

# Bulk / Container Carrier

70,940 DWT

Builder / Yard No.: Shipyard 3. MAJ / 604  
 Name: m/s **CAST CARIBOU**  
 Owner / Flag: Cast Container Ship Ltd. / Barbados  
 Sister vessels: 605, 619, 621  
 Designed by: Shipyard 3. MAJ  
 Delivered: 1981



The vessel is designed for unrestricted class notation suitable to carry grain cargo, ore cargo and containers in holds and on upper deck.  
 Propelling machinery, accommodation for a complement of 36 persons and navigation spaces are located aft. The hull is divided into seven cargo holds, hull structure laid out for heavy cargoes, such as ore and in holds No. 2, 4, 6 containers.

Classification: DNV, -I1A1, Bulk/Container Carrier, EO, Ice Class C, HC, with notation: Holds 2, 4, 6 may be empty

Lenght over all	233.93 m
Length btw perp.	225.00 m
Breadth moulded	32.20 m
Depth moulded	18.59 m
Draught design	12.83 m
Draught scantling	13.48 m
Deadweight, at draught 12.83 m	66,490 t
Deadweight, at draught 13.48 m	70,940 t
Gross tonnage	40,003

Main engine: 3. MAJ - SULZER	4 RLA 90
MCR:	10,000 kW / 90 rpm
Trial speed, at draught 12.83 m and 9,000 kW	14.85 knots

**Capacities**

Cargo capacity (grain)	84,895 m <sup>3</sup>
Container (20' x 8' x 8'6"):	
holds (2, 4, 6)	861 TEU
hatch covers and upper deck	605 TEU
Total	1,466 TEU

**Provisions**

Heavy fuel oil	2,029 m <sup>3</sup>
Diesel fuel oil	262 m <sup>3</sup>
Lubrication oil	104 m <sup>3</sup>
Fresh water	483 m <sup>3</sup>

Ballast water	35,441 m <sup>3</sup>
HFO consumption of M.E.	44 t / 24 hours
Crew complement	36

**Cargo equipment**

Hatch covers:

No. 1	12,438 x 13,460 m
No. 2, 4 & 6	29,038 x 18,480 m
No. 3, 5 & 7	14,938 x 18,480 m

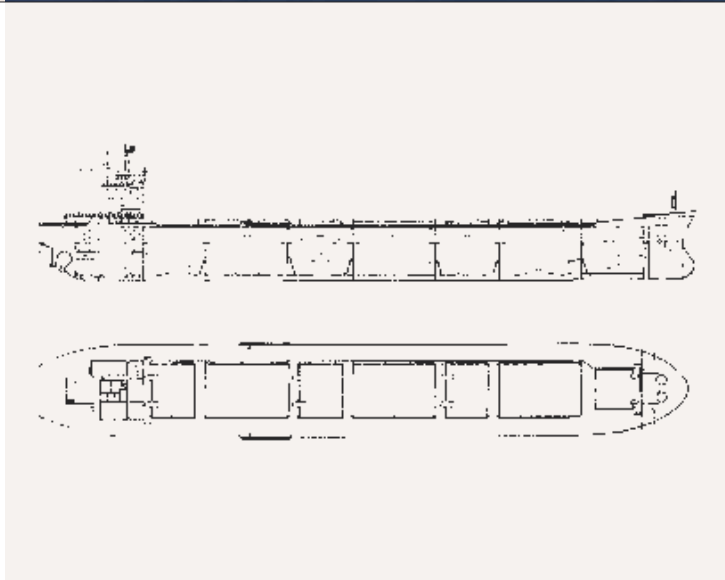
Covers on hatches No. 1, 3, 5 & 7 folding type  
 Covers on the hatches No. 2, 4 & 6 piggy back type.

**Steam plant**

- One boiler, oil fired, 6.5 bar, cap. 2 t/h steam.
- One exhaust gas boiler, 6.5 bar, cap. 1.5 t/h steam.

**Auxiliary engines plant**

- Two el. gen. sets, 60 cycles, 600 kVA D.M. driven each.
- One el. gen. set, 60 cycles, 360 kVA D.M. driven.
- One emergency generator / 60 cycles, 150 kVA, D.M. driven.



# Handymax Bulk Carrier

51,000 DWT

Builder / Yard No.: Shipyard BRODOSPLIT / 422  
 Name: m/s EQUINOX VOYAGER  
 Owner / Flag: Equinox Voyager Ltd / Cayman Islands  
 Sister vessels: 421, 423  
 Designed by: Shipyard Brodosplit  
 Delivered: 2002, 2003



Single screw diesel engine driven Bulk Carrier with bulbous bow transom stern and forecastle. Living quarters including navigation bridge, engine room with fuel oil tanks on both sides located aft. Double bottom / top side tanks and peak tanks intended for segregated ballast. Cargo space divided into five (5) cargo holds. Hull structure made of mild and higher tensile steel.

Classification: American Bureau of Shipping  
 +-1A1 (E) Bulk Carrier, SH, +-AMS, +-ACCU, ESP, STRENGTHENED FOR THE CARRIAGE OF HEAVY CARGOES - HOLD N°2 AND N°4  
 MY BE EMPTY, RES, GRAB (30 tons), UWILD

### Main dimensions

Lenght over all	189.99 m
Length between perpendiculars	182.00 m
Breadth moulded	32.24 m
Depth moulded	17.00 m
Design draught	11.00 m
Scantling draught	11.99 m
Deadweight at design draught	45,500 t
Deadweight at summer draught	50,568 t
Main engine Split-MAN-B&W	6S50MC
Selected maximum continuous rating	8,580 kW/127 rpm
Trial speed at design draught and 90% SMCR	15.0 kn
Main engine daily fuel oil consumption	29.3 t/day
Cruising range	20,000 nm
Crew complement	25

### Capacities (100%)

Cargo holds	64,935 m <sup>3</sup>
Ballast tanks	16,970 m <sup>3</sup>
Heavy fuel oil	2,120 m <sup>3</sup>
Diesel	299 m <sup>3</sup>
Fresh drinking and feed water	265 m <sup>3</sup>

### Painting

Cargo holds	Epoxy (250 my)
Cargo hold No 3	Coal tar epoxy (300 my)
Under water hull and boot topping	Coal tar epoxy + SPC (250 my + 450 my)
Open deck and exposed superstructure	Epoxy (250 my)

### Cargo equipment

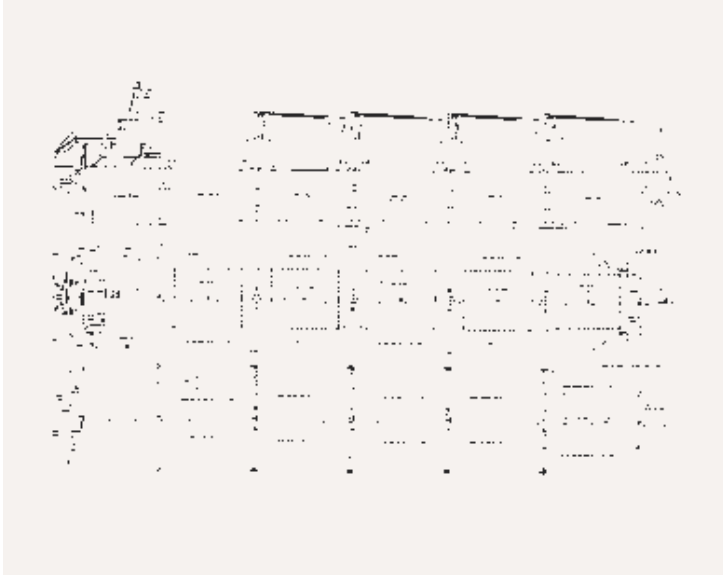
Cargo hatches (weathertight, hydraulic folding)	20.375 m x 17.8 m
Cargo hatch No 1	18.745 m x 16.2 m
Cargo gears outreach	4 x 35 t SWL 27 m

### Auxiliary engines plant

Main diesel-threalternators sets	3x 680 kW
Emergency diesel-alternator set	1 x 175 kW

### Heating plant

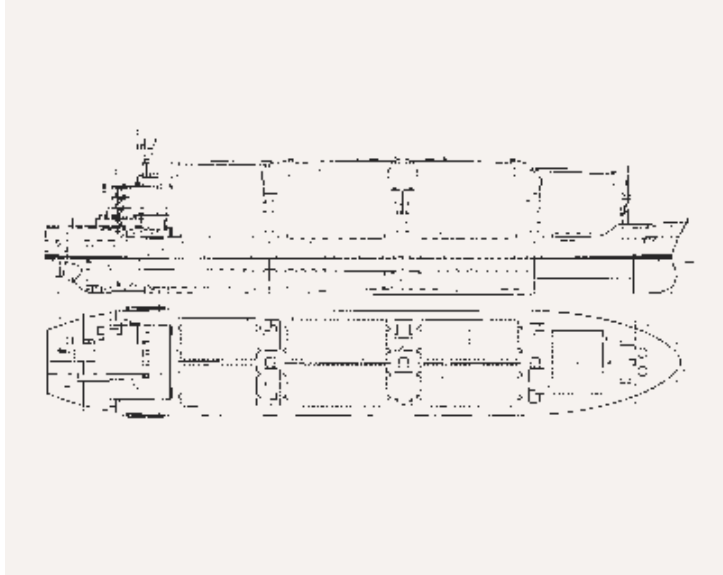
Composite boilers 1 x 1.5/1.0 t/h saturated steam at 6 bar G



# Multipurpose Cargo Vessel

22,271 DWT

Builder / Yard No.: Shipyard 3. MAJ / 667  
 Name: m/s TAIXING  
 Owner / Flag: Chinese Polish Joint Stock Shipping Company, Shanghai, China / Malta  
 Sister vessels: 668, 672  
 Designed by: Shipyard 3. MAJ  
 Delivered: 1997



**Classification:** LRS; +- 100 A1 "Strengthened for heavy cargoes, container cargoes in hold Nos. 1, 2, 3 and 4 also on upper and poop decks and hatch covers" with the descriptive note in column 6 of register book "pt HT steel" +- LMC, UMS, IWS.  
 Equipment as per rules CCS +- CSA 5/5, with notation "Strengthened for heavy cargoes equipped with container securing arrangements" +- CSM, AUTO, IWS.

**Lubrication oil** 76 m<sup>3</sup>  
**Fresh water** 234 m<sup>3</sup>  
**Ballast water tanks:** 7,391 m<sup>3</sup>  
**Consumption in accordance with ISO standard** 32.65 t/24 h  
**Crew complement** 37

m/s TAIXING is multipurpose cargo liner suitable to carry general cargo, grain, bulk and ore cargo, heavy cargo, vehicles and containers, as well as dangerous cargo, class 3, 4, 5, 6, 8 and 9 as per SOLAS in hold Nos. 1, 2, and 3, only.  
 Accommodation is located aft, with three decks, forecastle, poop, raked stem, bulbous bow, transom stern and double bottom.

Cargo area comprise opened space on upper deck, space on 2nd deck, space on 3rd deck and space in holds.  
 Cargo spaces Nos. 2, 3 and 4 comprise twin-decks A twin-decks B and lower holds and No. 1 cargo space comprises twin-deck A and lower hold.  
 Side tanks for water ballast is arranged in way of Nos. 2,3 and twin-deck A No. 4 twin-deck B and Nos. 2 and holds.  
 Deep tanks in cargo area between hold Nos. 2 and 3 is provided for heavy fuel oil.  
 Main engine is remotely controlled from the engine room control console as well as from the wheel-house (bridge control console) and bridge wings.

**Cargo equipment - hatch covers**

- On upper deck: hydraulically operated, watertight, pivot/ folding type.
- On 2nd deck: wire operated, non watertight, multifolding type.
- On 3rd deck: wire operated, non watertight, multifolding type

**Deck cranes**

Two single GL type and one twin TGL type electro-hydraulic deck cranes with cargo hooks.

- GL 3522 - 2S capacity 343 kN, hoisting speed 44/22 m/min
- GL 3524 - 2S capacity 343 kN, hoisting speed 44/22 m/min
- TGL 2528-22 capacity 2 x 245 kN, hoisting speed 54/27 m/min (single), 48/24 m/min (twin)

**Steam plant**

- One vertical oil fired, marine boiler steam capacity 2.0 t/hour of saturated steam, working pressure 8.0 bar.
- One exhaust gas economiser, steam capacity 1,5 t/hour of saturated steam of 8.0 bar.

**Auxiliary engines plant**

- Three sets of main diesel generators diesel engines of 870 kW at 900 rpm generators of 880 kVA, 3 x 450 V, 60 Hz
- One emergency diesel engine of 153 kW at 1,800 rpm.; generator of 150 kVA, 3 x 450 V, 60 Hz

**Length over all** abt. 69.80 m  
**Length btw perp.** 162.50 m  
**Breadth moulded** 27.50 m  
**Depth moulded to upper deck** 13.80 m  
**Depth moulded to second deck** 10.15 m  
**Depth to third deck** 6.35 m  
**Draught at summer freeboard** 9.32 m  
**Deadweight at 9.32 m draught** 22,271 t  
**Gross tonnage** 19,134  
**Main engine:** 3. MAJ - SULZER 5RTA 62  
**MCR:** 9,500kW/109 rpm  
**Trial speed at 9.32 m and 85% MCR (8,075 kW)** 16.20 knots

**Capacities**

**Twindecks "A"** 14,466 m<sup>3</sup> (grain)  
 13,906 m<sup>3</sup> (bale)  
 9,657 m<sup>3</sup> (grain)  
 8,214 m<sup>3</sup> (bale)

**Twindecks "B"** 13,215 m<sup>3</sup> (grain)  
 11,485 m<sup>3</sup> (bale)  
 37,339 m<sup>3</sup> (grain)  
 33,606 m<sup>3</sup> (bale)

**Holds**

**Total** 37,339 m<sup>3</sup> (grain)  
 33,606 m<sup>3</sup> (bale)

**Containers**

On upper deck 622 TEU; 124 TEU + 249 FEU  
 2nd deck hatch covers closed; 3rd deck hatch covers opened 472 TEU; 34 TEU + 214

2nd and 3rd deck hatch covers opened 468 TEU; 34 TEU + 210 FEU  
 2nd and 3rd deck hatch covers closed 388 TEU; 32 TEU + 176 FEU

Maximum capacity (on upper deck + 2nd deck hatch covers closed and 3rd deck hatch covers opened) 1,094 TEU; 158 TEU + 463 FEU

**Provisions**

Heavy fuel oil 1,224 m<sup>3</sup>  
 Diesel fuel oil 81 m<sup>3</sup>

# Multipurpose / Heavy Lift Vessel

18,680 DWT

Builder / Project: Shipyard 3. MAJ / Pr. 2784  
 Owner / Flag: Big Lift / Netherlands  
 Designed by: Shipyard 3. MAJ



The vessel is designed for unrestricted service notation as multipurpose cargo vessel suitable for the carrying and lifting of heavy cargo, timber, containers, paper, general cargoes, bulk cargo such as coal and grain (grab discharge) and certain dangerous cargoes.  
 The ship is driven by single screw diesel propulsion unit with engine room located aft. It has main deck, three tweendecks, fore-castle, poop, raked stem, bulbous bow, transom stern and double bottom.  
 Accommodation is arranged at the fore part of the vessel on top of the fore-castle deck.  
 The cargo area comprise open space on main deck including poop deck, tweendeck space and space in hold.  
 In the hold area there are double bottom and side tanks forming a double hull construction utilized for water ballast and FO tanks (no fuel in double bottom).

Classification: LLOYD'S REGISTER  
 ± 100 A1 Ice class 1A (Finish)  
 "Strengthened for Heavy Cargoes",  
 "Timber Deck Cargoes",  
 "Container Cargoes in Hold on Deck and on Upper Deck Hatch Covers", LA  
 ± LMC, UMS, IWS, PCWBT, SCM, NAV 1

**Painting** Cargo holds tank top – ethyl zinc silicate  
 Bulkheads in cargo holds - epoxy  
 Ballast tanks - epoxy

- Cargo equipment**
- Two (2) heavy lift cranes (SWL 800 t each) are installed on the starboard side of the vessel as shown on the general arrangement plan (GAP) and shall be Owner's supply.
  - Upper deck hatch covers are box type made of steel, folding type, operated by hydraulic cylinders, six (6) panels at each end, two (2) middle panels are of lift away rolling type. In open position hatch covers are stowed fore and aft and can be kept in stowage position also when the vessel is at sea.
  - Tweendeck hatch covers are lift away box type.

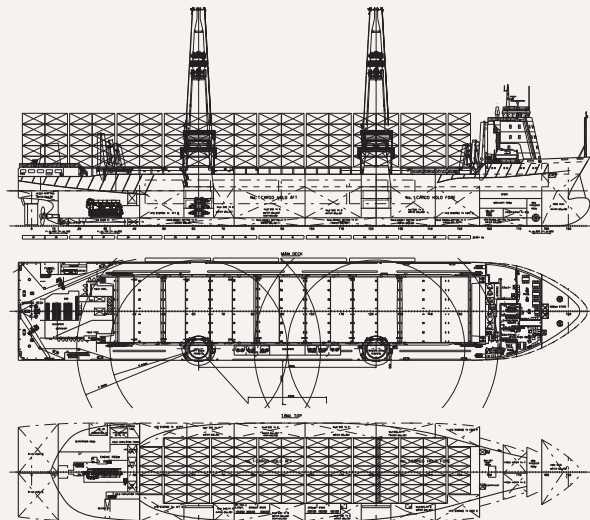
Length overall	154.80 m
Length between perpendiculars	145.20 m
Breadth, moulded	26.50 m
Depth, moulded to upper deck	14.00 m
Design draught	7.00 m
Deadweight at design draught (7.0 m)	9,700 t
Summer draught	9.50 m
Deadweight at summer draught (9.50 m)	18,680 t

Main engine Four stroke diesel-engine  
 CMCR 8,775 kW/up to 500 min-1  
 Trial speed with 7,460 kW (85% CMCR)  
 at design draught (7.0 m) 16.60 knots

- Thermal oil system**
- One oil fired thermal oil heat exchanger
  - One exhaust gas fired thermal oil heat exchanger
- Electric power production:
- One PTO generator 1.560 kVA/1800 min-1
  - Three diesel generator sets, abt. 1.200 kVA/900 min-1  
 One emergency/harbour diesel generator abt. 375 kVA/1800 min-1

**Capacities (100%)**

Cargo hold volume	20,500 m <sup>3</sup>
Containers in hold	394 TEU
Containers on deck	755/855 TEU
Ballast tanks	9,700 m <sup>3</sup>
Heavy fuel oil	1,850 m <sup>3</sup>
Diesel oil	320 m <sup>3</sup>
Fresh water	205 m <sup>3</sup>
Consumption of HFO	34.4 t/day
Cruising range	20,100 nautical miles
Crew complement	34 persons



# Multipurpose Dry Cargo Ship

9,860 DWT

Builder / Yard No.: Shipyard TROGIR / 241, 242, 243  
 Name: m/s KEGOSTROV  
 Owner / Flag: Aurora Holding Ltd. Malta  
 Sister vessels: 242, 243  
 Designed by: Shipyard Trogir  
 Delivered: 1999, 2000, 2001, 2002



Classification: DNV; +-1 A1, General Cargo Carrier,  
 HC Ice 1C EQ i B (W) Sc  
 DG-B Regulations: International Convention on Load  
 Line, 1966, with updating resolutions (IMO) Resolutions  
 A.231 (VII), A.320 (IX), A.513 (XIII) and A.514 (XIII)

Length over all 109.60 m  
 Length btw perp. 99.60 m  
 Breadth moulded 18.60 m  
 Depth moulded to main deck 10.60 m  
 Draught design, moulded 6.75 m  
 Deadweight at design draught 7,140 t  
 Scantling draught (above base line) 8.34 m  
 Deadweight at scantling draught 9,860 t

Trial guaranteed speed at 100% MCR (2,700 kW) at design  
 draught of 6.75 m 13.70 knots  
 The vessel is driven by single screw medium speed diesel  
 propulsion unit.

The main propelling unit consists of one marine diesel  
 engine having maximum continuous output of 2,760 kW at  
 750 rpm.  
 One reduction gear and one CPP plant.  
 One elastic coupling between main engine and gear.  
 One auxiliary composite exhaust gas/oil fired marine boiler  
 capacity of 2,000 kg saturated steam per hour at 7.0 bar g  
 working pressure.  
 Electric power station consists of two diesel engine genera-  
 tor sets, each of abt. 475 kVA and one shaft generator con-  
 nected to reduction gear PTO shaft of abt. 725 kVA.  
 The power of each diesel engine is abt. 410 kW at speed up  
 to 1,500 rpm.

## Capacities

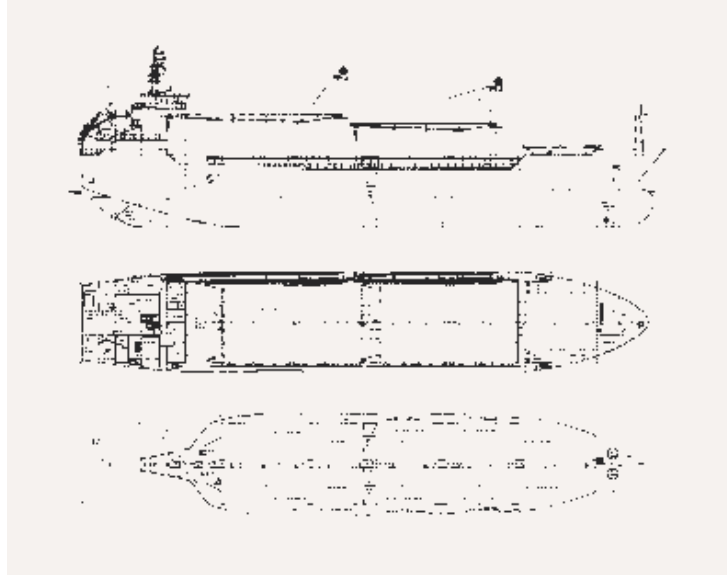
Cargo holds:  
 Hold No. 1 abt. 1,668 m<sup>3</sup>  
 Hold No. 2 abt. 4,496 m<sup>3</sup>  
 Hold No. 3 abt. 4,496 m<sup>3</sup>

Container stowage capacity (TEU)  
 Hold No. 1 32  
 Hold No. 2 96  
 Hold No. 3 96  
 Totally holds 224 TEU

## On hatch covers

No. 112 (8.5 ft height only)  
 No. 251 (45 of 8.5 ft, 36 of 9.5 ft)  
 No. 378 (51 of 8.5 ft, 54 of 9.5 ft)  
 On main deck between holds 2&36 (8.5 ft height)  
 On main deck aft 20 (9.5 ft height)  
 Totally on hatch covers and deck 391 TEU  
 Size of holds /hatches and disposition of container's supports to  
 suit for 8 ft wide containers (ISO) and for 2.5 m wide containers  
 (EURO) as well.  
 The weather deck hatch covers of folding/multifolding type,  
 hydraulically operated with external cylinders.

- Hatch covers  
 Hold No. 1.  
 Clear opening: 12.8 m x 10.4 m (length x breadth).  
 Hold No. 2 and 3.  
 Clear opening: 25.4 m x 15 m (length x breadth).
- Cargo handled with two electrically driven deck  
 cranes fitted portside on upper deck, lifting capacity  
 150 kN at 24 and 30 m outreach.
- The deck machinery electrically powered.
- Provision crane aft 10 kN at 6.5 m outreach.
- Accommodation arranged for a complement of  
 14 persons, plus one pilot cabin.

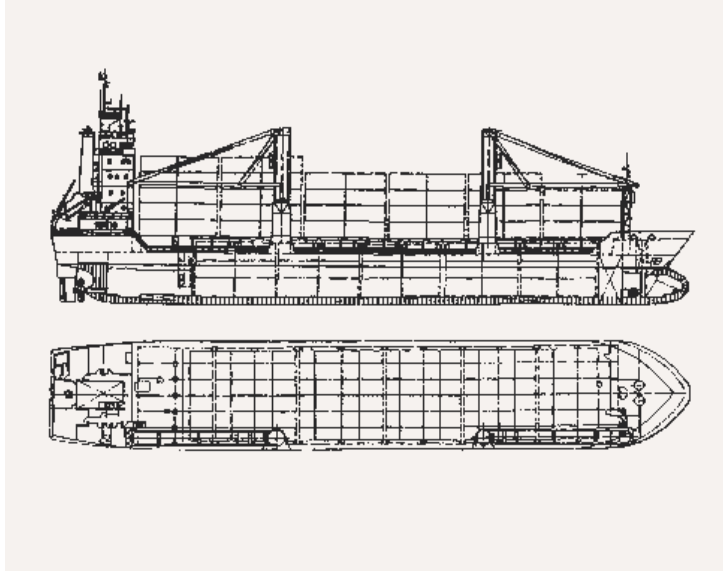




# General Cargo / Container Carrier

5,150 DWT

Designed by: **Shipyards KRALJEVICA**  
Project No. 500 055



Classification: DNV; +- 1A1, Ice 1A, EO, HC,  
GENERAL CARGO/ CONTAINER CARRIER

### Main characteristics

Length over all	101.00 m
Length btw perp.	93.78 m
Breadth moulded	16.80 m
Depth moulded	8.00 m
Draught scantling/design	6.20 m/6.10 m
Deadweight, at draught of 6.10 m	5,150 tons
Gross tonnage	4,124
Main engine:	WARTSILA WICHMAN 12 V 32 D
MCR:	4,500 kW/750 rpm
Trial speed, 100% MCR, draught of 6,10 m is	15,50 knots

### Capacities

One cargo hold 63.7 m x 13.5 m size with grain capacity:	abt. 260,000 m <sup>3</sup>
Container capacities:	
Cargo hold in three row	142 TEU
Hatch covers in four rows	274 TEU
Hatch covers in fifth row partly	20 TEU
Total:	436 TEU
Plugs for reefer containers	30 pcs.
Free height in cargo hold will be 8.50 m	

### Provisions

Heavy fuel oil	270 t
Diesel fuel oil	70 t
Fresh water	70 t
Ballast water	1,750 m <sup>3</sup>
M.E. HFO Consumption at 85% MCR	19.00 t/day
Cruising range	5,000 n.m.
Crew complement	14 persons

The vessel is designed to carry the following: general cargo containers in cargo hold and heavy cargo on tank top.

Single screw, diesel engine driven vessel with bulbous bow, transom stern, forecastle deck, accommodation and engine skin, built in longitudinal framing system.

- Designed loads:

Hatch covers on main deck	20'	35 t/stack
	40'	43 t/stack
Tank top (cargo hold)	20'	60 t/stack
	40'	90 t/stack
Tank top reinforced for uniform load		10 t/m <sup>2</sup>

### Cargo equipment

- Hatch covers on main deck, 110 steel pontoons, crane operated.
- Cargo gear; 2 electro-hydraulic deck cranes mounted on starboard side, capacity of each 36 t/24 m.
- Anti - heeling tanks with high capacity pump of 120 t.

### Steam plant

- One oil fired boiler 1 t/h working pressure 7 bar.

### Auxiliary engines plant

- Two el. Generators 320 kW/1,500 rpm.
- One emergency el generator 74 kVA.
- One shaft generator 680 kVA.

# Multipurpose Cargo Vessel

1,750 DWT

Builder / Yard No.: Shipyard KRALJEVICA / 537, 538  
 Name: MOKOŠICA, ŠIPAN  
 Owners / Flag: Atlantska Plovidba, Dubrovnik, Croatia  
 Project: SP 033-101-101  
 Designed by: Shipyard Kraljevica  
 Delivered: 2006 – 2007



Classification: Croatian Registry of Shipping  
 (+100A1 1 General cargo ship HCS  
 CON S + M1 AUT 1)  
 Bureau Veritas (+HULL+MACH+AUT  
 -UMS, General cargo ship-Heavy cargo,  
 Equipped for carriage of containers,  
 Unrestricted navigation)

### Main characteristics

Loa	67.1 m
Lbp	62.7 m
B(moulded)	12.4 m
D(moulded to main deck)	6.1 m
Design draught	4.35 m
Scantling draught	4.50 m
Deadweight at design draught	1,650 m.t.
Deadweight at scantling draught	1,750 m.t.
Gross tonnage	1,651

### Capacities

Container capacity	Containers in cargo hold 44 TEU
Containers on deck	(2 tiers) 58 TEU
Total containers (max.)	102 TEU
Reefer sockets	20 TEU
Cubic capacity (100 % volume) of cargo hold	2,500 m <sup>3</sup>
Tanks capacities	
Diesel oil tanks	57 m <sup>3</sup>
Heavy fuel oil tanks	125 m <sup>3</sup>
Water ballast tanks	1,050 m <sup>3</sup>
Lubricating oil tanks	6 m <sup>3</sup>

Service speed at design draught at 85% MCR with sea margin of 15% and shaft generator in service 10.4 knots

### Machinery main components

Main engine: 1 medium speed four-stroke marine main engine for the vessel propulsion will be installed. Engine will be able to burn heavy fuel oil RME25 or RMG 35 acc. to standard ISO 8217 (96) F with viscosity 180-380 cSt/50°C. Main engine to be permanently running on HFO. Fuel consumption will be acc. to makers specification depending of the selected maker abt. 190 g/kWh with 5% tolerance without built-on pumps.

M.C.R. 1,400 kW at 1,000 r.p.m.  
 Electric power plant: Two Marine Auxilliary Generator will be installed  
 Rating: 325 kVA at 1,500 1/min  
 Fuel: RMA 10  
 Emergency diesel generator Type: Marine Emergency Generator Set  
 Generator size: approx 105 kVA

