

## D'Artagnan Dredger Boasts 9-Year Wear Life of Cutterhead Shaft Bearings

Water lubricated Thordon Composite cutterhead shaft bearings have performed well for 9 years on one of the largest cutter suction dredgers in the world –Dredging, Environmental and Marine Engineering N.V. (DEME)'s *D'Artagnan* (28,200 kW total installed power).

The vessel had a major dry docking at Drydocks World-Dubai in February 2014 where the shaft was removed, and bearings and shaft inspected. Originally built in 2005, the *D'Artagnan* self-propelled cutter suction dredger is involved in very heavy rock-breaking having a cutting power for operations in rock soils of 6000 kW. "The bearings performed well and have shown a positive wear life compared to grease lubricated metallic bearings," says Frederik Mertens, Assistant Vessel Manager at DEME. The decision was made to replace the cutterhead shaft bearings. The same Thordon Composite bearings are also installed on the intermediate ladder shaft bearings. Mertens says, "For the intermediate ladder bearings we noticed even less wear on the Thordon bearings than the cutterhead bearings so we did not replace them." Grease-free Thordon SXL wire rope sheaves were also installed during the drydocking.



*Thordon Composite cutterhead shaft bearings prior to installation on the D'Artagnan owned by DEME*

Thordon's authorized Distributor in the U.A.E., Ocean Power International (OPI), assisted Drydocks World and Dredging International (DEME's subsidiary) in the replacement with additional supervision during, and prior to, installation. After the successful installation, Bart Mares, Docking Team Leader, Technical Dept. Maintenance & Repairs at Dredging International said, "A big thumbs up for OPI and Thordon!"

Thordon Composite has been consistently outperforming rubber in dredge cutterhead bearing applications since it was introduced in the 1970's. Composite bearing wear rates in dirty abrasive conditions are typically half that of rubber bearings, reducing maintenance downtime over the life of the vessel. "We have a good relationship with DEME and they use Thordon Composite on four of their dredgers", says Willem Noor, of Sandfirden Technics, Thordon's authorized distributor in the Netherlands and Belgium for over 12 years. The inspected bearings confirmed that the Thordon Composite grade can withstand the most abrasive conditions typical for a dredger equipped for working in various mediums. "Compared

to expensive bio-degradable greases, these water lubricated bearings from Thordon are a real cost saving alternative," says Mertens.

Thordon Bearings Inc. designs and manufactures a complete range of polymer bearing and shaftline products for the marine, clean power generation, pump, offshore and industrial markets. Thordon's strong and recognizable global brand is known for high quality and superior performance, eliminating oil and grease from bearing applications in ships, hydro-turbines, vertical pumps and many other marine applications.