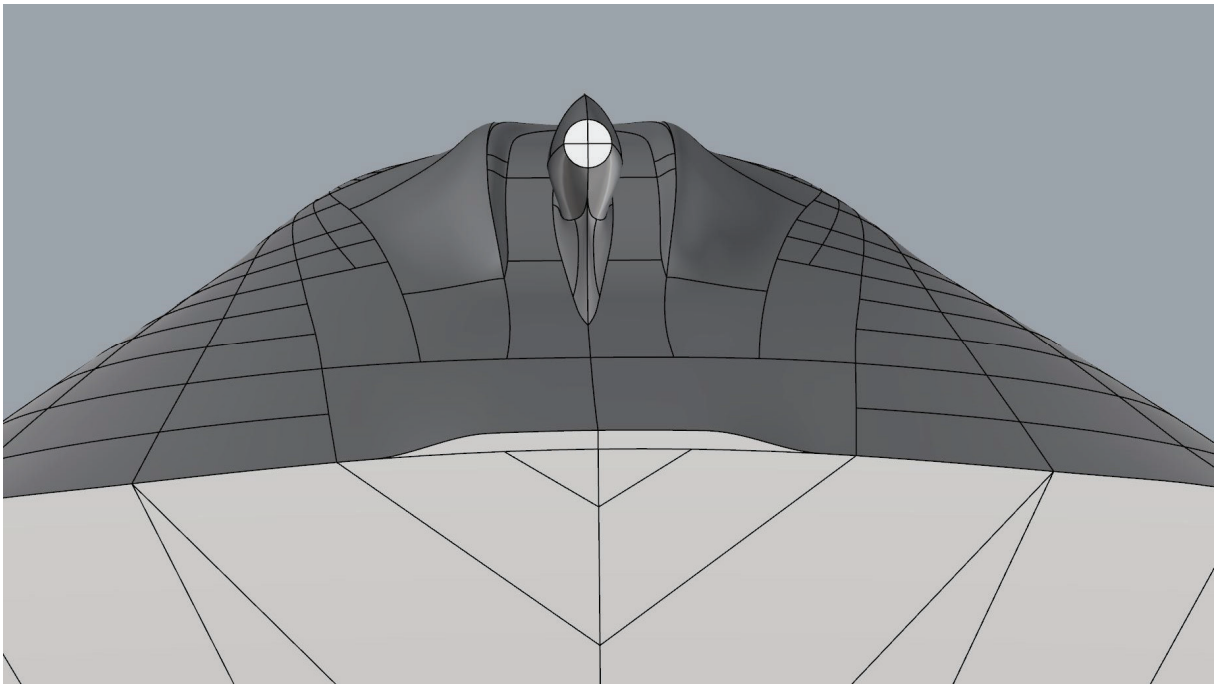
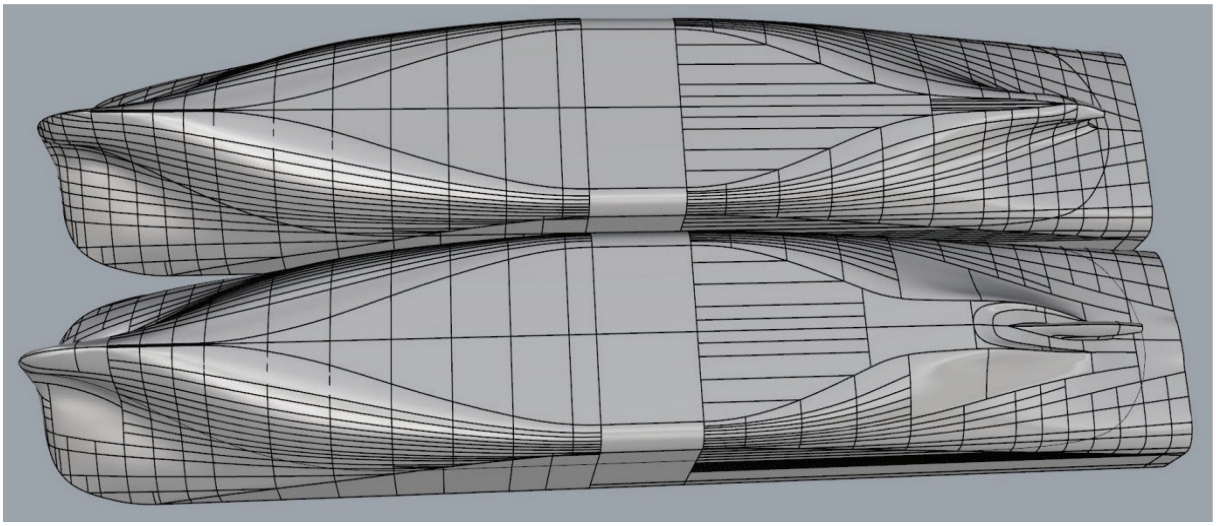
What actually is

“AFT OPT©“ ?



Panmax Bulker Vessel

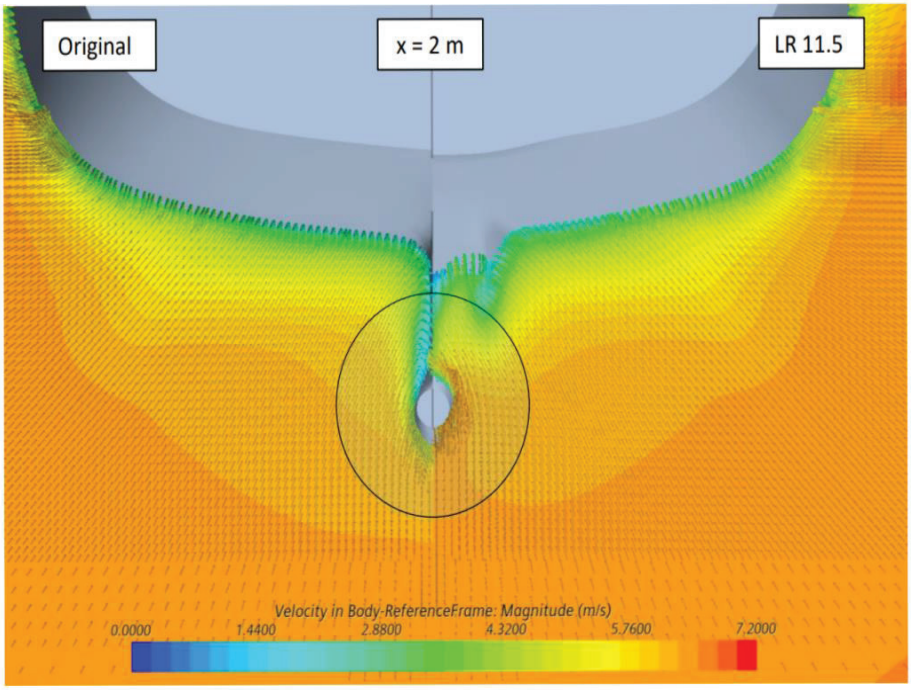


Container Feeder Vessel 2,900 TEU

AFT OPT© is the synergy of a patented innovative and modern ship design with the aim of saving fuel and OPEX and to actively protect the environment with substantially improved EEDI/CII values.

Based on the patented shape of the stern (aft hull bottom area), hydro-mechanical and hydro-dynamical effects better utilise the physical possibilities for ship newbuildings. We are specialised to optimise existing latest ship designs.

COMPARISION OF SECTIONAL VELOCITY FLOW FIELD – 13 KN



- Comparison of velc
- Velocity magnitude
- Evaluation of veloc and vector field
- Propeller plane as r x = 0 m. Positive x-v upstream direction
- YZ-cross section po x = 2 m
- Propeller diameter
- Left: Original
- Right: LR 11.5

Picture: CFD calculation – Aft ship of a Panmax Bulker at 13 Kn.(to the right)

You see less drag and better flow and higher pressure through the propeller.

We call our approach with special CFD analysis and holistic ship optimisation incl. of propeller and rudder "AFT OPT©". This new technology allows clients to save more than 6% fuel (up to 10%+) without ESD. AFT OPT© is applicable for all ship types, merchant ship vessels, cruise liners; single and twin screw.

The propulsion works much more effectively with AFT OPT© and the propeller can generate more thrust at a reduced main engine rpm.

The rudder receives a stronger flow of water and is better able to positively influence the wake flow.

Other synergies include less vibration, less noise, better directional stability, etc.

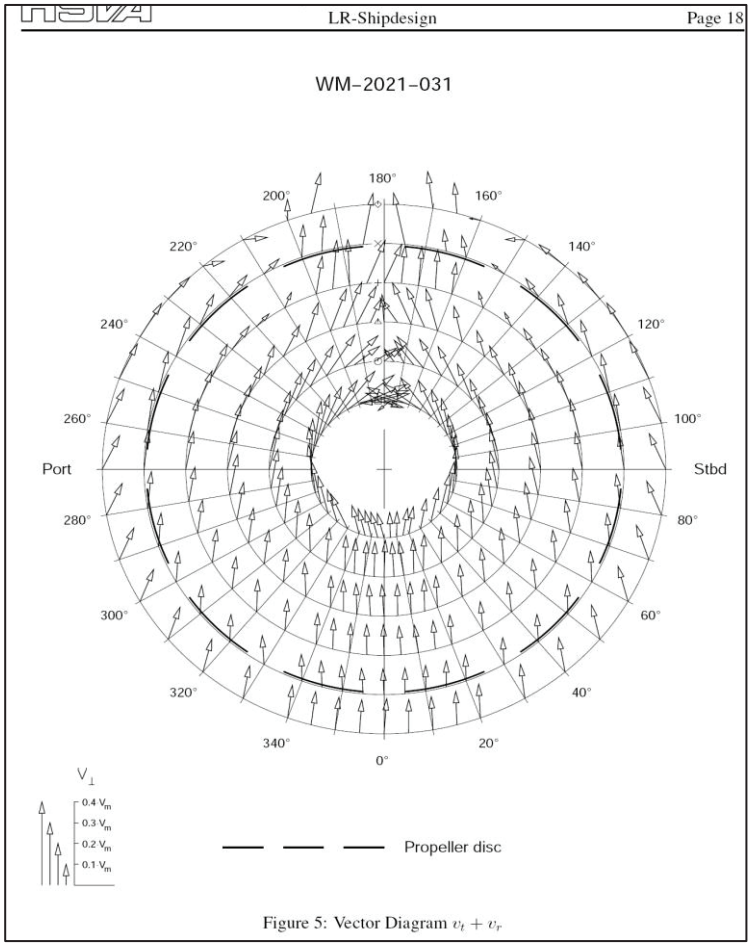
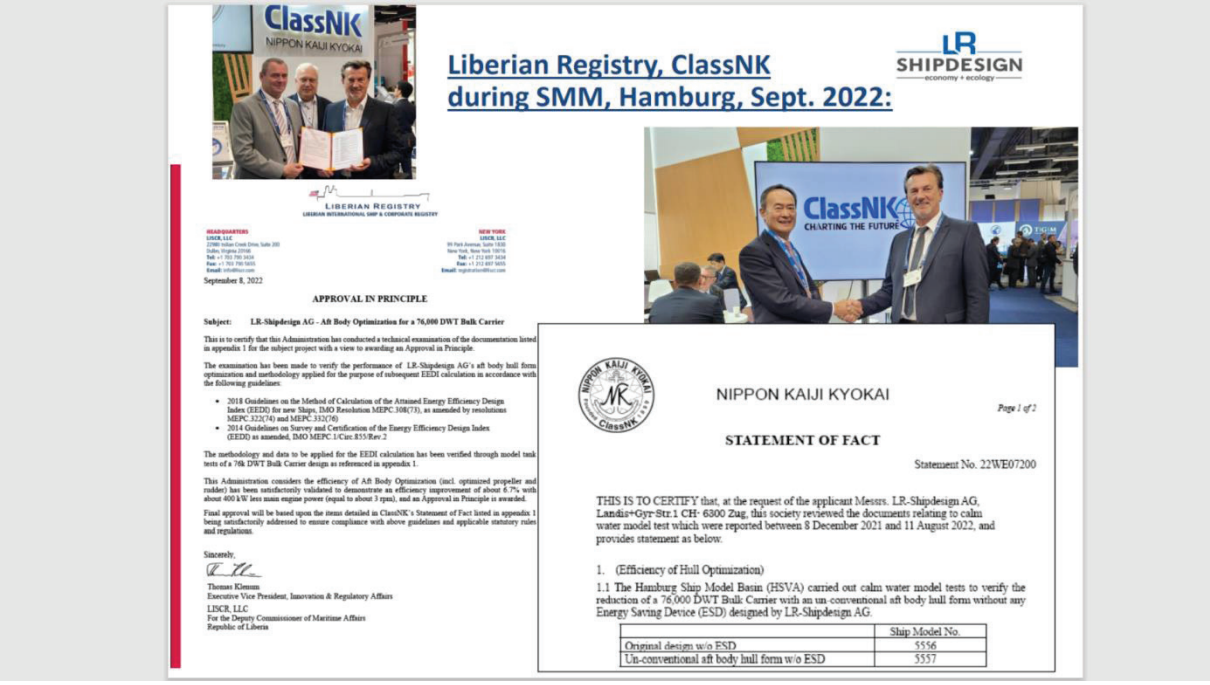


Figure 5: Vector Diagram $v_t + v_r$

AFT ship **OPT**imization – the innovative holistic solution for ship newbuildings!

We offer complete tailor-made working packages based on your latest ship hull form design.
Our technology has been verified by ClassNK (SoF) and LISCR (AiP) in 2022 based on model tank tests.
We reduce your fuel costs, ships' emissions and OPEX and improve your EEDI/CII for your new buildings!



Convince yourself, we answer all questions you may have.

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economy + ecology

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