

CASE STUDY

Danelec

DPU 100-01

CONSOLE

VGA

USB

DATA
LAN 1

LAN 2

UNI- TANKERS

Identifying high maintenance and obsolete VDRs to enable cost savings and increased efficiency

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DANELEC MARINE

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WWW.UNI-TANKERS.DK

THEME: VDR UPGRADE PROGRAM

Some of the existing VDRs of the Uni-Tankers fleet are 10 or more years old and nearing the end of their service life, which means that they require an increasing amount of costly maintenance and repairs.

In close dialogue with Uni-Tankers, Danelec Marine carried out a thorough analysis of all VDRs and identified 10+ units which were found to be obsolete and/or too expensive to maintain.

Uni-Tankers and Danelec Marine agreed on an upgrade program ensuring that the Uni-Tankers fleet will be equipped with the latest Danelec Marine state-of-the-art VDR technology available today. The new technology will help boost efficiency and the proactive use of data.

Product quality and reliability as well as simplicity in the installation and setup are characteristics of Danelec Marine products, and were decisive factors in Uni-Tankers' decision to assign Danelec Marine with the comprehensive and challenging task of upgrading the VDR on the affected vessels.

"The VDR is a mission-critical piece of equipment. If a VDR fails and is unable to continue recording data, the port state control authorities may decide that the vessel is not allowed to move on, thereby putting the vessel out of operation. With the new VDRs from Danelec Marine, we not only expect significant cost savings but even more critically, we expect to prevent failures as well as sudden and costly operational breakdowns."

– Keld Nielsen, Marine Manager, Uni-Tankers



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VDR CONVERSION KITS ENABLE EASY REPLACEMENT

About Uni-Tankers

www.uni-tankers.dk

The Danish tanker shipping company Uni-Tankers was founded in 1995 as a subsidiary of the financial group United Shipping & Trading Company Ltd. (USTC), Middelfart, Denmark.

It operates a fleet of modern, large oil and chemical tankers ranging from 3,000 to 18,000 DWT.



Normally, removing an obsolete VDR and replacing it with a new unit would involve many hours of labour for the installing technician, as the existing components are often not compatible with the new technology.

To solve this problem, Danelec Marine has developed a range of conversion kits to replace more than 40 different VDR models and simplified VDRs (S-VDRs), including all major existing and legacy brands. The conversion kits provide specific sets of hardware, software and data interfaces tailored to each VDR model, saving time and money and minimizing downtime for the vessel.

The first new VDR retrofit of the Uni-Tankers fleet using one of these conversion kits was on the vessel M/T Endelo Swan, and carried out at the Orskov Yard in Frederikshavn, Denmark. The operation was a success...

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"Due to the tailor-made retrofit kit, the conversion to the new Danelec Marine VDR went smoothly and efficiently with a minimum of downtime. Product reliability and a highly efficient manufacturer service network are key factors for Uni-Tankers, and Danelec Marine is the best in the industry. We look forward to the continued rollout of our retrofit program."

– Michael Sejrup Villadsen, Nautical Superintendent, Uni-Tankers

INTELLIGENT REMOTE MANAGEMENT SOLUTION

To enable remote access to VDR data, Danelec Marine developed 'DanelecConnect', an intelligent solution based on the installation of a VRS (Vessel Remote Server) as an add-on to the VDRs.

As part of their upgrade agreement, Uni-Tankers retrofitted a number of VRS modules along with the VDRs so that they can make proactive use of VDR data for remote management of their connected vessels.

According to Uni-Tankers, VDRs were previously mainly seen as 'black boxes' with mandatory input and data collection used exclusively in connection with incidents on vessels.

In line with Uni-Tankers' data strategy, the smooth transfer of VDR data via remote access is key to monitoring and performance optimization. And DanelecConnect makes it easy.

Digitization of data is also a top priority for the tanker shipping company, and Uni-Tankers plans to gradually enhance the use of the VDR with the VRS. This is the most obvious – and ALREADY EXISTING – logical onboard data hub as it integrates the retrieval of real-time data from a vessel's systems and sensors with onshore offices. It also offers the possibility of retrieving input from further shipboard equipment such as ECDIS.

ADOPTING IOT

So far, the shipping industry in general has been hesitant to adopt IoT solutions partly because of the complexity of both the setup and the implementation of many of the solutions available on the market. With the DanelecConnect solution, the implementation is smooth, and the remote use of fleet data is facilitated providing an efficient and improved overview of the performance of Uni-Tankers' vessels all over the world.

The complete VDR fleet upgrade of the 10+ Uni-Tankers vessels was completed by May 2021. Retrofits will be conducted in dry dock or when vessels are in operation and will take place both in Europe and in the USA. Upgrades, on average, take 3-5 days, including travel time.

Danelec Marine has a track record of more than 6,000 VDR installations. With a global service and support network of more than 600 certified service technicians in 50 locations worldwide, Danelec Marine has earned the status as preferred VDR provider with second-to-none, prompt and highly competent service and support to the global shipping industry.

The Danelec Difference



Safety is priority number one



Enhance fleet operational efficiency



Maximize return on investment

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