Manual Wheel Bearing Adjustment Procedures TMC RP618

1. **Lubricate** the bearings with clean lubricant of the same type used in the axle sump or hub assembly.
2. Install the wheel hub and bearing onto spindle and **Torque** the inner adjusting nut to **200 ft-lbs** while rotating the hub assembly.
3. **Back off** the inner adjusting nut one full turn.
4. **Re-torque** the inner adjusting nut to **50 ft-lbs** while rotating the wheel hub assembly.
5. **Back off** the inner adjustment nuts as per chart below.

Axle Type	Threads Per Inch	Final Back Off
Steer (front non-drive)	12	1/6 turn* (with cotter pin)
	18	1/4 turn* (with cotter pin)
	14	1/2 turn (with less than 2 5/8" nut)
	18	1/2 turn (with less than 2 5/8" nut)
Drive	12	1/4 turn
	16	1/4 turn
Trailer**	12	1/4 turn
	16	1/4 turn

6. **Install** the locking washer.
7. **Install and torque** the outer jam nut as per chart below.

Axle Type	Nut Size	Torque
Steer (front non-drive)	No Jam Nut Install Cotter Pin	
	Under 2-5/8"	200 - 300 ft-lbs
Drive	Dowel Washer	300 - 400 ft-lbs
	Tang** washer	200 - 275 ft-lbs
Trailer***	2-5/8" and over	300 - 400 ft-lbs

8. Use a **dial indicator** to verify acceptable endplay of .001" - .005" (NOTE: If end play is not within specification, readjustment is required. Be sure to install or activate any locking device.)

* Single Nut

** Positive adjustment wheel bearings (a product of Rockwell International), use 250-300 ft-lbs on adjusting nut and jam nut. See Rockwell Field Maintenance Manual No. 14.

*** For single axle (13,000 - 19,000 lb capacity) with tang washers, consult manufacturer's specifications.

This information is intended for reference only. Consolidated Metco does not assume any liability in the event of improper use or mismatch of components. For additional information see ConMet Hub Manual or TMC RP618.

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Wheel End Torque Specifications

Item	Measurement	Torque (ft-lbs)	Notes
Ball Seat Wheel Nut	3/4 - 16 1 1/8 - 16	450 - 500	Always tighten the top nut first or pilot damage may result. If lubricant is used, apply sparingly on threads only. Do not lubricate the faces of the hub, drum, wheel or on the ball seats of the wheel nuts. The last nut rotation should be with a calibrated torque device.
Hub Pilot Wheel Nut	22 mm x 1.5 mm	450 - 500	Always tighten the top nut first or pilot damage may result.. Apply two drops of oil between the nut and nut flange, and two or three drops to the outermost 2 or 3 thread of the wheel studs. Lightly lubricate the wheel pilots on the hub. The last nut rotation should be with a calibrated torque device.
Drive Studs, Installation Torque	3/4 - 16 5/8 - 18 9/16 - 18 1/2 - 20	40 - 90 40 - 90 40 - 60 40 - 60	
Hub Cap	5/16-18	12 - 18	Minimum SAE Grade 5 fasteners, flat washers only.
Oil Fill Plug	1/4 NPT 3/8 NPT 9/16 - 18	20 - 25	 O- Ring Style
Disc Brake Rotor Screw	M8 x 1.25 1/2 - 20 9/16 - 12 5/8 - 11 5/8 - 18	18 - 22 100 - 110 130 - 150 190 - 210 155 - 195	-
Disc Brake Rotor Nut	5/8 - 18	180 - 210	-
Disc Brake Rotor	M16 x 1.5	190 - 210	-
Drive Axle Flange Nuts			See axle manufacturer's recommendations for proper drive axle nut torque.
PreSet 2-Piece Nut		300 Inner* 200 Outer*	NO BACK OFF *PreSet FC medium-duty steer hub is 150 ft-lbs inner, 100 ft-lbs outer
PreSet 1-Piece Nut		300**	NO BACK OFF **PreSet FC medium-duty steer hub is 150 ft-lbs
PreSet Plus Drive & Trailer Nut		500	
PreSet Plus Steer Nut		300	

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