



CSSC CAPE TOWN – Mini Capesize bulker

Shipbuilder: CSSC Huangpu Wenchong Shipbuilding Company Limited
 Vessel's name: **CSSC Cape Town**
 Owner/Operator: Fortune Central Shipping Limited
 Country: China
 Designer: Shanghai Merchant Ship Design & Research Institute (SDARI), CSSC
 Country: China
 Model test establishment used: China Ship Scientific Research Center (CSSRC)
 Flag: Hong Kong
 IMO number: **9853888**
 Total number of sister ships already completed (excluding ship presented): **2**
 Total number of sister ships still on order: **4**

Built by CSSC's Huangpu Wenchong Shipbuilding subsidiary, *CSSC Cape Town* is a 120,000dwt mini Capesize vessel and the first of a four plus two option series for the builder's shipowning arm, CSSC Leasing, to serve a charter agreement signed in 2018 by commodity giant Cargill.

Designed by Shanghai Merchant Ship Design and Research Institute (SDARI) to be able to transit the enlarged Panama Canal locks, the ship type has been promoted as a successor to smaller bulk carriers of between 80,000 and 100,000dwt. At the time the charter contract with Cargill was signed, the company said the vessels would add flexibility to their fleet and would likely be used primarily for coal and grain cargoes.

Although the initial design was by SDARI, certain changes were requested by Cargill during construction, including the installation of scrubbers to meet 2020 SOx regulations.

The builder claims the vessel is the first of its type to meet both the latest IACS harmonised common structural rules and Phase 2 of the EEDI. The required EEDI rating of 3.62 was easily improved by the ship's assigned 2.81 indexing. Construction began in March 2019 and was completed remarkably quickly in May 2020.

CSSC Cape Town is 254.92m in length with a beam of 43m, moulded depth of 20.5m and scantling draught of 14.6m. In appearance it resembles a scaled up Panamax with its seven holds and hatches and gearless configuration. A vertical bow without bulb is adopted and the vessel's cargo capacity is 135,000m³.

The main engine is a Chinese-built MAN B&W 6G60ME-C9.5 type with an output of 11,600kW at 77rpm. To meet SOx emission rules the vessel is fitted with an Ecospray Technologies open loop scrubber serving the main engine and the three Daihatsu auxiliary engines. The ballast treatment system comprises two Headway Technology units with flow rates of 2,600m³/h.

TECHNICAL PARTICULARS

Length oa: 254.92m
 Length bp: 251.00m
 Breadth moulded: 43.00m
 Depth moulded: 20.50m
 to main deck: 20.50m
 Width of double skin
 side: 2.46m
 bottom: 2.35m

Draught
 scantling: 14.60
 Gross: 66,786gt
 Displacement: 140,000t
 Lightweight: 19,500t
 Deadweight
 scantling: 120,000t
 Block co-efficient (please state relevant draught): 0.87

Cargo capacity (m³)
 Grain: 135,000
 Bunkers (m³)
 Heavy oil: 2,700
 Diesel oil: 580
 Water ballast (m³): 42,000

Classification society and notations: DNVGL 1A, Bulk Carrier, BC(A), CSR, ESP, Grab(30), Hold(2,4&6) may be empty, CMON, COAT-PSPC(B), BIS, LCS, Recyclable, Clean, E0, BWM(T), TMON (Oil Lubricated)
 % high-tensile steel used in construction: ..80%

Propulsion
 Main engine(s)
 Design: Two-stroke, single-acting, direct reversible crosshead type marine diesel engine with constant pressure turbocharging
 Model: ... CD-MAN-B&W 6G60ME-C9.5 Tier II
 Manufacturer: CSSC-MES Diesel
 Number: 1
 Type of fuel: HFO, MGO
 Output of each engine: SMCR 11,600kW x 77rpm
 Is this a diesel-electric or hybrid?: No

Propeller(s)
 Material: Ni-Al-Bronze
 Designer/Manufacturer: Wärtsilä-CME Zhenjiang Propeller
 Number: 1
 Fixed/Controllable pitch: Fixed
 Diameter: 8,200mm
 Speed: 77.0rpm

Diesel-driven alternators
 Number: 3
 Engine make/type: ..Anqing-Daihatsu 6DK-20e

Type of fuel: HFO,MGO
 Alternator make/type: CMXD HFC
 Output/speed of each set: ...990kW / 900rpm

Exhaust-gas scrubbing equipment
 Manufacturer: EcoSpray Technologies
 Type: Open loop system
 On main engines?: Yes
 On auxiliary engines?: Yes

Boilers
 Number: 1
 Type: Jiujiang Mitsubishi composite boiler, vertical cylindrical smoke tube
 Make: Jiujiang Haitan Equipment Manufacture
 Output, each boiler: 1,800kg/h at oil fired section, 1,200kg/h at ME exh.gas section

Mooring equipment
 Number: 6
 Make: MacGregor
 Type: Hydraulic

Special lifesaving equipment
 Number of each and capacity: 1 free-fall
 Make: CSSC Luzhou Zhenjiang Marine Auxiliary Machinery
 Type: YH5.9FP

Cargo/capacity
 Hatch covers
 Design: TTS
 Manufacturer: TTS
 Type: Upper deck

Ballast water treatment system
 Make: Headway Technology
 Capacity: 2 x 2,600m³/h

Complement
 Crew: 25

Navigation and other equipment
 Bridge control system
 Make: JRC
 Is bridge fitted for one-man operation? No

Integrated bridge system?: No

Radars
 Number: 2
 Make: JRC
 Model(s): JMR-9230-SN / JMR-9225-9XN

Fire detection system
 Make: Consilium
 Type: Salwico Cargo

Fire extinguishing systems
 Cargo holds:
 Make/Type: Sea water hydrant
 Engine room:
 Make/Type: NK Co.,Ltd/ high pressure CO₂ firefighting system, Minimax / local water mist application system, sea water hydrant

Cabins:
 Make/Type: Sea water hydrant
 Public spaces:
 Make/Type: Sea water hydrant

Waste disposal plant
 Incinerator
 Make: CSSC Nanjing Luzhou Machine Company Limited
 Model: OG 200C

Sewage plant
 Make: Il Seung
 Model: ISB-02

Efficiency
 Attained EEDI value: 2.81
 Required EEDI value: 3.62

Energy Saving Technologies: PSV

Contract date: 14 May 2018
 Launch/float-out date: 16 March 2020
 Delivery date: 26 May 2020

