

7 Most Common Wheel Hub Assembly Installation Mistakes

A wheel hub assembly is a critical component of a vehicle's steering and suspension system, responsible for smooth wheel rotation, alignment stability, and accurate ABS sensor feedback. Even though modern hub units are designed for durability, improper installation can lead to premature failure, comebacks, and safety concerns.



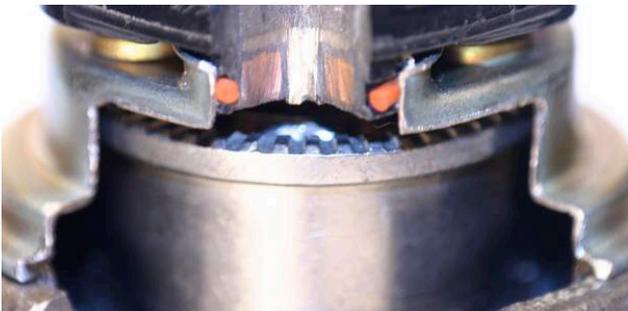
1

Using the Wrong Torque Procedures

Improper torque, especially when using impact tools can preload internal bearings, distort races, or damage wheel studs.

Prevention Tips:

- Always tighten the axle nut to the OE torque specifications.
- Use a calibrated torque wrench rather than an impact wrench to tighten the axle nut.



2

Contaminated or Damaged ABS Sensor

Dust, debris, or fingerprints on the encoder ring can interfere with ABS speed signals.

Prevention Tips:

- Avoid touching the magnetic encoder.
- Ensure the sensor is correctly aligned and securely plugged in.



3

Installing the Hub Backwards (*Incorrect Orientation*)

Some hub assemblies appear symmetrical but are directional due to sensor placement.

Prevention Tips:

- Confirm the correct orientation of ABS connectors and the backing plate before installation.



4

Damaged Mounting Surfaces

Rust, old gasket material, and burrs on the knuckle or flange prevent the hub from sitting flush, which can lead to:

- Brake pulsation
- Premature bearing wear
- Misalignment causing ABS signal errors

Prevention Tips:

- Clean mounting surfaces thoroughly.
- Inspect for corrosion or damage before installing the hub.



5

Reusing Old Hardware

Old bolts and axle nuts may stretch, weaken, or lose clamping force.

Prevention Tips:

- Replace all single-use fasteners.
- Apply proper bolt lubrication as specified by the OE.

6

Driving Axle Misalignment

For vehicles with CV axles, hammering or misalignment can damage threads or stress the bearing.

Prevention Tips:

- Use proper press tools to seat the axle.
- Never hammer on the axle during installation.



7

7. Ignoring Related Suspension & Steering Wear

A failing hub may be a symptom, not the root cause. Worn ball joints, tie rods, and bushings increase load stress on the hub.

Prevention Tips:

- Inspect adjacent suspension components during hub replacement to avoid repeat failures.

Troubleshooting Tips

- Check the ABS tone ring condition before installing the new hub.
- Verify there is no wheel wobble before tightening the axle nut.
- Avoid excessive heat when removing the old hub to protect sensors and knuckle.
- Perform a road test and scan for ABS/traction codes after installation.

The Bottom Line

Following proper installation practices assures:

- **Longer hub life**
- **Improved vehicle safety**
- **Fewer comebacks and warranty claims**