

This Service Bulletin replaces Service Bulletin 177-16, "Preventive Maintenance, Volvo Unitized Hubs, VN, VHD VERSION2" (6.2004), PV776-20 006112.

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Preventive Maintenance
Volvo Unitized Hubs
VN, VHD VERSION2

Preventive Maintenance

Hubs with Unit-Bearings

The following information details the steps required when performing basic or annual service preventive maintenance. For further information refer to the preventive maintenance documentation in Group 1.

Note: Not all models have Volvo Hubs with Unit-Bearings. Volvo Front Hubs with Unit-Bearings are standard on VN VERSION2 670 and 780 vehicles.

Adjustable Bearing Hubs

The following information details the steps required when performing basic or annual service preventive maintenance. For further information refer to the preventive maintenance documentation in Group 1.

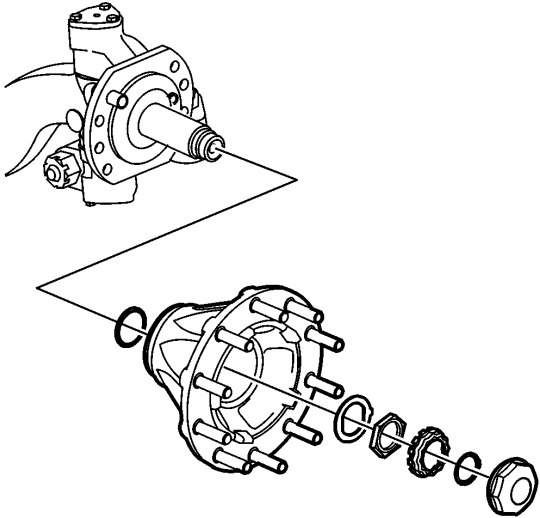
Note: Hubs with a sleeve between the bearings may not have endplay. The bearing clearance setting for hubs with the spacer ranges from 0.025 mm preload to 0.0152 mm endplay (0.001 in. preload to 0.006 in. endplay).

Note: Hubs with adjustable wheel bearings **without** a sleeve between the bearings need adjustment. Adjust the hubs according to the procedure found in Service Bulletin 773-52, "Rear Axle Hubs, Seals and Bearings", PV776-TSP188404. This procedure is in accordance with Repair Practice 618, from the Maintenance Council of the American Trucking Association (AMA).

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Wheel Bearings, Check Front Hub with Unit-Bearings



W1000188

Note: You must read and understand the precautions and guidelines in Service Information, group 70, "General Safety Practices, Frame, Springs and Wheels" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

Note: The front wheel hub is only available as a complete unit.

Note: The bearings must not be replaced.

Note: The Unit-bearing is grease lubricated at the factory and does not need re-lubricating.

1

Check the front wheel bearings with a wheel spinner and listen to the bearings during rotation. After the tire/wheel are removed, it may be necessary to rotate the hub by manual means.

Note: Rotation speed of 50 rpm (82 rpm maximum) is recommended.

Note: Abnormal noise in the bearings is a sign of bearing wear. Hubs with worn bearings should therefore be replaced to avoid damage to the wheel end.

2

Check the play on the front wheel bearings by using a bar as a lever to lift. The bearings should normally be pre-tensioned and therefore, there should not be any noticeable play in the bearings. Do not confuse play in the wheel bearings with play in the knuckle bolt bearings.

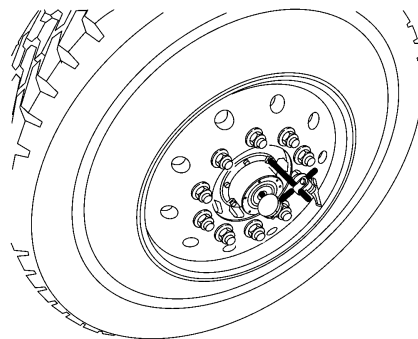
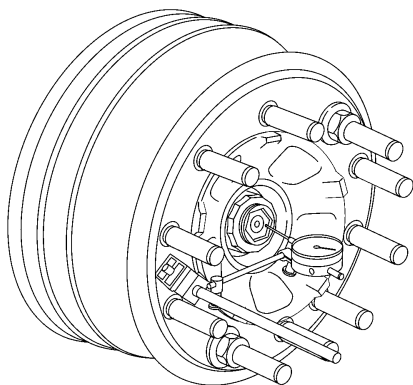
If there is play in the bearing, the bearing clearance should be checked with a dial indicator.

3

Inspect hub cap. Torque to 500 Nm (369 ft-lb).

500 Nm (369 ft-lb)

Hub with Adjustable Bearings



W1000195

Unitized Hub

W1000194

Non-Unitized Hub

1

Check the front wheel bearings with a wheel spinner and listen to the bearings during the rotation. If there is an abnormal sound in the bearings, the hub must be removed to inspect the bearings.

2

If in doubt concerning the clearance of the front bearings, measure the bearing clearance with a dial indicator.

- Clean the hub cap.
- Remove the hub cap for grease lubricated bearings or the plug in the center of the hub cap for oil lubricated bearings.
- Place the measuring tip on the dial indicator against the spindle bolt when measuring.

Note: Oil lubricated wheel bearings: The axial clearance should be 0.04 – 0.12 mm (0.001 - 0.005 in.).

Note: The use of a Dial Indicator (VPNA Part no. 3093472) is required for hubs with adjustable bearings.

0.04 – 0.12 mm (0.001 - 0.005 in.)

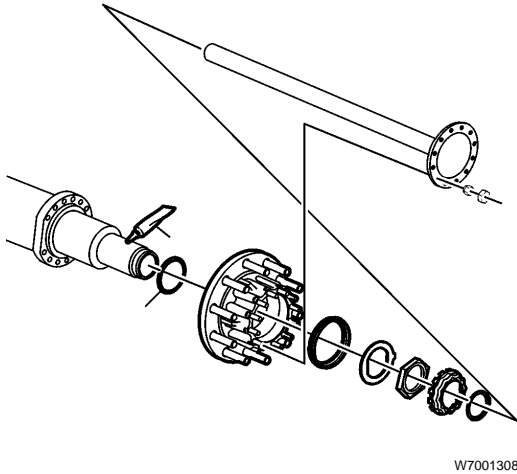
3

Screw tight the hub cap and the plug in the hub cap.
Torque to 16.26 - 21.69 Nm (12 - 16 ft-lb).

Note: The above check also applies to oil lubricated rear wheel hubs with single wheels.

16.26 - 21.69 Nm
(12 - 16 ft-lb)

Wheel Bearings, Check Rear Hub with Unit-Bearings



W7001308

Note: You must read and understand the precautions and guidelines in Service Information, group 70, "General Safety Practices, Frame, Springs and Wheels" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

Note: The rear wheel hub is only available as a complete unit.

Note: The bearing must not be replaced.

Note: The Unit-bearing is grease lubricated at the factory and does not need re-lubricating.

1

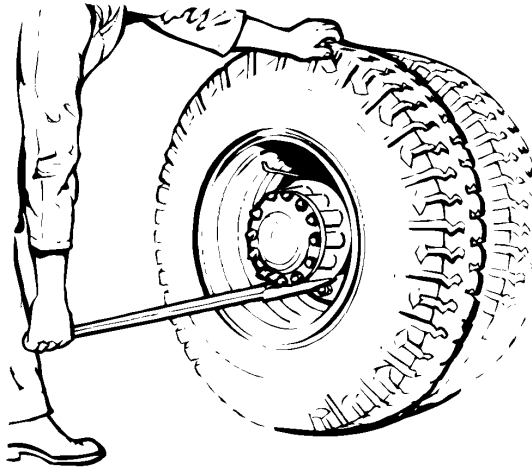
Spin the wheel with a wheel spinner about 50 rpm (82 rpm maximum). The drive axle must be removed for drive wheel hubs. Listen for abnormal noise in the bearings during rotation.

2

Check the axial or endplay on the drive wheel bearings by using a dial indicator. The bearings are normally preloaded, so there should not be any play in the wheel bearings. If there is play in the bearings, the hub should be replaced.

Note: Abnormal noise in the bearings is a sign of bearing wear. Hubs with worn bearings should be replaced to avoid damage to the bearings.

Hub with Adjustable Bearings



T1006509

Note: On certain vehicles a “clunk” sound may be heard when the lever is used. This sound is related to the internal moving parts of the axle shafts and the differential. This is not bearing noise.

1

Check the play on the drive and trailing wheels by using a bar as a lever to lift. If play can be felt in the rear wheel bearings this can be a result of wear in the bearings or because the bearing clearance is incorrectly adjusted.

Note: The axial clearance should be 0.04 - 0.12 mm (0.0015 - 0.0047 in.).

2

Check the trailing wheel bearings with a wheel spinner and listen to the bearings during the rotation.

Note: If there are any abnormal noises in the bearings, the hub must be removed and to check the bearings, otherwise the bearing clearance must be adjusted.