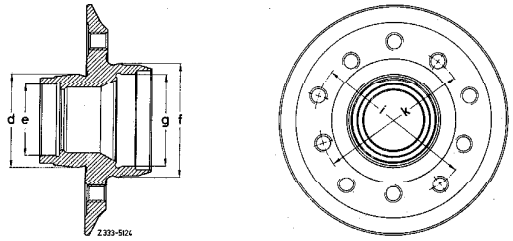
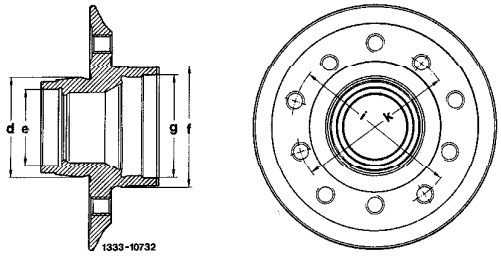
Front wheel hub

Hole circle dia. "k" for fastening brake disc		104
Hole circle dia. "i" for fastening rim		112
Fitted dia. "f" for brake disc		79.97 / 80.00
Permissible axial runout on flange		0.03
Permissible radial runout on rim fit "d"		0.05
Fitted dia. "g" for radial sealing ring	without ABS	70
	with ABS	67.5

Front wheel hub without ABS



Front wheel hub with ABS



Designation		Identification	Part no.	Remarks
Tapered roller bearing[1]				
Inside tapered roller bearing		LM 48 548 C/10[2]	001 980 29 02	–
Outside tapered roller bearing		M 126 49/10	000 981 63 05	
Radial sealing ring				
For front wheel hub	without ABS	50 x 70 x 13.5/6.5	011 997 60 46	Radial sealing ring with sealing lip and additional dust lip. During assembly, fill space between sealing lip and dust lip with specified grease.
	with ABS	50 x 67.5 x 13.5/8	005 997 44 47	

1) Bearing-inner races are mounted on spindle with a sliding fit or a light force fit. In the event of repairs, between bearing-inner race and spindle, a radial play of 0.03 mm on inner bearing and of 0.025 mm on outer bearing is still permissible. If the play is higher, there is a possibility of removing 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 640 (part no. 002 989 20 71). For details refer to respective operating instructions.
2) Special version of tapered roller bearing. During repairs, pay attention to part no.

Lubricants

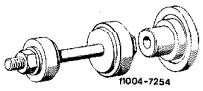
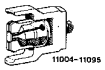
Quantity	Total capacity	approx. 60 g	Suitably weigh full quantity prior to starting assembly of front wheel hub.
	In hub with bearing	approx. 45 g	Fill roller cages of tapered roller bearings well with grease. Also provide roller faces with grease.
	In wheel cap	approx. 15 g	Fill-in approx. up to edge of bead.
Series grade: up to October 1982	Anti-friction bearing grease (refer to Specifications for service prodcuts sheet 265)		
Series grade: starting November 1982 and repair grade	High-temperature anti-friction bearing grease (refer to Specifications for service products sheet 265.1)[1]		

1) Available in screw cans of 150 g, part no. 000 989 49 51.
2) The high-temperature anti-friction bearing grease has already been used on vehicles with floating caliper brake (model 126.043/126.044) starting begin of series September 1981.

Tightening torque	Nm
Hex. socket screws for fastening brake disc	115

33–320 Disassembly, inspection, repair and assembly of front wheel hub

Special tools

Tool for pressing-in outer bearing races and radial sealing ring	 11004-7254	116 589 11 43 00
Puller for outer bearing race of inner tapered roller bearing	 11004-11095	126 589 05 33 00

Conventional tools

Measuring stand	e.g. made by Bosch, D-7000 Stuttgart order no. 0 601 980 001
Dial gauge A 1 DIN 878	e.g. made by Mahr, D-7300 Esslingen order no. 810

Note

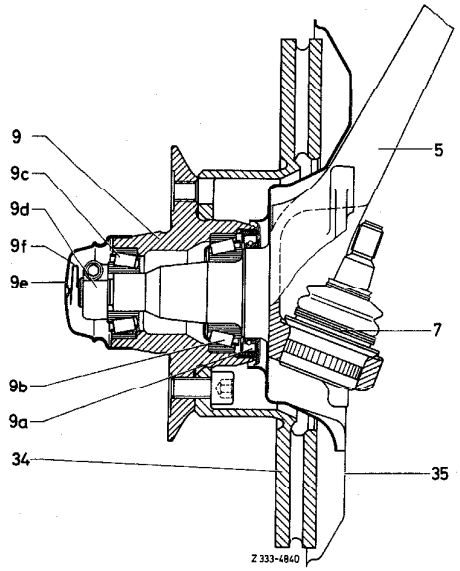
To prevent mix-ups, fill front wheel hubs during repairs suitably with high-temperature anti-friction bearing grease only. When subsequently using high-temperature anti-friction bearing grease in front wheel hubs which were previously filled with anti-friction bearing grease or multi-purpose grease, replace complete grease charge throughout. Avoid mixing high-temperature anti-friction bearing grease with anti-friction bearing grease or multi-purpose grease.

Disassembly

1 Separate front wheel hub from brake disc (42–220).

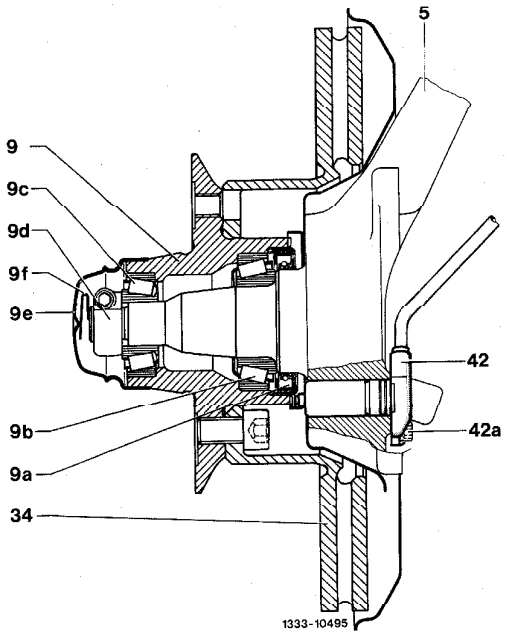
2 Remove inner race with roller cage of outer tapered roller bearing (9c) from hub.

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



Front wheel hub without ABS

5 Steering knuckle
7 Supporting joint
9 Front wheel hub
9a Radial sealing ring
9b Tapered roller bearing, inner
9c Tapered roller bearing, outer
9d Clamping nut
9e Wheel cap
9f Contact spring
34 Brake disc
35 Covering plate

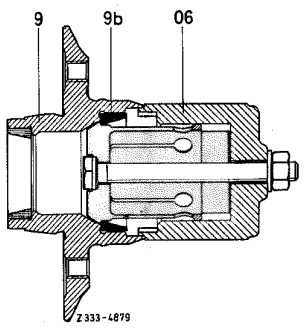


Front wheel hub with ABS

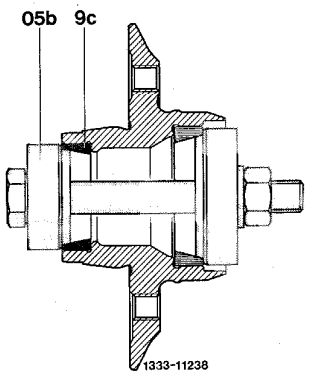
5 Steering knuckle
9 Front wheel hub
9a Radial sealing ring
9b Tapered roller bearing, inner
9c Tapered roller bearing, outer
9d Clamping nut
9e Wheel cap
9f Contact spring
34 Brake disc
42 Rpm sensor
42a Hex. socket screw

4 Pull-out outer race (9b) of inner tapered roller bearing by means of tool (06).

On front wheel hubs without ABS the former puller, part no. 116 589 14 33 00, can be used again.



Front wheel hub without ABS, former version of special tool



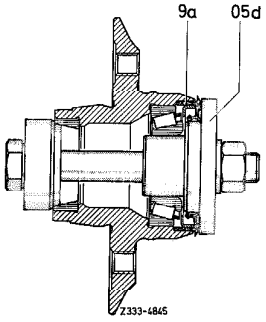
Pressing in outer race of outside tapered roller bearing

9c Outer race for outside tapered roller bearing
05b Thrust washer for outer race of outside tapered roller bearing

12 Weigh specified grease quantity for hub with bearing.

13 Fill roller cage of inside tapered roller bearing well with specified grease, then insert inside race with roller cage into hub and provide faces of rollers with grease.

14 Fill radial sealing ring between sealing lip and dust lip with specified grease and coat with sealing compound around circumference, then press in with tool.



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

15 Fill front wheel hub with remaining grease.

Note: If there is too much grease, the resulting squeezing will heat the grease to excess, which in turn will lead to a loss of lubricity. However, there should also be not a lack of grease, since this would no longer guarantee correct lubrication of the tapered roller bearings.

16 Mount brake disc (42–220).

Tapered roller bearings are still fit for use, if:

Running surface of tapered rollers of outer race is smooth and gray.

Tapered roller bearings are **no longer** fit for use, if:

1. Indentations are showing up on running surface of tapered rollers in outer bearing race (caused by peeled-off material on bearing inner race).

2. Rust has settled on tapered roller bearings (whenever water enters front wheel bearing through a defective radial sealing ring).

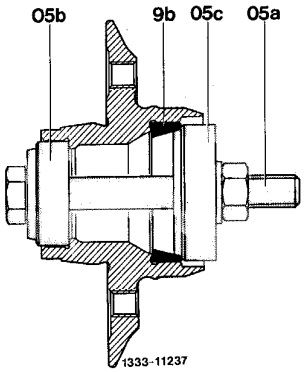
3. The bearing outer race has turned from light brown to blue through excessive heat.

Note: If tapered roller bearing is defective, be sure to replace also the other bearing of the respective hub.

Mount wheel bearings of same make. If used bearings are installed again, do not confuse correlated bearing inner races with roller cage and outer races.

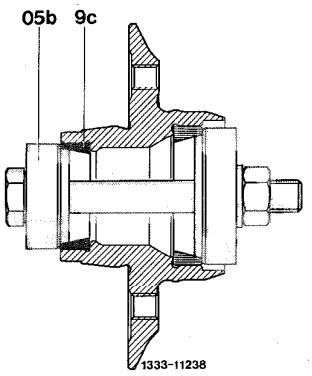
Assembly

11 Press outer races of tapered roller bearings individually into front wheel hub with tool, while making sure of correct seat of thrust washer (05b).



Pressing in outer race of inside tapered roller bearing.

9d Outer race for inside tapered roller bearing
05a Screw with hex. nut and washer
05b Thrust washer for outer race of outside tapered roller bearing
05c Thrust washer for outer race of inside tapered roller bearing



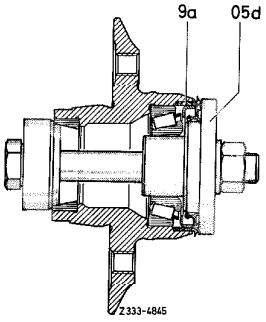
Pressing in outer race of outside tapered roller bearing

9c Outer race for outside tapered roller bearing
05b Thrust washer for outer race of outside tapered roller bearing

12 Weigh specified grease quantity for hub with bearing.

13 Fill roller cage of inside tapered roller bearing well with specified grease, then insert inside race with roller cage into hub and provide faces of rollers with grease.

14 Fill radial sealing ring between sealing lip and dust lip with specified grease and coat with sealing compound around circumference, then press in with tool.



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

15 Fill front wheel hub with remaining grease.

Note: If there is too much grease, the resulting squeezing will heat the grease to excess, which in turn will lead to a loss of lubricity. However, there should also be not a lack of grease, since this would no longer guarantee correct lubrication of the tapered roller bearings.

16 Mount brake disc (42–220).