

Long-lasting seals and bearings brings reliability and lower cost

CASE STUDY



The Abu Dhabi based company, Khalid Faraj Shipping, has put their trust in Wärtsilä's seals and bearings for many years. Recently Khalid Faraj Shipping ordered both retrofits and upgrades for several of their vessels. "Wärtsilä's composite bearings are an environmentally-friendly solution, when it comes to seals and bearings. The good experience from use in other vessels in our fleet made the choice simple," says Mr. Nadim Gharib, Technical Manager at Khalid Faraj Shipping.

Khalid Faraj Shipping, founded in 1995, is one of the leading private sector ship owners and ship operators based in Abu Dhabi. The company is actively engaged in marine, offshore oil and gas support services as well

as rendering project logistics services. Khalid Faraj has a fleet of 45 vessels, mainly consisting of landing craft, deck supply vessels, anchor handling tugs, tow tugs, crew boats and project carriers.

CHALLENGE

- Customers' existing bearings were not performing well and seals were not serviceable in water.

SOLUTION

- Installation of composite bearings WCS-01 and PSE seals, including yard training for machining and installation on the first 2 vessels.

BENEFITS

- Cost-effective solution, because of low wear and long life.
- Supplier with local spares stock and technical support available.
- Savings due to longer replacement frequency.

PERFORMANCE PROBLEMS WITH EXISTING SEALS

Wärtsilä's range of water-lubricated bearings offers excellent performance, covering both commercial and military applications.

"The existing seals and bearings on some of our vessels did not perform as expected. Furthermore, the bearings had premature failures, thereby causing expensive operational downtime of vessels. Wärtsilä offered us package solutions for both seals and bearings, and since we have good experience from use in our other vessels, it was an easy choice", says Mr. Nadim Gharib.

The seals and bearings from Wärtsilä cover a variety of different options to suit specific applications, such as non-split bearings, split shells, or fully split housing that allows in-situ replacement and repair, as well as bearings packages. Wärtsilä also offers a bearing wear down gauge system, which remotely indicates the wear of the stern tube or bracket bearing by measuring the drop of the propeller shaft.

LOW LIFECYCLE COST

The propeller shaft bearings are some of the most critical components on a vessel that can affect performance. Wärtsilä's environmentally-friendly, pollution-free and water-lubricated bearing systems with, for example, low-speed hydrodynamic operation increase the lifecycle efficiency of propulsion.

"We wanted a solution that is cost effective. Wärtsilä's low-friction systems translate into low wear and long life. We also wanted a supplier with a local spares stock and technical support available during emergency scenarios", Mr. Gharib explains.

Wärtsilä Envirosafe is a highly technical, filament wound composite-bearing material with market leading wear resistance. The solution, furthermore, allows easy bearing replacement or system inspection with the shaft remaining in-situ, meaning cost-efficient servicing. In addition, it is approved by all the major classification societies.

Mr. Gharib says that some of their vessels had Wärtsilä's Sternguard EK/EJ seals which were upgraded to new models. The retrofits consisted of composite bearings WCS-01 and PSE seals.

"In addition, Wärtsilä also supplied yard training for machining and installation on the first two vessels."

THE ONE-STOP-SHOP FOR SEALS AND BEARINGS

According to Mr. Gharib, Wärtsilä's bearings perform better than other competing brands on the market.

"Previously, we used to replace bearings every two to three years, but our experience with the Wärtsilä bearings is that they are better and last more than five years, which means savings for us. The necessary class approvals, good local product support and long warranty are valuable bonuses."

Khalid Faraj Shipping has discovered that Wärtsilä is a one-stop-shop for seals and bearings solutions.

"Thanks to an annual parts agreement, the supply of spare parts is very smooth. We also have the seals and bearings in operation in other vessels, so we know that their performance is proven to be good. Therefore, I can confidently recommend other shipping companies to use Wärtsilä's seals and bearings", concludes Mr. Nadim Gharib.

Vessels fitted with Wärtsilä's composite and/or PSE seals 2015-2017:

- OMRAN
- LCT REEM MAY
- LCT BA'AYA 1
- LCT WARAYA
- LCT MARIYAM
- LCT AZAH
- TUG SAEED
- LCT DAYYINAH STAR 1
- SHAM
- TAIBA
- KHAWLAH
- HAMDAAH
- RAWDAH
- TUG TRAYCE
- KESSAB
- GEZLLAN
- LCT HAMDAAH 1

"Wärtsilä's bearings are better and last longer, which means savings for us."

**Nadim Gharab, Technical Manager,
Khalid Faraj Shipping**

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08 / 2020

