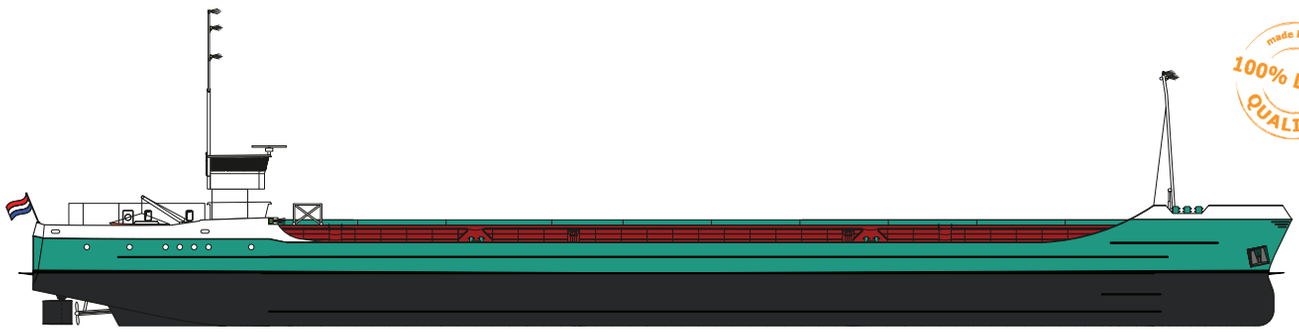
Tharsis

a low-airdraft sea-river ship of 2,300 tonnes deadweight



The Kaapcoaster 2300 is a new extremely economic vessel, specially developed for coastal sea/river trading and built by the Dutch Shipyard De Kaap in Meppel, the Netherlands. Shipyard De Kaap is renowned and has an excellent reputation as builder of smaller quality coasters and tankers.

The *Kaapcoaster* is the first of a serial production of new "green concept" coasters with very economic fuel consumption.

The *Kaapcoaster* is a 2300 DWT multi-purpose coaster with a low draft and double propulsion, powered by two diesel-electric units, placed in line in the vessel. Two Reintjes reduction-boxes drive the new developed sophisticated propellers pushing the vessel to a speed of approximately 10 knots. The double propulsion will give the vessel also a very good maneuverability, which is an additional advantage in smaller ports. The vessel has excellent stowage flexibility for general cargoes such as steel, coils, timber, coal, grain and dangerous goods (IMDG prepared) but can also take two tiers high cube containers under deck.

Due to the fact that the propulsion is now powered by relatively smaller diesel-electric units (total of 750 kW) in combination with a Power Management System developed by D&A Electric, the vessel consumes substantially less gasoil than similar vessels with normal, diesel-driven main engines.

With today's bunker prices this can make a saving on gasoil only of about €65,000 per year, based on the kind of trade the vessel operates in. This figure is an average on a vessel operating in the European coastal trade. Figures are not only an estimation, but meantime tested and a vessel equipped with same system is showing the expected results. Differences in lower consumption up to 20% and sometimes even more have been managed already. Lower consumption of gasoil reduces the vessels exhaust emissions.

Engine maintenance on board can be strongly reduced and engine rooms need less equipment. Lube consumption will be also be reduced and therefore engine rooms can be kept smaller.

This concept is currently being realized in the first 2,300 deadweight *Kaapcoaster* for general cargo, ordered by Dutch operators and built by Shipyard De Kaap.

Technical particulars

- Length, oa ..... 87.95 m
- Length, bp ..... 84.32 m
- Breadth, max. ..... 11.40 m
- Depth to main deck. ..... 5.80 m
- Width of double skin
  - side ..... 1.15 m
  - bottom ..... 1.00 m
- Draught
  - ballast ..... 2.91 m
  - service ..... 3.70 m
- Gross ..... 1,595 gt
- Displacement ..... 3,200 tonnes
- Lightweight ..... 970 tonnes
- Deadweight ..... 2,300 dwt
- Block coefficient 0.875
- Speed, service ..... 10.1 knots
- Airdraft, ballast ..... 6.09 m
- Airdraft, loaded ..... 5.30 m
- Cargo capacity ..... 3,272 m^3
- Capacities
  - Fuel oil ..... 89.5 m^3
  - Water ballast ..... 1,375 m^3
  - Fresh water ..... 20 m^3
  - Bilge water ..... 3.5 m^3
  - Dirty oil ..... 2 m^3
  - Black and greywater ..... 11 m^3
  - Lube oil ..... 2.5 m^3
- Classification ..... Bureau Veritas, I * HULL * MACH, General Cargo Ship, Unrestricted Navigation, *AUT-UMS, STRENGTH BOTTOM, IMSBC-Code, GMDSS Area A2, SOLAS Ch.II-2 reg 19 Carriage of dangerous goods
- Propulsion type ..... Diesel-electric
- Power Management System ..... D&A Electric
- Main generator set (diesel-driven)
  - Manufacturer ..... Volvo Penta
  - Model ..... D13 MG
  - Number 3
  - Type of fuel used ..... Gasoil
  - Generator make ..... Leroy Somer
  - Output ..... 400 bkW/1,800 rpm
- Gearbox
  - Make ..... Reintjes
  - Type ..... AF 364
  - Reduction 4.920:1
  - Number 2
- Electric motor
  - Make ..... Leroy Somer
  - Number 2
  - Output/speed ..... 375 ekW/1,800 rpm
- Propeller
  - Material ..... CuNiAl
  - Number 2
  - Pitch ..... Fixed
  - Diameter ..... 1,600 mm
  - Speed ..... 365 rpm
- Emergency generator
  - Manufacturer ..... Caterpillar
  - Number 1
  - Engine make/type ..... CAT C4.4 DI-T
  - Output/speed ..... 51.5 kW/1,500 rpm
- TEU capacity
  - in hold ..... 54 TEU
  - on hatchcovers ..... 24 TEU
- Hatch covers
  - Number 10
  - Type ..... Pontoon hatches
  - Make ..... Coops en Nieborg
- Hatch cover crane
  - Number 1
  - Make ..... Coops en Nieborg
  - Safe working load ..... abt. 10 tonnes
- Completement
  - Officers 2
  - Crew 3
  - Spare 1
- Steering system/rudder
  - Number 2
  - Make ..... Promac
  - Type ..... Hydrodynamic profile rudders
- Bow thruster
  - Manufacturer ..... Van Wijk
  - Type ..... SD 1200 A
  - Motortype/make ..... Electric motor/Leroy Somer
  - Output/speed ..... 350 kW/1,800 rpm

Constructed and built by Shipyard De Kaap in Meppel, The Netherlands.

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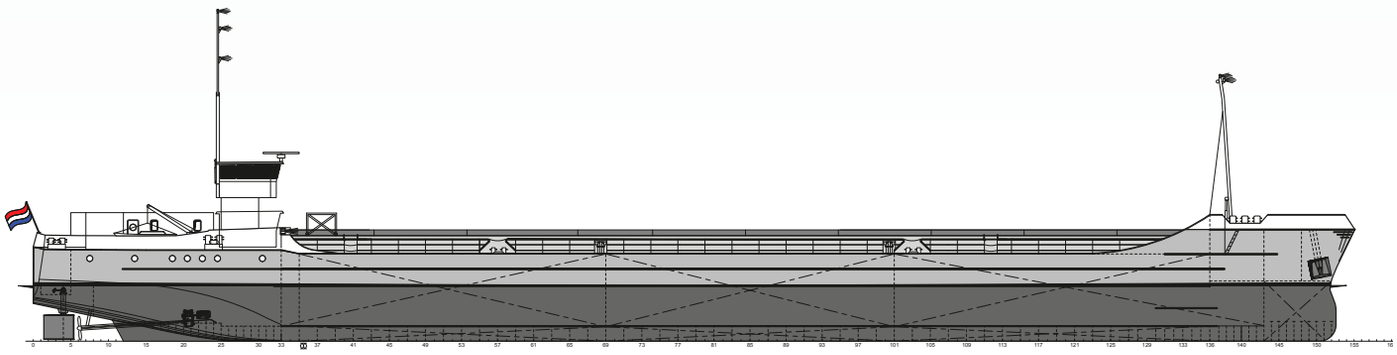
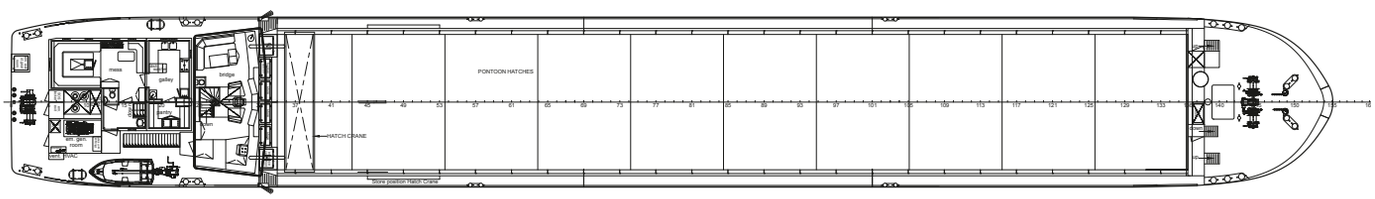
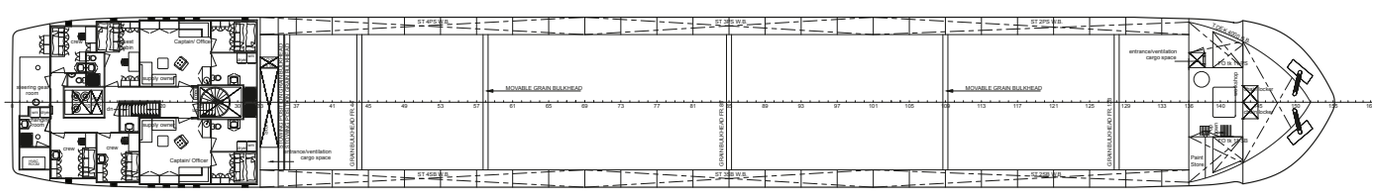
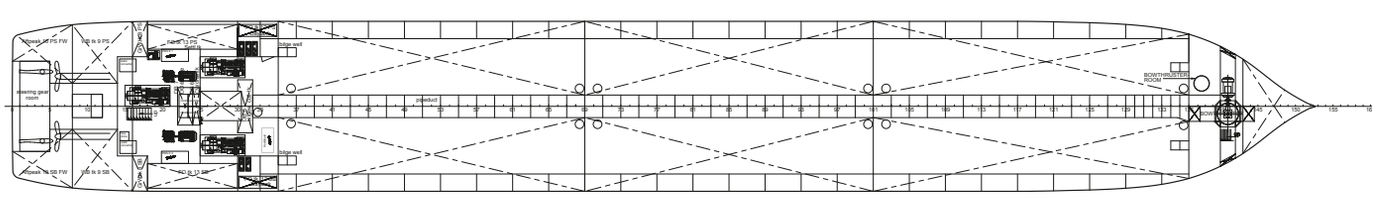
SCHEEPSWERF De Kaap

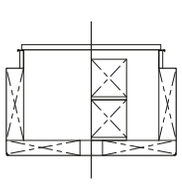
General arrangement

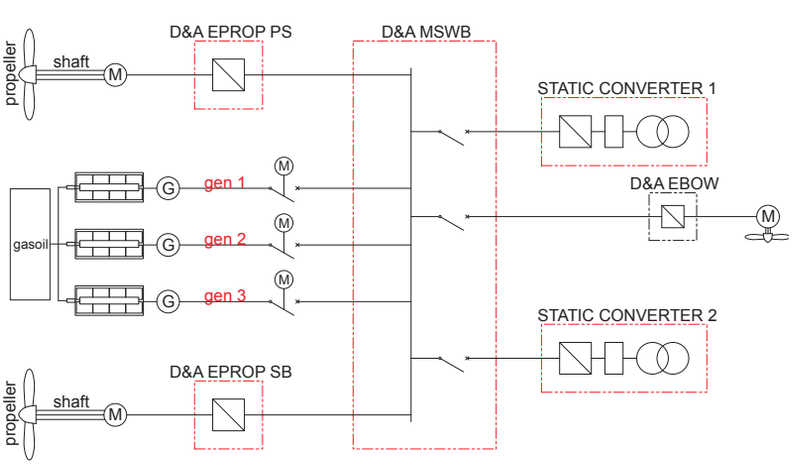












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