

DFDS SEAWAYS



LOCATION

Grimsby, Lincolnshire, UK

BUSINESS SECTOR

Freight shipping

SIZE

DFDS Group: 6,600 staff

VEHICLES

The Humber Viking's 1.4MW Mitsubishi generator

CHALLENGES FACED

1. The oil in the Humber Viking's generator was being badly diluted by fuel. This necessitated oil changes every 250 hours, leading to excessive oil use and maintenance costs exceeding £15,000 per annum.
2. The oil dilution increased engine wear and threatened generator reliability.

SOLUTIONS DELIVERED

1. The oil drain interval was safely extended to 1,000 hours by fitting an Extended Oil Life System (EOLS). This unit removed the fuel dilution through a combined process of evaporation and filtration.
2. Engine additive levels and viscosities were kept at optimum levels to maintain lubrication and ensure the reliable operation of the main generator.

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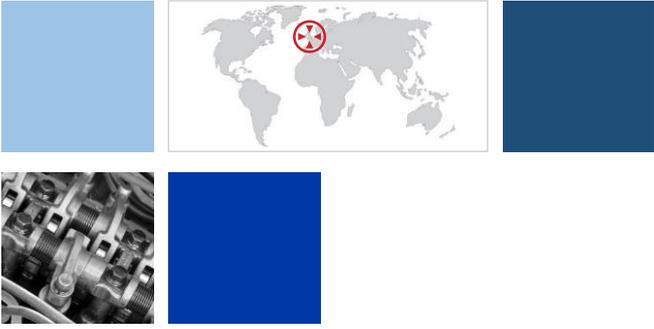
The filter system represents the most cost effective way to remove fuel dilution from the oil in the Humber Viking's generator.



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Plug it in, problem solved.

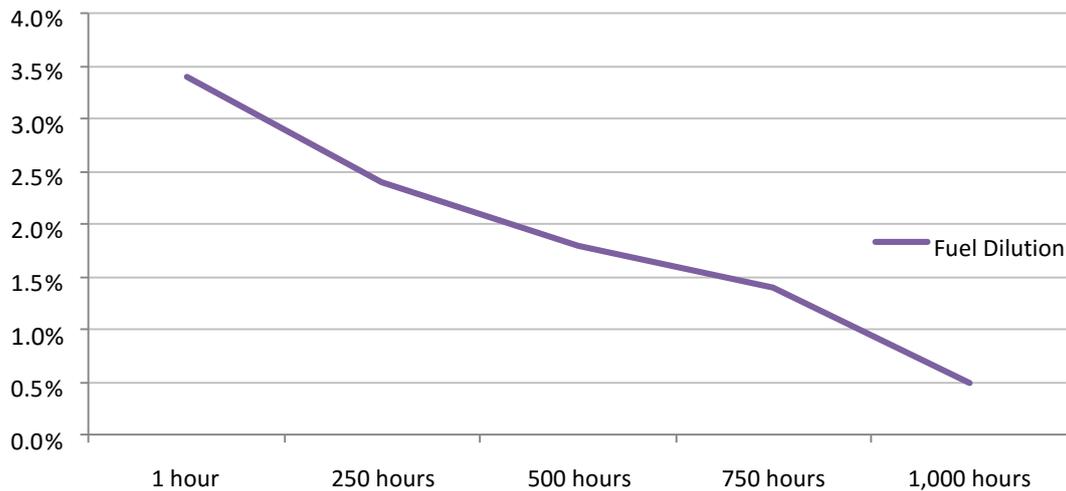
DFDS Chief Engineer



TECHNICAL GOOD SENSE

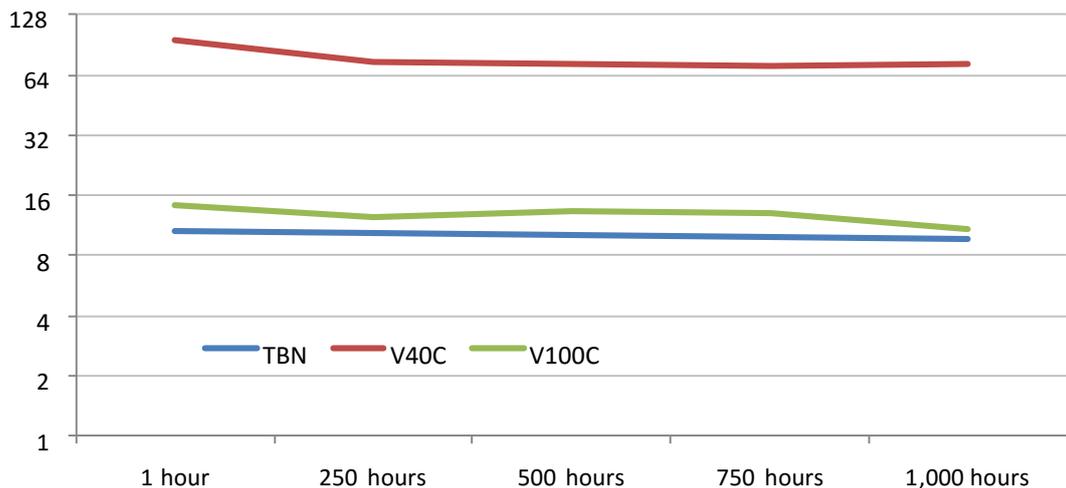
REMOVING FUEL DILUTION

After installing the EOLS the level of fuel dilution dropped steadily from 3.5% to a perfectly safe 0.5%. The EOLS' protein-rich 1µm cotton element removes the fuel's heavier hydro-carbons while the evaporation chamber removes and vents lighter hydro-carbons.



MAINTAINING FLUID PHYSICAL PROPERTIES

Over the same extended service period the oil's Total Base Number (i.e. the level of alkaline additives) and viscosity remain constant thanks to the EOLS unit's ability to evaporate off water and sulphur dioxide, the precursors of a sulphuric acid reaction.



BACKGROUND

The Humber Viking is a ro-ro (roll on, roll off) cargo vessel operating between the UK and Holland and throughout the Mediterranean.

Testing revealed that the main generator's engine oil was becoming diluted by diesel fuel. This endangered the reliability of the generator and the safety of the ship.

Without treatment, the only way to cope with the dilution was the change the oil every 250 hours. With an oil capacity of 400l, this was an expensive, disruptive and time-consuming process.

A TRIPLE SUCCESS

The EOLS unit has been entirely successful on technical, operational and financial levels.

- Fuel dilution has been reduced from 3.5% to 0.5%. It represents no danger to the generator at this level.
- Oil change service intervals have been extended by a factor of four: from 250 to 1,000 hours. This extends the vessel's operational window and reduces maintenance requirements.
- Fewer services and reduced oil consumption generate a 5-year saving of over £45,000 for the operators.

ABOUT DFDS SEAWAYS

DFDS is a growing international shipping company with a leading market position in Northern Europe. DFDS' shipping network integrates freight and passenger services. The group HQ is in Copenhagen.



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