Checking A Hub Bearing Assembly

This information will help you to recognize common causes of wheel noise.

1. Verify the source of any unfamiliar noise: Road surface conditions, tire tread design, wear patterns, and improper maintenance conditions including poor alignment and worn suspension parts. (Fig. 1)

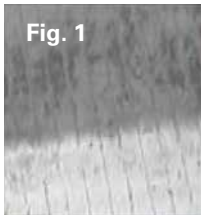
Fig. 1

Roads with uneven characteristics


Tread design

2. Make sure you have the proper tools.

3. Perform a full hand rotation check on the wheel. Grasp the wheel at the 3 and 9 o'clock positions. Push and pull while oscillating the wheel. Perform a second check, grasping the wheel at the 12 and 6 o'clock positions. Listen and feel for roughness. (Fig. 2)


Fig. 2

4. Remove the lug nuts and the wheel. Remove the caliper from the caliper-mounting bracket. Support the caliper with an "S" hook or a piece of wire. (Fig. 3)


Fig. 3

5. Remove the caliper-mounting bracket and the brake rotor. (Fig. 4)


Fig. 4

6. Rotate the hub bearing assembly by hand. A loose hub bearing assembly may indicate bearing damage, the axle nut may have backed off, or improper axle nut clamping. Roughness, looseness or noise from the bearing is an indication of bearing damage and requires replacement. (Fig. 5)


Fig. 5

Skill Level: Intermediate | Special Tools: Torque Wrench, Dial Indicator with Magnetic Base

TIMKEN