



The World Rides On Us®

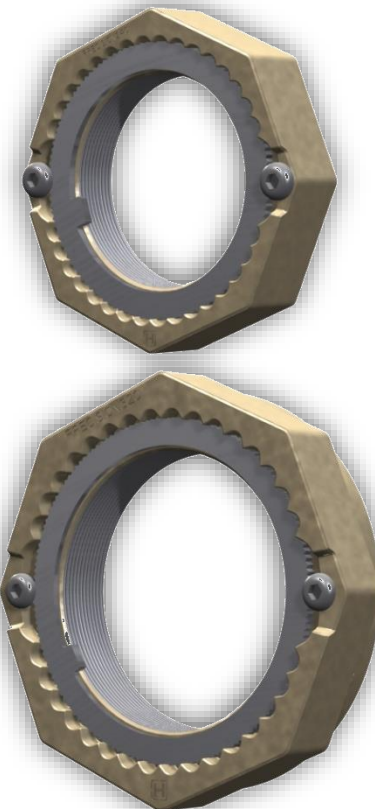
Hendrickson Genuine Parts

PRECISION NUT

CONFIDENTIAL

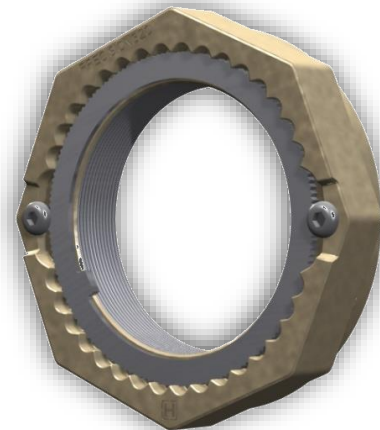
PRECISION NUT System

- **HN system – PRECISION240™**
 - 16 threads per inch
 - $1/16 = 0.625''/\text{rev}$
 - 120 teeth on washer = 240 positions
 - $360^\circ/240 = 1.5^\circ$ adjustment per position
 - $0.625''/360^\circ = 0.0001736''$ axial per $^\circ$
 - $0.0001736'' \times 1.5^\circ = \underline{0.00026''}$ per position
- **HP system – PRECISION320™**
 - 12 threads per inch
 - $1/12 = 0.0833''/\text{rev}$
 - 160 teeth on washer = 320 positions
 - $360^\circ/320 = 1.125^\circ$ adjustment per position
 - $0.0833''/360^\circ = 0.00023148''$ axial per $^\circ$
 - $0.00023148'' \times 1.125^\circ = \underline{0.00026''}$ per position



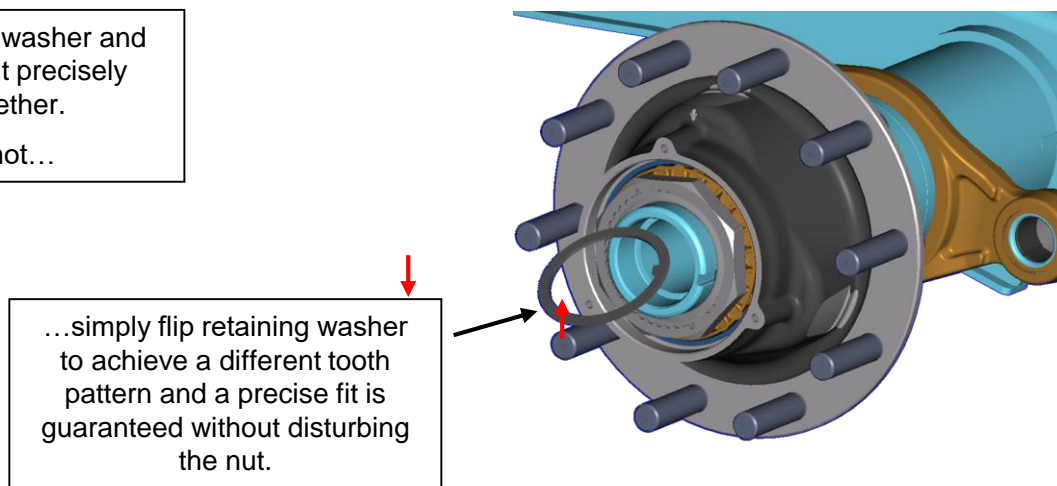
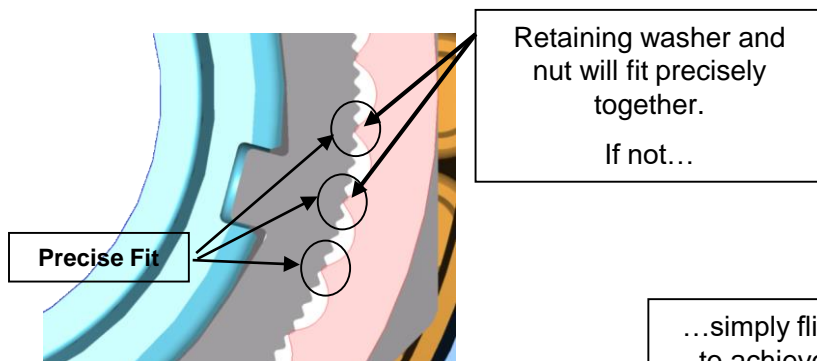
PRECISION Nut System

- **Simple, innovative two-piece system**
 - Nearly 5X the adjustment resolution of 3-pc systems
 - ♦ P spindle – 320 adjustment positions
 - ♦ N spindle – 240 adjustment positions
 - No need to adjust nut after final torque
 - ♦ Washer always fits due to fine adjustment resolution
- **Designed to achieve precise endplay in less time**
 - Results in longer bearing & seal life
 - Used in Hendrickson HXL 3, 5, 7- wheel end systems
 - Can be used on any industry “N” and “P” axle spindle
 - On average, saves over 2.5 minutes per wheel end
 - ♦ Less rework (adjustments) than competitor 3 pc



Simplified installation

- No readjustment of nut is needed to install lock washer
 - Readjustment may lead to inaccurate bearing setting



Installation Comparison

- Easier installation of lock washer and retaining screws
 - Other two-piece systems have had issues with keeper rings not properly seated

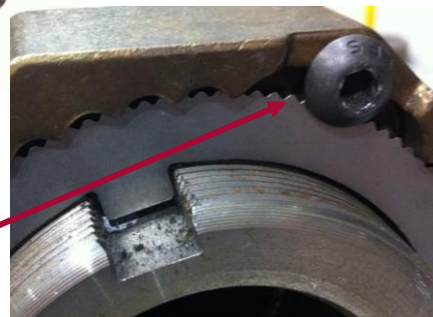
Competitor 2-pc



Keeper ring
not properly
engaged



Lock washer
engagement
ensured by
tightening of
retaining screw



PRECISION NUT

PRECISION NUT

- **Hendrickson designed innovative two-piece spindle nut system**
 - **PRECISION240™** for “N” spindle
 - **PRECISION320™** for “P” spindle



Feature	Benefits
240 or 320 adjustment settings based on nut system	Nearly 5X the adjustment resolution of competitive systems. P-spindle = 320 adjustments, N-spindle = 240 adjustments. Set end play right the first time with confidence it will be maintained.
240 or 320 adjustment settings based on nut system	Ensures precise bearing settings resulting in longer bearing and seal life.
Achieve more precise end play in less time	Saves over 2.5 minutes installation time per wheel end. Less adjustment time vs. 3 pc. nut system (no adjustment of nut to install lock washer). Re-adjustment of nut in 3 pc. system may lead to inaccurate bearing setting and reduced bearing and seal life.
Simplified installation	Set end play, engage the lock washer, tighten the retaining screw! If the lock washer won't engage, simply flip it over! Always seated properly! Competitive 2 pc. systems have keeper rings that may not engage properly.
Larger load zone	Distributes load evenly over bearing rollers providing increased bearing life. Increases seal life as there is less wear on the main sealing lip.