

Walkersele®

Case Study: Low friction Walkersele® allows water lubrication of bearings for marine application

Problem

The introduction of regulations requiring vessels sailing in US waters to use Environmentally Acceptable Lubricants (EAL) on all applications where leakage to the environment is possible. However, EAL media degrades over time and its chemistry changes, which can have a significant impact on elastomer seal materials. This meant that the existing NBR seals on rudders were no longer suitable, but the move to an EAL compatible polyurethane material was proving too cost prohibitive.

The customer was seeking a more cost effective way to move to an EAL compatible solution

Application

Semi-static application

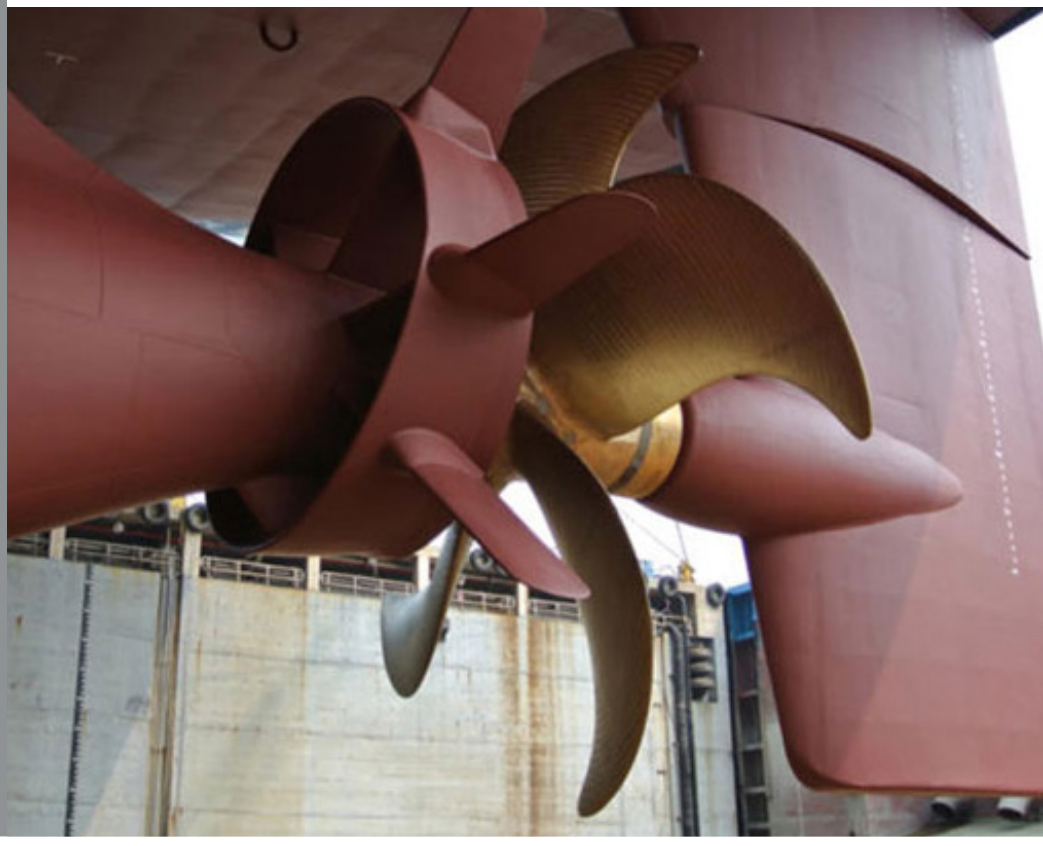
- Size: 960 mm x 1024 mm x 25 mm
- Temperature: 10°C up to 40°C
- Media: Seawater
- Pressure: 0.2 bar

Existing solution

Polyurethane seals

James Walker solution

The solution allowed for EALs to be removed completely from the application which as result removed the associated higher cost of compatible materials and the EAL lubricants themselves. The Walkersele® NM86/80LF that was offered allowed for seawater lubrication. This product fitted the existing housing with no modifications necessary, offering a reduced downtime solution. The low friction material was put in place and trialled successfully, surpassing all expectations on sealing performance. As it allowed the bearing to be lubricated by seawater, this offering gave the ultimate in environmentally friendly operation.



Results and benefits

NM86/80LF helped the customer avoid expensive lubricant costs, as the material meant that they could use seawater to lubricate the bearings. As such, any leakage would not be harmful to the environment.

Cost savings, less downtime and quicker maintenance turnaround for the customer



Same housing dimensions required no seal design adjustments



Zero leakage in operation leading to the customer meeting environmental policies



Eliminated lubricant costs completely

To find out more speak Expert2Expert at

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