



FKAB T37

14 000 DWT stainless steel chemical tanker, LNG as prime fuel and battery pack 500kWh

HIGH QUALITY DESIGN DELIVERING REAL VALUE

A state-of-the-art design focusing on

*Cost optimization *Fuel Economy *Environmental issues for both people & vessel.

This vessel will not only be compliant with future environmental regulations but will also apply innovative eco-technology for your next generation of 'Green' ships.

Chemical tanker (IMO II)

This FKAB design is 16,000 m³ with 14,000 DWT, and is a TIER III tanker for chemicals (IMO II and III). The hull form is optimized for low fuel consumption and designed for excellent performance in harsh weather conditions and can operate in Sulphur Emission Control Areas (SECA). The propeller is integrated to rudder to gain hydrodynamic efficiency. A shaft generator is installed with a frequency converter to save fuel costs in normal sea going conditions. There is a catwalk above the main deck.

The vessel is divided into 20 cargo tanks, 2 drain tanks on deck, consisting of 20 cargo segregations.

Cargo capacity with a density of 1,54 ton/m³ and 1,85 ton/m³ when partly filled. Two cargo tanks are dedicated for slop tanks in accordance with the rules.

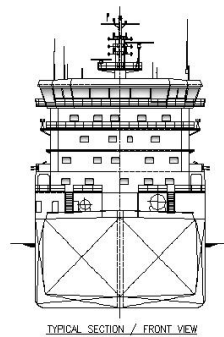
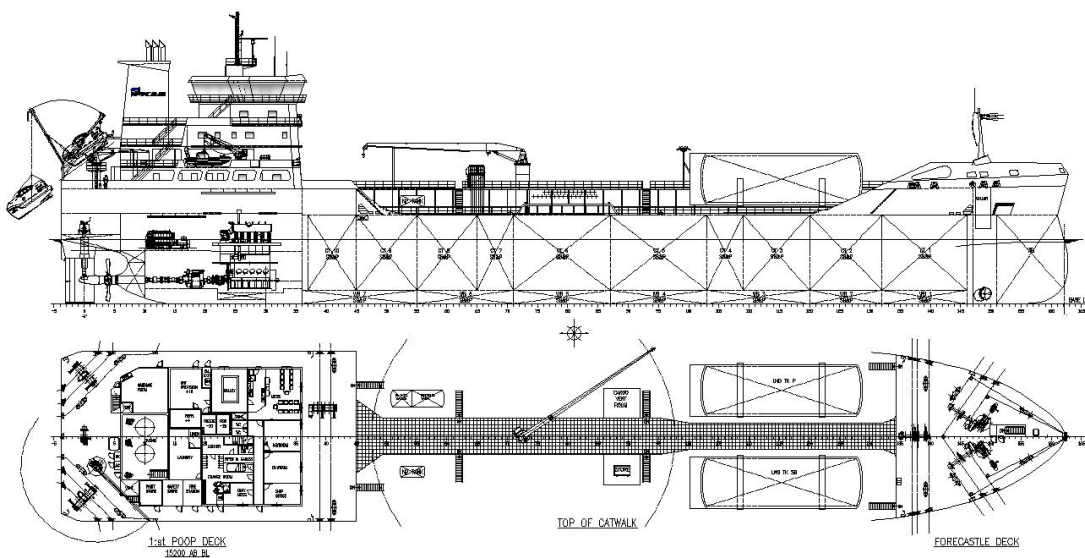
The tanks are stainless steel in ferritic-austenitic steel, type 2205 with a molybdenum content of min 2.70%.

The vessels primary fuel is LNG (MDO if required) and compliant with IMO SOx Tier III NOx emission limits. Manning is based on a crew number of 18 people in single cabins.

The propulsion system consists of one two stroke slow speed diesel engine directly coupled to the controllable pitch propeller. Main engine and Auxiliary engines will use box cooling systems. "Take me home" is handled via a hydraulic motor coupled via shaft generator in PTI mode. The shaft generator is connected via a frequency converter allowing optimum propeller rpm at various speeds.

Developing state-of-the-art design focusing and advising on energy savings

- Advising full hull optimization increasing the vessel efficiency
- up to 2-4% compared to other similar designs in the market and better value than required EEDI
- Real time propeller load/pitch optimization / R.O.I 1,5 years
- Waste heat recovery /R.O.I 2-5 years
- Flow control system / fresh water / R.O.I 1-3 years
- Enthalpy wheel / R.O.I 2,5 years
- Including noise and vibration analyses in all projects



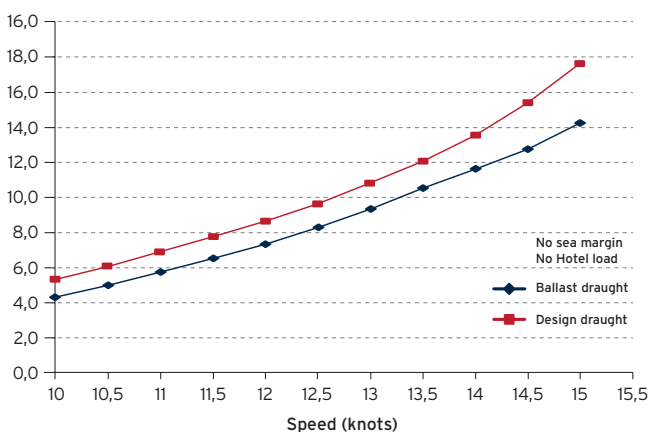
MAIN PARTICULARS

Length over all	133 m	Aux engines DF	2 x 1 000 kW
Length between PP	130 m	Battery power	1 x battery pack 500 kWh (replacing one Aux)
Breadth mid	22,50 m	Shaft generator	1100 kW (PTI/ PTO)
Depth mid	11,70 m	Emergency mode	PTH mode in case ME fails SG is able to run the vessel
Draught design	8,50 m	Boilers 2 x oil fired steam boilers MDO/LNG 2700kW	
Draught scantling	9,00 m	Vessel is fitted with a primary thermal oil heating system and one secondary hot water heating systems heated by two (2) MDO/LNG fired thermal oil boilers and one MDO/LNG fired EGH exhaust gas heated) thermal oil boiler.	
Deadweight at design draught	12 800 tonnes	Bow thruster	500kW
Deadweight at scantling draught	14 000 tonnes	Cargo pumps, submerged (electrical or hydraulic)	2 x 9 Loading 2 000 m ³ /h Discharge 1 500 m ³ /h
Cargo capacity	16 000 m ³	Ballast pumps, submerged centrifugal	2 x 500 m ³ /h
N2 system	N2 generator	Accommodation	18 + 1 pilot cabin pers
LNG	1 200 m ³ (2 x 600 m ³ tanks)		
MDO /MGO tanks	250 m ³		
Technical FW tanks	220 m ³		
Domestic FW tanks	200 m ³		
Water ballast	5 800 m ³		
Main engine Dual fuel 2-stroke engine, Flex50DF	4770 kW at 99 rpm		

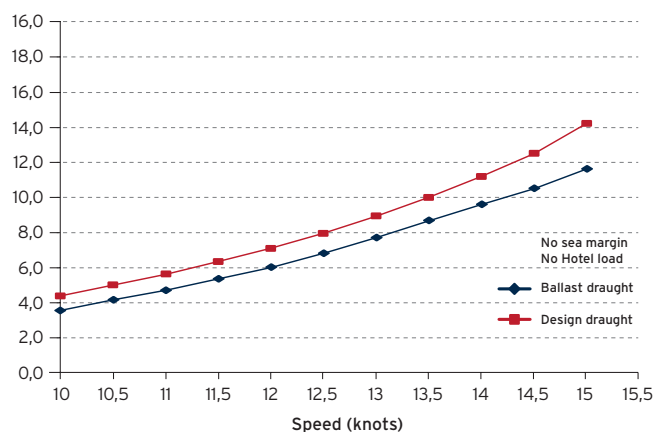
SPEED

The vessel is designed for a service speed of 13,5 knots at 72% MCR with 15% sea margin, with clean hull, at a draught of 8,50 m and even keel. Daily consumption at NCR based on Tier III at 13,5 knots at design draught excluding shaft generator and excluding sea margin 10,9 ton per 24 hours (gas mode).

Predicted MDO Consumption



Predicted LNG Consumption



CLASS

ABS,+AMS, (E), OIL CARRIER, CHEMICAL CARRIER, ESP, +ACCU, TCM, VEC, IHM, UWILD, BWT, MLC-ACCOM, NIBS, RRDA, CPS, ENVIRO.