

## **SESSION 2 – Transition and innovations in Maritime Transport: Success Stories – BALEÀRIA**

*MEDports Association Technical Seminar*

**New Projects Responsible – Jesús Blanco Cedrón**

*Algeciras, 28th April 2022*



# 1. ABOUT BALEÀRIA

## Fleet

**29 SHIPS**  
+ 3 auxiliary vessels\*

**28 Owned**



**9 NATURAL GAS-POWERED SHIPS**

**10 SMART SHIPS**

FERRIES						
Abel Matutes	23 kn	190 m	900	625	●	●
Bahama Mama	23 kn	154 m	1,000	350	●	●
Dènia Ciutat Creativa	19 kn	150 m	399	430		
Hedy Lamarr	24 kn	186 m	600	646	●	●
Hypatia de Alejandría	24 kn	186 m	880	608	●	●
Marie Curie	24 kn	186 m	880	608	●	●
Martín i Soler	23 kn	165 m	1,200	567	●	●
Nápoles	23 kn	186 m	1,600	339	●	●
Passió per Formentera	22 kn	100 m	800	105		
Poeta López Anglada	18 kn	133 m	1,257	243		
Posidonia	17 kn	69 m	550	90		
Regina Baltica	19 kn	145 m	1,600	350		
Rosalind Franklin**	22 kn	188 m	860	624	●	
Sicília	23 kn	186 m	1,000	481	●	●
Wasa Express**		140 m	1,500			

(\*\*) The *Rosalind Franklin* completed its charter in November, and the *Wasa Express* was incorporated that same month.

● To natural gas ● To natural gas (projected)  
● Smart ship ● Smart ship (projected)  
● Scrubbers

FAST FERRIES						
Avenar Dos	34 kn	82 m	855	174		
Bimini Blue Marlin	30 kn	39 m	356	-		
Cecilia Payne	38 kn	86 m	800	200		
Formentera Direct	30 kn	50 m	309	36		
Eco Aqua	28 kn	28 m	355	-		
Eco Aire	28 kn	28 m	355	-		
Eco Terra	28 kn	28 m	355	-		
Eco Lux	28 kn	28 m	355	-		
Eleanor Roosevelt	35 kn	123 m	1,200	450	●	●
Jaume I	32 kn	78 m	623	130		
Jaume II	32 kn	81 m	624	140		
Jaume III	32 kn	81 m	655	140		●
Nixe	32 kn	63 m	546	122		
Ramon Llull	32 kn	83 m	476	120		●

### ONLY CARGO

Vírot	12 kn	64 m	41	117		
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(\*) *Águila Pescadora*, *Corb Marí* and *Rolón Plata Dos*.



## 2. BALEÀRIA'S LNG PROJECTS

### LNG RETROFITS / NEW SHIP BUILDINGS INFO

SHIP		LENGTH	BEAM	DRAFT	SPEED	FLAG	CLASS	NEW ME's	NEW ME's POWER (kW)	No. TK's & LNG m <sup>3</sup>	TOTAL LNG m <sup>3</sup>	LNG RANGE (h)	LNG MILES (nm)
NAPOLES	NAP	186	25,6	6,5	23	Chipre	RINA	2 x MAN 9L51/60DF	2 x 8.775 kW (17.550 kW)	1 x 440	440	57	1200
ABEL MATUTES	ABM	190,5	26	6	23	España	BV	2 x MAK 9M46DF	2 x 8.685 kW (17.370 kW)	2 x 178	356	48	957
MARTIN I SOLER	MIS	165,3	25,6	5,8	23	España	BV	2 x MAK 9M46DF	2 x 8.685 kW (17.370 kW)	1 x 360	360	50	1020
SICILIA	SIC	186	25,6	6,5	23	Chipre	RINA	2 x MAN 9L51/60DF	2 x 8.775 kW (17.550 kW)	1 x 425	425	57	1159
BAHAMA MAMA	BHM	154,35	24,2	5,5	23	Malta	BV	2 x MAK 9M46DF	2 x 8.685 kW (17.370 kW)	2 x 140	280	38	753
HEDY LAMARR	HEL	186,5	25,6	6,85	24	Chipre	RINA	2 x MAN 9L51/60DF	2 x 8.775 kW (17.550 kW)	1 x 425 + 1 x 140	565	70	1515
HYPATIA DE ALEJANDRIA	HAY	186,46	25,61	6,75	24	Chipre	RINA	2 x WÄRTSİLÄ 9L46DF	2 x 10.305 Kw (20.610 kW)	2 x 165	330	40	963
MARIE CURIE	MAC	186,46	25,61	6,75	24	Chipre	RINA	2 x WÄRTSİLÄ 9L46DF	2 x 10.305 Kw (20.610 kW)	2 x 165	330	40	963
ELEANOR ROOSEVELT	ELR	123,3	28	4,02	35	Chipre	RINA	4 x WÄRTSİLÄ 16V31DF	4 x 8.800 kW (35.200 kW)	2 x 95	190	13	453

**380** MILLION EUROS INVESTMENT

**9** vessels with NATURAL GAS ENGINES



\*Co-funded by the EU Connecting Europe Facility





## 2. BALEÀRIA'S LNG PROJECTS – NEW BUILDINGS

## HYPATIA DE ALEJANDRIA & MARIE CURIE

First LNG powered ferries in the Mediterranean.

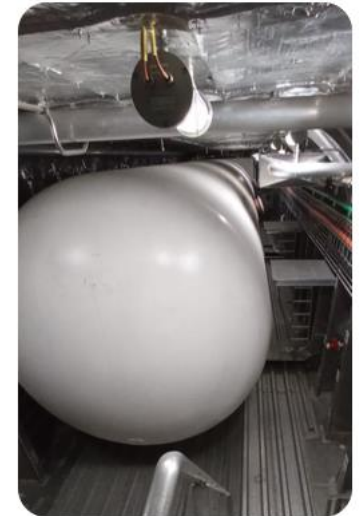
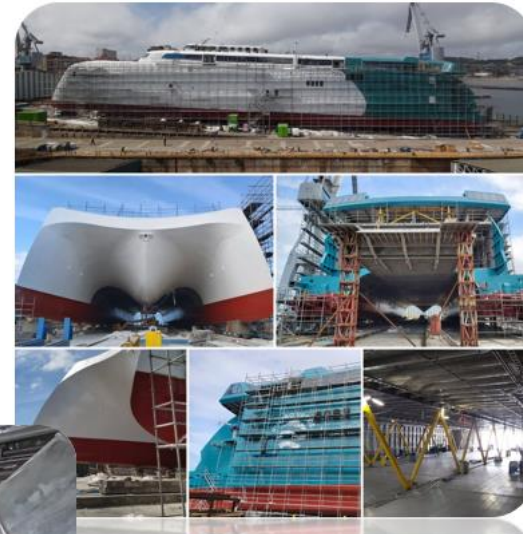




## 2. BALEÀRIA'S LNG PROJECTS – NEW BUILDINGS

ELEANOR ROOSEVELT

First and largest passenger and cargo Fast Ferry in the world powered by dual natural gas engines. 2 LNG storage tanks → 400 miles of autonomy → 90M€



## 2. BALEÀRIA'S LNG PROJECTS – RETROFITS

## Main Engines to be remotorized

### ■ NAPOLES

- Current: MAN 9L48/61
- Remotorization to: MAN 9L51/60DF
- Power: 8775 kW/motor

### ■ ABEL MATUTES

- Current: MAK 9M43 DF
- Remotorization to: MAK 9M46DF
- Power: 8685 kW /motor

### ■ BAHAMA MAMA

- Current: MAK 9M43 DF
- Remotorization to: MAK 9M46DF
- Power: 8685 kW /motor

### ■ SICILIA

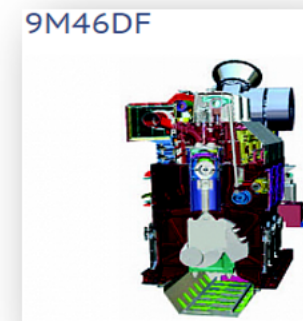
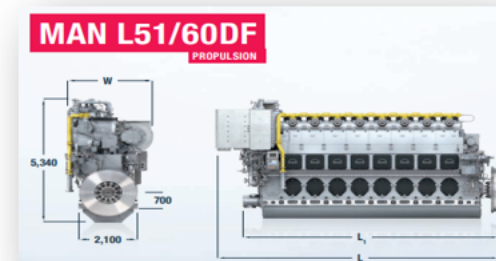
- Current: MAN 9L48/61
- Remotorization to: MAN 9L51/60DF
- Power: 8775 kW /motor

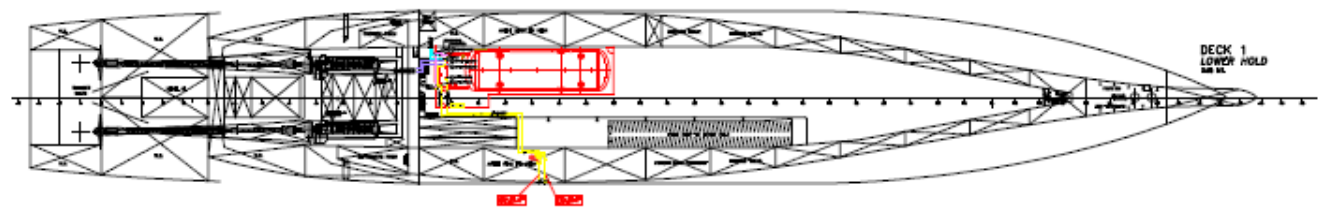
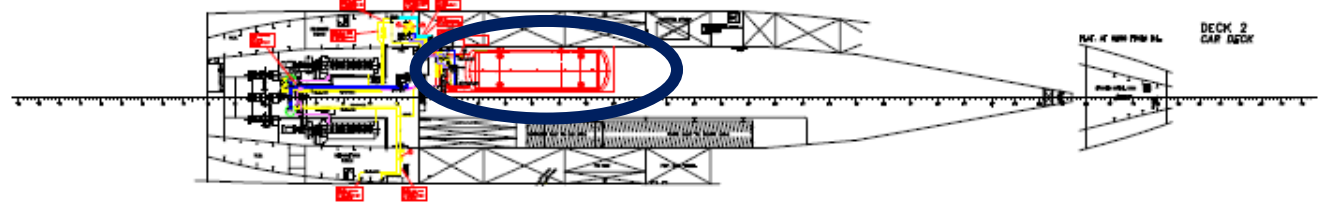
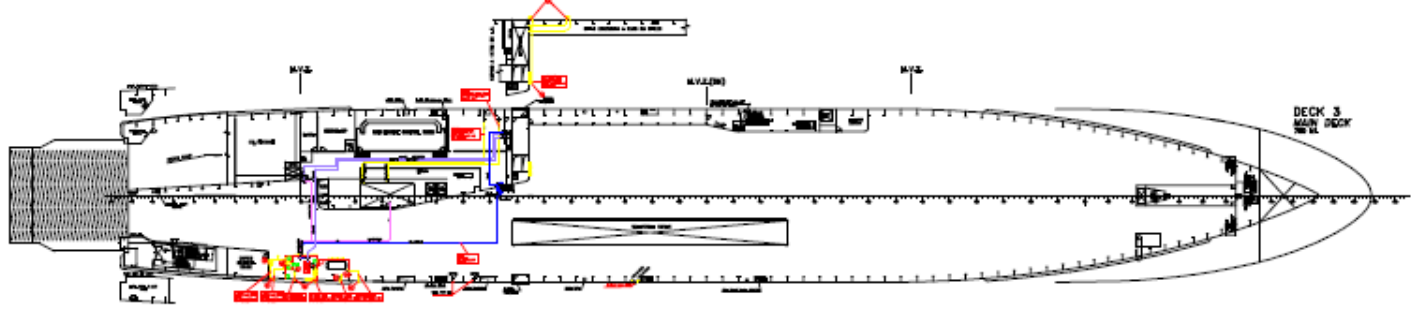
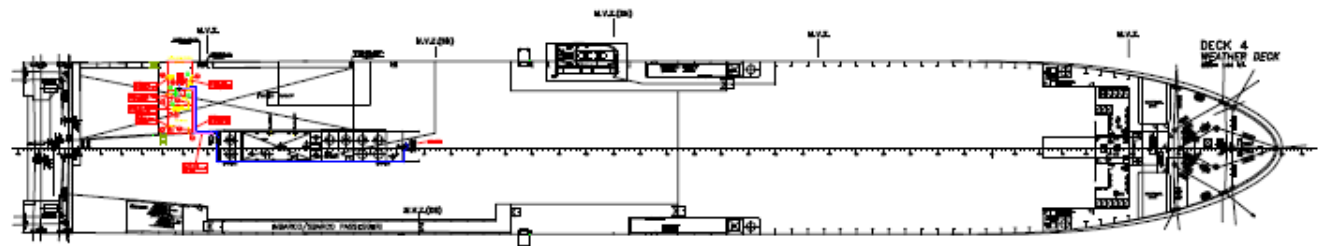
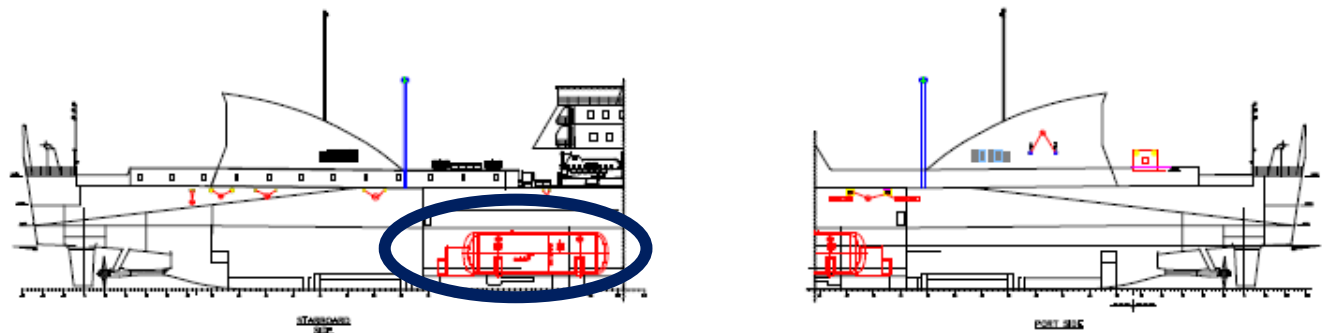
### ■ MARTIN I SOLER

- Current: MAK 9M43 DF
- Remotorization to: MAK 9M46DF
- Power: 8685 kW /motor

### ■ HEDY LAMARR

- Current: MAN 9L48B
- Remotorization to: MAN 9L51/60DF
- Power: 9450 kW /motor





NOTA:  
 -Este estado es esquemático.  
 -Para un estado más aproximado, ver el estado (anexo 1).

- VTS - Ventolator & tubos de impulsión de VTS
- DTS - Tubos de escape
- ABS - Sistema Automatizado de Anclaje
- CA - Cámara
- VT - Ventilador Torax y/o Sistema STG

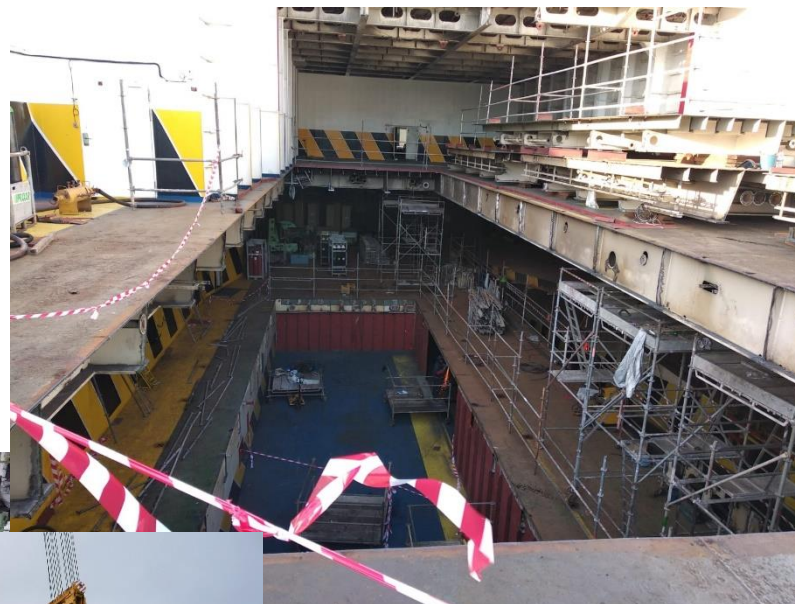
BALEARIA - BUQUE "NAPOLES" REMOTORIZACIÓN BUQUE "NAPOLES" PREDESARROLLO DE TUBERÍA	



## 2. BALEÀRIA'S LNG PROJECTS – RETROFITS

NAPLES

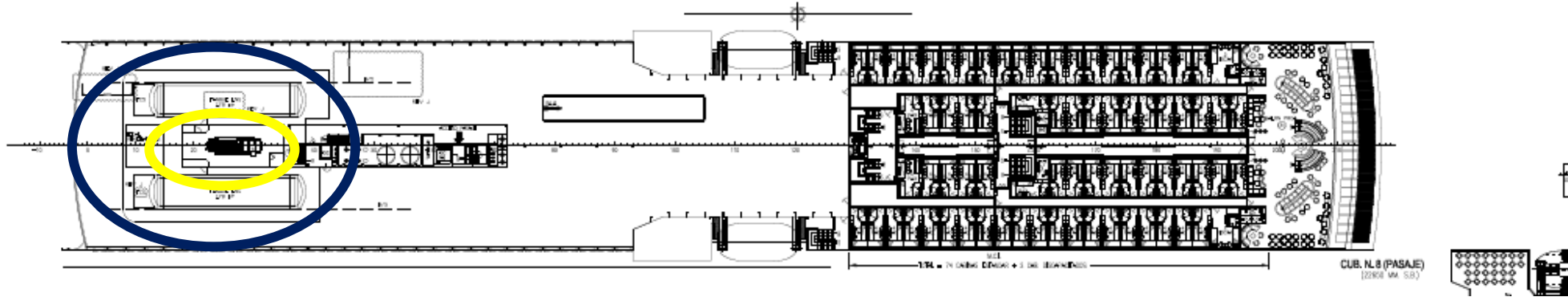
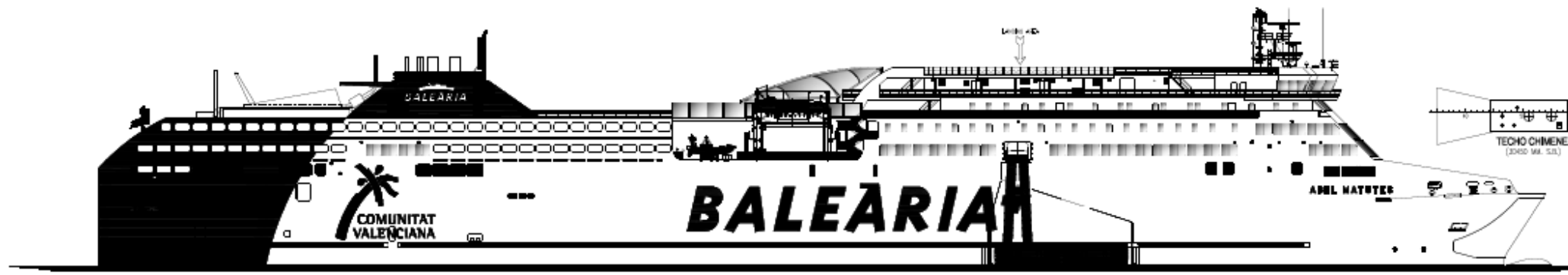
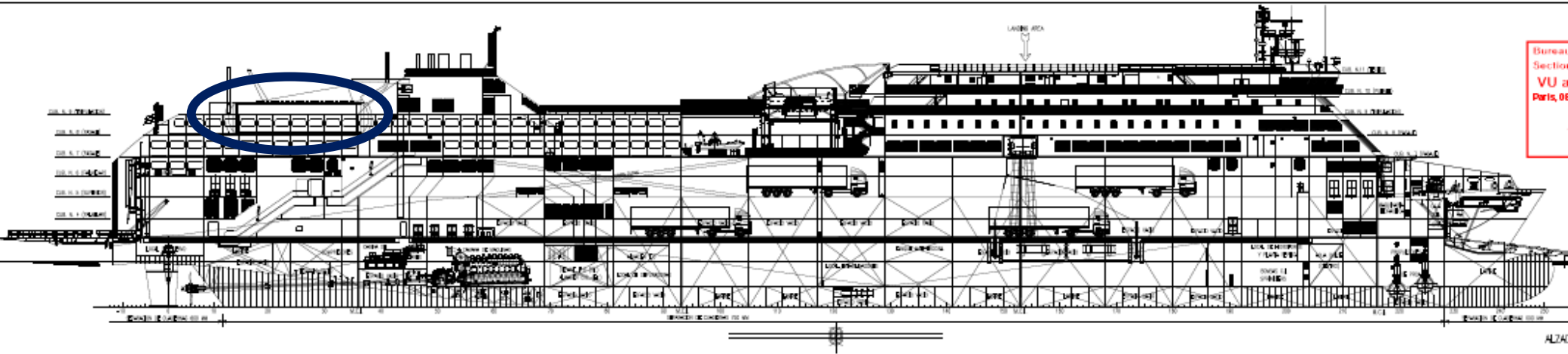
### NAPLES



- Structure
- Main Engine
- LNG Plant
- LNG/NG Piping
- Gas Detection
- Fire Detection
- IAMS
- Nitrogen
- Venting
- Control Air
- Starting Air
- HT Water
- LT Water
- Ventilation
- Auxiliary Equipment
- Insulation
- Doors
- Dry Chemical Powder







## 2. BALEÀRIA'S LNG PROJECTS – RETROFITS

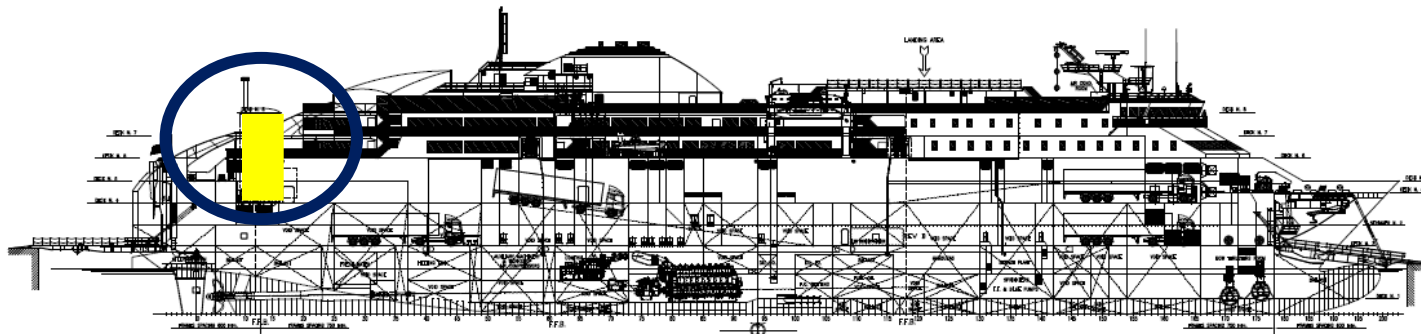
ABEL MATUTES

### ABEL MATUTES

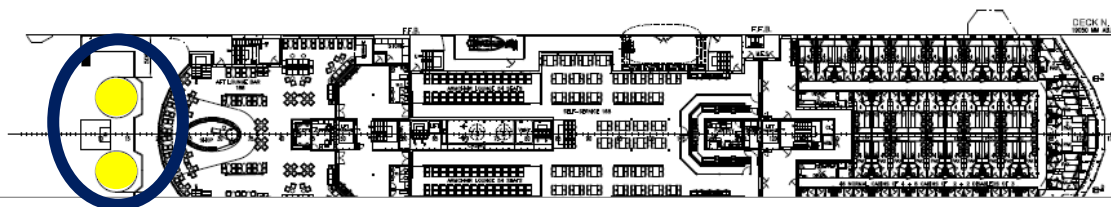
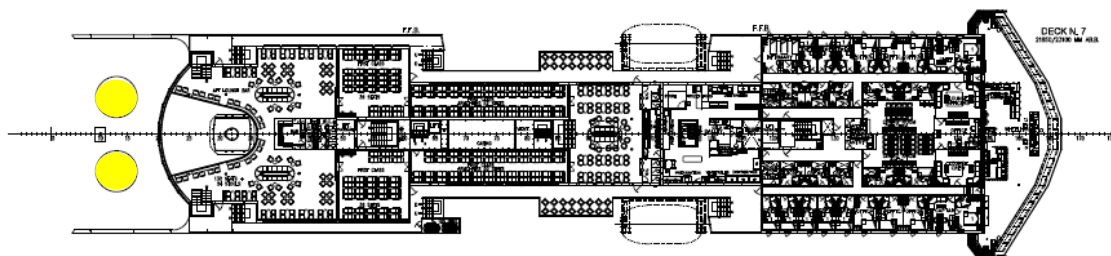
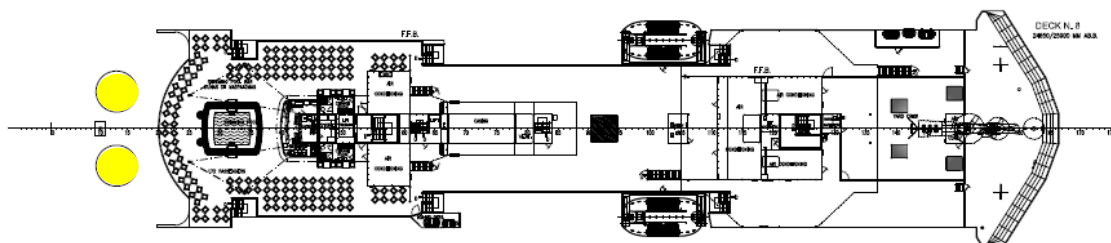
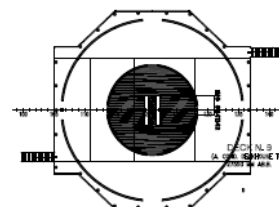
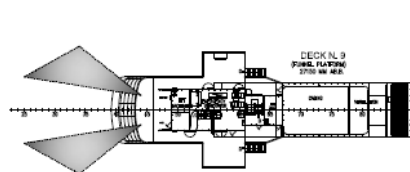




## 2. BALEÀ



## IAMA MAMA



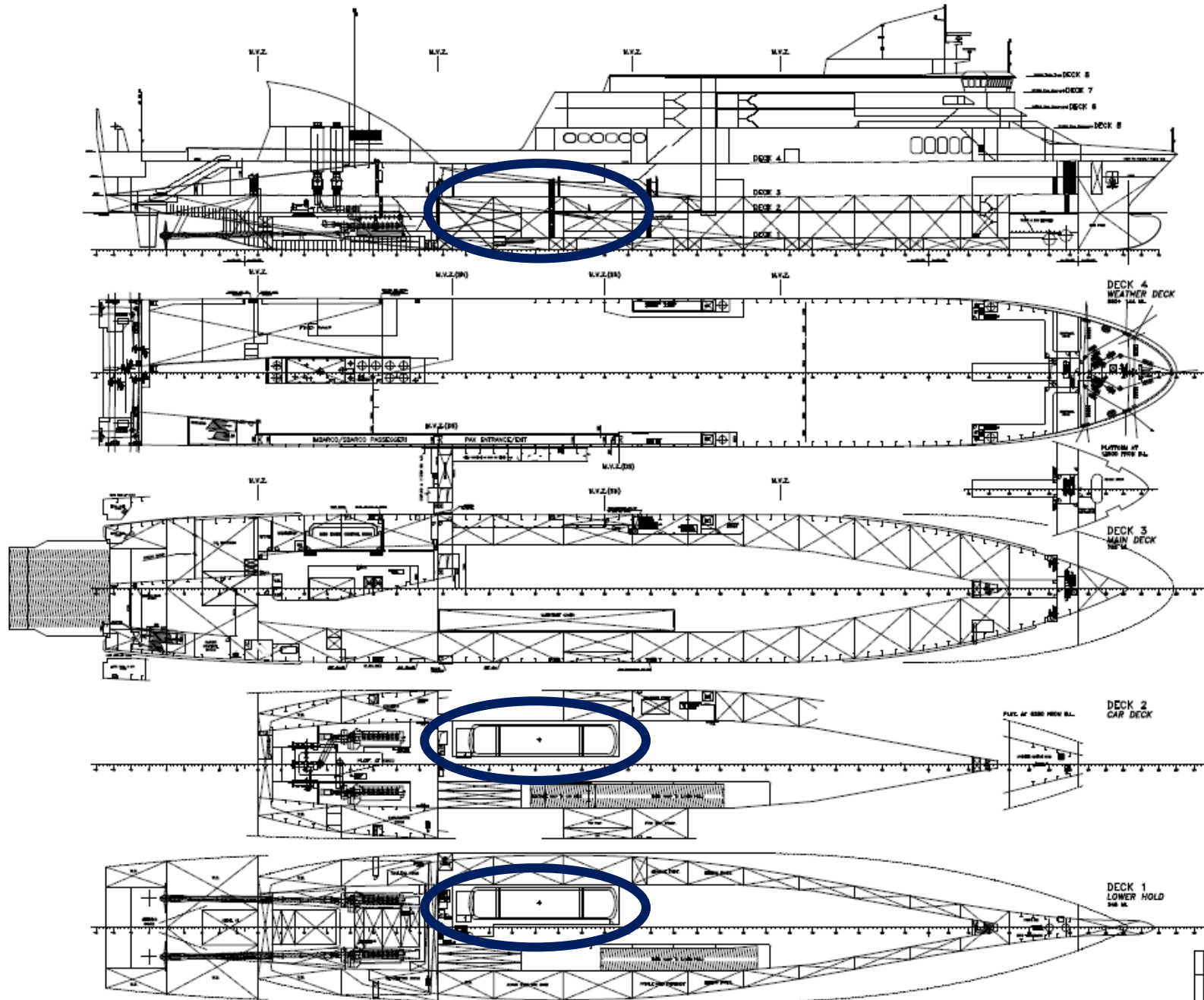
## 2. BALEÀRIA'S LNG PROJECTS – RETROFITS

BAHAMA MAMA

### BAHAMA MAMA







**PRINCIPAL PARTICULARS  
CARATTERISTICHE PRINCIPALI**

UNIVERSITÀ PER LE PALESTINE S.p.A.	10000	10000
UNIVERSITÀ PER LE PALESTINE S.p.A.	10000	10000
UNIVERSITÀ PER LE PALESTINE S.p.A.	10000	10000
ALTEZZA DI MONTAGNA/DECKE	15.00	15.00
NUMERO DI MONTAGNA/DECKE	400	400
NUMERO LINEE/STRUTTURE	700	700
M. PAVIMENTO/STRUTTURE (M/L)	800	800
NUMERO MONTAGNA/DECKE	400	400
M. STRUTTURE/DECKE (M/L)	1000	1000
NUMERO MONTAGNA/DECKE	2	2
ALTEZZA DI MONTAGNA/DECKE	15.00	15.00
NUMERO MONTAGNA/DECKE	400	400

22	STRUTTURE	NUMERO LINEE/DECKE
21	STRUTTURE	NUMERO LINEE/DECKE
20	STRUTTURE	NUMERO LINEE/DECKE
19	STRUTTURE	NUMERO LINEE/DECKE
18	STRUTTURE	NUMERO LINEE/DECKE
17	STRUTTURE	NUMERO LINEE/DECKE
16	STRUTTURE	NUMERO LINEE/DECKE
15	STRUTTURE	NUMERO LINEE/DECKE
14	STRUTTURE	NUMERO LINEE/DECKE
13	STRUTTURE	NUMERO LINEE/DECKE
12	STRUTTURE	NUMERO LINEE/DECKE
11	STRUTTURE	NUMERO LINEE/DECKE
10	STRUTTURE	NUMERO LINEE/DECKE
9	STRUTTURE	NUMERO LINEE/DECKE
8	STRUTTURE	NUMERO LINEE/DECKE
7	STRUTTURE	NUMERO LINEE/DECKE
6	STRUTTURE	NUMERO LINEE/DECKE
5	STRUTTURE	NUMERO LINEE/DECKE
4	STRUTTURE	NUMERO LINEE/DECKE
3	STRUTTURE	NUMERO LINEE/DECKE
2	STRUTTURE	NUMERO LINEE/DECKE
1	STRUTTURE	NUMERO LINEE/DECKE

**CANTIERE NAVALE VISENTINI**  
**GENERAL ARRANGEMENT**  
**PIANO GENERALE**

DE. N° P172\_100\_32  
 TAV. N° 1/1

## 2. BALEÀRIA'S LNG PROJECTS – RETRO

SICILIA

SICILIA







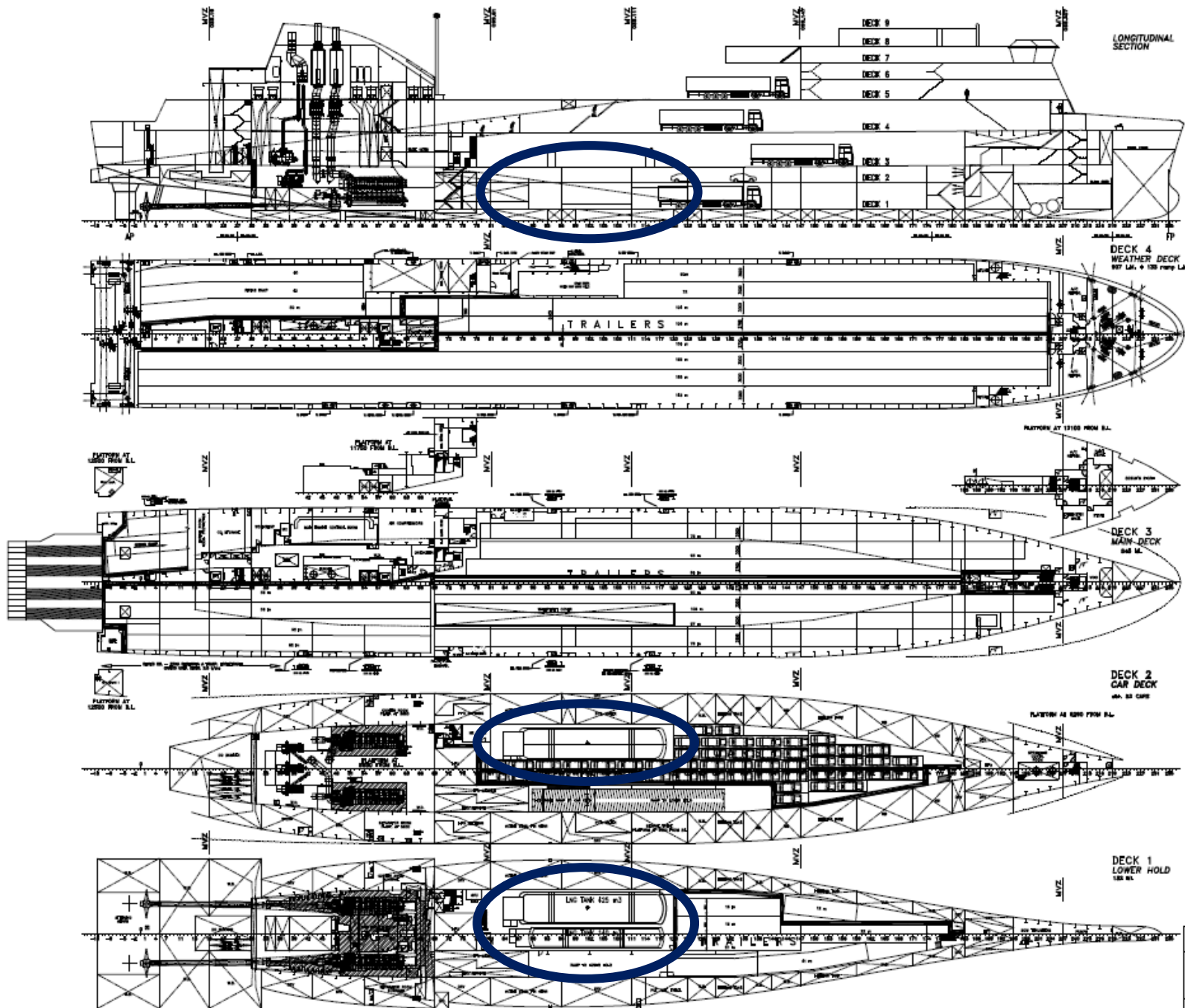
## 2. BALEÀRIA'S LNG PROJECTS – RETROFITS

MARTIN I SOLER

MARTIN I SOLER







**MAIN PARTICULARS**

LENGTH O.A.	46.100 m
LENGTH B.P.	37.40 m
MAXIMUM BEAM	10.50 m
D.P.	10.00 m
MAX. DRAUGHT	8.00 m
DISPLACEMENT	8700 t
MAX. D. ENGINE	275 HP
MAXIMUM SPEED	40 KNOTS
CRUISE	30 KNOTS
TRAILING LINE SYSTEM	44.200 m
CABLE CAPACITY	50 tons
MAXIMUM FORCE	100000 kg
ENGINE POWER	44.500 kW

25	STRUCTURE	ALL OVER STEEL
26	STRUCTURE	TYPE D1 according to EN 10025, S275, S355, S460, S550, S690, S960
27	STRUCTURE	WELDED STEEL
28	STRUCTURE	PROTECTION AGAINST COLLISION
29	STRUCTURE	PROTECTION AGAINST COLLISION
30	STRUCTURE	PROTECTION AGAINST COLLISION
31	STRUCTURE	PROTECTION AGAINST COLLISION
32	STRUCTURE	PROTECTION AGAINST COLLISION
33	STRUCTURE	PROTECTION AGAINST COLLISION
34	STRUCTURE	PROTECTION AGAINST COLLISION
35	STRUCTURE	PROTECTION AGAINST COLLISION
36	STRUCTURE	PROTECTION AGAINST COLLISION
37	STRUCTURE	PROTECTION AGAINST COLLISION
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41	STRUCTURE	PROTECTION AGAINST COLLISION
42	STRUCTURE	PROTECTION AGAINST COLLISION
43	STRUCTURE	PROTECTION AGAINST COLLISION
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45	STRUCTURE	PROTECTION AGAINST COLLISION
46	STRUCTURE	PROTECTION AGAINST COLLISION
47	STRUCTURE	PROTECTION AGAINST COLLISION
48	STRUCTURE	PROTECTION AGAINST COLLISION
49	STRUCTURE	PROTECTION AGAINST COLLISION
50	STRUCTURE	PROTECTION AGAINST COLLISION

**CANTIERE NAVALE MSERTINI**  
 GENOVA

**PIANO GENERALE**  
**GENERAL ARRANGEMENT**

DES. N° P271\_100  
 DAT. N° 1/2

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## 2. BALEÀRIA'S LNG PROJECTS – RETROFITS

HEDY LAMARR

HEDY LAMARR





- Baleària also participates in the European project “Green and Connected Ports (GREEN C PORTS)”.
- Connecting Europe Facility 2014-2020 (CEF Transport) call.
- The European union will subsidize the 50 %.
- Fuel consumption and vessels emissions in real time monitorization, sensing vessels.
- 5 vessels: BAHAMA MAMA, SICILIA, ELEANOR ROOSEVELT, MARIE CURIE and CECILIA PAYNE.



7 SHIPS  
WITH SENSORS



 Co-funded by the EU  
Connecting Europe Facility



Co-financed by the Connecting Europe  
Facility of the European Union



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# Thank you for your attention

**Jesús Blanco Cedrón**  
*New Projects Responsible*  
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