

ENVIRONMENTALLY FRIENDLY BEARING SOLUTIONS

THORDON BEARINGS HELP ENSURE RELIABLE PERFORMANCE OF NEW AHTS VESSELS

Anchor Handling Tug Supply (AHTS) vessels are the toughest tugs in the sea. These hardy ships perform the challenging job of towing oil platforms to location and anchoring them into position. Often working dozens of miles offshore, the consequences of a propeller shaft or stern roller failure can be dire. Reliability is a must. That's why Bender Shipbuilding selected Thordon bearings for the new AHTS's they are currently constructing. "We needed proven, reliable bearings for the propeller shafts and stern rollers," says Ryan Roth, Project Engineer at Bender Shipbuilding. "We considered the alternatives and Thordon emerged as the best choice based on price and performance."

Six New Vessels

Located in Alabama, along the Gulf of Mexico, Bender has been a leader in shipbuilding and repair for more than 75 years. At its state-of-the-art facilities, the company has built all types of vessels, from shrimp boats and passenger ships to factory trawlers and offshore supply vessels. In fact, there are more than 800 Bender-built ships in operation around the globe. The six AHTS vessels that Bender is currently building are 81m(265') long twin-screw ships with 286mm (11.25") diameter propeller shafts. The stern rollers - the large drums fitted onto the open stern to allow for the setting of heavy anchors - each have a shaft size of 254mm (10") diameter.

Long Wear Life Required

AHTS vessels often work in rough seas and all-weather conditions. When metal bearings are used on the slow rotation stern rollers, the performance and life cycles tend to be erratic. To ensure reliability, Bender needed a bearing material with an exceptional track record of success. Thordon SXL bearings were the obvious choice. "Bender had already used Thordon on three previous AHTS vessels with excellent results," says Ed Coppedge of Coppedge Marine, a company with 25 years experience in marine and industrial equipment and a valued Thordon Distributor. "So they were well aware of all the advantages."



Track Record Of Success

Thordon Bearings has a long history of outstanding performance in just about every kind of demanding marine application. The Thordon COMPAC propeller shaft bearings installed in the AHTS vessels feature water lubrication, no oil required (and, therefore, no risk of stern tube oil pollution), no AFT seals and exceptionally long wear life. "From an engineering standpoint COMPAC is very easy to work with," Coppedge points out. "It can be machined to accept various

shaft and housing tolerances and, therefore, you get a much tighter running bearing.” Bender Shipbuilding machines a dummy plug to the desired housing I.D This dummy plug is coated with a releasing agent and carefully aligned. Once aligned, Bender pumps a chocking compound around the dummy plug and allows the chock to set up. Once the dummy plug is removed, Bender measures the housing and machines the COMPAC bearing for an interference fit. The result is a nice, clean, aligned bearing installation!



Seawater lubricated COMPAC propeller shaft bearings eliminate stern tube oil pollution

For the stern rollers, Thordon SXL was chosen for its excellent performance under demanding marine conditions, and - like the COMPAC bearings – long life. Both COMPAC and SXL bearings are less expensive than their metal counterparts. And, because of the outstanding performance over a very long life cycle, the maintenance costs are significantly lower, too. “Overall, we expect great results from the Thordon propeller shaft and stern roller bearings on these AHTS vessels,” says Roth. As previously mentioned, Bender Shipbuilding has chosen Thordon COMPAC propeller shaft bearings on three AHTS. This order brings the total to nine vessels. Based on experience, pricing and reliability, Bender currently has a bid for three tugs utilizing Thordon Composite EF propeller shaft bearings that offer extended wear life in very abrasive water environments.



Seacor Marine stern roller installed with Thordon SXL bearing

The Wave Of The Future

As oil production increasingly goes to sea, AHTS vessels will play an increasingly important role in towing and securing oil platforms into position. And Thordon will be there with bearings that help keep these rough tugs operating smoothly. To date, more than 80 AHTS vessels worldwide use Thordon SXL bearings in stern roller applications and over 500 ships are equipped with COMPAC propeller shaft bearings.