

# TRAILER WHEEL ENDS

Hubs, Hub and Rotor Assemblies, Brake Drums

# PRESET PLUS<sup>®</sup> – THE MOST ADVANCED WHEEL HUB IN THE INDUSTRY.

# With state-of-the-art design, superior components, and low maintenance features, PreSet Plus is the complete package.

#### Proven — more than 10 million on the road:

In 1995, PreSet<sup>®</sup> hub assemblies set a new industry standard for ease of installation, high performance, and low maintenance. ConMet did it again in 2012 with PreSet Plus<sup>®</sup> — the most advanced wheel end system on the market today.

#### Effortless installation — zero complications:

- ▶ No more messing around with loose hub components. PreSet Plus hubs are completely pre-adjusted and ready to install.
- Avoid additional steps with a single, fully assembled hub designed and manufactured to the highest quality standards in the industry — nothing less.

#### Simple maintenance, less downtime:

- Get up and running as fast as possible with hubs designed for ease of service.
- PreSet Plus hubs are simple to service in the field no special tools. equipment, or procedures required to get your vehicle back on the road quickly.

#### Maximum durability, more confidence:

- Precision bearing spacer designed to maintain clamp load and extend bearing life.
- Proven pre-adjusted bearing technology eliminates manual adjustment — PreSet Plus hubs leave no room for error.

#### Optimized Bearing Spacer

Specially-designed spacer provides a fixed, dimensional distance between the inner and outer bearings so that precise adjustment can be achieved when torquing the spindle nut

#### Long-Life Bearings

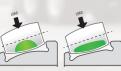
ConMet bearings offer better rolling contact, reduced stress, and lower running temperatures

Integrated Spindle Nut Improves wheel end clamp load, makes installation easier, and aids in removal of the hub

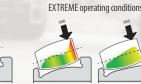
Precision Machined Casting PreSet Plus trailer hubs are available in iron or lightweight aluminum designs

#### ConMet Wheel Bearings engineered to withstand demanding operating conditions

Bearing stress under NORMAL operating condition



Wheel Rearings



Bearing stress under

Wheel Rearing Wheel Rearings





- Extended life over standard bearings
- Optimized contact and reduced stress concentration
- Improved rolling contact and reduced friction
- Lower operating temperature
- More effectively withstands heavy cornering and misalignment

#### **Extended Life Seals**

PreSet Plus trailer wheel seals, which are installed at the factory to a controlled depth, provide maximum sealing efficiency and protect internal components against leaks and contamination

#### **ABS Tone Ring**

All PreSet Plus trailer hub assemblies are equipped with an ABS Tone ring as standard

#### Magnetic Fill Plug A standard magnetic fill plug

helps with inspection of lubricant

#### Easy Access Fill Hole

A fill hole is standard on PreSet Plus hubs so lubricant of all types can be installed quickly and easily

### PreSet Plus and Conventional Trailer Hubs available in aluminum and iron

PreSet Plus hubs, which are available in TP and TN axle configurations, are assembled at the factory with pre-adjusted bearings, long life seal, integrated spindle nut, and an ABS ring.





Aluminum PreSet Plus Trailer Hub

Iron PreSet Plus Trailer Hub

#### **PreSet Plus Spindle Nuts**

ConMet's patented integrated nut system significantly improves wheel end clamp load, makes installation easier, aids in removal of the hub, and provides improved safety features.



Spiral Snap Ring retains components and aides in hub removal and installation



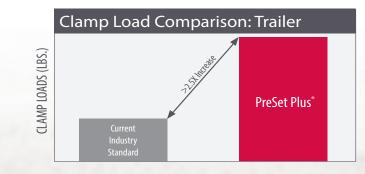
Lock Ring secures spindle nut to washer infinite adjustment for best-in-class locking strength



Nut is designed for and higher clamp loads



Lock Washer maximize contact area for superior clamp retention



## **Clamp Load Increases 2.5x**

Conventional hubs are available in TP and TN axle configurations and include bearing cups, wheel studs, and an ABS ring installed at the factory.



Aluminum Conventional Trailer Hub



Iron Conventional Trailer Hub

# COMBINING PROVEN PRESET PLUS<sup>®</sup> HUB TECHNOLOGY WITH HIGH PERFORMANCE DISC BRAKES

## ConMet<sup>®</sup> PreSet Plus<sup>®</sup> Hub Assemblies

PreSet Plus hub assemblies are the industry standard for wheel end performance, durability, and longevity. Mating them with the latest in ConMet disc brake technology creates the most advanced hub and rotor assembly on the market.

#### No Assembly Required

- PreSet Plus hubs are completely pre-adjusted and ready to install. No more messing around with loose hub components.
- Avoid additional steps with a single, fully assembled hub designed and manufactured to the highest guality standards in the industry — nothing less.

#### Less Downtime, More Support

- ▶ PreSet Plus hubs are simple to service in the field no special tools, equipment, or procedures required to get your vehicle back on the road quickly.
- All hubs are backed by ConMet's experienced field sales and service organization and a limited warranty.

#### What's Inside Matters:

PreSet Plus components are designed and manufactured to extend the life of your hub and rotor assemblies.

- Long life Wheel Seal
- ConMet Wheel Bearings
- PreSet Plus Bearing Spacer
- Magnetic Fill Plug & Easy Access Fill Hole
- PreSet Plus Spindle Nut

### **Disc Brake Technology**

Air disc brakes are quickly becoming the preferred braking technology for today's commercial vehicles. ConMet has developed robust rotor designs to perform mile after mile in nearly all conditions.

### Benefits of Air Disc Brakes:

Disc brakes offer improved stopping distance when compared to drum brakes, which translates into safer and more consistent vehicle performance. With both air and hydraulic disc options, ConMet's PreSet Plus Hub & Rotor Assemblies are available for all axle positions and in any configuration required to perfectly mate with just about every vehicle's brake component system. Additional benefits of air disc brakes include:

## ConMet PreSet Plus Hub Assembly Components

#### **PreSet Plus Spindle Nuts**

ConMet's patented integrated nut system significantly improves wheel end clamp load, makes installation easier, aids in removal of the hub, and provides improved safety features.





## **ConMet Offers a Variety of Rotor Types**





**U-Shape Rotor** The U-Shape rotor, with its high torque capacity, is the industry-proven standard for heavy and severe-duty applications.

#### **ConMet Wheel Bearings**

Commercial vehicle operators in North America continue to demand more reliable, longer-life components at a price that offers better value. Utilizing innovations in both design and manufacturing, ConMet has developed its own line of wheel end bearings to meet this market demand. ConMet bearings are engineered to extend service life and help prevent field issues in the most demanding applications in the industry.

- Shorter stopping distances
- Improved handling and stability
- Lower life cycle cost
- Reduced temperature of brake components

#### **Conventional Hub & Rotor Assembly**

ConMet conventional trailer hub & rotor assemblies are available in iron or aluminum with bearing cups, wheel studs, and an ABS ring installed at the factory.





#### **Splined Rotor**

Bendix<sup>®</sup> splined rotors, used with Bendix brakes, feature a fully floating design that provides a more even braking force.

Bendix is a registered trademark of Bendix Spicer Foundation Brake LLC

# TRUTURN<sup>®</sup> AND TRUTURN LITE<sup>®</sup>: BETTER BRAKE DRUMS – BOTH INSIDE AND OUT.

# ConMet's "turned-to-balance" manufacturing process ensures uniform wall thickness for longer life and improved braking.

#### TruTurn<sup>®</sup> Drums are Inherently Balanced for Better Performance

TruTurn brake drums are constructed using ConMet's "turned-to-balance" machining process, which improves drum strength by eliminating the need for weld-on weights and balance cuts. Not only does this process make the drums stronger, but it creates other advantages such as uniform thermal expansion for reduced brake pulsing, and improved heat transfer, so the drum and brake linings stay cooler. Braking force is more evenly distributed, and occurrences of vibration and "judder" are minimized. With each stop, TruTurn brake drums maintain lower temperatures, maximize durability, minimize wear, and improve brake performance.

#### Stays Cool During Crucial Stops

Traditional cast brake drums are only machined on the inside, which can cause inconsistencies in the wall thickness and lead to drum cracking from 'hot spots' and uneven heat distribution. TruTurn brake drums are machined inside and out, so 95% of their surface area is precisely shaped to ensure dimensional consistency. This makes for more uniform heat distribution, which means the drum and linings stay cooler during crucial stops. Cooler drums last longer, improve performance, and save money on maintenance over the long haul.

#### Surpasses the Competition

Test after test, in the lab and on the highway, TruTurn brake drums beat the competition. They surpass the accepted standards of industry performance testing. With the increase in dimensional precision, they outperform traditional cast drums in many applications. Utilizing the latest engineering and manufacturing techniques, TruTurn brake drums exceed customer expectations for performance and quality at an affordable price. Additionally, the TruTurn design meets Federal Motor Vehicle Safety Standards (FMVSS) 121, giving you added confidence in this reliable product.

How We Make a TruTurn Brake Drum



There can be deviations in wall

be unbalanced.

thickness that would cause a drum to



To make a drum true it must be machined on both interior and exterior walls



Machining removes the deviations without affecting the drum's strength.



The final result is an inherently balanced drum that is ready to install from the factory



With proper maintenance and regular inspections, TruTurn brake drums can keep your vehicle on the road, safely and efficiently. For complete TruTurn installation procedures and training manual, go to www.conmet.com.

#### TruTurn Technology is Tried and True

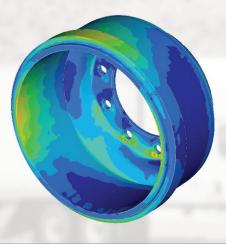
Utilizing the skills of experienced wheel end engineers and the power of advanced computer modeling, ConMet developed TruTurn brake drum technology. Computer-Aided-Design (CAD), Finite Element Analysis (FEA), solidification modeling, and rapid prototypes are all a part of the unique development process. Prototyping, static strength, and fatigue are just a few of the testing procedures used to guarantee the reliability of TruTurn and TruTurn Lite brake drums.

#### Save Weight with TruTurn Lite<sup>™</sup>

- ConMet TruTurn Lite brake drums provide all of the benefits of TruTurn, but in a lightweight package. TruTurn Lite drums are up to 10% lighter than standard drums. This is done by starting with a design
- that maximizes stiffness, but uses less material
- The drum then goes through the proven
- TruTurn "turned-to-balance" manufacturing process which results in a lightweight drum
- that will perform mile after mile.

#### TruTurn Brake Drums Benefits:

- Drum strength is increased through "turned-to-balance" machining process
- Full machining lowers drum temperature
- Precisely machined surfaces reduce vibration
- TruTurn drums are machined inside and out
- ▶ Up to 10% in weight savings with TruTurn Lite



Finite Element Analysis ensures stress levels are reduced and the drum is optimized for less weight, higher strength, and uniform heat distribution

# **PRODUCT & SERVICE SPOTLIGHT**

# ConMet Online and Mobile Tools



#### Informative Website

Visit us online to find ConMet product information including wheel ends, plastics, and castings. You can also access valuable resources like our online parts catalog, hub training program, and product literature. conmet.com



#### Wheel End Aftermarket App

The ConMet Aftermarket app is available on both mobile and desktop platforms, and will help you find the necessary replacement hub or service parts for your needs - fast. conmet.com/app



### ConMet Hub Training

ConMet interactive training will help you become a wheel end expert. Take the training course and get ConMet certified. conmet.com/training

# **ConMet Aftermarket Components**



#### Service & Rebuild Kits

If hub replacement is not an option, genuine PreSet<sup>®</sup>/PreSet Plus<sup>®</sup> Hub Service Kits allow you to reset your hubs to their PreSet factory settings.



Wheel Bearings

ConMet tapered bearings are manufactured for improved durability and extended life in even the most aggressive heavy vehicle applications.



Wheel Seals

ConMet's seals have superior contaminant protection and exceptional wear resistance to ensure long-lasting performance.



Spindle Nuts

PreSet Plus<sup>®</sup> spindle nuts ease hub installation, provide infinite adjustability, and improve clamp load retention.



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