



HYPATIA DE ALEJANDRÍA: Ro-pax

Shipbuilder: **Cantiere Navale Visenini SRL**
Vessel's name: **Hypatia de Alejandria**
Owner/Operator: **Balearia Eurolíneas Marítimas SA**
Country: **Spain**
Designer: **Cantiere Navale Visenini SRL**
Country: **Italy**
Flag: **Cyprus**
IMO number: **9498755**
Total number of sister ships already completed (excluding ship presented): **1**
Total number of sister ships still on order: **Nil**

Spanish ferry operator Balearia has ambitions to operate one of the cleanest ferry fleets in Europe, and as part of that plan, *Hypatia de Alejandria* has claimed the distinction of being the first LNG fuelled passenger ferry to operate in the Mediterranean.

The first of two sister ships by Italian builder Cantiere Navale Visenini – the second vessel *Marie Curie* was delivered six months later in July 2019 – *Hypatia de Alejandria* is a 28.658gt ro-pax of 186,48m in length. The vessel is powered by a pair of Wärtsilä 9L46DF main engines, each with 10,305kW output, which are connected to controllable pitch propellers through Renk reduction gearboxes. Additionally, the ro-pax is fitted with a Wärtsilä 9L20DF auxiliary as well as two Caterpillar 3516C oil-fuelled gensets. Service speed is 24knots.

The vessel has five vehicle decks and can accommodate 166 cars and 120 trucks in its 2,194 lane metres. There is capacity for 850 passengers in 123 four-person cabins and three lounges with reclining seats. Describing *Hypatia de Alejandria* as its first smart ship, Balearia designed much of the innovative equipment and services to enhance the passenger experience.

All signage onboard is digitised and if passengers prefer not to wait at reception for key allocations, access to cabins can be granted by of QR codes sent to mobile phones. Pets are allowed onboard in a kennel area which has been equipped with cameras allowing passengers to monitor them by smart phones and tablets. Passengers can access wi-fi entertainment services that include TV, films, games, e-books and magazines. This platform with a-la-carte digital content is also accessible from the smart TVs in the cabins. *Hypatia de Alejandria* has a shop, café, self-service and a-la-carte restaurant in addition to Jacuzzis on the outside deck.

The use of smart technology further extends to the operation of the vessel with a system in place for remote monitoring of the ship's engines and fuel consumption.

TECHNICAL PARTICULARS

Length oa: 186.48m
Length bp: 177.40m
Breadth moulded: 25.60m
Depth moulded
to main deck: 9.15m

to upper deck: 15.00m (weather)
to other decks: ..21.00m (restaurant), 24.40m (passengers), 27.20m (bridge)

Draught
scantling: 7.10m
design: 6.75m
Gross: 28,658gt
Displacement: 18,090.2t full load cond.
Lightweight: 10,371.5t
Deadweight: 7,718.7t
Block co-efficient: 0.569 (draught = 6.75)
Speed, service (85%MCR output): ..24.65knots

Bunkers (m³)
Heavy oil: 707.2
Diesel oil: 210.1
LNG: 2 X 165m³

Water ballast (m³):5,516 (with heeling tanks = 6,244.32m³)

Classification society and notations:RINA
RO-RO passenger ship
AUT-PORT, AUT-UMS, gas fueled

Propulsion
Model:9L46DF
Manufacturer: Wärtsilä
Number: 2
Type of fuel:Dual fuel – LNG/HFO/MDO
Output of each engine: 10.305kW
Is this a diesel-electric or hybrid?:No

Gearbox(es)
Make:Renk
Model: RSV – 1060
Number: 2
Output speed: 137.3rpm

Propeller(s)
Material:Ni-Al-Bronze
Designer/Manufacturer:Rolls-Royce
Number:2 (4 blades each)
Fixed/Controllable pitch: Controllable
Diameter: 4.8
Speed: 137 rpm

Main-engine driven alternators
Number: 2
Make/type: Nidec (Leroy Somer) / LSA
52 3 S7/4P

Output/speed of each set: 1,800kW/1,800rpm

Diesel-driven alternators
Number: 2
Engine make/type: Caterpillar / 3516C
Type of fuel: HFO / MDO
Output/speed of each set: ..2,095kW/1,800rpm

Diesel-driven alternators
Number: 1
Engine make/type: Wärtsilä / W9L20DF
Type of fuel: LNG / HFO / MDO
Output/speed of each set: ..1,665kW/1,200rpm

Boilers
Number: 1
Type: SM250/11,5/N/NAVY
Make: Cannon Bono Energia
Output, each boiler: 1,870kW
Bow thruster(s)
Make: Rolls-Royce
Number: 2
Output (each): 1,300kW
Mooring equipment
Number:2 combined mooring winch / windlass and 4 mooring winches
Make: Rolls-Royce
Type:Electric

Special lifesaving equipment (eg MES, free-fall lifeboats)

Number of each and capacity:2 x MES x 303 persons

Make:Viking
Type: VEMC
If MES, vertical or sloping chutes?: ... Sloping

Hatch covers
Design:Cover
Manufacturer: MacGregor
Type (upper deck/other decks):Main deck
Reefer plugs: 80 - PALAZZOLI (32A 11h/440-460V) + 5 plugs for e- cars

Vehicles
Number of vehicle decks (fixed/moveable): 5
Total lane length: 2.194 LM
Total cars: 166
Total freight units: 120 (16m)
Doors/ramps/lifts/moveable car decks
Number of each: 5 x ramps, 2 x lifts
Type: Ramps (MacGregor); Lifts (Otis)
Designer: Hydraulic

Cargo control system
Make:Janus

Ballast control system
Make: Seastema

Ballast water treatment system
Make:Alfa Laval
Capacity: 500m³/h

Complement
Officers: 14
Crew: 44
Single/double/other rooms: 14 / 22 / 0
Passengers
Total: 850
Number of cabins: 123 (+36 for crew)

Navigation and other equipment
Is bridge fitted for one-man operation? ... Yes

Radars
Number: 2
Make: Sperry Marine
Model(s): Radar(A) S-Band, Radar(B) X-Band, Vision Master FT PCM4

Fire detection system
Make:Autronica (AUTRO SAFE)
Type:BS – 420 M

Fire extinguishing systems
Cargo holds: Marioff – HIFOG / HF MT4 system
Engine room: Marioff – HIFOG / HF MLS-ML9
Vehicle spaces: Marioff – HIFOG / HF Ro-ro system
Cabins: Marioff – HIFOG / HF 3000
Public spaces: Marioff – HIFOG / HF 3000
Galley Spaces: Marioff – HIFOG / DUCT

Waste disposal plant
Sewage plant
Make: Evac
Model: MBR 70 KN

Efficiency
Installed Fuel Meters: VAF instruments / J5040PTZ (volume)

Energy Saving Technologies*: Alternative fuel (LNG), LED lighting, special hull coating (silicone), an energy saving device for cooling water system

Launch/float-out date: 29 March 2018
Delivery date:21 JANUARY 2019

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