

Tech Tip

Hub installation and torquing

One of the leading causes of improper fit or premature wheel hub failure is improper torquing of the bolts and nuts that secure the wheel hub and tire. Most drive axle wheel hubs have a center axle nut that must be torqued down onto the axle shaft to a specific torque value. Putting the proper torque on the center axle nut sets the preload for the bearing and keeps the bearing from separating while in operation. The torque specification for this center axle nut is critical to performance and function of the wheel hub.

The wheel hub mounting bolt torque specification also provides a secure fit for the wheel hub and provides proper seating of the wheel hub to knuckle attachment. Improper torque can lead to wheel hub movement and allow potential damage to the wheel hub and surrounding components. Be sure knuckle is clean from rust and debris before hub replacement.

The tire lug nuts should also be properly torqued to secure the wheel to the wheel hub. Improper torque can warp the rotor and adversely affect the surrounding components, including the wheel hub. Potential loss of wheel or broken wheel studs can occur if torque specification is not correct.

The correct torque specifications are available from a number of sources including SKF's Torque Specification Guide (#457377). The guide contains torque specifications and procedures for properly securing all domestic and import wheel hub units. Including axle nut, mounting bolts and lug nut specifications.

It's imperative that all the wheel end components are functioning correctly. Components work together to provide proper operation. Be sure wheel end items such as ball joints, struts and CV joints are functioning correctly. This will assure safe performance and longevity to the new wheel hub.

Also note that some SKF wheel hubs will come with a new axle nut in the box. This is typically when a one-time use self staking axle nut secures the wheel hub. In these applications a new nut must always be used when installing a wheel hub. Reuse of the old nut could potentially cause the axle nut to loosen during vehicle operation.

