



Multipurpose Icebreakers *Fennica* and *Nordica*

The sister ships **Fennica** and **Nordica** are multipurpose vessels designed for Baltic Sea escort icebreaking and offshore tasks in demanding open water conditions. In addition, they are ideal for Arctic operations. The ships' innovative hull design, combined with azimuth thrusters, guarantees them excellent icebreaking and seakeeping characteristics. They have proven their capabilities in versatile commissions all over the world.

ILS commissions

- Conceptual design
- Model tests
- Contract documents
- Inspection of basic design

Classification

- ✘ 1A1 POLAR10 Icebreaker Tug Supply Vessel
- SF HELDK EPR EO DYNPOS-AUTR

Operational profile / offshore operations

- Anchor handling
- Moving of platforms and other offshore units
- Transportation of deck cargo
- Cable and pipe laying
- ROV operations
- Ice management
- Emergency and rescue
- Oil exploration duties

Operational profile / escort icebreaking

- Line icebreaking
- Towing in notch
- Long cable towing
- Cutting off vessels stuck in ice

Main characteristics

- Length oa. 116.0 m
- Breadth max 26.0 m
- Depth 12.5 m
- Draught, offshore 8.4 m
- Draught, Baltic icebreaker 7.0 m
- Draught, Arctic icebreaker 8.0 m
- TDW, offshore 4 800 t
- TDW, Baltic icebreaker 1 650 t
- TDW, Arctic icebreaker 3 900 t
- Speed 16 kn
- Personnel max 82
- Ice class DNV Polar10
- Bollard pull 234 t
- Icebreaking capability 0.8 m / 9.5 kn

Capacities

- Fuel Oil abt. 1690 m³ HFO/DO
- ab. 817 m³ DO
- Lubricating Oil abt. 85 m³
- Fresh Water abt. 400 m³
- Water Ballast abt. 2200 m³

Consumables, 8.4 m draught:

- Type of Fuel (Dual Fuel) HFO / DO / ULSD option
- Fuel Consumption, 13 knots 42 t / day
- Fuel Consumption, 11 knots 30 t / day
- Fuel Consumption, DP 15 t / day
- Duration, 13 knots 45 days
- Duration, 11 knots 67 days

Diesel-electric propulsion

- Diesel engines 2 x Wärtsilä 16 V 32D
- 2 x Wärtsilä 12 V 32D
- Total about 20,000 kW
- Main generators ABB Strömberg Drives
- 2 x HSG 1120 MP8
- 2 x HSG 900 LR8
- Propulsion power 15 000 kW
- Azimuth thrusters 2 x Aquamaster US ARC
- Bow thrusters 3 x Brunvoll FU-80 LTC-2250
- Power 1150 kW
- Propeller Type Variable Pitch

Sustainability

2011 retrofitting of combined Wärtsilä NOx Reducer (NOR) and Oxidation Catalysts (OXI). Engines converted to enable the use of Ultra Low Sulphur Diesel fuel.

Aftdeck layout

- 2 x Shark Jaw (adapters 38 mm, 86 mm 95 mm)
- 2 x Towing pins
- Air on deck: 16 connecting points, 300 m³/h, 7 bar
- Air Receiver 1000 l
- Sea Water: 4 connecting points
- 40 m³ / h, 7 bar
- Fresh Water: 1 connecting point,
- 30 m³ / h, 4 bar
- MS3 Panel Outlets 4 pcs 63 A
- 8 pcs 125 A
- 4 pcs 250 A
- 2 pcs 200 A