Mack Chassis - Front Hub With Unit-Bearings (Unitized Wheel Bearings), Inspection Information And Guidelines - Model Year 2008 And Newer

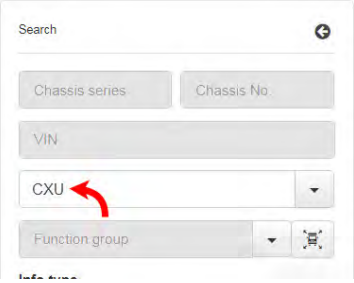
Internal Content

The procedure for the inspection of wheel bearings on the front axle of chassis equipped with unitized bearings can be found in Impact under the Service tab.

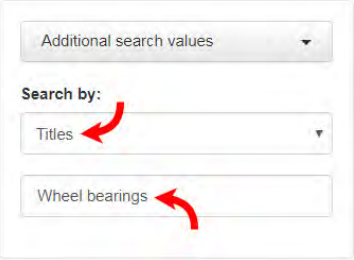
• The Operation can be found under Function Group 177. The article is titled Wheel Bearings, Check. At the time of this Solution's publication, the inspection does not have an Operation number.

• If the article does not appear when searched with either VIN or Chassis information entered, search by model:

1. Clear any chassis information from the Search box.
2. Select or enter CXU as the model.



3. Make sure Title is selected in the Search By field. Enter "Wheel bearings" in the text entry field.



4. Press the Search button. The operation will appear in the results window.

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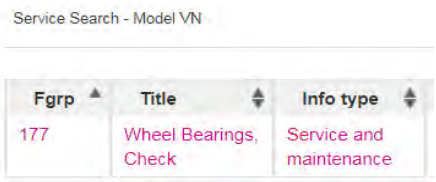
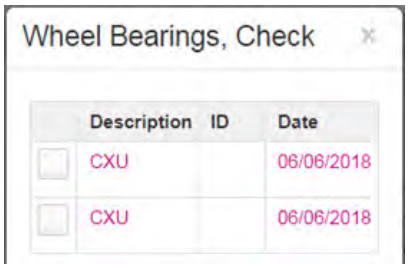


5. Mutiple article choices will appear. Find the correct Operation that covers Unit Bearings.

○ **Note:** It is possible that more than one choice will have the same title (as shown below). Despite having the same title, the Operations are different and should be reviewed to locate the correct procedure.



- In addition to the images provided in the inspection Operation, the examples below show an example of a bearing that is acceptable for reuse and a bearing that requires replacement.

A. Reusable Bearing

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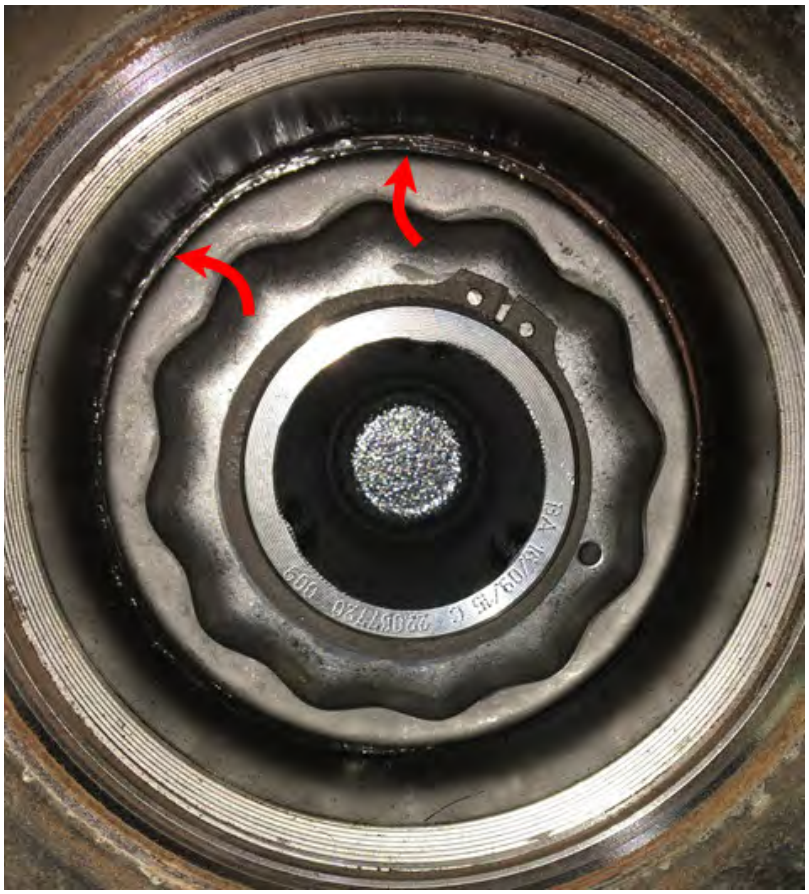
Note that the o-ring does not show signs of grease or leaks.

B. Bearing Requiring Replacement



Presence of grease around the o-ring indicates a leaking bearing

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Tags k13000191 wheel bearings mack

Related links and attachments

No links or attachments available

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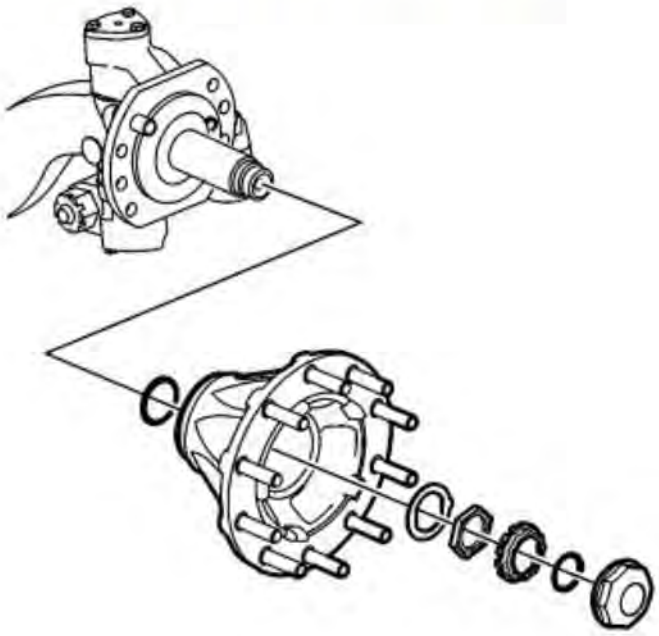
Wheel Bearings, Check

Front Hub with Unit-Bearings

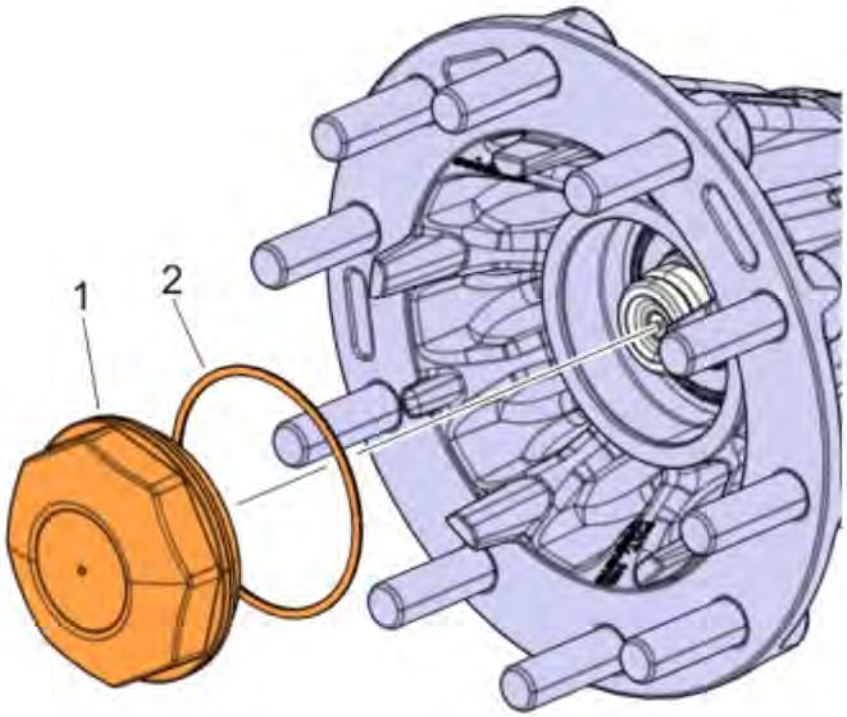


Note: You must read and understand the precautions and guidelines in Service Information, group 70, "General Safety Practices, Frame, Springs and Wheels" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform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

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

1. Remove the hub caps with hand tools.

   Note: Using power tools could damage the cap.

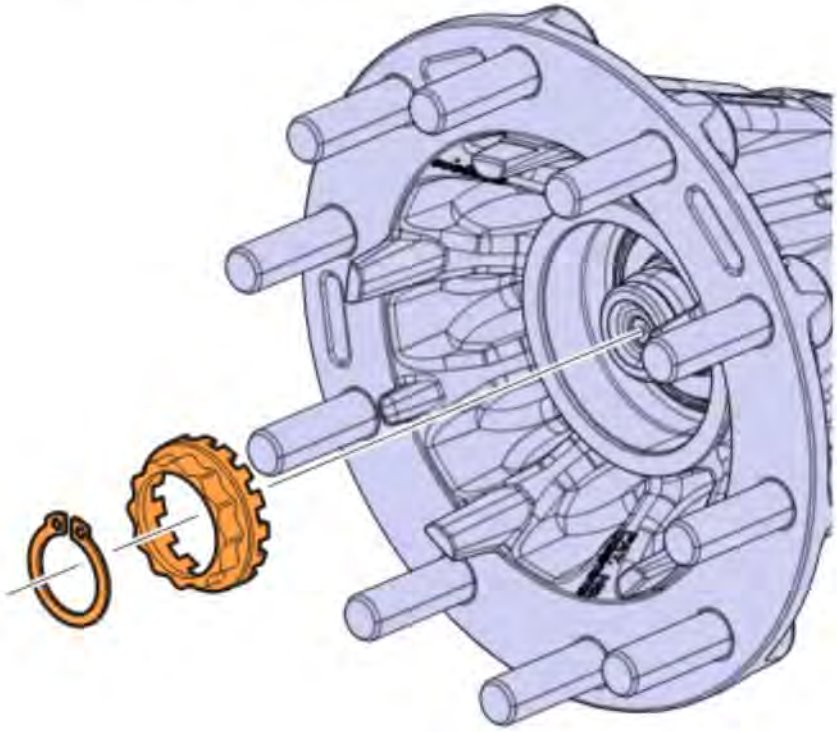


2. Inspect O-ring for moisture / contaminant intrusion witness marks.

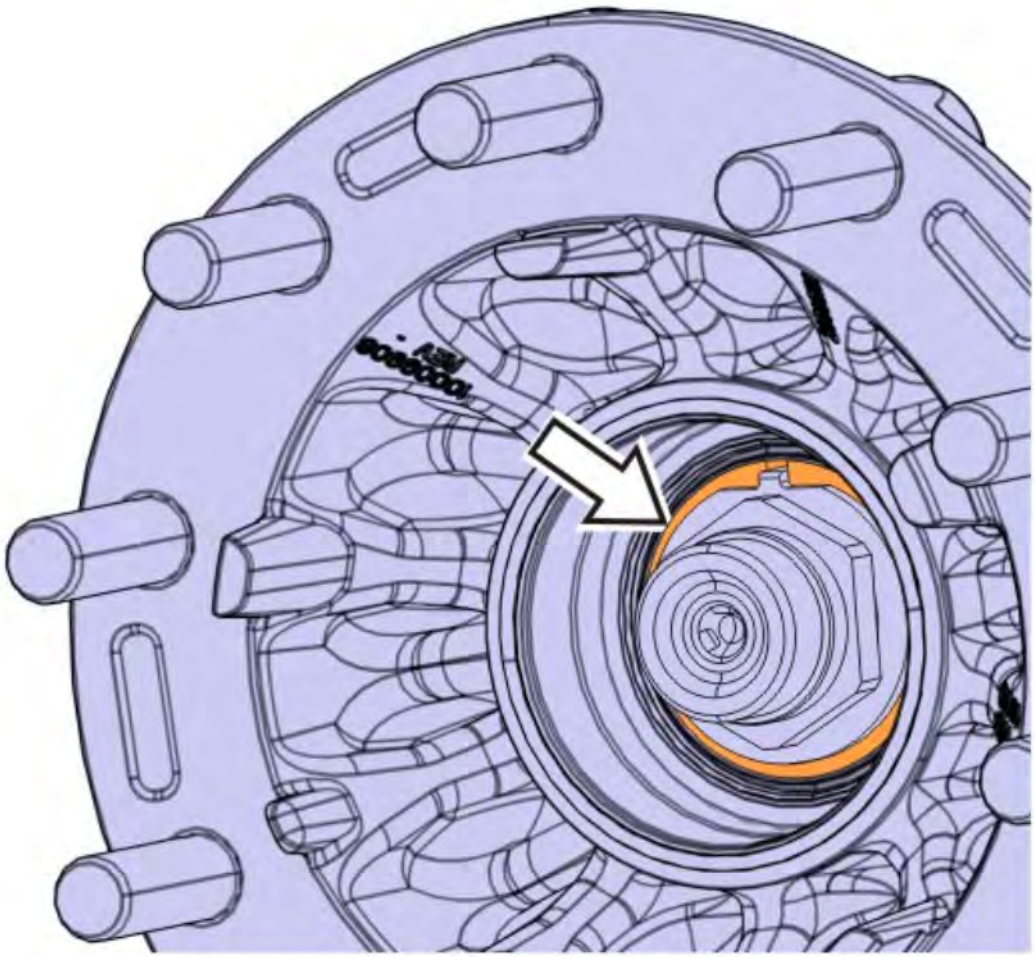
   Note: Always use a new O-ring when installing the cap.

   Note: Replace cap and O-ring if evidence of contaminant intrusion is seen.

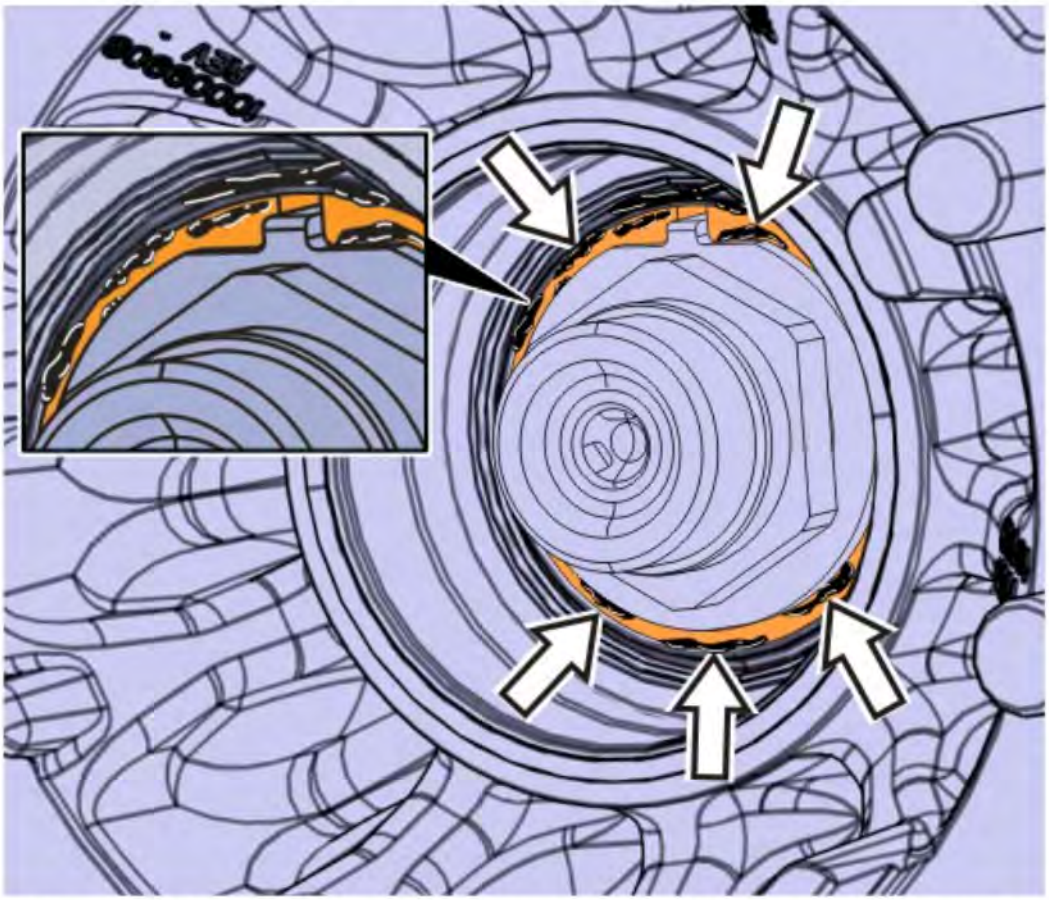
3. Remove the snap ring and retainer.



4. Inspect hub barrel for evidence of grease.



5. If grease is found, replace the bearing.



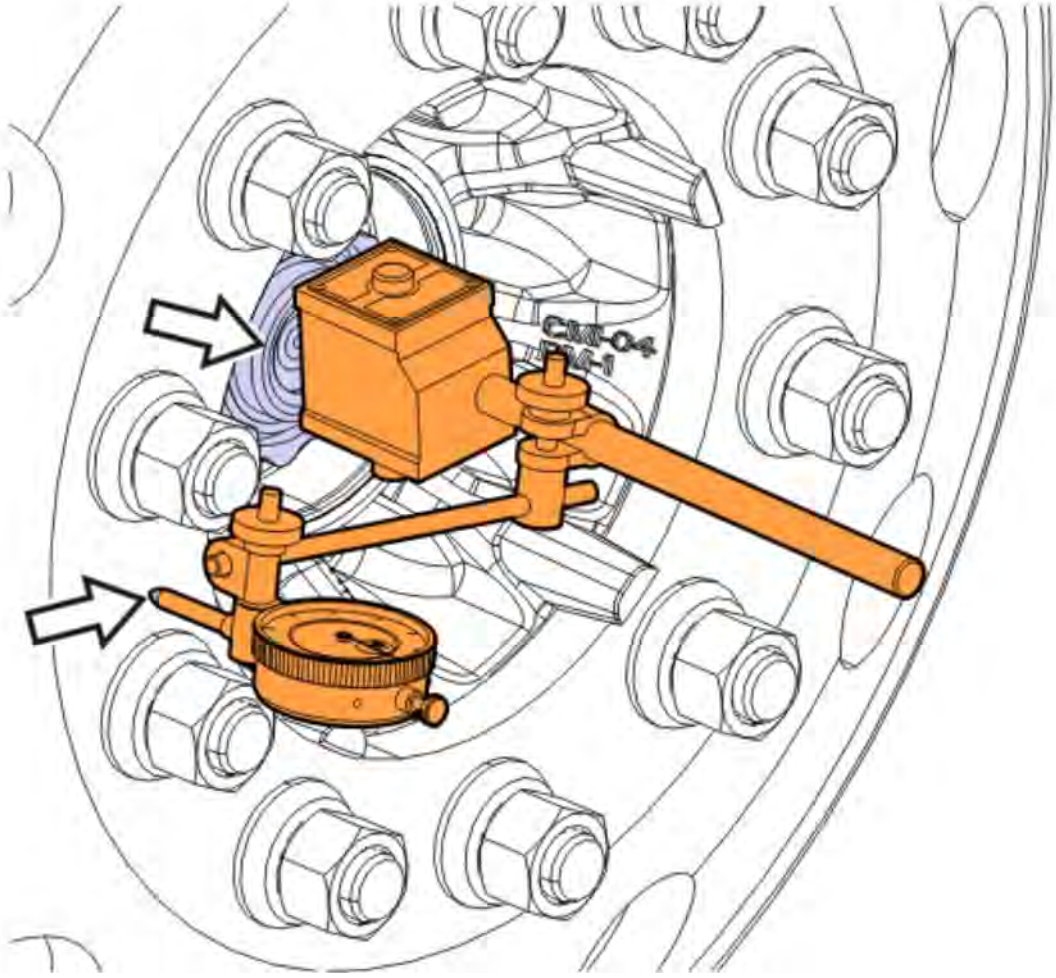
6. If no grease is found raise the steer axle with both tires off the ground.
7. Check the front wheel bearings with a wheel spinner and listen to the bearings during rotation. After the tire/wheel are removed, it may be necessary to rotate the hub by manual means.

   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.

8. Check the play on the front wheel bearings by using a bar as a lever to lift and a dial indicator. The bearings should normally be pre-tensioned and there should not be any play in the bearings. Do not confuse play in the wheel bearings with play in the king pin bearings.

   Note: If there is play in the bearing, the bearing should be replaced.



Torque Specifications

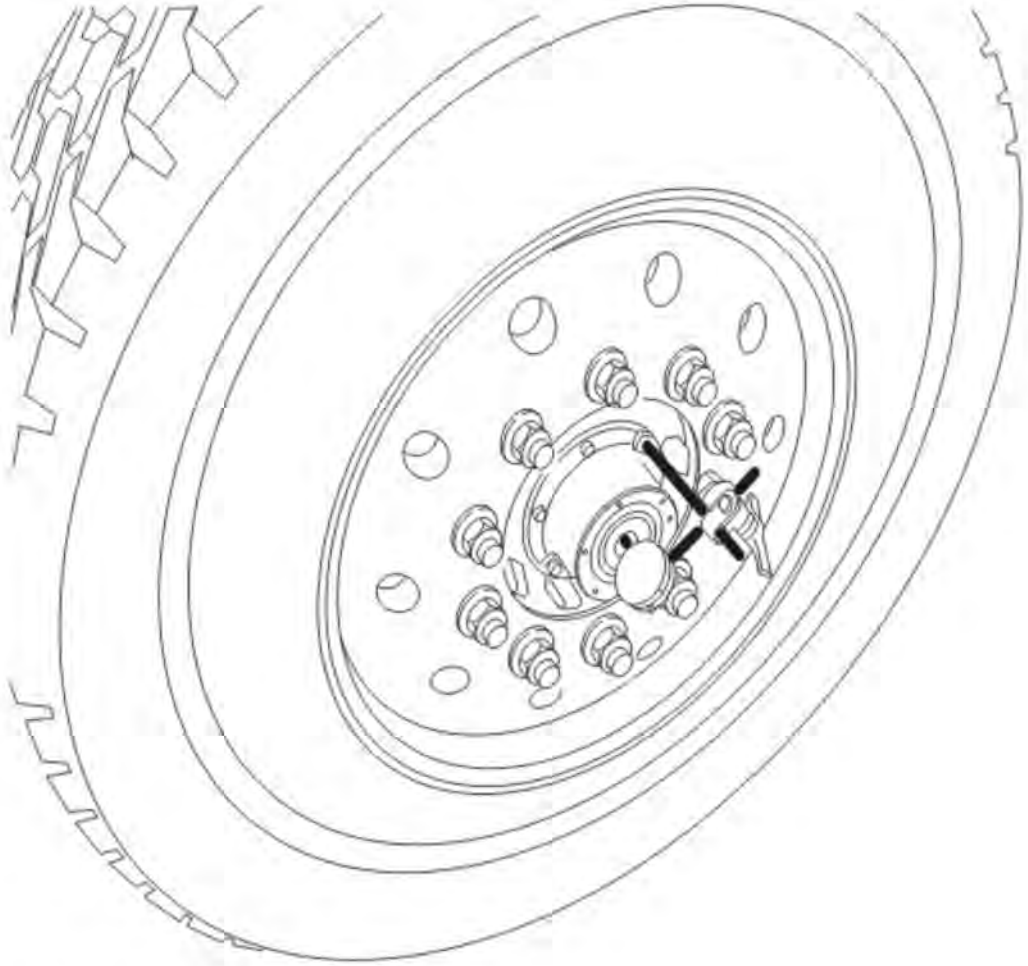
Hub nut torque

3. Torque to 150 Nm
4. Rotates 20 revolutions
5. Rotate hub while being torqued to 1000 Nm.

   Hub cap

7. Torque to 500 Nm

Front Hub with Adjustable Bearings



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.

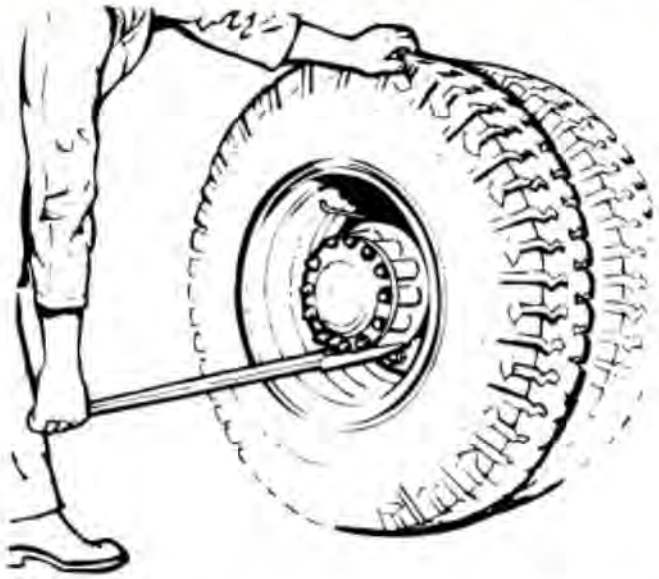
Specifications:
0.04 – 0.12 mm (0.001 - 0.005 in.)

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.

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

Rear Hub with Adjustable Bearings



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.