

TECHNICAL DATA

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DIAGNOSTICS

1

SINGLE REAR AXLE 5.10

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SINGLE REAR AXLE 5.12

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SINGLE REAR AXLE 5.14

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SINGLE REAR AXLE 8.20

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SINGLE REAR AXLE 10.20

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SINGLE REAR AXLE 10.26

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SINGLE REAR AXLE 11.26

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2. GENERAL

2.1 DESCRIPTION OF 5.10 AXLE

Differential

The 5.10 axle has a differential with hypoid gearing.

A single reduction is applied.

The bevelled gear-to-pinion backlash is achieved using adjusting nuts.

The pre-load of the pinion bearings for the 5.10 axle is adjusted using a pre-load bush which is placed between the pinion and the inner race of the front bearing.

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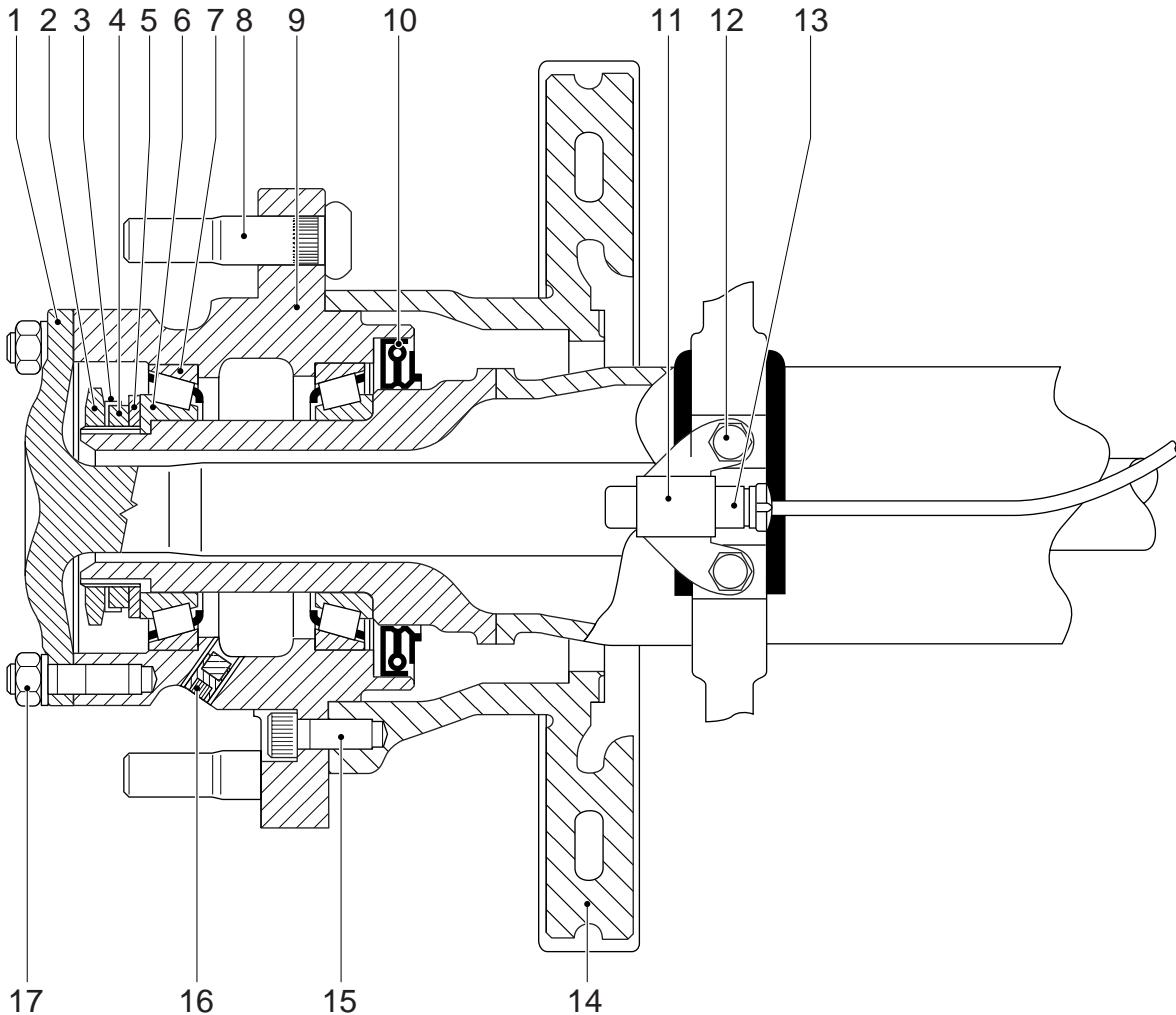
Wheel hub

The wheel hub has a wheel bearing and hub oil seal that can be replaced separately. The wheel-speed sensor ring is integrated into the wheel hub. The wheel bearing play is adjusted using the hub nut. The correct wheel bearing pre-load is achieved by fitting the hub nut as specified.

The hub nut is secured with a lock nut and a locking plate.

The wheel bearing is greased by the oil in the hub.

The stub axle and brake disc are attached to the wheel hub with attachment nuts and bolts respectively.

2.2 OVERVIEW DRAWING, WHEEL HUB**Legend**

- | | |
|-----------------------------|--|
| 1. Stub axle | 10. Hub oil seal |
| 2. Lock nut | 11. Wheel-speed sensor holder attachment bolts |
| 3. Locking plate | 12. Wheel-speed sensor holder |
| 4. Hub nut | 13. Wheel-speed sensor |
| 5. Thrust washer | 14. Brake disc |
| 6. Wheel bearing inner race | 15. Brake disc attachment bolt |
| 7. Wheel bearing outer race | 16. Drain plug |
| 8. Wheel stud | 17. Stub axle attachment nut |
| 9. Wheel hub | |

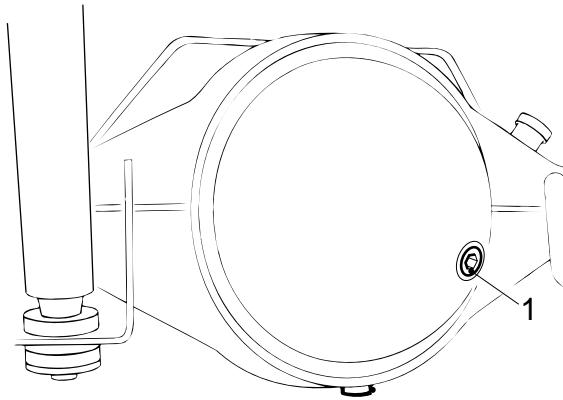
3. INSPECTION AND ADJUSTMENT

3.1 INSPECTING DIFFERENTIAL OIL LEVEL



To prevent skin injury, avoid unnecessary contact with the drained oil.

1. Position the vehicle on a level surface.
2. Remove the level check/filler plug (1). The oil level must reach the level check/filler opening (1).
3. Apply sealant to the plug. Secure the plug.

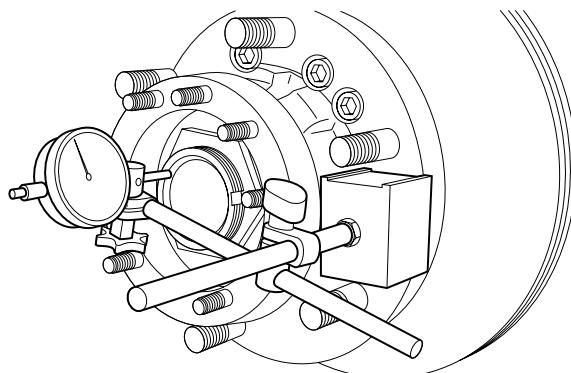


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3.2 INSPECTION AND ADJUSTMENT, WHEEL BEARING PLAY

Inspecting the wheel bearing play

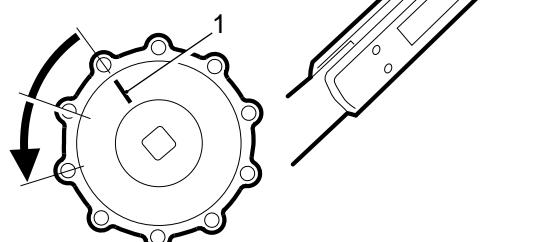
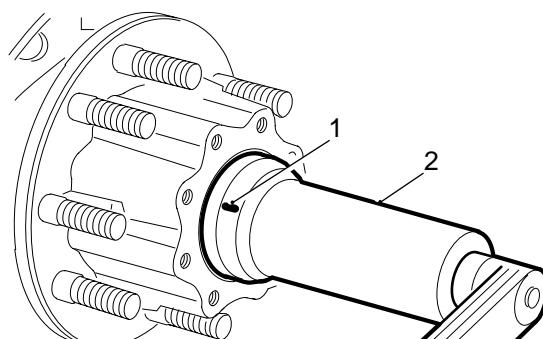
1. Remove the wheel.
2. Remove the stub axle.
3. Remove the brake pads.
4. Fit a micrometer gauge to the wheel hub, with the stylus on the end of the axle journal.
5. Push and pull the wheel hub. Check the wheel bearing play and compare it with the specified value. See main group "Technical data".



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Adjusting the wheel bearing play

1. Remove the lock nut.
2. Tighten the hub nut with a hub nut wrench (DAF No. 0499805) to 136 Nm.
3. Turn the hub two full rotations in order to "seat" the wheel bearings.
4. Mark (1) the hub nut wrench (2).
5. Turn the hub nut 2 strokes back.
6. Check the wheel bearing play.
7. Position the locking plate and fit the lock nut. Tighten the lock nut to the specified tightening torque. See main group "Technical data".
8. Secure the hub nut and lock nut with the locking plate.



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Installing wheel hub

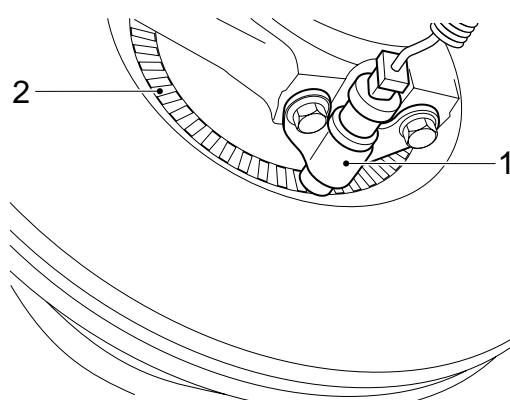
1. Check the wheel-speed sensor ring and the oil seal in the wheel hub for damage. Replace the oil seal if in doubt.
2. Check the axle journal screw thread carefully for damage.
3. Install the wheel hub on the axle journal. Slide the wheel hub onto the axle journal. Fit the wheel bearing inner race (6).
4. Fit the thrust washer (5).
5. Fit the hub nut (4).
6. Adjust the wheel bearing play, see chapter "Inspection and adjustment".
7. Fit the locking plate (3).
8. Fit the lock nut (2). Tighten the lock nut (2) to the specified tightening torque. See main group "Technical data".
9. Secure the lock nut (2) with the locking plate (3).
10. Press the wheel-speed sensor (1) against the sensor ring (2). When the vehicle is being driven, the air gap between the sensor and the sensor ring is adjusted automatically. If the sensor is stuck, remove, clean and refit it.



Never tap the sensor with a hammer. This may damage both the sensor and the sensor ring.

11. Fit the stub axle.
12. Fit the brake caliper.
13. Put the wheels back on.
14. Check the ABS system for proper operation.

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5. DRAINING AND FILLING

5.1 DRAINING AND FILLING, DIFFERENTIAL



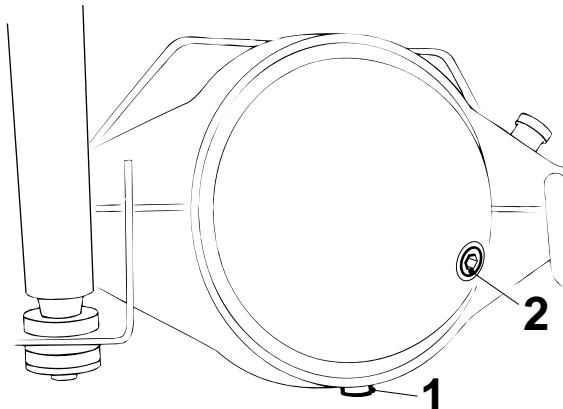
To prevent skin injury, avoid unnecessary contact with the drained oil.

Draining the differential

1. Position the vehicle on a level surface.
2. Place a suitable tray beneath the differential to collect the oil.
3. Remove the drain plug (1) and the level check/filler plug (2). Drain the oil.
4. Apply sealant to the screw thread of the drain plug (1). Install the drain plug (1) and tighten it to the specified tightening torque. See main group "Technical data".

Filling the differential

1. Fill the differential via the level check/filler plug (2) with the specified and correct quantity of oil. See main group "Technical data".
2. Check the oil level after 5 minutes; it should reach up to the level check/filler plug (2).
3. Apply sealant to the screw thread of the level check/filler plug (2). Fit the level check/filler plug (2).



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5.2 DRAINING AND FILLING, WHEEL HUBS

To prevent skin injury, avoid unnecessary contact with the drained oil.

2**Note:**

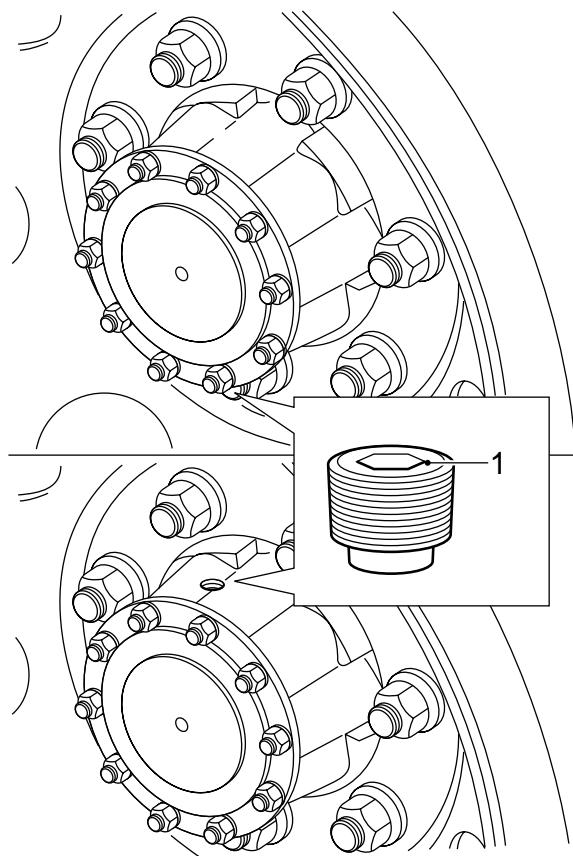
The design of the hub and the location of the drain/filler plug may differ from the illustration, depending on the version.

Draining wheel hub

1. Position the vehicle on a level surface.
2. Position the wheels in such a way that the oil drain/filler plug (1) is at the bottom.
3. Place a suitable tray under the hub to collect the oil. Remove the oil drain/filler plug (1).
4. Drain the oil and let the oil leak out of the hub.

Filling wheel hub

1. Position the wheels in such a way that the oil drain/filler plug (1) is at the top.
2. Fill the wheel hub with the specified and correct quantity of oil. See main group "Technical data".
3. Apply sealant to the screw thread of the oil drain/filler plug (1). Fit the oil drain/filler plug (1) into the hub.



2. GENERAL

2.1 DESCRIPTION OF 8.20 AXLE

Differential

The 8.20 axle has a differential with hypoid gearing.

A single reduction is applied.

The bevelled gear-to-pinion backlash is achieved using adjusting nuts.

The pre-load of the pinion bearings is adjusted using shims which are placed between the bearing inner races.

The pinion housing can be removed using jacking bolts.

Differential lock

The 8.20 axle is equipped with a variable differential-gear lock.

The satellite gear housing flange is fitted with spline toothed on the right-hand side. The left-hand side of the selector sleeve is equipped with similar toothed.

The selector sleeve has internal splines similar to those on the stub axle.

There is a groove on outside of the selector sleeve accommodating a fork which is attached to the engaging cylinder.

If the engaging cylinder is pressurised using the pneumatic switch, the selector sleeve toothed will mesh with the toothed of the satellite gear housing.

If the engaging cylinder is vented via the pneumatic switch, the spring will ensure that the lock is disengaged.

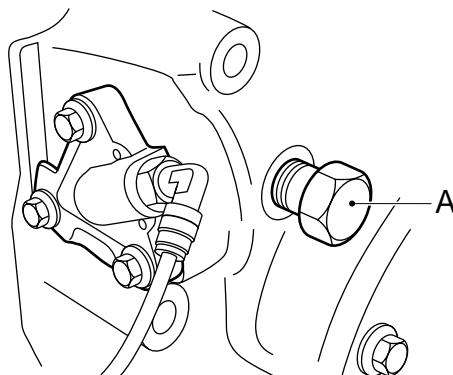
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4. REMOVAL AND INSTALLATION

4.1 REMOVAL AND INSTALLATION, STUB AXLES

Removing stub axles

1. Jack up the rear axle and support it on stands.
2. Engage the differential lock. Check that the axle is blocked. Replace the switch by the special tool (DAF No. 1329447), see (A). This is to prevent the selector sleeve from falling into the differential when removing the stub axle.

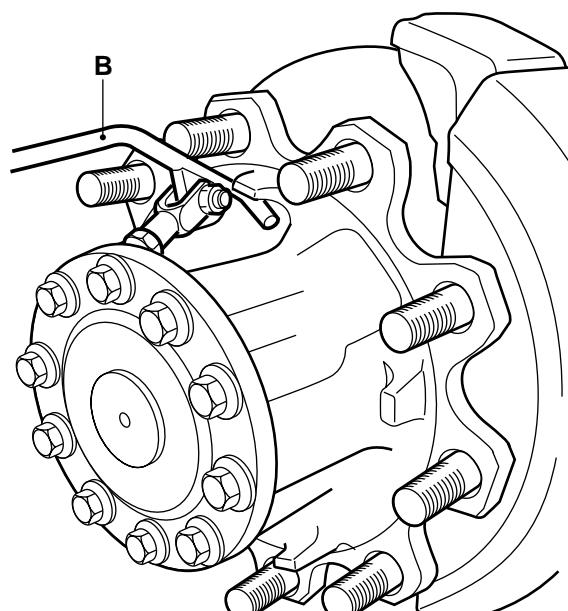


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3. Remove the stub axle attachment bolts.
4. Remove the stub axle using special tool (DAF No. 0694980), if required, see (B). When the stub axle comes loose, a small amount of oil may leak out. Collect this oil.

Installing stub axles

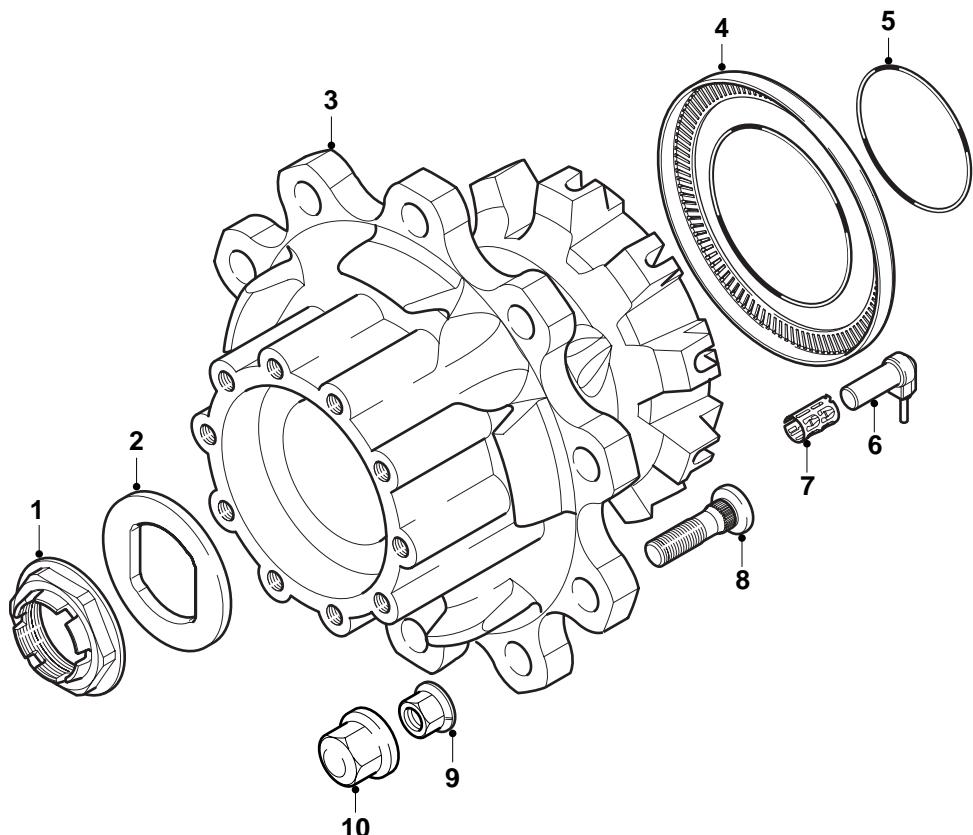
1. Clean the mating surfaces of the stub axle flange and wheel hub unit.
2. Apply the specified sealant to the mating surface of the stub axle flange. See main group "Technical data".
3. Fit the stub axle. Tighten the stub axle attachment bolts to the specified tightening torque. See main group "Technical data".
4. Engage the differential lock and remove the special tool from the differential lock. Install the switch.



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4.2 REMOVAL AND INSTALLATION, WHEEL HUB UNIT

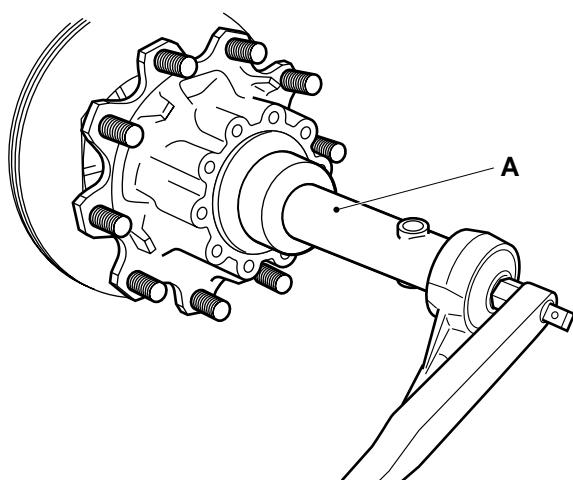


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Removing the wheel hub unit

1. Jack up the rear axle and support it on stands.
2. Remove the wheels.
3. Remove the brake caliper.
4. Remove the stub axle.
5. Remove the hub nut (1) using the hub nut wrench (A), which is part of the special tool set (DAF No. 1329496). Loosen the hub nut (1), using a torque amplifier to do so.
6. Remove the thrust washer (2).



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7. Install the guide sleeve (A), which is part of the special tool set (DAF No. 1329496), on the axle journal.
8. Attach the wheel hub unit (3) securely to a movable lifting device.
9. Slide the wheel hub unit (3) from the axle journal using the lifting device.
Take care that the wheel hub unit (3) does not rest on the guide bush (A) as the latter is not strong enough to take the weight of the wheel hub unit (3).

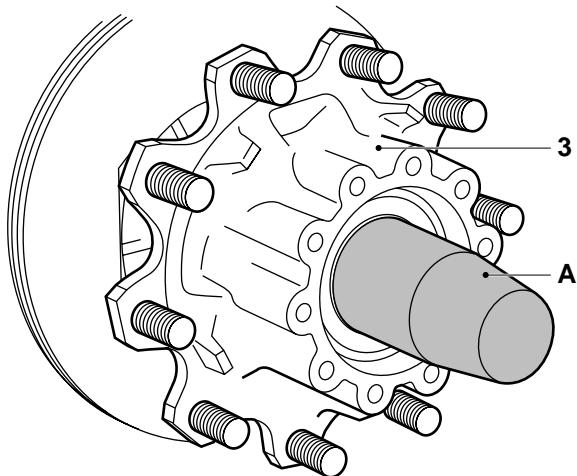
Installing the wheel hub unit

1. Check the wheel-speed sensor ring and the seals in the wheel hub unit (3) for damage.
2. Check the axle journal screw thread carefully for damage.

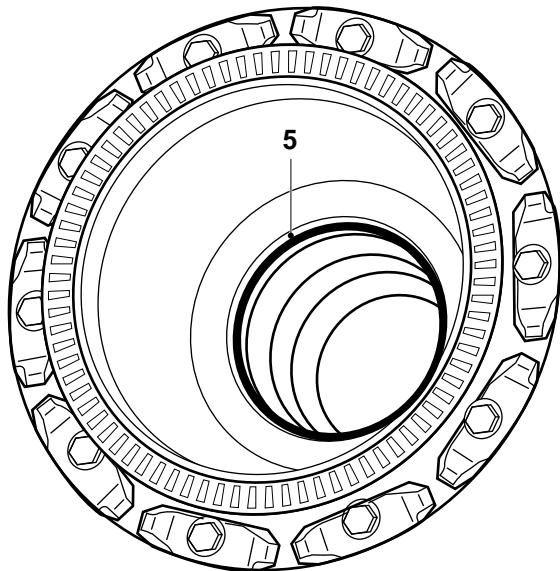


You must never fit a wheel hub unit on an axle journal with damaged screw thread.

3. Install the O-ring (5) in the wheel hub unit.



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