



BO HAI HENG TONG - Ro-ro

Shipbuilder: **Yantai CIMC Raffles Offshore Ltd.**
 Vessel's name: **Bo Hai Heng Tong**
 Owner/Operator: .. **Bohai Ferry Group Co., Ltd**
 Country: **China**
 Designer: ... **Shanghai Merchant Ship Design & Research Institute, CSSC (SDARI)**
 Country: **China**
 Model test establishment used: **Shanghai Ship & Shipping Research Institute (SSRI)**
 Flag: **China**
 IMO number: **9870680**
 Total number of sister ships already completed (excluding ship presented): **1**
 Total number of sister ships still on order: **Nil**

Delivered in September 2020 by the Yantai CIMC Raffles shipyard to owner Bohai Ferry Group of China, *Bo Hai Heng Tong* is the first of two multipurpose ro-ro ships built for service with the owner's joint venture company operating in Bohai Bay. Its sister *Bo Hai Heng Da* was launched a month later.

The vessel is significant for several reasons as it is the largest of its type in Asia, the first for the joint venture established by Bohai Ferry and Hengtong Logistics and the first ro-ro built by the yard. The shipyard has since secured a new contract with Wallenius SOL for an ice class ro-ro due to operate in the Gulf of Bothnia and Baltic Sea.

Bo Hai Heng Tong is 189.9m in length and has a beam of 26.4m. The 24,777gt ship has three fixed vehicle decks with a total of 2,700 lane meters served by a stern ramp, a stern starboard quarter ramp and a bow ramp with interior ramps and lifting platforms. The weather deck is covered for around half of the vessel's length providing space for 96TEU containers. There are also 60 reefer points to accommodate chilled cargo.

Power and propulsion is by way of twin MAN 9L32/40 medium-speed engines each rated at 4,500kW connected through gearboxes to twin 4.6m diameter controllable pitch propellers. The ship is fitted with twin twisted flap rudders equipped with a rudder bulb. Service speed is a creditable 17knots. The ship has a single bow thruster and is equipped with fin stabilisers and anti-roll tanks.

There is no scrubber installed so the vessel is obliged to run on compliant low sulphur fuels. The ship is also not intended for service in any existing ECA and only needs to comply with NOx Tier II requirements.

TECHNICAL PARTICULARS

Length oa: 189.9m
 Length bp: 176m
 Breadth moulded: 26.4m
 Depth moulded
 to main deck: 9.2m
 to upper deck: 15.45m
 Width of double skin
 side: 3.50m
 bottom: 2.90m

Draught
 scantling: 6.50m
 design: 6.00m
 Gross: 24,777gt
 Displacement: 21,000t
 Lightweight: 9,712t
 Deadweight
 scantling: 11,288dwt
 design: 9,236dwt

Block co-efficient (please state relevant draught): 0.661(Td), 0.676(Ts)
 Speed, service: 90% MCR output 17.0knots

Bunkers (m³)
 Heavy oil: 614
 Diesel oil: 93
 Water ballast (m³): 5,346
 Daily fuel consumption (tonnes/day)
 Main engine only: 35.4

Classification society and notations: CCS
 ★ CSA RO-RO Ship; ICE CLASS B; SOLAS II-2 Reg.19; Equipped with Container Securing Arrangements; Loading Computer (S,I); In-Water Survey ★ CSM AUT-0; SCM; Clean; AFS; GPR

% high-tensile steel used in construction: .. 73%
 Heel control equipment: 1 pair anti-heeling tanks

Roll-stabilisation equipment: 1 pair fin stabilisers, 2 anti-roll tanks

Propulsion
 Main engine(s)
 Design: MAN B&W
 Model: 9L32/40 Tier II
 Manufacturer: ... Shanxi Diesel Engine Heavy Industry
 Number: 2
 Type of fuel: HFO, MDO
 Output of each engine: 4,500kW
 Is this a diesel-electric or hybrid?: No

Gearbox(es)
 Make: Chongqing Gearbox
 Model: GCSF1200-WX-V1.5
 Number: 2
 Output speed: 118.9rpm

Propeller(s)
 Material: Ni-Al-Bronze
 Designer/Manufacturer: Lyen Marine Technology
 Number: 2
 Fixed/Controllable pitch: Controllable
 Diameter: 4,600mm
 Speed: 118.9rpm

Main-engine driven alternators
 Number: 1
 Make/type: Kangfu Sci-tech
 Output/speed of each set: .. 1,500kW/1,500rpm

Diesel-driven alternators
 Number: 2
 Engine make/type: CSSC Marine Power Co.,Ltd / MAN 6L23/30H

Type of fuel: HFO, MDO
 Alternator make/type: ZhenJiang China
 Marine-XianDai Generating / HFC6 564-84K
 Output/speed of each set: 780kW/750rpm

Boilers
 Number: 3
 Type: 1 × oil fired boiler / 2 × exhaust gas boiler

Make: ZhangJiaGang Greens Shazhou Boiler
 Output, each boiler: 1 × 1,800kW / 2 × 800kW

Stern appendages/special rudders: ... Twisted flap type rudders

Bow thruster(s)
 Make: Kawasaki-KWJ
 Number: 1
 Output (each): 1,000kW

Other cranes
 Number: 2
 Make: Jiangyin Oya Marine Machinery
 Type: Hydraulic telescope, cylinder luffing
 Tasks: Provision handling
 Performance: SWL 2t x 7m outreach

Mooring equipment
 Number: 7
 Make: Rolls-Royce
 Type: Hydraulic

Special lifesaving equipment
 Number of each and capacity: 51 persons
 Make: Jiangyinshi Beihai LSA
 Type: .. 7.5m totally enclosed life/rescue boat

Containers
 Total TEU capacity: 96
 On deck: 96
 Reefer plugs: 60
 On deck: 2/6

Vehicles
 Number of vehicle decks (fixed/moveable): ... 3 (3/0)
 Total lane length: 2,700
 Total freight units (specify size): 251 units (10.0m x 2.5m)

Doors/ramps/lifts/moveable car decks
 Number of each: ... Stern ramp/inner door (1), stern side ramp (1, starboard), bow ramp/inner door (1), tilttable ramp (1), lifting platform(1)
 Type: Hydraulic
 Designer: SMS-SME

Complement
 Crew: 38
 Single/double/other rooms: ... 1 cabin for pilot
 Passengers
 Total: 12
 Number of cabins: 3

Navigation and other equipment
 Bridge control system
 Make: Dong ze
 Is bridge fitted for one-man operation? No
 Integrated bridge system?: No
 Radars
 Number: 2
 Make: Furuno
 Model(s) : FAR-2338SW, FAR-2328W

Fire detection system
 Make: Apollo
 Type: Syncro

Fire extinguishing systems
 Engine room: CO₂, fixed water-based local application fire fighting
 Make/Type: CSSC Jiujiang Fire Equipment /Shanghai Sure-safe Fire Equipment
 Vehicle spaces: CO₂, water spray
 Make/Type: Jiangsu Nanji Machinery /Shanghai Sure-safe Fire Equipment

Sewage plant
 Make: Jiangsu Nanji Machinery
 Model: WCMBR-50(U1I)
 Energy Saving Technologies*: ... Twisted flap type rudders, rudder bulb

Contract date: 23 October 2018
 Launch/float-out date: 31 June 2020
 Delivery date: 29 September 2020

