

Skibsbygningsmarkedet i Norge

Erfaringer set fra MAN Diesel & Turbo



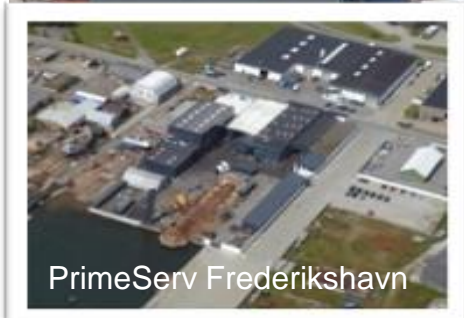
Site Frederikshavn og MAN Diesel & Turbo

Eksempel

Erfaringer i Norge



Site Frederikshavn



Employees (01.10.2014) : ~450

Products
Propellers
Gears (Phasing out)



Gears



Propellers



PrimeServ After Sales Service



Test Center

Opstart som “Frederikshavn Jernstøberi og Maskinfabrik” i 1883

Videre til B&W, til Alpha Diesel og nu MAN Diesel & Turbo

Ejet af VW



Kompetencecenter for (verdens bedste) propellere!

MAN Diesel & Turbo world-wide



MAN Diesel & Turbo i Norge



Åbnet i 1954

7 ansatte

Salg:

Reservevedele

Service

Motor, gear og propeller



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Retrofit projekt – Frontline

Basis for retrofit projektet



- 156,000 DWT crude oil carrier
- MAN B&W 6S70MC – 18,660 kW @ 91 rpm
- 8.2 m 4-bladed fixed pitch propeller
- Original design: Top speed: app. 15.8 kts

Fuel savings
requested

- Future service profile:
- Min. top speed : 14.0 kts
- New optimization speed : 12.5 kts
- Max. propeller diameter : 9.0 m

Retrofit projekt – Frontline

Nøgletal ved 12,5 knob



- Derating of main engine – 18,660 kW @ 91 rpm \Rightarrow 10,394 kW @ 68 rpm
- 2 x new MAN Diesel & Turbo TCA turbo chargers
- Three-bladed 9.0 m fixed pitch Kappel propeller
- Torsional vibration counter measures – change of intermediate shaft
- Mewis duct from Becker Marine Systems

▪ **Expected fuel oil saving after tank test verification:**

▪ **At optimization speed of 12.5 knots: 17.5%**

▪ **At new top speed of 14.0 knots: + 16%**

Kappel propeller & Mewis dyse

Billede fra test



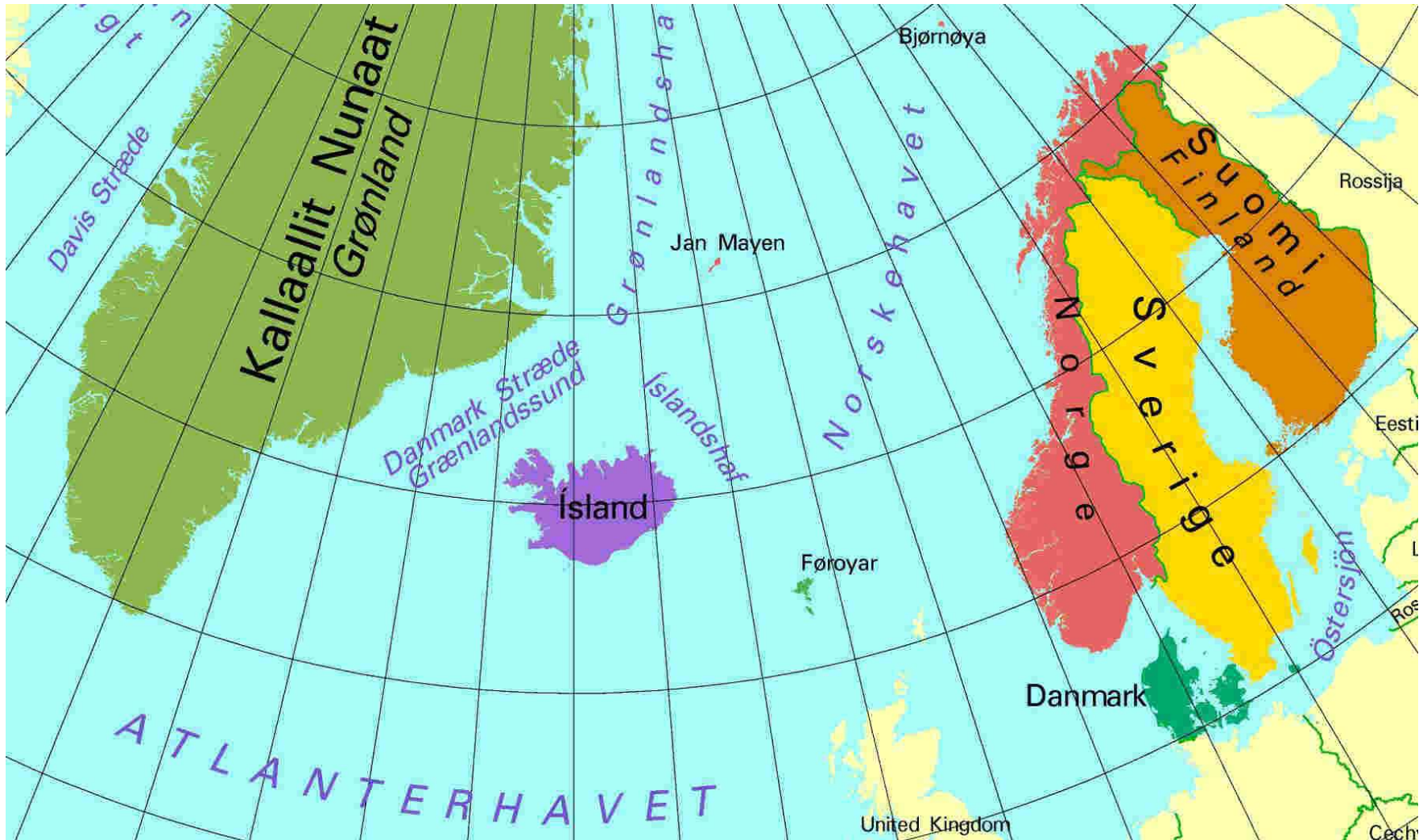
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Eksempel

Erfaringer i Norge



Erfaringer i Norge



Kulturforskelle

Sproget

NOx Fonden

Vareforsendelse

Indrejse med værktøj



Nordøstpassagen



Mange kunder

Kvalitetsbevidste

Vær tilstede

Selv

Agent





Tak for opmærksomheden



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