

XIN MING ZHU XXX – Hybrid-powered passenger ferry for Hong Kong



Shipbuilder:.....**Afai Southern Shipyard (Panyu Guangzhou)**
 Designer:.....**Incat Crowther**
 Vessel's name:.....**Xin Ming Zhu XXX**
 Owner/Operator:.....**Sun Ferry Services Company Limited**
 Country:.....**China**
 Flag:.....**China/Hong Kong**
 Total number of sister ships already completed:.....**0**
 Total number of sister ships still on order:.....**0**
 Contract date:.....**July 2022**
 Delivery date:.....**July 2024**

Xin Ming Zhu XXX is a 300-pax aluminium fast ferry, forming part of the Hong Kong Government's Vessel Subsidy Scheme (VSS), which was created with the aim of improving fleet quality and promoting environmental protection. After delivery, this batch of newbuilds will operate around the Hong Kong area, covering routes across the Central and Cheung Chau areas, and linking the outlying islands.

The ferry has been fitted with diesel-electric propulsion, and the designer, Incat Crowther, selected a catamaran hullform, which, AFAl Shipyard says, can reduce the overall resistance by 4%; increase the speed from 0.5-0.75knots; and improve seakeeping performance by 23%, effectively reducing seasickness and bring more comfort to the passengers. AFAl Shipyard says: "Xin Ming Zhu XXX can achieve a safe and reliable operation under bad weather during Grade 8 strong winds."

Xin Ming Zhu XXX is also equipped with a selective catalytic reduction (SCR) system for IMO Tier III emissions compliance. As another environmental bonus, the vessel incorporates 32kWh of battery power for

electric operations when docked, to further reduce fuel consumption. Additionally, the vessel has been fitted with 72 solar panels, and these provide 7.5kW of onboard power.

The ferry's main deck includes seating for 171 passengers, dedicated areas for pets and designated wheelchair spaces. Incat Crowther says: "Large windows and ergonomic seating allow passengers to enjoy uninterrupted views of the islands. Ample luggage storage is integrated throughout, including a 6m² cargo area centrally positioned for convenience."

The delivery of Xin Ming Zhu XXX follows the delivery of two 45m-long, conventional diesel-powered vessels to Sun Ferry. The final three vessels, all 45m units, also designed by Incat Crowther and built by AFAl Shipyard, will be delivered by the end of 2025.

TECHNICAL PARTICULARS

Length, oa.....34.73m
 Length, bp.....34.6m
 Breadth, moulded.....9.7m
 Depth, moulded.....3.35m
 Gross tonnage.....462
 Displacement.....171.9tonnes
 Design, draught.....1.28m
 Design, deadweight.....38.6tonnes
 Lightweight.....133.3tonnes
 Service speed.....14knots@85% MCR

Main engines:
 Number of engines.....4
 Make.....Volvo
 Model.....CCFJ420J
 Output of each engine.....420kW@1,500rpm

Gearboxes
 Number of gearboxes.....2
 Make.....Ramme
 Model.....HW500_L_500_1200_400

Output speed.....500kW@1,200rpm

Waterjets
 Number.....2
 Make.....Veth
 Model.....VL450si-CR
 Output.....500kW

Deck machinery
 Winch(es):
 Number of winches.....1
 Make.....Hangzhou Botu Marine
 Model.....DB10-10
 Capacities.....140m anchor line
 12.5m of 16mm anchor chain

Other deck machinery/equipment:
 - Capstan

Bridge electronics:
 Radar(s).....Konden MDC-7925P
 Autopilot.....Samyung SI-70A
 GMDSS.....Sailor 6103
 GPS.....Simrad MX575D+P3007
 Chart plotter.....HM-5817
 Engine monitoring system.....Vingtor
 Fire detection system.....Consilium Safety

Onboard capacities:
 Fuel oil.....2 x 2,400litres
 Fresh water.....1 x 1,000litres
 Sullage.....1 x 1,000litres
 Ballast water.....2 x 500litres

Complement:
 Number of crew.....3
 Number of passengers.....300
 Number of cabins.....4

Classification
 Classification society.....CCS
 Notations.....CSA Passenger Ship,
 Catamaran, R2(D),
 CSM Electrical Propulsion System

OUTBOARD PROFILE

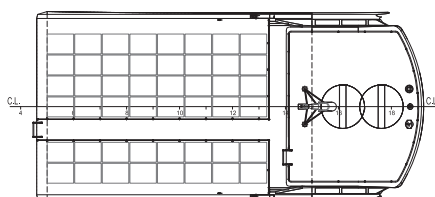
Vertical dimensions (mm): 2500, 1500, 2500, 3350, 1280, 720.

Deck levels: WH ROOF, ROOF, WH DECK, UPPER DECK, MAIN DECK, DWL (Design Water Line), UNDERSIDE SKEG.

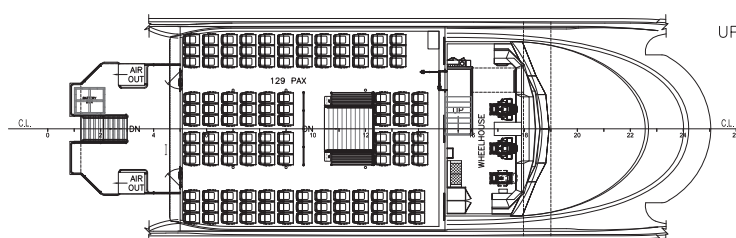
Structural details: SOLAR PANELS ON ROOF, AIR OUT, UREA 1&3, UREA 2&4, L.B.O. (Low Blow Oil), BLACK WATER PT. FRESH WATER STRB.

Equipment: WH (Water Heaters), AIR OUT, UREA (Urea Tanks), L.B.O. (Low Blow Oil), BLACK WATER PT. (Black Water Port), FRESH WATER STRB. (Fresh Water Strainer).

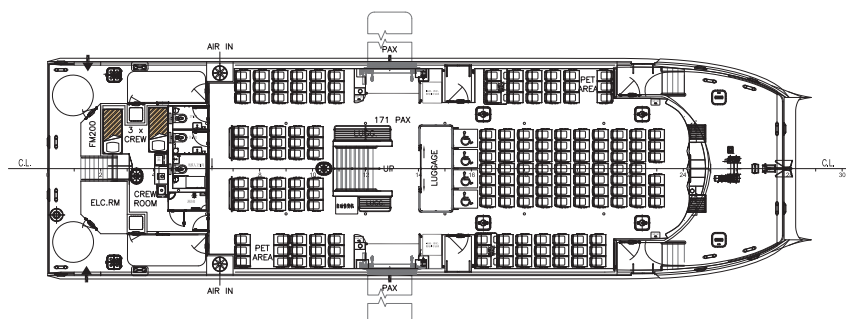
側視圖
OUTBOARD PROFILE



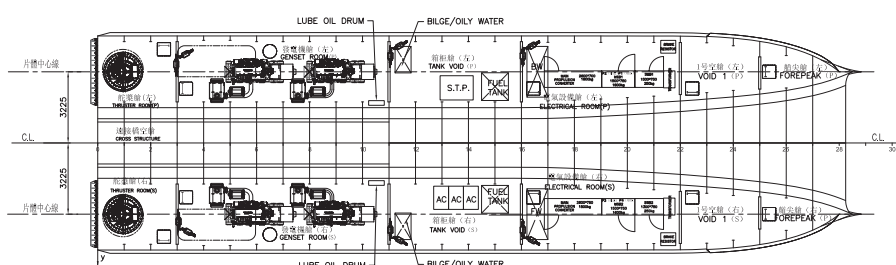
頂甲板&駕駛頂甲板
ROOF DECK&WH ROOF



上甲板&駕駛甲板
UPPER DECK&WH DECK

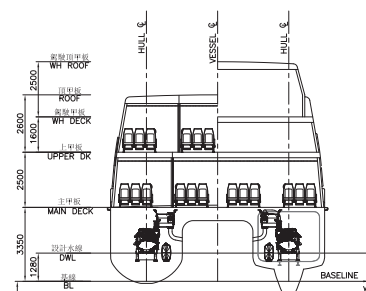


主甲板
MAIN DECK



底艙
HULL DECK

主尺度參數
SPECIFICATION



典型横剖面
TYPICAL SECTION

OVERALL LENGTH:	34.73m
LENGTH:	33.05m
BEAM (CROSS SPONSION):	3.25m
DEPTH:	9.70m
FRAME SPACING:	1.2m
PASSENGERS:	300
CREW:	5
FUEL OIL:	2x2400 litres
FRESH WATER:	1x1000 litres
BLACK WATER:	1x1000 litres
BILGE/OILY WATER:	2x1000 litres
WATER:	4x1600 litres
MACHINERY:	DIESEL-ELECTRIC
PROPULSION SET:	4 x VOLVO C24-400
	4 x 500 kW 420 rpm 1500 rpm
	4 x RAME WPSOL 400 1200 rpm
4-MOTOR:	2 x 500HW @ 1200 rpm
	2 x VETH W450ai-CR
	2 x 500kW
NAVIGATION ZONE:	R2
PROPULSION ZONE:	14kn VETHSMCR PROPULSION MOTOR
NAVIGATION WATER:	Hong Kong
CLASS:	*CSA Passenger Ship, Catamaran, R20
	*CSA Electrical Propulsion

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日期 時間	日期	星期	時間	日期 時間	日期
	2002.06.24	2002.06.25			2002.06.25
日期 時間	日期	星期	時間	日期 時間	日期
	2002.06.26	2002.06.27			2002.06.27
日期 時間	日期	星期	時間	日期 時間	日期
	2002.06.28	2002.06.29			2002.06.29

總有國圖

GENERAL ARRANGEMENT

MP3/MP4 封套 雙面 雙面 雙面 雙面 雙面 雙面

5200

第 1 頁 共 4 頁