

Nut Torquing and Back-Off to Set Wheel Bearings

Follow this six-step procedure for adjusting wheel bearings to meet correct end play specifications.

1. While oscillating the wheel, torque the adjusting nut to 200 lbf-ft to fully seat the bearing components.
2. Back off the adjusting nut one full turn or until it is loose.
3. To establish end play, torque the adjusting nut to 50 lbf-ft while rotating the wheel hub assembly.
4. Back off the inner (adjusting) nut the amount indicated in the chart below.
5. On a single-nut system, install a cotter pin. On a double-nut system, install a jam nut and torque it to the proper specification indicated in the chart below.
6. Use a dial indicator to verify end play (free movement) of the tire and wheel assembly along the spindle axis.

Axle Type	Adjusting Nut Back Off		Jam Nut Torque	
	Threads Per Inch	Final Back off	Nut Size	Torque Specifications
Steer (Front) Non-Drive	12	1/6 Turn	Install Cotter Pin to Lock Axle Nut in Position	
	18	1/4 Turn		
	14	1/2 Turn	Less Than 2-5/8" (66.7 mm)	200-300 lbf-ft (271-407 N-m)
	18			
Drive	12	1/4 Turn	Dowel Type Washer	300-400 lbf-ft Drive (407-542 N-m)
	16		Tang Type Washer	200-275 lbf-ft (271-373 N-m)
Trailer	12	1/4 Turn	2-5/8" (66.7 mm and over)	300-400 lbf-ft (407-542 N-m)



⚠ WARNING

Failure to observe the following warnings could create a risk of death or serious injury.

Never spin a bearing with compressed air. The components may be forcefully expelled.
Proper maintenance and handling practices are critical. Always follow installation instructions and maintain proper lubrication.

A bearing/component should not be put into service if its shelf life has been exceeded.

CAUTION

Failure to follow these cautions may result in property damage

Use of improper bearing fits may cause damage to equipment.

Do not use damaged bearings.

*TechTips is not intended to substitute for the specific recommendations of your equipment suppliers.
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