

41-100 Removal and installation of propeller shaft intermediate bearing and renewing of grooved ball bearing

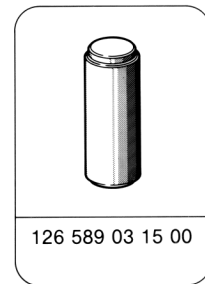
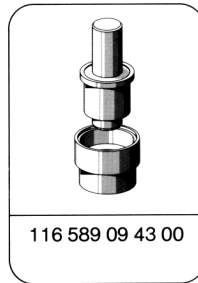
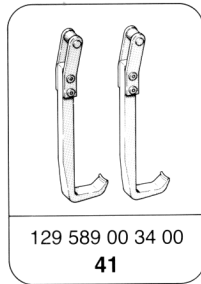
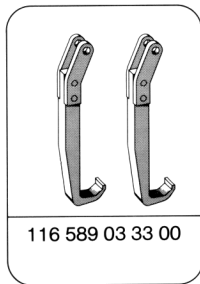
A. Models 107, 114, 115, 116, 123

Lubricant

Clamp connection

refer to Specifications for Service Products page 266.2

Special tools



Note

The propeller shaft components are individually pre-balanced ex factory. To eliminate a residual unbalance which might still be there, the complete propeller shaft including the flexible couplings, is rebalanced. For this reason, when disassembling the complete propeller shaft (e.g. when changing the propeller shaft intermediate bearing) the individual parts must be marked in relation to each other (if no markings are in place) for reassembly as originally planned.



- 1 Remove propeller shaft (41-050).
- 2 On vehicles up to 07/82, mark the individual propeller shaft parts in relation to each other (arrows).

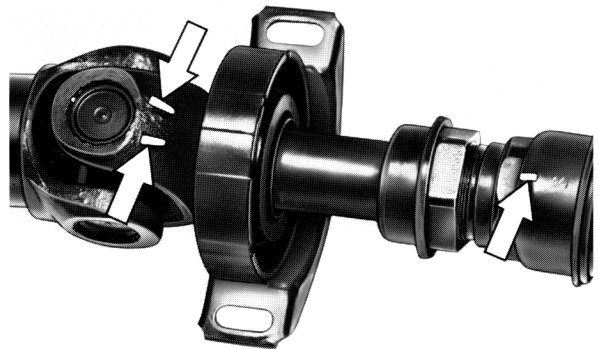


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- 3 On vehicles starting 08/82 the front and rear propeller shaft are drawn in relation to each other (arrows).

Note

The identification has in part already been available on propeller shafts prior to 08/82, but has not been taken into consideration during assembly. For this reason, propeller shafts on which the marking is not in accord, must be marked prior to removal and the two parts must be assembled again according to these marks.



141-23660

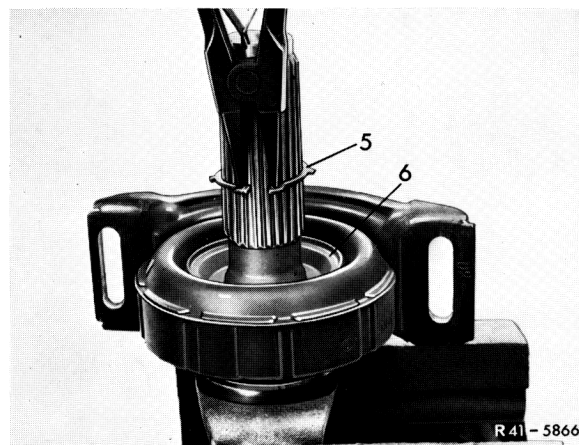
- 4 Separate front and rear propeller shaft at the clamp connection.
- 5 Pull off rubber sleeve (3) via serrations.



R 41-5867

Rubber mount with outer V-fold.

6 On vehicles up to 07/82, remove locking ring (5) and remove together with front protective cap (6).

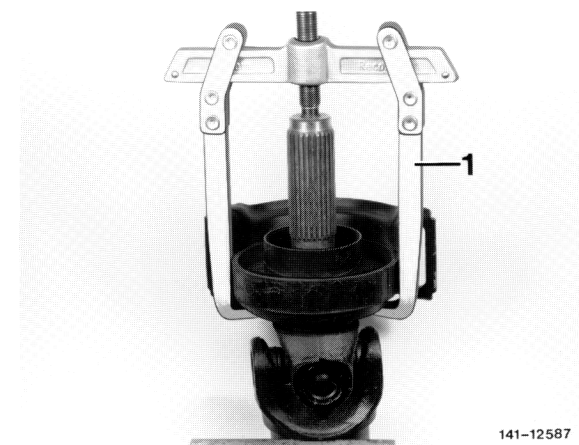


Rubber mount with outer V-fold

7 On vehicles starting 08/82 there is no locking ring but the grooved ball bearing is secured by the protective cap.



8 On vehicles up to 07/82, pull rubber mount and grooved ball bearing jointly with two-legged puller (1) 000 589 88 33 00 from fork-type joint.

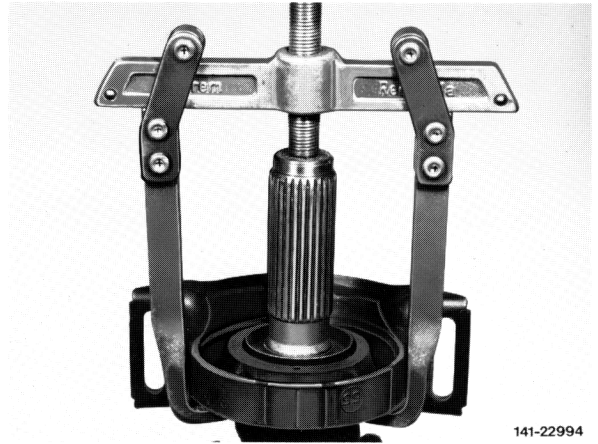


Rubber mount with outer V-fold



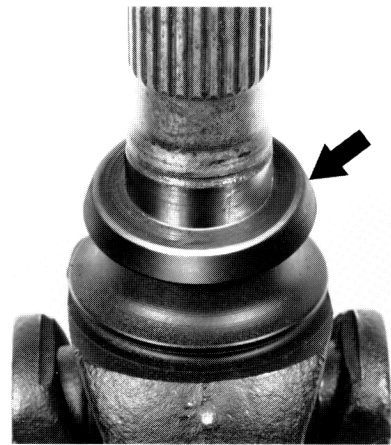
Rubber mount with inner V-fold

9 On vehicles starting 08/82, pull rubber mount, grooved ball bearing and protective cap together with two-legged puller and pulling arms 129 589 00 34 00 from fork-type joint.



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10 Remove rear protective cap on fork-type joint (arrow, installed only on models 107, 116 and 123).

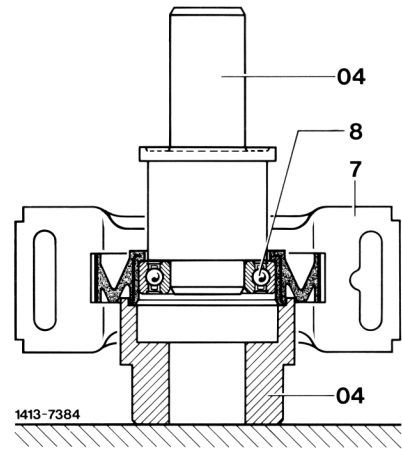


141-12589

Renewing grooved ball bearing

11 Press grooved ball bearing (8) out of rubber mount (7) by means of removing and installing tool (04) 116 589 09 43 00.

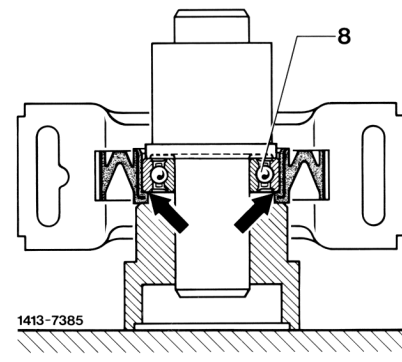
12 Check rubber mount and grooved ball bearing for wear and renew parts, if required.



13 Press grooved ball bearing (8) into rubberized bearing seat up to contact surface (arrows).



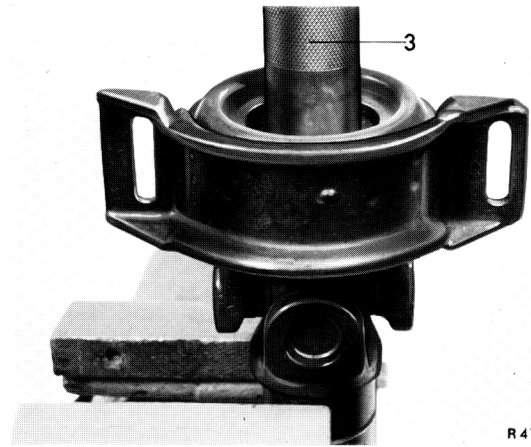
Pay attention to correct seat of grooved ball bearing.



Installing propeller shaft intermediate bearing

14 Insert rear protective cap (on models 107, 116 and 123 only).

15 Press rubber mount on fork-type joint with pressing-on sleeve (3) 126 589 03 15 00, while paying attention to correct location of V-fold:

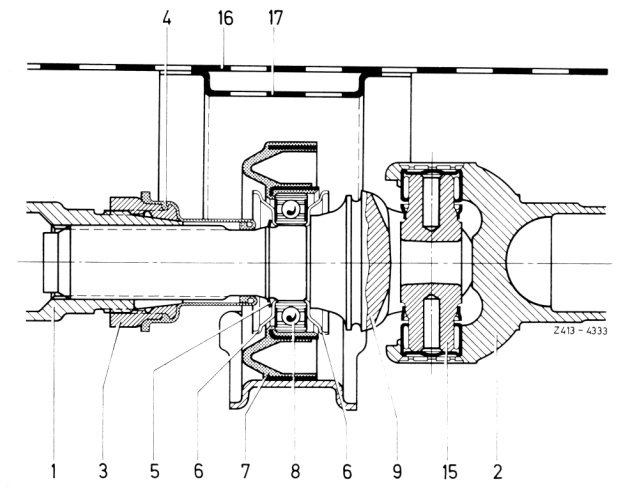


R 41-5785

The V-fold of rubber mount on models 107 and 116 of 1st version should point in driving direction.

Models 107, 116

- 1 Front propeller shaft
- 2 Rear propeller shaft
- 3 Clamping nut
- 4 Rubber sleeve
- 5 Locking ring
- 6 Protective cap
- 7 Propeller shaft intermediate bearing
- 8 Grooved ball bearing
- 9 Fork-type joint
- 15 Universal joint star with needle bearing and bushings
- 16 Frame floor
- 17 Propeller shaft tunnel

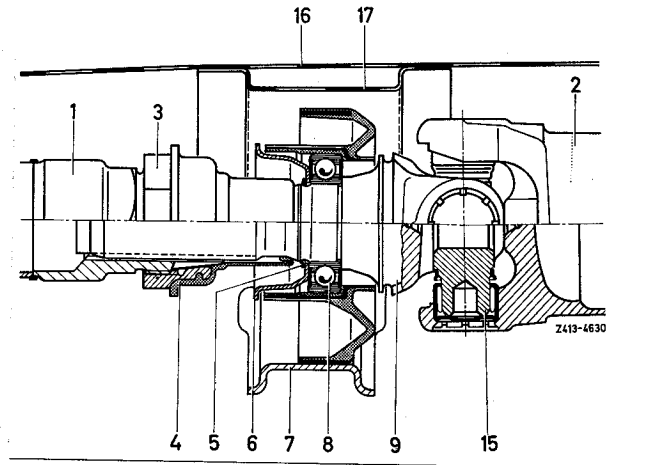


On models 114 and 115 with 2-piece propeller shaft, the V-fold should point opposite to driving direction toward the rear.

On 3-piece propeller shaft the V-fold of front rubber mount should point in driving direction and that of rear rubber mount opposite to driving direction.

Models 114, 115

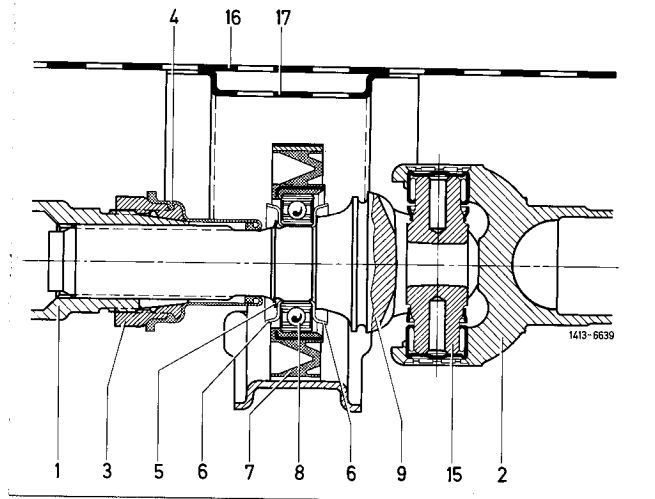
- 1 Front propeller shaft
- 2 Rear propeller shaft
- 3 Clamping nut
- 4 Rubber sleeve
- 5 Locking ring
- 6 Protective cap
- 7 Propeller shaft intermediate bearing
- 8 Grooved ball bearing
- 9 Fork-type joint
- 15 Universal joint star with needle bearing and bushings
- 16 Frame floor
- 17 Propeller shaft tunnel



Models 107, 116 of 2nd version and model 123 have a rubber mount with inner V-fold. Install rubber mount in such a manner that the inner V-fold points toward universal joint.

Models 107, 116 2nd version and 123

- 1 Front propeller shaft
- 2 Rear propeller shaft
- 3 Clamping nut
- 4 Rubber sleeve
- 5 Locking ring
- 6 Protective cap
- 7 Propeller shaft intermediate bearing
- 8 Grooved ball bearing
- 9 Fork-type joint
- 15 Universal joint star with needle bearing and bushings
- 16 Frame floor
- 17 Propeller shaft tunnel

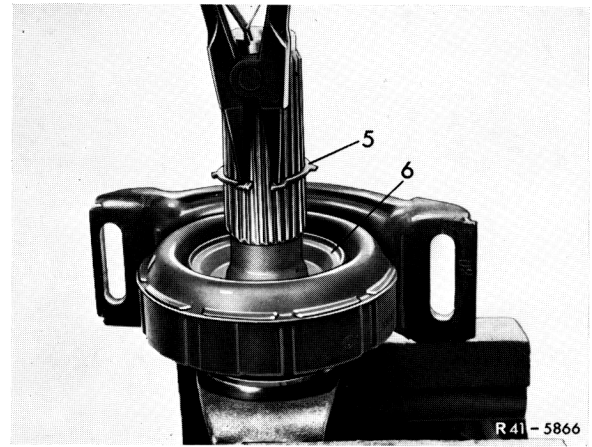


16 On vehicles up to 07/82, attach front protective cap.

17 Insert locking ring (5) into groove of fork-type joint in such a manner that the protective cap rests against bearing inner race.



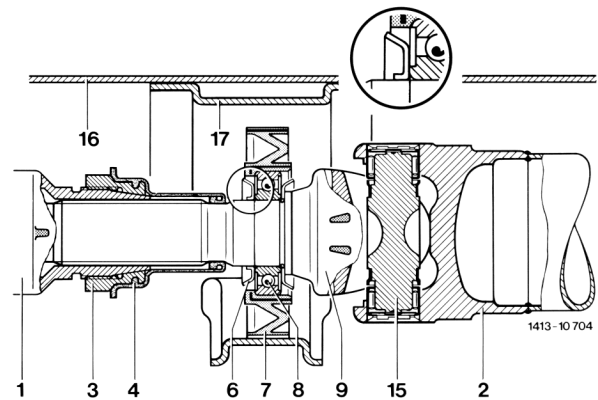
The inner hump of locking ring points toward protective cap.



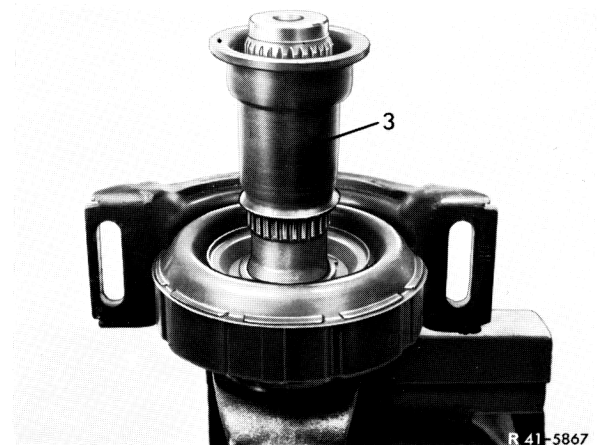
18 On vehicles starting 08/82 mount self-locking protective cap with pressing-on sleeve 126 589 03 15 00 making sure that the protective cap rests against grooved ball bearing (cutout in Fig.).



Use pressed-on protective cap only once.



19 Pull rubber sleeve (3) over splining of fork-type joint. Make sure that the rubber sleeve is correctly seated on small diameter.

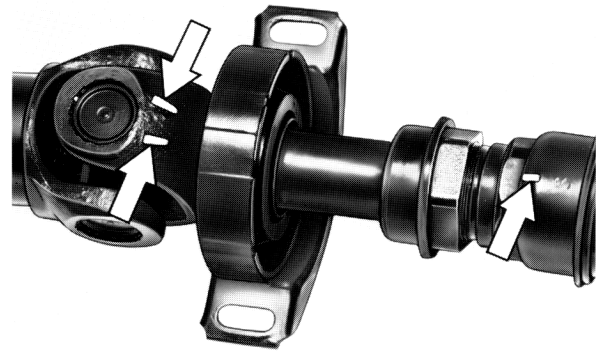


20 Coat spline shaft profile with the specified grease (refer to Specifications for Service Products page 266.2).

21 On vehicles up to 08/82 plug front and rear propeller shaft together as shown.



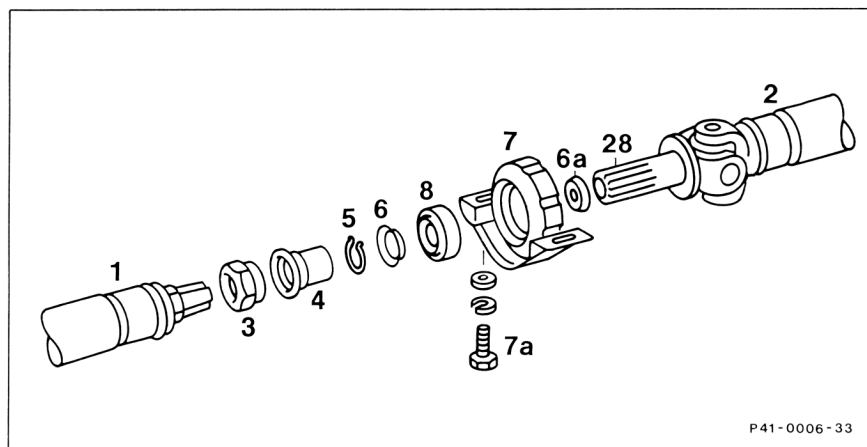
22 Vehicles starting 08/82 are provided with an identifying mark on front and rear propeller shaft. On front propeller shaft is a hump and on fork-type joint of rear propeller shaft there are two arrow-like humps (arrows). The hump of the front propeller shaft should be located between the two arrows on the fork-type joint (arrows).



141-23660

23 Install propeller shaft (41-050).

B. Model 126

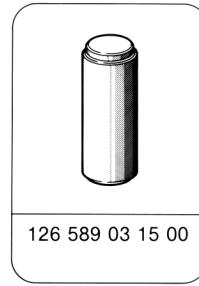
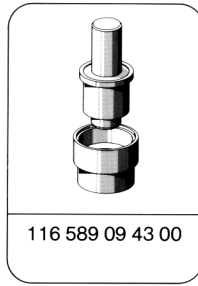
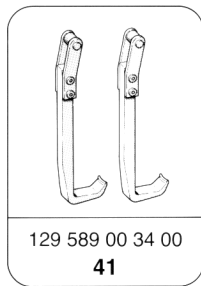
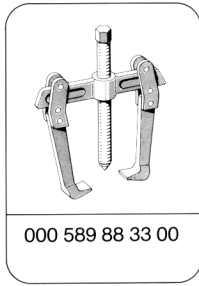


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Propeller shaft	remove and install (41-050).
Front and rear propeller shaft (1,2)	separate, plug together (item 2).
Rubber sleeve (4)	pull on and off (item 3).
Rubber mount (7) with grooved ball bearing (8) and protective cap (6)	pull off, press on, remove locking ring (5) on vehicles up to 07/82. Two-legged puller 000 589 88 33 00 with pulling arms 129 589 00 34 00, pressing-on sleeve 126 589 03 15 00 (items 4 to 7).
Rear protective cap (6a)	remove, plug on (item 8).

- Grooved ball bearing (8) press out of and in rubber mount (7), check and renew if required.
Pressing-out, pressing-in tool
116 589 09 43 00 (items 9 to 11).
- Spline shaft profile (28) grease with specified grease (refer to Specifications for Service Products page 266.2).

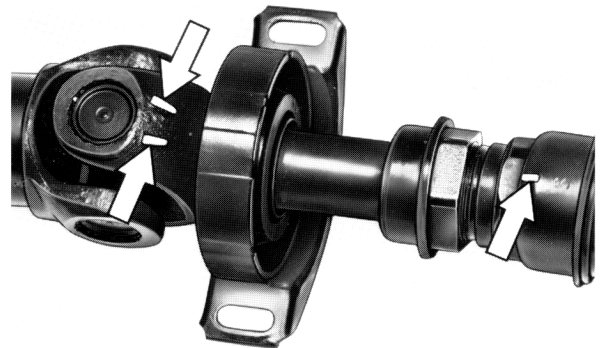
Special tools



- 1 Remove propeller shaft (41-050).
- 2 Separate front and rear propeller shaft at clamp connection.

Note

On vehicles starting 08/82 the front and rear propeller shaft are shown in relation to each other (arrows).



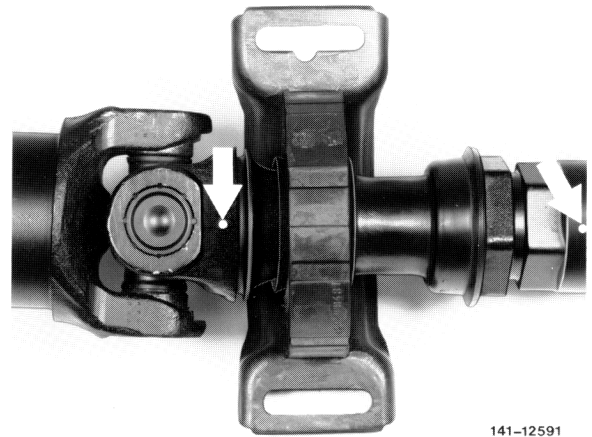
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The propeller shaft components are individually pre-balanced ex factory. To eliminate a residual unbalance which might still be there, the complete propeller shaft including the flexible couplings, is rebalanced. For this reason, when disassembling the complete propeller shaft (e.g. when changing the propeller shaft intermediate bearing) the individual parts must be marked in relation to each other (if no markings are in place) for reassembly as originally planned.

On vehicles up to 07/82, mark the individual propeller shaft parts in relation to each other (arrows).

Installation note

Grease spline shaft profile with specified grease (refer to Specifications for Service Products page 266.2).

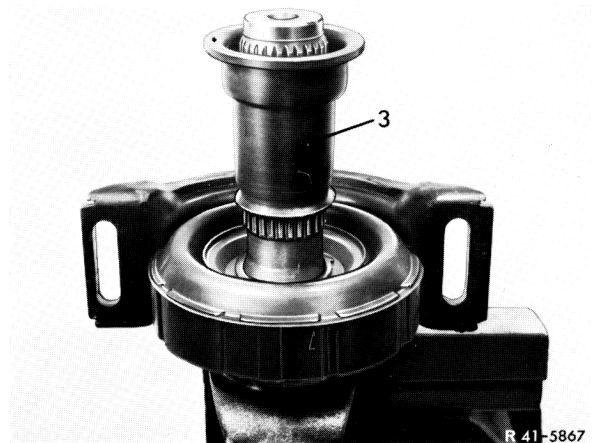


141-12591

3 Pull off rubber sleeve (3) via serrations.

Installation note

Pay attention to correct seat of rubber sleeve on small diameter.



R 41-5867

4 On vehicles up to 07/82, pull rubber mount and grooved ball bearing together with two-legged puller 000 589 88 33 00 from fork-type joint.



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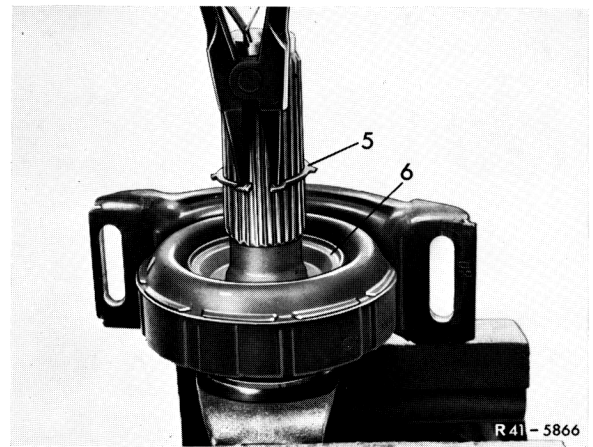
Note

On vehicles up to 07/82, remove locking ring (5) and remove together with front protective cap (6).

Installation note

Insert locking ring (5) into groove of fork-type joint in such a manner that the protective cap rests against bearing inner race.

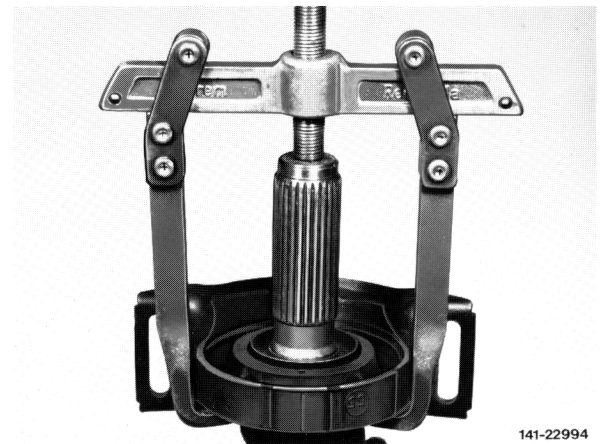
The inner hump of the locking ring points toward protective cap.



5 On vehicles starting 08/82, pull rubber mount, grooved ball bearing and protective cap together from fork-type joint by means of two-legged puller 000 589 88 33 00 and pulling arms 129 589 00 34 00 from fork-type joint.

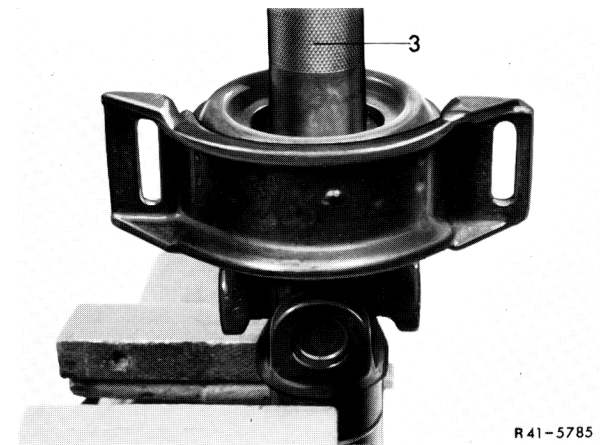
Note

On vehicles starting 08/82, the grooved ball bearing is secured by the protective cap.



Installation note

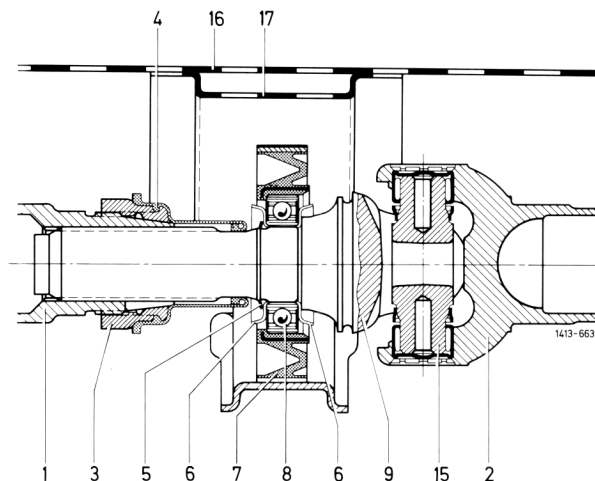
Press rubber mount by means of pressing-on sleeve (3) 126 589 03 15 00 onto fork-type joint, while paying attention to correct location of V-fold.



6 Install rubber mount with inner V-fold. Install rubber mount in such a manner that the inner V-fold points toward universal joint.

1st version up to 07/82

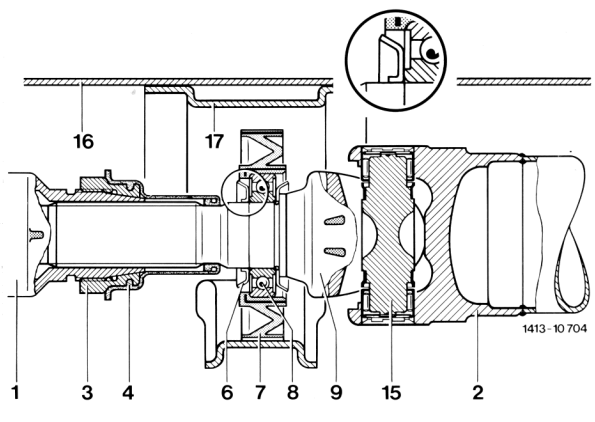
- 1 Front propeller shaft
- 2 Rear propeller shaft
- 3 Clamping nut
- 4 Rubber sleeve
- 5 Locking ring
- 6 Protective cap
- 7 Propeller shaft intermediate bearing
- 8 Grooved ball bearing
- 9 Fork-type joint
- 15 Universal joint star with needle bearing and bushings
- 16 Frame floor
- 17 Propeller shaft tunnel



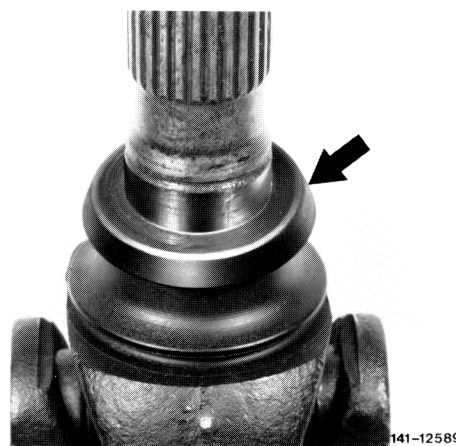
7 Mount self-locking protective cap (on vehicles starting 08/82) with pressing-on sleeve 126 589 03 15 00 making sure that the protective cap rests against grooved ball bearing (8) (cutout in Fig.).



Use pressed-on protective cap only once.



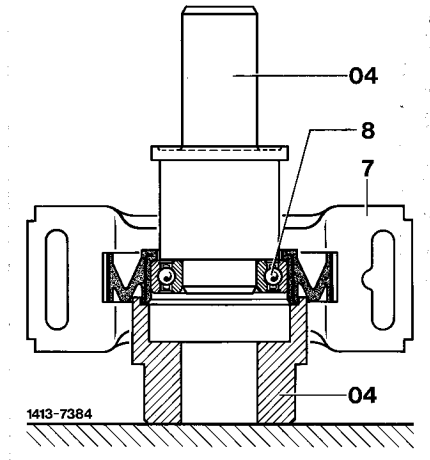
8 Remove rear protective cap (arrow) from fork-type joint.



Renewing grooved ball bearing

9 Press grooved ball bearing (8) with removing and pressing-in tool (04) 116 589 09 43 00 out of rubber mount (7).

10 Check rubber mount and grooved ball bearing for wear and renew parts, if required.

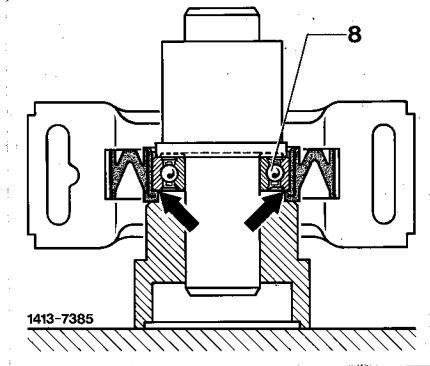


11 Press grooved ball bearing (8) into rubberized bearing seat up to contact surface (arrows).

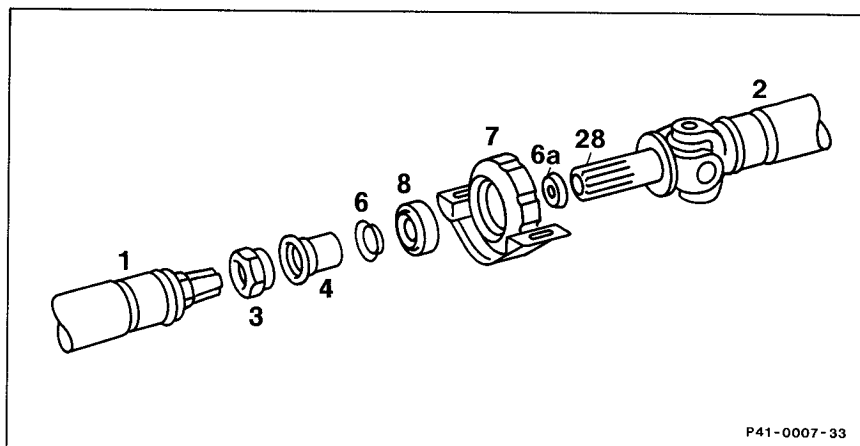
Note

Pay attention to correct seat of grooved ball bearing.

12 For further installation proceed vice versa starting at item 8.

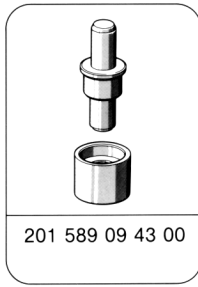
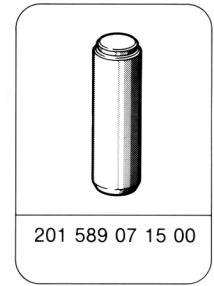
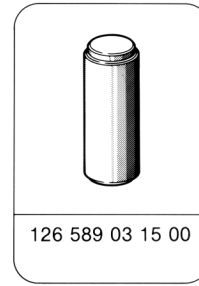
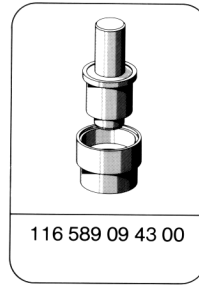
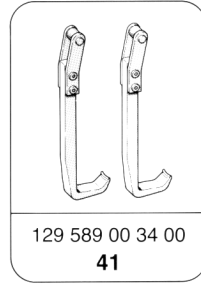
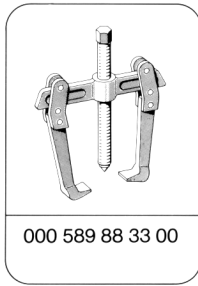


C. Models 124, 129, 201



Propeller shaft	remove and install (41-050).
Front and rear propeller shaft (1, 2)	separate, plug together (item 1).
Rubber sleeve (4)	pull on and off (item 3).
Rubber mount (7) with grooved ball bearing (8) and protective cap (6)	pull off, press on. Two-legged puller 000 589 88 33 00 with pulling arms 129 589 00 34 00 pressing-on sleeve 201 589 07 15 00 or 126 589 03 15 00 (items 4, 5).
Rear protective cap (6a)	remove, plug on (item 6).
Grooved ball bearing (8)	press out of and into rubber mount (7), check and renew parts if required. Pressing-out, pressing-in tool 201 589 09 43 00 or 116 589 09 43 00 (items 7 to 9).
Spline shaft profile (28)	grease with specified grease (refer to Specifications for Service Products page 266.2).

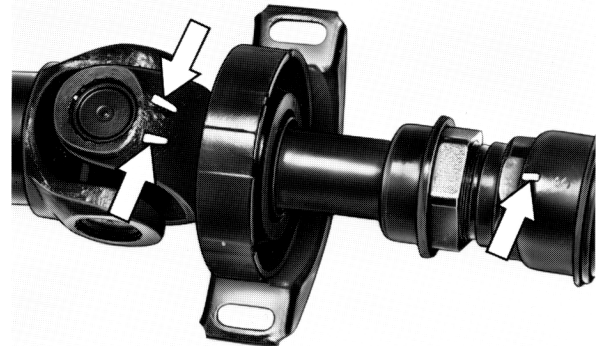
Special tools



- 1 Remove propeller shaft (41-050).
- 2 Separate front and rear propeller shaft at clamp connection.

Installation note

The front and rear propeller shaft are correctly plugged together when the hump of the front propeller shaft is located between the two arrows of the rear propeller shaft (arrow). Coat spline shaft profile with specified grease.

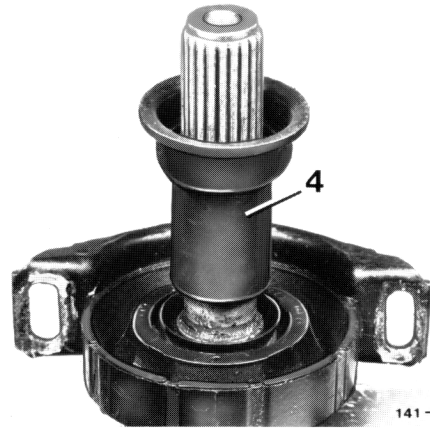


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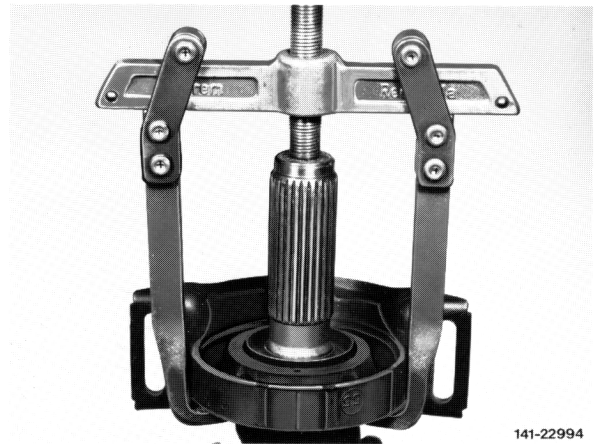
3 Pull off rubber sleeve (4) via serrations.

Installation note

Pay attention to correct seat of rubber sleeve on small diameter.

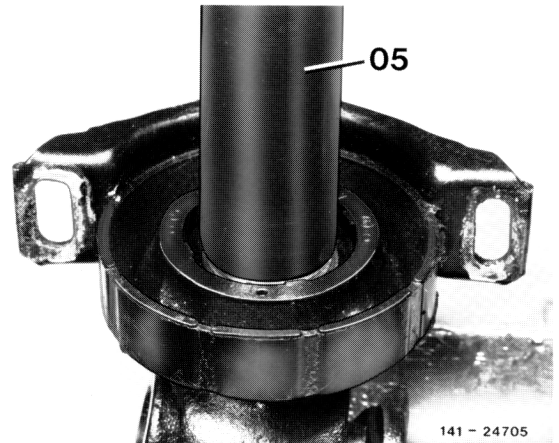


4 Pull rubber mount with grooved ball bearing and protective cap jointly from fork-type joint by means of two-legged puller 000 589 88 33 00 and pulling arms 129 589 00 34 00



Installation note

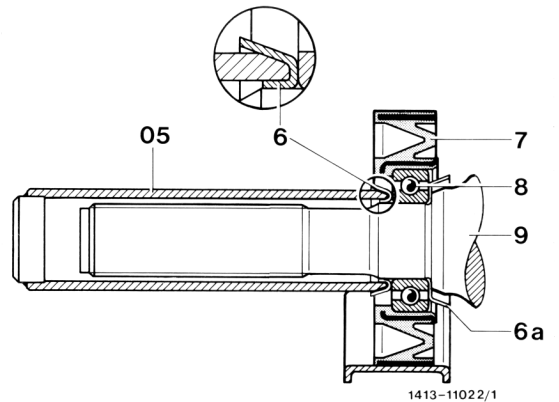
Press rubber mount on fork-type joint by means of pressing-on sleeve (05) 201 589 07 15 00 or 126 589 03 15 00, paying attention to correct location of V-fold.



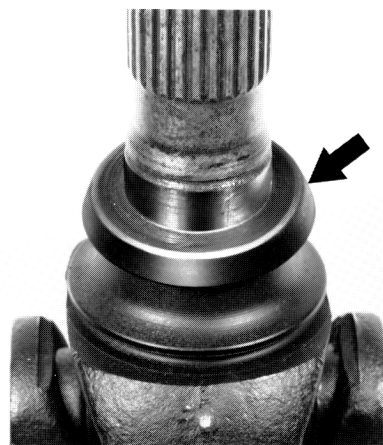
5 Mount self-locking protective cap (6) with pressing-on sleeve (05) 201 589 07 15 00, while making sure that the protective cap rests against grooved ball bearing.



Use pressed-on protective cap only once.



6 Remove rear protective cap on fork-type joint (arrow).

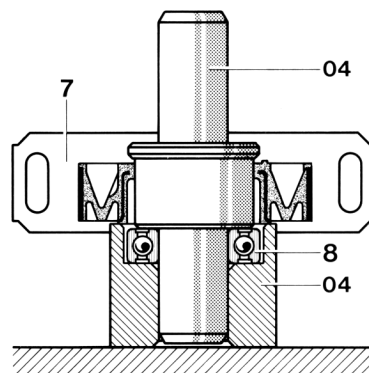


141-12589

Renewing grooved ball bearing

7 Press grooved ball bearing (8) with removing and pressing-in tool (04) 201 589 09 43 00 out of rubber mount (7) for small grooved ball bearing and 126 589 09 43 00 for large grooved ball bearing.

8 Check rubber mount and grooved ball bearing for wear and renew parts, if required



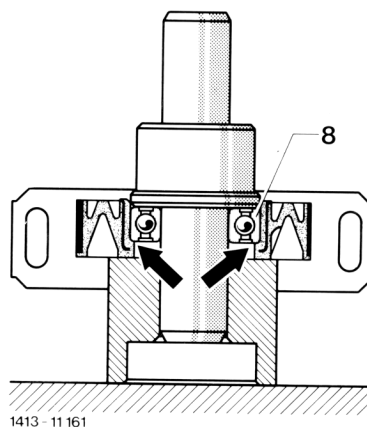
1413-11 162/1

9 Press grooved ball bearing (8) into rubberized bearing seat up to contact surface (arrows).

Note

Pay attention to correct seat of grooved ball bearing.

10 For further installation proceed vice versa starting at item 6.



1413-11 161