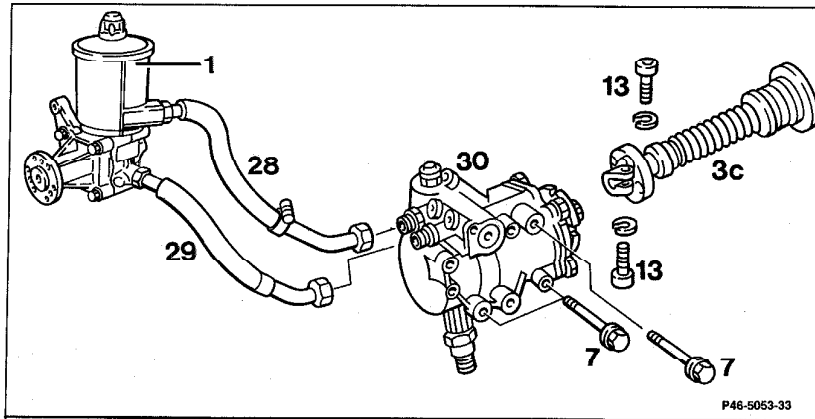


Preliminary work:
Pitman arm removed (46-512).



P46-5053-33
P46-5053-33

Power steering pump (1) extract oil in supply reservoir with extraction syringe 112 589 00 72 00. Fill and bleed power steering pump (46-715) (item 1).

Return line (28) and high-pressure expansion hose (29) screw off on steering gear (30), screw on. Plug line connections (item 2).
Return line 35-40 Nm,
high-pressure expansion hose 25-30 Nm.
Assure that hoses are routed properly.

On vehicles without electrically adjustable steering column

Two Allen screws (13) screw out of steering coupling (3c), screw in, 25 Nm (item 3).

Note

On engines 116 and 117 remove heat shield on left exhaust pipe, if required.

46-412 R and R steering gear

Steering coupling (3c) on double profile on lower steering spindle, push upward out of splines on steering, push down (item 4).

On vehicles with electrically adjustable steering column

Steering wheel extend completely and screw the bottom Allen screw (13) only out of the steering coupling (3c), screw in, 25 Nm (item 5).

Note

On engines 116 and 117 remove heat shield on left exhaust pipe, if required.

Steering coupling (3c) push up out of splines together with bottom steering spindle (corrugated tube), push on (item 5).

CAUTION!

Screw out screws only when the steering coupling (3c) is no longer engaged in the splines on the steering gear.

Screws (7) screw out, screw in and replace 70-80 Nm (item 6).

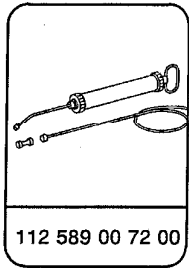
Note

After replacing a side member or the front end as part of an accident repair, tighten the screws to 100-130 Nm the first time, however tighten only to 70-80 Nm following all other types of work.

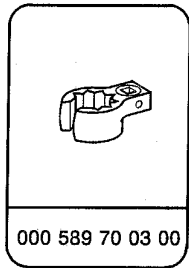
Steering gear (30) remove, install. Move steering gear (30) to center position, use center position check screw 116 589 06 21 00. Move steering wheel to center position, use adjustment tool 129 589 01 21 00 (item 7).

Power steering check for proper function and leakage.

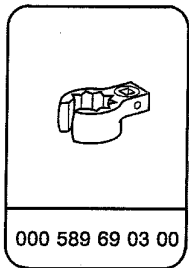
Special tools



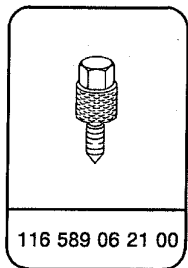
112 589 00 72 00



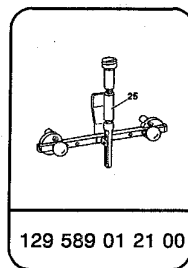
000 589 70 03 00



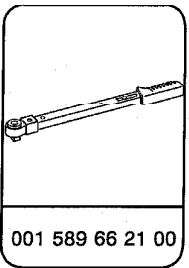
000 589 69 03 00



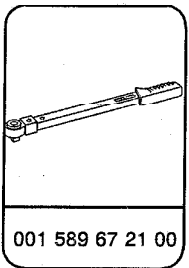
116 589 06 21 00



129 589 01 21 00



001 589 66 21 00



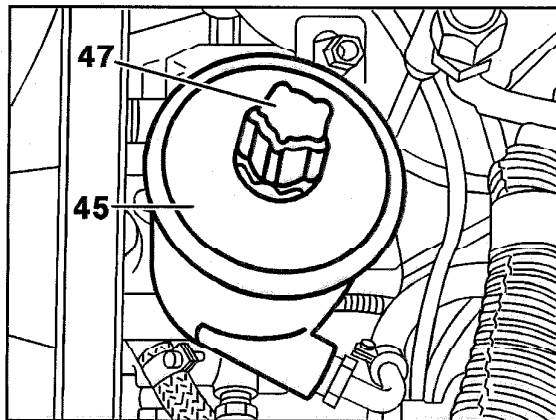
001 589 67 21 00

Removal, installation

1 Screw off bleed cap (47) and remove cover (45). Extract oil with extraction syringe 112 589 00 72 00.

Installation note

Fill and bleed power steering pump (46-715).



P46-2019-13

2 Screw return line (28) and high-pressure expansion hose (29) off of steering gear (30). Plug line connections on steering gear (30) with dummy plugs.

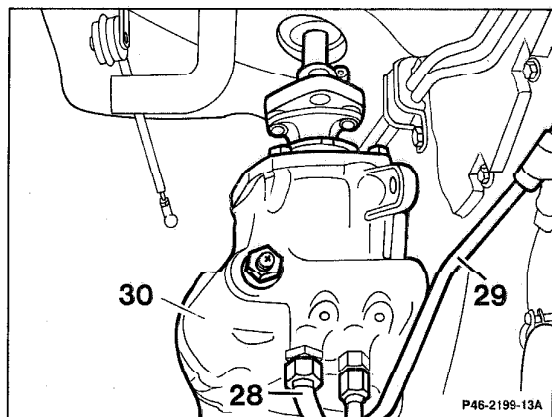
Installation note

Assure that hoses are properly positioned when installing.

Tightening torque

Return line 35-40 Nm,

high-pressure expansion hose 25-30 Nm.



P46-2199-13A

P46-2199-13A

46-412 R and R steering gear

Vehicles without electrically adjustable steering column:

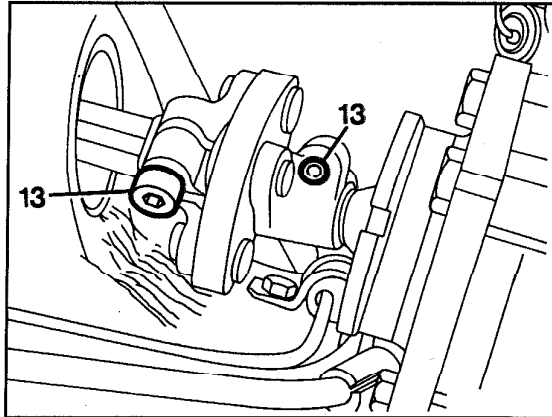
3 Screw out the two Allen screws (13).

Engines 116 and 117:

Remove heat shield on left exhaust pipe, if required.

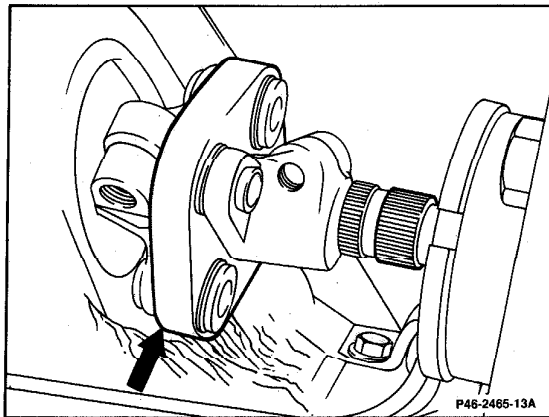
Installation note

Tightening torque for Allen screws (13) 25 Nm.



P46-5084-13

4 Push steering coupling (arrow) up on double splined shaft on bottom steering spindle (corrugated tube) until it no longer engages in the steering gear splines.



P46-2465-13A

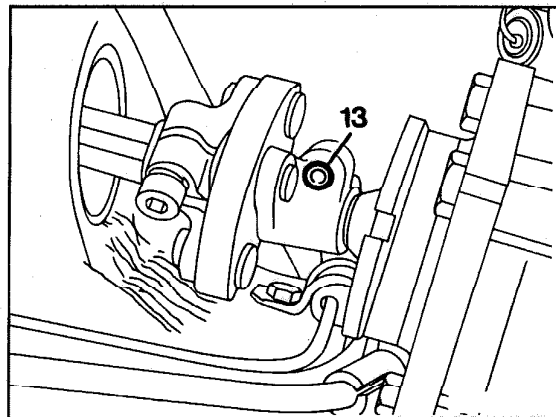
P46-2465-13A

Vehicles with electrically adjustable steering column:

5 Extend steering wheel completely. Then screw out the bottom Allen screw (13) only. Push steering coupling upward together with bottom steering spindle (corrugated tube) until it no longer engages in the splines on the steering gear.

Engines 116 and 117:

Remove heat shield on left exhaust pipe, if required.

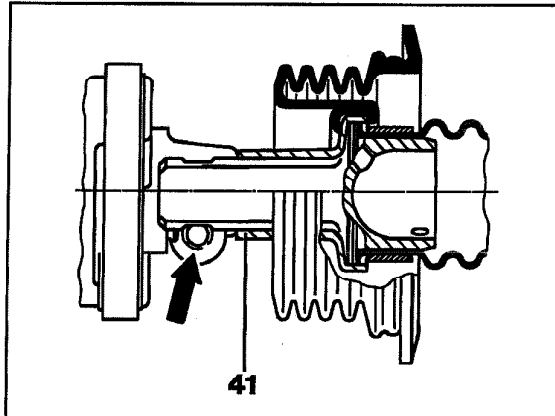


P46-5085-13

Installation note

Assure that the steering coupling makes contact with the sealing ring (41) and the Allen screw is screwed through the groove (arrow) in the corrugated tube flange.

Tightening torque 25 Nm.



P46-0013-13A



Screw out screw only when steering coupling is no longer engaged in the splines on the steering.

6 Screw out screws (7) for steering gear on side member in left wheelhouse.

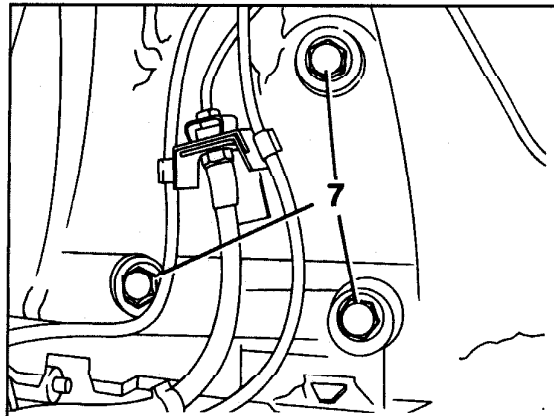
Note

After replacing a main frame member or the front end as part of an accident repair, tighten the screws to 100-130 Nm the first time, however tighten only to 70-80 Nm following all other types of work.

Installation note

Replace screws (7).

Tightening torque 70-80 Nm.



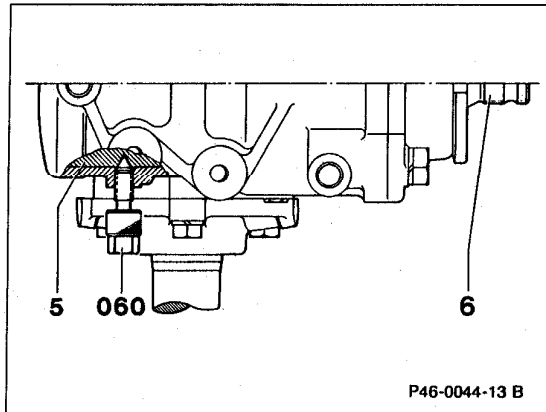
P46-2453-13

7 Remove steering gear downward.

46-412 R and R steering gear

Installation note

Screw center position check screw (060) 116 589 06 21 00 into steering gear and arrest working piston or steering nut (5). For this purpose turn steering worm (6) until the center of the working piston or the steering nut is exactly below the threaded hole.

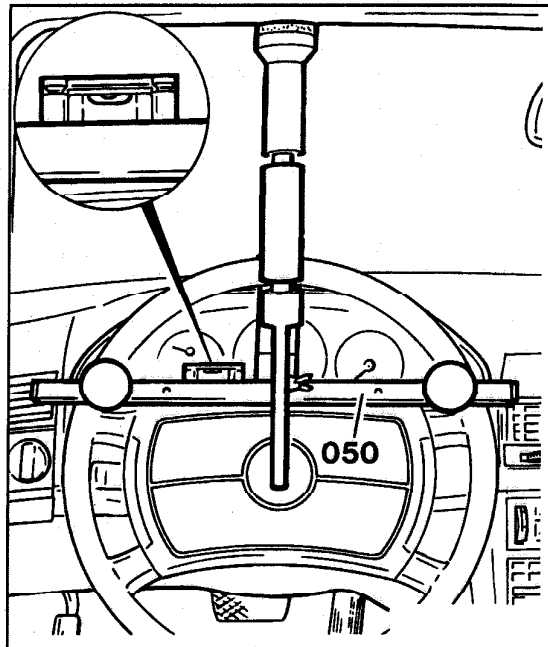


P46-0044-13 B

P46-0044-13B

The top spoke in the steering wheel should be horizontal. Install adjustment tool (050) for steering wheel 129 589 01 21 00 and adjust.

Install steering coupling on steering gear splines in this position after fastening steering gear. Then remove center position check screw and adjustment tool.



P40-2156-15

8 Check steering gear for proper function and leakage.