

# HANDYMAX VESSEL



## 40000 DWT

A Handymax bulk carrier with cutting-edge technology and eco-friendly innovations for next generation of sustainable and smart shipping. Engineered for sustainability, the vessel integrates fuel-efficient engines, an optimized hull design, and advanced cargo handling systems to reduce operational costs with minimizes environmental impact. Embracing the future of digitalization, the ship is equipped with data analytics, AI, and autonomous systems for intelligent decision-making, enhancing navigation, cargo management, and predictive maintenance.

The vessel is designed for the transportation of a wide range of bulk commodities including agricultural products, minerals and ores, fertilizers, forest products, steel products etc. It features five cargo holds capable of accommodating bulk cargo of about 43000 tons with dedicated cargo handling gears including four 30 T cranes for efficient loading and unloading operations, even at ports with limited infrastructure.

Please write to [info@conceptia.in](mailto:info@conceptia.in) for more information.

**CONCEPTIA MARINE**

# HANDYMAX VESSEL

## MAIN DESCRIPTION

The Vessel is designed as a un-restricted ocean-going Handymax size vessel with single fixed pitch screw driven by dual fuel main engine. The vessel operates at a service speed of 14 knots, carrying dry cargo including bulk cargoes, such as coal, iron ore, grains, etc. The main design objectives are economy of operation, safety and environmental protection. Maximisation of deadweight and fuel and energy efficiency optimization has resulted in an ideal design for this vessel.

## THE VESSEL HAS THE FOLLOWING FEATURES:

- ❖ Vertical bow with forecastle.
- ❖ The cargo area has five (5) cargo holds and is equipped with four (4) nos. of 30T deck crane.
- ❖ All accommodation including navigation bridge and propulsion machinery is located aft.
- ❖ A fan room is provided next amidships for cargo hold ventilation.
- ❖ Superstructure block is shaped aerodynamically to reduce wind resistance.
- ❖ Double hulled fuel tank to avoid spillage when external hull is damaged.
- ❖ Energy efficient propeller (improved fuel efficiency, and reduced fluctuation pressure which causes noise & vibration) along with Propeller Boss Cap Fin.
- ❖ Complies with NOx Tier III emission control regulations (3.4 g/kWh) within designated emission control area.
- ❖ Hull form is shaped for optimal wave resistance.
- ❖ Fresh Air Intake System (FAIS)
- ❖ Dual fuel engine incorporating methanol as alternative fuel to reduce emission and carbon footprint.
- ❖ Smart Navigation & Route Optimization with integrated data analytic, AI and autonomous system.

## CLASS

**SUL, BULK CARRIER, GRAB (20), CSR, ESP, IWS, Load Comp (4), CMF(Cy-c-I), IY, SYJ, IBS, TCM, PMS-CBM, BWT, EP, CyS-II**  
**Or other equivalent class.**



## MAIN PARTICULARS

Length overall	: 178.70 m
Length BP	: 175.00 m
Depth (moulded)	: 15.00 m
Draft	: 10.50 m
Complement	: 23 Nos
Gross tonnage	: Abt. 24000
Service speed	: 12 Knots

## CARGO CAPACITY

Cargo hold	: Abt. 50000 m <sup>3</sup>
Fuel Oil	: Abt. 1800 m <sup>3</sup>
Fresh water tanks	: Abt. 250 m <sup>3</sup>
Ballast water tanks	: Abt. 16000 m <sup>3</sup>
Sewage	: Abt. 30 m <sup>3</sup>
Sludge tanks	: Abt. 30 m <sup>3</sup>

## MACHINERY

Propulsion	: MAN B&W 5G50 ME-C9.6-LGIM T-II CSR 8425 kW @ 98 rpm
Generating set	: 3 x 630 kW x 900 rpm
Shaft Generator	: 1 x 630 kW
Emergency Generator	: 1 x 120 kW
Composite Boiler	: Oil fired section abt.1500kg/hr Exh. Gas section for ME abt 300kg/hr Exh. Gas section for DGs abt 300kg/hr
Purifier	: Heavy fuel oil Abt.2500l/h(380 cst/50°C) x 2
Lubricating oil purifier	: abt. 2000 l/h(SAE30) x 2
Ballast water treatment	: 2 X 700 m <sup>3</sup> /hr (USCG approved BWT Plant, filtration and UV type)
Fresh water generator	: Abt. 20 t/d (Vacuum distilling, plate type using M/E jacket cooling)
Oily bilge separator	: 5 m <sup>3</sup> /h, 15 ppm (IMO approved type, auto discharge type with pump)
Sewage treatment plant	: 23P Capacity
Combined windlass & Mooring Winch	: Synthetic fibre rope drum 200 kN (17.3t) x 15m/min
Hatch covers	: Slide type, no.1: 13.0 m X15.0 m Slide type no. 2,3,4 & 5: 15.2m X 17.6m