GSP Pilot

Ammonia-powered tanker in global shipping

Pilot owner: Equinor (Tomas Ryberg)

GSP Pre-BBQ seminar 06.06.2023

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The purpose of the ammonia powered tanker pilot

Mature decision basis for a potential newbuild DF ammonia tanker

Technical and economical feasibility

Technical and operational safety aspects

Bunkering and specific barriers for ammonia

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Participants

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Technical feasibility

Reliquefaction plant

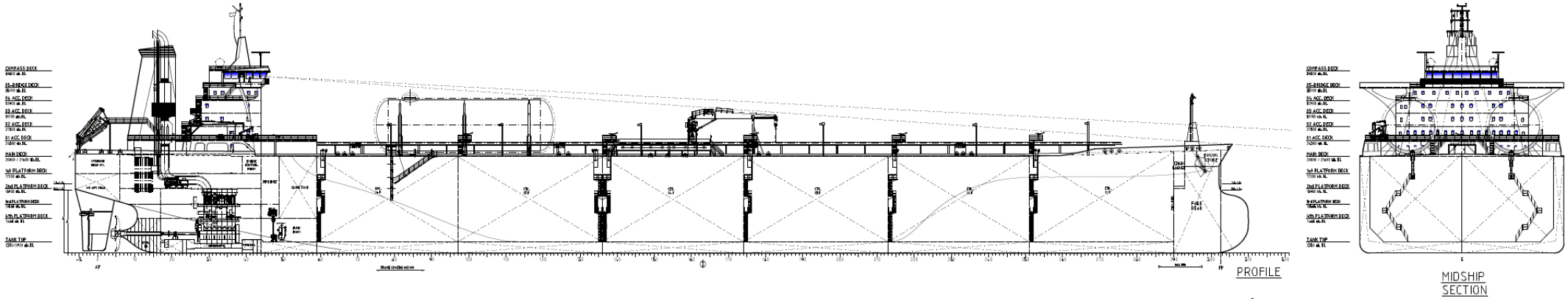
Fuel gas supply

Vent system

ARMS system/boiler

BREEZE Ship Design

Z 9501 111k
AFRAMAX TANKER FOR OIL & PRODUCTS



Main engine

Ammonia storage

Stability

Bunkering interface

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What we have learned

Clean ammonia and e-methanol can significantly reduce WtW GHG emissions

Actual GHG intensity in the value chain is key

Clean ammonia gives more cost efficient decarbonization than e-methanol

Carbon pricing (ETS) is currently too low to close the gap – Contracts for difference is key

Framework for safe design of ammonia fuel systems and bunkering is maturing

Safe ammonia cargo handling is proven technology

For Aframax tankers DF ammonia propulsion seems feasible

Ammonia technology is still under development

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What’s next?

Optimized Aframax ship concept development

Ammonia specific equipment development

Further de-risking of ammonia fuel handling

Together with industry - bring use of ammonia to required safety levels for cost efficient decarbonization of shipping!

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Thanks to GSP and all contributors!

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