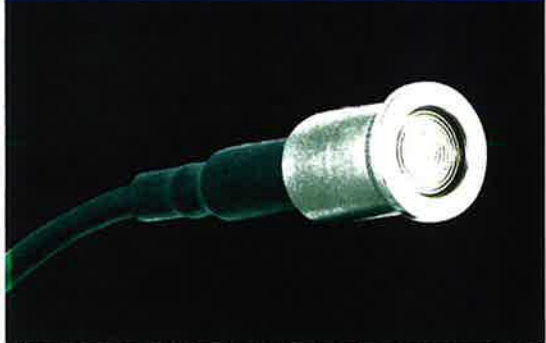


Dredger: 9-Year Wear Life on Cutterhead Shaft Bearings

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While the marine industry is rife with rough working conditions, dredging operations arguably pose the toughest challenge to any class of marine equipment. Water lubricated Thordon Composite cutterhead shaft bearings have reportedly performed well for nine 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 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,” said 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'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.

The inspected bearings confirmed that the Thor-



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

don 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,” said Mertens.