

Eliminate Unnecessary Downtime in Asphalt Mixing Plants

Climax Keyless Locking Assemblies facilitate the repair and rebuild of rotary asphalt plant trunnions providing a cost-effective and maintenance-friendly alternative to the traditional sweat fit methods.



Asphalt plants incorporate the use of a series of trunnions for rotating drums containing hot asphalt mix. For years these trunnion wheels were manufactured from one piece of steel forged to the precise dimensions, or more commonly, an expensive and troublesome "sweat fit" assembly where the axle runs between two bearings and the mounted wheel. In the event of a bearing failure or tire replacement, an assembly repair is required. Most often disassembly of the axle from the wheel is extremely difficult and often impossible requiring the assistance of heat and high tonnage presses.

The loss of productivity during this often lengthy downtime repair had management looking for a less demanding solution. Climax C405-series heavy duty keyless locking assemblies replicate the interference fit required for this application, allow for easy installation with simple hand tools, and most importantly, simplified disassembly and repair with the same hand tools when the need arises. With the use of a Climax C405 keyless locking assembly, replacement of a damaged shaft or wheel is not only possible, but efficient. Locking assemblies only required a straight bore through the wheel with easily obtained surface finishes and liberal tolerances. C405s installed between the shaft and the component bore are capable of transmitting the high torque, thrust and bending loads necessary for these applications.

Climax carries an extensive inventory of keyless locking devices with the capability to engineer custom designs to fit any application challenge.

For Rotating Applications:

- Keys, keyways, and set screws prone to shaft damage and keyway fretting
- Shrink or press fits that are difficult and costly to install and remove
- Requires the use of simple hand tools for installation and removal
- Tolerate transmission of high torque, thrust, and bending loads



RBC has been producing bearings in the USA since 1919. In addition to unique custom bearings, RBC offers a full line of standard industrial and aerospace bearings, including:



Tapered Roller Thrust Bearings

Case-hardened tapered roller thrust bearings for oilfield top drives and swivels. Available in full complement, maximum capacity versions.



Cylindrical Roller Bearings

Cylindrical roller bearings designed for mud pump pinion and eccentric positions. Fully interchangeable to industry standards.



Spherical Plain Bearings

Radial, angular contact, extended inner ring, high misalignment. **QuadLube**®, **ImpactTuff**®, **SpreadLock**® Seal, **CrossLube**®, **DuraLube**™, and self-lubricating bearings. Available in inch and metric sizes.



Keyless Locking Devices

Mechanical bushings used to connect power transmission components onto rotating shafts. Without the use of keyways, KLDs eliminate the problems associated with backlash including fretting, corroding, and wallowing.



Self-Lubricating Bearings

Radial, thrust, rod ends, spherical bearings, high temperature, high loads. Available in inch and metric sizes. **Fiberglide**® self-lubricating bearings.



Ball Bearings

Precision ground, semiground, unground. High loads, long life, smooth operation. **Nice**® branded products are offered in caged and full complement configurations.



Thin Section Ball Bearings

Standard cross sections to one inch. Bore sizes to 40 inches. Stainless steel and other materials are available. Seals are available on all sizes and standard cross sections. Super duplex configurations.



Needle Roller Bearings

Pitchline® caged heavy duty needle roller bearings ideal for cross head bearings applications. These double row bearings are available in single row and **Tandem Roller**® versions.



Tapered Roller Bearings

Single, double, & multi row versions available for main bearing positions in mud pumps, gear boxes, etc. Bearings are constructed of case hardened steel washers and rollers with bore size of 11" or greater.



Lubron® Bearings

Lubron® self-lubricating bearings designed and custom manufactured in most any size, material and bearing configuration. Applications include hydro power and water control, nuclear power generation, infrastructure, architecture, offshore marine, industrial, machinery and heavy equipment.



Rigid Couplings

Shaft couplings serve as components to time, join, or align shafts at lower speeds and torque, especially when zero backlash is desired. Made from mild steel with a black oxide finish, type 303 stainless steel, or aluminum. Available in inch and metric sizes.



Cam Followers

Standard stud, heavy stud, yoke type, caged roller followers. Patented **RBC Roller**® cylindrical roller cam followers, **HexLube**® universal cam followers, airframe track rollers.



Commercial Rod Ends

Commercial and industrial, precision, Mil-Spec series, self-lubricating, and aircraft. Sold under the **Heim**®, **Unibal**®, and **Spherco**® names. Available in inch and metric sizes.



TP Series Bearings

RBC's TP Series cylindrical roller thrust bearings ideal for crane hooks, oil well swivels, winch systems, and gear boxes. Fully interchangeable with industry standard offering.



Shaft Collars

Used to position or locate a component on a shaft. Made from mild steel, type 303 or 316 stainless steel, aluminum, or acetal. Available in inch and metric sizes.



Specials

RBC manufactures many specialty bearings for the aerospace, oil and energy, semiconductor equipment, packaging, transportation, and other industries.



PIC Design

Complete line of precision gears, precision hardware, timing belts, pulleys, and linear motion systems. Industries served include industrial, aerospace, defense, medical, robotics and automation, material handling, and assembly. Custom design support for unique applications.