



Bremenports puts its trust in readily biodegradable speciality lubricants

GREEN PORTS | Reliable lubricants are indispensable for the operation of port facilities. However, they may be released into the water, for example during dredging work, and so biodegradable speciality lubricants offer an effective and easy-to-implement measure as part of an efficient sustainability strategy.

Sustainability is an important objective pursued by Bremen ports. The port management company bremenports GmbH & Co KG responded to the increasing challenges of environmental protection as early as in 2009 and developed a sustainability strategy with the aim of setting up projects within the various ports under its control which enable the economy and the public sector to foster maritime environmental protection.

The maintenance facility at Bremenports is particularly focused on sustainability and an important component of its strategy to protect the maritime environment is the use of biodegradable lubricants. Sven Bürgel, technical manager at bremenports in charge of the dredging sector, is working towards a quick introduction of environ-

mentally friendly operating materials. As lubricants may unintentionally be released into the water during dredging operations, the use of biodegradable lubricants is a good approach.

One of the relevant ships is the bucket chain dredger *Bremerhaven*, which is used to excavate sludge from docks. This ship, which does not have its own propulsion system, is positioned and fixed with six winches. The excavated sludge is conveyed by barges to the washing fields of a landfill to dry, and can then be used in the building of dykes, for example. The dredger goes to a maximum depth of 18m, and can dredge up to 570m³ of sludge per hour.

In the meantime, bremenports has switched the *Bremerhaven's* equipment from standard greases to eco-friendly products. Today, biodegradable lubricants from Klüber Lubrication are used. The lubricant Klüberbio BM 32-142, is fed to many components of the conveyor by means of a central lubrication system. This high-performance lubricant not only contributes to enhanced sustainability, but also saves resources as it has been designed for minimum-quantity

lubrication. For the open drives and highly stressed bearings of the winches, Klüberbio AG 39-602 is used. This biodegradable multi-purpose grease also lubricates the generator bearings below deck.

“Since we started using the KL lubricants, there have been no problems whatsoever,” said the ship’s engineering officer at bremenports, Peter Mehrends. “All the requirements to be met by a state-of-the-art lubricant are fully complied with. Meanwhile we’ve even been able to extend the relubrication cycles, which has already reduced consumption levels.”

Together with the sales partner Franz Gottwald GmbH + Co KG, the tribology experts from Klüber Lubrication organised a special training programme to explain to bremenports staff the benefits of using speciality lubricants. This enables maintenance personnel to use lubricants correctly, to identify when changes are needed, and to minimise the risks involved.

Based on the positive experience so far, bremenports is pushing the changeover to environmentally compatible lubricants into other areas.

Charterer achieves carbon-neutral ship operation

CARBON OFFSET | RightShip, a maritime risk management and environmental assessment organisation, and CBL Markets, a spot exchange for carbon offsets, have helped chemicals manufacturer Incitec Pivot Limited (IPL) to achieve a carbon-neutral shipping operation. IPL uses RightShip’s carbon accounting tool to measure the carbon produced by the 200-odd vessels it charters in a typical year and then buys voluntary carbon credits from CBL markets. As a result, the chemicals company has been able to offset about 73,000 tonnes of CO₂ for each of the financial years 2016-17 and 2017-18, making its marine transport operations carbon neutral.

IPL’s Martin Gleeson, National Shipping & Chartering manager, said: “A key element of

IPL’s sustainability agenda is around working with our suppliers to reduce the impact on the community and environment. Working with RightShip, we have been able to take proactive measures to quantify, manage and even offset carbon emissions from our shipping and chartering operations. This not only has significant environmental benefits, it is also enabling us to positively influence action on climate change in the maritime industry”.

Describing IPL’s initiative as demonstrating “real industry leadership”, RightShip’s Sustainability manager Kris Fumberger, commented: “More and more blue-chip companies want to measure their ship-sourced emissions, and our verified carbon

accounting process allows charterers to achieve this simply and cheaply. The offsetting of almost 150,000 tonnes of carbon dioxide by IPL is a significant step towards the reduction of overall shipping emissions, and the creation of a safer and more sustainable industry.”

Set up in 2001, RightShip offers a range of environmental risk services. Its Greenhouse Gas Emissions Rating system, for example, compares the CO₂ efficiency of more than 76,000 vessels. The company estimates that this system is now used as part of the selection process in the fixing of one in every five ships. In tonnage terms, this is equivalent to more than two billion dead-weight tonnes a year.