

TEMPER® AXLE PRODUCTS CORPORATION

“Doctor Preload® Delivers Correct Wheel End Bearing Settings Every Time”

Over the past several decades, the North American heavy duty trucking industry has settled for procedures that establish endplay in wheel end tapered roller bearings. The result has been continued “wheel off” incidents along with higher maintenance and operating costs due to bearing, seal and tire wear. A company in upstate New York is working to change all this.

Temper® Axle Products Corporation, headquartered in Fonda, New York, is touting its Doctor Preload® bearing adjustment tool as a breakthrough in wheel end bearing adjustment. Designed to adjust tapered roller bearings to light preload position with a high degree of accuracy, the tool enables a technician to complete the bearing adjustment process in less than one minute.

“Bearing companies

are on record that they prefer their wheel end bearings to be operated under a light preload, but only if that preload can be measured”, explains Ray Piascik, Vice President of Marketing and Sales for the company. “Temper® developed a technology to directly preload the bearings rather than having to torque a locking nut. This allows us to “measure” preload during the adjustment process, and fine tune the bearing set to the optimal preload setting”.

A single nut Temper®-Loc nut completes the bearing adjustment system and the procedure is straightforward. The wheel end is assembled in place on the spindle. The technician ensures that the assembly is up in the proper position on the spindle, and not sagging out of position. Next, the Temper-Loc Nut is hand tightened against the outer bearing. Doc-

tor Preload® is applied to the spindle end, adjusted to the Roll-In Zone and the wheel is turned three revolutions. Then, the tool is adjusted to the Set point for the axle (Drive/Trailer, or Front), and the nut is again hand tightened to secure the preload. The tool is removed, and the single nut Temper®-Loc is locked in place with a fingertip controlled retaining key.

John E. Rode, CEO of the Temper Companies, is the inventor of Doctor Preload®. “We have over 40 years experience developing procedures to adjust bearings in industrial applications. I consider these inventions to be my most important breakthrough, solving this elusive and costly wheel end bearing adjustment problem”, states Rode.

The Truck and Bus Wheel Subcommittee of the Society of Automotive Engi-

neers (SAE), comprised of representatives from bearing companies and axle/chassis manufacturers among others, established target preload settings for key axle sizes in 2001. Entitled “Setting Preload in Heavy Duty Wheel Bearings”, SAE J2535 is the basis for the final setting preloads established using Doctor Preload®. SAE approved and published a paper written by Rode and Piascik in 2009, and presented by the company at the 2009 Commercial Vehicle Conference in Chicago. “Technology Breakthrough Achieves Objectives for SAE Preload Targets in Heavy Duty Wheel Ends”, paper number 2009-01-2887.

Doctor Preload® and Temper®-Loc nuts are receiving a warm reception in the US trucking industry. Fleet owners appreciate the operating benefits of having optimally ad-

justed wheel ends, and a growing number of fleets are adopting the products as their standard. A major food products importer and carrier is working to specify the Doctor Preload® technology on their new equipment purchases. Heavy-duty truck and trailer service organizations like the time savers they get with Doctor Preload®, and the ability to deliver a consistently higher quality service to their important fleet customers. Owner-operators who do their own wheel end maintenance work point to the extended availability of their equipment and lower operating costs when they set their wheel ends with Doctor Preload®.

Temper® Technology Products Corporation, located in Niagara-on-the-Lake in Southern Ontario, is Temper’s Canadian distribution company hand-

ling the bearing adjustment tools in Canada. The company ships directly to the end user in order to ensure its customers receive consistent availability and service.

Piascik expects Canada’s trucking industry to shift to Doctor Preload® bearing adjustment rapidly. “The industry doesn’t have to settle for endplay any longer, a sure fire way to reap the benefits of optimal, measured preload is here today”.

John E. Rode is the CEO and President of Temper Companies, and inventor of Doctor Preload® and Temper®-Loc nuts. Raymond J. Piascik is Vice President, Marketing and Sales. Doctor Preload® and Temper® are registered trademarks of Temper Corporation. We can be reached at 518.853.3467 or you can visit our website at www.bestwheelife.com. ■

ELM TECHNOLOGIES

Protect Your Trailer & Freight

Whatever you are hauling, shipment security is always a concern. One stolen trailer is one too many. Transportation companies today are adding SkyBitz technology to their arsenal of tools. Elm Technologies is the Canadian Distributor for SkyBitz, the leading provider of remote asset tracking solutions, specializing in tracking unpowered assets such as trailers and heavy equipment. Cargo theft in the US is estimated at \$10 billion, and possibly as much as \$30 billion, each year. Here in Canada the problem of cargo theft is as big an issue.

A Fortune 500 shipper of consumer electronics and other big ticket items is prone to product theft. When the shipping

company found out that Mesilla Valley Transportation used SkyBitz trailer tracking technology, they were sold on this trucking company that is equipped to handle theft and facilitate recovery.

DriveLine International has responded to their customers’ security concerns with improved trailer visibility, as well. Using SkyBitz trailer tracking they have recovered several misplaced trailers, normally written off as stolen. DriveLine also managed to direct law enforcement officials to the location of a stolen trailer. As soon as the company discovered a trailer missing, company executives remotely turned on SkyBitz’s “panic feature”. Immediately, the unit began tracking the trailer’s location every

three minutes, allowing the company to pinpoint the trailer’s exact location for law enforcement. As a result, officers raided the chop shop where the trailer was located and found not only the DriveLine trailer, but 12 other stolen trailers in the process of being stripped of all identifiable markings.

SkyBitz’s patented technology has eliminated the need for lengthy and costly hardware installations. The uniquely low power consumption of the SkyBitz hardware allows the unit to run five years on the same set of eight AA lithium batteries, readily available at any grocery store. The battery life of this tracking system is the longest in the industry. No cables at all are involved in the installation of Sky-

Bitz hardware. It’s that simple.

SkyBitz is fully compliant with the US government’s requirement of protective service for tracking of arms, ammunition and explosives. In 2009 SkyBitz received Defense Transportation Tracking System II (DTTS II) certification by The Military Surface Deployment and Distribution Commands (SDDC).

This remote asset management tool provides its users with a wide variety of benefits, including improving trailer utilization and trailer to tractor ratios. The technology reduces the man hours spent on yard checks by replacing manual checks with remote trailer lookups from a desktop computer. Safety, security, insurance advantages, can

add up to large savings. Revenue generation opportunities like detention billing make the tracking system virtually pay for itself. For example, Mesilla Valley Transportation averages \$30,000 to \$45,000 in detention billing per month.

SkyBitz tracking technology is easy to use, easy to install, and easy to maintain. With its 5 year battery life, low maintenance cost, and an affordable price,

the SkyBitz technology offers excellent return on investment. There are already more than 700 companies with over 180,000 units in the field reaping the benefits of the SkyBitz asset tracking solution. Maybe it’s time to add trailer tracking to YOUR fleet management tools. For more information please visit www.elmtechnologies.com or call 866.356.3684 ext. 225. ■

