

SIGNIFICANT SMALL SHIPS OF 2023

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SIGNIFICANT SMALL SHIPS OF 2023

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CUTTER PATRIOTA – Pilot boat perfected for Atlantic Ocean operations



Builder: **Nitromar**
 Designer: **Danilo López – Santiago García**
 Vessel's name: **Cutter Patriota**
 Owner/operator: **Genaman**
 Country: **Uruguay**
 Flag: **Uruguay**
 Total number of sister ships already completed: **0**
 Total number of sister ships still on order: **1**
 Contract date: **January 2022**
 Delivery date: **November 2023**

The pilot boat *Cutter Patriota* was designed as the development of a previous pilot boat named *Capitan Jon*, which has been operating since 2018. This newbuild is bigger than its predecessor, measuring 17m instead of 15m in overall length, reflecting its remit for operations in the Atlantic Ocean, compared to *Capitan Jon*'s typical operations on River Plate.

The challenge was to achieve the same or better performance, using the same propulsion plant (2 x 460hp engines at 2,400rpm), albeit with bigger displacement and the ability to operate in significant wave heights above 1.5m. *Cutter Patriota*'s original lines plan was modified after a model was tested at the Faculty of Engineering Ship Model Basin (in Montevideo, Uruguay). The main differences between the newcomer and its predecessor include a more vertical bow line with reduced attack angle, as well as a planing surface curved down from the stern to about 8% of the length on the waterline.

"The good results obtained after testing at the model basin were corroborated during sea trials," explains designer Danilo López. "The speed was improved, from 22knots to 24knots, and the exhaust gas temperature, the impact bow pressure and pitching were reduced significantly." As a result, *Cutter Patriota* is claimed to be more efficient and comfortable for both crew members and pilot passengers.

This newbuild also represents the third unit to be built in aluminium by shipyard Nitromar, which has more typically built steel vessels including trawlers, barges, a tugboat and a multipurpose propelled pontoon. It is hoped that this new production line will prove a good starting point for a wider revitalisation of the local naval industry, to bulwark it against economic uncertainties, the yard says. Three new aluminium boats are now under construction at Nitromar, featuring sizes of 12m, 17m and 25m loa, showing a growing confidence in the aluminium technique and know-how achieved by the shipyard.

TECHNICAL PARTICULARS

Length, oa..... 17m
 Length, bp..... 16.12m
 Breadth, moulded..... 4.65m
 Depth, moulded..... 2.52m
 Gross tonnage..... 38tonnes
 Displacement..... 24tonnes
 Design, draught..... 1.15m
 Design, deadweight..... 5tonnes
 Lightweight..... 19tonnes
 Deck space (total)..... 30m²
 Service speed..... 18knots
 Max speed..... 24knots
 Range..... 800nm

Propulsion:

Main engine(s):
 Number of engines..... 2
 Make..... Yanmar
 Model..... 6CXB-MGT
 Output of each engine..... 338kW

Gearbox(es):

Number of gearboxes..... 2
 Make..... ZF
 Model..... 286V
 Output speed..... 1,200 rpm

Propeller(s):

Number of propellers..... 2
 Make..... Michigan
 Model..... Hy Torq MY-T4

Diameter..... 686mm
 Material..... CuNiBrAl
 Number of blades..... 4
 Speed..... 1,200 rpm
 Fixed/controllable pitch..... Fixed
 Open/nozzled..... Open

Deck machinery:

- Anchor capstan, 24VDC Maxwell VW2500

Bridge electronics (make/model):

Radar(s)..... Samyung SMR-3700
 GMDSS..... MMSI 770576521 - Call signal CXCP - AIS Samyung SI - 70A
 GPS..... Koden KGP-913 MKII
 Chart plotter..... Samyung NAVIS-5100 plotter/GPS/echosounder
 Engine monitoring system..... Yanmar - ZF Microcommander
 Fire detection system..... Tecnimar

Other communication systems:

- VHF ICOM IC-M 330 (2)
 - BLU Samyung SRG-3150

Onboard capacities:

Fuel oil..... 5.2m³
 Fresh water..... 0.35m³
 Sullage..... 0.35m³
 Ballast water..... 1.8m³
 Other capacities..... Oily water tank, 0.35m³

Complement:

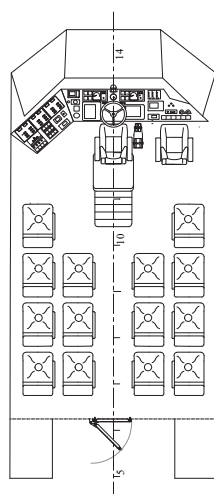
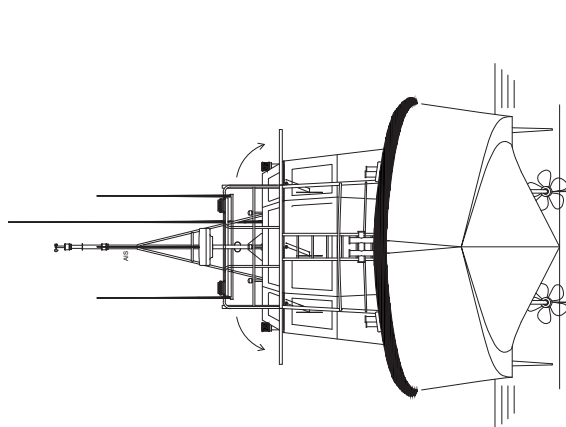
Number of crew..... 2
 Number of passengers..... 14
 Number of cabins..... 1

Classification:

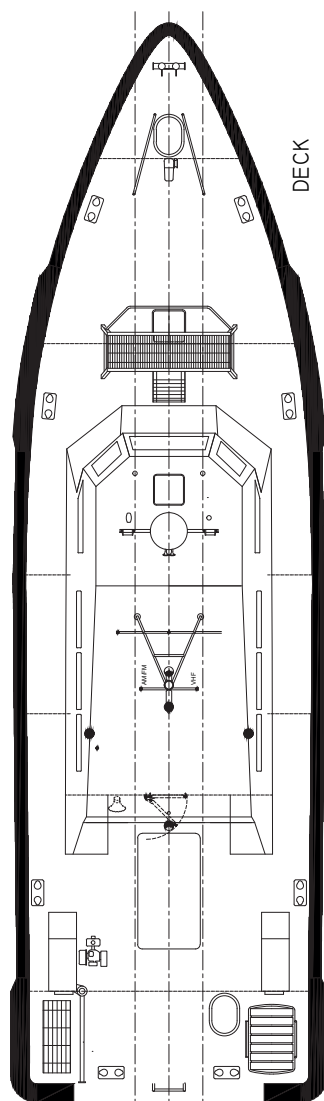
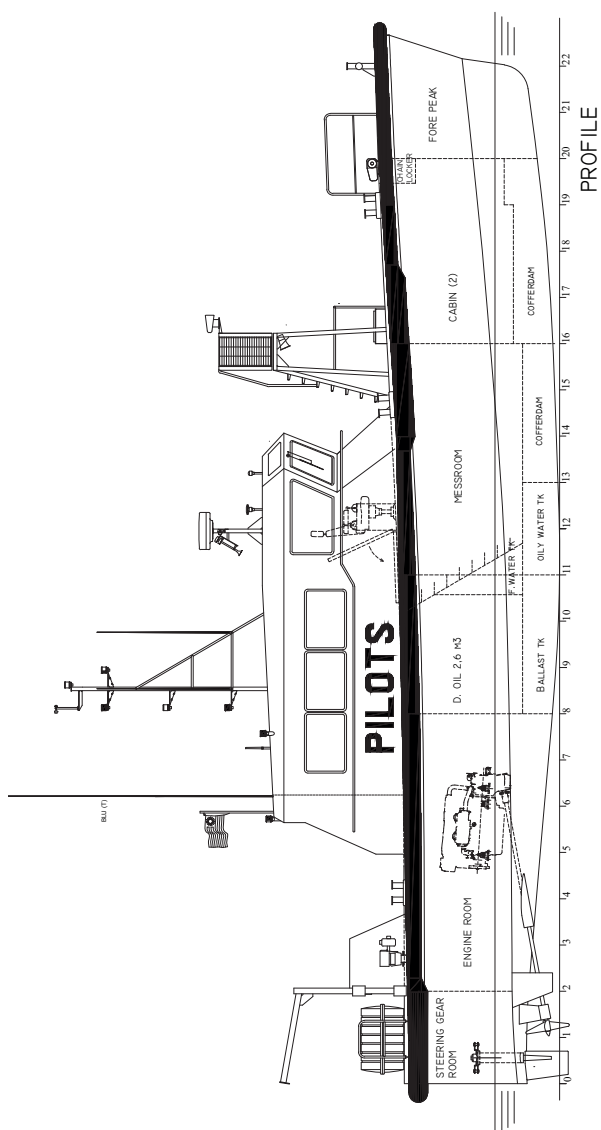
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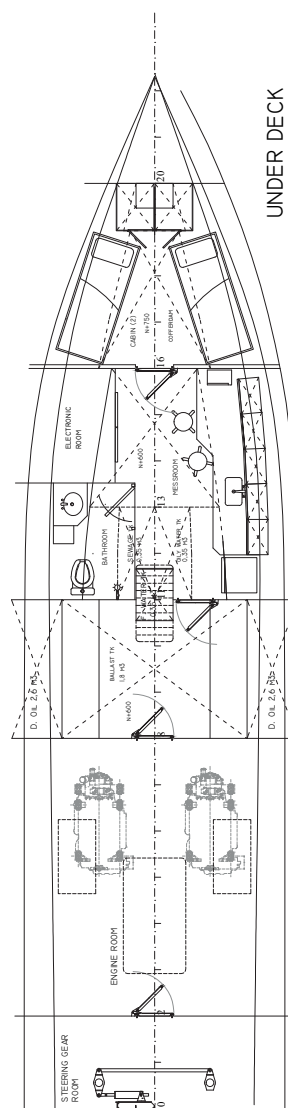
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