

The Vessel Description

GENERAL INFORMATION

The vessels will be equipped with fuel efficient marine propulsion including a catalytic converter (SCR) using Urea (Ad Blue) and a front-end mounted electric generator supplying the electrical system for maneuvering and hotel load. This will not only meet the specifications of the IMO Tier III exhaust gas standards, but also significantly reduce carbon dioxide and particulate matter emissions as a result of reduced fuel consumption. In addition, the main engine can burn biofuel. Some other features are a ballast water treatment system, a shore power connection, an integrated automation system and many more.

CLASSIFICATION SOCIETY

DNV will be taking care of the classification of the vessel, according following hull and machinery notations:

Marks & Notations: DNV 1A, Multi-purpose dry cargo ship, equipped for the carriage of containers, strengthened for heavy cargo.

NAVIGATION NOTATION:

Unrestricted Navigation

Grab 2-15 Hold designed for loading/discharging by grabs

E0: Unattended Machinery Space

BIS: In-water survey

BWMT Ballast water treatment

DG Carriage of dangerous goods

DBC Carriage of solid dangerous goods in bulk

NAUT (NAV) Ergonomic bridge design

TMON Tail shaft monitoring

The vessel to be able to sail without hatch covers (open top) according Madeira flag state regulations.

The vessel to be able to load/unload when safely aground (NAABSA).

Flag Authority

The vessel is designed to comply with the requirements for Vessel carrying the Flag of Madeira

TONNAGE MEASUREMENT

According London-Convention 1969:

Gross tonnage : max. 2.999 GT

Net tonnage : approx.1.570 NT

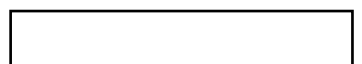
DEADWEIGHT

at design draught (5.70 meter) on even keel in seawater (1,025 t/m³) is approx. 4.200 tons. In open top condition de deadweight is approx. 2.918 tons at a draft of 4.60 meter.

PRINCIPAL DIMENSIONS

The vessel has the following principal main dimensions:

- Length over all 88,60 m
- Length load line 84,99 m
- Breadth moulded 14,00 m
- Breadth over all 14,54 m
- Depth to main deck 7,35 m
- Draught summer 5,70 m
- Deadweight at summer draught approx. 4.200 ton
- Draught open top* approx. 4,60 m
- Deadweight at open top draught approx. 2.918 ton
- Number of crew cabins 8



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GRAIN BULKHEADS AND TWEENDECK

The vessel is provided with six (6) separation panels, forming a total of three (3) grain bulkheads. The panels can also be used as tween deck panels (approx half tweendeck). The hold will be provided with approx. 13 tween deck panel positions. Tween deck panel uniform load: 2,5ton /m2.

TANK AND HOLD CAPACITIES

The vessel has the following principal main capacities:

- LSMGO Bunkers, including day- and overflow tanks approx. 203 m3
- Ballast water tanks approx. 1.829 m3
- Fresh water bunkers approx. 85 m3
- Hold bilge water approx. 27 m3
- Urea for SCR CAT approx. 28 m3

Hold capacity:

- Hold Volume (panels stored on deck) approx. 5.696 m3 / 201.100 ft3
- Hold Volume (panels stored in rest position above ER) approx. 5.460 m3 / 192.800 ft3
- Hold Volume (3 bulkheads in hold, 4 segregations) approx. 5.550 m3 / 196.000 ft3

CONTAINER CAPACITIES

Positions for 40' x 9'6" containers on maindeck : 40 FEU

Positions for 20' x 9'6" containers on maindeck : 84 TEU

Containers in the hold : None

SPEED & FUEL OIL CONSUMPTION

10 knots ECO speed on 4,2 ton MGO per day.

to be confirmed after sea trials.

ENDURANCE

minimum 6000 nautical miles.

DESIGN DATA

Unless mentioned otherwise in this specification, the design of the machinery installation and secondary equipment machinery is based on the following cargo types and conditions.

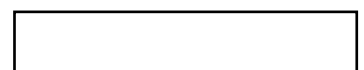
Cargo types:

- Bulk cargoes in hold;
- General cargoes;
- Project cargoes;
- Containers (max 9'6" in height) on hatchcovers (20 / 40 ft);
- Dangerous goods according SOLAS;
- Non-combustible cargoes in open top conditions.

Fuel standards: according ISO8217 (edition 2017)

DANGEROUS CARGOES

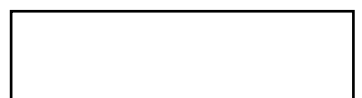
The vessel is designed and equipped to carry dangerous cargoes as sea going Vessel (in accordance with SOLAS Chapter II-2 reg. 19 and MSC.269 (85)).



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MACHINERY DESCRIPTION

Main Engine:	ABC / 6DZC-1000-167-A / 1.333 kW
Shaft generator:	Oswald / TF36.55-24WWR_FS 259kW mech.
Exhaust SCR Cat:	HUG Engineering
Aux.-Engines:	2x Perkins E70 TAG1M / 129kW @ 1800rpm
Reduction Gear:	ZF / W10250 / 6.414:1 – 155,83 rpm
Emerg. generator:	1x Perkins E70 TAG2M / 122kW @ 1500rpm
Separators:	Gea Westfalia / OSE5-0196-037/3 / 2x MGO 500l/h / 1x LO 300l/h
Bowthruster:	Wuhan Kawasaki Marine Machinery Co. Ltd
Propeller:	Promarin System GmbH / fixed pitch 2950mm / 4 blades / keyless
Nozzel:	DAMEN / Van der Velden
Shaft seals fwd / aft:	IHC Lagersmit
Rudder:	DAMEN / Van der Velden / NRA 22-33-12 / full spade free hanging without flap
Rudder Gear:	Brusselle Carral Marine / HSDE 100/70-2 / 39kNm, 2x 60°
BWT:	Headway Technology Co. Ltd. / HMT-200 / Ocean Guard, 260m ³ /h
Ballast Pumps:	Azcue / LN-VP-100-315 / 22kW / 1450rpm / 200m ³ /h
Anchor Equipment	SEC Shanghai / EHAMW36K3-50kN / 15.5kW electrical motor
Gantry Crane:	Coops & Nieborg
MOB Davit:	Fassmer-Marland



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BRIDGE EQUIPMENT

ITEM	SYSTEM	TYPE	MAKER
1	X-Band (2x)	FAR-2328 with 26 inch screen	Furuno
2	ECDIS (2x)	NS 4000 Platinum Dual	Wärtsila Voyage
3	Integrated Automation System IAS (2x)	Marpower Automation System(MAS)	Eekels/Marpower
4	Planning Station	TPC24 BOB, 24" panel PC	Wärtsila Voyage
5	Conning Display & Bridge Alert System	NS 4000 / BAMS 5000	Wärtsila Voyage
6	Magnetic Compass	REFLECTA1	Anschütz
7	GYRO Compass	STD-22NX	Anschütz
8	Autopilot	PILOTSTAR NX	Anschütz
9	Echosounder	FE-800 with 200kHz transducer	Furuno
10	Speedlog	DS-85	Furuno
11	AIS	FA-170	Furuno
12	DGPS (2x)	GP-170	Furuno
13	MF/HF DSC Radio	FS-1575	Furuno
14	VHF DSC (2x)	FM-8900S	Furuno
15	INMARSAT (2x) (One set with SSAS and the other with LRIT)	FELCOM-18	Furuno
16	SSAS KIT	SSAS KIT for FELCOM-18	Furuno
17	Navtex	NX-700B	Furuno
18	EPIRB	TRON 60 GPS	Jotron
19	AIS SART (2x)	AIS SART	Jotron
20	Two-Way VHF GMDSS (3x)	TR-30	Jotron
21	Meteo System	OMC-140	Observator
22	Sound Reception	8300MkII	Phontech
23	Weatherfax	Fax-30	Furuno
24	Handheld VHF (2x)	IC-M25	I-Com
25	Remote Maintenance System	Hermace	Furuno

All details have been given in good faith but without guarantee

