# RiverTough BEARINGS AND SEALS

**Built for the Inland & Coastal Waterways** 





# TAKE THE WORK OUT OF WORKBOAT













Experienced team along the inland & gulf coast waterways



Hundreds of Inland Waterways References

#### TG100 Seal

#### Safe Return to Port Emergency Seal

A unique feature of the TG100 is that the emergency seal allows you to return safely to the nearest port if your primary seal is ever damaged.

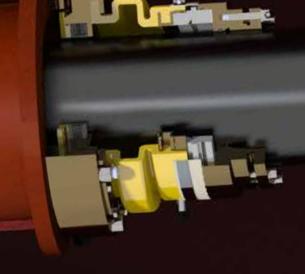
#### Maintenance-Free Shaft Seals

The TG100 seal is designed to operate without any need for spare parts or maintenance between vessel docking periods. The elastomeric bellows and emergency seal have an unlimited shelf life, further reducing any need for expensive overhaul kits in the future. Combine these features with the use of only silicon carbide faces for both the dynamic and stationary faces, TG100 takes the work and cost out of your Workboat.











# **RiverTough Tailshaft Bearings**

#### Long Bearing Wearlife in the Toughest Operating Conditions

RiverTough bearings run in combination with hard coated NCB ThorSleeves routinely outlast rubber bearings by a factor of two or more in the most abrasive operating water conditions. Longer wear life has consistently been confirmed by owners of workboats, pushboats and tugs operating in the US inland waterways systems. But don't take our word for it – Ask our users!

#### Save Money

It's a fact. Workboats that operate with RiverTough tailshaft bearings are more reliable – they operate longer, require less maintenance and fewer drydockings. This means less money spent and more money earned!

After four years of operation at sea and with beach landings in an environment of mixed water and sand, RiverTough bearing wear is minimal on the LCU's (Landing Craft Units). The service and operation with the upgrades has been good and the hardened sleeve shafting and RiverTough bearings do not need replacing. Another four years of trouble-free bearing life is expected with the upgraded systems. The CCD upgrades developed resulted in significantly longer component service life and significant cost savings.

Carderock Division Det Norfolk, Combatant Craft Department (CCD), Code 23, US Naval Sea Systems Command, U.S.A. Due to the difficult operating conditions on the Magdalena River, the tailshaft bearings that we used experience excessive wear. For this reason, we decided to start using Thordon Rivertough bearings. After successful installation and alignment we were able to increase reliability and extend the replacement period of the bearings.

Pablo Gutierrez, Managing Director Naviera Central, a Seacor Company, Colombia



# ThorPlas-Blue Tiller Arm Bushings

## **Reliable Operation**

Ensuring reliable operation of all equipment installed above the waterline is a tough issue for any ship's crew. Originally developed to replace greased bronze bearings, ThorPlas-Blue is lifetime lubricated – lubricants in the homogeneous polymer ensure a low, stable coefficient of friction, even as the bearing wears, while offering long bearing wear life with no maintenance.

ThorPlas-Blue

Tiller Arm System

ThorPlas-Blue is used to replace

highly loaded greased bearings,

capable of design pressures up to

6527 psi (45 MPa). Offers grease-

free operation eliminating the

need for crew to grease.

## **High Load Capability**

ThorPlas-Blue is used to replace highly loaded greased bearings, capable of design pressure up to 6527psi (45MPa).

# ThorPlas-Blue Rudder Bearings

#### **Grease-Free Operation**

ThorPlas-Blue offers low friction and long bearing wear life without the use of grease. There is no maintenance due to the self-lubricating properties ensuring smooth operation. The use of rudder Thorseals will keep abrasives away from bearing and sleeve surfaces.

#### **Superior Performance**

ThorPlas-Blue offers good dimensional stability with tighter installed clearances due to lower water absorption and low thermal expansion.

THORDON BEARINGS IN C.

# DESIGNED FOR DIRTY, ABRASIVE WATERS



ThorPlas-Blue Rudder Bearings,

Thorseals & SXL Thrust Washers

# RiverTough Tailshaft Bearing

Increased resilience compared to rubber bearings offer easier alignment and less edge loading (installation at 3:1 vs. 4:1 L/D ratio)

# **ThorSleeve**

Non-corrosive NCB hardened
ThorSleeves are designed to offer superior
performance running in combination
with Thordon RiverTough tailshaft and
ThorPlas-Blue rudder bearings. Provides a
longer wear life and reduced maintenance
downtime over the life of the vessel.



## TG 100 Mechanical Seal

A high performance mechanical seal offers the best combination of strength/stiffness and flexibility/elasticity for vessels operating in dirty and abrasive waters.

# CUSTOMER FOCUSED TO QUICKLY MEET YOUR NEEDS

#### **Quick and Responsive Service**

It takes quality products to be globally successful in the water-lubricated bearing and shaft seal industry. It also takes great service to keep customers coming back.

Thordon Bearings Inc. is geared to respond quickly to supply high performance seal and bearing solutions. Our products arrive quickly, fit right and last!

#### **Extensive Distribution Network**

Thordon Bearings has an extensive distribution network of more than 75 distributors in 100 countries to supply and service our global customer base. Non-standard requests are met with responsive design, quick machining and speedy delivery.

#### **Application Engineering**

Thordon engineers work closely with customers to provide innovative bearing and shaft seal system designs and solutions.

While TG 100 seals are designed as a standard product that will virtually bolt into place, global installation technical support is available for those cases where specific application engineering is required.

#### **Manufacturing Quality**

Thordon Bearings Inc. is a family-owned company with manufacturing and new product development facilities in Burlington, Ontario, Canada. In addition, we operate a new leading edge manufacturing plant in Slupsk, Poland.

We manufacture to ISO 9001:2008 Quality System requirements. Contact us for our installation references.

#### High Performance Bearings and Seals; Industry-Leading Service

Thordon Bearings is an industry leader in the design, manufacture, supply and installation of high performance, pollution-free, shaft seal and bearing systems. We design all our products to last for the life of the vessel.

Your Authorized Thordon Distributor



3225 Mainway, Burlington, Ontario L7M 1A6 Canada

Tel: +1.905.335.1440 Fax: +1.905.335.4033 Email: info@thordonbearings.com Website: www.ThordonBearings.com



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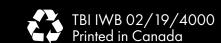
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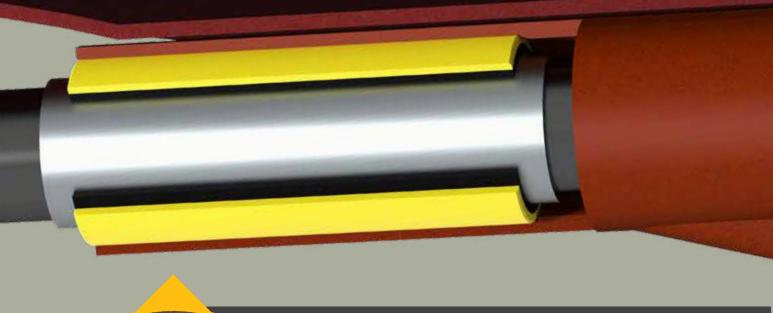




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