

# KLDs Offer Superior Torsion and Bending Capability for Timber Industry Debarkers

*Climax Keyless Locking Devices provide a superior alternative for component connectivity in timber applications where keyed connections commonly result in excessive downtime and loss of production.*



## 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

Due to the harsh nature of the lumber and wood industry, sheared and rolled keys and broken shafts are common on equipment such as debarkers. Shaft/hub connections in this industry are subjected to a constant pounding which eventually leads to shaft fatigue failures of keyed connections resulting in downtime and loss of production.

In debarker applications, Climax C405 series heavy-duty locking assemblies create a 360° contact mechanical interference fit eliminating backlash associated with keyed connections. By eliminating the shaft keyway and associated notch factor, keyless locking devices provide for a shaft that is 30% stronger in both torsion and bending capacity. For sprockets, sheaves, and lever arms, the use of a Climax C133 or C415 series KLD, provide for both higher torque and bending capacity, as well as assuring no axial movement occurs during installation.

Where maintenance is required, Climax keyless locking devices are field serviceable and can be easily removed and reinstalled using simple hand tools, eliminating the need for an expensive and timely maintenance process.

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





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.