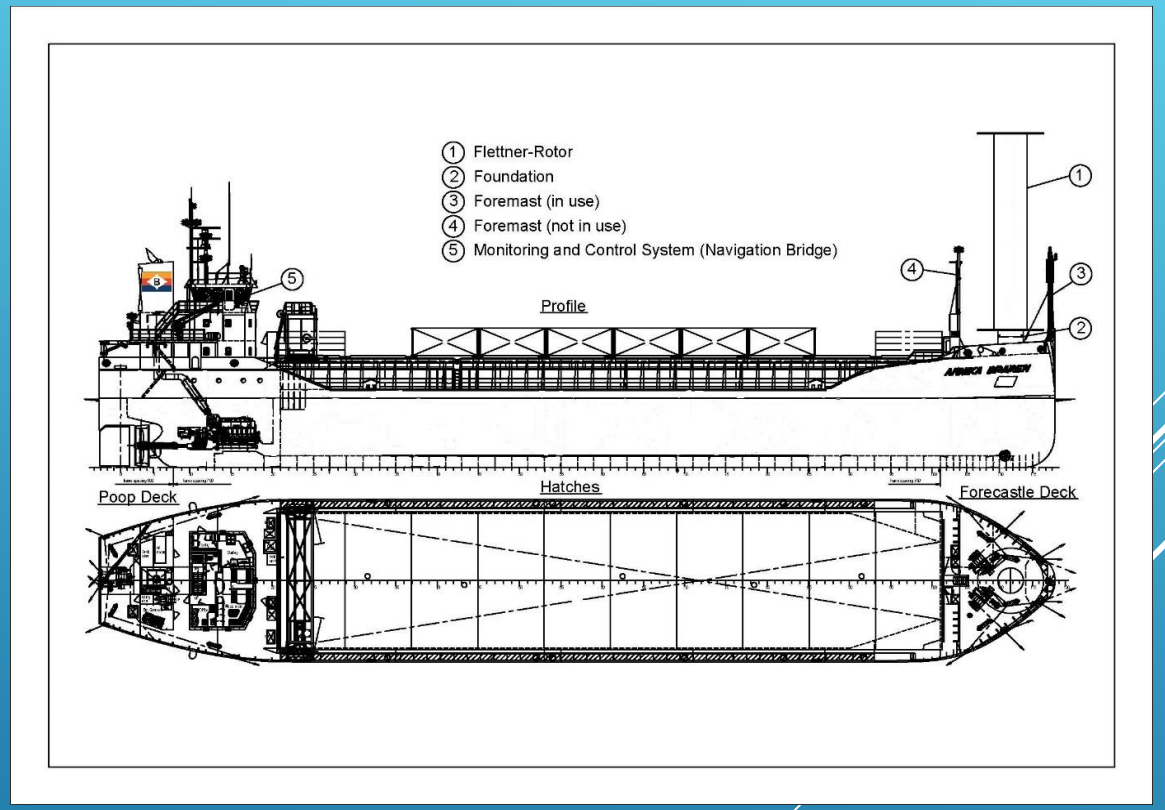
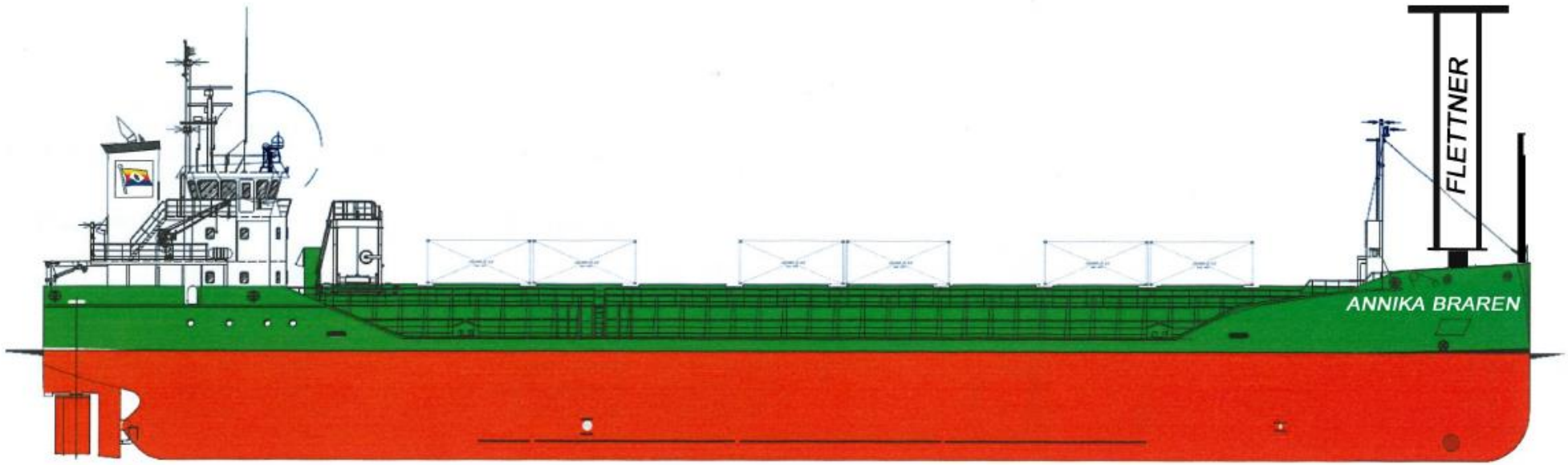

ANNIKA BRAREN

Why did we decide to use the Flettner Rotor?

- New ship build in 2020
- Getting experience in sailing technology on cargo vessels
- Reducing fuel costs
- Reducing Co2 (carbon dioxide)
- Saving Co2 tax
- EU is funding the project



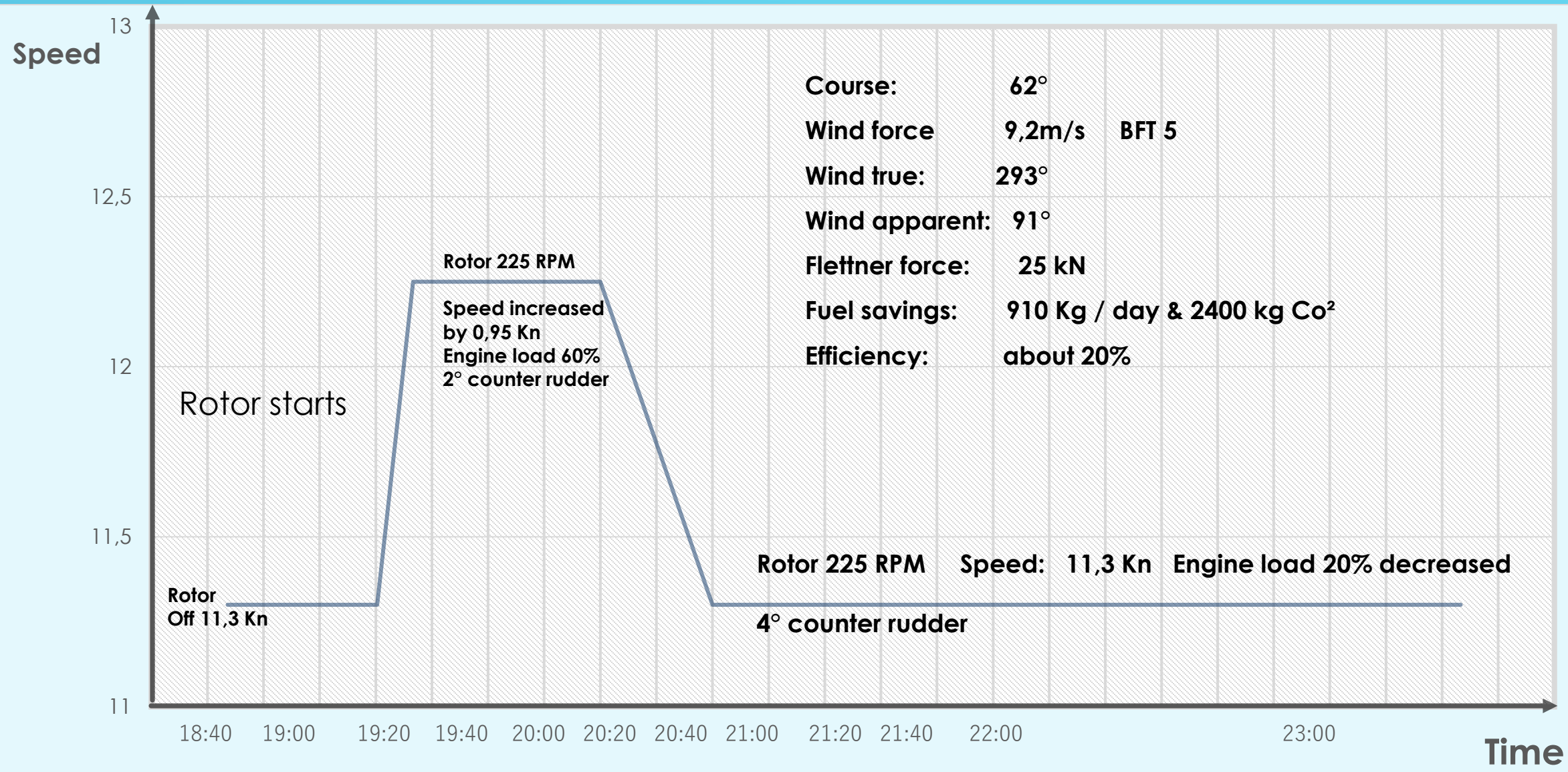


Design Philosophy to achieve Clean Ship Notation an Enviromental Passport

Energy efficient low emission Mini Bulker optimized for solid bulk cargoes, suitable for forest products such as timber, logs and pulp as well as for break bulk. Grain fitted. Equipped with partial tween deck and hold lashing arrangements in two rows. One hold fully boxed. Tank top strengthened for heavy cargo. Fast and safe cargo handling by fully box shaped hold.

Tier III compliant engine operation using Selective Catalytic Converter (SCR) and efficiency monitoring. EEDI optimized system design of propulsion and hull. One fuel ship burning MGO. Equipped with BWT, SCR exhaust cleaning and no oil pollution interface technology for shaft, CPP, rudder and bowthruster. Flettner Rotor (Wind assisting propulsion system) to reduce consumption and emissions.

Emissions- and future enviromental rules are covered. Fuel tanks arranged inside with no contact to outer shell. High ice class 1 A. Clean ship notation (highest rate 5) and Environmental Passport. Unrestricted Ocean-Going, GMDSS A3. Modern design of crew accomodationaccording to latest standard.



Best reached result until today: Wind force BFT 7-8, Wind apparent 100°, Rotor force 50 kN
Speed increased from 8 to 10 Kn, Speed increased from 11 to 12,5 Kn