

WHAT IS TORQUE?

Torque is the measurement of twisting force that is applied to a lug nut to create bolt tension.

WHAT IS CLAMPING FORCE?

Clamping force is the result of bolt tension and it is the physical property that holds the wheels on the vehicle.

DOES THE CORRECT TORQUE GUARANTEE THE CORRECT CLAMPING FORCE?

No. Clamping force cannot be measured in the field, so technicians must use the correct torque to approximate the amount of clamping force.

Since there are a number of factors that determine how much clamping force is generated per foot pound of torque, technicians should always **follow the RIST procedure** developed by the Tire Industry Association (TIA).



R

stands for
remove debris from
mating surfaces



I

stands for
inspect all of the
components



S

stands for
snug the lug nuts
in a star pattern



T

stands for
torque the fasteners
to specification



TORQUE SPECIFICATIONS

Hub-Pilot Wheel: 450-500 ft/lbs. oiled | Stud-Pilot Wheel: 450-500 ft/lbs. dry | Demountable Rim: 200-260 ft/lbs. dry

TIA is the industry leader in commercial truck tire and wheel service education. Since Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1910.177 requires training for all employees that service truck tires, fleets must make sure that every technician who installs, removes or handles truck tires in any way has compliant training. TIA developed the Fleet Tire Service OSHA Compliance Program so the trucking industry could provide in-house technician training that exceeds the minimum requirements established by 29 CFR 1910.177.

For more information on TIA training or the RIST procedure, visit TIA's website: <http://www.tireindustry.org/training.asp> or call 800-876-8376, ext. 106.



Wheel Mounting Procedures

Remove rust and dirt : Inspect all components : Snug wheel nuts : Torque to specification

Remove rust and dirt from all mating surfaces



Wheel Openings and Pilot Pads



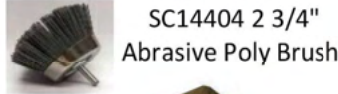
SC15563 Wire Brush & Q/C adapter



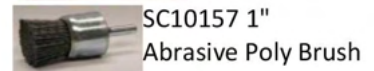
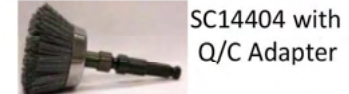
Wheel Studs



Wheel Mating Surfaces



Hub and Brake Drum Face



Wheel Nut and Flanges



44063 Wood Handle Brush

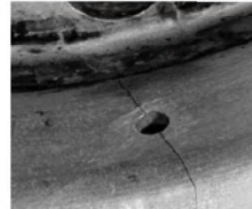
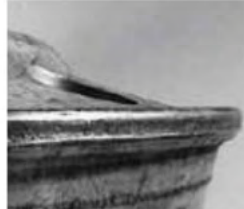
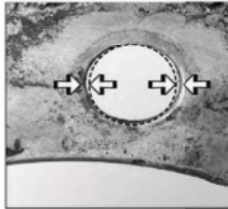
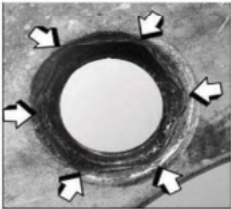


The SC100 Stud Cleaner uses three long lasting heavy duty carbon steel brushes to clean rust and debris from the stud threads to ensure proper torque.

SC100 Video:



Inspect all Components for Wear and Damage



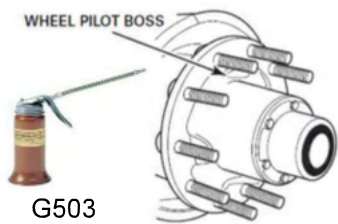
New Stud*



Worn Stud*

*2215TPG 22x 1/5 mm thread pitch gauge

Lubricate Mounting Pads, Studs and Nuts *** Uni-Mount Only ***



G503



Do NOT Lubricate the Hub Face, Wheel Face or Brake Drum.



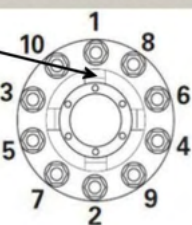
TIA recommends: lubricate Hub-Pilot studs and nuts with 2 drops 30w oil before tightening

Pre-Torque Wheel Nuts to 65 ft lbs

Rotate Wheel Mount Pad to 12 o'clock



28065 65# torque limiting extension



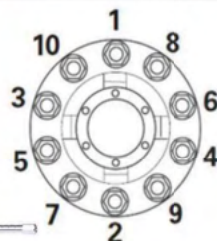
Tighten Wheel Nuts to Final Torque



Short Shank 1" dr Impact with torque limiting extensions



KT130940



NEW OSHA 29 CFR 1910.177 wheel mounting procedure manual and charts. These are required by OSHA to be displayed in truck tire service areas or carried in road service trucks \$7.75 each.

Booklet #OSHA24



4AR1 or 600FHTW Break Back Torque Wrench



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