



## Oilfield Equipment Bearings



### **A TRADITION OF EXCELLENCE**

It takes a unique company to combine 100 years of bearing expertise and knowledge to provide the oilfield industry with innovative solutions.

**RBC Bearings is that company!**



**RBC Division  
ISO 9001:2008**

**[www.rbcbearings.com](http://www.rbcbearings.com)  
800.390.3300**

## Oil Rig

Heavy Duty  
Roller Bearings  
for Pumping Jacks



Thrust Bearings  
for Top Drives



Rotary Table



RBC Roller® Cam Followers  
for Pipe Racking Systems



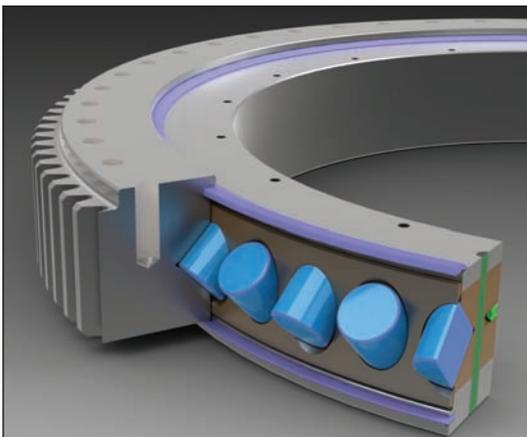
Slewing Bearings  
for Cranes



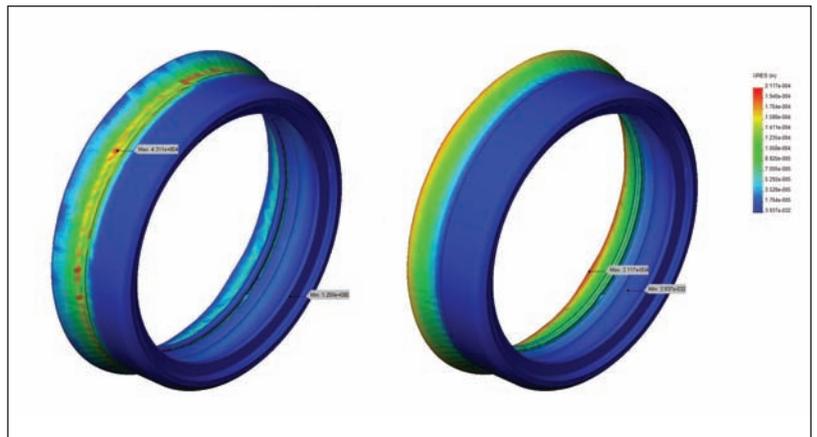
RBC provides a wide range of bearing solutions specifically designed for oilfield applications, with over 100 years in bearing design experience in rolling element bearings and engineered plain bearings. RBC utilizes the latest analytical tools that include solid modeling, finite element analysis, and proprietary bearing design programs that provide us with unique capabilities.

Utilizing coordinate measuring machines gives RBC the ability to accurately measure our components to ensure the precision required for unique solutions to complex problems. RBC's unparalleled level of service, quality, and support from our USA based manufacturing and engineering facilities gives you the peace of mind that when you need help we are a phone call away.

## ISO9001:2008 Certified

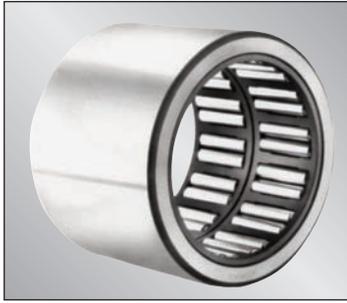


Solid Modeling



Finite Element Analysis

# MUD & FRACTURING PUMP APPLICATIONS



**RBC TJ TandemRoller® Bearings**



RBC Pitchlign® bearings are specifically designed for mud pump cross head bearing positions. RBC's TJ TandemRoller® style provides greater capacity than single roller per pocket versions. The tandem rollers are properly guided, while the cage retains sufficient strength. Combining two rollers per pocket offers up to 40% improvement in capacity and up to 200% greater fatigue life over a bearing with one roller per pocket.



**RBC Cylindrical Roller Bearings**

RBC offers a full range of large diameter, high quality cylindrical roller bearings in standard and custom designs up to a 60 inches (1,500 mm) outside diameter. These bearings are made of high quality case carburized or through hardened steels. RBC cylindrical roller bearings are available in both bronze pin type retainers and full complement styles. Standard and custom sizes are available in single row, double row, and multi-row versions.



**RBC Double Row Tapered Roller Bearings**



Photo courtesy of derek@oilfieldphotos.com. ©2003.

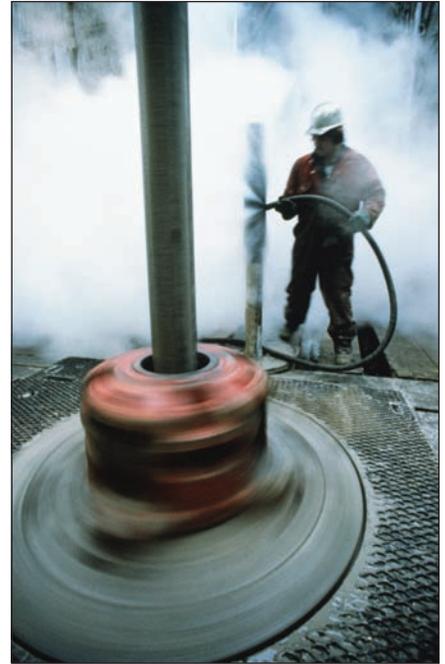
RBC provides a wide range of tapered roller bearings in single row and double row configurations with bore sizes of 11 inches (279 mm) or greater. Our highly engineered tapered roller bearings utilize case hardened steel for the cup, cone, and rollers which provides a tough, ductile core material enhancing the bearing's ability to endure heavy impact loads without sacrificing performance. Superior performance is achieved through a combination of improved roller/raceway contact with enhanced surface finishes and logarithmic raceway profile. RBC tapered roller bearings are manufactured to Class 2 standards and ideally suited for the most demanding applications.

## ROTARY DRIVE TABLE APPLICATIONS



**RBC Rotary Table Bearings**

RBC manufactures highly engineered Rotary Table Bearings for use in rotary table designs up to 60 inches (1,524 mm) diameter in our newest facility in Houston, Texas. Our comprehensive line of Rotary Table Bearings utilizes high quality bearing steel and state-of-the-art manufacturing techniques to achieve an unparalleled level of performance in the most challenging environments. While many of the standard Rotary Table Bearings are available to ship from inventory, RBC also employs a customer focused approach to engineering which provides for rapid response to any special requirements. RBC's unequalled level of customer service in conjunction with our highly experienced engineering and manufacturing teams provides our customers with the best option for Rotary Table Bearings.



## TOP DRIVES, SWIVELS & HOOKS



**RBC Tapered Roller Thrust Bearings**

RBC produces a wide range of heavy duty tapered roller thrust bearings with bores of 4 inches (101 mm) to 16 inches (406 mm). RBC's heavy duty tapered roller thrust bearings are designed for demanding applications in harsh environments. These bearings are constructed of case hardened steel washers and rollers with a machined bronze cage. The large end of the rollers incorporate spherically ground ends with a counterbore to improve lubrication at the guiding rib surfaces of the cage. These bearings are well suited for applications where extremely high thrust loads and shock loads are present. Full complement roller versions are available for low speed and extremely heavy loaded applications where maximum capacity is required.

RBC provides an extensive range of standard cylindrical roller thrust bearings from 3.5 inches (89 mm) to 24 inches (610 mm) outside diameter. These high capacity cylindrical roller thrust bearings are ideal for heavy loads requiring moderate speeds. RBC cylindrical roller thrust bearings

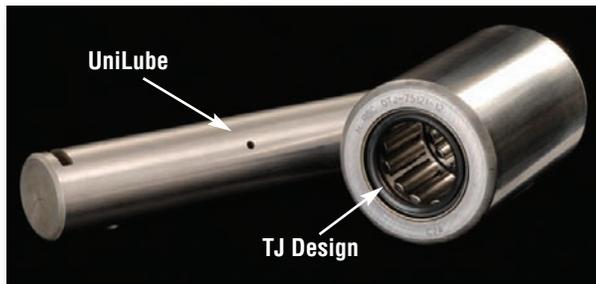
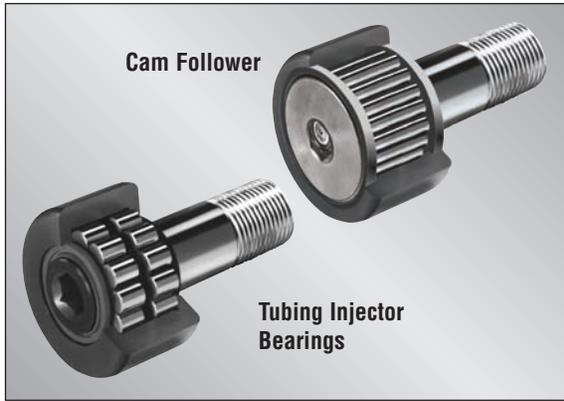


**RBC Cylindrical Roller Thrust Bearings**



are comprised of two hardened and ground steel washers with a machined bronze cage retaining contoured rollers in each pocket. Bearing performance is enhanced with multiple rollers used per pocket in differing lengths. Rollers are placed in a staggered position to create overlapping roller paths preventing wear grooves, which prolongs bearing life.

# PIPE HANDLING AND COILED TUBING INJECTOR APPLICATIONS



Coiled Tubing Injector Bearings

RBC has a full line of cam followers that are ideally suited for applications where heavy shock loads, high rotational speeds, and corrosion are major problems. With a history of innovation, RBC pioneered the RBC Roller® which provides a higher capacity, higher speed capability, and maintenance free cam follower for the most rugged applications.

Equally innovative is the RBC HexLube® cam follower that allows the user to easily and quickly re-lubricate cam followers in hard to reach places or where access to the stud end is limited.

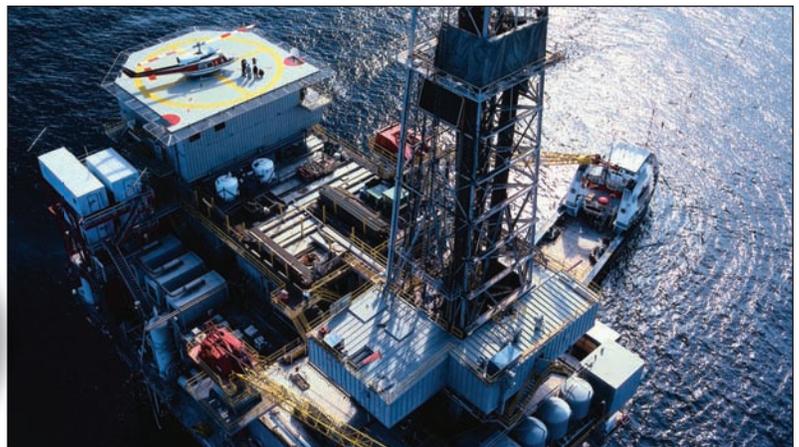
RBC cam followers are made to exacting specifications and are available with corrosion resistant coatings and platings when needed.

RBC's coiled tubing injector bearings utilize our TandemRoller® technology to increase the dynamic and static capacity. Case carburized outer rings and studs make these bearings more durable in heavy impact load conditions. Incorporating a single grease port in the center allows for better lubricant flow to both raceway surfaces.

## OFFSHORE APPLICATIONS



Lubron® AQ Bearings



LUBRON® AQ self-lubricating bearings are widely used in offshore marine applications where environmental conditions are often severe and external lubrication is impractical. LUBRON® AQ bearings are constructed of corrosion resistant alloys and permanent solid lubricants specifically developed for seawater use. LUBRON® AQ bearings provide dependable performance and long life, require no supplementary lubrication, and are maintenance free.

RBC has the capability to design and manufacture slewing ring bearings ranging from 24 inches (610 mm) to 169 inches (4,293 mm) in diameter. Slewing ring bearings are available with internal and external gearing if needed. Styles range from single row ball, double row ball, single row roller, and multiple row roller.

# Innovation. Commitment. Quality.

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.



## 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 **TandemRoller**® versions.



## Cylindrical Roller Bearings

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



## 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.



## 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.



## Slewing Ring Bearings

Four point ball bearings and three axis roller bearings for marine crane applications. Bearings are available in caged versions and with internal or external gears up to 169" in diameter.



## 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.



## Self-Lubricating Bearings

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



## Lubron®

AQ self-lubricating bearings used widely in offshore marine applications. Constructed of corrosion resistant alloys and permanent solid lubricants specifically developed for seawater



## 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.



## 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.



## 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.



## Specials

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