

Keyless Locking Devices Provide Superior Connection Solution for Wood Chippers

Climax Keyless Locking Devices withstand the constant pounding associated with wood processing applications making them an ideal replacement for expensive and time consuming traditional interference fit connections.



Interference fit rotor/shaft connections common in wood chippers require expensive machining, fixturing, and the use of heavy hydraulic presses. As these traditional fits require close tolerances there is a great deal of labor involved to facilitate assembly.

Climax heavy duty locking assemblies can achieve the same fit with a much simpler and less expensive machining. Keyless locking assemblies are installed and removed with simple hand tools making them ideal for applications that require field serviceability. The same heavy duty locking assemblies can be used to mount drive sheaves on wood chippers eliminating wallowing, fretting corrosion, and fatigue failure, commonly associated with shaft keyways. The harsh demands of constant pounding in wood processing applications on keyed connections are no longer a threat when a Climax keyless locking assembly is used. Climax keyless locking devices only require a straight bore with generous tolerances reducing component machining and complexity cost, and is completely field serviceable.

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

For Rotating Applications:

- Keys, keyways, and set screws cause shaft damage and fretting corrosion
- Splines, prone to fretting and require expensive machining
- Shrink or press fits are difficult to install and remove
- QD/Taperlock bushings do not transmit reversing and bending moments and use keyways where wallowing occurs causing fretting and backlash
- Hex nut keyless bushings are not self-locking and dynamic loading can loosen the connection



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.