

## Keyless Locking Device Provides Solution to Expensive Machining Costs in Lumber Handling Systems

*Climax Keyless Locking Devices provide timing solutions for lumber handling systems providing a cost-effective maintenance-friendly alternative to traditional keyed connections.*



### 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

Lumber handling systems have gears in the transfer station used for lifting raw material. In order for these transfer stations to run smoothly they demand strict sync tolerances. Traditional keyed connections used in lumber handling systems can become compromised causing a loss of synchronization resulting in stopped production. This need to periodically realign the gears and/or replace expensive keyed shafting is often expensive, difficult, and time consuming.

Climax C133 series locking assemblies negate the need for keyways in drive sprocket applications often allowing for the use of A-Plates. When used with kicker arms our keyless locking devices do not require gang broaching or the need to locate keyways on shafting, resulting in reduced machining costs. Under the extreme operating environments of lumber handling systems, KLDs eliminate the need for keyed connections and the associated problems with backlash and fretting corrosion which over time can cause weakened shafts and/or shaft failures. Easy to install with simple hand tools, Climax keyless locking devices provide a simplified disassembly and repair when the need arises and can be retrofitted over existing keyed shafting.

Climax carries an extensive inventory of KLDs 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**®, 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.