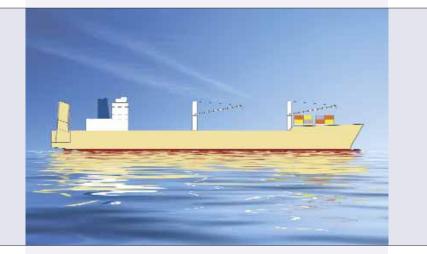
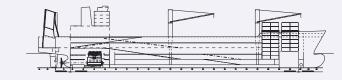
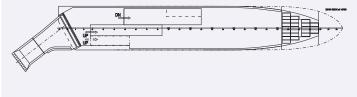
# **RO-RO Cargo Vessel**

# 27.000 DWT







Builder / Yard No.: Shipyard 3. MAJ / 2788 Owner / Flag: CMA-CGM / BAHAMAS Designed by: Shipyard 3. MAJ

The vessel is RO-RO ship suitable to carry containers, trucks, trailers, general cargo and cars and vans on hoistable deck. Cargo space is divided into two (2) forward cargo holds with 40' cellguides and one (1) cargo space divided with decks into three (3) garages, and cargo space on weatherdeck with container fittings. Double bottom and side arranged for ballast water. HFO and

antiheeling tanks. The ship's hull is specially equipped for in-water surveys. Engine room is equipped for unattended operation.

Classification:	BV I +I HULL +I M/ RO-RO cargo s carriage of con Unrestricted na +I AUT-UMS, +I MON-SHAFT, IN	hip, equipped Itainers avigation SYS-NEQ1	
ength overall (extr ength between pe Breadth, moulded bepth, moulded to besign draught (ex beadweight at desi Aain engine CMCR	rpendiculars weather deck treme) gn draught	TSILA NSD 9 F 21.780 kW/	

## Capacities

at design draught

С

Total deck area (excl. car decks) Car decks area Car capacity (ramps excl.) Trailer lane	12,100 m <sup>2</sup> 7,800 m <sup>2</sup> 1,990 units 3,850 m/3.0 m
Containers (geometric)	3,040 m/3.5 m 2.130 TEU
Refrigerated containers	150 FEU on weather deck
Tanks capacity (100%)	100 I LO UN WEALIIEI UEGK
Ballast tanks	8,000 m <sup>3</sup>
Heavy fuel oil	3.000 m <sup>3</sup>
Diesel oil	350 m <sup>3</sup>
Lubrication oil	75 m <sup>3</sup>
Fresh water	350 m <sup>3</sup>
Consumption of HFO	92.5 t/day
Cruising range	11,200 nautical miles
Crew complement	40 + 6 Suez crew
Painting:	Ероху

Trial speed with 19116 kW (90% CMCR)

# Cargo equipment

- Stern quarter ramp: 46.5 m (incl. flap) x 12.0 m/250 t capacity, four (4) wheels axle load 60 t
- Stern door: 27.0 m x 7.0 m .
- Car decks: 2A - area abt. 2300 m<sup>2</sup> eleven (11) hoisting panels

3A - area abt. 3480 m<sup>2</sup> seventeen (17) hoisting panels, starboard aft panel use as ramp • Fixed ramp - lower deck to tank top: 28.3 m x 8.0 m with

- gastight hydraulically operated ramp cover
- middle deck to lower deck: 57.4 m x 12.0 m with
- watertight hydraulically operated ramp cover - middle to weather deck: 53.4 m x 8.0 m with
- watertight hydraulically operated ramp cover Recessed into fixed ramp (middle to lower deck) hydrauli-
- ٠ cally operated ramp for car deck 2A of 28.0 m x 6.0 m Permissible loadings: ٠
- tank top 10 t/m<sup>2</sup>, four wheels axle load 60 t lower deck 3 t/m<sup>2</sup>, four wheels axle load 60 t middle deck 3 t/m<sup>2</sup>, four wheels axle load 60 t weather deck 6 t/m<sup>2</sup>, four wheels axle load 60 t car deck 0.3 t/m<sup>2</sup>, two wheels axle load 1.6 t
- Deck cranes: two 3. MAJ MacGregor el. hydraulic cranes 450 kN SWL at 32 m.
- Ventilation: Exhaust mechanical ventilation system with 20/10 ch/h for RO-RO space
- Side thrusters:

19.8 knots

One stern and one bow thruster, abt. 1,200 kW each

## Auxiliary engines plant

Four diesel generator sets, abt. 1,500 kVA each. One emergency diesel generator set abt. 240 kVA

# **RO-RO Car Container Carrier**

GRIMALDI LINES

Address - Address

# 26,200 DWT



One combined Oil fired/exhaust gas boiler, steam capac-

The vessel is suitable for world wide transport of cars and trucks on twelve cargo decks, of which two are hoistable decks. It is divided by watertight bulkheads forming fore peak, deep tank,

ity 2,500/1,500 kg/h at 7 bar.

• One shaft generator of abt. 1,400 kW • Four diesel generator sets of abt. 1,180 kW One emergency diesel generator of 160 kVA

Steam plant

Auxiliary engines plant

Builder / Yard No.: Shipyard ULJANIK / 472-476, 482, 483 Name: Pr. No. 10304 Owner / Flag: Grimaldi Compania di Navigazione / Italy Designed by: Shipyard Uljanik Delivered: Exp. 2008, 2009

Classification: RINA+ Ro-Ro Cargo ship, unrestricted ++ AUT-UMS, ++ SYS-NEQ 1, In-water survey, MON-SHAFT

Length, overall	max. 210.00 m
Length, btw perp.	196.80 m
Breadth, moulded	32.26 m
Depth, moulded	21.53 m
Depth to freeboard deck	13.34 m
Draught, design	9.40 m
Draught, scantling	9.75 m
Deadweight at design drau	ght abt. 24,400 t
Deadweight at scantling dr	aught abt. 26,200 t
Main engine:	ULJANIK/MAN-B&W 8S60MC-C
MCR:	19,040 kW at 105 RPM
Trial speed at 90% MCR, or	n draught of 9,4 m 21.9 knots

<b>Capacities</b> Garage area Number of cars (4,125 x 1,550) Number of containers (TEU)	divided by Watertight Duikheads forming fore peak, deep tank, cargo holds, engine room and after peak and by two water/gas tight decks. The hull structure is designed to the following permissible load- ing and with following clear heights:			
Lane meters (3 m) Provisions	abt. 3,950	Deck No.	Clear height (mm)	Uniform load (t/m²)
Heavy Fuel Oil         Diesel oil         Lubricating oil         Fresh water         Water ballast         Consumption HFO:         Cruising Range:         Crew Complement:         Ship equipment         • Stern port with stern ramp, SWL 25         12.0 x 6.30 and ramp with flap of 8         Fixed and adjustable internal ramp         One el. driven bow thrusters of abt.         One el. driven stern thrusters of abt         Six double drum el. driven mooring V         Hold ventilation with electro driven         Two el. driven ballast pumps, cap.	9.5 x 32.20 s. 1,00 kW t. 1,000 kW winches, pull 20.0 t. fans.	1 2 3 4 5 6 7 8 9 10 11 12 * (top gar Deck 1 3 6 fore	5,650 4,000 2,100 1,70/210 1,700 6 fore - 2,300 6 aft 2,500 2,300 2,100 2,100 2,000 2,000	8.0 2.0 3.0 0.17 2.3 0.4 0.3 0.3 0.25 0.2 0.2 0.17
<ul> <li>Iwo el. driven ballast pumps, cap. each</li> </ul>	/50 m³/h at 2.5 bar			

Draught, design Draught, scantling Draught, scantling Deadweight at design draught
Deadweight at scantling draught Main engine: ULA MCR: Trial speed at 90% MCR, on drau
Capacities
Garage area Number of cars (4,125 x 1,550) Number of containers (TEU)

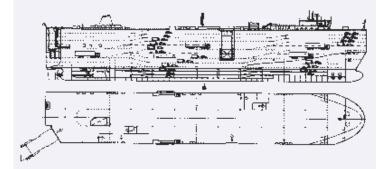
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# **Car Truck Carrier**

# 7,000 cars





Builder: Shipyard ULJANIK Owner / flag: Bahamas Project No. 11303 Designed by: Shipyard ULJANIK

Classification: DNV, 1A1, Car carrier, RO-RO. EO, NAUT-OC, TMON

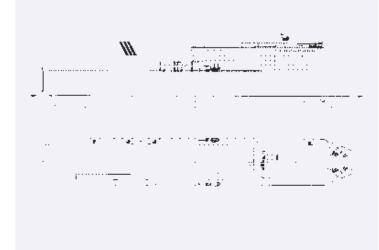
Trial speed at 90% MCR, on draught of 8.00 m <b>Capacities</b> Garage area;	W/127 RPM 20.8 knots 58,819 m <sup>2</sup>	Deck No. 1 2 3 4 5 6 7 8 9 10 11 12 13	Clear height (mm) 1850 2000 2200 2200 2200/1850/00 2200/1850/00 2200/2350/4300 2200/1850/00 2000 1850 1850	Uniform load (t/m <sup>2</sup> ) 0.18 0.2 0.25 0.25 0.25 1.6/2 0.25 0.5 0.2 0.2 0.2 0.2 0.2 0.2 0.18 0.18	Vehicle (t) 1.7 2.1 2.1 2.1 100 (58.2) 2.1 18 2.1 1.7 1.7 1.7 1.7
Number of cars (4,125 x	1,550) 7034				
Provisions		Ship equip	oment		
Cruising Range: 2	nich two are t bulkheads engine room ne freeboard	<ul> <li>Stern port with stern ramp, SWL 100.0 t, clear opening 10,1 x 5,1 and ramp with flap of 7.50 x 32.20.</li> <li>Side port with ramp, SWL 20.0 t, clear opening 5.5 x 6. and ramp with flap of 6.5 x 22</li> <li>Sliding and pivoting water/gas tight doors.</li> <li>Fixed and adjustable internal ramps.</li> <li>One el. driven bow thrusters of abt. 900 kW</li> <li>One el. driven bow thrusters of abt. 900 kW</li> <li>Six double drum el. driven mooring winches, pull 25.0</li> <li>Hold ventilation with electro driven fans.</li> <li>Two el. driven ballast pumps, cap. 350 m³/h at 1.5 bar each</li> </ul> Steam plant <ul> <li>One Oil fired boiler, steam capacity 2,000 kg/h at 7 ba and one exhaust gas boiler, steam capacity 1,000 kg/h of 7 bar.</li> </ul>			
		Auxiliary 6	engines plant		

- Three diesel generator sets of abt. 1,490 kVA.
  One emergency diesel generator of 160 kVA.

# **Ro-Pax Vessel**

# 3,500 LM / 400





Designed by:	Shipyard BRODOSPLIT
Project No.:	987 D
Cruising Range:	6,000 n.m.
Crew Complement:	37 persons

Classification: DNV + 1A1, ICE 1A\*, Carr Ferry A, EØ, NAUT-OC, COMF-V(2), LCS (D, I, S), TMON

The vessel is suitable for world wide transport of passengers cars and trucks on-three cargo deck and on weather deck.

ength over all		199.80 m	Heatin
ength btw perp.		184.60 m	Two oil
Breadth moulded		29.80 m	
Depth moulded		16.50 m	Four ex
Depth to freeboard	deck	9.90 m	Auvilia
Draught design		7.40 m	Auxilia
Draught scantling		7.50 m	Three d
Deadweight at des	ign draught	9,000 t	One em
Main engines:	Service speed at 85	5% MCR, 15% SM,	Two sh
	4x9,450 kW/500 rpm on	draught of 7.40 m	
		24.00 knots	Capaci

## Ship's equipment

Stern port with ramp One hoistable ramp Watertight cover flush with main deck	21.0 x 15.0 m. 24.5 x 2.65 m. 55.0 x 3.5 m.	<b>Prov</b> Hear
Two fixed internal ramps. Two el. driven bow thrusters of and two in the stern	abt. 1,500 kW each abt. 800 kW each.	Dies Lubi Fres
Antiheeling and stabilisation equipment. Two double drum mooring winches, pull 1 drum mooring winches, pull 16 t. Hold ventilation with electro driven fans.		Ball

# ng plant

il fired boilers, steam capacity 2 x 3,200 kg/h at 7 bar exhaust gas economisers of 1600 kg/h, 7 bar steam

## ary engines plant

hree diesel generators sets of Die emergency diesel generator set of	abt. 2,000 kVA abt. 700 kVA
wo shaft generators of	abt. 2,900 kVA

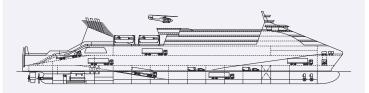
## cities

Passengers	400
Lane length	3.500
Provisions	
Heavy fuel oil	1,000 m <sup>3</sup>
Diesel oil	200 m <sup>3</sup>
Lubricating oil	100 m <sup>3</sup>
Fresh water	600 m <sup>3</sup>
Ballast water	3,500 m <sup>3</sup>

# **RO-PAX**

# 3,000 lm

Builder: Shipyard ULJANIK Project No. CONCEPT Designed by: Shipyard ULJANIK





Length over all	193.10 m	Deck No.	Clear height	Uniform load	Axle load
Length btw perp.	180.00 m		(mm)	(t/m²)	(t)
Breadth moulded	29.80 m	1	4700	4	15/4
Depth moulded to upper deck	17.10 m	2	2300	0.3	2/2
Depth to freeboard deck	11.20 m	3	4700	3	15/4
Draught design	7.50 m	4	4700	1.5	15/4
Trial speed at 13,440 kW + 4 MW Active rudder	r,	•		110	20/1
on draught of 7.50 m	24.5 knots	Acsess			

Acsess

## Capacities

Passenger / cabins	1,400 / 350
Passenger in aircraft seats	200
Lane meters	3,000 m
Provisions: Heavy Fuel Oil	860 m <sup>3</sup>
Diesel oil	440 m <sup>3</sup>
Lubricating oil	150 m <sup>3</sup>
Fresh water	1,000 m <sup>3</sup>
Grey water	600 m <sup>3</sup>
Water ballast	2,800 m <sup>3</sup>
Consumption HFO:	92 t/24 hours
Cruising Range:	7,400 n.m.
Crew Complement:	200 persons

The vessel is suitable for worldwide transport of passengers, trailers and cars. Cargo area will consist of three decks for trailers and one separate deck for cars/vans. Structural arrangement to be based on longitudinal framing system with transversally framed side shell. The hull structure is designed to the following permissible loading and with following clear heights:

Stern	ramp,	SWL	100,0	t,	12 x 27	m
	1.0					~ ~ ~

- Internal fixed ramp to upper deck, 36 x 6 m
- Internal fixed ramp to tank top/deck 2,55 x 3,6 m
- Ramp cover, 34 x 3,8 m.

### Machinery

- Main engine Uljanik/MAN-B&W 9S50MC-C Mk-8 14.940 kW / 127 rpm.
- Aux. Engines 4 x 2,000 kW .

# Propellers / thrusters

- One fix pitch propeller dia 5,9 m.
  One active ruder / propeller dia 4,0 m.
- Two bow thrusters of abt. 1,000 kW each

# **Car-Truck Carrier**

# 4,900 cars



Name: Dwner / Flag: Designed by: Sister ships:	Shipyard 3. MAJ / 705 STX BLUEBIRD NSC/Liberia Shipyard 3. MAJ 705, 706, 707 2008
Delivered:	2008

The ship is roll on/roll off car & truck carrier, suitable to carry passenger cars, pick up vans, container loaded on MAFI trailers and trucks, built for unrestricted ocean services notation in world wide service. The vessel is single screw diesel propulsion unit with engine room located aft. Cargo area below freeboard deck consists of four compartments (holds). Cargo area includes 11 decks, two of them hoistable, one with one working position and one with two working positions. Parking area is for abt. 4,870 standard cars regardless to the orientation (longitudinal or transverse).

The accommodation is arranged forward.

Lubrication oil

Cruising range

Painting:

Crew complement

Consumption of HFO

Fresh water

One bow thruster abt. 1,000 kW is provided.

The ship's hull is specially equipped for in-water surveys. Engine room is equipped for unattended operation.

109 m<sup>3</sup>

215 m<sup>3</sup>

43 t/dav

30,000 nautical miles

Ballast tanks - light colour epoxy

22 + 2 Suez crew Cargo holds – epoxy

Classification:	GERMANISCHER LLOYD 100 A5 IW/NAV-OC/BWN +I+ MC AUT	1 Car Carrier	Foi	r <b>go</b> r loa city
Summer draught Deadweight at sum Main engine CMCR	upper deck gn draught (7.70 m) mer draught (8.75 m) 3. MAJ – WÄRTSI 11,060 54 kW (90% CMCR)		is hol Thi Ho	ovid pro lds. e ra ista ters C C <b>ean</b>
Capacities (100%)			Au	xili
Net parking area Ballast tanks Heavy fuel oil Diesel oil		41,538 m <sup>2</sup> 3,891 m <sup>3</sup> 3,030 m <sup>3</sup> 159 m <sup>3</sup>	•	T C

### Cargo equipment

For loading/unloading of ship one stern/quarter ramp-door, capacity 20 t SWL and one side ramp-door, capacity 20 t SWL, are provided. Set of internal fixed ramps, watertight/gastight doors is provided giving access to fixed and hoistable decks within holds.

The ramps, flaps and doors are electro-hydraulically driven. Hoistable car decks shall be lifted by means of Mobile Deck Lifters.

- Open ventilation system for holds.
- One electro-hydraulic deck crane, 4 t SWL.

### Steam plant

- One oil fired boiler, steam capacity abt. 2.5 t/h at 7.0 bar
- One exhaust gas boiler, steam capacity 1 t/h at 7.0 bar

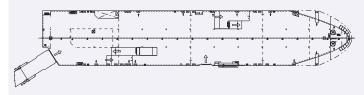
## Auxiliary engines plant

- Three main diesel generators, 1215 kW each/900 min-1
- One emergency diesel generator, 165 kW/1800 min-1









# **Car Truck Carrier**

# 4.900 cars





Builder / Yard No.: Shipyard ULJANIK / 477, 478 Owner / flag: Bahamas Designed by: Shipyard ULJANIK Project No. 11903 B

Classification: 1 A1, "CAR CARRIER", RO/RO, EO, NAUT-OC, TMON

Length overall		176.00 m	Deck No.	Clear height	Uniform load	Axle load
Length btw perp.		165.00 m		(mm)	(t/m²)	(t)
Breadth moulded		31.10 m	1	1850	0.25	1.2/2
Depth moulded		30.00 m	2	2000	0.25	1.2/2
Depth to freeboard de	ck	14.50 m	3	2000	0.25	1.2/2
Draught design		7.70 m	4	2100/4000	1.0	10/4
Draught scantling		8.75 m	5	2000/0	0.3	1.6/2
Deadweight at design		8,300 t	6	900/3250/5000	2.0	50/4
Deadweight scantling		12,200 t	7	2200/1850/00	0.3	1.6/2
Main engine:	ULJANIK/MAN-B&W		8	2400	0.3	1.6/2
	1	W/127 RPM	9	2100	0.25	1.2/2
Trial speed at 90% M	CR, on draught of 7.70 m	20.8 knots	10	2000	0.25	1.2/2
			11	1700	0.20	1.2/2
Capacities						
Garage area		40 755 m2	Ship equi	ipment		

7.5 m.

each

of 4.20 m.

Pivoting water/gas tight doors.

Fixed internal ramps with movable flaps.

Hold ventilation with electro driven fans.

One el. driven bow thruster of abt. 1,000 kW. One el. driven stern thruster of abt. 800 kW.

Garage area	40,755 m2
Number of cars (4,125 x 1,550)	4,844
Provisions: Heavy Fuel Oil	3,550 m <sup>3</sup>
Diesel oil	200 m <sup>3</sup>
Lubricating oil	150 m <sup>3</sup>
Fresh water	180 m <sup>3</sup>
Water ballast	4,000 m <sup>3</sup>
Consumption HFO:	48.2 t/24 hours
Cruising Range:	33,000 n.m.
Crew Complement:	36 persons

The vessel is suitable for world wide transport of passenger cars and trucks on 11 cargo decks, of which two are hoistable decks. Cargo area below freeboard deck will consist of two compartments, divided from each other by watertight bulkhead. Cargo area will have 11 decks for vehicle stowage while decks no. 5 and 7 will be hoistable. Decks no. 4 and 6 will be reinforced for stowage of trucks. Structural arrangement to be based on longitudinal framing system with transversally framed side shell.

The hull structure is designed to the following permissible loading and with following clear heights:

# Steam plant • One Oil fired boiler steam capacity of 2,500 kg/h at 7 bar.

• One Exhaust gas boiler, steam capacity 1,000 kg/h at 7 bar.

• Stern port with stern ramp, SWL 120.0 t, clear opening

• Side port with ramp, SWL 20.0 t, clear opening 4.20 x 5.2

Six double drum el. driven mooring winches, pull 25.0 t.

Two el. driven ballast pumps, cap. 350 m3/h at 1.5 bar

7.50 x 5.20 and total lenght of 32.20 m and clear width

and total length of 22.0 m and clear width of rampway

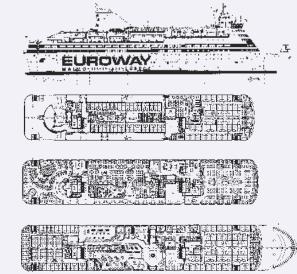
# Auxiliary engines plant

- Three diesel generator sets of abt. 1,490 kVA.
- One emergency diesel generator of 210 kVA.

# **Car Passenger Ferry**

# 2,200 passengers / 600 cars





Shipvard BRODOSPLIT / 372 Builder: AMORELLA, ISABELLA, CROWN OF SCANDINAVIA Name: Owner / Flag: Sea Link Shipping AB Malmo / Sweden. Sister vessel: 356, 357, 373 1988, 1989, 1992, 1994 Delivered:

FRANS SUELL is a modern Car passenger ferry intended for the short international voyages and built according to highest Sccandinavian standards for such type of vessel, vertically divided into 12 decks from the tank top to the wheel house level. Deck No. 3 and hoistable deck No. 4 are arranged for the loading of cars and lorries through the stern and bow ramps. Main car deck No. 3 is divided into 8 lanes. The propulsion is achieved by two shafts fitted with CP propellers and driven by twin coupled medium speed diesel engines.

Classification:	Rules and Regulations: Ferry A, Ice Class 1A*, N pwdk Swedish National Rules and Regulations r of vessel.	ACDK, EO bis, and International
Length over all		169.40 m
Length btw perp		149.80 m
Breadth moulded, o	deck 3	27.60 m
Breadth maximum		28.20 m

Diedutii illuulueu, ueuk 5	27.00 11
Breadth maximum	28.20 m
Depth moulded, deck 3	8.50 m
Draught moulded	6.25 m
Deadweight, at draught of 6.25 m	2,960 tons
Gross tonnage	35,285
Net tonnage	20,887
Main engines:	four S.E.M.TPIELSTIC MCR:
	4 X 5,940 kW/520 rpm
Trial speed at 73.6% MCR and 6	0 m draght 21.50 knots

## Capacities

# Provisions

Heavy fuel oil	683 m <sup>3</sup>
Diesel fuel oil	164 m <sup>3</sup>
Lubrication Oil	114 m <sup>3</sup>
Fresh Water	490 m <sup>3</sup>
M.E. daily fuel oil consumption (ISO condition)	79 t

**Auxiliaries** 

- four electric generators, diesel driven 4 x 500 kW/750 rpm
- two oil fired steam boilers 2 x 5 t/h at 7 bar
- one exhaust gas heated, steam economizer
- 1 x 8 t/h at 7 bar
- two sludge burning steam boilers

CP propellers, two rudders fitted with hidraulically driven rotor and two bow thrusters are making the vessel exstremly manoeuvrable in the restrictied waters of the Baltic sea. Antiheeling tanks system and fin stabilisers are used during load-

ing /unloading operations and sailing of the vessel. Hull structure is made of mild and high tensile steel and aluminium above 10<sup>th</sup> deck level, utilizing the light weight in accordance with the strict requirements for the vessel's draft and stability.

Accommodation is mainly divided into cabin area, built and installed in prefabricated modular blocks, and passenger's public areas such as high class restaurants, self service reastaurants, huge shopping area, conference room and auditorium, disco club, night club, pubs, etc.

Number of sitting places in different restaurants, being in total approximately 2,200 corresponds to the number of passengers.

The biggest and most attractive are:

Oriental restaurant	82 seats
Night club	509 seats
A la Carte	206 seats
Buffet	466 seats
Banquet	82 seats
Pub	115 seats
Disco club	184 seats

In addition to the above, different larger and smaller conference rooms are furnished with more than 300 seats, the biggest of which is Auditorium with 150 sitting places. The most modern audio visual and other equipment is fitted, giving to the ship a large number of attractive facilities.

# **RO-RO Vessel**

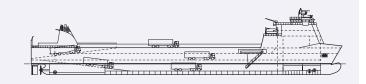
1,200 lm

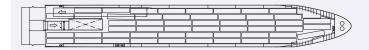
Builder:	Shipyard ULJANIK
Project No	11906
Designed by:	Shipyard ULJANIK

Classification: +100 A5 IW "RO RO Vessel"

Equipped for carriage of containers Solas II-2, Reg 19 + MC Aut







Length over all Length btw perp. Breadth moulded Depth moulded Deadweight at moulded draught Main engine: ULJANI Trial speed at 90% MCR, on draug Capacities	156.00 m 150.00 m 21.00 m 13.40 m 5.40 m 6,800 t K/MAN-B&W 8\$35ME-B, 6,960 kW/167 RPM ht of 5.40 m 18.80 knots	Ship's equi Stern and to Ramp width Fixed i abt. 4 One el One el Six do
Nominal no. of trailers Upper deck: Containers 45' (two tiers)	145 100	<ul> <li>Hold v</li> <li>Two el each</li> </ul>
Containers 40' (two tiers) Containers (two tiers) Provisions	100 200	<ul> <li>Steam plan</li> <li>One 0</li> <li>One Ex</li> </ul>
Heavy Fuel Oil Gas oil Water ballast Consumption HFO: Effective cruising range: Crew Complement:	550 m <sup>3</sup> 40 m <sup>3</sup> 4,300 m <sup>3</sup> 27.4 t/24 hours 21 day 33 persons	Auxiliary e Three One en
Deck No. Tank top Main deck Upper deck Accommodation Wheelhouse	Clear height 4,800 5,200 5,200 2,100 2,100	

## uipment

- n ramp, SWL 120.0 t, clear opening 17.80 x 5.20 total lenght of 11.00 m and clear width 7.5 m.
- p watertight cover, 46 m length and driveway n 4.2 m.
- l internal ramps with slope 7° and width of 4.20 m.
- el. driven bow thruster of abt. 1,000 kW.
- el, driven stern thruster of abt. 800 kW.
- ouble drum el. driven mooring winches, pull 25.0 t.
- ventilation with electro driven fans.
- el. driven ballast pumps, cap. 350 m³/h at 1.5 bar

# Int

- Dil fired boiler for thermal oil capacity of 800 kW.
- Exhaust gas boiler.

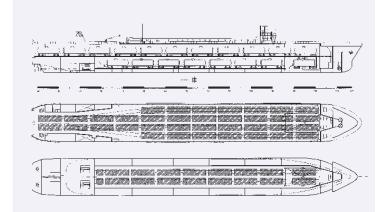
# engines plant

- e diesel generator sets of abt. 600 kVA.
- emergency diesel generator of 210 kVA

# Wagon Carrier

# 52 wagons





Builder / Yard No.: Shipvard ULJANIK / 459-462 Designed: Shipyard Uljanik Owner / Flag: JSC Maritime Investment & Development / RF Project No.: 10802E Delivered: 2005, 2006

Classification: Russian Maritime Register of Shipping KM (\*), [I], 1, A2, Parom

Length over all	154.50 m
Length btw perp.	147.00 m
Breadth. moulded	17.50 m
Breadth max. (with fenders)	18,30 m
Depth to freeboard deck	7.50 m
Depth to accommodation deck	( 13.35 m
Draught scantling	4.70 m
Deadweight scantling draugh	t 6,000 t
Main engines:	ULJANIK/MAN-B&W 5S26MC
MCR:	2 x 2,000 kW at 250 RPM
Trial speed at 80% MCR ,	
on draught of 4.5 m	14.0 knots

## Capacities

Number of wagons (12,020 x 3,060)

# Provisions Не

Heavy Fuel Oil	165 m <sup>3</sup>
Gas oil	25 m <sup>3</sup>
Lubricating oil	50 m <sup>3</sup>
Fresh water	110 m <sup>3</sup>
Potable water	5 m <sup>3</sup>
Ballast and heeling water	1,800 m <sup>3</sup>
Consumption HFO:	17,4 t/24 hours
Cruising Range:	3,000 n.m.
Crew Complement:	20 persons
Passengers	12 persons

The vessel is suitable to carry crude oil, oil products and propane gas in wagon-cisterns on two fixed decks at Caspian Sea services. Other liquid, solid cargoes and gases in tank cisterns; dangerous goods in packaged form may be carried providing that their flammability, toxicity, reactivity is such that it correspond to this of above design cargoes.

Trucks, cars, trailers and other wheeled cargoes may be carried providing that their dimensions, axle/total load, tire print correspond to vessel design (obtained for the design wagons). The vessel is divided on following main compartments: fore peak, cargo area and double bottom/side tanks, engine room and after peak.

## Ships equipment

52

- One cargo/wagon elevator, electrohyd-raulic driven type, capacity SWL 170 t. Clear opening is suitable for wagon platforms up to 14,540 m in length.
- Two/four pairs of rails, non flush design, made of 60 mm square bars welded at decks are arranged at weather deck and two pairs of rails are arranged at lower hold/tank top deck. Gauge between the rails is 1.524 mm.
- Two sets of switch gears, arranged at aft part of weather deck, to route the wagons from centre to side pair of rails, port and starboard.
- Two wagon handling units (pushers) at lower deck for wagon stowage. Load capacity is 680 t.
- One stern port/moveable bulwark.
- One el. driven bow thrusters of abt. 500 kW.
- Four electric driven mooring winches, pull 10.0 t.
- Hold ventilation with electro driven fans.
- Two el, driven ballast pumps cap, 120 m<sup>3</sup>/h at 2 bar each.
- One el. driven antiheeling pump cap. 1,000 m<sup>3</sup>/h.

# Steam plant

One oil fired boiler steam capacity 1,000 kg/h at 6 bar.

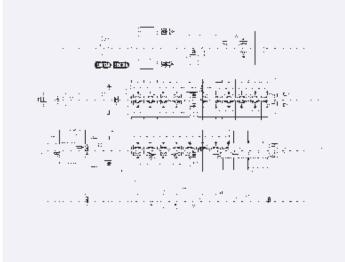
### Auxiliary engines plant

- Two shaft generators marine type of abt. 875 kVA.
- Two diesel generator sets of abt. 460 kVA Fuel Gas Oil.
- One emergency diesel generator of 100 kVA.

# **Expedition Cruise Ship**

# 204 passengers





# FERRIES & RO-RO, YACHTS, HIGH SPEED BOAT

Project No. 01-41 Designed by Shipyard TROGIR

fort of passengers in heavy seas.

Classification: LR +100A1 Passenger ship +LMC, UMS, NAV 1, Finnish – Swedish Ice class 1A

Length over all Length b. p. Breadth moulded Depth moulded to main deck Depth, moulded to first exposed deck Design draught (above base line) Scantling (subdivision) draught Deadweight at design draught Main engines, medium speed Trial speed at 3600 kW and 4,5 m draft Cruising range Passengers		120.00 m 105.00 m 17.80 m 6.80 m 12,10 m 4,50 m 4,60 m 1,050 m. t. x 2,760 kW 16.00 km 8,000 Nm 196	<ul> <li>Auxiliaries</li> <li>Three (3) diesel alternators of abt. 1,000 kW each at 1,000 – 1,500 rpm</li> <li>One (1) emergency diesel generator of abt. 270 kW at 1,500 rpm</li> <li>Two (2) composite exhaust gases / oil fired marine boilers</li> <li>One (1) incinerator for garbage, waste and oil sludge</li> <li>High pressure water fire extinguishing system, CO<sub>2</sub> for engine rooms.</li> <li>Life saving equipment</li> </ul>
Crew		190	• Two (2) partially enclosed life / tender boats, also rescue
Capacities			<ul> <li>boats</li> <li>Two (2) partially enclosed life boats</li> <li>Four (4) liferafts</li> </ul>
Fuel HFO & MDO storage tanks (4) HFO settling tanks (2) HFO service tank (1) MDO service tanks (2)	abt. abt. abt. abt.	477 m <sup>3</sup> 34 m <sup>3</sup> 9 m <sup>3</sup> 6 m <sup>3</sup>	<ul> <li>Galley, provision stores (abt. 120 m²) and service (food) lift</li> <li>Two (2) passengers' and (1) crew's lift</li> <li>One (1) deck crane of 1.8 t at 14 m outreach</li> <li>All public, living and service spaces air conditioned, ventilated or / and heated</li> </ul>
Fresh water Storage tanks	abt.	267 m <sup>3</sup>	<ul> <li>Three (3) fresh water evaporators, totally 90 m<sup>3</sup> / day,</li> <li>Gravity type grey water system</li> <li>Vacuum type black water system</li> </ul>
Grey water Collecting tanks (2)	abt.	178 m³	<ul> <li>Grey water collecting tank and sewage treatment unit, biological type</li> </ul>
Water ballast Fore peak Double bottom tanks	abt. abt.	215 m³ 650 m³	
The vessel is designed for wordwide exp cluding ice covered areas that can be su IA. Twin CPP and high performance flap rud one 800 kW bow thruster claims for exce ity in confined ports, archipelagos or rive One pair of folding fin stabilizers provide	stained Iders co ellent m er estua	by Ice Class by bined with aneuverabil- aries.	

# Motor Yacht **Refurbishment Project**





Shipvard VIKTOR LENAC Yard: Name: m/y CHRISTINA O. Owner: Christina Yachting Inc / Greece Designed by: Costas Carabelas Design Office / Greece Redelivered: July 2001

Classification: ABS Europe Length: 99.00 m • Hairdresser s'shop Breadth: 11.12 m • Library Height to promenade deck: 7.47 m • Dance hall Draft: 4.20 m • Music lounge 18.6 knots Speed: Lapis lounge Dinning room for passengers Crew's messroom New built in materialals Kitchen for passengers Kitchen for crew • Solar jacuzzi on promenade deck with stylish bar on open Steel: 600 tons Aluminium: 12 tons Pipings: 140 tons Formmerly the private yacht "Christina" of the legendary Greek Electrical cables-85 kms shipowner Aristotel Onassis has become after the completed works of her extensive refurbishment the most prestigious pas-Machinery/propulsion system senger yacht for commercial cruising of the jet - set clientele. New Main Engines, 2 pcs...MAN type (2.040 kW each) The approach to this unique project was to keep as much as New Auxiliary Engines, 3pcs...MAN type possible the image of the former ship with its original external (515 kW each) splendor and internal luxury. • New propellers, 2 pcs New additional struts for shating. 2pcs However, the original but aged ship's hull built yet in 1943 as Repair of the entire existing shafting arrangement. well as the reconstruction of the vessel for the new purpose set many complex demands which were imposed upon Shipyard 2 pcs

- Entire equipment and devices of engine room (new)
- Newly made additional stylish funel behind the existing one

## Accomodations (newly formed)

- Spacious luxury passengers cabins (18)
- Owner's suite (1)
- Fitness center
- Kindergarten

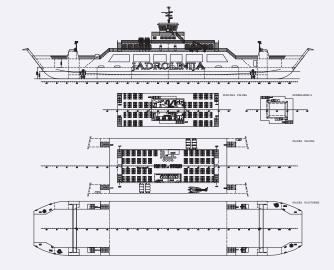
"Viktor Lenac".

Now in property of John Paul Papanicola Group and with her length of 99 meters, "Christina O." has become the most luxurious superyacht which will sail at the world seas, and which appearance, equipment and seaworthiness are credited to the successfully performed works by the skilled and highlyqualified workers of Shipyard "Viktor Lenac", capable of carryng out of such special projects.

# **RO-RO Passenger Ferry**

# 100 cars / 600 passengers





Builder / Yard No.: Name:	Shipyard KRALJEVICA/ 535 SV. KRŠEVAN
Owners:	Jadrolinija, Rijeka, Croatia
Flag:	Croatia
Designed by:	R-Project, Rijeka, Croatia
Delivered:	2005

Classification: Croatian Register of Shipping ++ 50A1 M1 AUT1 IWS – Ro-Ro Passenger ship for navigation in coastal area 6, able for transport of dangerous packed cargo of following classes: 1 (explosives), 2 (gases), 3 (flammable liquids).

Main characteristics Loa Lbp B(moulded) D(moulded to main deck) Draught max.		87.6 m 80.0 m 17.5 m 3.7 m 2.4 m	transportation a platforms. The ( through" ferry f sengers in the	en garage deck (main deck) for trailers and car and for cars on hydraulically operated movable Concept is based upon the idea of modern "drive or loading and unloading of vehicles and pas- shortest period. The ship is equipped with hy- ated bow and stern ramps.
Deadweight at 2.4 m Gross tonnage		800 m.t. 2,438	Capacities	
Speed in trial conditions at draft Machinery main components Main engine Propulsion unit Electric power plant	,	11.5 knots 4 x 400 kW 4 x 400 kW + 1 x 90 kVA	Passengers Vehicles	600 persons, 300 of which in closed areas (air-conditioned salon) and 300 in open area (Sun deck). 100 standard cars or 12 trailers of 40 tones

# Cargo equipment

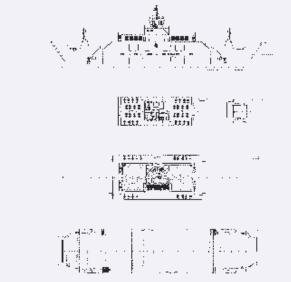
· Cargo handling system

The ship is designed as double ended Ro - Ro and passenger ferry propelled by two propelling units one on each bow/stern side of the ship. The ship will be intended for transport of passengers and vehicles as well as packed dangerous cargoes loaded on the vehicles, navigating in coastal area 6, with duration of voyage up to 90 minutes.

# **Car & Passenger Ferry**

# 100 cars / 600 passengers





Builder / Yard No.: BRODOSPLIT - Naval and Special Vessel Shipyard Ltd. / 599; 503 Name: m/s SUPETAR, m/s CRES Owner: Jadrolinija, Rijeka, Croatia

Delivered: 2004, 2005

Croatian Register of Shipping (CRS) as: \* 50 A1 M1 AUT1 IWS Ro-Ro Passenger Ferry for Classification: navigational area 6, voyage lasting up to 120 min., capable to carry packed dangerous cargo of the following classes: 1 (explosives), 2 (gases), 3 (inflammable liquids).

# **Main Characteristics**

Length, over all	abt. 87.60 m
Length, (Lpp)	80.00 m
Breadth	17.50 m
Hight, up to main deck	3.70 m
Draught, max.	2.40 m

### Machinery and electrics

Propulsion engines, propulsors and diesel generators are accommodation in two engine rooms, one on aft and one on bow. Ship's speed in trial conditions (easily sea and wind below 2 Bf, clean hull) is 11,5 knots on 2,2 m draught.

# **Carying capacity**

Passengers	600, from which 240 in close salon
Crew	8 members
Cars	100 or 12 trailers of 18 m, 40 t each

## Construction

Vessel's primary mission is transportation of passengers and vehicles at short routes and designed as Ro-Ro and passenger ship for equal navigate in both directions ("double ended").

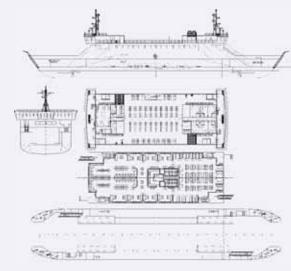
Vessel is with open space (garage) for vehicles (cars) on main deck and with two ramps (stern and bow 1 each).

Vessel has excellent manoeuverability due to propulsion system with 4 diesel main engines (4 x 400 kW) which are drive direct 4 feat propulsors with crank wings, two sets on stern and two sets on bow.

# **RO-RO Passenger Ferry**

# 130 cars / 1200 passengers





Builder / Yard No.: Shipyard KRALJEVICA / 536 Name: MARJAN Owners: Jadrolinija, Rijeka, Croatia Flag: Croatia Designed by: R-Project, Rijeka, Croatia 2006 Delivered:

Classification: Croatian Register of Shipping + 50A1 M1 AUT1 IWS - Ro-Ro Passenger ship for navigation in coastal area 6, able for transport of dangerous packed cargo of following classes: 1 (explosives), 2 (gases), 3 (flammable liquids).

Main characteristics			pen garage deck (main deck) for trailers and car and for cars on hydraulically operated movable
Loa Lbp	87.6 m 80.0 m		Concept is based upon the idea of modern "drive
B(moulded)	17.5 m		for loading and unloading of vehicles and pas- shortest period. The ship is equipped with hy-
D(moulded to main deck) Draught max.	3.7 m 2.4 m		rated bow and stern ramps.
Deadweight at 2.4 m Gross tonnage	700 m.t. 3.224	Capacities	
Speed in trial conditions at draft of Machinery main components		Passengers	1,200 persons, 800 of which in closed areas (air-conditioned salon)
Main engine	4 x 400 kW		and 400 in open area (Sun deck).
Propulsion unit Electric power plant	4 x 400 kW 2 x 240 kVA + 1 x 90 kVA	Vehicles	130 standard cars or 12 trailers of 40 tones

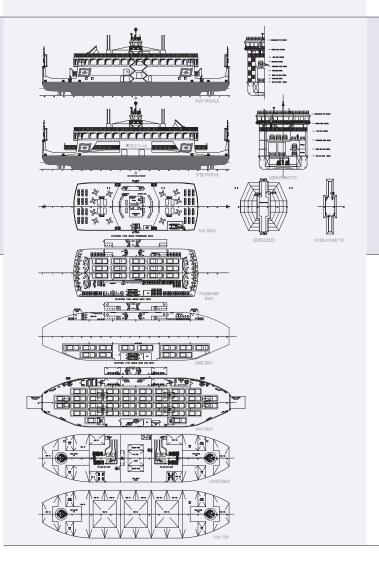
# Cargo equipment

Cargo handling system

The ship is designed as double ended Ro - Ro and passenger ferry propelled by two propelling units one on each bow/stern side of the ship. The ship will be intended for transport of passengers and vehicles as well as packed dangerous cargoes loaded on the vehicles, navigating in coastal area 6, with duration of voyage up to 90 minutes.

# **RO-RO Passenger Ferry**

# 65 cars / 360 passengers



Builder / Yard No.: Shipyard KRALJEVICA / 550, 551, 552 Owners: Wightlink, Portsmouth, UK Flag: UK Delivery: 2008

Classification: Lloyds Register - Rules for Classification of Steel Ships, Class +100 A1 Passenger/Vehicle Ferry: LYMINGTON TO ISLE OF WIGHT SERVICE + LMC. EP

> United Kingdom Maritime Coastguard Agency (MCA) Regulations for Class IV, for operation in Category D Waters.

## Main characteristics

Loa Lbp B(moulded) D(moulded to main deck) Draught max. Deadweight at 2.4 m Speed in trial conditions at draft of 2,3 m Machinery main components	62.4 m 61.0 m 16.0 m 4.5 m 2.3 m 360 m.t. 11.0 knots	Garage Deck give access t main Car Der The vessel is Cars, and co Capacities
Main engine	4 x 550 kW	Passengers
Propulsion unit – Voith-Schneider Electric power plant	2 x 825 kW 4 x 225 kW	Vehicles

### **Cargo equipment**

· Cargo handling system

The ship is designed as double ended Ro - Ro and passenger ferry with one hoistable garage deck, one fixed vehicle deck and Mezzanine Deck with moveable ramps. The ship is propelled with two Voith Schneider cycloidal propellers (VSP), located in two propeller rooms. Two Engine Rooms are located either side of a central auxiliary machinery space. Propellers are driven by four Diesel Engines, by means of belt drives.

Passenger Accommodation is provided on one deck. The Mezzanine Deck is to be served by movable ramps. The hoistable rage Deck is constructed of one section and can be lowered to e access to cars. Commercial vehicles can be carried on the in Car Deck, when the Garage Deck is in the raised position. vessel is able to carry Passengers, Caravans, Buses, Private s. and commercial vehicles, with fuel in their tanks.

### acities

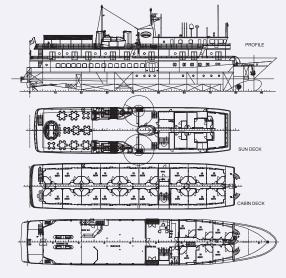
213 seats and Sun Deck 140 seats

Cars 15 - Garage Deck Cars 12 - Mezzanine Deck Cars 38 - Main Deck Commercial Vehicles: Main Deck

# **Passenger Cruise Ship**

# 52 pass





# FERRIES & RO-RO, YACHTS, HIGH SPEED BOAT

Builder / Yard No.: BRODOSPLIT - Naval & Special Vessel Shipyard Ltd / 507, 508, 509 Name: YARD 507 - ATHENA, YARD 508 - ARTEMIS, YARD 509 - ARETHUSA Owner / Flag: GRAND CIRCLE RIVER CRUISE LINE Boston, USA/MALTA Delivered: 2007, 2008

52

21

# **Main Characteristics**

Length, over all	abt. 59.60 m
Breadth	10.68 m
Depth	4.50 m
Draught	3.00 m
Gross tonnage	1,206 GT

## Accommodation

Passengers Crew

Luxury cruise ship is designed to carry 52 passengers for cruise in navigation area 2 and is built according to the Rules of Croatian Register of Shipping (CRS) for passenger ships.

Hull and larger part of superstructure are built from steel (grade A), welded construction. Uppermost superstructure, including wheelhouse and funnel, are built from aluminium alloy, welded construction too.

Two four-stroke diesel engines, electrically started, 2 x 821 kW, driving 2 propellers through reversible reduction gears, enable service speed of 12,5 knots. Propulsion plant is remotely controlled from wheelhouse control console.

Electrical power is provided from 3 diesel generators (2 of them are in action in parallel mode and 1 of them is for spare) 3 x 380 V, 50 Hz, 315 kVA (each) and 1 emergency diesel generator 3 x 380 V, 50 Hz, 170 kVA. Also electrical power is provided from batteries 24 V DC.

Transitional power source (TPS) set-15 kVA with own batteries set is also installed.

GMDSS radio equipment includes all necessary for A3 area. Navigation system consists of: 2 X-band radars, ECDIS, GPS, gyro compass, magnetic compass, FU and NFU steering controls, autopilot, echo sounder, speed log, Voyage Data Recorder (VDR). navtex and SSAS.

Wheelhouse, passenger and crew accommodations are airconditioned.

Highclass passenger accommodations include 24 two-bed cabins (18 of them with balcony) for 48 passengers, as well as 4 one-bed cabins for 4 passengers.

Passenger service areas include dining room and lounge with bar, external bar, gym and aft water entry platform. Crew areas include 1 captain cabin and 1 chief engineer cabin, 2 one-bed cabins, 4 two-bed cabins and 3 three-bed cabins are provided for crew.

# **Motor Yacht**

Builder / Yard No.: Shipyard KRALJEVICA / 528 Designed: Studio STARKEL - Trieste / CADCON-Pula, Croatia Delivered: 2003

## Main characteristics

Loa

Loa		
Lwl		
В		
Draught		
Speed		
Fuel Tank		

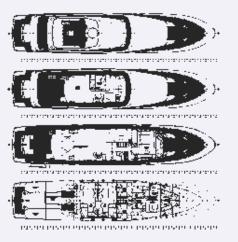


Luxury, 38.5 m long, displacement Motor Yacht, intended for chartering (MCA Code).

Designed to provide full comfort for 8 passengers. Each of the four guest staterooms are luxuriosly appointed to provide optimum comfort and have complete entertainment systems. The interior is designed for a casual and relaxing atmosphere with large windows on the main deck offering natural light and spectacular views. The main deck dining saloon offers a formal touch with seating for eight.

Sun deck with Jacuzzi and sunbathing ares provide unobstructed sea viewing.

Powered by two MTU 2,000 12V M70 engines of 788 kW each.



38.50 m

31.98 m

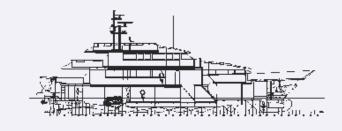
7.73 m 2.20 m

14 kN

75 t







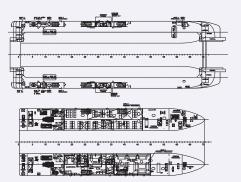
CROATIAN SHIPBUILDING 114

# **Car & Passenger Ferry**

# 51 cars / 210 passengers







# FERRIES & RO-RO, YACHTS, HIGH SPEED BOATS

 Builder / Yard No.:
 Shipyard VIKTOR LENAC / 129, 131

 Name:
 m/t SVETI KRISTOFOR, m/t SVETI MARIN

 Owner:
 Rapska plovidba d.d, Croatia / Croatia

 Design:
 Boat's Consulting, Croatia

 Delivered:
 2003, 2005

The ferries are dedicated to sail on the short route between mainland and Island of Rab. These catamaran type ferries are suitable for fast loading and unloading of the vehicles and great efficiency of the main deck area. The propulsion units are simple and robust in order to satisfy demand for heavy duty operation with huge number of maneuvers during operation. m/t SVETI MARIN is lengthened version of m/t SVETI KRISTOFOR.

Classification: CRS RORO Passenger vessel,50 A1 M1 AUT 3, Coastal area 6, capable for carrying packed dangerous goods of classes: 1 (explosives), 2 (gasses), 3 (flammable liquids)

m/t SVETI KRIST	OFOR m/t SVETI MARI
42.00 m	49.20 m
rs 35.20 m	42.40 m
3.60 m	3.60 m
15.30 m	15.30 m
5.00 m	5.00 m
2.40 m	2.40 m
450	499
180t	230 t
51 c	ars, 210 passengers
Cummins KTA 19-M3	MAN D2842LE412
954 kW	1176 kW
11 kn	11 kn
	42.00 m rs 35.20 m 15.30 m 5.00 m 2.40 m 450 180t 51 c Cummins KTA 19-M3 954 kW

# Car Ferry Type 36

# FERRIES & RO-RO, YACHTS, HIGH SPEED BOATS

 Builder / Yard No.:
 BRODOSPLIT - Naval and Special Vessel Shipyard Ltd. / 585; 586; Shipyard KRALJEVICA / 502

 Name:
 m/s LASLOVO - NB 585; m/s STON - NB 586; m/s KIJEVO - NB 502

 Owner:
 Jadrolinija / Croatia

 Delivered:
 1997

Classification: Croatian Register of Shipping \*50 A1 M1 AUT2 IWS Passenger ship for navigation in coastal area 6, with duration of voyage 1 hour, capable for carrying packed dangerous cargo of classes 1 (explosives), 2 (gases), 3 (flammable liquids).

Lenght Over All (include ramps)	41.20 m
Lenght btw perp.	33.60 m
Breath moulded	16.00 m
Breath moulded (each hull)	5.20 m
Draught loaded	2.15 m
Draught, maximum	2.45 m
Deadweight, at draught of 2.15 m	abt. 100 t
Gross tonage	640
Main engine (El. Propulsion)	2 X 250/1,500 RPM
Trial speed at 90 % Max. rated power;	and 2.15 m draught
	9 knots

Capacity: 36 cars or 3 articulated trucks (each 40t) 150 passengers (74 in lounge, 76 on open deck)

The ferry is intended for transport of passengers and vehicles (inclu-ding loaded dangerous cargoes) in restricted coastal waters, and is of catamaran Ro-Ro type with open cargo area on the main deck.

It is propelled by two fully rotatable thrusters with fixed pitch propellers, driven by A.C. electric motors. The main and auxiliary machinery is installed in two engine rooms located ina aft part of each hull. Bow thruster is installed in forward part of starboard hull.

## Construction

Two hulls connected by main deck and two side towers connected overhead by crew deck with free height 4.50 m over main deck and comprising crew cabins, with the wheelhouse on top of it. The hull and superstructure are made of ship-building steel grade "A" in welded construction.

### Loading/unloading equipment

For vehicle loading/unloading, forward and stern ramp with flaps are provided, booth electro-hydraulically operated.

# Machinery and electrics

The diesel electric propulsion plant consists of two main diesel generators, each 410 kVA; two azimuth thrusters driven by A.C. electric motors and one fully rotatable jet type bow thruster, driven by electric motor. Ship's electric supply is 3x380V/50Hz. Emergency diesel generator of 80 kVA is fitted.

## Navigation and communication equipment

Navigation equipment is fitted in accordance with restricted navigation area and consists of X-band radar and magnetic compass.

Communication equipment includes VHF radiotelephone, command and talk back system and TV monitoring system for stern ramp and engine room.

### Cruising range and autonomy

At the speed of 9.5 knots, about 7 voyages for max. 1 hour duration could be done. Provisions suffic. for 7 days.

### Complement

The ship provides full accommodation for 6 crew members in single berth cabins.





i - ! ··

# **Passenger Ferry**

# 20.76 m









Builder / Yard No.: BRODOSPLIT - Naval & Special Vessel Shipyard Ltd / 506 Name: YARD 506, - RUBINUM Owner / Flag: MAISTRA - Rovinj, CROATIA Delivered: 2006

## Main Characteristics

Length, over all	abt. 20.76 m
Breadth	6.40 m
Height, up to main deck	2.80 m
Draught	1.60 m
Gross tonnage	abt. 130 GT

## Accommodation

Passengers (summer)	140 (119 seated)
Passengers (winter)	71
Crew	3

Vessel's primary mission is ferrying of passengers on short routes, i.e. navigation area 6 according to CRS and it is built according to the Rules of Croatian Register of Shipping (CRS) and Lloyd's Register (LR) Rules for special service craft.

Hull and superstructure are built from steel (grade A), of welded construction.

Two four-stroke diesel engines, electrically started, 2 x 220 kW, driving 2 propellers through reversible reduction gears, enable service speed of 10 knots. Propulsion plant is remotely controlled from wheelhouse control console. Wheelhouse (with all round visibility), passenger and crew accommodation spaces are air-conditioned.

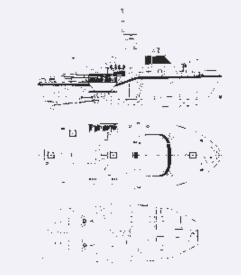
Electrical power is provided from diesel generator 3 x 380 V, 50 Hz, 32 kVA and from batteries 24 V DC. Radio equipment includes VHF/DSC and VHF portable. Navigation system consists of: radar, GPS, magnetic compass and echo sounder.

Passenger accommodation includes 43-seat lounge, 17-seat VIPs lounge and 59-seat open deck accommodation. One three-berth cabin is provided for crew accommodation.

# Search and Rescue Boat

# 17 m





Builder / Yard No.: BRODOSPLIT - Naval and Special Vessel Shipvard Ltd. / 587, Sister vessels: 588, 589, 590 Name: POJIŠAN, VID. ŠIBENIK, DANČE Owner / Flag: Republic of Croatia - Ministry of Maritime Affairs, Transport and Communication Project: 756A Designed by: Brodosplit Naval and Special Vessel Shipyard Ltd. Delivered: 1999, 2001, 2002

Primary mission is search, rescue of human lives and sea surveillance. Additionally equipped with portable bilge fire fighting pump.

The craft is designed for navigation area R2 according to DNV (including EEZ protection) in heavy weather conditions, during whole year.

Length over all	17.10 m
Breadth max	6.22 m
Depth to main deck	2.70/2.20 m
Draught baseline	0.89 m
Draught at propellers	1.16 m
Service speed	20 knots
Max. speed	24 knots

## Construction

The hull is made of mild steel in welded construction. High tensile steel is used in those parts of the hull, subjected to higher stress. Superstructure is made of seawater resistant aluminium alloy in welded construction. It is connected to steel hull by means of aluminium - steel transition joint bar.

### Tank capacities

Fuel	1.85 t	Crui
Fresh water	0.70 t	Fuel
Fire fighting	0.25 t	
		SUDE

## Machinery and electrics

Two four-stroke, water cooled, turbocharged diesel engines 610 kW/2,000 RPM each, with reduction gears. Basic craft power supply 220 V, 50 Hz and 24 V DC. Electric power is derived from 10 kW diesel generator 220 V. 50 Hz and batteries 24 V.

### Electronic and navigation equipment

The external communication system consists of VHF radio-telephones and alert receiver which provide ship - to - ship and ship - to - shore communications. In addition, electric hailer with loude speaker on the mast and microphone with amplifier in wheel house. The navigation system includes: radar, radio direction finder, GPS plotter, EPIRB buoy, magnetic compass (2 sets), echosounder and electro-magnetic log.

## Other systems and equipment

The craft is equipped with following systems: ventilation, CO<sub>2</sub> fire - fighting, foam fire - fighting monitor, engine room diesel fire pump, portable petrol fire pump and reinforced life - saving equipment, including 2 life - rafts, hydro - thermo protective suits, basic resuscitation kit etc.

### lising range

el oil tanks capacity ensures 200 Nm range at 20 knots speed.

## Complement

The craft is outfitted to accommodate 4 crew members.

### Rescue capacity

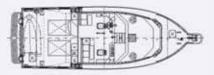
The craft is outfitted to take 10 survivors, including max. 3 in lying position.

# **Search and Rescue Craft**

# 14.45 m









# FERRIES & RO-RO, YACHTS, HIGH SPEED BOATS

Builder / Yard No.: BRODOSPLIT - Naval and Special Vessel Shipyard Ltd. / 501, 502, 504 Name: YARD 501 - PLANAC YARD 502 - UMAG YARD 504 - MARJAN

Owner: Republic of Croatia - Ministry of the Sea, Tourism, Transport and Development Delivered: 2004, 2005

## **Main Characteristics**

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r

Fast boat's primary task is surveillance at sea and search & rescue.

Fast boat is built according to rules of Croatian Register of Shipping (CRS) for boats for commercial purposes and according to Germanischer Lloyd (GL) rules. It is made of sea resistant aluminium alloy (Allg4,5Mn), longitudinally framed, welded construction.

Damaged stability requirements are satisfied. Two four-stroke diesel engines, turbocharged, electrically started, mechanically regulated RPM, maximal engine brake power 2 x 305 kW, driving 5-bladed propellers through reversible V-type gearboxes, enable service speed of 26 knots.

Propulsion plant is remotely controlled from wheelhouse control console.

Wheelhouse (with all round visibility) and accommodation spaces are air-conditioned.

Electrical power is provided from batteries (24V DC) and from diesel generator (220V, 50Hz, 8kW). Boat is equipped with radio equipment (1 VHF/DSC, 1 VHF, 2 VHF portable, 1 AIS transponder and 1 NAVTEX). Navigation system consists of: 1 radar, 1 GPS, 1 magnetic compass, 1 echo sounder/speed log. Accommodation is provided for 2 crewmembers and 12passengers/survivors. In addition, there are 2 single-berth cabins and 1 auxiliary berth.

Fuel tanks capacity enables range of 400 nautical miles (NM), at 23 knots speed. Stores enable 7 days autonomy. This boat can also be used as oil spill control boat or fire fighting boat, by adding specific equipment at working deck at stern.

# **Fast Aluminium Workboat**

13 m

# <u>FERRIES & RO-RO, YACHTS, HIGH SPEED BOAT</u>

 Builder / Yard No.:
 BR0D0SPLIT - Naval & Special Vessel Shipyard Ltd / 584, 593, 594, 595, 596, 597, 598

 Name:
 PL0VPUT 1 - 7

 Owmer / Flag:
 Plovput d.o. Split / Croatia

 Designed by:
 BR0D0SPLIT Naval & Special Vessel Shipyard

 Delivered:
 1998, 2000, 2001, 2002, 2003, 2004

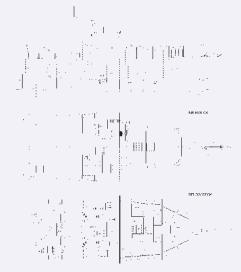
14.45 m

13.10 m

4.64 m

1.15 m





Length, over all	
ength, hull without platforms	
Breadth, max. without fenders	
Draught	

Fast workboat's primary task is maintenance of maritime signalling devices and objects, such as buoys and lighthouses, transportation of lighthouse's crew and cargo supply. Open working deck area at stern is equipped with electro-hydraulic crane of knuckle type. Maximal crane load is 1,5 tm. Maximal stern working deck area load is 3 t. Wheelhouse and accomodation spaces are air-conditioned.

### Classification

Fast workboat is built according to rules of Croatian Register of Shipping for boats for commercial purposes. Furthermore, damaged stability requirements are satisfied.

# Construction

Boat is made of sea resistant aluminium alloy (AIMg4,5Mn), longitudinally framed, welded construction.

### Machinery and electrics

Two four-strokes diesel engines, turbocharged, electrically started, mechanicaly regulated revolution, maximal engine brake power 2 x 305 kW, enable service speed of 23 knots. V-type gearboxes are reversible. Propulsion plant is remotely controlled from wheelhouse control console. Electrical power is provided from batteries (24 V DC) and from diesel generator (220 V, 50 Hz, 9 kW).

### Navigation and communication equipment

Boat is equipped with VHF radio telephone for external communication. Navigation system consists of: radar, GPS, magnetic compass, echo sounder and speed log.

## Cruising range and autonomy

Fuel tanks capacity enables action radius of 400 nautic miles, at 23 knots speed. Stores enable 7 days autonomy.

### Complement

Accomodation is provided for 3 crew members and 9 passengers. In addition, there are 4 cabin berths and 4 auxiliary berths.

### Design variants

Without changing basic parameters of boat's design, and only changing above water parts, various variants are obtained, such as: - fast passenger boat - ambulance boat - oil spill control boat - luxury boat - patrol boat, etc.

# **High Speed Patrol Boat**

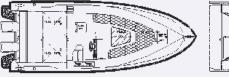
# Aluminium Boat 7.5 m







NAIS DET







Designed by: 75HSP Project:

Shipyard KRALJEVICA / Brodarski institut - Zagreb

Aluminium Walk-around pilothouse boat of 7 m lenght is designed as inland waters Police patrolling boat, but can easily be configured as a fire fighting / rescue boat / Coast Guard or Naval patrol unit. The boat has been constructed in accordance with the rules of "Croatian Rules of Shipbuilding" Powered by two Mercury outboard engines (2 x 75-125 HP) is able to develop a top speed of 45 knots

Main characteristics	
Loa	7.080 m
Lwl	5.930 m
В	2.615 m
Draught	0.280 m
Speed max	45 knots
Displacement	1,973 t

### General

The aluminium boat is a Walk-around pilothouse boat, it is is easily configured for law enforcement, fire / rescue, military or workboat applications

### Dimensions

Longth averall	7.080 m	me	noar is equipped
Length overall:	7.060 111	•	One red/green la
Breadth, max:	2.615 m	-	0
		•	One towing lamp
Lightship weight:	1.350 kg		0 1
Eightenip height	1,000 115		One anchor lami

151

# **Tank Capacity**

AltBK 23-1 to be equipped with two fuel tanks for propulsion engines and one fuel tank for heating. Max. tanks capacity are: Fuel tank 1 (propulsion engine) 150 I 150 I

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Fuel tank 1 (propulsion engine)	
Fuel tank (heating)	

## Propulsion

The AltBK 23-1 is designed with two outboard engines Mercury 115 HP. Maximum speed on the sea trials: 45 knots. Other engines by the special request possible.

# Materials

The construction of AltBK 23-1 consists two volume sections: a hull and a cabin. The constructions of the hull and the cabin to be maid of aluminum alloy. The hull to be built on the transverse system of building, and the cabin on the combination system of building.

## Lights

The boat is equipped with the following fixed electric lights:

- lamp 1120 located on the side mast girder.
- np 225 o (white)
- One anchor lamp 360 o (white)
- One stern lamp 135 o (white) ٠ ٠
- One searchlight on the cabin top
- One cabin light
- One siren

The switches to be placed on the control console in the cabin.