Everllence

PrimeServ

Utkilen tanker gains 20% fuel savings

Radical CII improvement: The Carbon Intensity Indicator (CII) rating will advance from C to A - due to an efficient retrofit and vessel upgrade with a bulbous bow and wake equalizing duct - combined with our CP propeller blade upgrade design and main engine power reduction.

All in all, for the Norwegian shipowner Utkilen AS, an optimized solution for their chemical tanker M/T Nordstraum turned out perfect in terms of performance, efficiency, and reduced CO_2 emissions.

Achieving an average of 20% fuel savings means really tangible benefits

Utkilen

Utkilen AS has significantly improved fuel efficiency and reduced emissions, powering their commitment to sustainability and operational excellence - amongst other by upgrading the M/T Nordstraum with a retrofit solution.

Propulsion retrofit

At Everllence, we are committed to designing and supplying propulsion retrofit solutions that significantly enhance vessel performance and efficiency.

Our advanced technologies, hydrodynamic tools, and expertise in optimized propeller and propulsion systems enable us to achieve remarkable improvements in fuel consumption and emission reduction, supporting our customers in reaching their sustainability goals.

Our retrofit and upgrade capabilities are designed to future-proof vessels, making them more efficient and environmentally friendly.

Tailored solutions for enhanced efficiency

In our collaboration with Utkilen AS, Everllence PrimeServ provided an efficient propulsion optimization solution for the chemical tanker.

In a combined package with main engine power reduction, this project included "a study and pre-investigation package" and comprehensive hydrodynamic calculations for an optimized Alpha propeller blade state-of-the-art design for efficient integration with the aft ship and a wake equalizing duct.

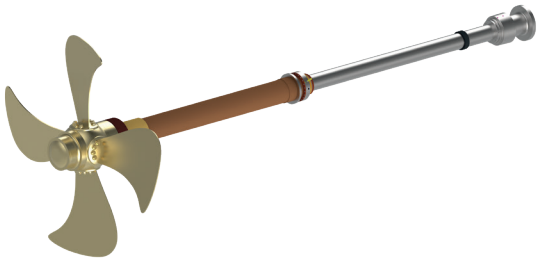
An aft ship solution, optimized in close cooperation with Becker Marine Systems, designed to enhance propulsive efficiency and reduce fuel consumption - in connection with further addition of a bulbous bow.

A remarkable operational result

“Fuel savings combined reached an average of 20%”, says Eirik Gjerde, Newbuilding & Innovation Manager at Utkilen AS. Very pleased, he continues, “We are absolutely satisfied with the result. This was a great collaboration between several companies (FKAB marine design for the bulbous bow, Becker Marine solution for the Mewis Duct and Everllence). Without this collaboration, we would most likely never have achieved the major savings. This upgrade will extend the efficiency and commercial value of the vessel.

Eirik Gjerde, Utkilen AS

An investment, which will enhance the chemical tanker's operational efficiency while minimizing emissions in line with our best business practices.”



Visualization: The Alpha CP propeller and aft ship solution involves upgrading of the existing blade geometry resulting in improved overall performance.

Utkilen: Solid heritage, values and market lead

With roots tracing back to 1916, Utkilen is today recognized as one of Northern Europe’s leading chemical tanker operators. Headquartered in Bergen, Norway, Utkilen owns and operates 15 sophisticated ice class chemical tankers ranging from around 6,000 to 17,000 dwt.

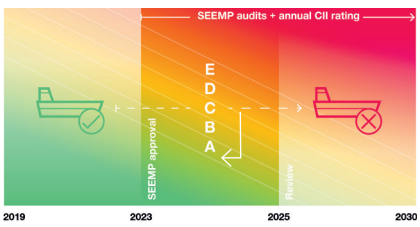
Core values are safety, quality, and sustainability. With commitment to environment and operational efficiency, Utkilen is further certified by DNV.

Saved fuel and emission reduction

Operational data shows that the vessel is now capable of achieving a top speed of 14.0 - and it operates with the new optimization speed of 12.5 knots at a fuel consumption rate approx. 2.6 tons less per day than before the retrofit. This translates to a 20% direct fuel saving, significantly enhancing operational efficiency and reducing emissions. Calculated CO_2 emission reduction amounts to approx. 1,670 tons per year.

Great cooperation with Utkilen AS

Martin Høgsted Knudsen, Sales Manager at Everllence PrimeServ, added, “We are really proud to be part of this exciting propulsion optimization project. A successful long-term customer relationship has once again been crucial in executing such a retrofit and upgrade task. From a propeller and propulsion perspective, the solution is perfectly balanced in terms of investment, performance, efficiency, and reduced CO_2 emissions”.

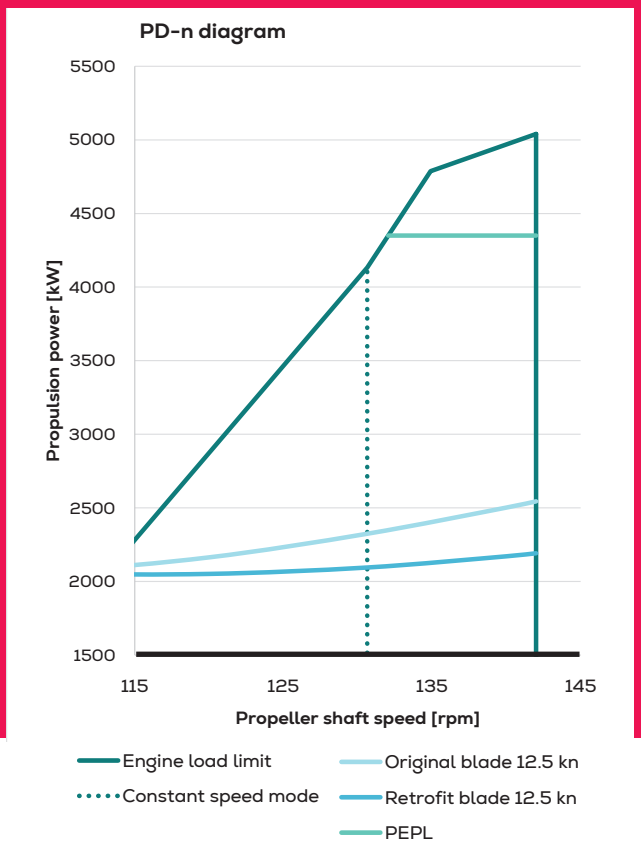


The vessel got a C rating in 2024, and Utkilen expect to change the CII to an A rating in 2026 and maintain a B rating until 2030

Fuel savings

Approx. 2.6 tons per day

We are committed to supporting our customers with tailored solutions that meet their operational and environmental goals.



Principial ship particulars

Including power and optimized speed data - before and after the retrofit and upgrade - for Utkilen's chemical tanker:

Ship name	Nordstraum
IMO number	9523548
Vessel type	Chemical tanker
Flag	Norway
Gross tonnage	6,768 tons
DWT	9,616 tons
Length	144.6 m (registered - overall 118.95 m)
Breadth	18.5 m
Draught	7.5 m
Original engine MCR	5,040 kW @ 750 rpm (9L32/40)
Reduced engine MCR	4,350 kW @ 690 rpm (Propeller rpm 130.6)
Alpha CP propeller	VBS 1280 Mk3
Propeller diameter	4,500 mm
Original opt. speed	15.1 knots
New opt. speed	12.5 knots (required max speed 14.0 knots)
Year of build	2012
Builder / shipyard	AVIC Dingheng Shipbuilding Co., Ltd., China
Classification society	DNV GL
Home port	Bergen, Norway
Owner and manager	Utkilen Shipping AS, Norway

Large Retrofit & Upgrade portfolio

At Everllence PrimeServ, we offer a comprehensive range of solutions for propulsion, propeller and aft ship systems, two-stroke and four-stroke engines.

Our solutions are designed to deliver powerful returns on investment through significant fuel oil savings, operational improvements, decarbonization, safety, and reliability.

Learn more about how our solutions can benefit your fleet. Contact us via RetrofitDK@everllence.com for a vessel-specific consultation.

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MAN Energy Solutions SE has been renamed to Everllence SE, and its products are being rebranded from "MAN" and/or "MAN Energy Solutions" to "Everllence". As this is an ongoing process, any reference to "MAN" and/or "MAN Energy Solutions" is actually a reference to "Everllence".

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