



### 33 Front axle

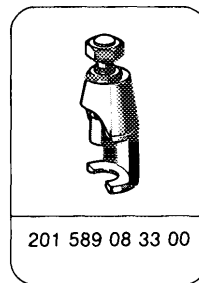
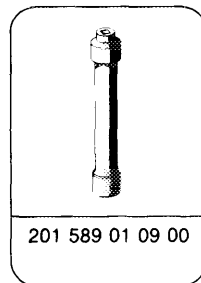
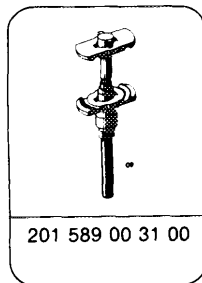
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	Job No.
<b>Front axle halves</b>	
Removing and installing front axle half	33-200
<b>Front wheel hub</b>	
Adjusting end play of wheel bearings . . . . .	<b>300</b>
Removing and installing front wheel hub . . . . .	310
Disassembling,checking, reconditioning and assembling front wheel hub . . . . .	320
<b>Steering knuckle</b>	
Removing and installing steering knuckle . . . . .	400
Checking steering knuckle . . . . .	410
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Checking supporting Joint of the steering knuckle bearing . . . . .	425
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Renewing supporting joint of the steering knuckle bearing . . . . .	440
<b>Wishbone</b>	
Removal and installation of wishbone . . . . .	510
Checking beannng of wishbone . . . . .	525
Renewing beannng of wishbone . . . . .	526
A. Front bearing model 201; and rear beannng model 201.034 . . . . .	
B. Rear bearing model 201.01/201.1 . . . . .	
Checking wishbone (on vehicles involved in an accident) . . . . .	530

## 33-200 Removal and installation of front axle half

Tightening torques	Nm
Hexagon nuts of the eccentric pins at the wishbone bearing	120
Hexagon nut of the ball joint of the tie rod	35
Hexagon nut at upper suspension point of the shock absorber strut	60
Hexagon nuts of the torsion bar mounting at the wishbone	20

### Special tools



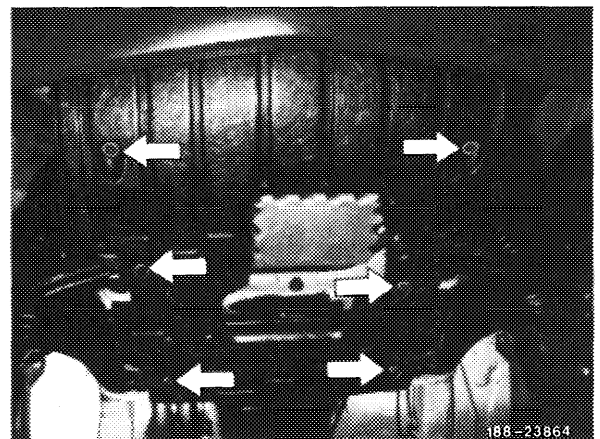
### Note

The bearings of the wishbone at the front may be tightened only when the vehicle is ready for the road. If these bearings were tightened without any weight on the wheels, incorrect values would be obtained for the wishbone positioning. The shock absorber strut serves also as a rebound stop for the front wheel. Therefore release shock absorber strut mounting only when the vehicle is standing on its wheels or the wishbone is supported. To assemble the upper suspension either place vehicle on the wheels or raise axle half at the wishbone.

Renew self-locking bolts and nuts!

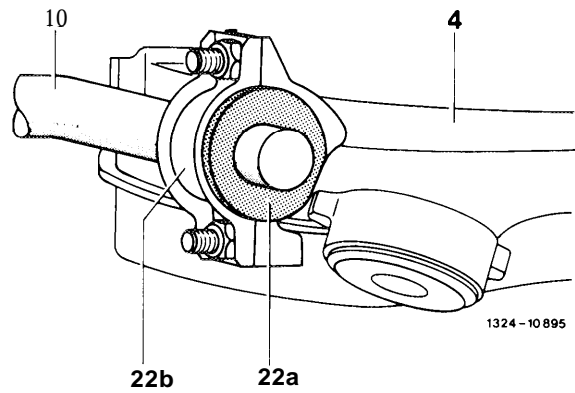
### Removal

1 Remove engine compartment lining at bottom on vehicles equipped thus.



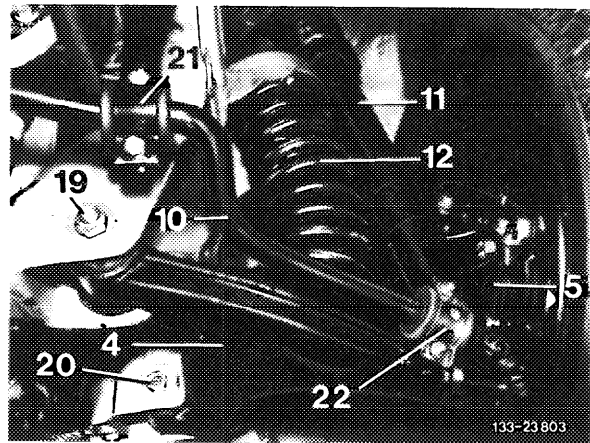
2 Jack up vehicle at front, remove front wheel.

3 Release bearing of the torsion bar at the wishbone.

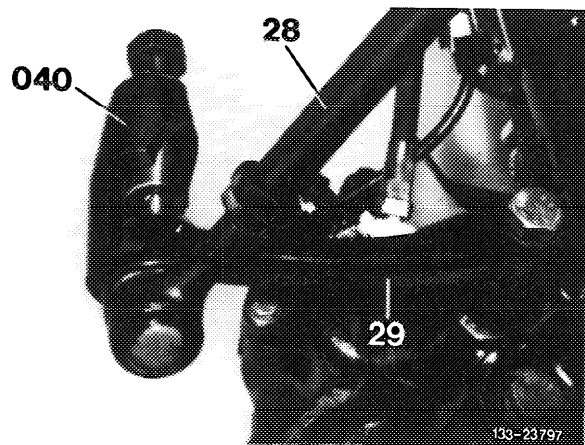


4 Wishbone  
10 Torsion bar  
22a Rubber mount  
22b Retainer

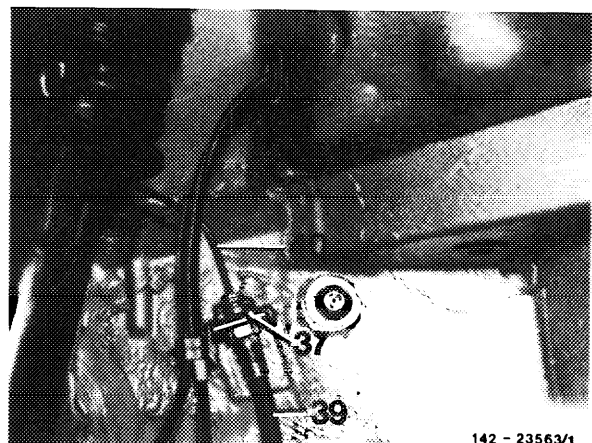
4 Remove front spring (12) (32-200).



5 Unscrew hexagon nut of the tie rod ball joint at the steering knuckle arm (29) and press off joint with the extractor (040).

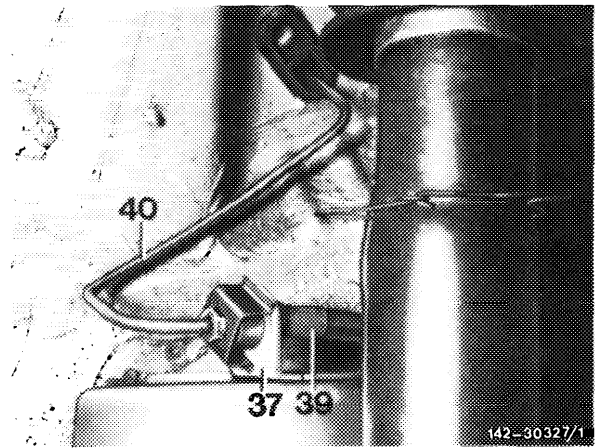


6 Separate brake line (40) and brake hose (39) from one another at the front. Plug lines against penetrating dirt.

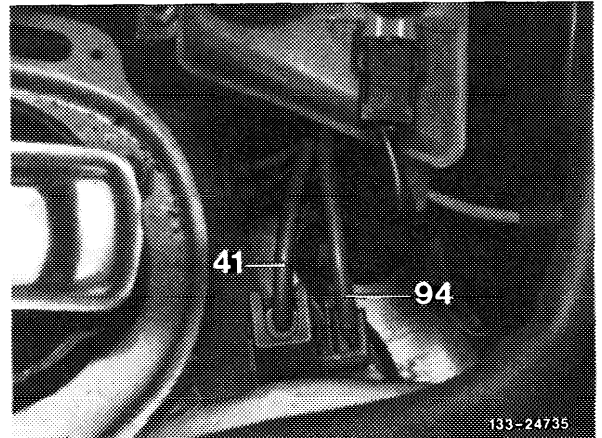


1 st version  
Models 124, 201 brake hose layout

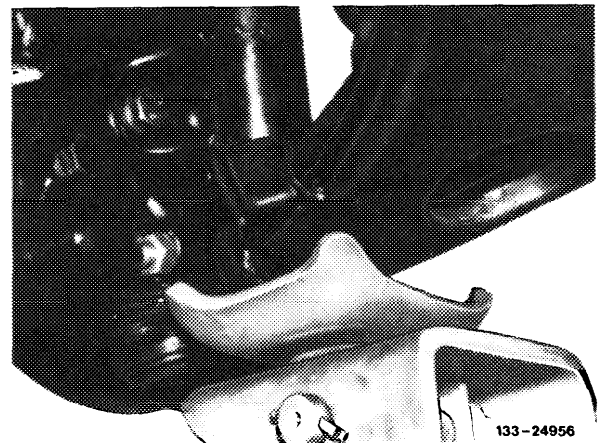
2nd version  
Models 124, 201 brake hose layout



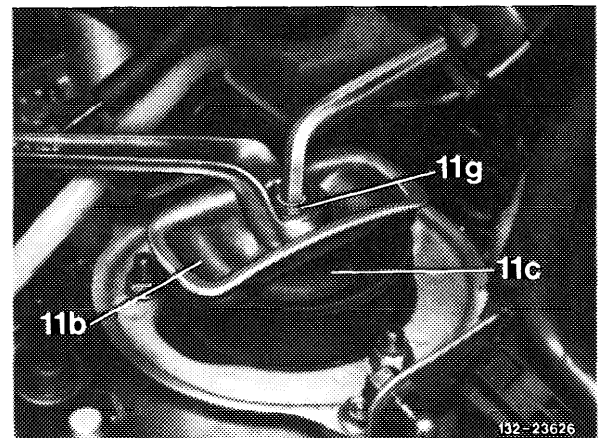
7 Separate plug-and-socket connection for the brake lining wear indicator (94) and, if fitted, for the speed sensor of the ABS (41) in the engine compartment and pull through the wheel housing.



8 Support front axle half at the wishbone.



9 Release suspension of the shock absorber strut at the piston rod (wishbone supported).

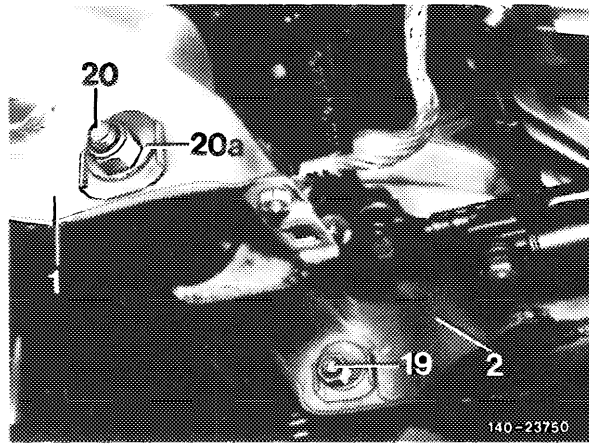


11 b Rebound limit  
11 c Rubber mount  
11 g Piston rod

10 Mark position of the eccentric pins relative to frame on the bearing of the wishbone.

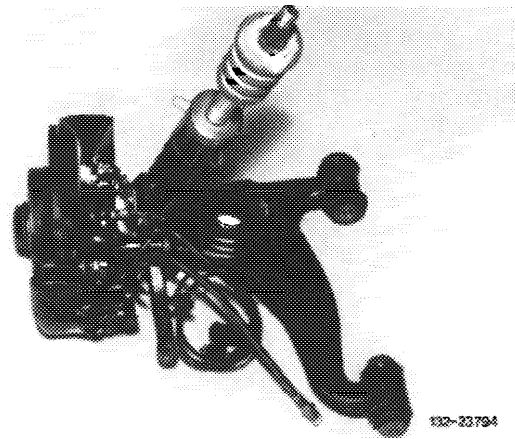
11 Unscrew hexagon nuts of the eccentric pins and remove eccentric pins.

- 1 Side member
- 2 Cross member
- 19 Eccentric pin (camber)
- 20 Eccentric pin (caster)
- 20a Eccentric disk



12 Remove front axle half.

13 Check rubber mounts on the wishbone and torsion bar and, if necessary, renew.

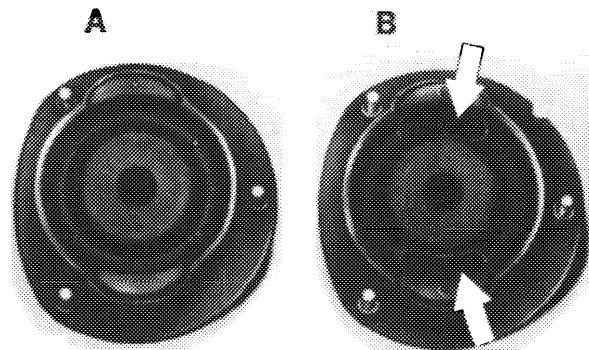


**Installation**

**Repair note**

From April 1983 onwards, modified rubber mounts have been installed on the upper shock absorber strut mounting at the front end. In case of repair, install the second version (with kidney-shaped recesses — arrow). Tightening torque of hexagon nuts on front end 20 Nm.

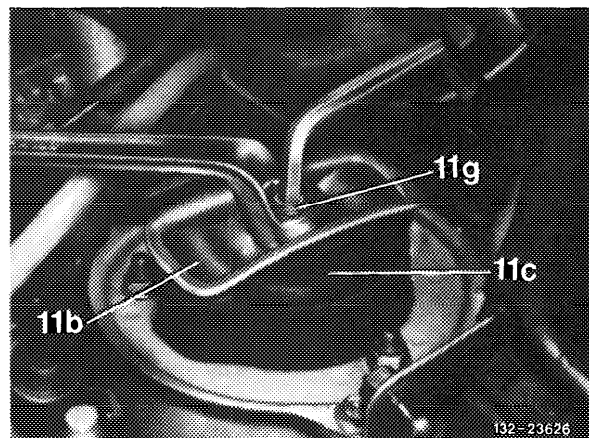
- A Rubber mount 1st version
- B Rubber mount 2nd version



14 Fasten front axle half and shock absorber strut at the upper suspension.

Tightening torque of the hexagon nut 60 Nm.

- 1 lb Rebound limit
- 1c Rubber mount
- 1 lg Piston rod

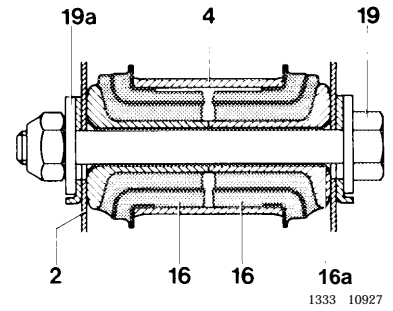


15 Install bearing of the wishbone at the frame cross member.

Tightening torque of the hexagon nuts 180 Nm.

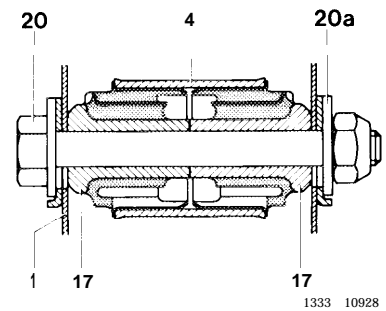
Front bearing model 124/201 and rear bearing model 201.034

- 2 Frame cross member
- 4 Wishbone
- 16 Torsion rubber mount
- 16a Clamping sleeve
- 19 Eccentric pin (camber setting)
- 19a Eccentric disk



Rear bearing model 201.02/1

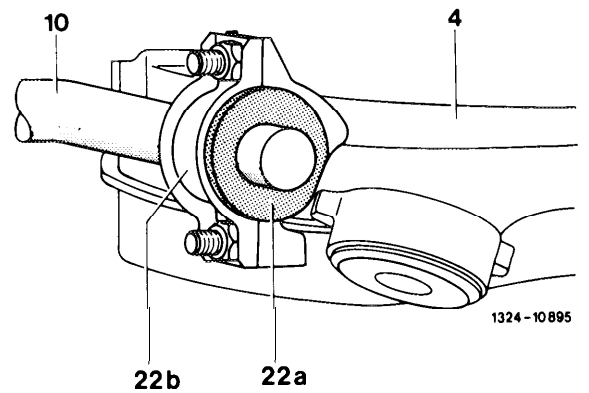
- 1 Frame side member
- 4 Wishbone
- 17 Torsion rubber mount
- 20 Eccentric pin (caster setting)
- 20a Eccentric disk



16 Fasten bearing of the torsion bar at the wishbone. Tightening torque of the hexagon nuts 20 Nm.

**Note:** To facilitate torsion bar installation, raise wishbone at oppsite side using jack,

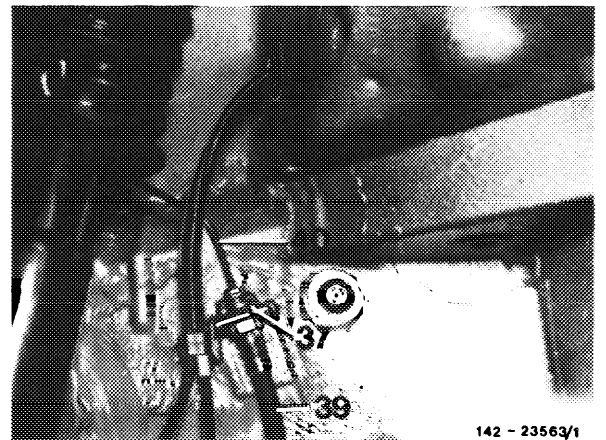
- 4 Wishbone
- 10 Torsion bar
- 22a Rubber mount
- 22b Retainer



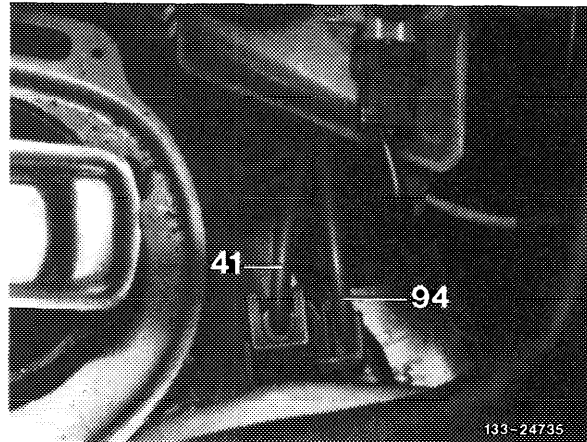
17 Connect brake line (40) and brake hose (39) together at the front,

**Important!**

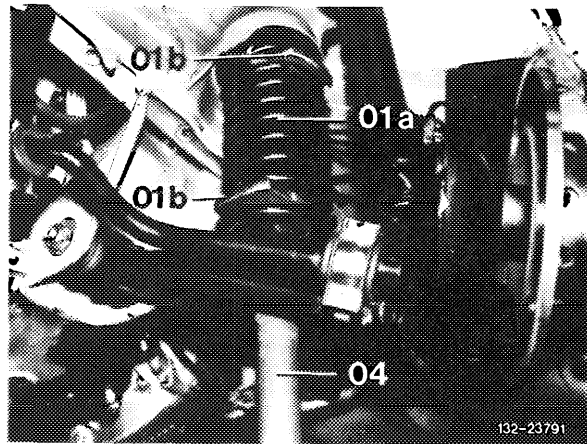
Do not turn brake hose and do not expose to tensile stress.



18 Pass plug-and-socket connection for the brake lining wear indicator (94), and if fitted, for the speed sensor of the ABS (41) through the wheelhousing and fit together in the engine compartment.



19 Install front spring (32-200).



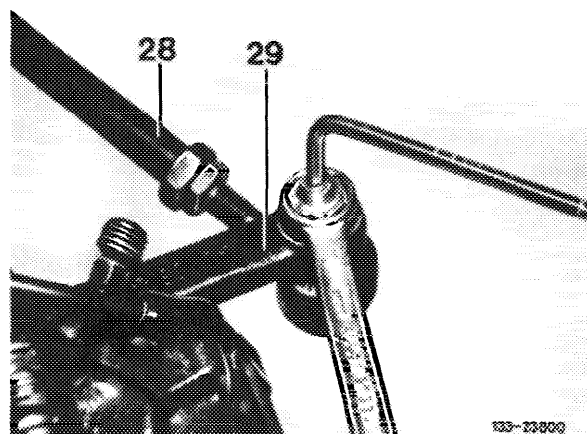
20 Check rubber sleeve on the ball joint of the tie rod. If the rubber sleeve is damaged, check the ball joint for wear and renew (46-540) if necessary.

Note: If the rubber sleeve was damaged upon removal, it will suffice to renew the rubber sleeve.

21 Fasten ball joint of the tie rod (28) at the steering knuckle arm (29), while holding knuckle pin in place with a hexagon socket wrench. Tightening torque 35 Nm.

22 Bleed brake system and check for leaks (visual check) (42-010).

23 Mount front wheel (40-110), lower vehicle.



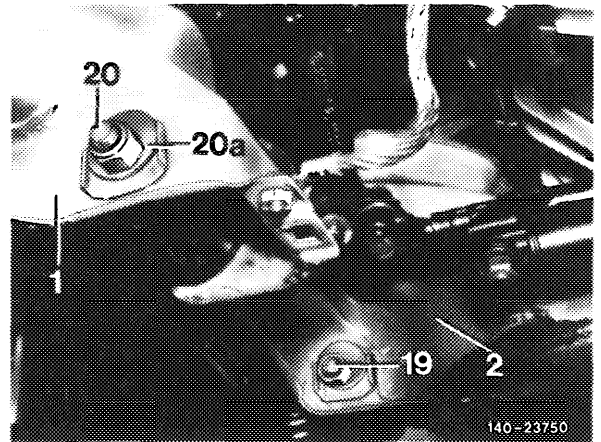


24 Set the eccentric pin for camber and caster adjustment to the previously applied markings and tighten hexagon nuts to 180 Nm.

**Important!**

If the position of the eccentric pin was not marked upon removal, move the eccentric pin to centre position for preliminary adjustment.

- Side member
- 2 Cross member
- 19 Eccentric pin (camber)
- 20 Eccentric pin (caster)
- 20a Eccentric disk



25 Check vehicle level at the front axle (40-300)

26 Check wheel alignment at the front axle (40-320).

27 Check setting of the headlamps.

## 33-300 Adjusting end play of wheel bearings

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### Dates

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End play of wheel bearings	0.01-0.02
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### Lubricant

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Grease grade:	High-temperature anti-friction bearing grease (refer to service product specifications page 265.1) part No. 000 989 49 51 (150 g – can with screw top)
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Grease packing:	In hub cap: Grease quantity approx. 15 g
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### Tightening torque

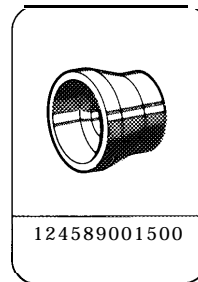
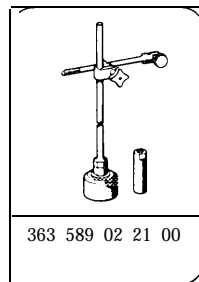
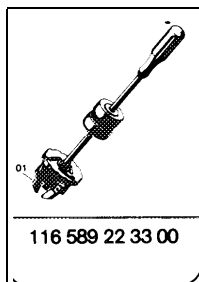
Nm

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Hex, head socket screw of clamping nut	12
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### Special tools



### Commercially available tool

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Dial gauge A 1 DIN 878	eg. Mahr, D-7300 Esslingen order No. 810
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### Note

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In case of repairs at the front wheel hub adjust end play of wheel bearings before assembly of the brake disk.

**Adjustment is described below for brake disk in situ.**

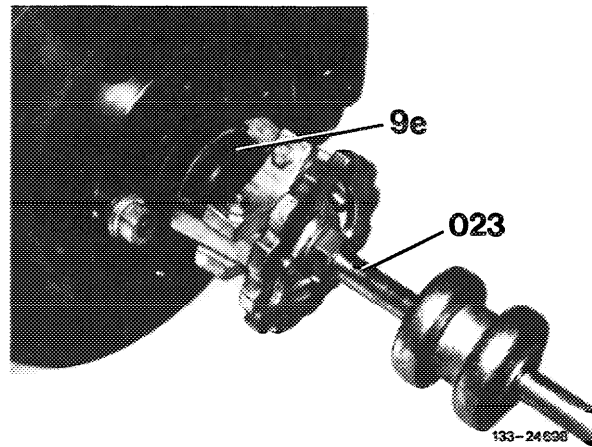
1 Jack up vehicle, remove front wheel.

2 Secure brake disk to the wheel hub using two wheel bolts.

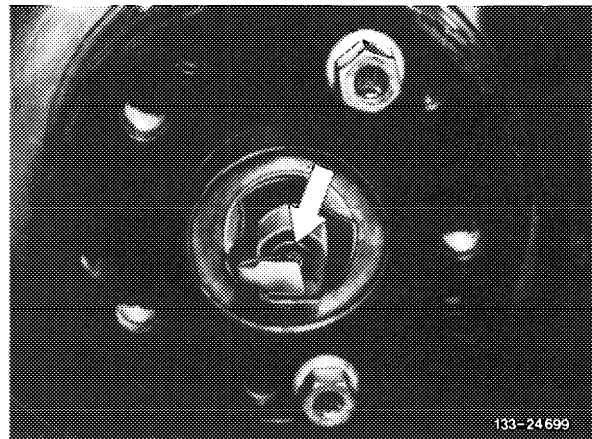
Note: Wheel hub version with locking screw requires one wheel bolt only.

3 Force brake pads away from the brake disk, and if necessary, swing away (42-160) cylinder body of the floating caliper after releasing upper mounting.

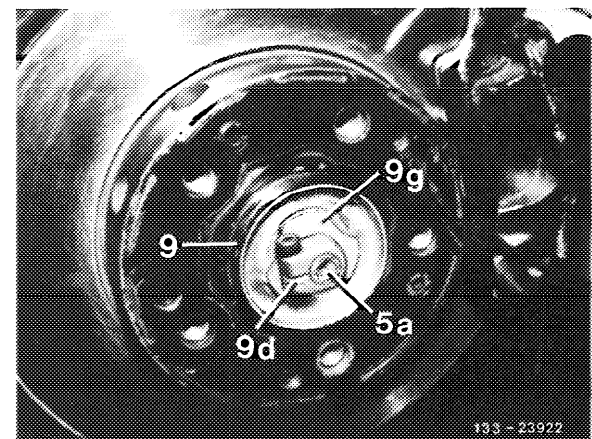
4 Remove hub cap (9e) with device (023).



5 Remove contact spring for radio Interference suppression (arrow).

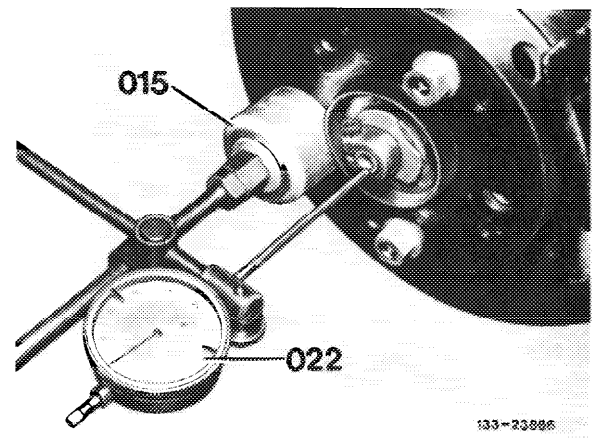


6 Release hex. head socket screw of clamping nut (9d), and tighten clamping nut while simultaneously turning the hub (9) so that the hub can only just be turned. Then slacken clamping nut again by approx. 1/3 revolution and relieve tension by striking the stub axle (5a) with a plastic-headed hammer.



7 Mount tester (15) on front wheel hub and adjust dial gauge (022) to approx. 2 mm preloading.

Note: To adjust the wheel bearing play in conjunction with the dial gauge holder 363 589 02 21 00 the contact pin of the dial gauge must be lengthened.



8 Check end play of the wheel hub by pulling and pushing hard at the flange.

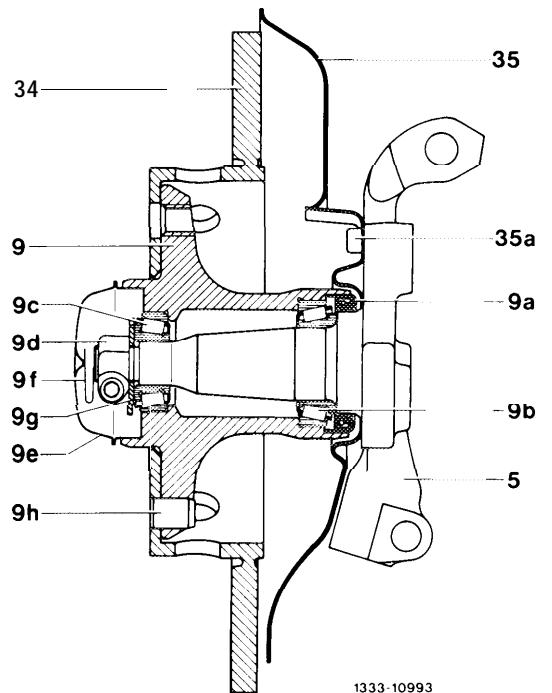
Turn wheel hub several times before each measurement.

**Important!**

During the **measurement** the wheel hub must **not turn**. Every rotary movement of the wheel hub is indicated on the dial gauge so that an exact reading of the actual end play is not possible in this case.

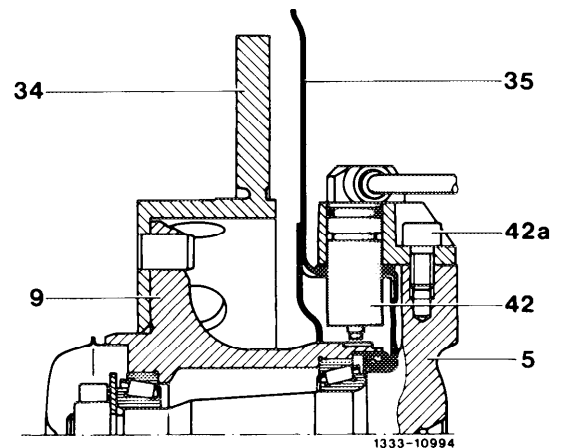
Front wheel hub without ABS

- 5 Steering knuckle
- 9 Front wheel hub
- 9a Radial seal
- 9b Tapered roller bearing inside
- 9c Tapered roller bearing outside
- 9d Clamping nut
- 9e Hub cap
- 9f Contact spring
- 9g Washer
- 9h Clamping sleeve
- 34 Brake disk
- 35 Brake cover plate
- 35a Hex. head socket screws



Front wheel hub with ABS

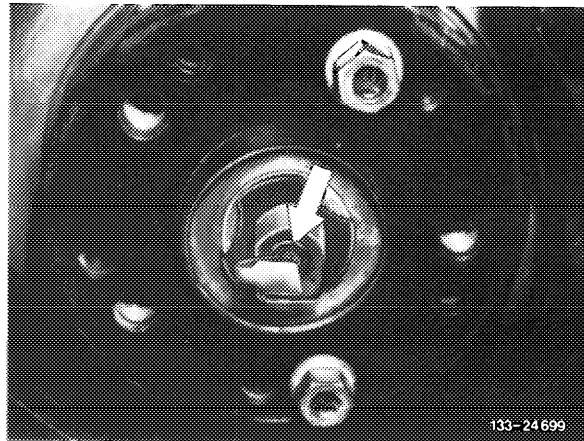
- 5 Steering knuckle
- 9 Front wheel hub
- 34 Brake disk
- 35 Brake cover plate
- 42 Speed sensor
- 42a Fastening bolt



9 Tighten hex, head socket screw of clamping nut to 12 Nm and once again check end play.

Note: When end play of wheel bearings is correctly adjusted, the washer placed between outer tapered roller bearing and clamping nut must just still turn under the pressure of your finger. Always adjust end play of wheel bearings using dial gauge.

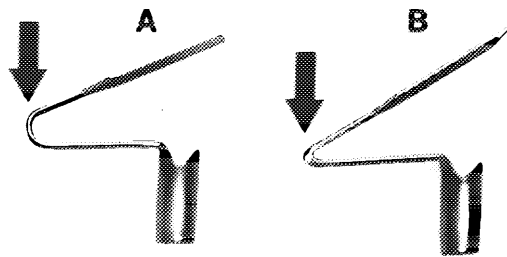
10 Insert contact spring for radio Interference suppression.



Note: Only use contact spring of the 2nd version (installed from the end of December 1992) with 0.5 mm radius.

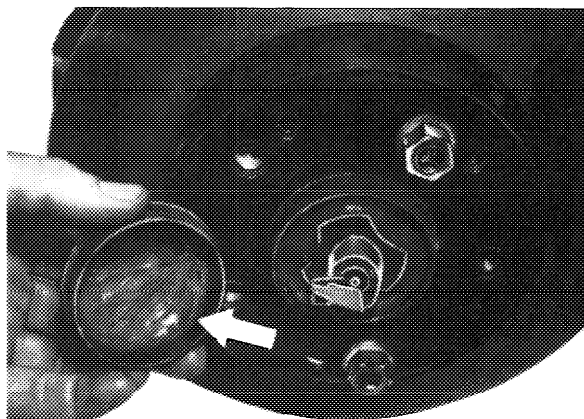
A Contact spring, first version with 2 mm radius (arrow) part No. 1085470085

B Contact spring, second version with 0.5 mm radius (arrow) part No. 201 5470085



133-25504

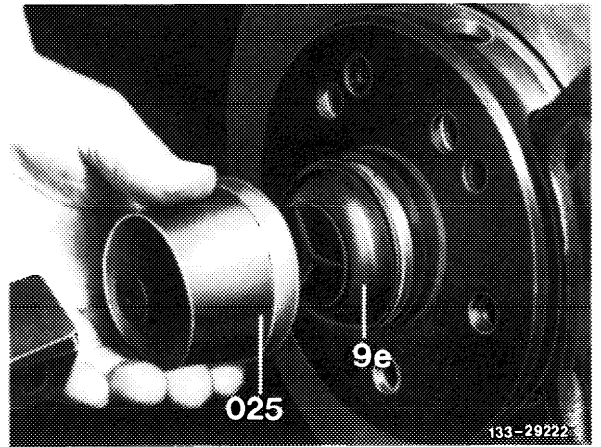
11 Fill hub cap to the flanged edge (arrow) with high-temperature anti-friction bearing grease.



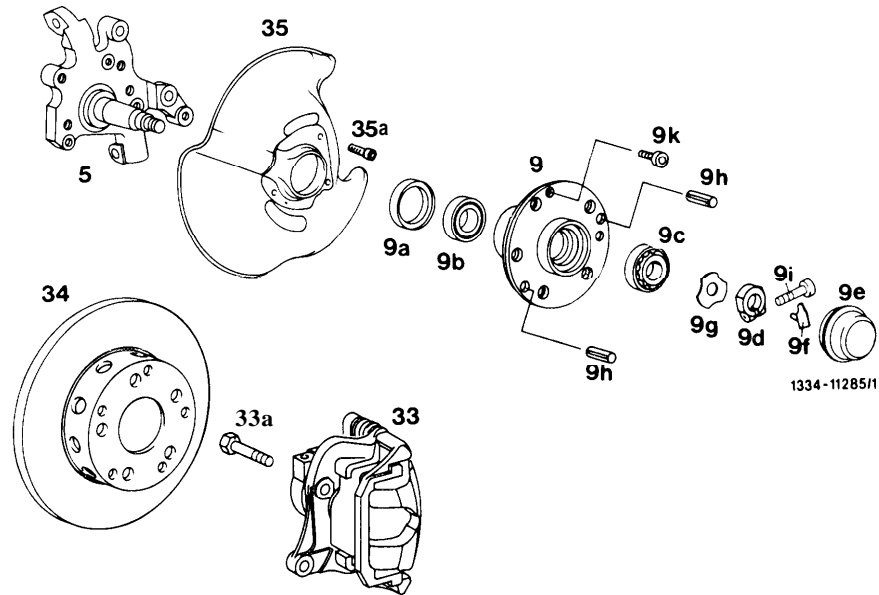
133-24700

12 Knock on hub cap with mandrel (025).  
Remove wheel bolts.

13 install front wheel (40-l 10), lower vehicle.

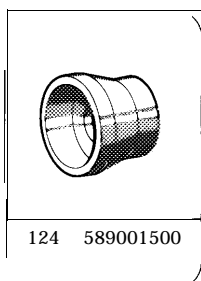
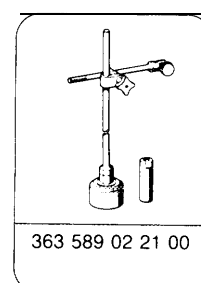
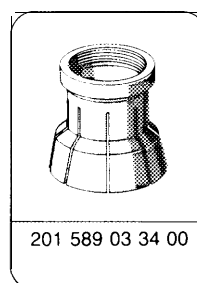
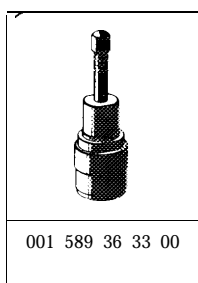
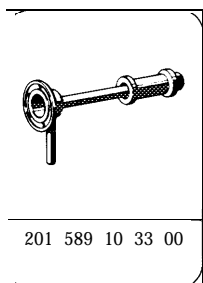
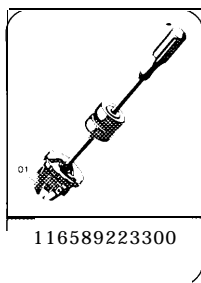


## 33-310 Removal and installation of front wheel hub



5	Steering knuckle	...	Check stub axle for damage and running surface for radial seal for wear.
9	Front wheel hub	...	Check for damage. Additionally check the teeth on ABS front wheels hubs.
9a	Radial seal	.....	Check, renew if necessary
9b	Tapered roller bearing inside	.....	Check for damage, ease of movement and wear.
9c	Tapered roller bearing outside	.....	Check for damage, ease of movement and wear.
9d	Clamping nut		
9e	Hubcap	.....	<b>Check for leaks and damage. Hub cap must be located firmly on the front wheel hub. Grease quantity up to the flanged edge approx. 15 g.</b> High-temperature anti-friction bearing grease (refer to specifications for service products page 265.1) part No. 000 989 49 51 (150 g – can with screw cap)
9f	Contact spring		
9g	Washer.	.....	Additional possibility of checking the end play of wheel bearings.
9h	Clamping sleeve		
9i	Hex. head socket screw	.....	Tightening torque 12 Nm.
9k	Locking screw	.....	Renew, tightening torque 10 Nm.
33	Floating caliper		
33a	Hexagon bolt	.....	Always renew microencapsulated bolts. Tightening torque 115 Nm.
34	Brake disk	.....	Check for wear and condition.
35	Brake cover plate		
35a	Hex. head socket screws	.....	Renew, tightening torque 10 Nm.

### Special tools



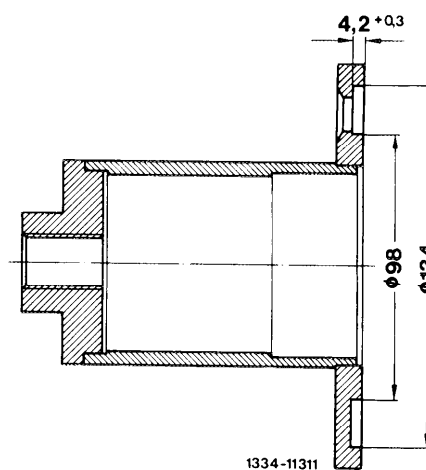
### Commercially available tool

Dial gauge A 1 DIN 878

e.g. Mahr, D-7300 Esslingen  
Order No. 810

### Note

The puller for front wheel hub part No. 116 589 17 33 00 used up to now can also be used for models 124 and 201, if changes are made according to drawing.





## Removal

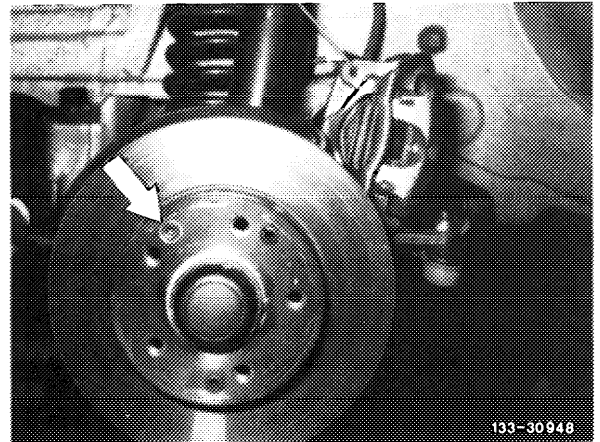
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- 1 Jack up vehicle, remove front wheel.
- 2 Unscrew floating caliper from steering knuckle and attach in wheelhouse by means of a suitable hook (42-l 10).

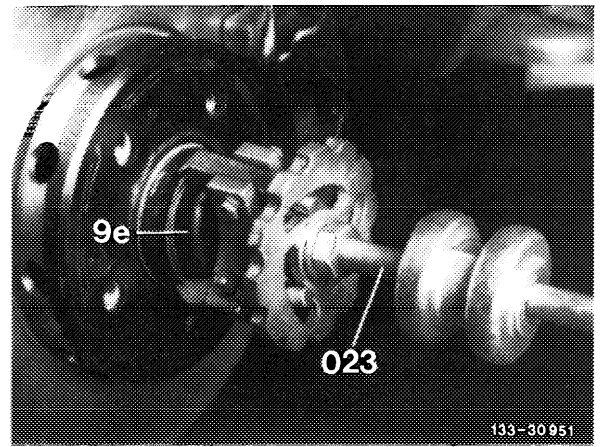
### Attention!

**Do not expose brake hose to tensile stress!**

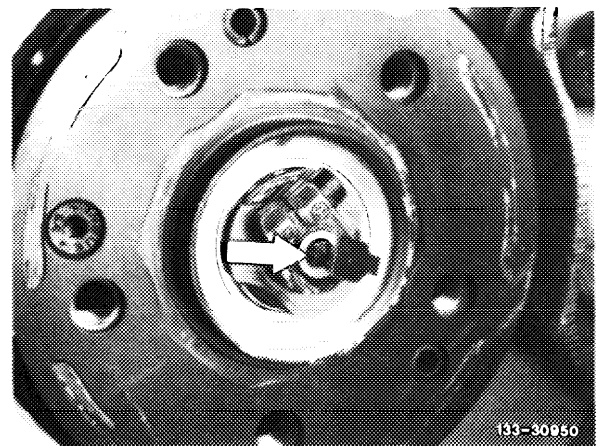
- 3 Unscrew locking screw (arrow) and remove brake disk.



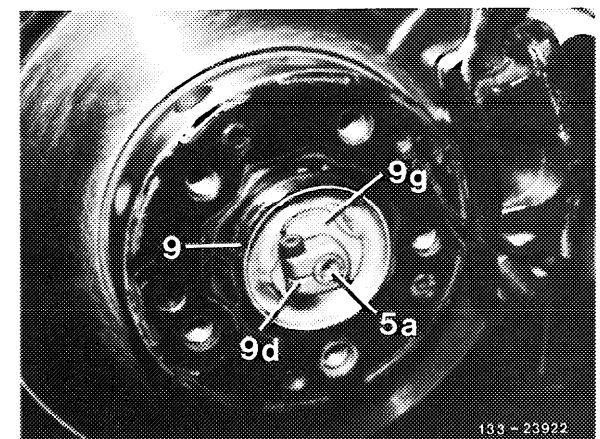
- 4 Remove hub cap (9e) with device (023).



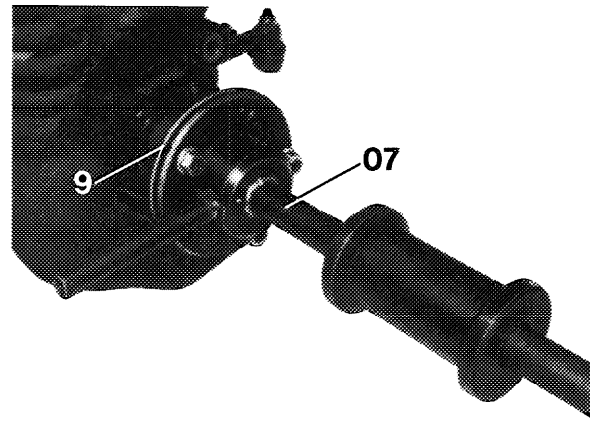
- 5 Remove contact spring (arrow) for radio interference suppression.



- 6 Release hex. head socket screw of clamping nut (9d) on the stub axle (5a) and unscrew clamping nut.



7 Remove front wheel hub (9), if necessary with puller (07).



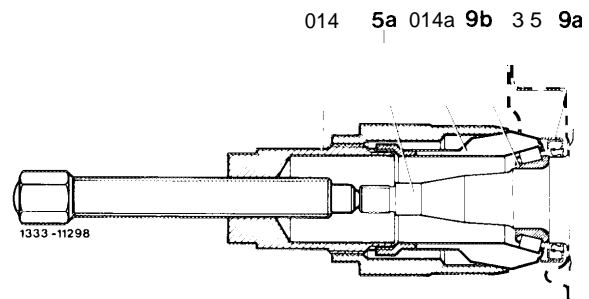
133-25616

8 Additional work if inner ring of tapered roller bearing is jammed on the steering knuckle:

a) Remove inner ring of tapered roller bearing from the steering knuckle with device (014).

b) Remove radial seal (9a) from the steering knuckle.

- 5a Stub axle
- 9a Radial seal
- 9b Tapered roller bearing inside
- 014 Inner ring of tapered roller bearing (basic unit)
- 014a Collet chuck
- 35 Brake cover plate

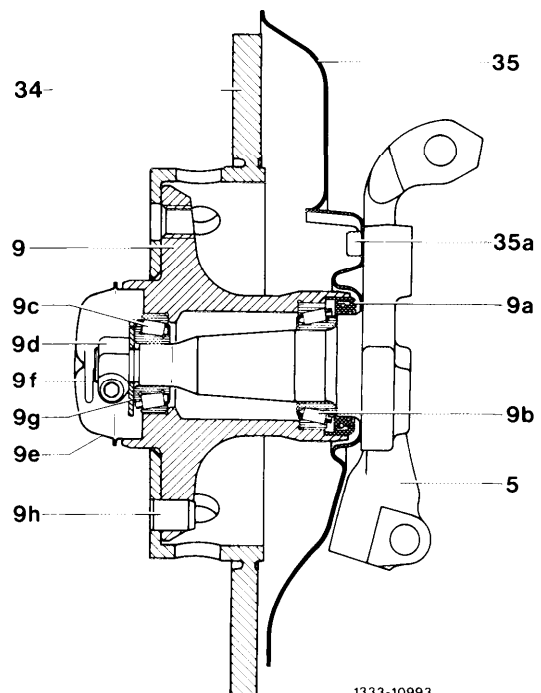


9 Check front wheel hub, tapered roller bearing and radial seal, renew if necessary (33-320).

10 Check king pin, paying particular attention to the bearing seats and the contact surface of the radial seal.

Front wheel hub without ABS

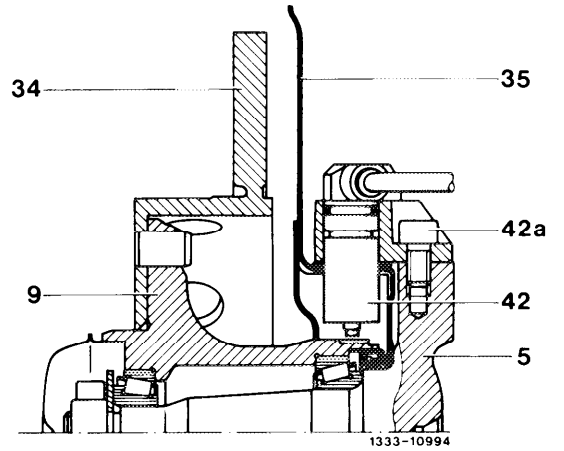
- 5 Steering knuckle
- 9 Front wheel hub
- 9a Radial seal
- 9b Tapered roller bearing inside
- 9c Tapered roller bearing outside
- 9d Clamping nut
- 9e Hub cap
- 9f Contact spring
- 9g Washer
- 9h Clamping sleeve
- 34 Brake disk
- 35 Brake cover plate
- 35a Hexagon socket-head bolts



1333-10993

Front wheel hub with ABS

- 5 Steering knuckle
- 9 Front wheel hub
- 34 Brake disk
- 35 Brake cover plate
- 42 Speed sensor
- 42a Fastening bolt



**Installation**

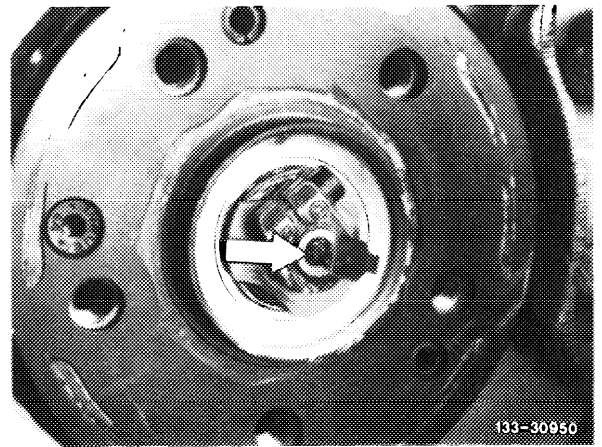
11 If required, install inner ring of inside tapered roller bearing and radial seal in front wheel hub (33-320).

12 Coat running surface for the radial seal at the stub axle sparingly with high-temperature anti-friction bearing grease.

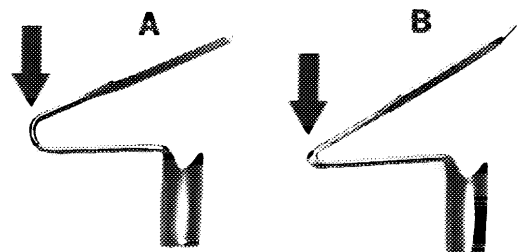
13 Press front wheel hub on to king pin, install inner ring with roller cage of outer tapered roller bearing. Place washer in position, screw on clamping nut and tighten hexagon socket head bolt.

14 Adjust end play of wheel bearings (33-300)

15 Insert contact spring (arrow) for radio interference suppression,



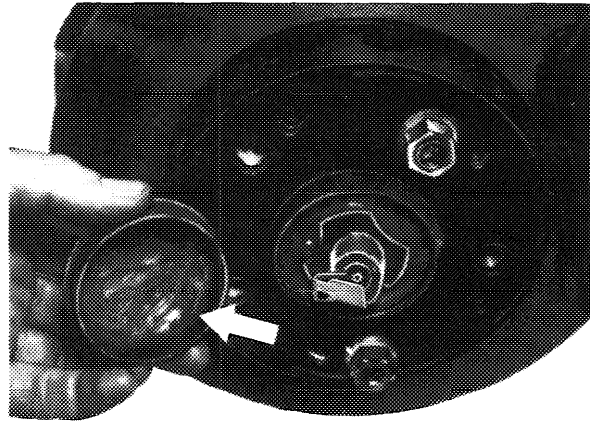
**Note:** Only use contact spring of the 2nd version (installed from end of December 1982) with 0.5 mm radius.



A Contact spring, first version with 2 mm radius (arrow) part No. 108 547 00 85

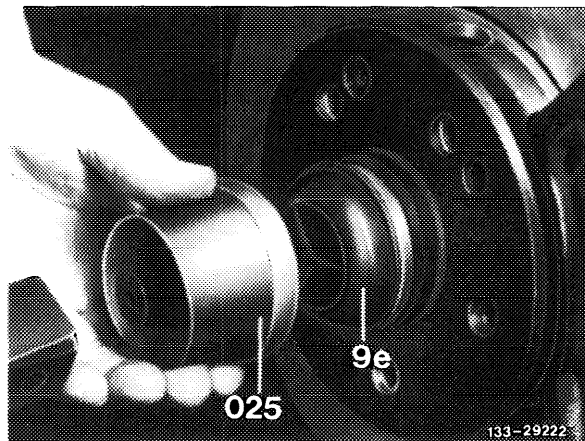
B Contact spring, second version with 0.5 mm radius (arrow) part No. 201 547 00 85

17 Fill hub cap to the flanged edge (arrow) with high-temperature anti-friction bearing grease.



133-24700

18 Knock on hub cap (9e) with mandrel (025).



133-29222

19 Place brake disk on front wheel hub and fasten with new micro-encapsulated locking screw (arrow) ~ 10 Nm.

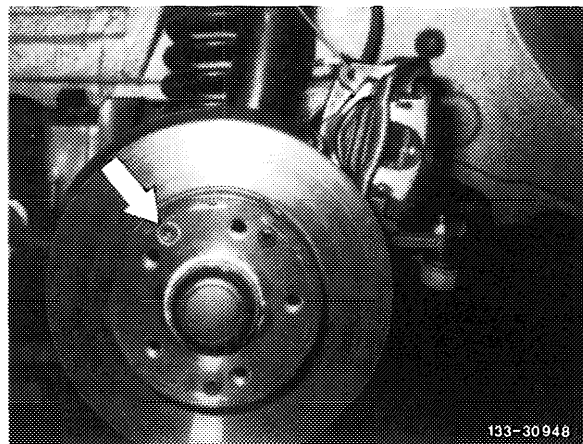
20 Fasten floating caliper to steering knuckle with new self-locking hex. head screws (42-100).

Tightening torque of hex. head screws 115 Nm.

**Attention!**

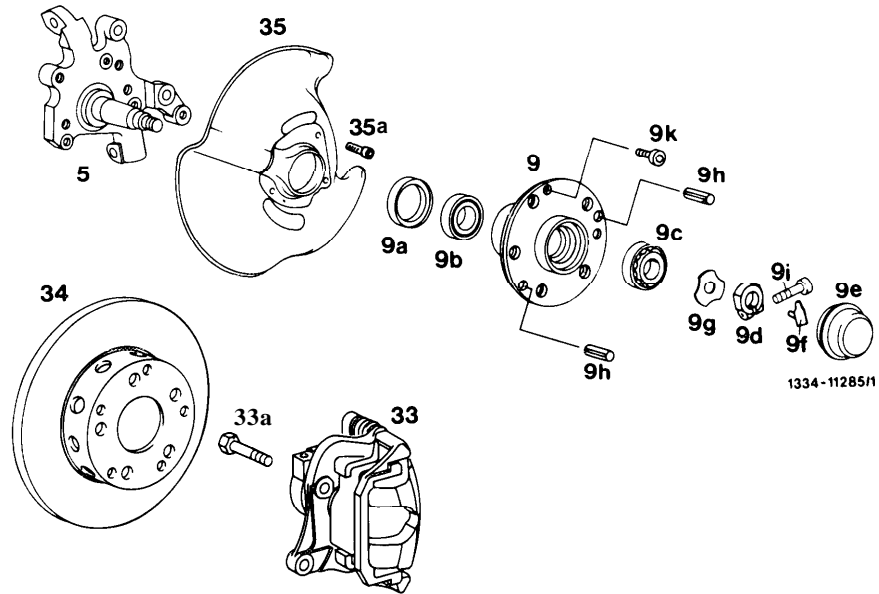
Do not twist brake hose and do not expose to tensile stress!

21 Install front wheel (40-l 10), lower vehicle.



133-30948

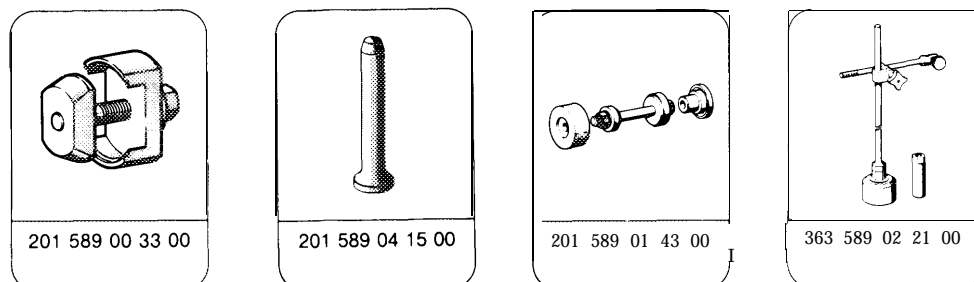
Front wheel hub removed



5	Steering knuckle. . . . .	Check stub axle for damage and running surface for radial seal for wear.
9	Front wheel hub . . . . .	Check for damage. Additionally check teeth on ABS front wheel hub. Be sure to use specified fill-in quantity! Therefore, prior to assembling front wheel hub, weigh entire fill-in quantity, while also filling roller cage of tapered roller bearings well with grease. Also provide roller faces with grease. For quantity of grease refer to table.
9a	Radial seal . . . . .	Check, renew if necessary. Radial seal with sealing lip and additional dust lip. Fill the space between sealing lip and dust lip with high-temperature anti-friction bearing grease upon assembly.
9b	Tapered roller bearing inside . . .	Check for damage, ease of movement and wear.
9c	Tapered roller bearing outside ...	Check for damage, ease of movement and wear.
9d	Clamping nut	
9e	Hubcap . . . . .	Check for leaks and damage. Hub cap must be located firmly on the front wheel hub. Grease quantity refer to table.
9f	Contact spring	
9g	Washer . . . . .	Additional possibility of checking the end play of wheel bearings.
9i	Hex. head socket screw . . . . .	Tightening torque 12 Nm.
9k	Locking screw . . . . .	Renew, tightening torque 10 Nm.

- 3 3 Floating caliper
- 33a Hex. head screw ..... Always renew micro-encapsulated bolts  
Tightening torque 115 Nm.
- 3 4 Brake disk ..... Check for wear and condition.
- 3 5 Brake cover plate
- 35a Hex. head socket screw. .... Renew, tightening torque 10 Nm.

### Special tools



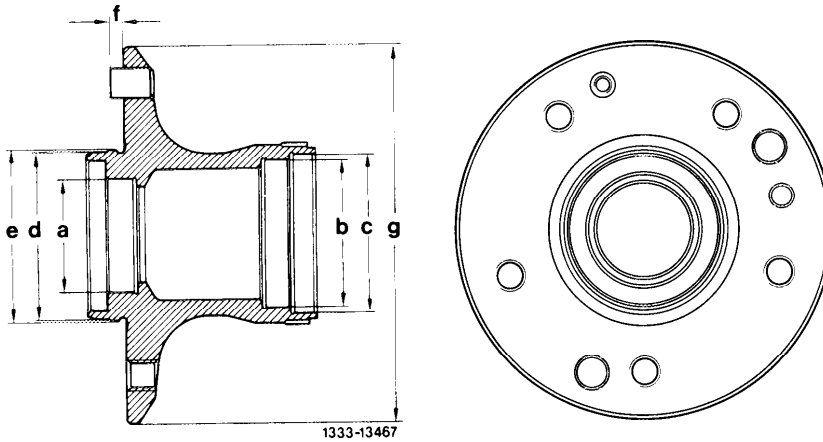
### Conventional tools

Dial gauge A 1 DIN 878

e.g. Mahr, D-7300 Esslingen  
Order No. 810

### Front wheel hub

Model	124 201.034 from start of series	201.02 201.1 1 st version (up to Jan. 1983)	2nd version (start. Febr. 1983)
Bore „a” for inner tapered roller bearing	59.117 59.098	50.258 50.228	59.117 59.098
Bore „b” for outer tapered roller bearing	45.220 45.195	39.857 39.84 1	39.857 39.84 1
Bore „c” for radial sealing ring	64.046 64.000	54.046 54.000	64.046 64.000
Pilot „d” for centering rim		66.400 66.354	
Pilot „e” for centering brake disk		66.990 66.97 1	
Installation dimension „f” for dowel pin		3.8 ± 0.2	
Flange dia. „g”	150		14.1
Permissible lateral runout on flange		0.03	
Permissible vertical runout on rim centering point „d”		0.05	



**Tapered roller bearings, radial sealing rings, lubricants**

Model		124 201.034	201.02 201.1	2nd version (start. Febr. 1983)
		from start of series	1 st version (up to Jan. 1983)	
Tapered roller bearings' )	Inside	Dimensions (OD, ID, width)	59.131 x 31.75 x 16.75	50.292 x 29 x 14.7
		Part No.	000981 5805	00598171105
	Outside	Dimensions (OD, ID, width)	45.237 x 19.05 x 16.64	39,878 x 17.462 x 14.6
		Part No.	000981 5905	006981 1605
Radial sealing ring		Dimensions (OD, ID, width)	64 x 45 x 12	54 x 41 x 12
		Part No.	011 997 51 47	009997 1847
Lubri-cant	Grease charge in grams approx.	Total filling capacity	65	50
		Hub with bearing	50	35
		Hub cap	15	15
	Grease type	High-temperature anti-friction bearing grease (refer to specifications for service products sheet 265.1) part No. 000 989 49 5 1 ( 150 g — can with screw cap)		

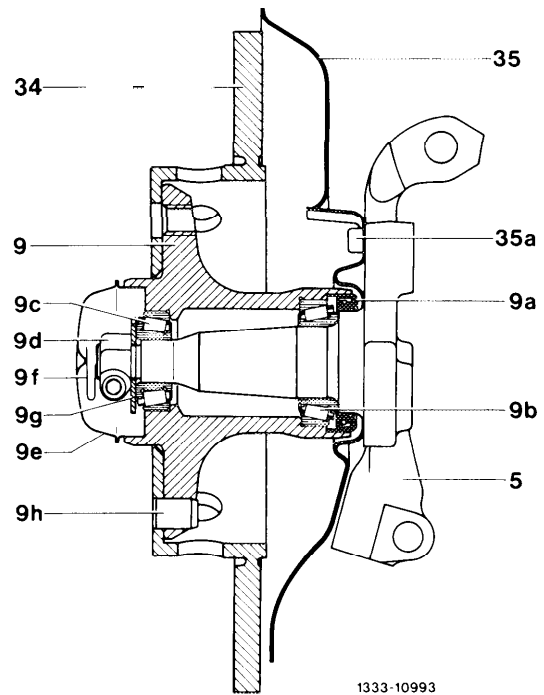
<sup>1)</sup> The bearing inner races are mounted on steering knuckle pin at a sliding fit or a light press fit. In the event of repairs, a radial play of 0.03 mm on inner bearing and of 0.025 mm on outer bearing between bearing inner race and steering knuckle pin is still permitted. If the play is higher, there is the possibility to eliminate that play during assembly by applying „Omnifit type 80 red M or H” with activator (combination pack part No. 002 989 69 71) or Loctite code No. 640, part No. 002 989 20 7 1. For details, refer to respective operating instructions.

## Disassembly

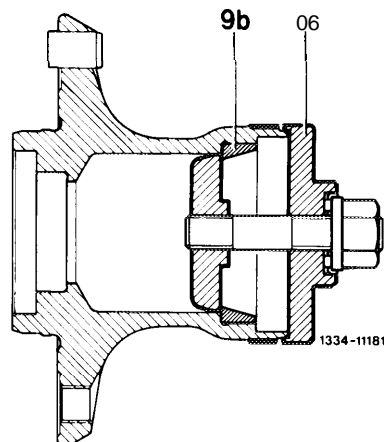
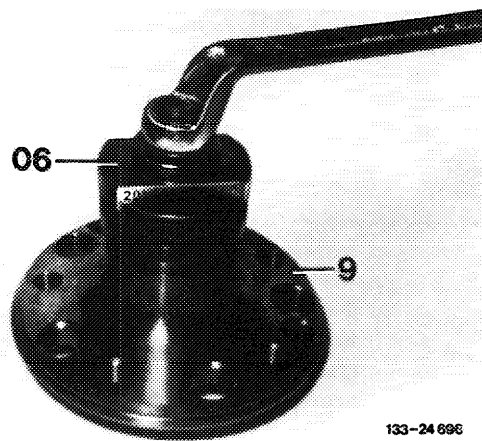
1 Remove inner race with roller cage of the outer tapered roller bearing (9c) from the hub.

2 Press off radial sealing ring and remove inner race of tapered roller bearing with roller cage from the front wheel hub.

- 5 Steering knuckle
- 9 Front wheel hub
- 9a Radial sealing ring
- 9b Tapered roller bearing inside
- 9c Tapered roller bearing outside
- 9d Clamping nut
- 9e Hub cap
- 9f Contact spring
- 9g Washer
- 9h Dowel pin
- 34 Brake disk
- 35 Brake cover plate
- 35a Hex. head socket screws

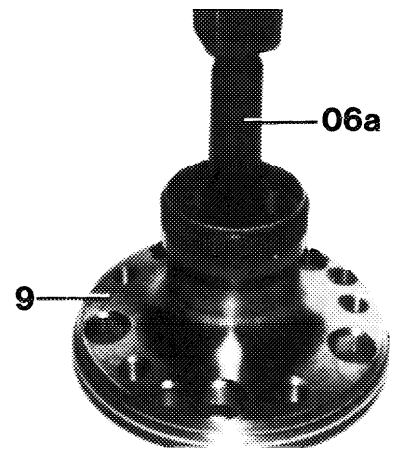


3 Withdraw outer race (9b) of the inside tapered roller bearing using device (06).

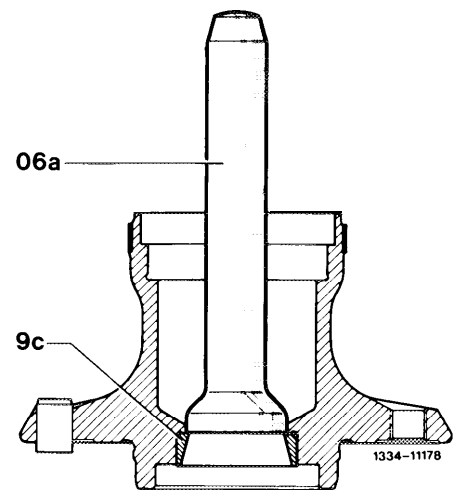




4 Knock out outer race (9c) of the outer tapered roller bearing on wheel hubs of model 201.02/1 with mandrel (06a). On wheel hubs of models 124 and 201.03 knock out outer race (9c) with a suitable mandrel (self-made).



133-24697



1334-11178

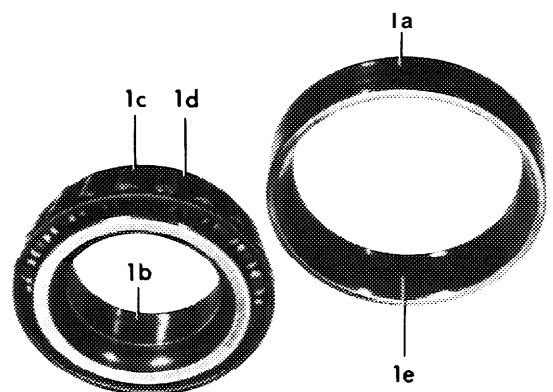
#### Checking and reconditioning

- 5 Check flange of the front wheel hub for runout.
- 6 Check screw holes for wheel mounting.
- 7 Check condition of running surface for radial sealing ring on steering knuckle pin.
- 8 Thoroughly wash out tapered roller bearing and hub inside. Use clean detergent only.
- 9 Check tapered roller bearing and bearing seats in the hub.

The condition of the track of the inner and outer bearing rings as well as the faces of the tapered rollers are decisive for the assessment of tapered roller bearings.

Tapered roller bearings are still usable if:

the outer race has a smooth, grey line from the tapered rollers.



- 1a Outer race
- 1b Inner race
- 1c Tapered rollers
- 1d Roller cage
- 1e Ring track

133-10612

Tapered roller bearings are no longer usable if:

1. The line of the tapered rollers in the outer bearing shows indentations (caused by peeling on the bearing inner race);
2. Rust has formed on the tapered roller bearings (occurs when water enters the front wheel bearing through a defective radial seal);
3. The outer bearing has turned light brown to blue as a result of an excessive temperature rise.

**Note:** If one tapered roller bearing is defective, always renew the other bearing of the hub concerned.

Install wheel bearings of identical make. If used bearings are put back, do not mix up related inner bearing races with roller cage and outer races.

### Assembly

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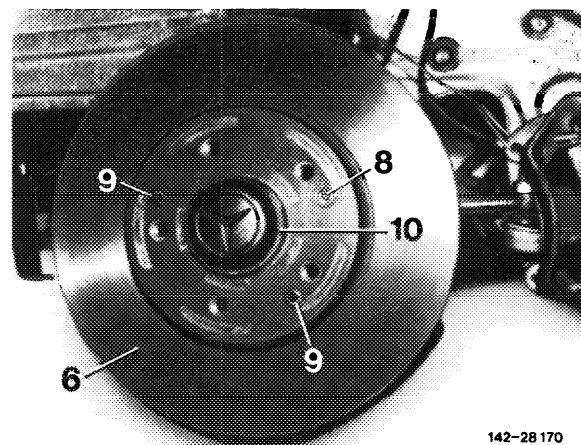
On model 201.02/1 with 15" wheels the front wheel hubs have wider contact surfaces than the front wheel hubs with 14" wheels.

In addition, the brake disk is attached to the front wheel hub by means of a locking screw.

### Conversion

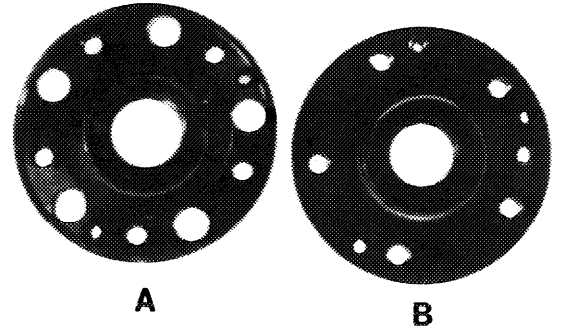
Principally, a conversion of formerly made vehicles with 14" to 15" steel rims is permissible **only following reconstruction** to the present series version of the front wheel hubs and the brake disks (contact surface of steel rim in combination with former hubs is too narrow).

When using 15" light-alloy rims, reconstruction is not required. In the Federal Republic of Germany, the usual procedure requires that the new tire size is entered into the vehicle documents by a technical inspection society for motor vehicles.



Identifying characteristic of modified brake disks:  
8 Locking screw

142-28 170



A Version for 14" rims (up to 1.1985)  
 B Version for 15" rims (as of 2.1985)

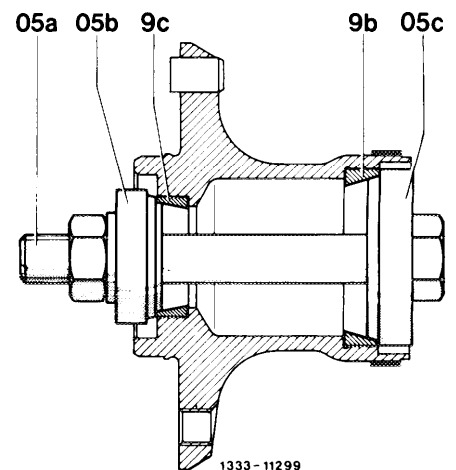
133-30949

Production breakpoint of the new front wheel hubs on models 201.02/1

As of chassis end No. A 168985  
 F 062643

10 Press outer races of the tapered roller bearings together with the device into the front wheel hub. Always ensure that the thrust washers (05b and 05c) are seated correctly.

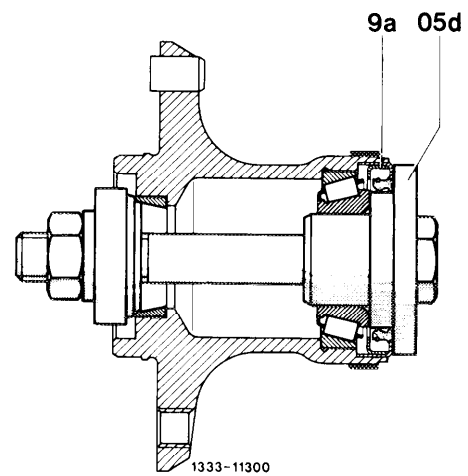
- 9b Outer race for inside tapered roller bearing
- 9c Outer race for outer tapered roller bearing
- 05a Bolt with hexagon nut and washer
- 05b Thrust washer for outer race of the outer tapered roller bearing
- 05c Thrust washer for outer race of the inside tapered roller bearing



11 Weigh specified grease quantity for hub with bearing, depending on version (refer to table).

12 Pack roller cage of inside tapered roller bearing well with anti-friction bearing grease, then insert inner race with roller cage into the hub and grease end faces of the rollers.

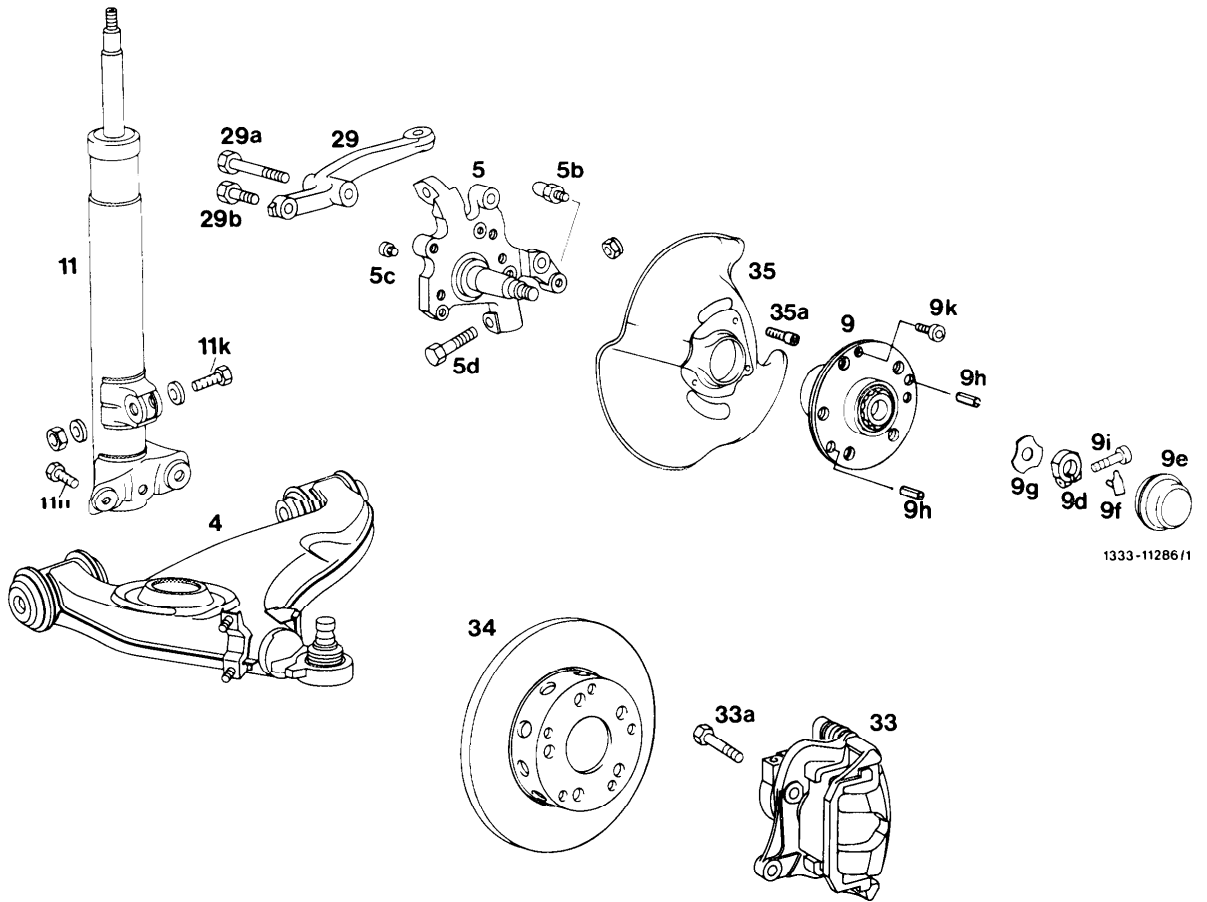
13 Fill radial sealing ring between sealing lip and dust lip with the specified grease and press in with device.



9a Radial sealing ring  
05d Thrust washer for radial sealing ring

14 Fill front wheel hub with remaining grease.

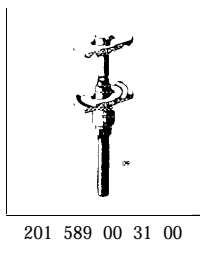
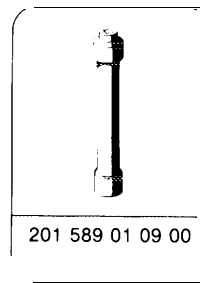
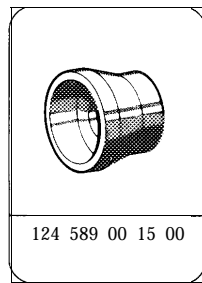
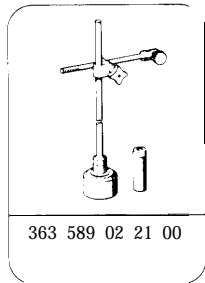
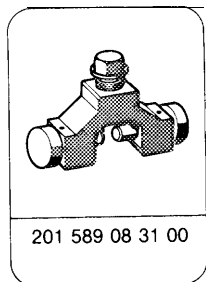
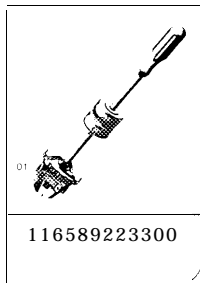
Note: If too much grease is added it will overheat on account of the flexing (fulling) effect and may then lose its lubricating properties. However, an inadequate amount of grease is also wrong because the tapered roller bearings will not be lubricated correctly in this case.



4	Wishbone	Check rubber mount for firm seat. Check condition of the sleeve at the supporting joint.
5	Steering knuckle	Check steering knuckle pin for damage and running surface for radial seal for wear. Survey of versions, refer to 33-410.
5b	Stop pin	Remove and install. Tightening torque 45 Nm.
5c	Centering pin	
5d	Hexagon bolt with self-locking nut	Tightening torque 125 Nm.
9	Front wheel hub	Adjust end play of wheel bearings (0.01-0.02). Survey of wheel hub versions, refer to 33-320.
9d	Clamping nut	
9e	Hub cap.	Fill up to the flanged edge with high-temperature anti-friction bearing grease (approx. 15 g).
9f	Contact spring	
9g	Washer	
9i	Hex. head socket screw	Tightening torque 12 Nm.
9k	Locking screw.	Renew, tightening torque 10 Nm.
11	Shock absorber strut	
11n	Hex. head screw with washer	Tightening torque 1st version 10.9 100 Nm 2nd version 12.9 110 Nm
11k	Hex. head screw with washers and self-locking nut	Tightening torque 1st version with hex. head screw 10.9 was 75 Nm 2nd version with hex. head screw 12.9 (as of 1.1985) = 110 Nm
29	Steering knuckle arm	Survey of versions, refer to 33-420
29a	Hex. head screw.	Tightening torque 80 Nm.
29b	Hex. head screw.	Tightening torque 80 Nm.

- 33 Floating caliper
- 33a Hex. head screw ..... Always renew micro-encapsulated bolts.  
Tightening torque 115 Nm.
- 34 Brake disk ..... Check for wear and condition.
- 35 Brake cover plate
- 35a Hex. head socket screws ..... Tightening torque 10 Nm.

**Special tools**



**Commercially available tools**

Dial gauge A 1 DIN 878

e.g. Mahr, D-7300 Esslingen  
Order No. 810

**Sealing compound**

Sealing material (200 g can)

0019897920

## Note

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With front spring installed, only release hexagon nuts at supporting joint if the trestles are placed beneath the lower wishbones at front, not beneath frame floor; otherwise clamp or remove front spring.

**Damaged or leaking sleeves on used joints must not be replaced.** In such a case always exchange supporting joint. Always renew self-locking nuts and bolts!

## Removal

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- 1 Jack up vehicle at front. Remove front wheel.
- 2 Unscrew floating caliper from the steering knuckle and position at the front with a suitable hook (arrow). Remove brake disk.

### Important!

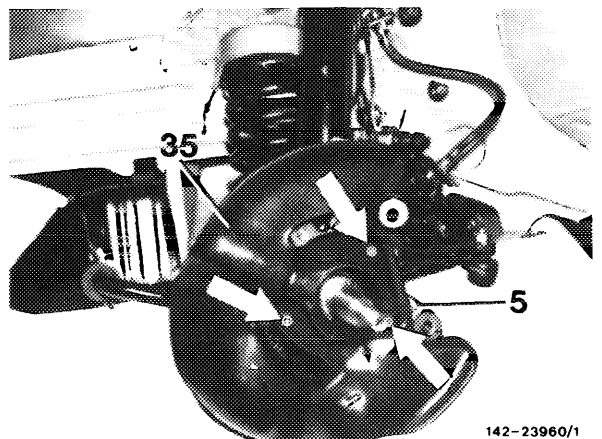
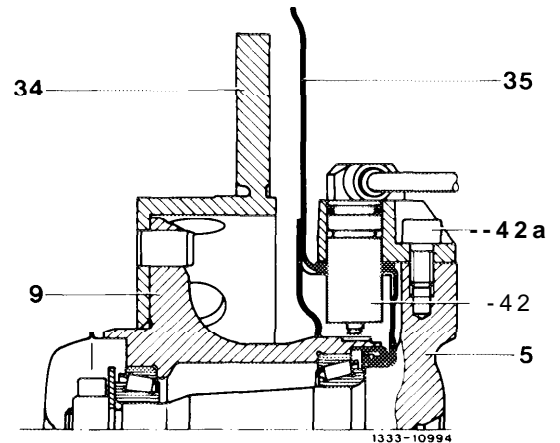
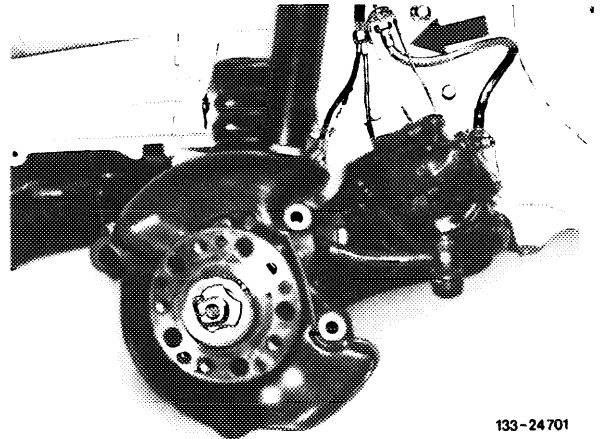
**Do not tension brake hose.**

- 3 Remove front wheel hub (33-310).

**Note:** On vehicles with ABS, remove speed sensor after loosening the hexagon socket head bolt (42a) from steering knuckle.

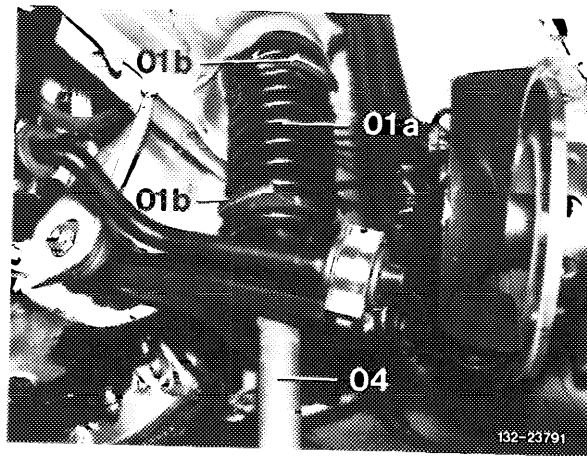
- 5 Steering knuckle
- 9 Front wheel hub
- 34 Brake disk
- 35 Brake cover plate
- 42 Speed sensor
- 42a Hex. head socket screw

- 4 Remove brake cover plate (35) after unscrewing the 3 hex. head screws (arrow) from the steering knuckle (5).

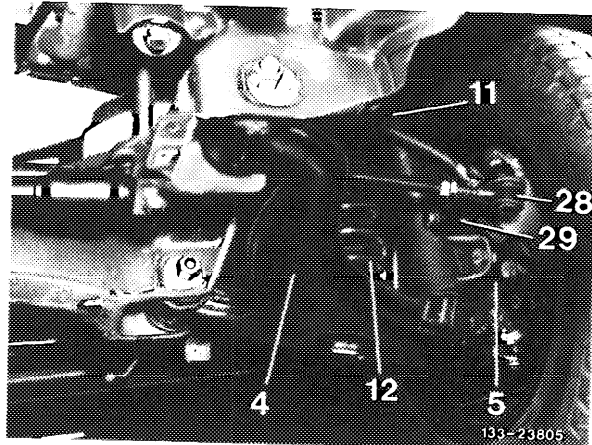


5 Insert spring compressor (01) for front spring and compress spring until the wishbone is relieved (32-200).

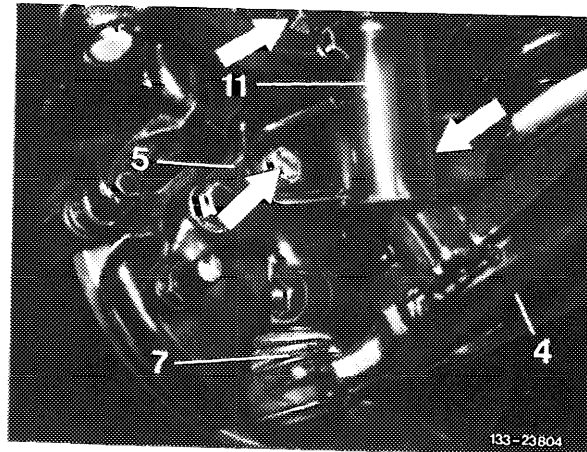
- 01a Clamping bolt
- 01b Clamping plates
- 04 Box wrench



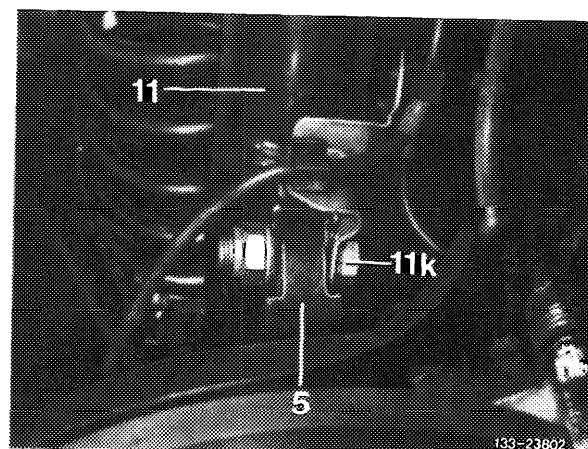
6 Unscrew hex. head screws holding the steering knuckle arm (29) at the steering knuckle (5).



7 Remove hex. head screws (arrows) holding the shock absorber strut (11) at the steering knuckle (5).



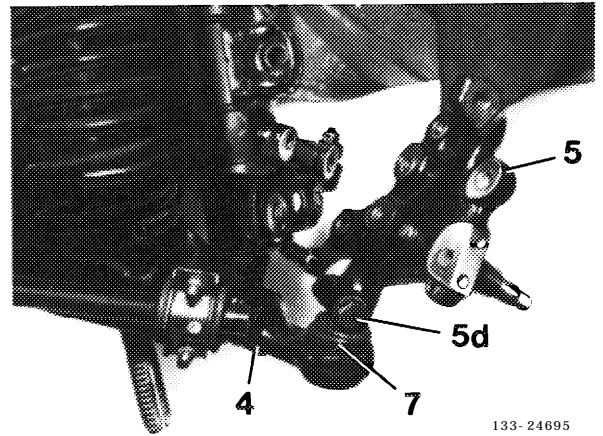
- 5 Steering knuckle
- 11 Shock absorber strut
- 11k Hex. head screw



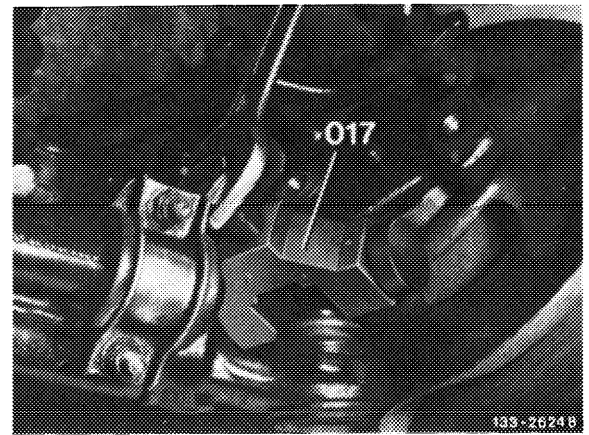
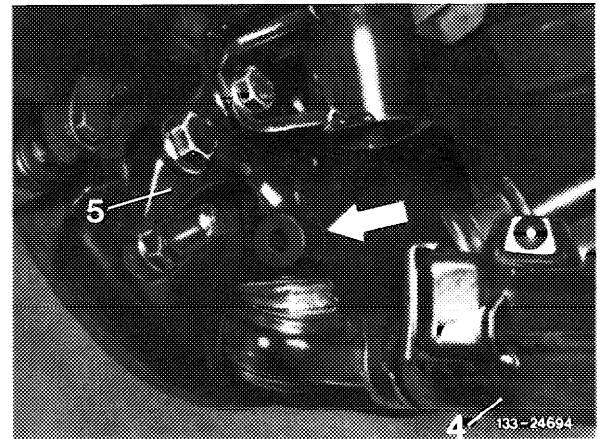


8 Remove hex. head screw (5d) of the clamping joint between steering knuckle (5) and supporting joint (7).

9 Remove steering knuckle from the supporting joint.



**Note:** If the steering knuckle cannot be removed from the supporting joint because of corrosion, the clamping joint will have to be released by widening the slot in the steering knuckle (arrow) with the spreader.



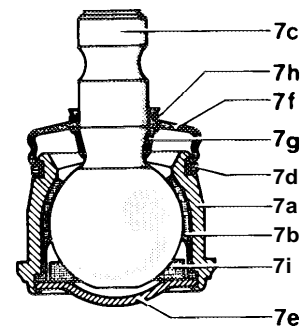
017 Spreader

**Installation**

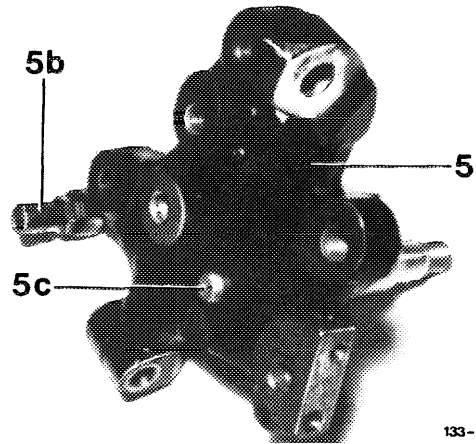
10 Check supporting joint in wishbone (33-425).

**Note:** The sleeve (7f) should be renewed if damaged during removal (33-430). However, if the sleeve is found to be damaged in a used joint, the supporting joint must be renewed (33-440).

- |                  |                    |
|------------------|--------------------|
| 7a Housing       | 7e Cover           |
| 7b Ball shell    | 7f Sleeve          |
| 7c Knuckle pin   | 7g Supporting ring |
| 7d Wire retainer | 7h Wire retainer   |
|                  | 7i Ball shell      |



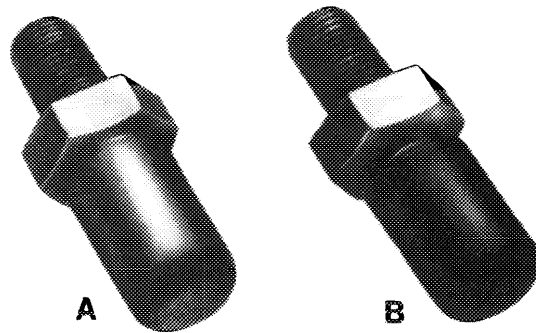
11 Check steering knuckle (33-410).



5 Steering knuckle  
5b Stop pin  
5c Centering bolt

133-23798

**Note:** As of the middle of September 1985 the stop pins with plastic cap are installed as standard equipment. On vehicles made at an earlier date, this version can be installed in the event of repairs.

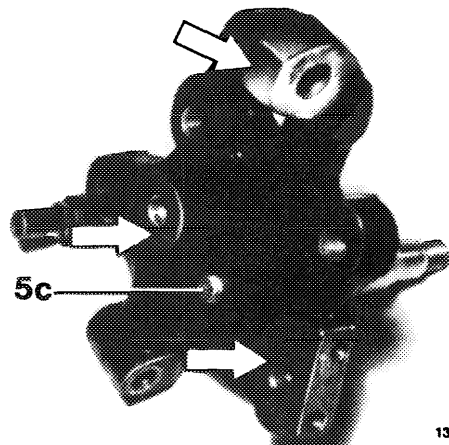


A = Stop pin without plastic cap  
Version up to 8. 1985  
B = Stop pin with plastic cap  
Version starting 9. 1985

132-31557

**Important!**

Steering knuckle and shock absorber strut are fixed lengthwise (caster) via the centering pin (5c) and crosswise (camber) via surfaces (arrows). Therefore always observe the correct sequence (Nos. 14-16) for installation.



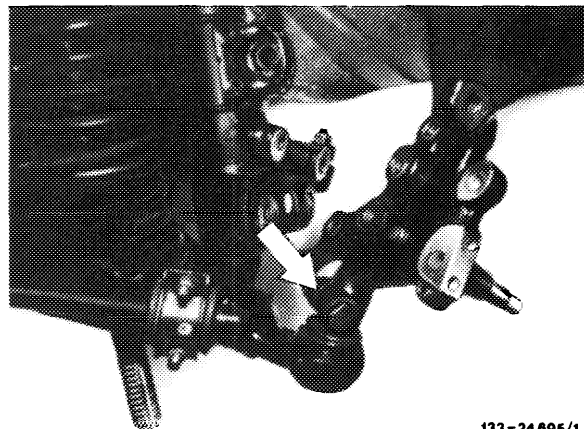
133-23798/2

12 Insert steering knuckle into the supporting joint, Install and tighten hex. head screw with new self-locking nut.

Tightening torque 125 Nm.

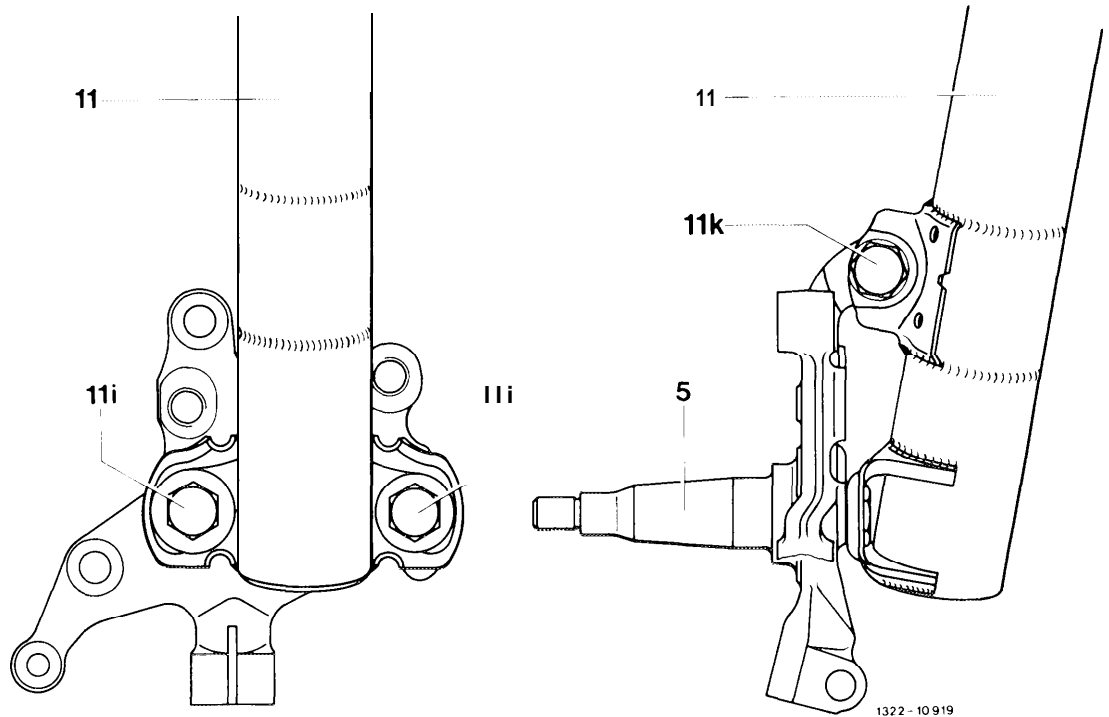
13 Fill separating slot (arrow) for the prevention of corrosion completely with sealing compound (refer to table).

14 Install steering knuckle arm with new micro encapsulated hex. head screws and tighten to 80 Nm



133-24695/1

15 Join shock absorber strut (11) to the steering knuckle (5). Only apply, do not tighten, the two new micro-encapsulated bolts (11 i).



16 Press steering knuckle (5) up and home against the shock absorber strut, install and slightly tighten upper bolt with washers and self-locking nut (11 k); ensure that the surface of the steering knuckle contacts the shock absorber strut at the inside.

Note: Always renew self-locking bolts and nuts

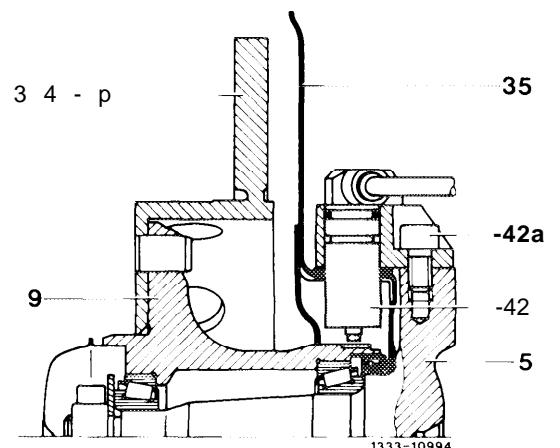
17 First tighten the two lower hexagon bolts (11 i) to 100 Nm and then the hexagon bolt of upper clamping joint (11 k) to 75 Nm.

18 Release front spring and remove spring compressor

19 Install brake cover plate (35) with new self-locking hexagon socket-head bolts and tighten to 10 Nm.

**Note:** On models with ABS install the speed sensor (42) in the steering knuckle (5) with new self-locking hexagon socket-head bolts (42a)

Tightening torque 22 Nm



20 Install front wheel hub (33-310).

21 Adjust end play of wheel bearings (33-100).

22 Install floating caliper (42-100).

**Important!**

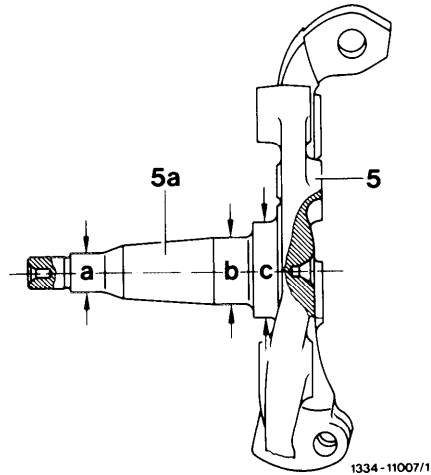
**Do** not twist brake hose and do not tension.

23 Install front wheel (40-110), lower vehicle.

24 Check wheel alignment at front axle (40-320).

25 Check setting of the headlamps.

## 33-410 Checking steering knuckle

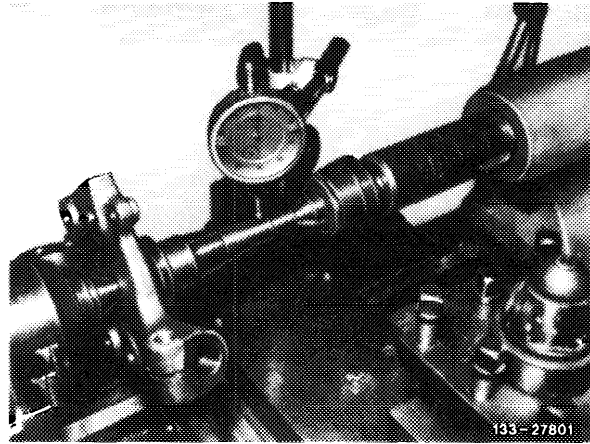


5	Steering knuckle	.....	Check for outer damage
5a	King pin	.....	Check contact surface for radial seal and bearing seat. Permissible deviation from concentricity at the bearing seats max. 0.05 mm.
a	Bearing seat	.....	Min. diameter for repair Model 124, 201.034 = 19.04 mm Model 201.02/1 = 17.45 mm
b	Bearing seat	.....	Min. diameter for repair Model 124, 201.034 = 31.74 mm Model 201.02/1 : 1 st version up to January 1983 = 29.00 mm 2nd version as of February 1983 = 31.74 mm
c	Contact surface for radial seal	.....	Min. diameter for repair Model 124, 201.034 = 44.40 mm Model 201.02/1 : 1st version up to January 1983 = 41.00 mm 2nd version as of February 1983 = 44.40 mm

### Commercially Available Tools

Measuring stand	e.g. Messrs. Bosch, D-7000 Stuttgart-Feuerbach Order No. 0 601 980 001
Dial gauge A 1 DIN 878	e.g. Messrs. Mahr, D-7300 Esslingen Order No. 810 St

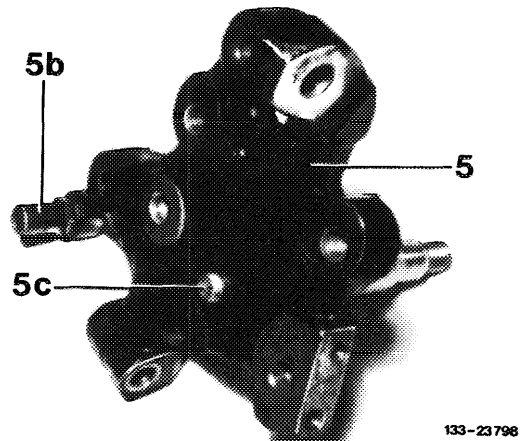
For checking the steering knuckle, mount between centers on the lathe at both centering holes.



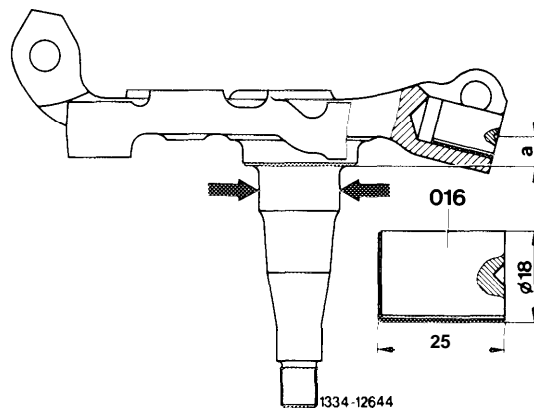
Firstly remove the centering pin (5c) from the steering knuckle (5).

**Note:** New steering knuckles are supplied with the centering pin.

As from approx. September 1985 only stop pins (5b) with plastic flap will be installed.



When repairing accidents, the steering knuckle can be additionally checked for bends via the lower bearing point in direction of camber after checking the kingpin by means of a measuring bolt. In such a case, the steering knuckle is mounted on inner bearing seat of pin (arrows) in a three-jaw chuck.



**016 Measuring bolt with center bore (self-made)**

For evaluation, the different dimension (a) between the contact surface for the inner tapered roller bearing and the mounting bore for the ball pin of the supporting joint is measured by means of a height-measuring instrument. The measuring bolt must be seated flush with face in mounting bore.

The reference dimension „a” should be  $12.5 \pm 0.5$  mm.

## 33-420 Removal and installation of steering knuckle arm

### Data

Model	Part No.	Code number	Layout of steering knuckle arm
124	124332 1020	24 10	left
	1243321120	24 11	right
201 <sup>1)</sup>	2013320820	01 08	left
	2013320920	01 09	right
201 <sup>2)</sup> 201.034	201 332 1020	01 10	left
	201 332 1120	01 11	right

<sup>1)</sup> 1st version up to 8. 1984

<sup>2)</sup> 2nd version as of 9. 1984

### Tightening torques

Nm

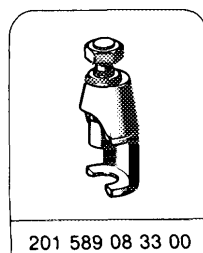
Self-locking hex. head screws for mounting the steering knuckle arm on the steering knuckle

80

Self-locking hexagon nut for the ball joint of the tie rod

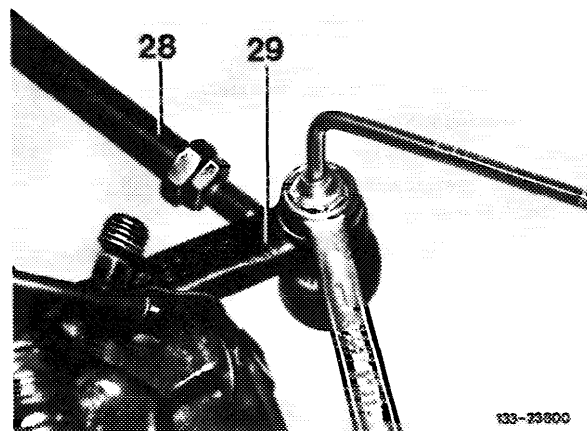
35

### Special tool



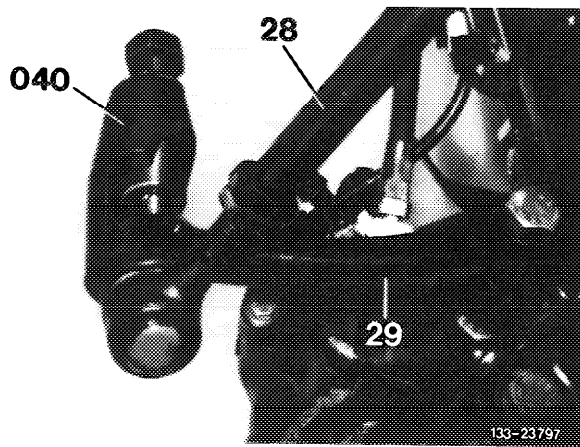
### Removal

- 1 Jack up vehicle at front, remove front wheel.
- 2 Unscrew hexagon nut of the tie rod (28) at the steering knuckle arm (29).

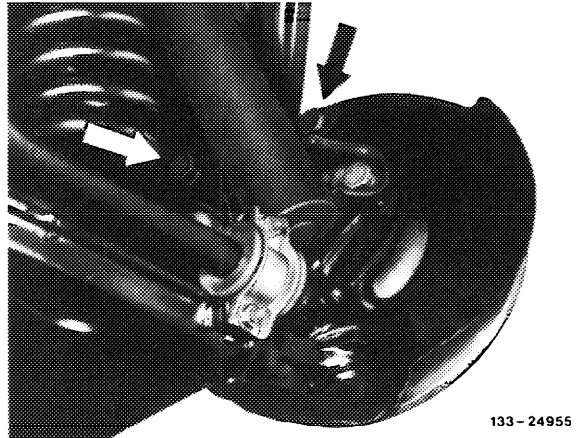


133-29800

3 Press off ball joint of the tie rod (28) at the steering knuckle arm (29) using device (040).



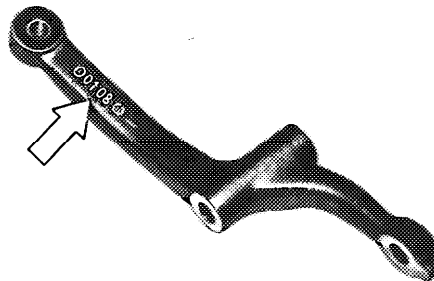
4 Unscrew hex. head screws (arrows) and remove steering knuckle arm to the rear.



### Checking

---

5 The steering knuckle arm cannot be checked with usual workshop means. **If in doubt**, especially after accidents, install **a new steering knuckle arm**. Note the correct code number (arrow) of the steering knuckle arm. (For survey of versions, refer to Table).



### Installation

---

6 Clean contact surface for the steering knuckle arm at the steering knuckle.

**Note:** If a new steering knuckle arm is installed, ensure that the contact surfaces for the steering knuckle, the hex. head screws and the hexagon nut are free of paint.



7 Fasten steering knuckle arm to the steering knuckle with two new self-locking hex. head screws. Tighten hex. head screws to the specified torque of 80 Nm.

**Important!**

Always renew self-locking hex. head screws.

8 Check rubber sleeve on the ball joint of the tie rod. If the rubber sleeve is damaged, check the ball joint for wear and renew (46-540) if necessary.

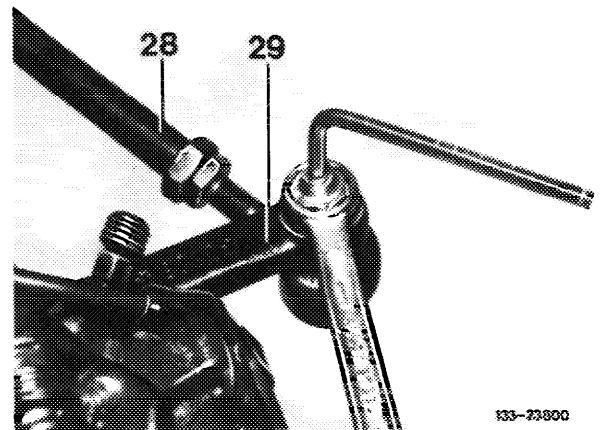
**Note:** If the rubber sleeve was damaged upon removal, it will suffice to renew the rubber sleeve.

9 Fasten tie rod (28) to the steering knuckle arm (29) with new self-locking hexagon nut, while holding the knuckle pin in place with a hex. head socket wrench.

Tightening torque 35 Nm.

10 Install front wheel (40-l 10), lower vehicle.

11 Check wheel alignment at the front axle (40-320).



133-23000

## 33-425 Checking supporting joint of the steering knuckle bearing

### Ball joint

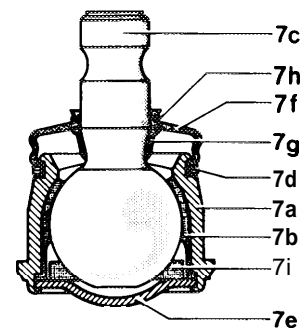
Ball dia.	Ball shells	Checking instruction
35	Plastic	Knuckle pins must move backward and forward without play, without jamming and without grating noises.

### Note

The supporting joint of the steering knuckle bearing is a ball joint mounted in plastic shells.

The housing of the supporting joint is pressed into the transverse link.

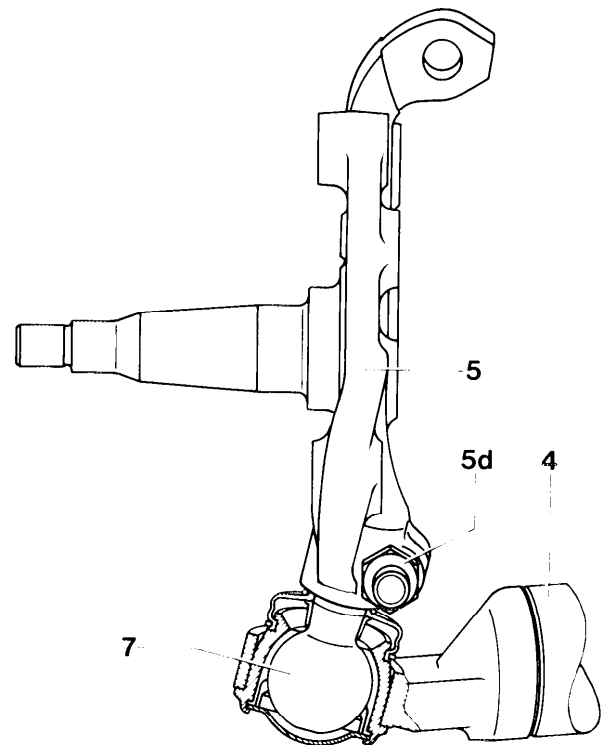
- |                  |                    |
|------------------|--------------------|
| 7a Housing       | 7e Cover           |
| 7b Ball shell    | 7f Sleeve          |
| 7c Knuckle arm   | 7g Supporting ring |
| 7d Wire retainer | 7h Wire retainer   |
|                  | 7i Ball shell      |



1334-10904

The ball joints are maintenance-free, i.e. they are greased for life. In a maintenance-free joint, seal protection against penetrating dirt and sand is of decisive importance for the life of the joint. For this reason it is necessary to check the joints carefully from time to time. If dirt passes through a leaking sleeve it will certainly lead to premature joint wear.

A rubber sleeve damaged during assembly must be renewed immediately (33-430). **Always renew a joint already used with a leaking sleeve.**



- |                             |
|-----------------------------|
| 4 Wishbone                  |
| 5 Steering knuckle          |
| 5d Hex. head screw with nut |
| 7 Supporting joint          |

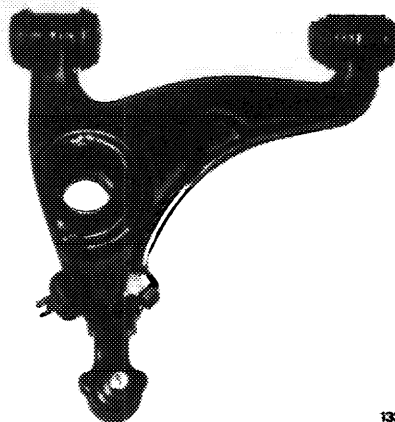
1333-10 906/1

## Checking

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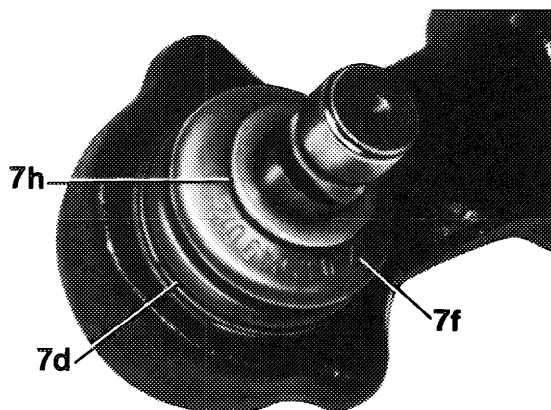
1 Check ball joint. For this purpose slip an approx. 150 mm long tube onto the knuckle pin, see checking instruction.

2 Check supporting joint for firm seat in the wishbone.



133-23001

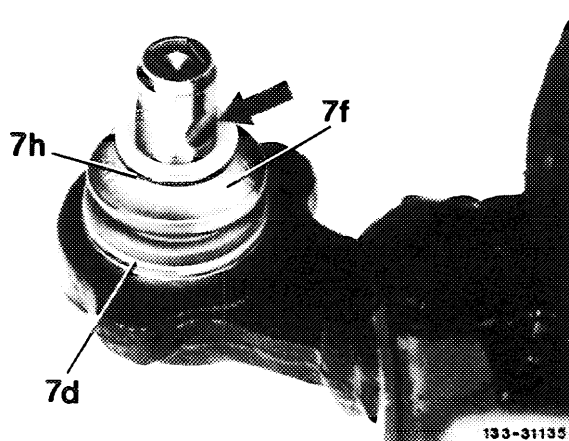
3 Check sleeve (7f) for cracks and damage, check wire retainer (7d) and wire retainer (7h) for correct seating.



133-24948

Note: On model 201 the supporting joint pin has been changed as of the end of 1984 from the ring groove version to a flat groove version (arrow).

On model 124 the flat groove version applies already as from start of series.

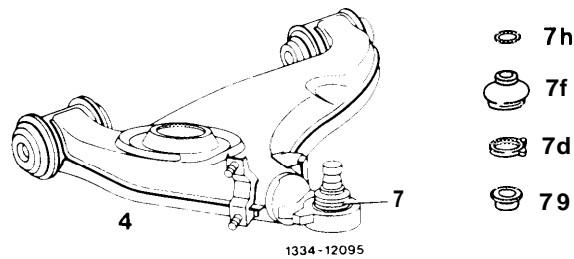


133-31135

7d Wire retainer  
7f Sleeve  
7h Wire retainer

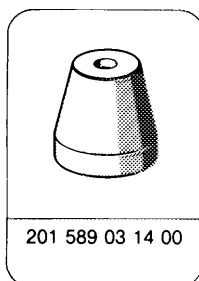
33-430 Renewing the sleeve **for** the supporting joint of the steering **knuckle**  
bearing mount

---



- |    |                  |   |
|----|------------------|---|
| 4  | Transverse link  |   |
| 7  | Supporting joint | ..... <b>Amount of grease</b> between housing and sleeve<br>5-6 g.<br><b>Type of grease:</b> Longlife grease, refer to Service<br>Product Specification Sheet 266.2   |
| 7d | Wire retainer    |   |
| 7f | Sleeve.          | ..... Immediately renew sleeves damaged during assembly.<br>Damaged or leaking sleeves on already used joints<br>must under no circumstances be replaced. In such a<br>case, always exchange the complete supporting<br>joint (33-440). Do not wash ball joint. |
| 7g | Supporting ring  | ..... Renew according to condition.   |
| 7h | Wire retainer,   | ..... Mount with special tool 201 589 03 14 00.   |

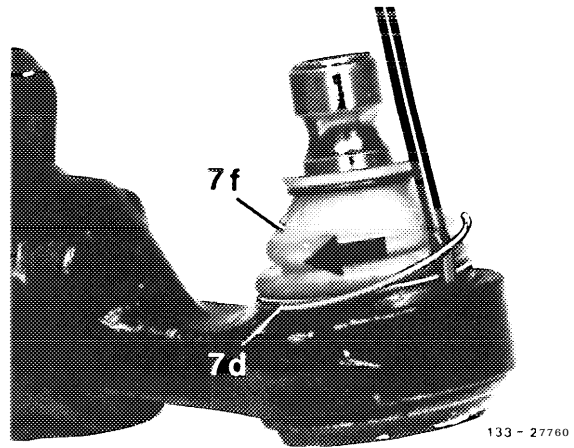
**Special tool**



## Removal and installation

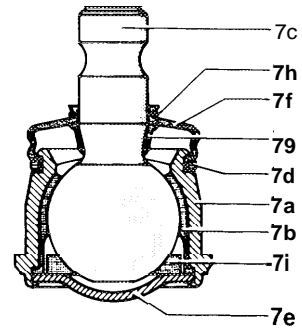
1 Remove wire retainer (7d).

2 Remove sleeve (7f) and remove old grease from ball joint (do not wash).



3 Renew supporting ring (7g).

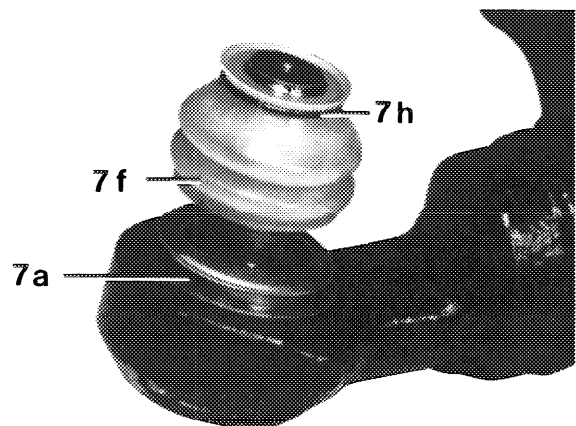
4:Pack space between housing and ball pin with fresh grease. Take care to ensure that the seat of the sleeve on the housing remains free of grease.



7a Housing	7e Cover
7b Ball shell	7f Sleeve
7c Ball pm	7g Supporting ring
7d Wire retainer	7h Wire retainer

1334-10904

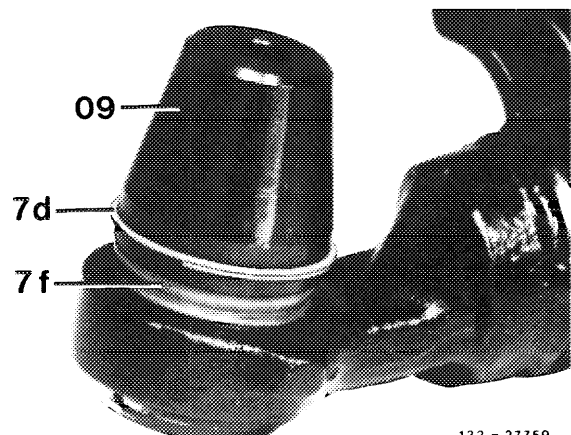
5 With wire retainer (7h) fitted in position, slide new sleeve (7f) on the housing (7a).



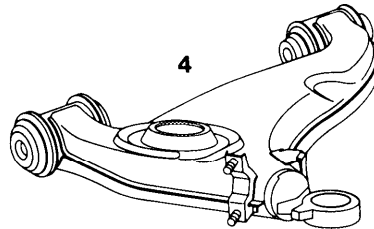
133 - 27758

6 Slide wire retainer (7d) on the mounting sleeve (09) until the cylindrical section of the sleeve is reached.

7 Place the mounting sleeve (09) on the supporting joint and slide the wire retainer (7d) on to the sleeve (7f).



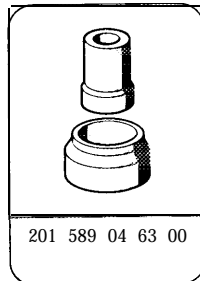
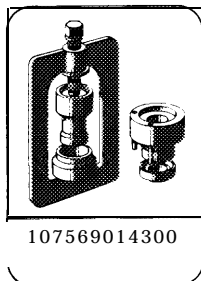
133 - 27759



- |   |                  |       |  |
|---|------------------|-------|--|
| 4 | Wishbone         | ..... | <p>Check rubber mount of the front and rear wishbone bearings.<br/>Mend paint defects on the wishbone.</p>   |
| 7 | Supporting joint | ..... | <p>Check sleeve for damage, ball joint for wear. The ball joints are maintenance-free, i. e. they are greased for life. In a maintenance-free joint, seal protection against penetrating dirt and sand is of decisive importance for the life of the joint. For this reason it is necessary to check the joints carefully from time to time. If dirt passes through a leaking sleeve it will certainly lead to premature joint wear.</p> |

A rubber sleeve damaged during assembly must be renewed immediately (33-430).  
**Always renew a joint already used with a leaking sleeve.**

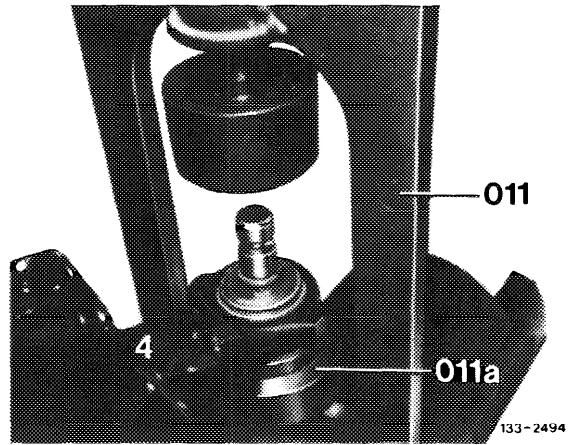
**Special tools**



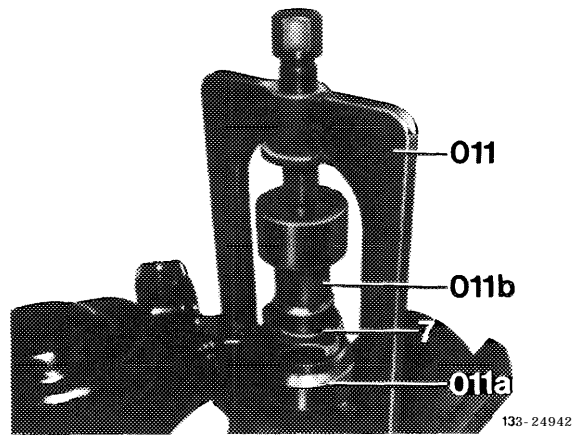
**Removal**

---

- 1 Remove wishbone (33-5 10).
- 2 Remove sleeve of the supporting joint,
- 3 Clamp special tool (01 1) in vise and attach sleeve (01 1a). Mount wishbone.

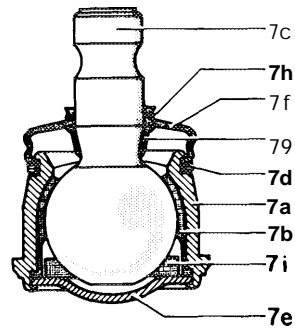


- 4 Place sleeve (01 1b) on the supporting joint (7) and press out joint.



**Supporting joint**

- |                  |                    |
|------------------|--------------------|
| 7a Housing       | 7e Cover           |
| 7b Ball shell    | 7f Sleeve          |
| 7c Knuckle pin   | 7g Supporting ring |
| 7d Wire retainer | 7h Wire retainer   |
|                  | 7i Ball shell      |



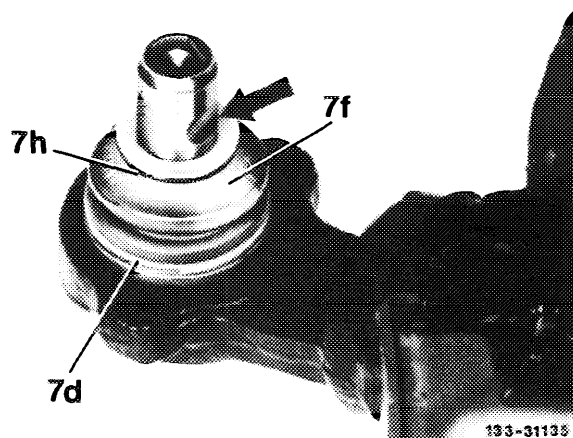
1334-10904

**Installation**

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**Note:** The supporting joint pin on model 201 has been changed as from the end of 1984 from a ring groove version to a flat groove version (arrow).

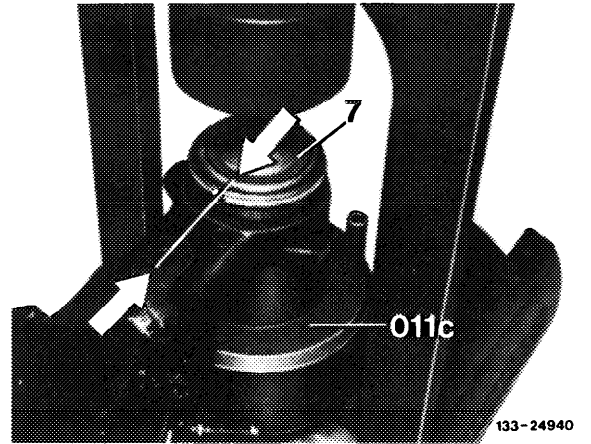
On model 124, the flat groove version is valid already as from start of series.



- |                  |
|------------------|
| 7d Wire retainer |
| 7f Sleeve        |
| 7h Wire retainer |

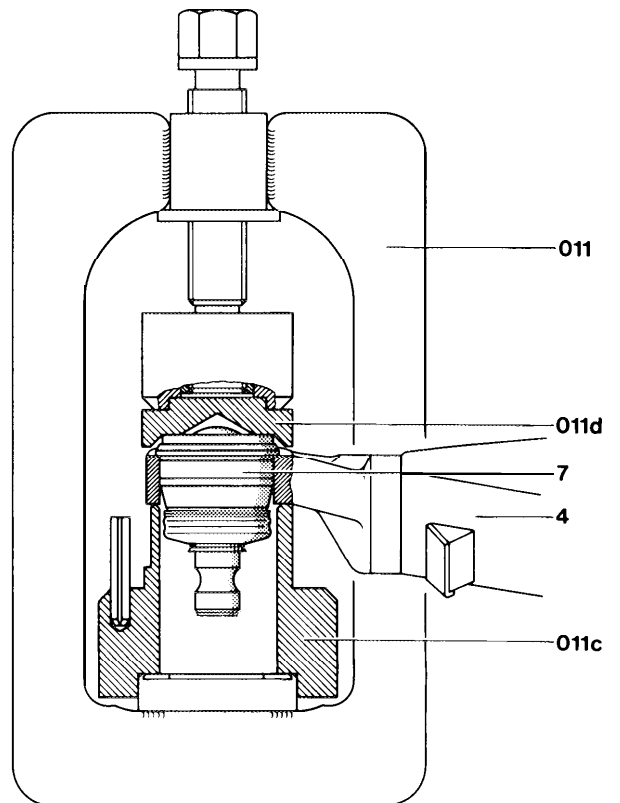
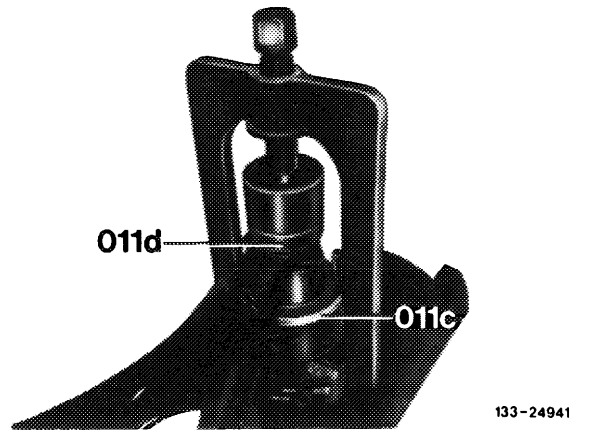
133-31138

5 Place support (01 1c) on installer. Insert supporting joint (7) in the boss of wishbone so that the marking on the supporting joint (arrow) agrees with the center of the wishbone boss (arrow).



6 Place thrust piece (01 1d) on the supporting joint and press in with the spindle. Check supporting joint for correct seat in wishbone.

7 Install wishbone (33-510).



- 4 Wishbone
- 7 Supporting joint
- 011 Remover and installer
- 01 1d Support for wishbone
- 01 1c Thrust piece for installation

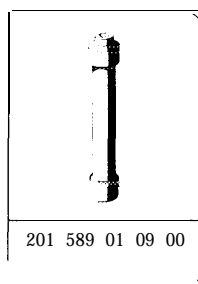
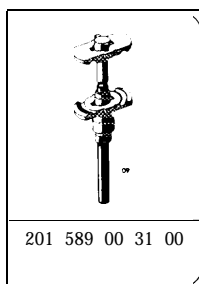
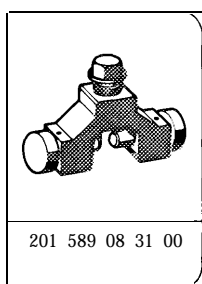
1333 - 11 302



## 33-510 Removal and installation of wishbone

Tightening torques	Nm
Hex. head screw of clamping joint of the supporting joint at the steering knuckle	125
Hex. head nuts of the eccentric pins at the wishbone bearing	120
Hex. head nuts of the torsion bar bearing at the wishbone	20

### Special tools



### Sealing compound

Sealing compound (200 g can)	0019897920
------------------------------	------------

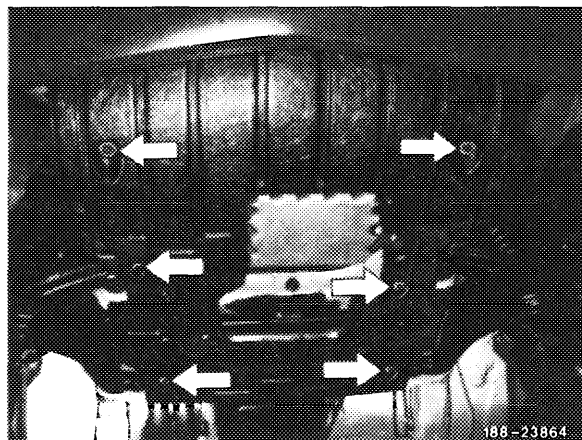
### Note

The eccentric pin of the wishbone bearing may only be tightened when the vehicle is standing on its wheels ready for the road. If this bearing is tightened while the wheels are relieved, incorrect values will be obtained for the wishbone positioning.

Always renew self-locking bolts and nuts!

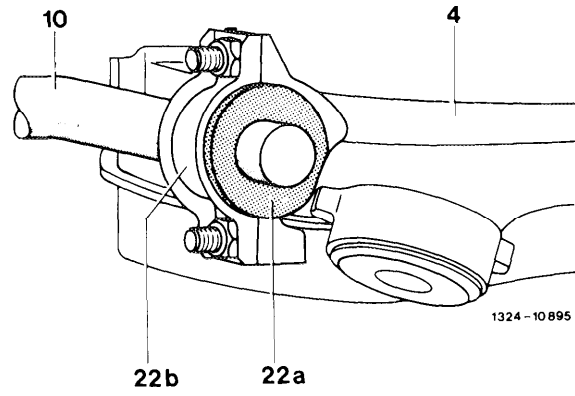
### Removal

1 Remove engine compartment lining at bottom on vehicles equipped thus.



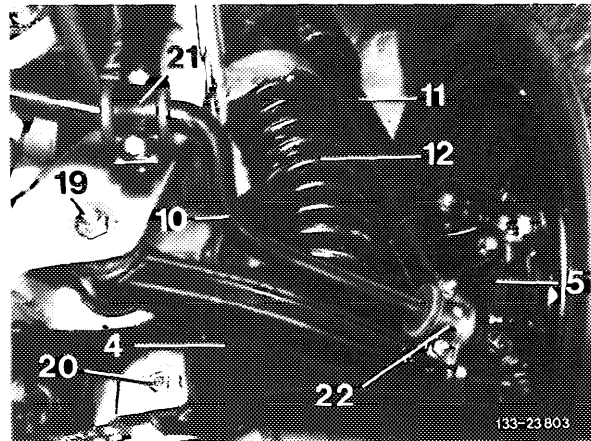
2 Jack up vehicle at front, remove front wheel.

3 Release bearing of the torsion bar at wishbone.

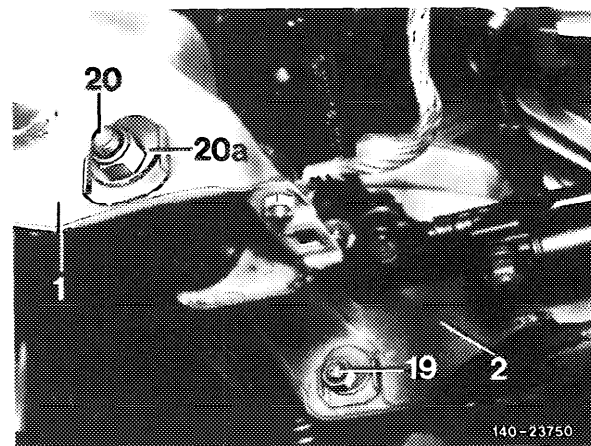


- 4 Wishbone
- 10 Torsion bar
- 22a Rubber mount
- 22b Retainer

4 Remove front spring (12) (33-200).

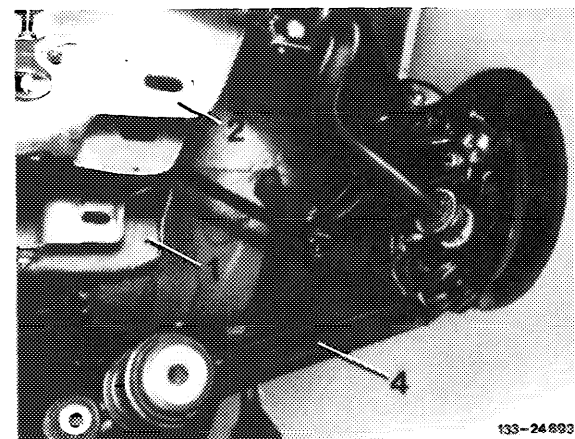


5 Mark position of the eccentric pins relative to frame on the wishbone bearing.



- Side member
- 2 Cross member
- 19 Eccentric pin (camber)
- 20 Eccentric pin (caster)
- 20a Eccentric disk

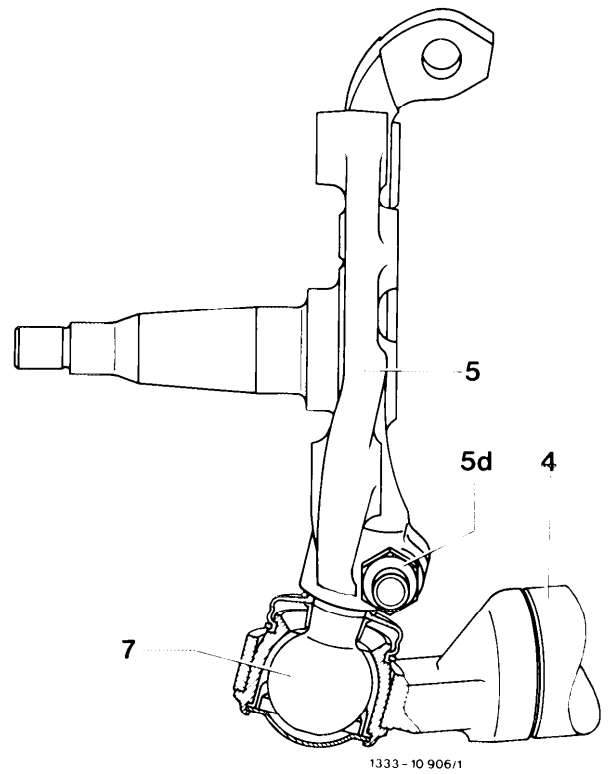
6 Unscrew hex, head nuts of the eccentric pins and remove eccentric pins. Lower wishbone.



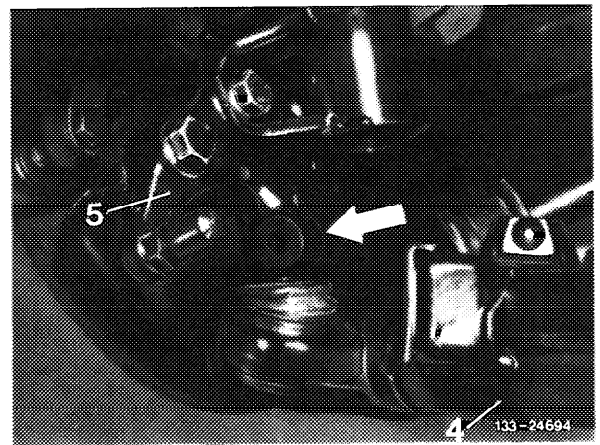
- 1 Side member
- 2 Cross member
- 4 Wishbone

7 Remove hex, head screw (5d) from the clamping joint between steering knuckle (5) and supporting joint (7).

8 Remove wishbone (4) from the steering knuckle (5).



**Note:** If the supporting joint cannot be removed from the steering knuckle because of corrosion, release the clamping joint by widening the slot in the steering knuckle (arrow) with the spreader 201 589 08 31 00.

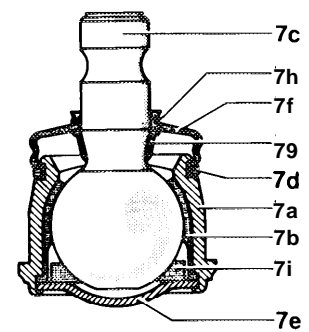


### Installation

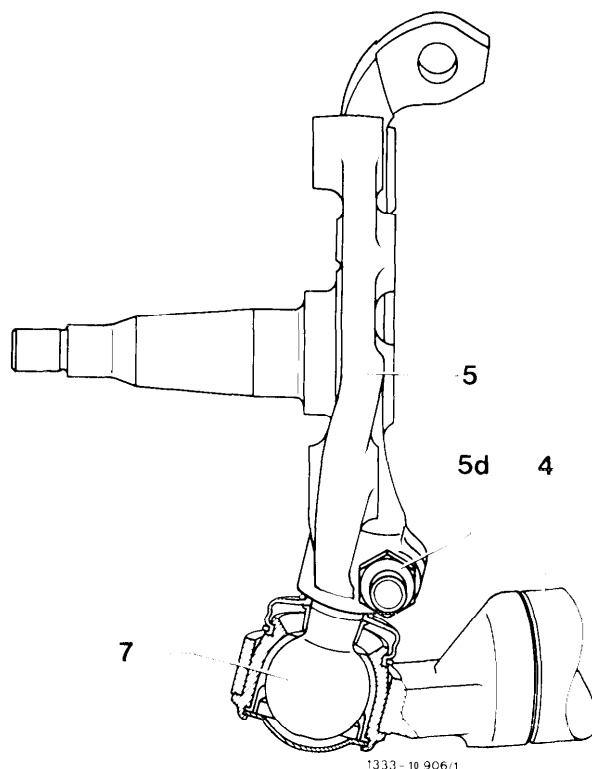
9 Check supporting joint in wishbone (33-425).

**Note:** The sleeve (7f) should be renewed if damaged during removal (33-430). However, if a sleeve is found to be damaged in a used joint, then the supporting joint must be renewed (33-440).

10 Check bearing of wishbone (33-525).

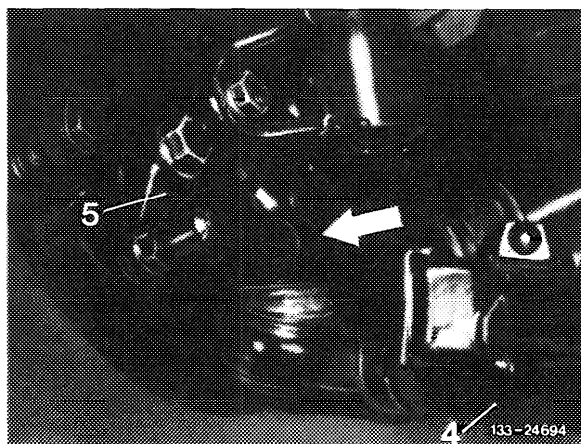


11 Fasten wishbone at the clamping joint between supporting joint and steering knuckle. Insert hex. head screw and tighten new self-locking hex, head nut to 125 Nm.



- 4 Wishbone
- 5 Steering knuckle
- 5d Hex. head screw with self-locking nut
- 7 Supporting joint

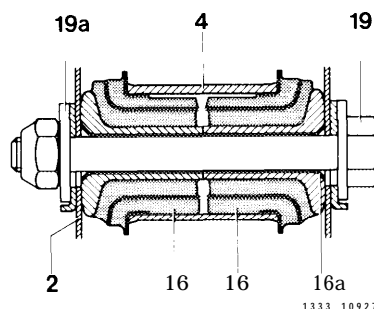
12 Completely fill separating slot (arrow) with sealing compound (refer to Table) to prevent corrosion.



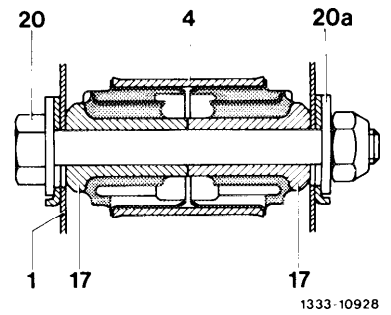
13 Insert eccentric pin of wishbone bearing at front end. Do not yet tighten self-locking hex. nuts.

Front bearing model 124/201 and rear bearing model 201.03

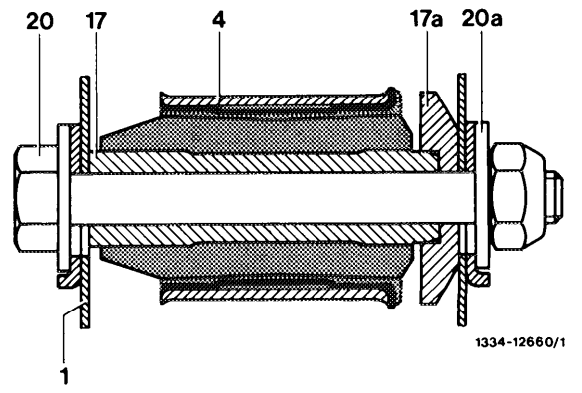
- 2 Frame cross member
- 4 Wishbone
- 16 Rubber torsion mount
- 16a Clamping sleeve
- 19 Eccentric pin (camber setting)
- 19a Eccentric disk



- Rear bearing  
Model 201.02/1
- 1 Frame side member
  - 4 Wishbone
  - 17 Rubber torsion mount
  - 20 Eccentric pin (camber setting)
  - 20a Eccentric disk



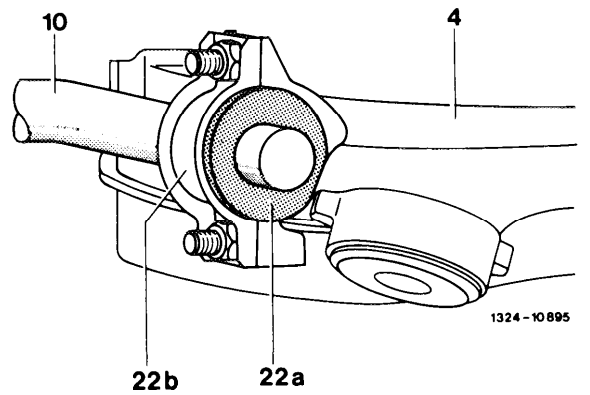
- Rear bearing  
Model 124
- 1 Frame side member
  - 4 Wishbone
  - 17 Rubber torsion mount
  - 17a Washer
  - 20 Eccentric pin (camber setting)
  - 20a Eccentric disk



14 Fasten torsion bar bearing at wishbone. Tightening torque of the self-locking hex. nuts = 20 Nm.

**Note:** To facilitate installation of the torsion bar, raise wishbone on the opposite side with jack.

- 4 Wishbone
- 10 Torsion bar
- 22a Rubber mount
- 22b Retainer



15 Install front spring (32-200).

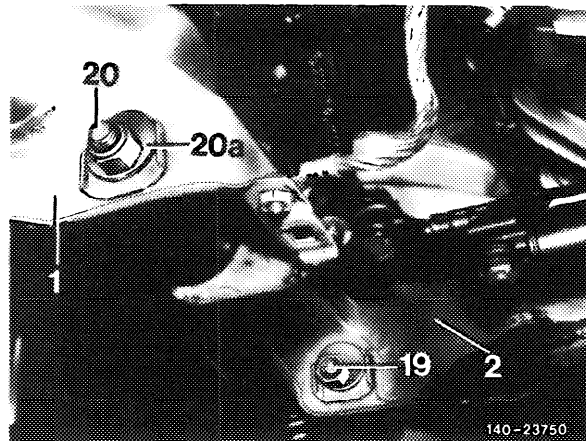
16 Install front wheel (40-l 10), lower vehicle.

17 Place the eccentric pin for camber and caster adjustment in the position marked beforehand and tighten hexagon nuts to 120 Nm.

**Important!**

If the position of the eccentric pin was marked upon removal, move the eccentric pin to centre position for preliminary adjustment.

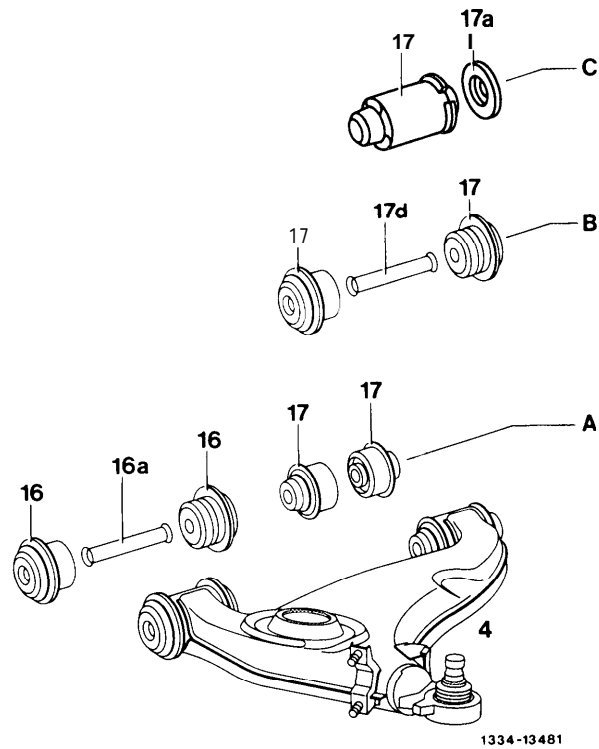
- 1 Sidemember
- 2 Cross member
- 19 Eccentric pin (caster)
- 20 Eccentric pin (camber)
- 20a Eccentric disk



18 Check vehical level at the front axle (40-300).

19 Check wheel alignment at the front axle (40-320).

20 Check setting of the headlamps.



4	Wishbone.	.....	Removed
16	Rubber mount, front	.....	} Check for tight seat in wishbone as well as rubber mount for tight connection with rubber jacket
16a	Clamping sleeve	.....	
17	Rubber mount, rear	.....	
17a	Disk		
17d	Clamping sleeve		

**Wishbone bearing — cross reference**

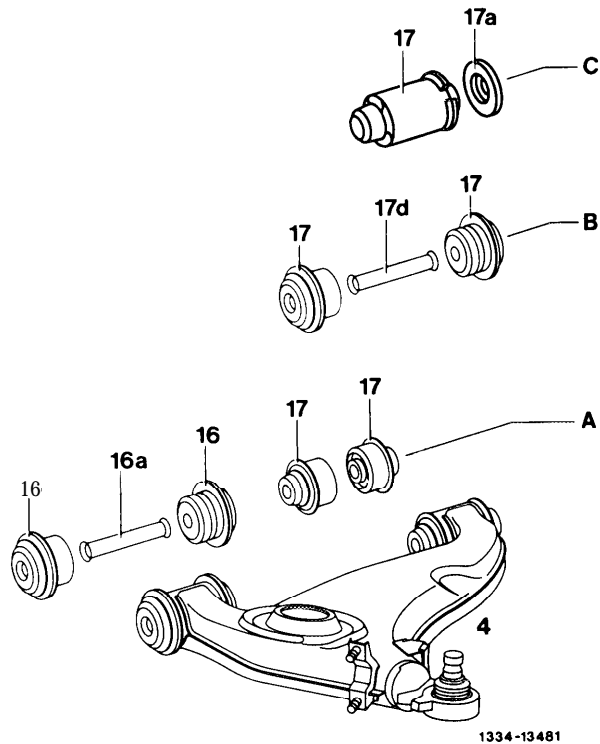
**A = Model 201.02/1**

**B = Model 201.034**

**C = Model 124**

## 33-526 Renewing rubber mounts of wishbone

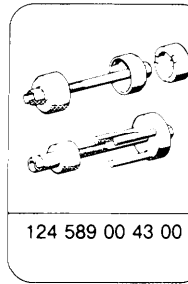
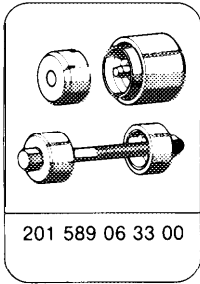
Wishbone removed



4	Wishbone	
16	Rubber mount, front	Use slide fluid for mounting. Slide fluid Naphtolen part No. 000 989 04 60 optionally also slide fluid Paladinol part No. 0009890860
16a	Clamping sleeve.	For removal, drill 90° with countersink 25 mm dia. For installing rubber mounts and clamping sleeve Special tool: Pulling device 201 589 06 33 00
17	Rubber mount, rear	A = Model 201.02/1 for installation use special tool 201 589 06 33 00
17	Rubber mount, rear	B = Model 201.034 for mounting refer to remarks under item 16 and 16a
17d	Clamping sleeve	
17	Rubber mount, rear	C = Model 124 for removal and installation special tool remover and installer
17a	Washer	124589004300



## Special tools



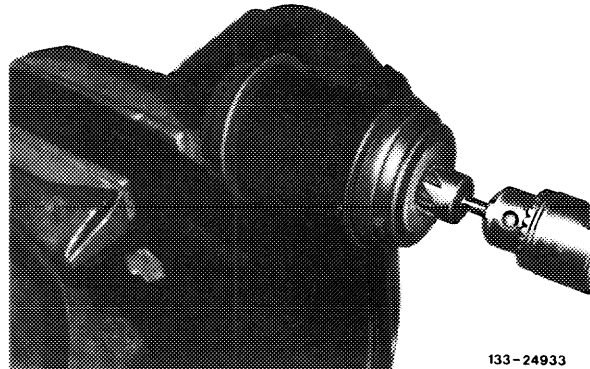
### Cross reference torsion rubber mounts on wishbone

Model	Front mount Part No.	Rear mount Part No.	Part
124	12433337 14	12433338 14	A + C
201.02/1	201 33351 14	201 3334514	A + B
201.034	201 3335214	20133352 14	A

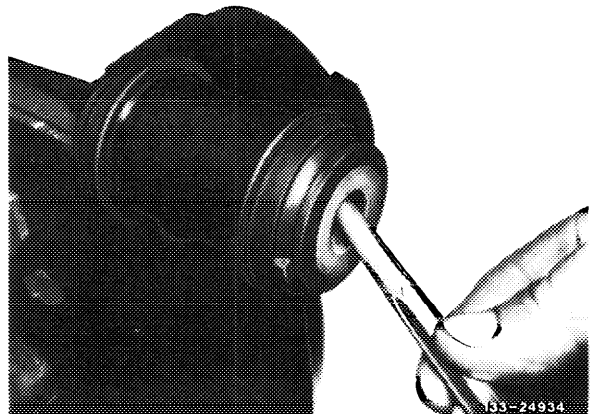
### A. Front mount model 124, 201 front and rear mounts model 201.034

#### Removal

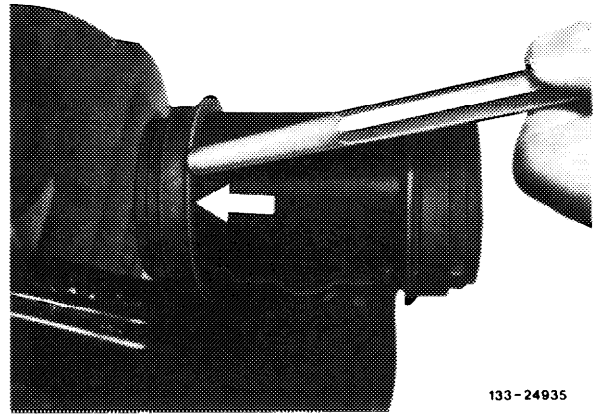
- 1 Clamp wishbone in a vise with light-alloy jaws.
- 2 Sink the flange of the clamping sleeve by 90° with a countersink 25 dia.



- 3 Knock out clamping sleeve; if it is jammed, drill out by half.



4 Knock rubber mount out of wishbone with suitable drift.



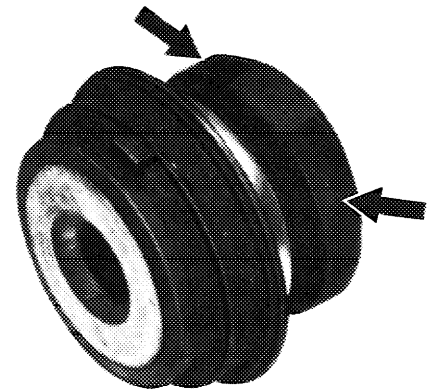
133-24935

### Installation

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5 Thoroughly clean mounting bore for bearing in wishbone; if necessary, treat with fine emery cloth.

6 Coat the circumference (arrows) of the rubber mount and the locating bore in wishbone with special lubricant (see table).

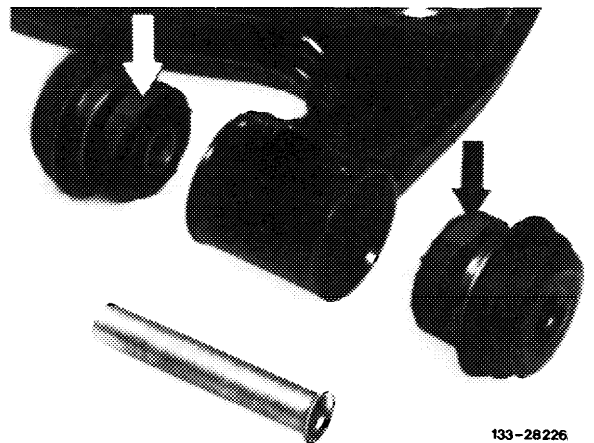


133-24949

### Important!

Do not use oil or grease.

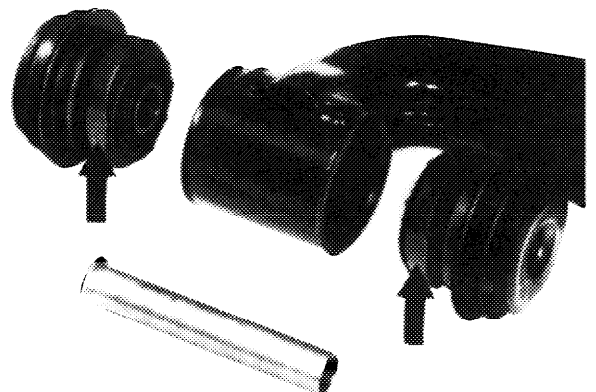
7a Install torsion rubber mounts in such a manner that the flats (arrows) are horizontally resting against front mount.



Front mount

133-28226

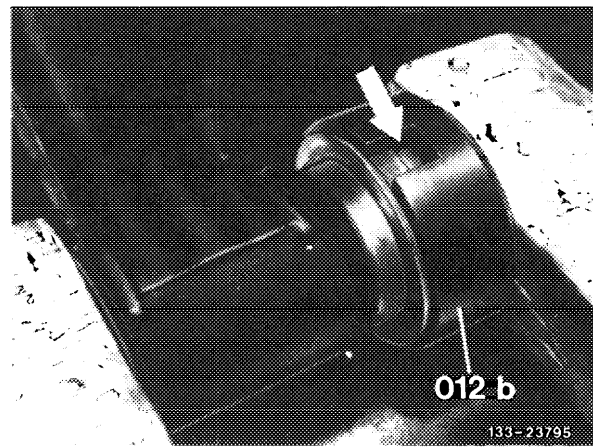
7b On **model 201.034** install rubber mounts at the rear in such a manner that the flats (arrows) are vertical.



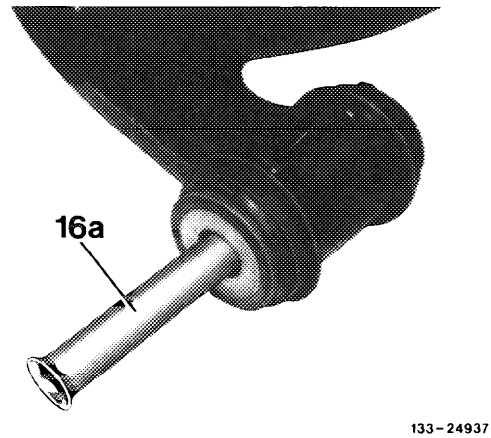
Rear mount

133-28227

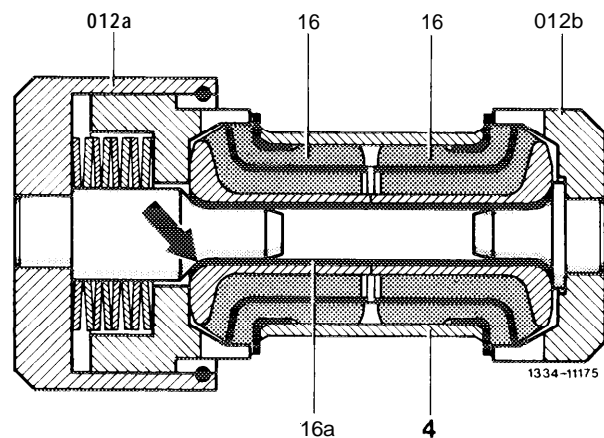
8 Press rubber mounts singly in the vise into the wishbone, ensuring that the knobs of the rubber mount (arrow) are located in the cut-out of the thrust piece (012b).



9 Insert clamping sleeve (16a).



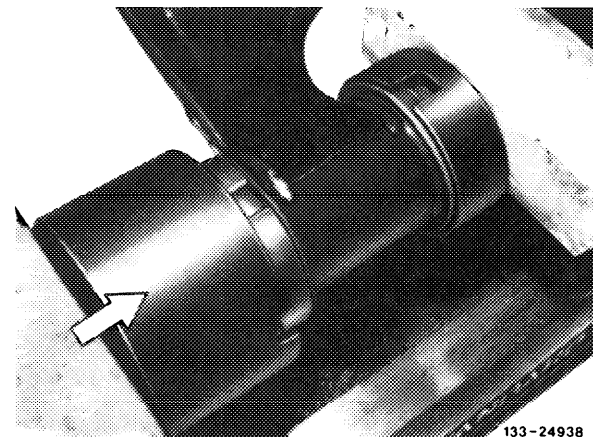
10 Position installer so that the unflanged side of the clamping sleeve points toward housing (012a) (arrow). Clamp in vise and press home.



- 4 Wishbone
- 16 Rubber mount
- 16a Clamping sleeve
- 012a Housing
- 012b Thrust piece

Note: The clamping sleeve is flanged simultaneously during the screwing action.

11 Check rubber mount (16) and clamping sleeve (16a) for satisfactory seat at the contact surfaces.

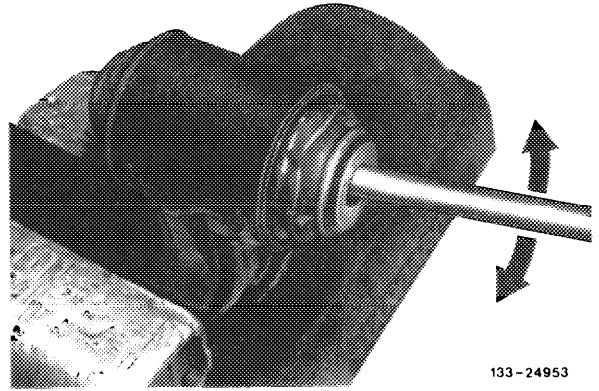


## B. Rear mounts model 201.0/201.1

### Removal

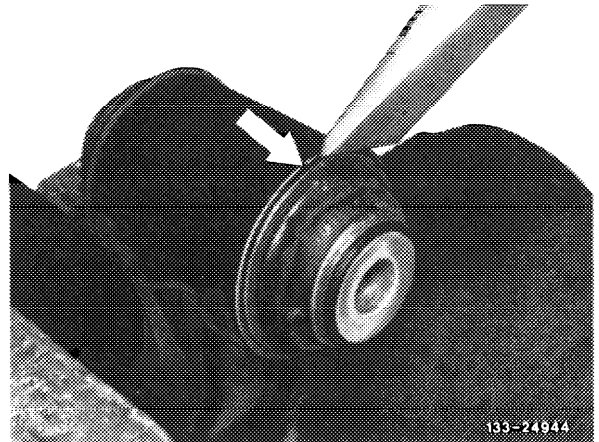
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- 1 Clamp wishbone in a vise with light-alloy jaws.
- 2 Slacken rubber mount by pushing and pulling in the wishbone and then remove.



**Note:** If rubber mounts are jammed, first release one rubber mount at the metal jacket (arrow) with a flat chisel.

Then knock out second rubber mount on inner bushing from other side by means of a mandrel.

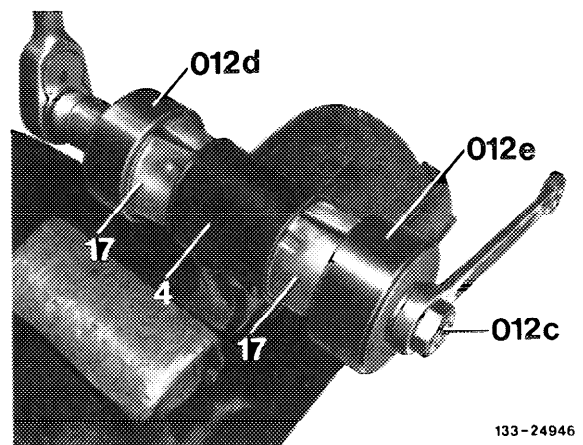


### Installation

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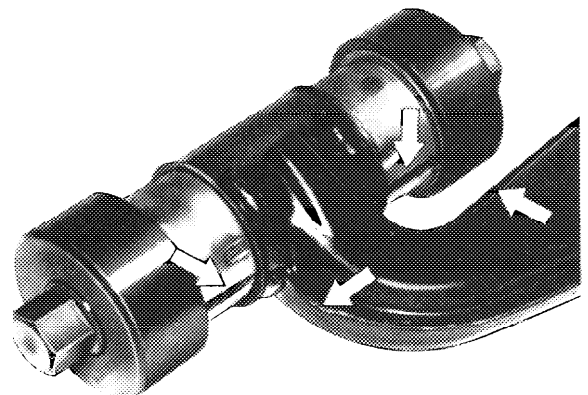
- 3 Thoroughly clean the mounting bore for rear bearing in wishbone; if necessary, ream with emery cloth.
- 4 Insert installer (012) together with both rubber mounts into the mounting bore in the wishbone.

4 Wishbone  
012c Clamping bolt with nut  
012d Thrust piece  
012e Counter support  
17 Rubber mount



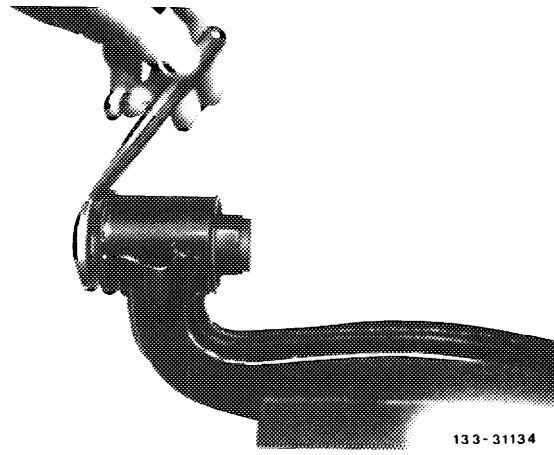
**Note:** Align rubber mount so that the parting slit in the metal jacket (arrows) points toward the weld of the housing half of the wishbone (arrows).

- 5 Press rubber mount fully home with device (012).
- 6 Remove installer and rubber mount (17) for correct seat in wishbone (4).



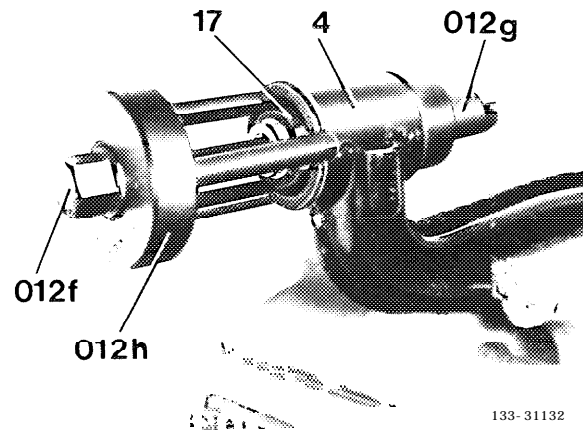
### C. Rear mounts model 124

- 1 Clamp wishbone into vise.
- 2 Knock off washer.



- 3 Mount puller (012).

The 3 studs should rest in recesses of rubber mount on wishbone.



- 4 Wishbone
- 17 Torsion rubber mount
- 012f Tensioning screw
- 012g Thrust piece with nut
- 012h Thrust piece

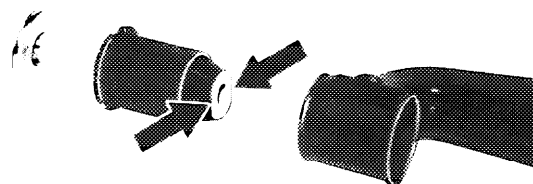
- 4 Pull out rubber mount and remove tool.

### Installation

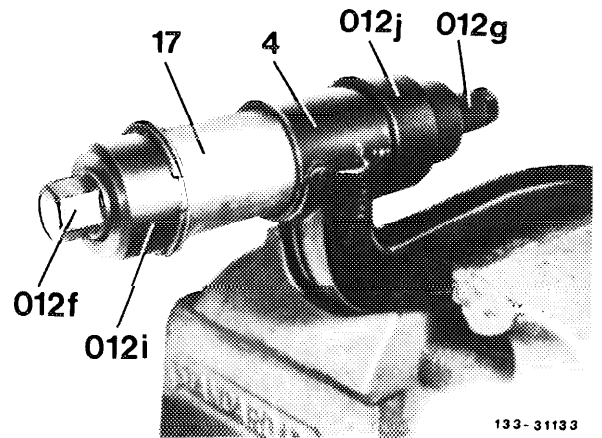
5 Thoroughly clean mounting bore for rear rubber mount on wishbone, rub out with emery cloth, if required.

- 6 Insert rubber mount into wishbone.

**Note:** The two surfaces of the aluminum core (arrows) must be **vertically** located with wishbone installed.

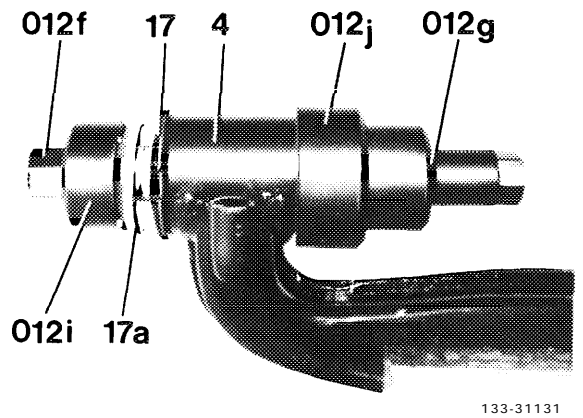


7 Position installer (012), pull thrust piece (012i) in recesses on flange and rubber mount up to stop on wishbone.



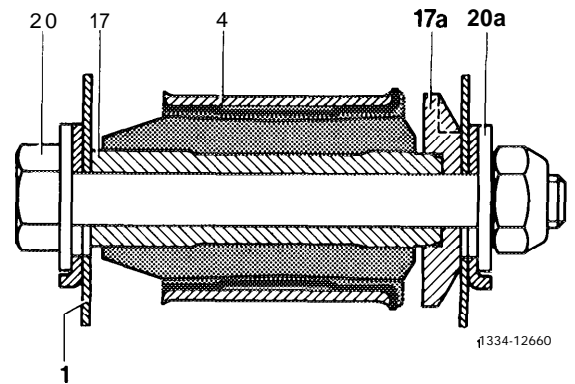
- 4 Wishbone
- 17 Torsion rubber mount
- 12f Tensioning screw
- 12g Thrust piece with nut
- 12i Thrust piece (with 3 lugs)
- 12j Thrust piece

8 Position washer (17a) on aluminum core of rubber mount (17) and pull in with installer up to stop.



- 4 Wishbone
- 17 Torsion rubber mount
- 12f Tensioning screw
- 12g Thrust piece with nut
- 12i Thrust piece (with 3 lugs)
- 12j Thrust piece

9 Remove installer, check rubber mount and washer for correct seat in wishbone.



- 1 Frame side member
- 4 Wishbone
- 17 Torsion rubber mount
- 17a Washer
- 20 Eccentric pin (camber setting)
- 20a Eccentric disk

### 33-530 Checking wishbone (for vehicles following accident)

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1 **Visual checkup:** Pay attention to damage (e.g. dents).

2 Insert drift with a diameter of 14 mm and length of approx. 430 mm from the front (arrow) through the wishbone bore.

The wishbone is in correct working order when the drift can be pushed through the rear bore with a sucking effect.

As soon as the drift is not flush to the rubber mount, renew wishbone.

3 Check bearings of wishbone (33-525).

