



M/V Estraden

Finnish flag, Ro-Ro cargo ship, built by Aker Finnyards
1999, Lloyds Register of Shipping, ISM Certified 2004, ISO
14001 Certified 2004, Finnish Ice Class 1A, Call sign OJIL,
Hull no. 423, IMO no. 9181077

Principal dimensions

Length over all	162.70 m
Breadth moulded	25.70 m
Draught max	6.60 m

Tonnage

Gross tonnage (GT)	18 205 t
Net tonnage (NT)	5 462 t
Deadweight (DWT)	9 700 t

Tank capacities

HFO/MGO	960.9 m ³
MGO	150.7 m ³
Water ballast	3 410.5 m ³
Anti-heeling	1 437.4 m ³

Ro-Ro capacity

Cargo Hold Capacity	Area	Lane meter
Lower hold (ex. Ramp)	abt 1 050 m ²	abt 360 m
Main deck	abt 2 900 m ²	abt 950 m
Weather deck	abt 2 650 m ²	abt 960 m
Hoistable car deck under accommodation area	abt 490 m ²	
Total	abt 7 090 m²	abt 2 270 m

Free deck height

Lower hold	4.70 m
Main deck (except under upper ramp)	7.20 m
Weather deck(under superstructure)	4.60 m

Cargo hold volumes

Lower hold	4 950 cbm
Main deck	20 800 cbm
Total	25 750 cbm

Uniform load

Tank top	5.0 t/m ²
Main deck	5.0 t/m ²
Upper deck	2.0 t/m ²

Container capacity on weather deck 363 TEU

Ramps

Stern ramp by MacGregor:	14.5 x 20,0 (LxB) max load 120 t
Main deck to lower hold:	fixed ramp
Main deck to weather deck:	hoistable ramp 62.2 x 4.50 (LxB) max load: 140 t

Free heights of ramp passages

Max height over ramp:	7200 mm
Ramp height to WD:	4700 mm

Cargo hold ventilation

In port:	30 changes/h
At sea:	10 changes/h

Accommodation for drivers

Accommodation for 12 drivers in 6 cabins

Machinery

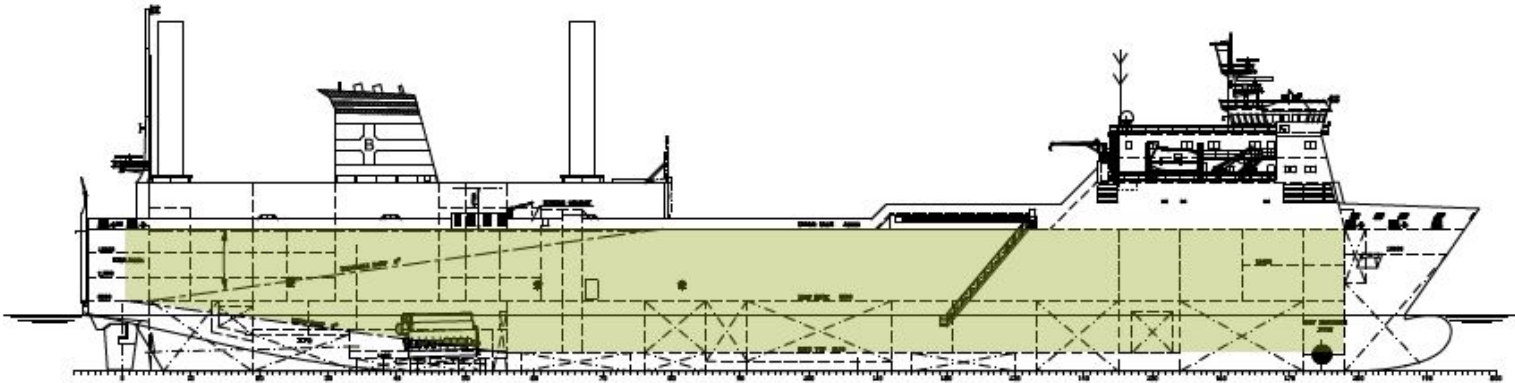
Main engine 2 x Wärtsilä Vasa 8L46A, 14 480 kW (19 693 hp)
Auxiliary engines 2 x Caterpillar 3508B, 1 712 kW
Bow thruster 1 x Kamewa, 1 100 kW
Shaft generator, 1 200 kW

Speed and consumption per day

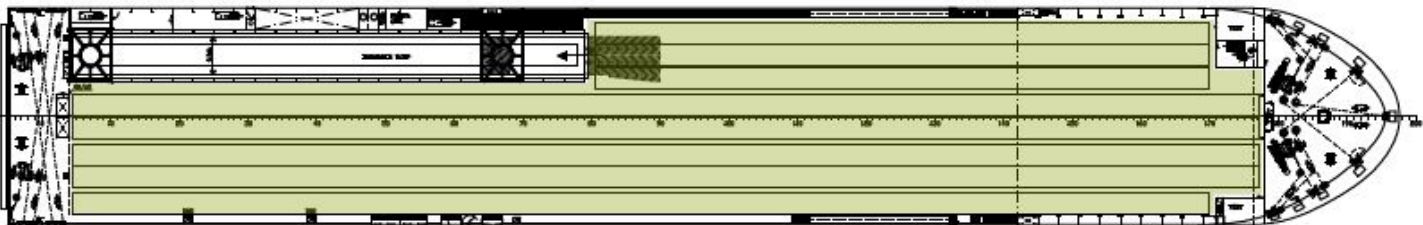
Service speed abt 18.5 kts on abt 48 mt IF-380
trailer draught 5.3 m
Harbour consumption about 2 mt MGO/24h

Equipped with 2 Rotor Sails

Height	18 m from foundation
Air draft of vessel	43.5 m above keel (aft mast highest point)

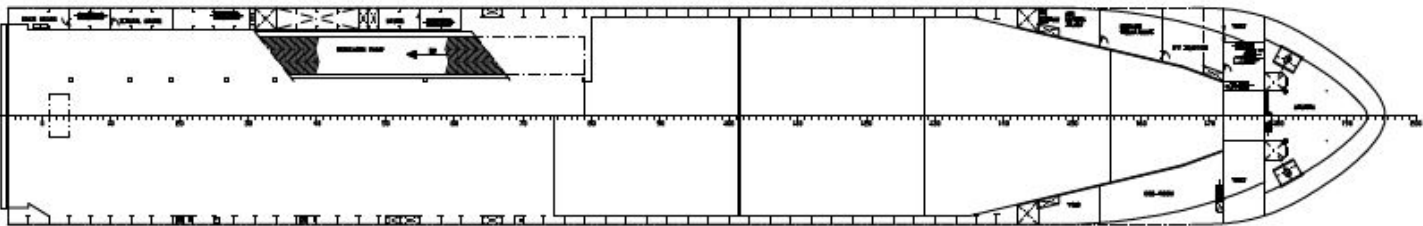


20000 spacing 800, with spacing 2000



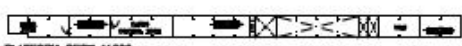
PLATFORM DECK 18600

6 UPPER DECK 18600

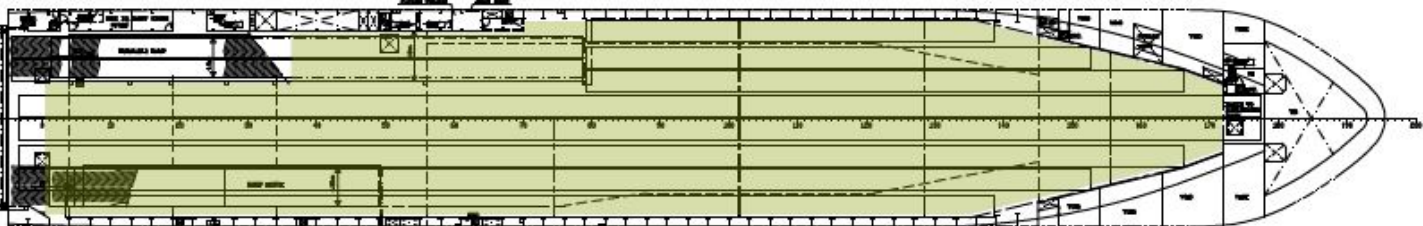


STRENGTH CLASS DECK + HOLD, 400 1000 200

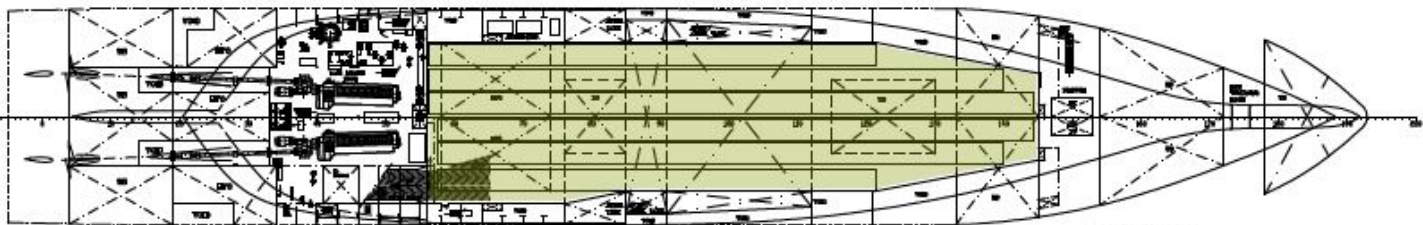
4 DECK 13800/12400/13600



PLATFORM DECK 11000



3 MAIN DECK 8200



1 TANK TOP 2150