

JETTE KRISTINE Won 23.5% Bollard Pull

Propeller and nozzle for top performance



F/V JETTE KRISTINE upgraded on the slipway at PrimeServ Frederikshavn Service Center

New blades and nozzle: A full-scale bollard pull test, showed an increase in bollard pull performance of impressive 23.5%.

General potential for greater efficiency

Propellers designed more than 10 years ago normally offer great improvement potential in retrofit projects, where fuel consumption reductions of up to 12.5% for free running propeller upgrades have been reported – simply by exchanging the existing propeller blades to today's optimised and advanced designs.

A relatively small investment with short payback time and radical impact on the ships' future operational economy, fuel consumption and exhaust gas emissions. The green impact and environmental benefit of lower consumption is not to be neglected.

In this case with JETTE KRISTINE and in similar cases with other fishing trawlers, offshore vessels, tugs and dredgers – bollard pull is the key performance parameter. MAN Diesel & Turbo's upgrade solutions can include bollard pull optimised propeller blades alone – or bollard pull optimised blades in connection with a propeller nozzle upgrade. Optimised propeller blade profiles applied together with the newly designed high-efficient AHT (Alpha High Thrust) nozzle is the ultimate solution.



JETTE KRISTINE Won 23.5% Bollard Pull

Propeller and nozzle for top performance



Before and after: New blades and nozzle gave a bollard pull increase from 19.1 to 23.6 metric tonnes

Customer feedback from the fishery operations – 15% fuel saving when trawling

After two fishing trips – evaluating how the propeller and nozzle upgrade has performed in real life operational conditions – the owner of JETTE KRISTINE, Mr. Niels Arne Hounisen, expressed his satisfaction: “MAN Diesel & Turbo has fulfilled my request for more pulling power, and they have delivered more than promised. Plus 23.5% is remarkable, considering the fact that JETTE KRISTINE was equipped with ordinary propeller equipment in good condition – nothing outdated!” Hounisen continues: “When steaming, it has given me approx. 0.5 knot extra top speed, and in trawling conditions, I have experienced a clear difference with better control of my fishing gear. Most important is a reduction in fuel consumption of more than 15% recorded at trawling speed”, concludes Niels Arne Hounisen.

Service Center task at PrimeServ Frederikshavn

The physical replacement and upgrade operation was performed over 14 days at MAN Diesel & Turbo’s slipway in Denmark.

F/V JETTE KRISTINE – propulsion particulars:

Main engine: MAN 6L23/30 (1080 kW/1470 BHP at 825 r/min)
Reduction gear: MAN Alpha 39KV11 (reduction ratio 825 to 214 r/min)
CP Propeller: MAN Alpha VB740 (diam. 2,650 mm)
New nozzle: MAN AHT-type (Alpha High Thrust)

For further information on retrofit solutions, please contact our Retrofit Department at PrimeServ-frh@mandieselturbo.com or call us at +45 96 20 41 00.

Copyright © MAN Diesel & Turbo - Subject to modification in the interest of technical progress. 3010-0143-00ppr-September 2010 Printed in Denmark

MAN Diesel & Turbo

PrimeServ Frederikshavn
Propulsion
Niels Juels Vej 15
9900 Frederikshavn, Denmark
Phone +45 96 20 41 00
Fax +45 96 20 40 30
PrimeServ-frh@mandieselturbo.com
www.mandieselturbo.com

MAN Diesel & Turbo

PrimeServ Frederikshavn
Service Center
Langerak 74
9900 Frederikshavn, Denmark
Phone +45 96 20 44 99
Fax +45 96 20 40 41
Servicecenter-frh@mandieselturbo.com
www.mandieselturbo.com