

Installation Vessel - Innovative solutions

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Proven expertise since 2010



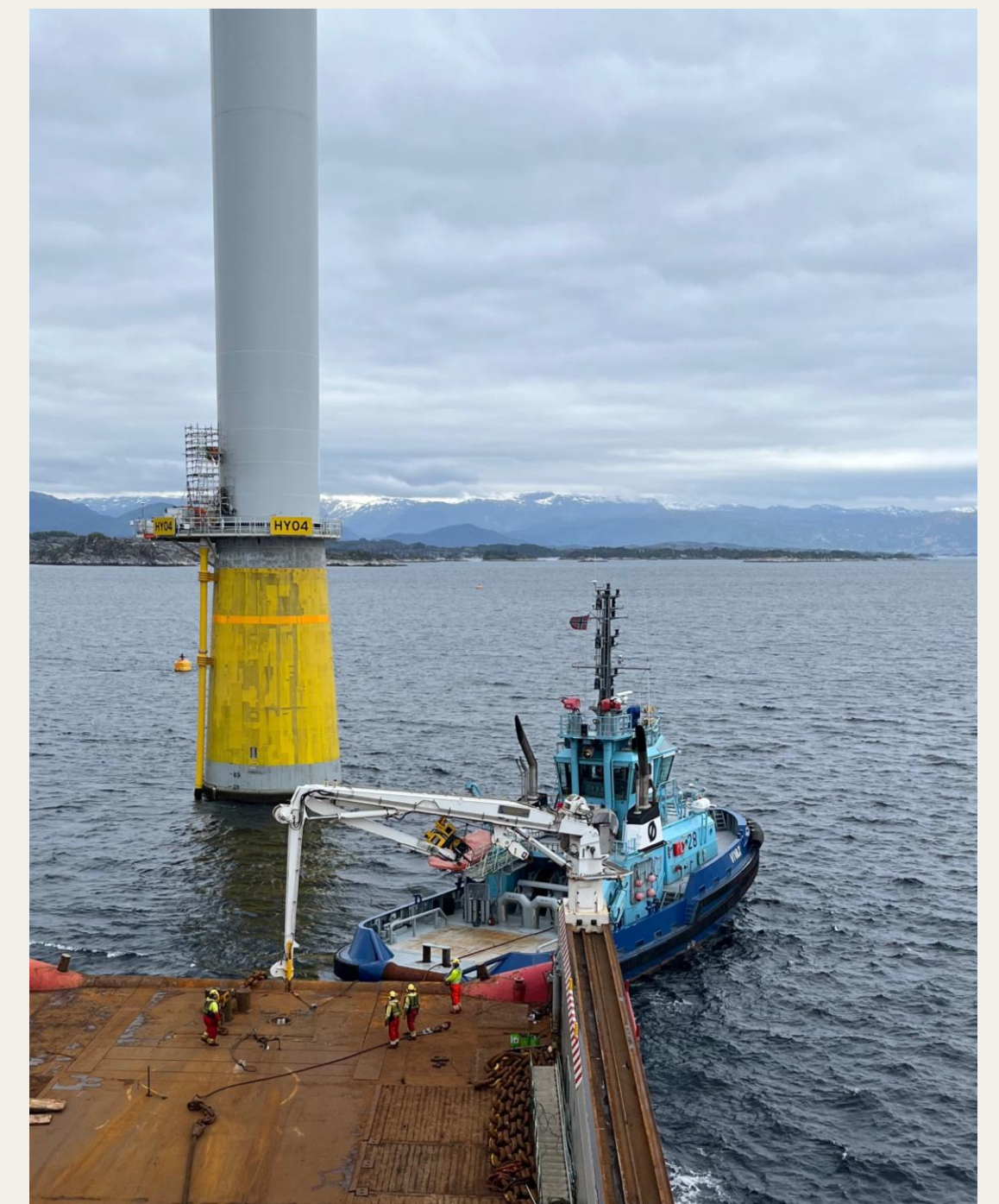
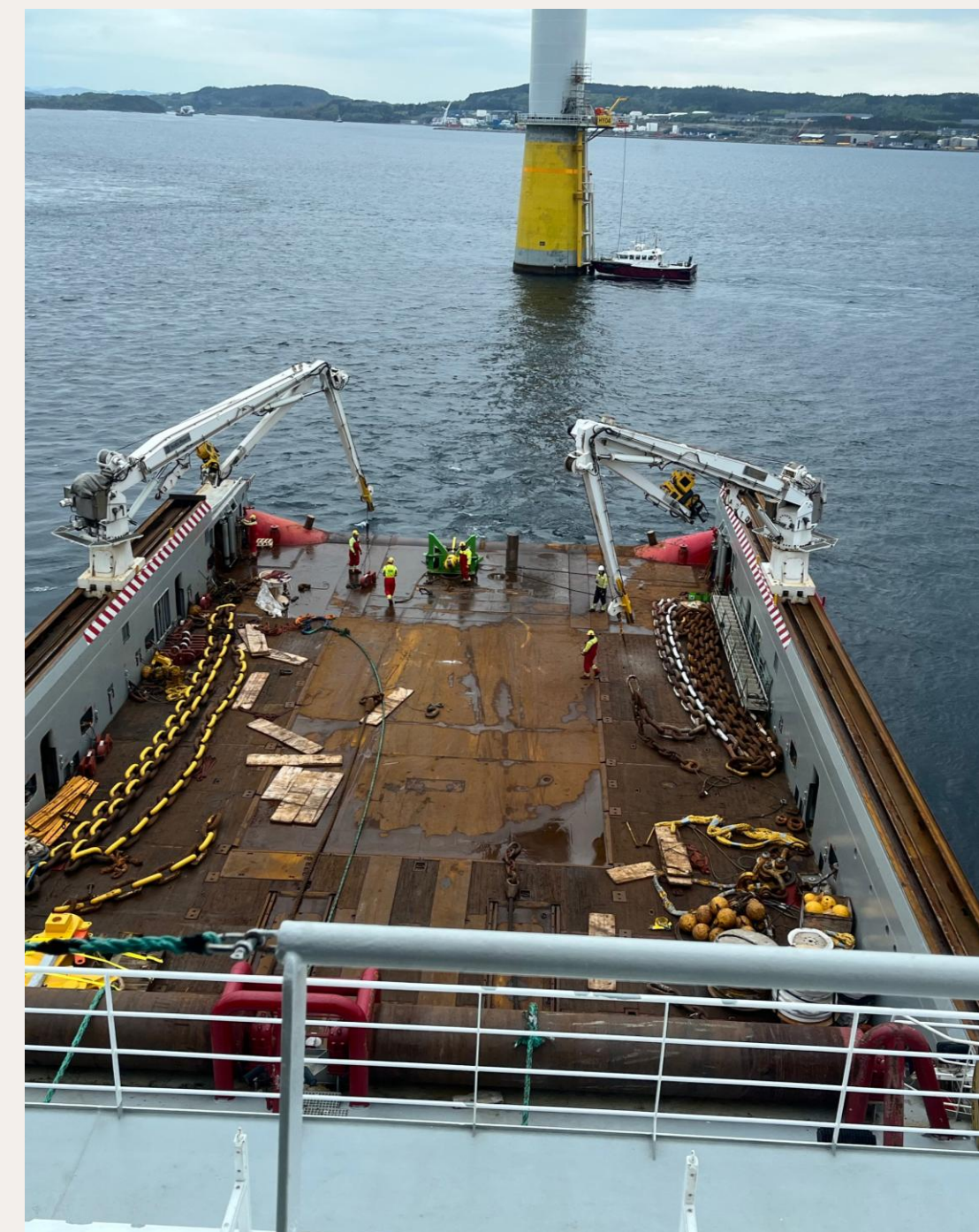
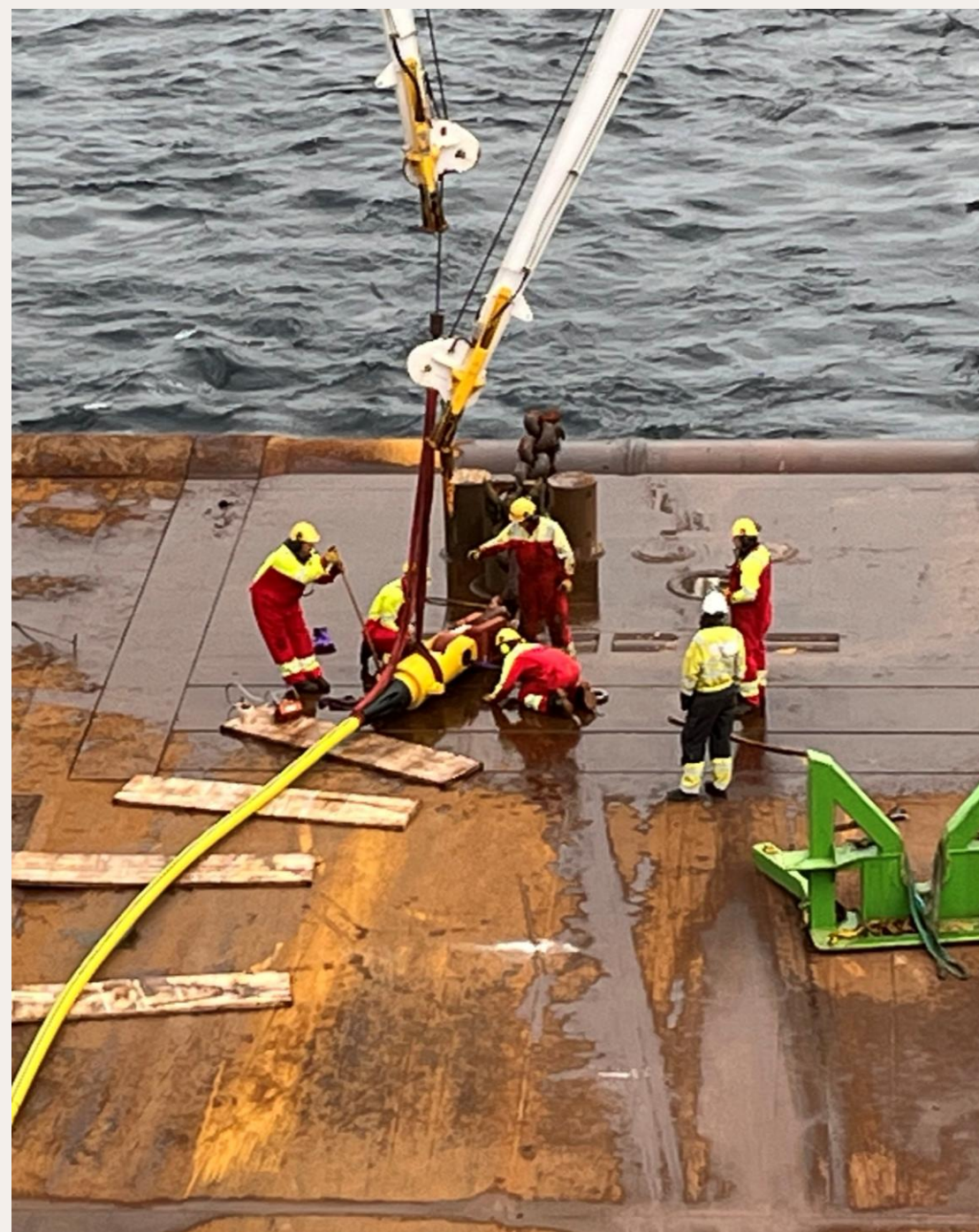
The right Tools
The right People
The right Vessel

Built on trust™



VARD
a Fincantieri company

Floating wind – a lot of jobs needs to be done!





Mission: Develop the The future installation Vessel...

Design brief

- Installation Vessel prepared for the future
- Both floating Wind and Offshore Rig mooring
- Support existing installations
- 20-30 years horizon for “jobs”
- Flexibility
- Reduced fuel consumption per mooring line
- Lower emissions per line
- Improved working conditions for crew
- Prepared for future fuels



VARD 218

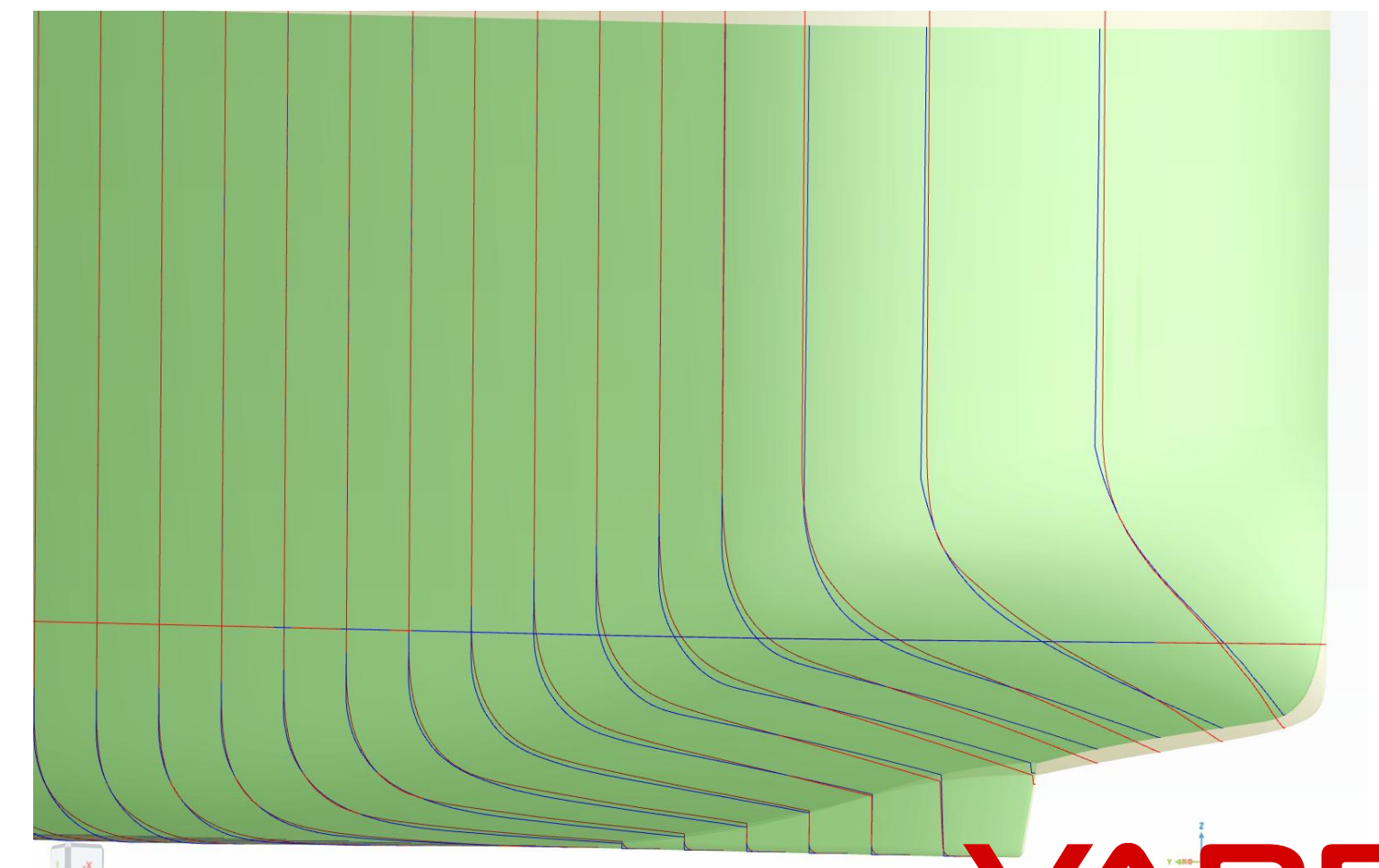
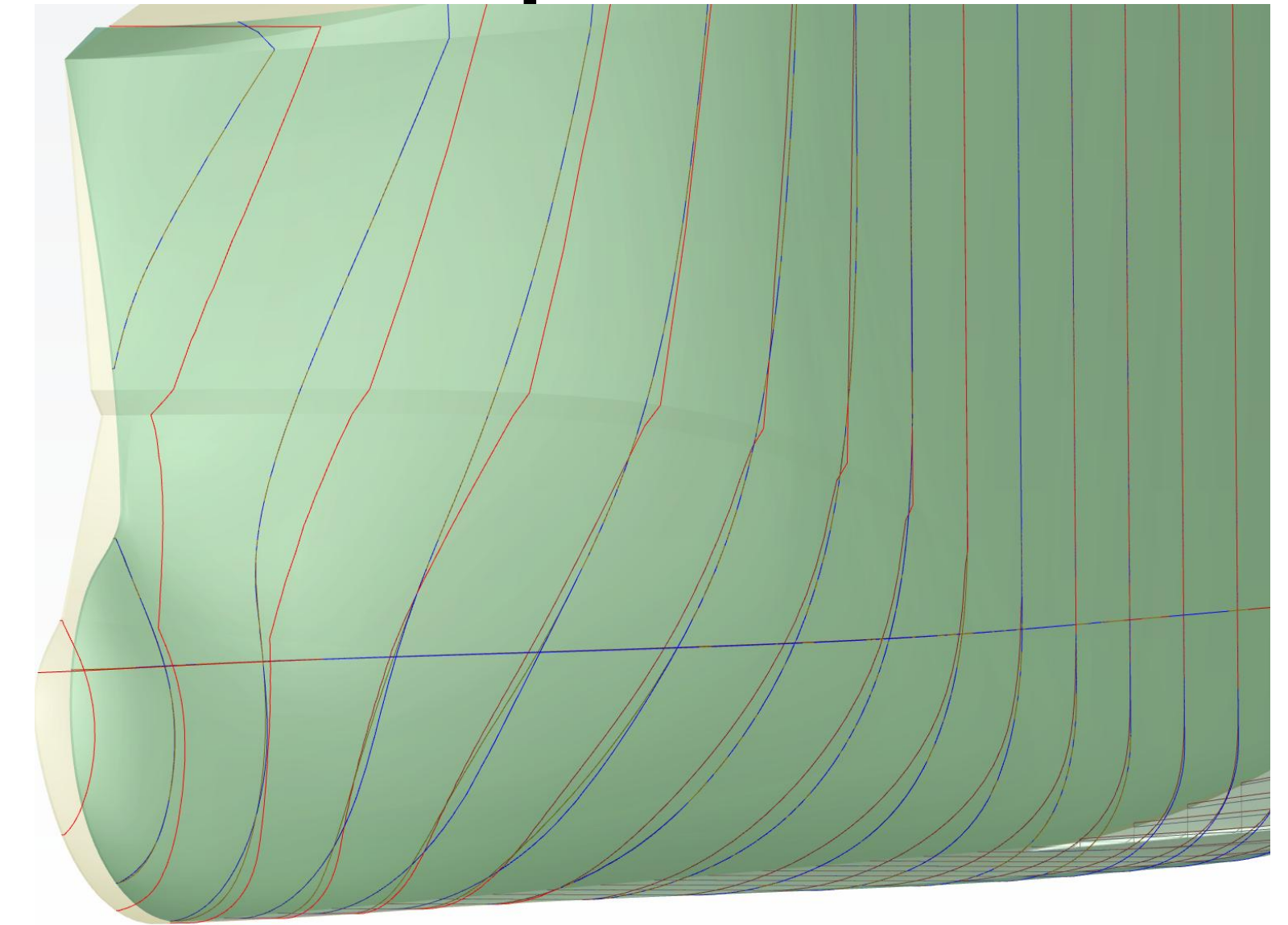
Large anchor handler, installation vessel and construction Vessel for Floating Wind and Oil and Gas.

- The vessel is designed to meet future needs for anchor handling and installation
- Floating Wind installation – larger and heavier chains and ropes
- Designed with focus on safety
- The right flexibility for charterer – can handle a variety of chain, ropes and anchor types
- Reduced fuel consumption and emissions – possibility for lower carbon fuels
- The right balance between vessel size, capability and cost

Ship Resistance Improvement – Hull development

Optimized hull design:

- ❖ Improving transit efficiency by reducing wave resistance
- ❖ Improving the merit coefficient (spend less fuel with the same amount of cargo capacity)
- ❖ Better bow thruster efficiency with the new bow (higher efficiency, lower noise and vibration)
- ❖ Deep V stern (better for seakeeping in stern sea and low risk of slamming)
- ❖ Sharper bow (better transit in wave, lower reflections)

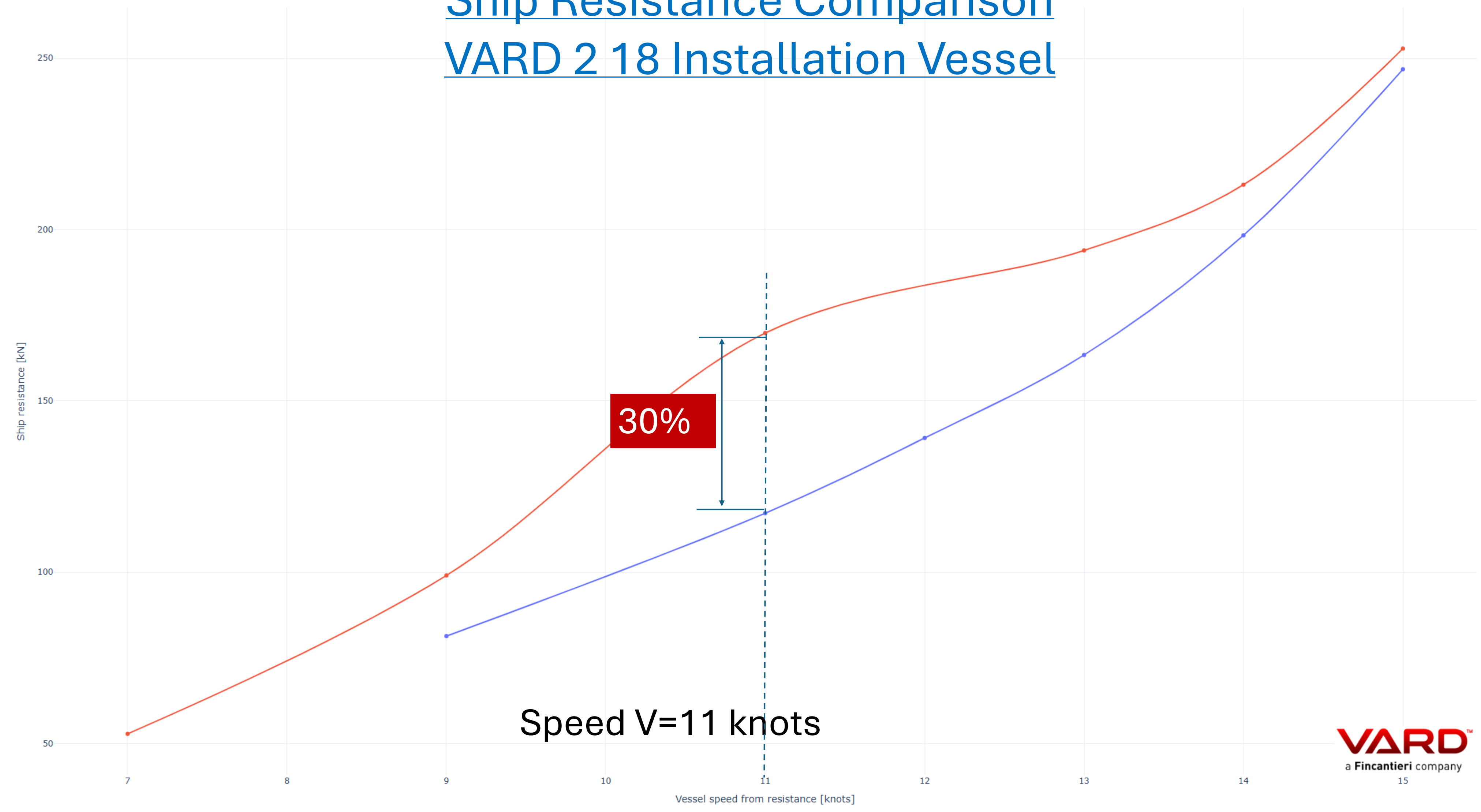


Ship Resistance – Recalculated previous gen hull



Comparison of Ship resistance

Ship Resistance Comparison VARD 2 18 Installation Vessel

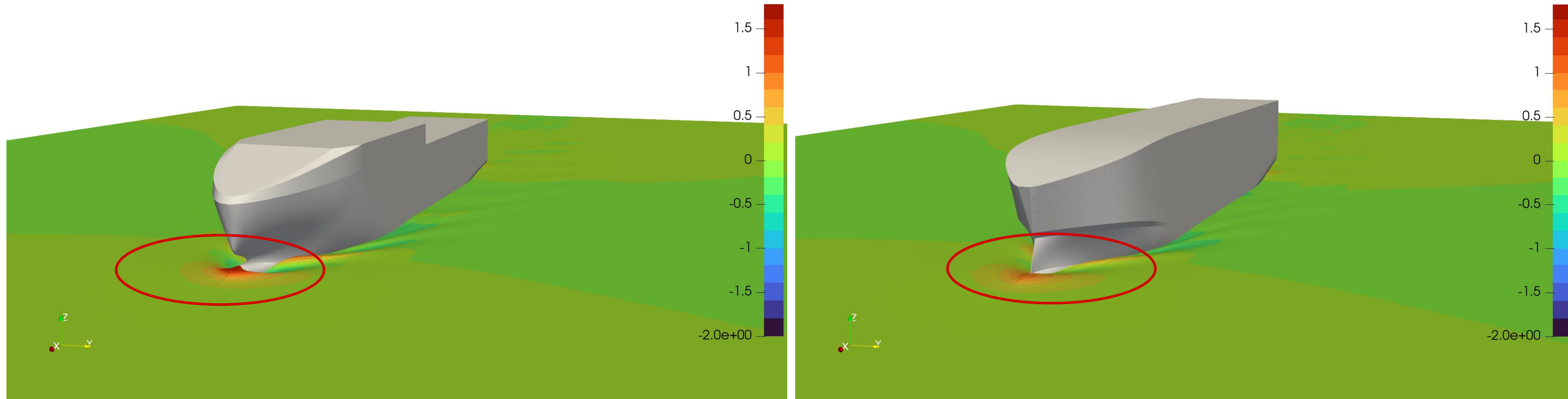


Speed V=11 knots

30%

Ship Resistance – Comparison previous gen hull

VARD 3 11 Offshore Consturction Vessel

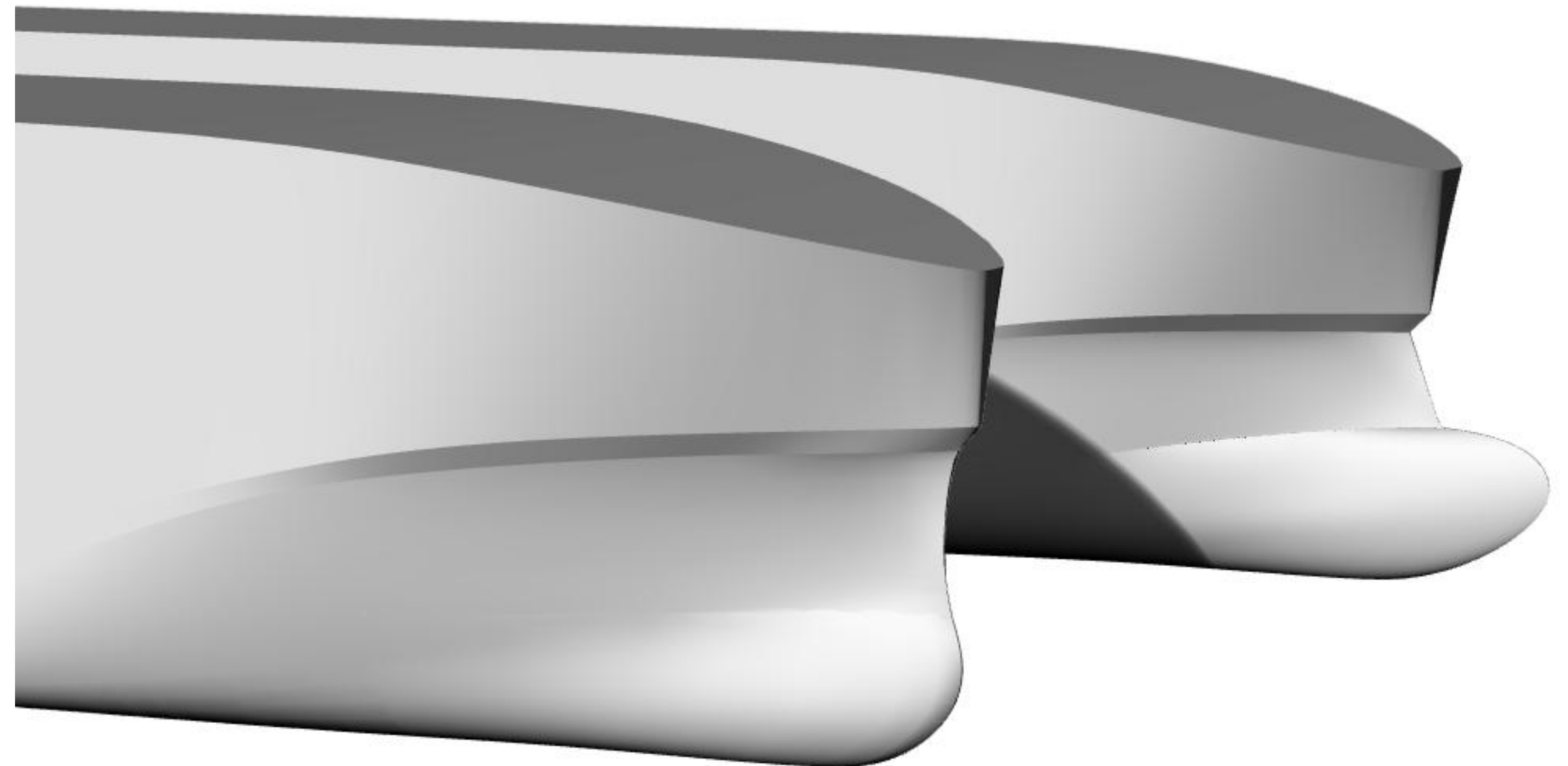


Displacement (t)	8,900	9,100
Resistance reduction for reference hull at 11 knots		25%

«Rig friendly» bow for Vessels close to rigs

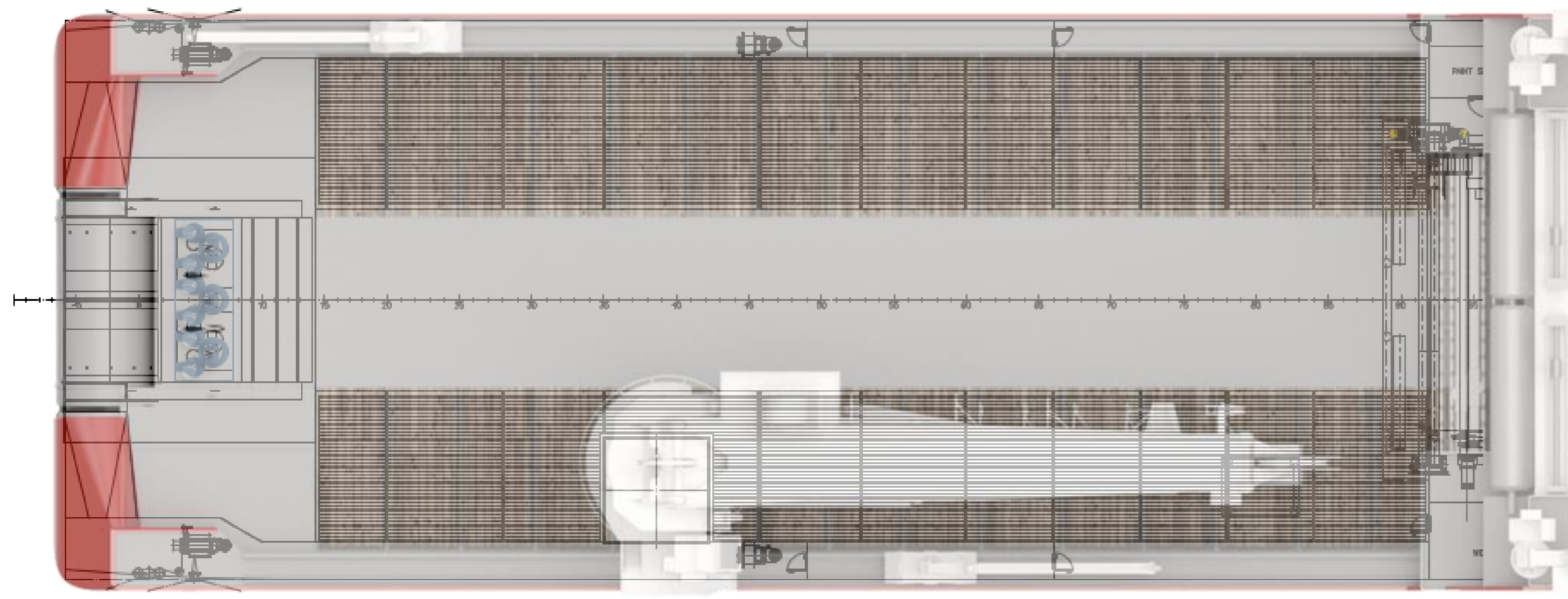
Adaptation for rig friendly geometry

- ❖ Bow design adapted for close proximity to Rigs
- ❖ Softened Leading geometry
- ❖ Still optimized for high transit efficiency
- ❖ Added resistance in waves still mitigated
- ❖ Very similar performance in 11-13 knots
- ❖ Focus on reduced slamming



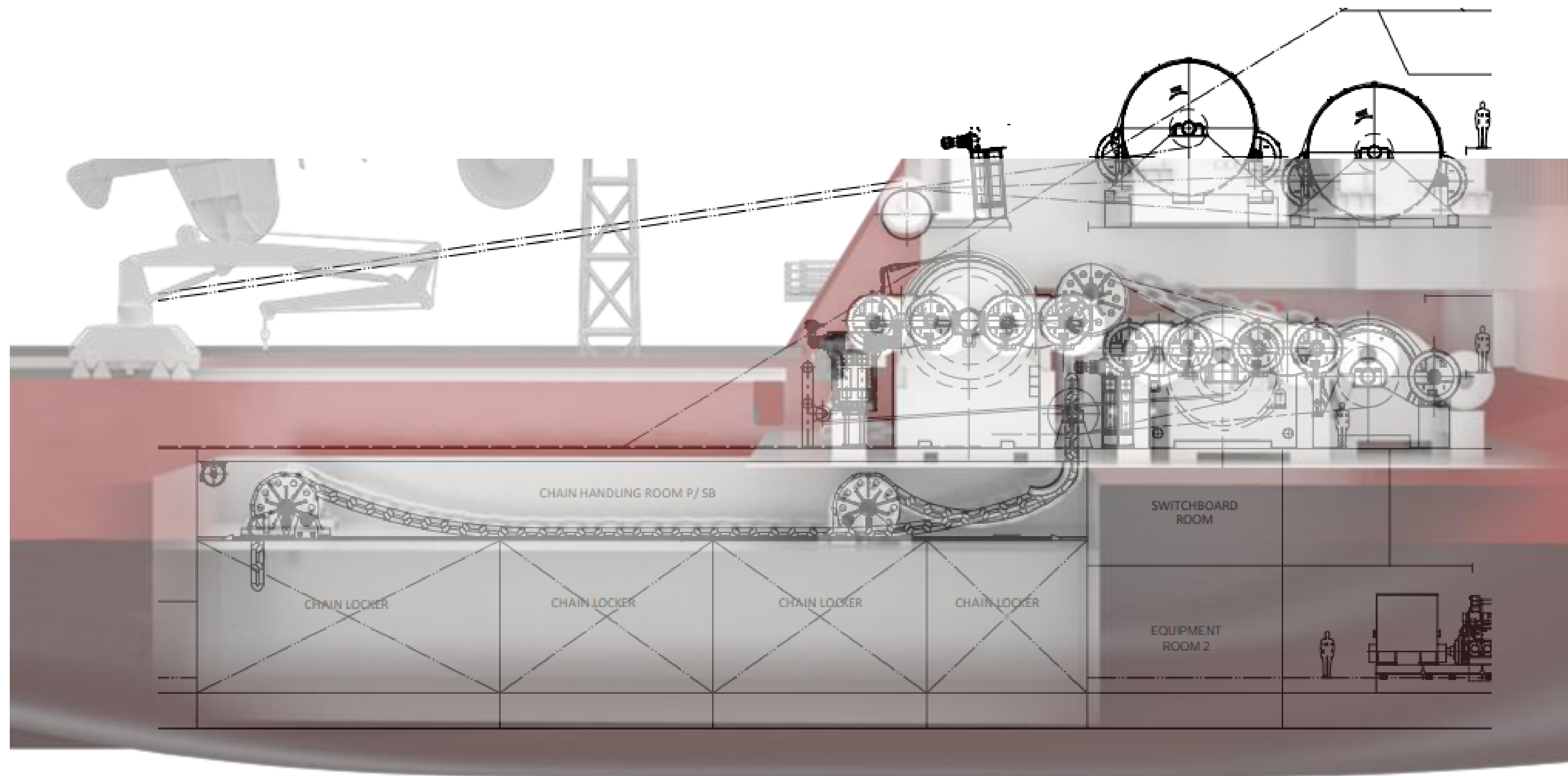
VARD 2 18

Cargo/working deck

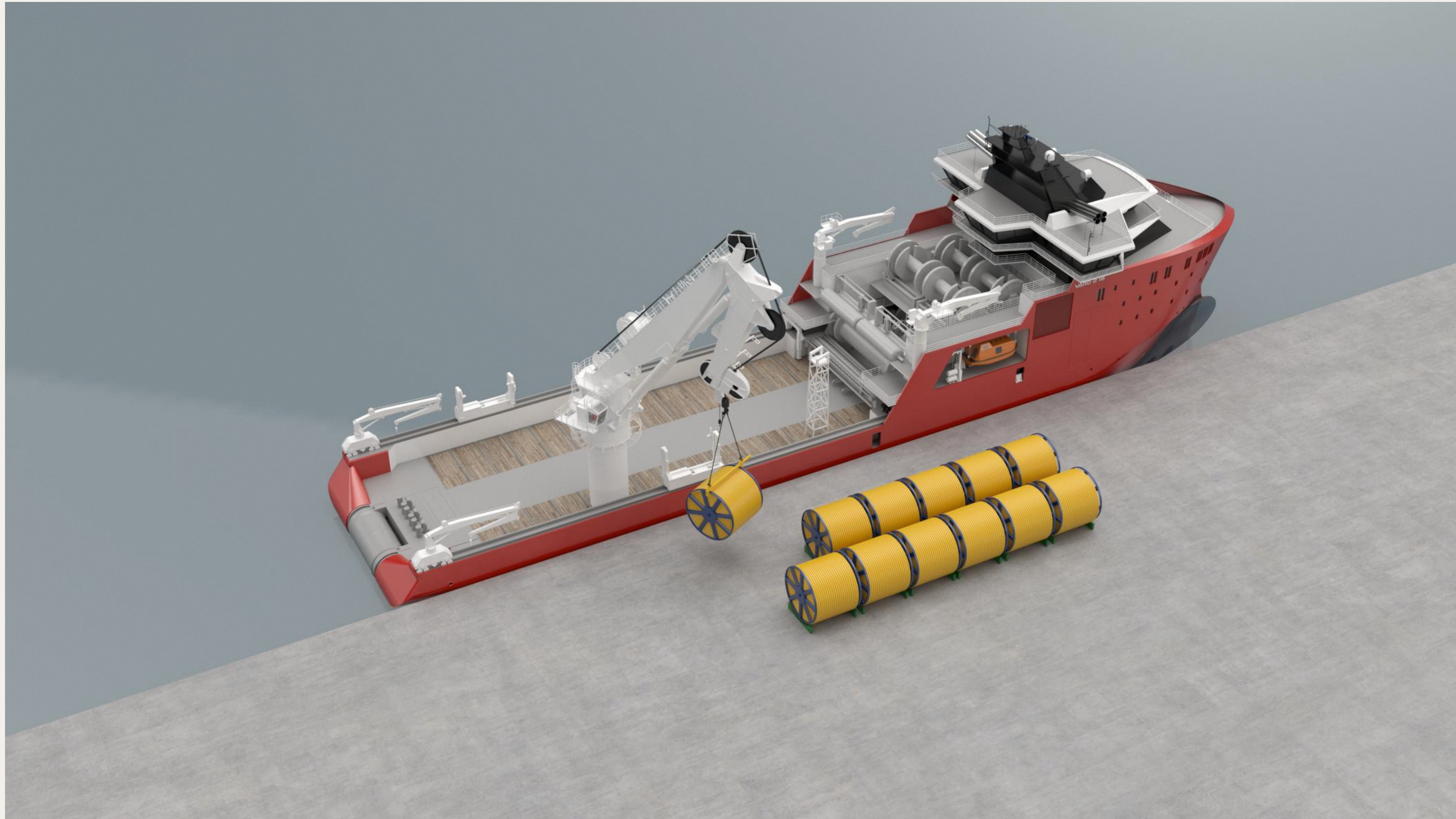


VARD 2 18

Chain handling



VARD 2 18 Fiber rope reel handling



VARD 2 18 Fiber rope reel handling



VARD 2 18 Fiber rope reel handling



VARD 2 18 Fiber rope reel handling



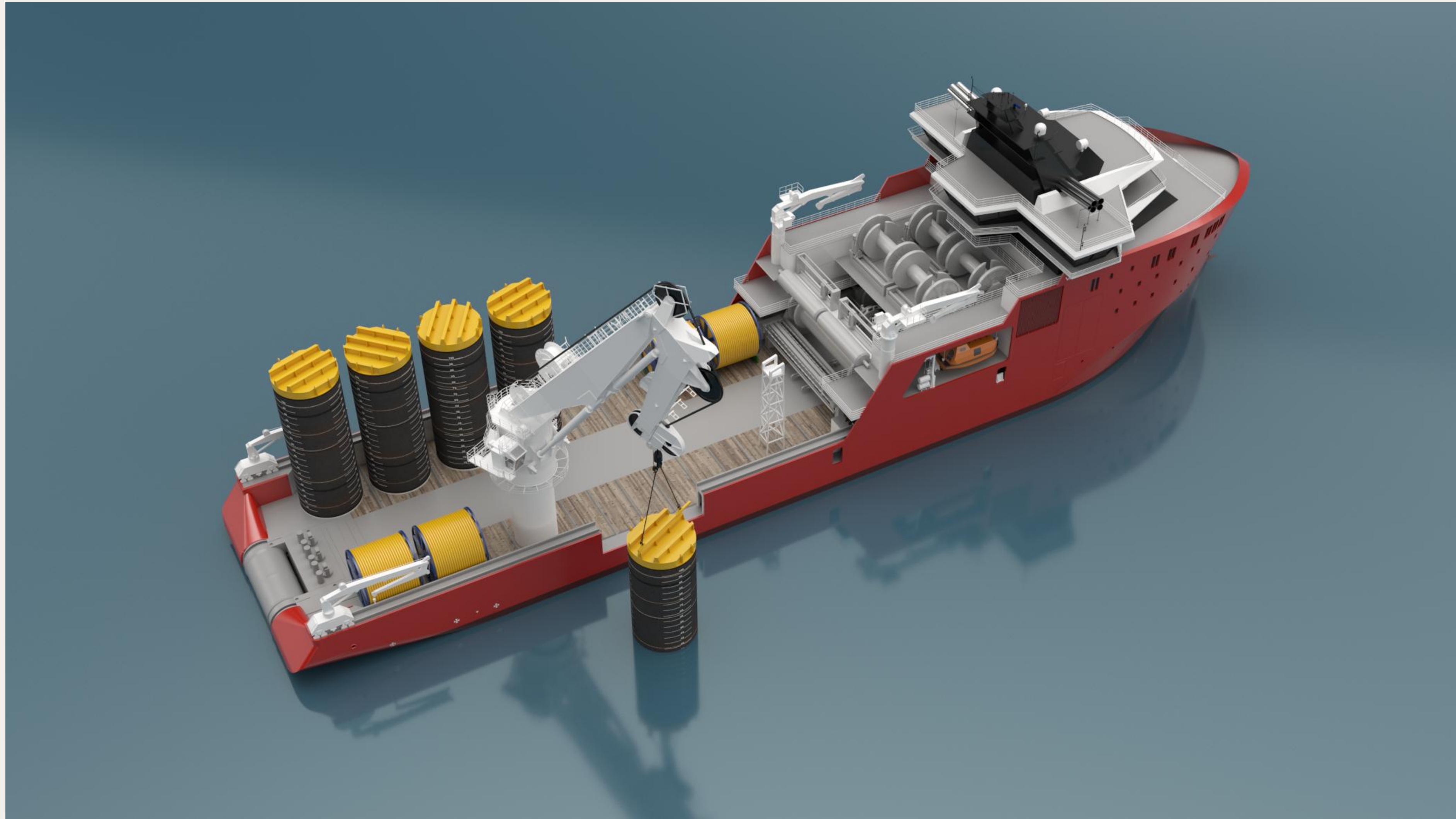
VARD 2 18 Fiber rope reel handling



VARD 2 18 Fiber rope reel handling

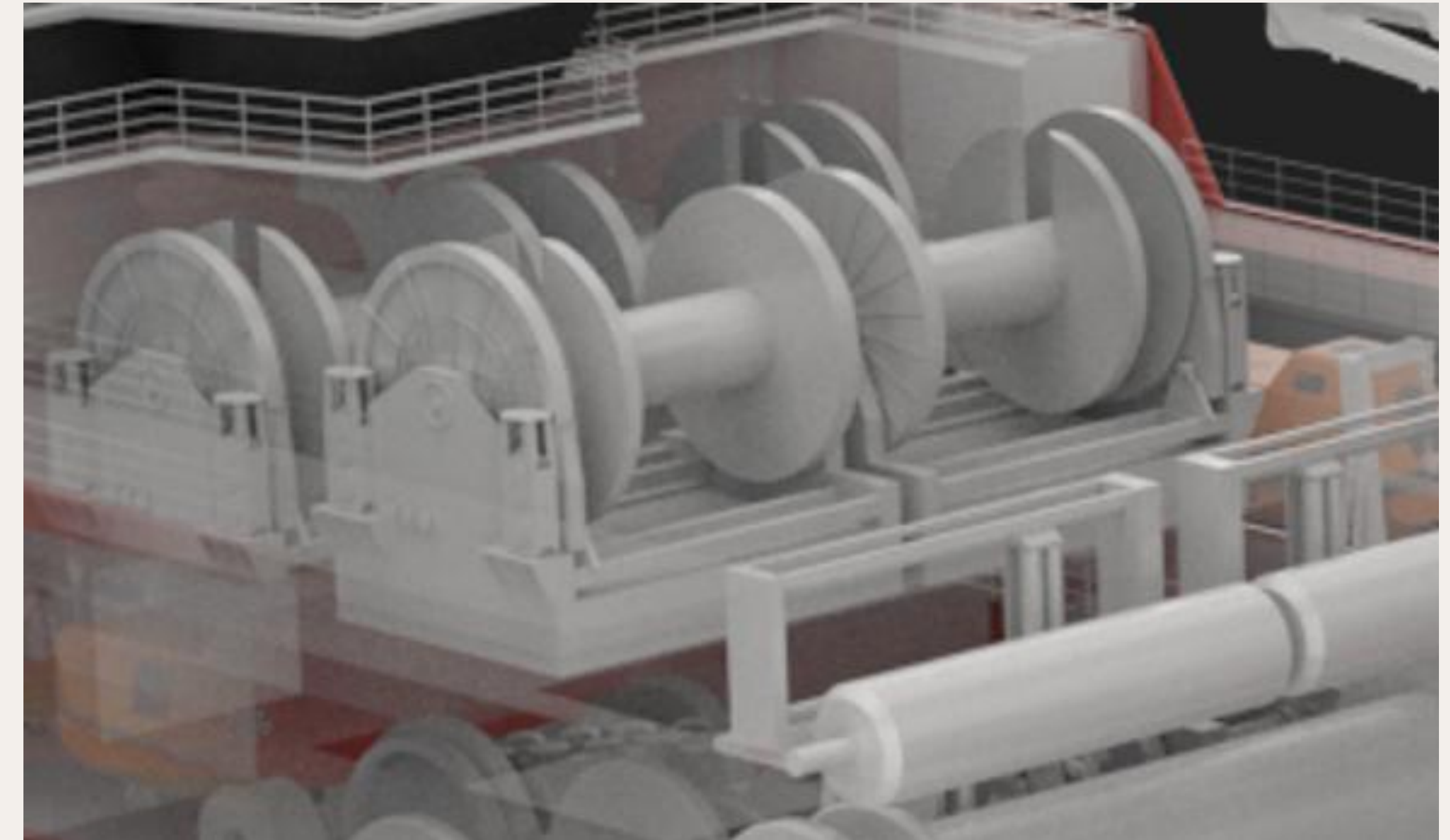


VARD 2 18 Fiber rope reel handling



VARD 2 18

Rope handling



	Conventional 19 mooring lines	Offshore Wind 150 mooring lines
Reduction completion time	~21%	~46%
Reduction installation time	~42%	~47%
Reduction CO2 emissions	~32%	~47% (Appr. 4000Te) reduction in CO2 emissions

Our proposal for the next generation Vessel



VARD 218

Developed in cooperation with DOF