

Special tools

Puller for ball joints of drag link
and track rod on pitman arm



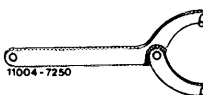
111 589 08 33 00

Assembly fixture



116 589 01 59 00

Special wrench adjustable, for bearing insert



000 589 00 05 00

Special wrench for slot nut of bearing cap



116 589 01 07 00

Assembly tool for bearing cap



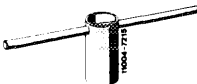
116 589 03 59 00

Special wrench for slot nut of power piston



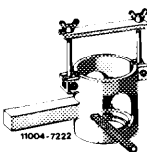
116 589 00 07 00

Socket wrench 46 mm for screw cover

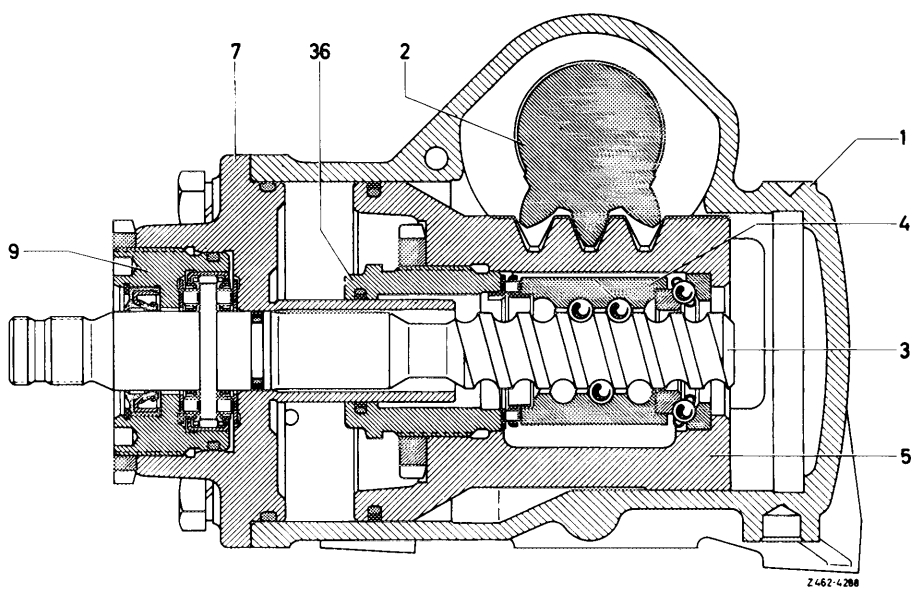
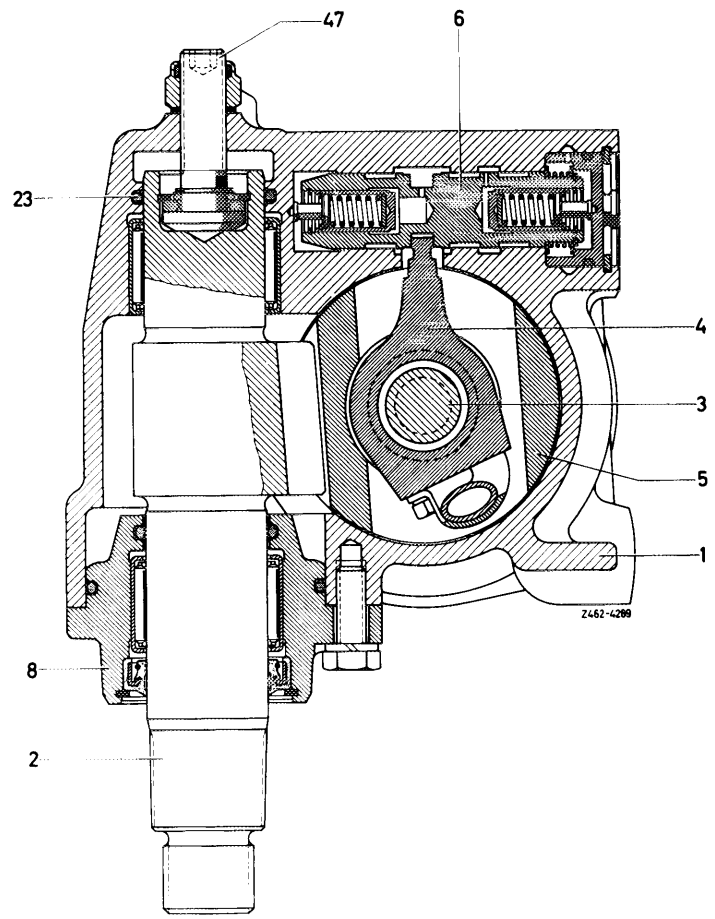


116 589 00 09 00

Assembly tool for screw cover and power piston



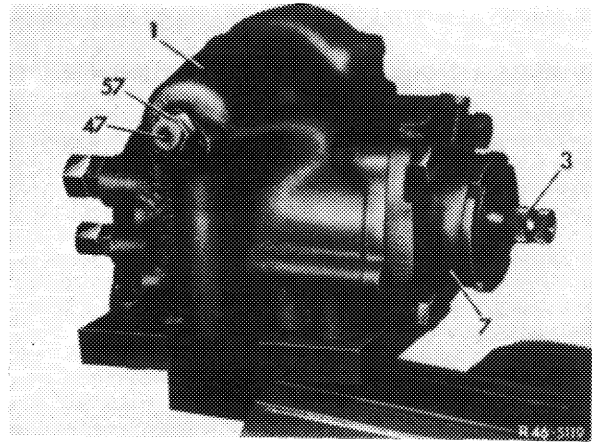
116 589 04 59 00



- | | | | |
|-------------------------|-----------------|------------------|--------------------|
| 1 Steering gear housing | 4 Steering nut | 7 Bearing cap | 23 O-ring |
| 2 Pitman shaft | 5 Power piston | 8 Housing cover | 36 Screw cover |
| 3 Steering worm | 6 Control valve | 9 Bearing insert | 47 Adjusting screw |

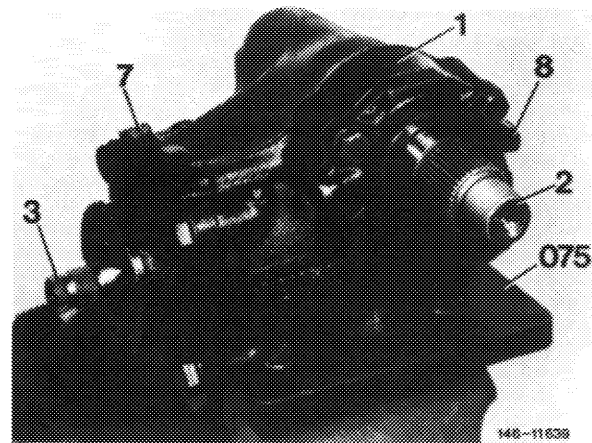
Disassembly

1 Attach steering (1) to assembly fixture.

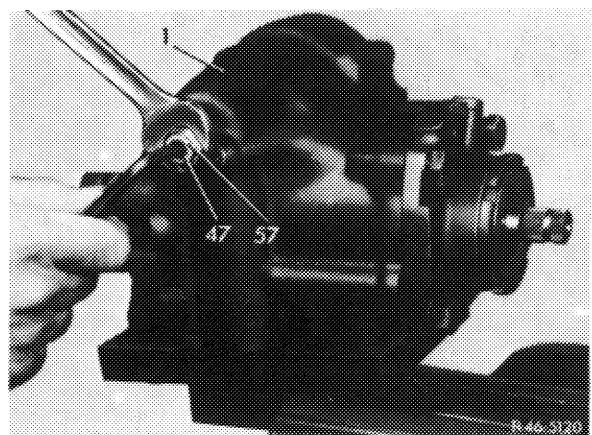


2 Unscrew hex screws for fastening housing cover (8) to steering gear housing (1).

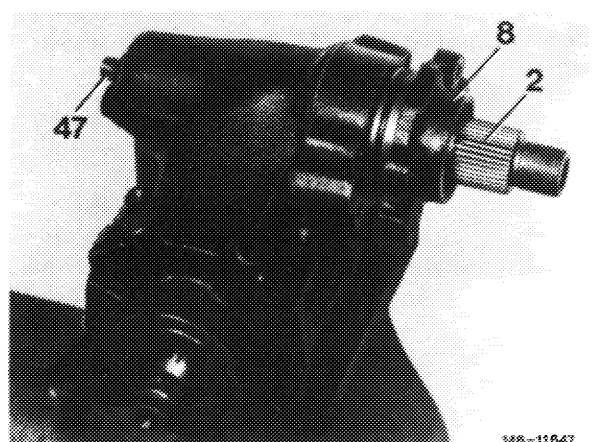
Note: Recently, the housing cover is fastened to steering gear housing with four hex screws.



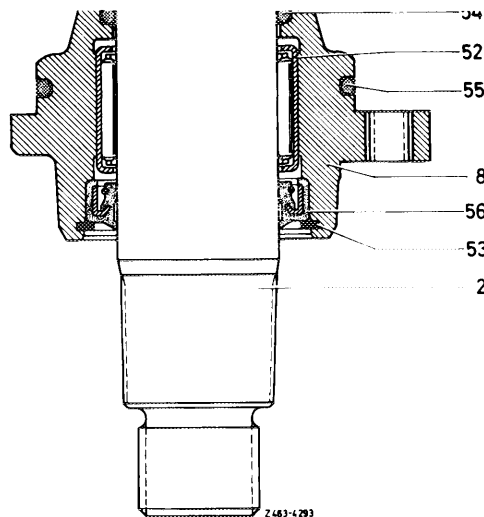
3 Unscrew self-locking hex nut (57) from adjusting screw (47) while applying counterhold to adjusting screw.



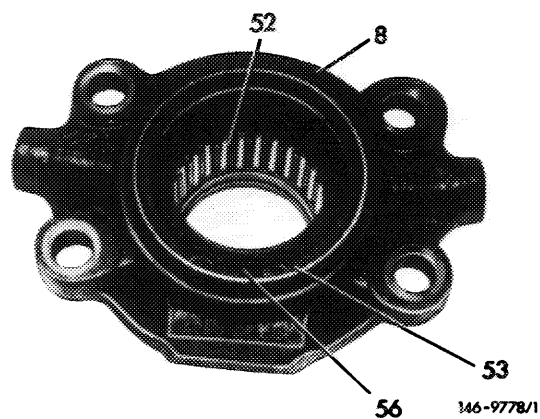
4 In center position of steering, turn adjusting screw to the right, which will force pitman shaft and housing cover out of steering housing.



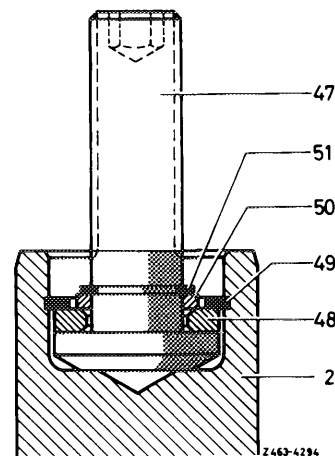
- 5 Remove housing cover (8) from pitman shaft (2).
- 6 Remove O-rings (54 and 55) from housing cover.



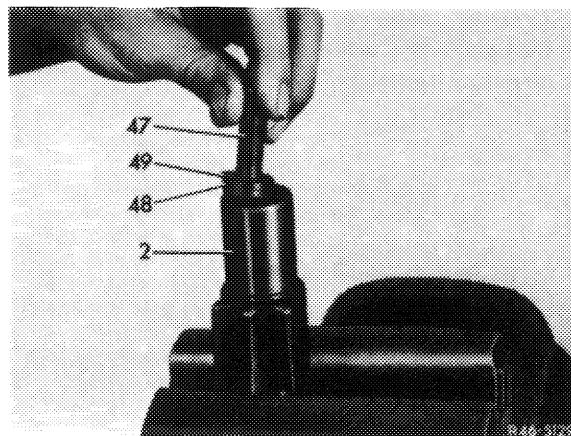
- 7 Remove locking ring (53) and radial sealing ring (56) from housing cover (8).



- 8 Remove locking ring (51) from adjusting screw (47), then remove thrust ring (50).



- 9 Remove locking ring (49) from pitman shaft (2). Remove adjusting screw (47) including thrust washer (48).

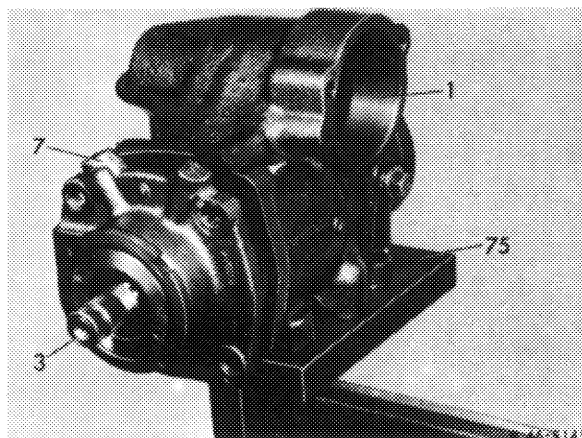


10 Unscrew hex. screws for fastening bearing cap (7) to steering housing (1).

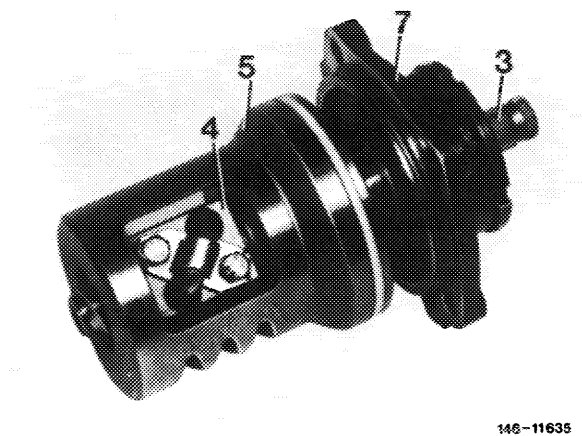
11 Slip steering coupling on steering worm, turn steering worm to the left until bearing cap is pushed slightly out of steering housing.

Attention!

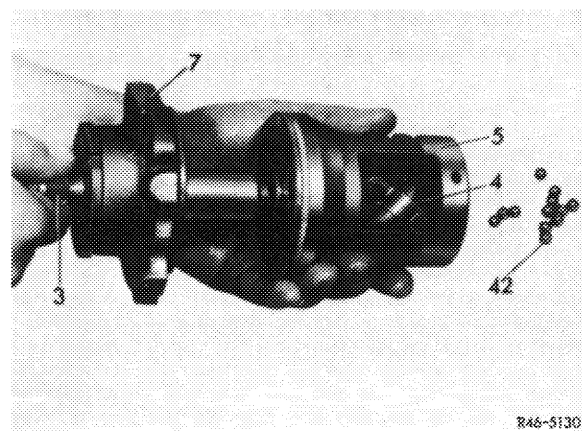
Do not turn too far, since otherwise the balls may fall out of ball circuit.



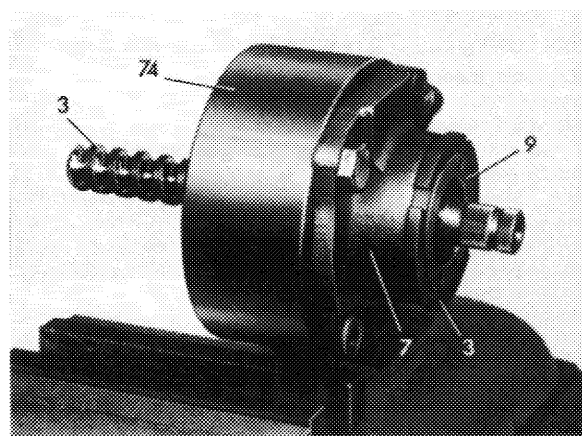
12 Remove bearing cap together with steering worm and power piston out of steering housing.



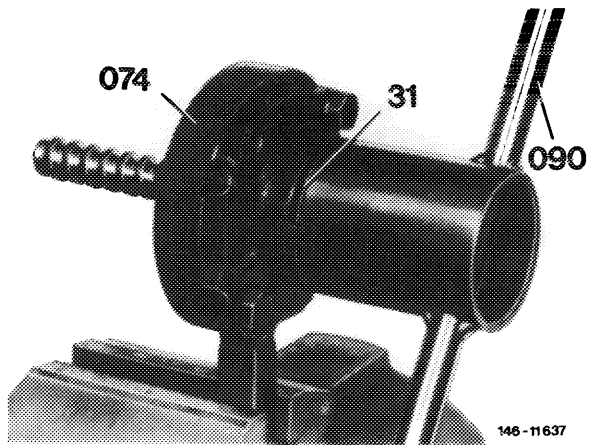
13 Screw steering worm (3) out of steering nut (4), while making sure that no balls (42) are lost.



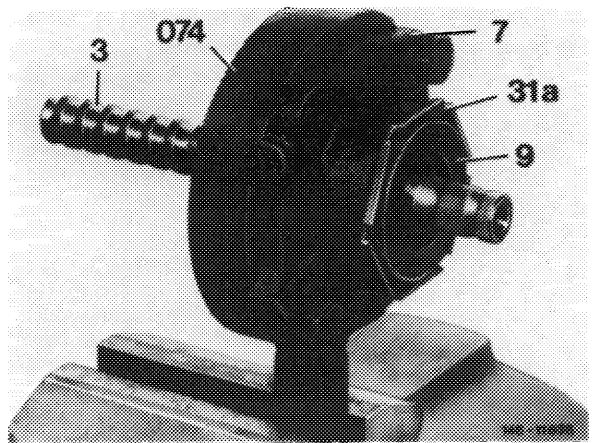
14 Remove O-ring from bearing cap and attach bearing cap to fixture.



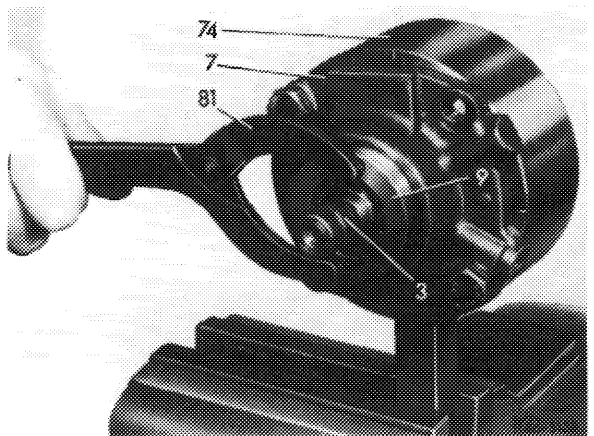
15 Unscrew slot nut (31) from bearing insert (9) by means of special wrench (090).



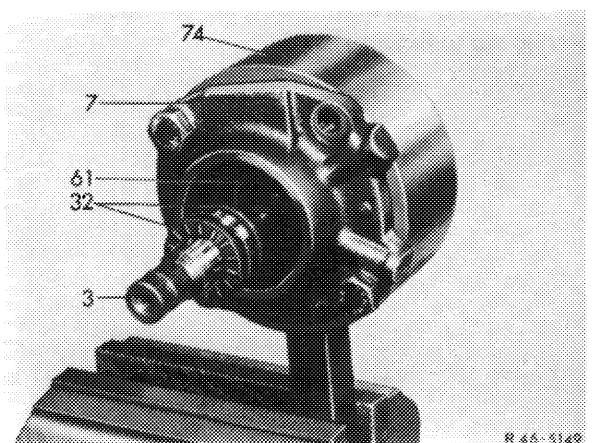
Note: Instead of slot nut, the bearing cap can also be secured by means of a sheet-metal hex nut (31a).



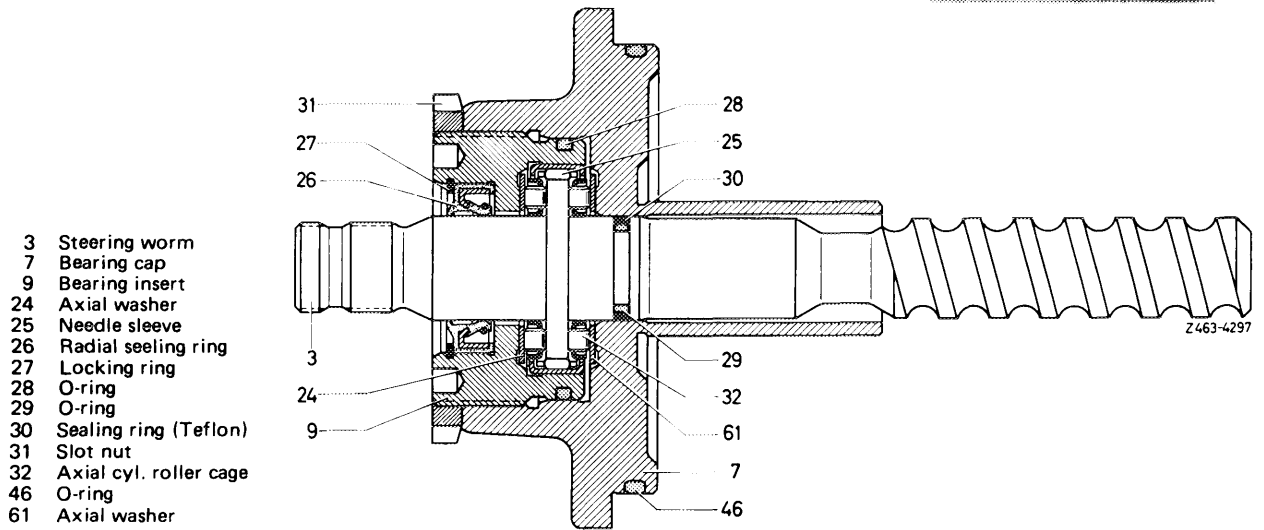
16 Unscrew bearing insert (9) out of bearing cap (7) by means of special wrench (81).



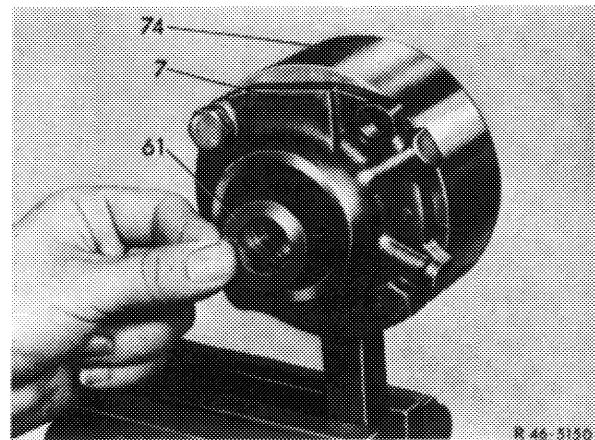
17 Remove steering worm (3) and axial washer (61) from bearing cap (7), remove axial cyl. roller cage (32) from steering worm.



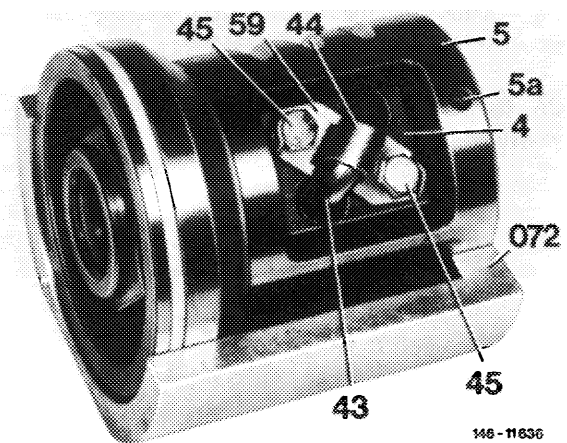
18 Remove sealing ring (30) and O-Ring from steering ring (3).



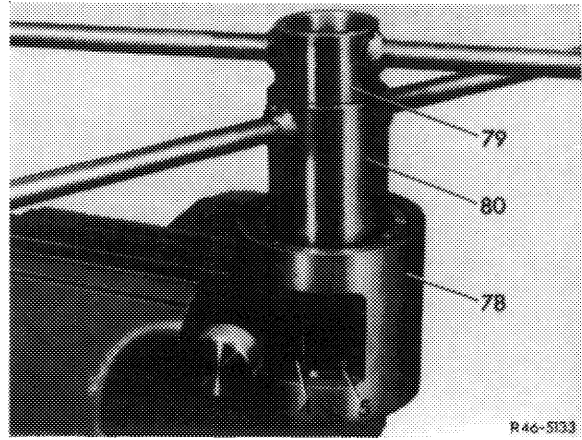
19 Remove axial cyl. roller cage and axial washer (61) from bearing cap (7).



20 Unscrew hex. screws (45), remove fastening clip (44) and both ball guide halves (43).



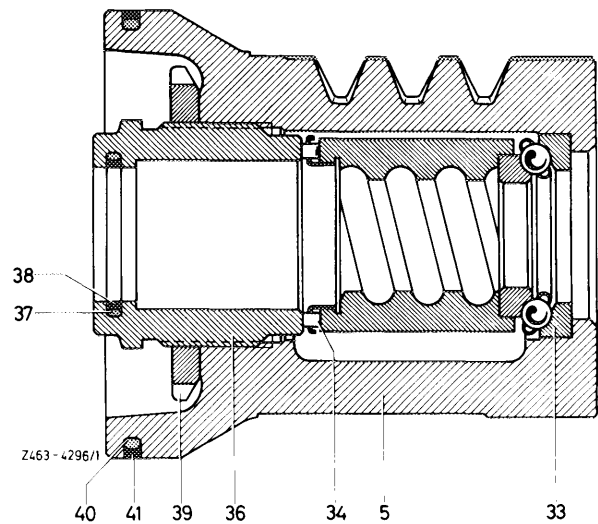
21 Clamp power piston (5) into fixture (78), unscrew slot nut (39) with special wrench (80), then unscrew screw cover (36) with wrench (79).



22 Remove sealing ring (Teflon) (38) and O-ring (37) from screw cover (36).

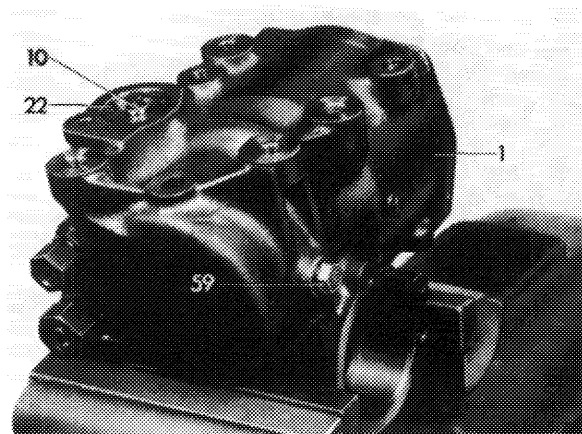
23 Remove axial cyl. roller cage (34) from steering nut, and steering nut from power piston (5).

24 Remove axial tapered ball bearing (33) from power piston.

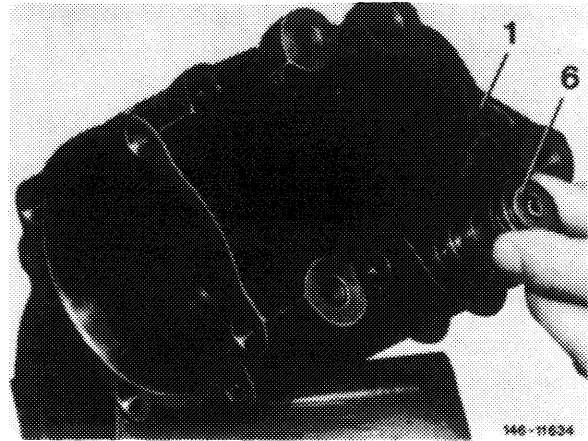


25 Remove locking ring (22) from steering gear housing (1).

26 Remove closing cover (10) from steering gear housing.



27 Remove control valve (6) from steering gear housing (1), making sure that spring bolts (65) are not falling out.



28 Remove O-ring (21) from closing cover.

