

NUT CLAMPING FORCE LOSS

Laboratory tests by Motor Wheel Engineering Department provide the results shown in the chart below. They were conducted using a torque tension measuring device on which Double Cap Nuts (DCN) used on conventional 10-hole disc wheels and Cone Lock Nuts (CLN) used with the Hub Piloted mounting systems were tightened to recommended torques and tension measured. After five remountings of both front and dual ball seated DCN and flat seated CLN fasteners, the CLN lost 2% of their clamping force, while DCN los 17-41%.

Clamping force losses are primarily caused by wear of the nut seats. The flat seat of the CLN provides more positive mating, hence less wear.

Note: The clamping force values presented are typical. Variables such as lubrication will cause data scatter.

NUT CLAMPING FORCE LOSS			
Nut	Initial 500 Ft/Lbs Clamping Force	Fifth 500 Ft/Lbs Clamping Force	% Clamping Force Loss
Motor Wheel #88881	51,000	50,000	2%
DCN Dual	17,000	14,000	17%
DCN Front	12,000	7,000	41%