



# Peace of Mind on Deck

**Workboat Operators Mitigate Risk by Eliminating Traditional Lubricants**

By Joseph Keefe

**A**s a changing regulatory landscape impacts the North American workboat industry, especially in the inland markets, operators are always looking for ways to save money, improve operations, eliminate risk and avoid falling afoul of the tightening regulatory machine. Both the long-awaited Subchapter M towboat rules and the EPA's VGP now cover significantly more hulls than before, and in a very short period of time. Hence, the need to tighten up has never been greater.

A good place to start is on deck where critical equipment can create environmental headaches if not properly and continuously maintained. It doesn't have to be that way. Traditional appliances such as winches, roller chocks, fairleads, gangway ramps, cranes and davits all need to run free and stay lubricated. Using the usual grease and lubricants can be messy, often neglected, and time consuming when it is performed correctly. Beyond this, the potential for these lubricants to leak into water is omnipresent. Hence, it wasn't surprising that Thordon Bearings – perhaps better known for its underwater shaft bearings in the blue water

markets – saw the perfect application for its products on deck. Since then, more than a few workboat operators have come around to their way of thinking.

### ThorPlas-Blue Bearings

In a nutshell, ThorPlas-Blue bearings eliminate the need to apply grease on deck to various pieces of machinery. Scott Groves, Business Development Manager for Thordon Bearings told *MarineNews* in September that when it comes to deck machinery, there can be many types of bronze and grease applications, and when there's rain water, there's going to be pollution. For deck applications, Thordon uses higher pressure bearings that can withstand pressures up to 6500 PSI. Groves adds, "We are targeting applications like lifeboat davits and rolling fairleads. Look at steering linkage bushings. Particularly in the inland River system, you'll have grease bronze jockey bars for tiller arm steering and the alignment isn't always good. You'll get abrasives in the area. It is not a clean working environment."

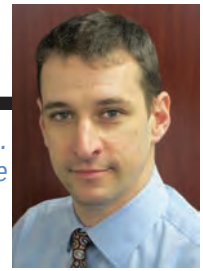
The effort to keep all machinery installed above the wa-

\*All images above courtesy of Thordon Bearings (unless noted otherwise)

## DECK MACHINERY

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**– Scott Groves, Business Development Manager for Thordon Bearings**



terline in good working order is a tall order for any boat's crew. Workboat operating conditions are typically difficult, and equipment maintenance requirements can be demanding and time consuming. Hence, it isn't unusual to see the premature onset of bearing seizure, often as a direct result of periodic maintenance be delayed or overlooked. The combination of poorly greased bronze bushings and seawater shaft corrosion may cause bushing seizure. Fortunately, ThorPlas-Blue can be easily back-fit into virtually all applications where greased bronze is currently installed.

Once installed, ThorPlas-Blue does not require greasing to ensure smooth operation. The lubricants formulated throughout the homogenous ThorPlas-Blue polymer matrix ensure a low, stable coefficient of friction, even as the bearing wears. In applications where movement is infrequent and there is significant exposure to salt water spray, if space permits, high performance Thorseal lip seals can be considered to prevent the ingress of seawater and possible buildup of salt deposits in the bearing. According to Thordon, wear rates are very low compared to greased bronze ensuring long life and dramatically reduced maintenance costs.

### On, In and Out of the Water

Thordon markets the bearings not only as something that helps the equipment operate more successfully and smoothly, but at the same time, touts the solution as one which completely eliminates grease from that portion of the vessel. One OEM deck machinery provider, Nabrico, has had especially good results with the ThorPlas-Blue Bearings. With four winches fitted with Thordon bearings in the inland tank barge business, and having proven the bearings with a long term testing stand operation, Nabrico reports good results in their deck equipment. Nabrico has also had the bearings installed in as many as 56 deck cranes, also with excellent performance.

According to Clint Bryan, Nabrico's General Manager, installing the bearings can involve "a little more work up front," but once installed, the bearings provide service as

advertised, all without the need for messy grease and lubricants. And says Bryan, "We do quite a bit of rebuilding and what we find is that some winches get maintained well and some do not. The Thordon bearings eliminate that worry from the equation."

Separately, Seacor's Inland River Services also employs Thordon's ThorPlas Blue materials. In fact, Robert King of SCF Lewis and Clark (a Seacor subsidiary) told *MarineNews* that his firm had been using Thordon bearings since the 1980's. In those days, SCF Lewis and Clark were primarily using the Thordon shaft bearings, but they've since evolved to using Thordon materials for other applications. In particular, says King, the Thordon ThorPlas-Blue bearings are highly suitable for their jockey bar systems, adding, "We like the one-two punch of the stainless steel with the Thordon bearings."

Still another ThorPlas-Blue user is Signet Maritime's Timothy McFaul, who says that he has relied on Thordon products for more than 20 years. First using Thordon bearings for propulsion and steering systems, he also relies on ThorPlas for Signet's stern roller bearings. "The rollers were seizing up when we used nylon. Replacing that arrangement with a combination of stainless steel and ThorPlas has been a great success," McFaul told *MarineNews* in September, adding, "Any chance I get, I'll use ThorPlas."

Robert King, in the ultimate nod to Thordon's bearing systems, told *MarineNews*, "The AWO RCP says that you have to have 'a grease policy.' Well, we don't need one because we don't use grease." In practice, Thordon Bearings involve a little more expense on the front end, but once the longer equipment lifespan and elimination of grease (and the labor needed to apply those lubricants) is factored in, the overall cost of ownership may even be less than operating with traditional bearings lubricated by the typical deck grease. And, with one less point of egress for pollutants eliminated, operators can sleep a little easier even in the face of a more robust VGP environment. Peace of Mind, Performance and Practicality: that's what Thordon promises, and more importantly, it is what their customers say they deliver.

#### The Thordon ThorPlas-Blue Advantage:

Easily back fit into bronze applications	Environmentally friendly	Easy to install
No greasing required (lube + labor)	Eliminate unsightly grease	No mess on deck
Eliminates frequent maintenance	Reduced labor/safety issues	No seized bearings

#### ThorPlas-Blue Applications

Fairleads, mooring gear	Gangway ramps	Cranes, hoists, loading equipment
Lifeboat/Tender davits	Winches	Door stay linkage bushings
Tiller arm steering rod ends	Doors and hatches	Vertical Pumps