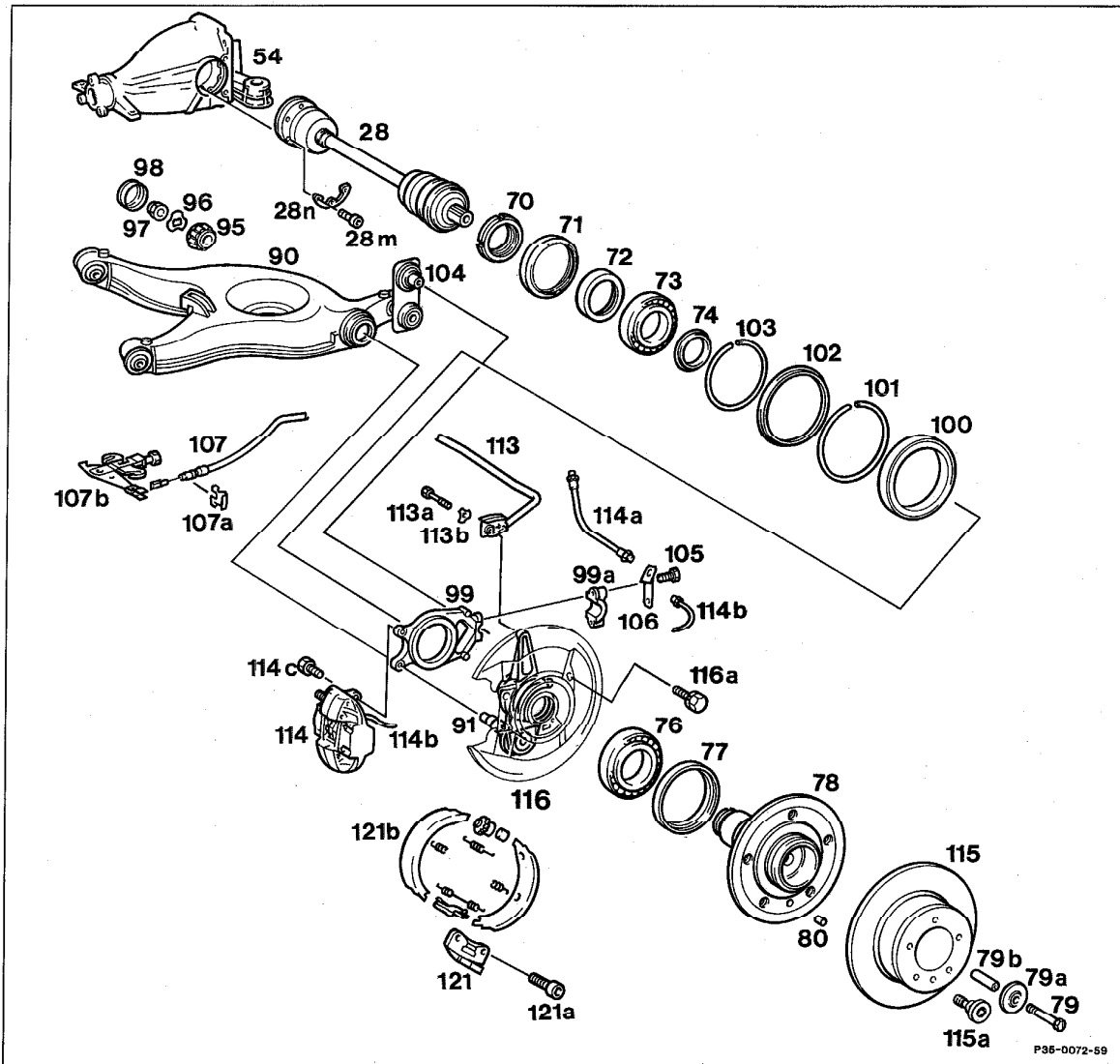


35-0360 R and R caliper carrier and hub, adjust wheel bearing

Preliminary work:
Removal and assembly of wheels 40-0110

Semi-trailing arm rear suspension with anti-squat geometry



P35-0072-59

- | | |
|---|---|
| Rear axle shaft (28) | remove, install (35-0620). |
| Necked down bolt (113a) on stabilizer bar (113) . | unscrew, screw in. Replace necked down bolt, 80 Nm. |
| | Torque wrench 001 589 66 21 00. |
| Brake cable (107) on compensating lever (107b) . | disconnect, assemble (42-0525). |

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Brake hose (114a)	detach, assemble (Step 4). Bleed brake system (42-0010).
Caliper (114)	remove, install (42-0530). Replace self-locking hexagon bolts, 90 Nm. Torque wrench 001 589 66 21 00.
Brake disc (115)	remove, install. Replace hexagon socket bolt (115a).
Cover (98)	detach, assemble (Step 6). Puller 116 589 06 33 00 Punch 116 589 06 15 00.
Self-locking hexagon nut (97)	unscrew, screw in, basically replace. Tighten to 40 - 50 Nm while rotating at the same time. Torque wrench 001 589 66 21 00 (Step 7).
Disc (96)	remove, put on. Pay attention to contact surfaces (Step 7).
Caliper carrier (99, 99a) on link pivot shaft (104) .	detach, tighten up, 25 Nm. Torque wrench 001 589 66 21 00.
Wheel carrier (91)	remove, insert on coupled arm.
Taper roller bearing inner race (95)	detach, assemble. Coat circumference with long-life grease (Step 10).
Circlip (103)	remove, secure (Step 12).
Protective ring (102)	remove, put on.
Brake cover plate (116)	detach and bolt on (Step 14).
Caliper carrier (99) and deep groove ball bearing (100)	pull off, press on. Remover and installer 116 589 10 43 00, installer 116 589 05 35 00 (Step 15)
Circlip (103)	remove, secure (Step 16).
Deep groove ball bearing (100) from caliper carrier (99)	press off, press in. Remover and installer 116 589 10 43 00, two-arm puller 000 589 88 33 00 or conventional puller (Step 17).
Brake shoes (121b) and brake cable (107)	remove, install (42-0525, 40-0530).
Brake cover plate (116)	remove, install (Steps 19 - 20).
Slot nut (70)	detach, tighten up, replace and secure. End play 0.04 - 0.06 mm. Socket for slot nut 115 589 02 07 00 Dial gauge holder 363 589 02 21 00 (Step 21).
Seal (72)	remove, put on. Basically replace.

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Seal (71)	press off, pull on. Assembly tool 201 589 00 61 00 (Step 23).
Wheel carrier (91) from rear wheel hub (78)	press off, insert. Quantity of grease approx. 50 g. Two-arm puller 000 589 88 33 00 Thrust pad 000 589 03 34 00 (Step 24).
Taper roller bearing inner race (73)	remove, put on.
Seal (77)	press off, pull on. Installer 116 589 11 61 00 (Step 25).
Taper roller bearing outer race (76)	pull off, pull on. Puller 115 589 00 33 00.
Taper roller bearing outer race (73)	drive out. Punch 115 589 02 43 00. Pull on both outer races simultaneously with installer 116 589 11 61 00. (Step 27).
Spacing sleeve (74)	remove, put on. Replace after one-time use.
Taper roller bearing inner race (76)	pull off, press on. Assembly plate 136 589 05 31 00 Thrust pad 000 589 03 34 00 Puller 001 589 36 33 00 and Collet 000 589 02 34 00 (Step s 29 to 31).
Rear wheel hub (78)	check for damage. Note marking for left and right (Step 31) installation note.

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Rear wheel bearing

End play of rear wheel hub	0.03 - 0.06
----------------------------	-------------

Rear wheel hub dimensions in mm

Permissible vertical runout on concentric alignment in installed condition	0.12	
Permissible lateral runout in installed condition	0.12	
Thickness of flange	9.5 - 10.0	
Permissible vertical runout on bearing seats and on running surfaces for seals	0.03	
Permissible vertical runout on concentric alignment	0.02	
Centering boss (outside diameter) for brake disc	67.00	
	66.97	
Dia. of bearing seats	outside	46.028
		46.017
	inside	41.013
		41.002
Diameter of running surface for outer seal		72.00
		71.81
Oil return spiral on running surface for outer seal	Left hand flange	Right hand spiral
	Right hand flange	Left hand spiral
	Length of spiral on circumference of running surface	20
Width of spacing sleeve		11.8 - 12.0

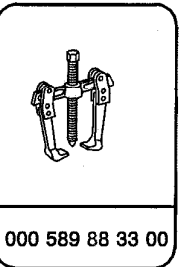
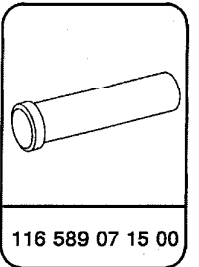
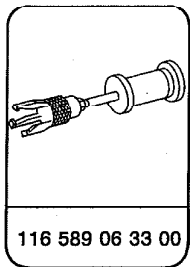
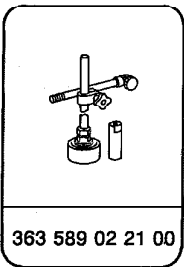
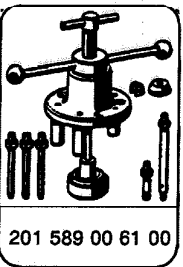
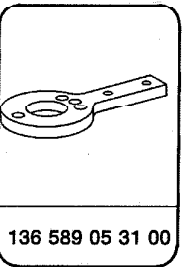
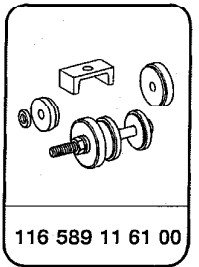
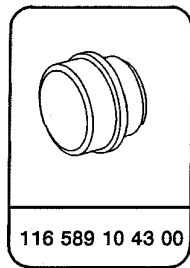
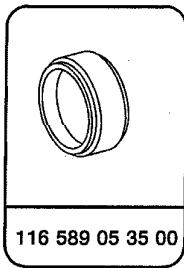
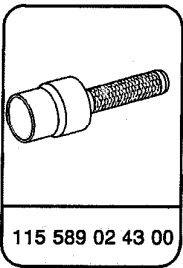
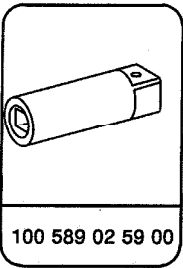
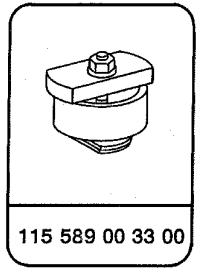
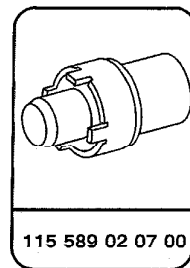
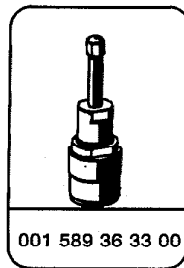
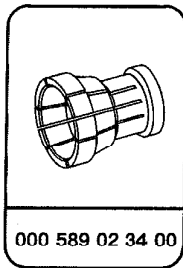
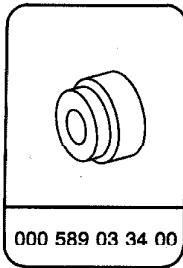
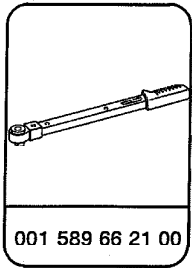
Lubricant

Lubricant for rear wheel bearing	Multi-purpose grease refer to factory approved service products list ¹⁾
Quantity each side	50 g
Lubricant for wheel carrier in coupled semi-trailing arm	Long-life lubricant, Longterm 1 produced by Dow Corning GmbH, Munich or Ollstamol 1 Produced by Optimol-Ölwerke GmbH, Munich (refer to factory approved service products list) ¹⁾
Quantity each side, new fill	45 g

¹⁾ Supplied with owner's literature or available through your local authorized Mercedes-Benz Dealer.

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Special tools



Conventional tool

Two-arm puller for pulling the caliper carrier off wheel carrier

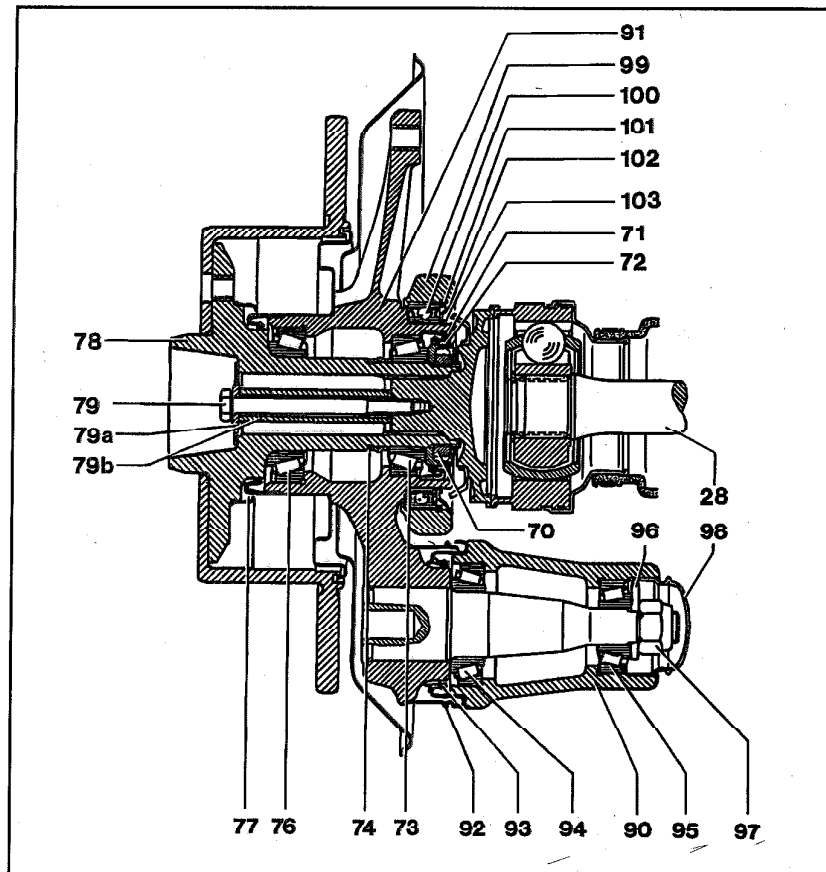
e.g. Company Nexus,
5630 Remscheid
Part No. 100 Gr. 2

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Note

Reconditioning jobs on rear wheel hub bearing can also be made with rear axle installed. The work is identical for a semi-trailing arm or a coupled semi-trailing arm design (35-0130).

Arrangement with coupled semi-trailing arm



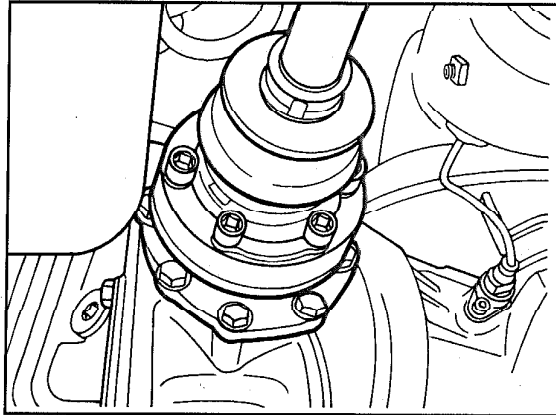
P35-0062-37

28	Complete rear axle shaft	91	Wheel carrier
70	Slot nut	92	Protective ring
71	Seal	93	Seal
72	Thrust washer (seal)	94	Outer taper roller bearing
73	Inner taper roller bearing	95	Inner taper roller bearing
74	Spacing sleeve	96	Disc
76	Outer taper roller bearing	97	Self-locking hexagon nut
77	Seal	98	Cover
78	Rear wheel hub	99	Caliper carrier
79	M8 self-locking bolt	100	Radial deep groove ball bearing
79a	Tensioning washer	101	Circlip
79b	Spacing sleeve	102	Protective ring
90	Coupled semi-trailing arm	103	Circlip

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Removal and installation

- 1 Removal and installation of rear axle shaft (35-0620).

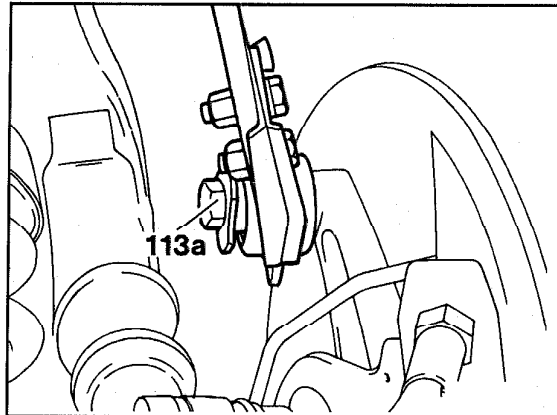


P35-2106-13

- 2 Detach, tighten necked down bolt (113a) for attaching the stabilizer bar to the wheel carrier (32-0325).

Note

Replace necked down bolt, 80 Nm.
Torque wrench 001 589 66 21 00.

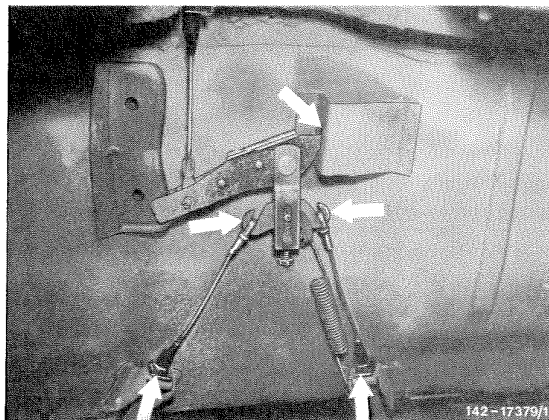


P35-2165-13

- 3 Detach, connect brake cable at compensating lever on parking brake (42-0525).

Note

Adjust parking brake (42-0525).



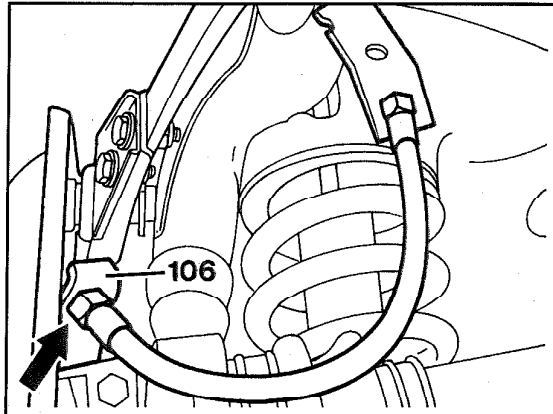
142-17379/1

35-0360 R and R caliper carrier and hub, adjust wheel bearing

- 4 Detach, connect brake hose at bracket of caliper carrier (106) and brake line at caliper (arrow).
Seal brake lines or hose against entry of dirt.

Note

Ensure brake line and hose are correctly routed.
Bleed brake system (42-0010).

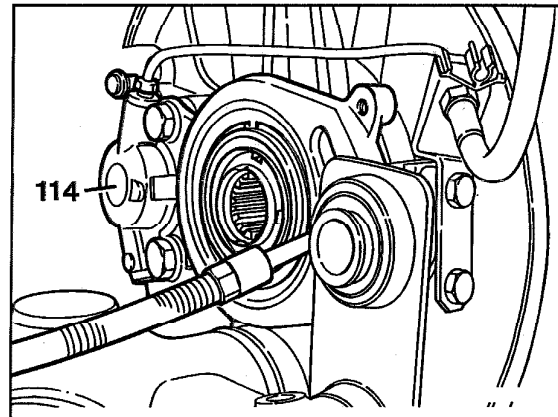


P35-2166-13

- 5 Remove and install caliper (114) and brake disc (42-0530).

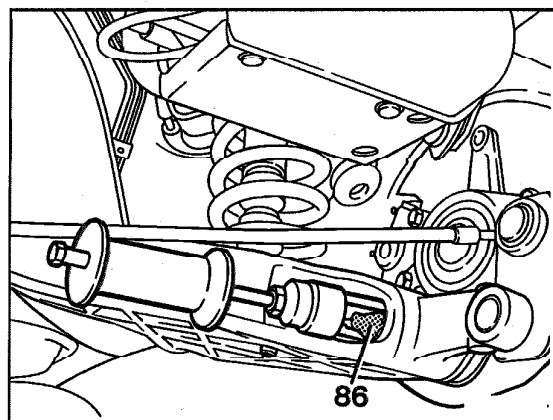
Note

Replace self-locking hexagon bolts or hexagon socket bolt. Tightening torque for hexagon bolts, 90 Nm. Torque wrench 001 589 66 21 00.



P35-2172-13

- 6 Pull cover (86) of wheel carrier bearing out of coupled semi-trailing arm with puller 116 589 06 33 00.

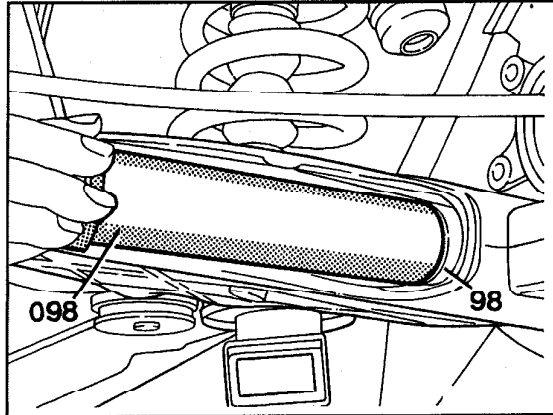


P35-2173-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

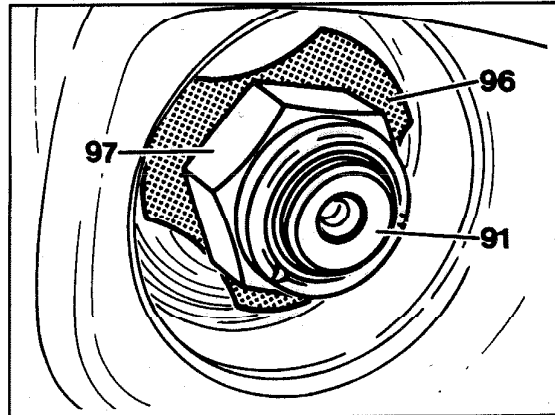
Note

Punch cover (98) of wheel carrier bearing with punch 116 589 07 15 00 (098).



P35-2170-13

7 Unscrew, screw in self-locking nut (97) on bearing pin (91) and remove or put on with disc (96).



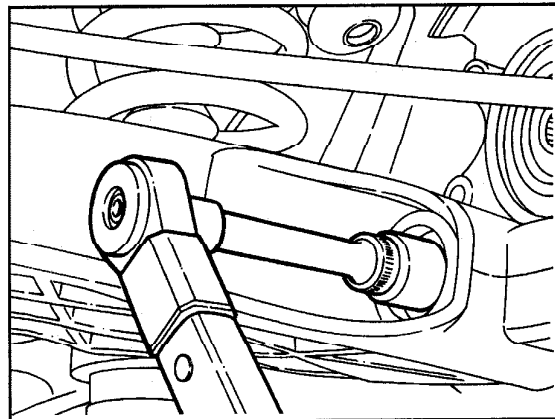
P35-2440-13

Note

Replace self-locking hexagon nuts after one-time use.

Ensure that the respective surfaces of washer and wheel carrier align. Tighten self-locking hexagon nut to 40 - 50 Nm while simultaneously rotating the wheel carrier (35-0350).

Torque wrench 001 589 66 21 00.



P35-2171-13

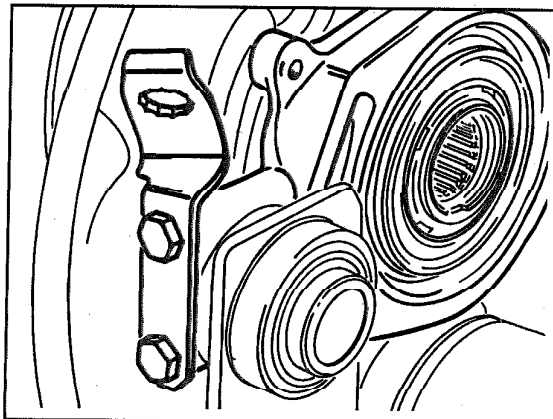
35-0360 R and R caliper carrier and hub, adjust wheel bearing

8 Unscrew, screw in caliper carrier from link pivot shaft.

Note

Tightening torque 25 Nm.

Torque wrench 001 589 66 21 00.



P35-2438-13

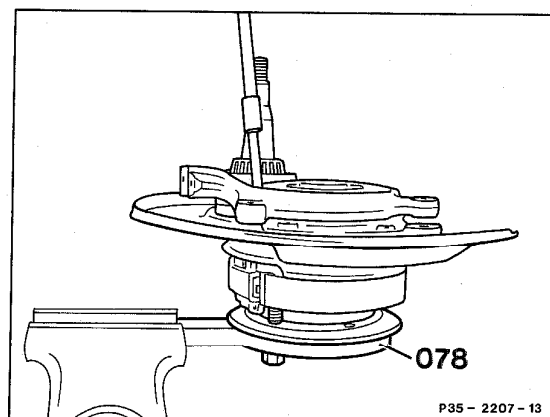
9 Pull out, insert bearing pin of wheel carrier at the coupled semi-trailing arm.

10 Remove, put on taper roller bearing inner race.

Note

Coat circumference of taper roller bearing with long-life grease. New fill approx. 45 g.

11 Clamp rear wheel hub in the vise with assembly plate (078).



P35 - 2207 - 13

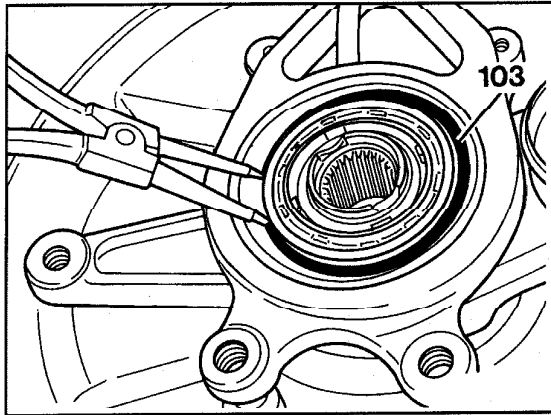
P35-2207-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

12 Remove circlip (103) with suitable screwdriver or circlip pliers.

Note

Replace circlip. Ensure circlip is correctly seated.

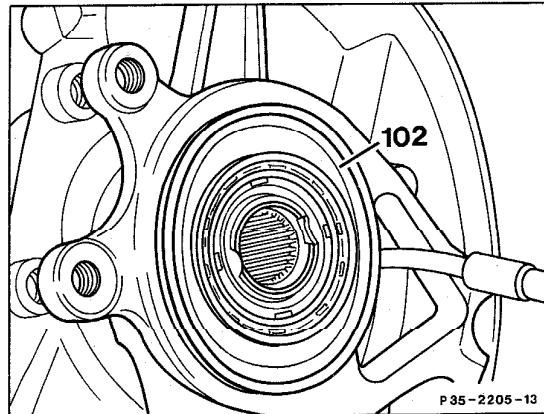


P35-2206-13

13 Remove, put on protective ring (102).

Note

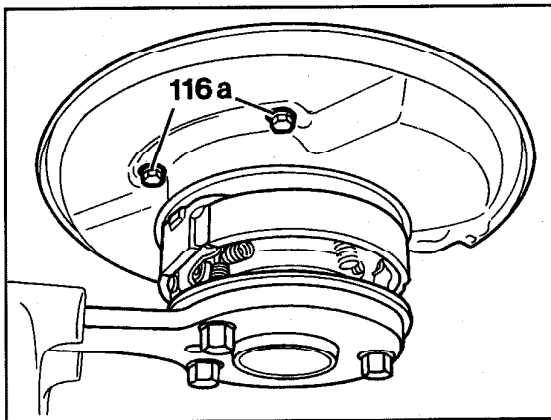
Check parts for re-use, replace if necessary.



P35-2205-13

P35-2205-13

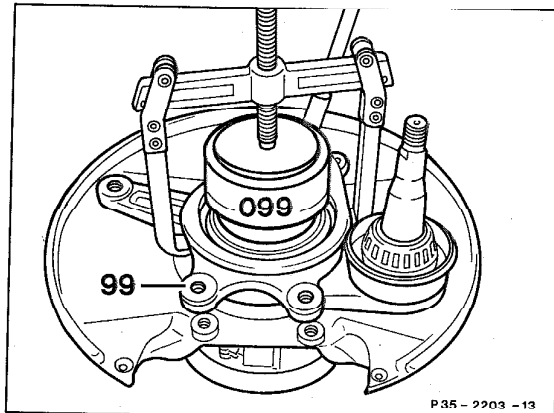
14 Unscrew, screw in hexagon bolts (116a) for fixing the brake cover plate to caliper carrier.



P35-2204-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

15 Pull caliper carrier (99) and grooved ball bearing out of wheel carrier in connection with two-arm puller and remover and installer 116 589 10 43 00 (099).

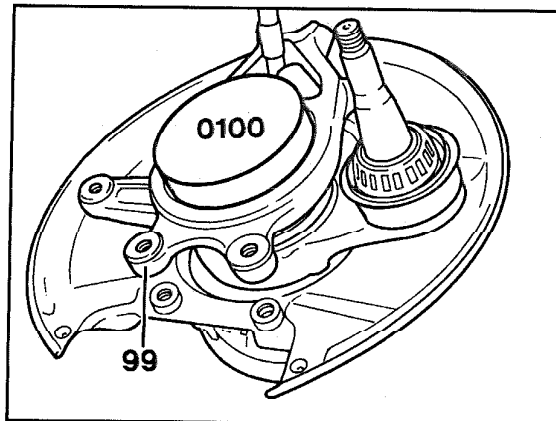


P35-2203-13

P35-2203-13

Note

Press caliper carrier (99) with deep groove ball bearing onto the wheel carrier with installer 116 589 05 35 00 (0100).

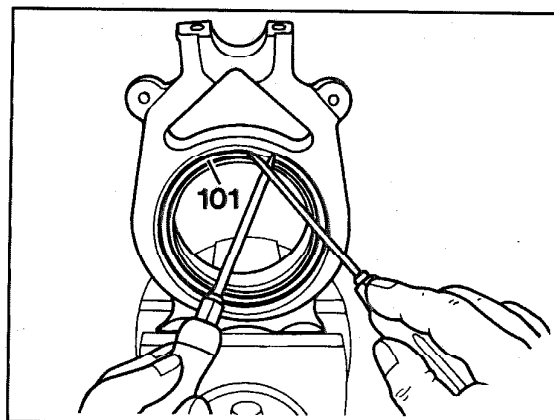


P35-2202-13

16 Remove, secure circlip (101) with suitable screwdriver.

Note

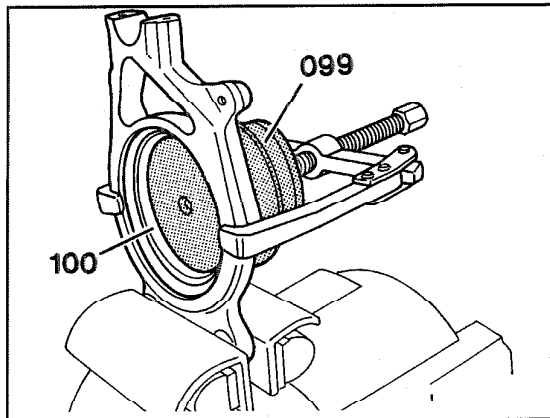
Replace circlip. Ensure circlip is correctly seated.



P35-2194-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

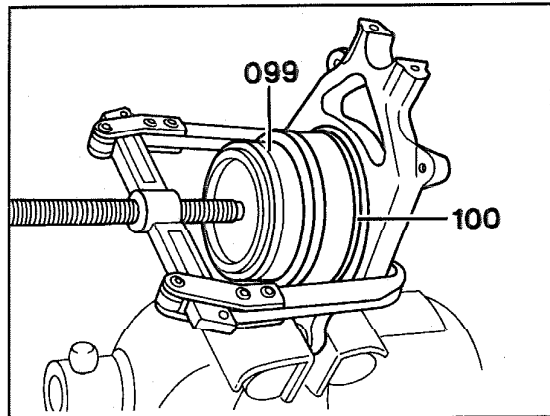
17 Press deep groove ball bearing (100) out of the caliper carrier with two-arm puller 000 589 88 33 00 or conventional puller and remover and installer 116 589 10 43 00 (099).



P35-2193-13

Note

Press groove ball bearing (100) into the caliper carrier up to the contact surface with two-arm puller 000 589 88 33 00 or conventional puller and remover and installer 116 589 10 43 00 (099).

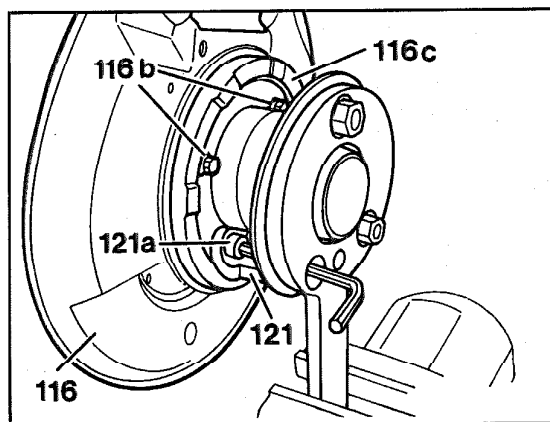


P35-2192-13

18 Remove, install brake shoes of parking brake and brake cable (42-0526, 42-0630).

19 Unscrew, screw in self-locking hexagon socket bolts (121a) at brake carrier (121).

20 Unscrew, screw in hexagon bolts (116b) at brake cover plate (116) and brake cover ring (116c).



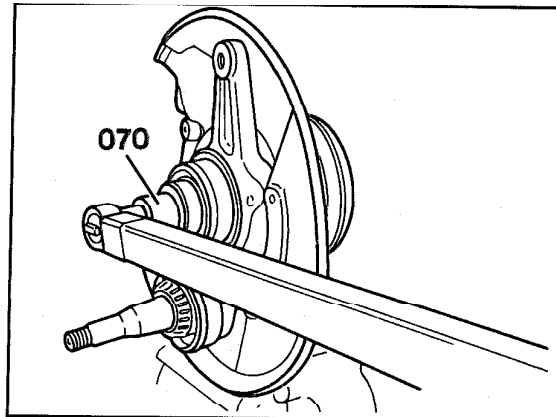
P35-2187-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

21 Detach or tighten up slot nut with socket for slot nut 115 589 02 07 00 (070).

Note

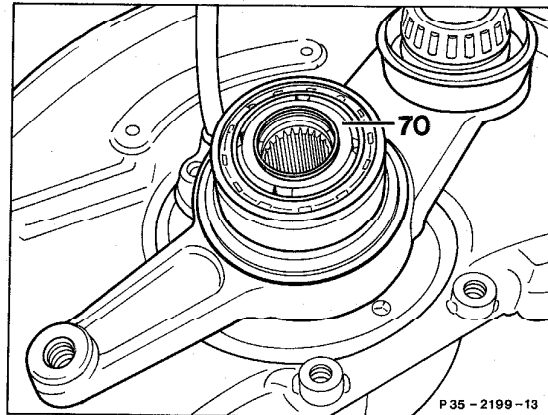
Unlocking the slot nut is not required since this can be stripped with excessive force.



P35-2201-13

Note

Replace slot nut (70). Carefully tighten up slot nut with socket for slot nut 115 589 02 07 00 until there is still detectable end play. Attach dial gauge holder 363 589 02 21 00 with dial gauge on front face of slot nut and preload tension dial gauge by 3 - 4 mm.



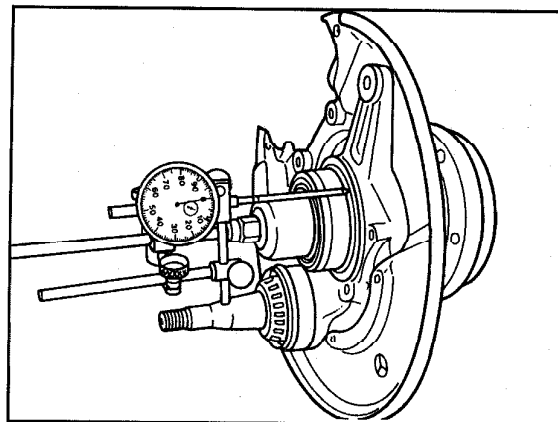
P35-2199-13

P35-2199-13

Check end play in rear wheel hub, while rotating wheel carrier and moving it in and out axially. End play 0.03 - 0.06 mm.

⚠ CAUTION!

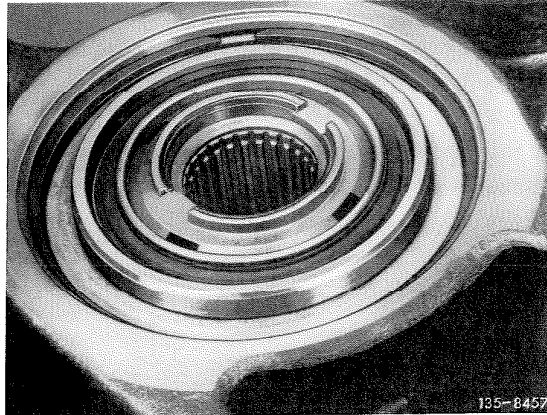
If there is no further end play as a result of tightening the slot nut excessively, do not correct this by slackening the slot nut, but always install a new spacing sleeve and adjust end play again.



P35-2200-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

Secure slot nut by bending in at two points in the matching grooves in the rear wheel hub.

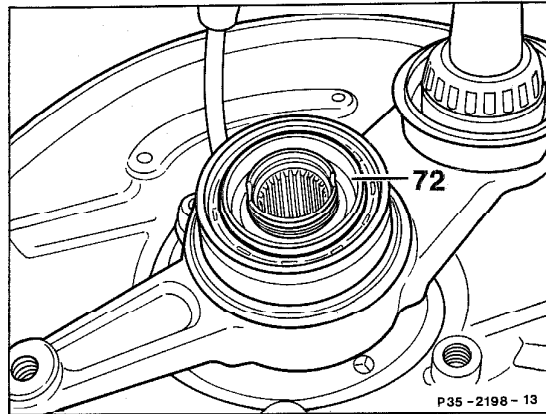


135-8457

22 Remove seal (72).

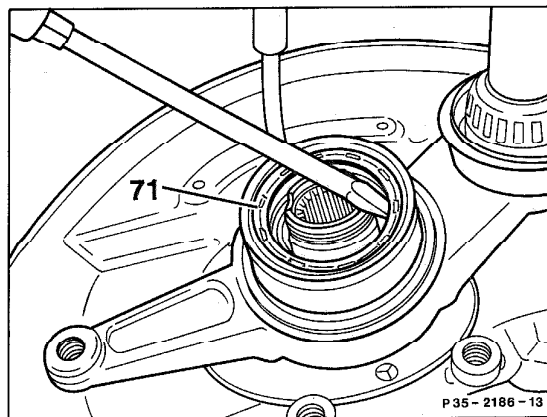
Note

Essentially replace seal.



P35-2198-13

23 Press off seal (71) evenly with a suitable screwdriver.

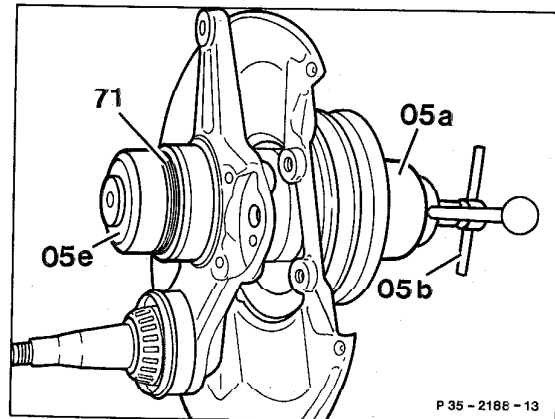


P35-2186-13

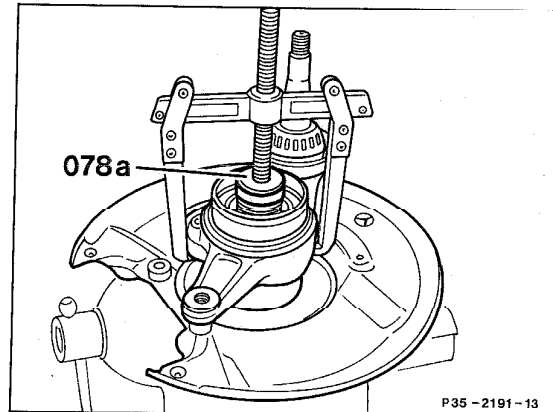
35-0360 R and R caliper carrier and hub, adjust wheel bearing

Note

Coat new inner seal between the two sealing lips lightly with multi-purpose grease. Mount seal (71) with partially rubberized jacket in dry condition. Pull in seal together with bearing inner race with assembly tool 201 589 00 61 00 (05a - 05e).



24 Press off wheel carrier from rear wheel hub with two-arm puller and thrust pad 000 589 03 34 00 (078a). Remove, put on wheel carrier and inner race of the inner taper roller bearing.



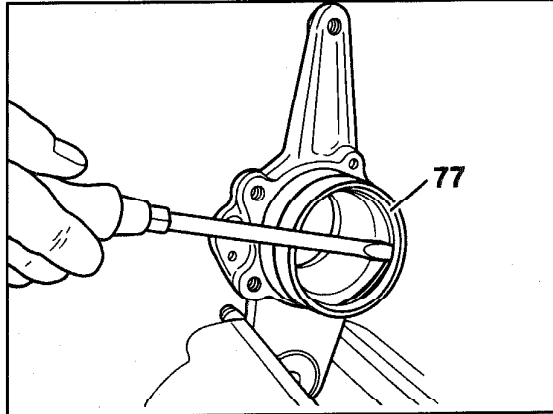
Note

Coat or fill both taper roller bearing inner races and cavity between the two bearing outer races in the wheel carrier with approx. 50 g of multi-purpose grease in accordance with service material specifications page 267.

Pull in bearing inner race together with seal (Step 23).

35-0360 R and R caliper carrier and hub, adjust wheel bearing

25 Press outer seal (77) from wheel carrier with a suitable screwdriver.

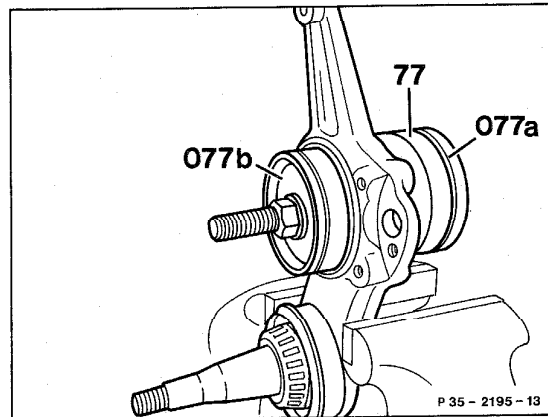


P35-2190-13

Note

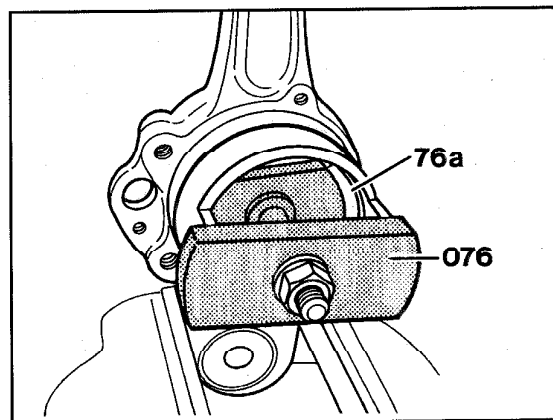
Coat seat for external seal in the wheel carrier lightly with sealing compound and pull on new seal (77) with installer 116 589 11 61 00 (077a - 077b) so that it contacts the shoulder on the wheel carrier.

077a 88 mm \varnothing washer
077b 82 mm \varnothing washer



P 35 - 2195 - 13
P35-2195-13

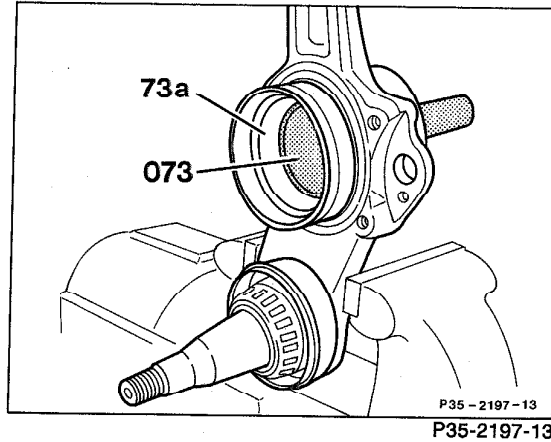
26 Pull bearing outer race (76a) of the outer taper roller bearing out of the wheel carrier with the puller 115 589 00 33 00 (076).



P35-2189-13

35-0360 R and R calliper carrier and hub, adjust wheel bearing

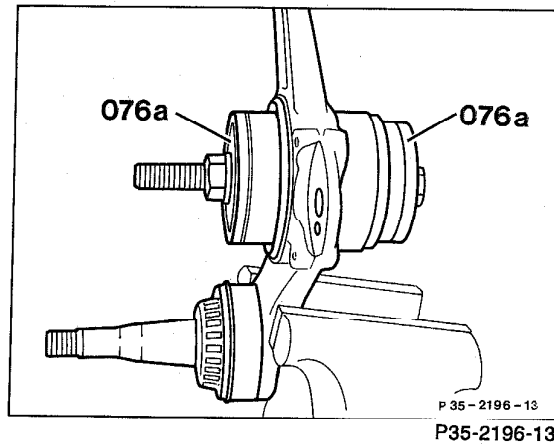
27 Drive bearing outer race of the inner taper roller bearing (73a) out of the wheel carrier with punch 115 589 02 43 00 (073).



Note

Pull both bearing outer races of the taper roller bearing together into the wheel carrier with the installer 116 589 11 61 00 (073a, 076a).

073a 67.5 mm Ø washer
076a 74.8 mm Ø washer

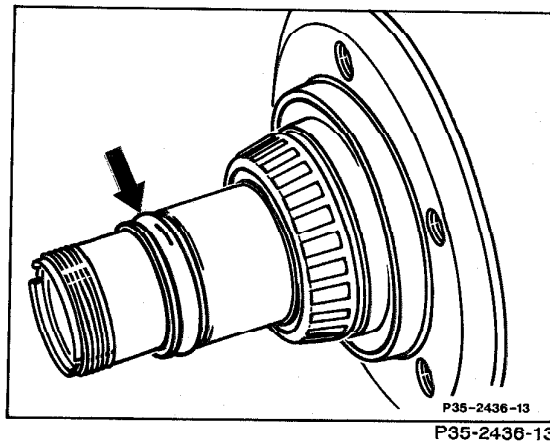


28 Remove, put on spacing sleeve (arrow).

Note

Always replace spacing sleeve after one-time use.

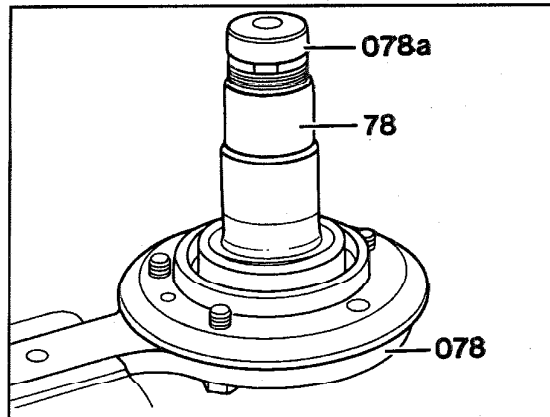
Width of spacing sleeve 11,8 - 12,0 mm.



35-0360 R and R caliper carrier and hub, adjust wheel bearing

29 Clamp assembly plate 136 589 05 31 00 (078) with rear wheel hub (78) in vise.

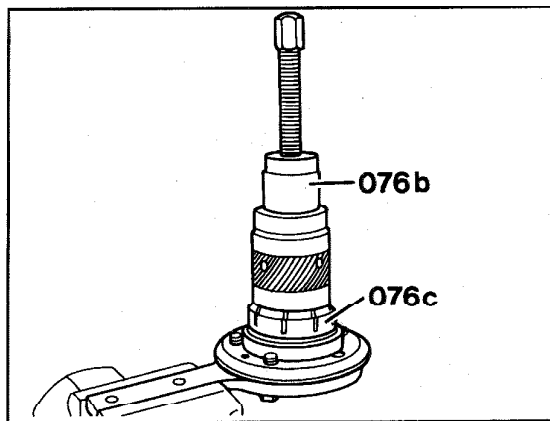
30 Put on, remove thrust pad 000 589 03 34 00 (078a) for supporting the puller 001 589 36 33 00.



P35-2112-13

31 Pull taper roller bearing inner race off rear wheel hub with puller 001 589 36 33 00 and collet 000 589 02 34 00.

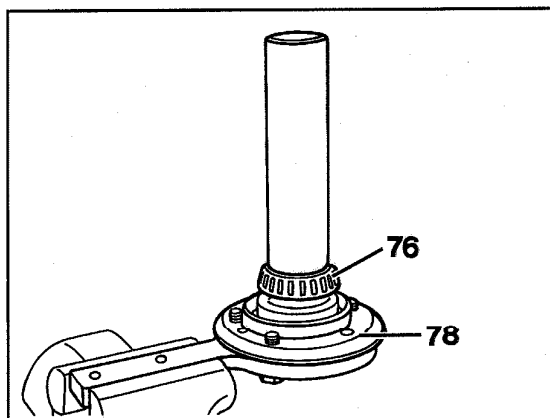
076b Puller
076c Clamp



P35-2113-13

Note

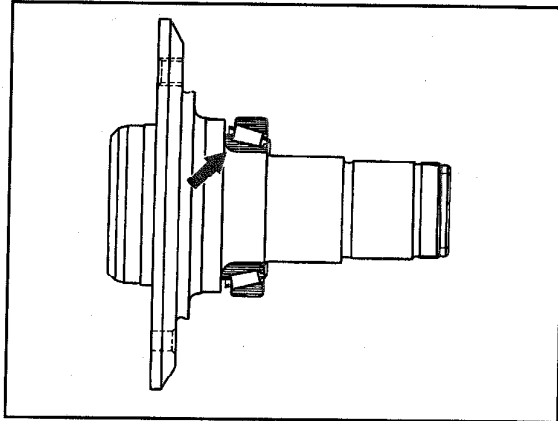
Press taper roller bearing inner race (76) onto the rear wheel hub (78) with a suitable tube.



P35-2111-13

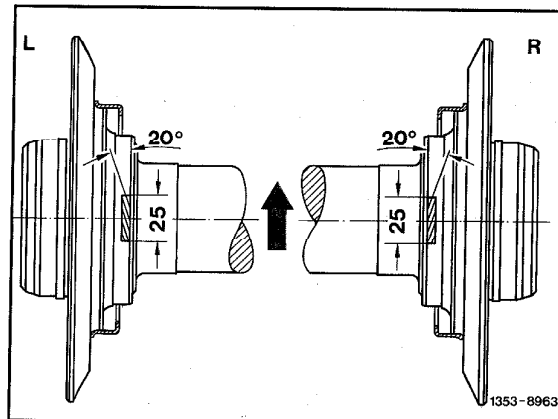
35-0360 R and R caliper carrier and hub, adjust wheel bearing

Only use taper roller bearing with large fillet radius on rear wheel hub (arrow).



P35-0222-13

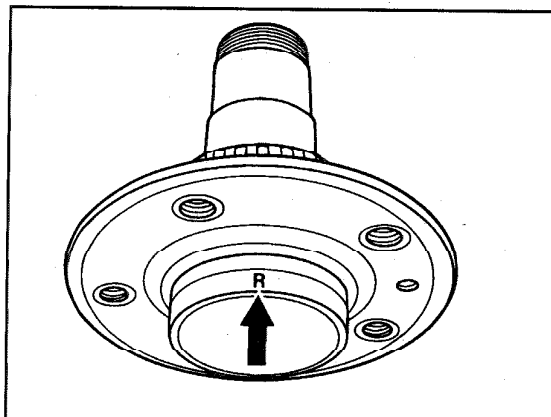
If required re-finish oil return spiral with emery cloth (grain 180) at an angle of approx. 20° over a length of 20 mm.



- L Left hand rear wheel hub
- R Right hand rear wheel hub

1353-8963

The rear wheel hubs have an oil return spiral for the outer seal, which differs on the left and right side. For identification, the chamfer for concentric alignment is provided with a punched in "R" for right hand side (arrow) and a punched in "L" for left hand side.



P35-2110-13

35-0360 R and R caliper carrier and hub, adjust wheel bearing

32 Check all individual parts for re-use, paying particular attention to running surfaces for the seals on the rear wheel hub. Replace worn parts. Check vertical and lateral runout of rear wheel hub.

33 Installation takes place in the reverse sequence.