

SOLVING PROBLEMS

With Spherical Plain Bearings



“Spherical plain bearings wear out too quickly in our application.”

RBC's patented QuadLube® lubrication groove system delivers more lubrication into the bearing load zone. This extends life by minimizing direct metal-to-metal contact between the SPB inner ring (ball) and the outer race.

Adding seals to the SPB can prevent wear debris from entering the bearing working zone and reduce abrasive wear.

Proper re-lubrication intervals are essential to maintaining an adequate lubrication supply and flushing wear debris and contaminants out of the SPB.

“The lubricant doesn't last long enough. Frequent re-lubrication is required.”

The QuadLube groove system will hold a substantially larger volume of lubricant, which will generally provide a longer re-lubrication interval than typical SPB's.

Matching the proper bearing size with application characteristics (load, oscillatory speed, and duty cycle) will maximize operating life and re-lubrication interval.



“Our spherical plain bearings are breaking under impact load.”

RBC's patented ImpactTuff® technology has been proven in some of the most severe SPB applications anywhere. These case carburized bearings have the unique attribute of combining a Rockwell 60 wear surface with a ductile inner core to absorb shock.

Review load calculations to verify that the appropriate bearing size is specified.



“Seals will not stay in place. They come out of the bearing too easily.”

Our unique SpreadLock® seal provides the most secure retention of any seal available in the marketplace. The patent pending design includes the feature of high seal groove depth to seal height ratio. This means that the majority of the seal is anchored in the precision-machined groove in the bearing race.

They are particularly effective in cases where housings are painted after seal installation. Upon first articulation of the joint after paint drying, standard seals could be pulled out of position. SpreadLock seals are far more resistant to this forced removal.

RBC
BEARINGS®

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“There is high mis-alignment and a large amount of dirt and wear inducing debris present in our application. RBC's QuadLube grooves drag dirt into the bearing.”

Using our unique CrossLube® outer race lubrication groove system delivers the benefits of additional lubrication in the load zone without exposing lube grooves to detrimental environmental conditions.

CrossLube consists of a continuous “X” pattern of lubrication grooves around the inner diameter of the outer race. The grooves break out at the edges to facilitate complete flushing of the bearing during re-lubrication.

“Why shouldn't we buy spherical plain bearings from cheap off-shore sources?”

There are quite a few risks associated with buying these bearings from sources which are often not clearly identified. Imported SPB's (particularly those from the far east) are often sold by agents who do not identify the manufacturer of the bearings. This raises a number of important questions:

- Who actually manufactured the bearings?
- What quality control systems and procedures were in place?
- What sort of steel certification process was utilized?
- Were heat treatment controls effective and consistent?
- Is dimensional accuracy and consistency at an acceptable level?
- How dependable will ultra-long distance delivery be?

See our “white paper” for more details regarding these and other important issues relating to the sourcing of spherical plain bearings from “no name” suppliers.



“The size we need isn't in your catalog.”

Specials are a way of life for RBC. Make sure to present the details of the modifications or special work needed. Blueprint review often yields an acceptable solution.



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