banjo bolt, high-pressure expansion hose	<a href="#">BA46.20-P-1005-01D</a>
		 Plug	<a href="#">129 589 00 91 00</a>
10	Detach nut (25d) and bolt from steering coupling (25) and pull lower steering shaft (80a) upwards out of steering coupling (25)	 Do not use force as the corrugated tube is sensitive to lateral forces. Enlarge clamping groove a little with a screwdriver if necessary.	
		 <b>Installation:</b> Replace nut (25d).	
	To center the new steering rack, clamp a vise grip at the tip of the rack and turn it all the way to stop on one side. Then turn in opp. direction until stop counting the turns. Then turn in opp. direc. 1/2 the number of turns you just counted.	 <b>Installation:</b> Turn rack-and-pinion steering to center position and fit steering coupling.	<a href="#">AR46.20-P-0600-01GH</a>
			<a href="#">BA46.10-P-1001-01D</a>
11	Detach rack-and-pinion steering (23) from front axle carrier (1) by unscrewing bolts (23a)	 The installed position of the shims (23h, 23i) on the right-hand side, between the rubber mount and the front axle carrier, must be observed as the shims are of different thicknesses.	Thin shim on top. thick on the bottom
	<div style="border: 1px solid red; padding: 2px; display: inline-block;">don't forget the shims</div>	 <b>Installation:</b> Attach rack-and-pinion steering to front axle carrier.	<a href="#">AR46.20-P-0600-03GH</a>
	Assessing condition of steering gear when repairing accident vehicles		<a href="#">AH46.20-P-9409-01A</a>
12	Check rubber mount (21) of rack-and-pinion steering mounting for damage	Replace rubber mount if necessary:↓	
		Removing rubber mounts on rack-and-pinion steering mounting	<a href="#">AR46.20-P-0600-02GH</a>
13	Install in the reverse order		

14	Fill and bleed power steering pump	Engines 112, 113	<a href="#">AR46.30-P-0010B</a>
15	Check steering for function and leaks	<b>i</b> There is a grease cushion under the cover cap. A small amount of escaping grease is to be regarded as normal and must not be confused with leakage.	
16.1	Check toe on front axle and adjust if necessary	When installing a new rack-and-pinion steering, see: ↓	
		Performing chassis alignment check	<a href="#">AR40.20-P-0200A</a>

### **Nm** Steering shaft

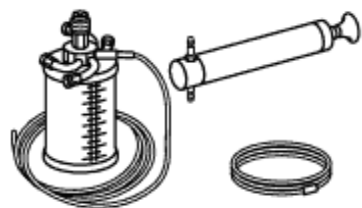
Number	Designation		Model 163
BA46.10-P-1001-01D	Self-locking nut, steering coupling to steering shaft and rack-and-pinion steering	Nm	28

### **Nm** Steering gear

Number	Designation		Model 163
BA46.20-P-1001-01D	Screwed connection fitting from return line to rack-and-pinion steering	Nm	15
BA46.20-P-1002-01D	Screwed connection fitting from high-pressure expansion hose to rack-and-pinion steering	Nm	15
BA46.20-P-1003-01D	Bolted connection, rack-and-pinion steering to front axle carrier	Nm	50
BA46.20-P-1004-01D	Banjo bolt, return line to rack-and-pinion steering	Nm	30
BA46.20-P-1005-01D	Banjo bolt, high-pressure expansion hose to rack-and-pinion steering	Nm	30

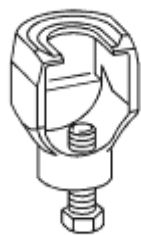
### **Nm** Tie rod

Number	Designation		Model 163
BA46.40-P-1001-01C	Self-locking nut, tie rod to steering knuckle	Nm	55



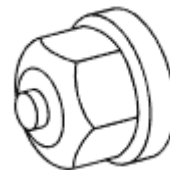
210 589 00 71 00

Hand pump



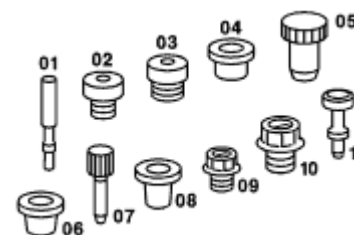
202 589 02 33 00

Puller



140 589 00 63 00

Thrust piece



129 589 00 91 00

Set of plugs