

# AluminumNow Ltd.

Commercial, Yacht & Military Construction in Aluminum, Steel or Composite  
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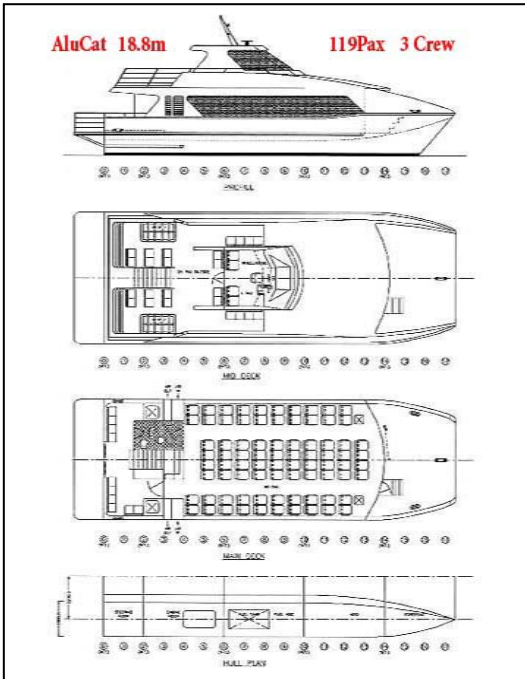
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## 18.80m Aluminium 119 Passenger Catamaran



- ✚ L.O.A: 18.80 Meter
- ✚ Beam: 6.20 Meter
- ✚ Beam Hull: 1.80 Meter
- ✚ Draft: 1.27 Meter
- ✚ Fuel Capacity: 2500 Litres
- ✚ Fresh Water: 300 Litres
- ✚ Black Water: 250 Litres
- ✚ Dead Weight Tonnage: 15.00 Tonnes
- ✚ Engines: X 2 – Heavy Duty FPT C78 ENT M55  
500HP @ 2600 RPM or Client Preference
- ✚ Shaft Drive with Fixed Pitch Propellers
- ✚ Speed : 30 Knots
- ✚ Passenger Capacity : 119 + 3 Crew
- ✚ Built To Lloyds & MCA Code of Practice
- ✚ Construction Material : 5083 Marine Grade Aluminium
- ✚ Full Navigation & Safety Equipment (As to MCA Code)
- ✚ Build Time 24 Weeks(Once kit is cut & Deposit paid)

Price from €894,000 Euros



**18.80 Meter Aluminium Catamaran Fast Ferry**

Built to Lloyds & MCA Specifications or as required

Build Time 14 weeks (once kit is cut) subject to Material and Equipment availability

Price from €894,000 Euros + Delivery

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## 1 General

### *Description Main Particulars*

#### *1.2 Principal dimensions*

LOA(excluding fenders and docking bow)	approx. 18.80 m
Beam (excluding fenders)	approx. 6.20 m
Draft aft (max including stern gear)	approx. 1.00 m
Air Draft	approx. 7.00 m
Crew	3
Passengers	119
Weight tonnes	(T.B.C During Build)

### **1.3 Propulsion**

The vessel is driven by 2 x FTP C78 ENT M55 500HP @ 2600 RPM with Shaft Drive and 4 bladed fixed pitch propellers. The engines are sea water cooled and may be removed via two large inspection hatches on the aft deck.

### **1.4 Tank capacities**

Please see General Arrangement Plan for tank layout

Fuel oil	approx. 2,500 litres (fuel not included)
Fresh water	approx. 300 litres
Black water tank	250 litres

### **1.5 Vessel layout**

Each hull is sub-divided in to 4 watertight compartments: -

- Engine room
- Tank room
- Accommodation
- Fore peak (collision bulkhead)

### **1.6 Modifications**

The Builder is at liberty to modify constructions and/or designs, provided such modifications do not affect the specification's object.

### **1.7 Owner's supply**

Where the Owner supplies his own components, equipment and/or any other materials, which are to be incorporated in the vessel, the additional costs for bringing these on board and/or for their installation, are not included in this specification.

### **1.8 Documents supplied with vessel**

The following documents (but not limited to) will be supplied with the vessel on delivery: -

1. Builder's certificate
2. Compliance certificate (SCV2)
3. Stability booklet
4. General Arrangement drawings
5. Electrical circuit diagrams
6. Hydraulic system diagram and schematic
7. Manuals relating to onboard equipment
8. Engine/gearbox manuals
9. Compass deviation card
10. Piping diagram.

N.B. The vessel can be supplied with an electronic Operations and Maintenance Manuals at an additional extra cost. Please ask for details.

### **1.9 Labels**

Identification labels are fitted at all relevant pipelines, deck equipment, deck fittings, valves, switches and control equipment to comply with MCA Code of Practice.

### **1.10 Certification and Survey**

The Vessel is built under survey by Lloyds, MCA Code of Practice

### **1.11 Trials and supervision**

All work and equipment on the vessel will be tested in the United Kingdom for suitability, performance and workmanship for the intended purpose. The Builder will furnish all consumables that are necessary for tests and trials including fuel and lubes.

A table of results for all tests will be supplied with the vessel.

### **1.12 Testing equipment and systems**

1. Anchor equipment
2. Windows, watertight doors and hatches will be pressure hose tested
3. Navigation and electronic communications equipment
4. A.C. and D.C. Electrical systems
5. Hydraulic systems
6. Bilges system
7. Fresh water system
8. Waste water system
9. Ventilation system
10. Lighting system
11. Heating system

### **1.13 Sea trials**

The Builder's trials are carried out on completion of the vessel in Dartmouth, United Kingdom. The engine manufacturer's engineer will be in attendance.

The sea trials include:

- 1 Speed trials over a measure mile to establish top speed
- 2 Manoeuvring trials for main steering and standby systems
- 3 Systems trials for all installed machinery and equipment
- 4 Endurance trial to run the vessel over a number of conditions for a time to exceed 4 hours
- 5 Compass adjustment
- 6 Noise measurements will be taken at maximum RPM at the following positions: -
  - Main wheelhouse helm position
  - Lower accommodation
  - Aft Deck
- 7 All trials are to be carried out with validation by the engine manufacturer's engineer the trial condition shall be with full tanks at commencement and full crew complement.
- 8 After final inspection and satisfactory trials, the Owner and/or his representative shall acknowledge, in writing, his acceptance of the vessel as concerns its construction, workmanship, arrangement, machinery, equipment, etc., and his technical acceptance shall be at the Builder's Yard. The vessel will not be deemed to be „handed over“ until all documentation listed in this specification is complete and submitted to the owner.

### **1.14 Vessel Registration**

The Owner(s) shall register the Vessel at their own cost and expense.

### **1.16 Manufacturing and equipment quality and specification**

The workmanship and general manufacturing will be of high standards as applicable by the Builder's quality procedures. In practice this means smooth finishes, neat welding and quality fitments throughout. All materials and equipment used in the construction will be new and of high marine quality. Manufacturers' names may be used in this specification to describe the quality standard of equipment. The Builder reserves the right to substitute other manufacturers' equipment to the same standard and quality.

### **1.17 Delivery**

The vessel will be delivered to Dartmouth UK for owner collection complete with the equipment and manuals to the specification and contract.

## **2. Hull and Superstructure**

### **2.1 Materials**

Aluminium Marine grade light alloy (aluminium) type.

Plating: AA 5083

Extrusions: AA 6082 or AA 6060

Stainless steel Stainless steel type A4 316 is used unless otherwise mentioned

### **2.2 Hull**

The hulls are a deep V design with spray chines, and tunnels to increase the overall efficiency of the vessel in terms of outright performance, stability and fuel consumption.

A sea chest is fitted to the bottom of each hull. Each inlet box has a flush mounted removable cover for inspection and cleaning.

### **2.3 Superstructure**

The aluminium wheelhouse is welded to the hull and is well braced.

The wheelhouse has an aluminium access door to the rear and a door to the starboard & Portside side.

### **2.4 Hatches and Emergency escape**

- 1 Entry to the engine spaces is gained through aluminium doors located on either side of the wheelhouse aft bulkhead.
- 2 There is an emergency escape hatch from each engine space on raised comings located on the aft deck as per GA drawing.
- 3 Engine removal or service is via two fitted aluminium watertight hatches one starboard; one port side flush with the aft deck.
- 4 An aluminium fore peak hatch fitted flush to the fore deck houses the main anchor and chain.
- 5 Emergency escape from accommodation is via a watertight escape hatch on the foredeck.

### **2.6 Watertight doors**

Watertight doors are manufactured of aluminium plate with hinges and handles to Sea Fish approval. These are located as per the GA drawing, to both port and starboard hulls in Engine/tank room

### **2.7 Windows**

- 1 All windows conform to ISO 12216 for window strength and tightness requirements for commercial vessels up to 24m.
- 2 All windows are in tinted glass except the front windows which are clear.
- 3 Please see General Arrangement Plan for window layout
- 4 Screen wipers - Electrical (24V) pantograph screen wipers/washers are fitted on front windows (3) of helm position with synchronized switch panel in dashboard.
- 5 Window in toilet/shower is frosted glass with opener.
- 6 Two opening windows, one each to port and starboard side in the Flybridge helm section.

### **2.8 Stairs, ladders and handrails**

- 1 The engine room ladders are integral to the aft wheelhouse bulkhead and are manufactured of heavy duty aluminium tube.
- 2 The accommodation steps to the lower cabins & Passengers Heads are integral to the forward bulkhead and are manufactured in aluminium. There is a gate at the top of each staircase.
- 3 A fixed ladder is located on the forward watertight bulkheads in each hull to facilitate emergency escape through hatch on foredeck from lower accommodation cabins.
- 4 There are 3 steps to the foredeck on the port and starboard side of the wheelhouse.
- 5 Handrails are manufactured of heavy duty, aluminium tube and located around the vessel as per the GA drawing. There are built in access ladders to port and starboard sides of the vessel.

## **2.9 Fenders**

For the general arrangement of fenders refer to the GA drawing

- 1 A heavy duty D-fendering 150mm x 150mm x 35mm (wall thickness) will run continuously around the vessel at the weather deck height. This will be attached to the vessel within an aluminium channel section stitch welded to the side of the vessel. The Defender will locate in this channel and will be drilled and pinned vertically using aluminium bar.
- 2 Shipbuilders standard vertical fendering suitable for forward docking access will be fitted to the bow .

## **2.10 Bollards**

8 heavy duty double bollards will be positioned around the vessel to provide for mooring and spring requirements.

## **2.11 Lifting lugs**

Four lifting lugs are incorporated into the hull to provide for dry docking and shipping purposes.

## **2.12 Mast**

A single fixed mast is fitted to carry mast head, anchor lights and other appropriate navigation sensors, lights and shapes.

## **2.14 Markings hull and superstructure**

- 1 Vinyl characters will be applied for the name and port of registry on the stern.
- 2 Draught marks are welded and painted on the outsides of the bow and stern of both hulls.
- 3 A black load line mark will be positioned on both port and starboard sides of the vessel in accordance with the vessel's stability booklet.

## **2.15 Painting, deck covering and anti-foul**

The painting scheme and anti-fouling, including all preparation will be carried out as recommended by a reputable marine paint manufacturer.

- 1 The lower hull below the water line to be painted with the paint suppliers standard anti-foul paint (colour tba).
- 2 The main wheelhouse will be in white with an orange top rim.
- 3 The wheelhouse roof will painted white.
- 4 All deck areas will be in a non-slip grey finish. .
- 5 The hull will be painted in one colour tba.
- 6 The mast, internal bulwarks and handrails will be painted white.

## **2.16 Cathodic protection**

Cathodic anode protection for all hull parts including propellers, shafts and below water skin fittings: -

- 1 The number and type of anodes are suited for one year operational use in UK waters.
- 2 Anodes are fixed to the hull on either doubling pates or raised mounts welded to the hull to minimize hull penetration and facilitate replacement whilst afloat.

# **3. Propulsion and steering**

## **3.1 Main engines**

FPT C79 ENT M55 500HP @ 2600 RPM  
Twin Disc MGX 5114 Remote Vee 1.48:1 gearboxes (T.B.C)  
Twin Shaft Drive with fixed pitch 4 bladed propellers

### **3.2 Main engine speed and gearbox control**

Quick shift EC300 electronic gear and throttle controls.

### **3.4 Steering system**

- 1 Hypro Char-Lynn Power Helm 145cc series 6 with Edson wheel and power knob.
- 2 Powered hydraulic steering pumps fitted to both main engines power the hydraulic steering system, providing back up should one engine fail.

## **4. Primary ship systems**

### **4.1 Bilge and general service system**

- A separate electric pump is able to draw water from a filtered sea water supply to provide water for a fire and deck wash main.
- A whale gusher 90 manual bilge pump is fitted in each engine space.
- 3 x KPM predator 24 volt electric bilge pumps in each hull, one in each water tight compartment with a 200 litre per minute capability.

### **4.2 Diesel fuel system**

- Fuel tanks are of aluminium construction and independent of the main hull. Each engine is supplied by its own dedicated tank. The tanks are well baffled and have 3 inspection panels fitted in each tank.
- Fuel is supplied to the main engines from the fuel storage tanks via Racor Duplex 75/1000 max water separator filters with remote shut off valves. Flexible piping is used for all fuel supply to the engines.
- Fuel tanks are fitted with electrical gauges to the main helm position.
- Fuel tanks are filled from stand pipes on the deck located within bonded 10 compartments to prevent spillage of fuel overboard in the event of spillage or over filling.
- Fuel tank breathers are located within the bonded compartments and provided with shut offs.
- Fuel tanks are pressure tested prior to fitting (copy of test certificate supplied in documentation)
- A fuel transfer pump links the port and starboard tanks.
- Fuel for 11kW generator (5.2.1) is drawn from the main tank with its own separate filter system.

### **4.3 Cooling water system**

Each engine is separately served by its own filtered sea water connection for cooling purposes via a sea chest.

Additional inlets for ancillary equipment are also taken from the chest with manual shut offs provided.

### **4.4 Fresh water system**

- 1 1 x 300 litre freshwater tank provides fresh water storage and is filled via a stand pipe on the deck. This tank is connected to a 24V pressurized water system where opening of any tap activates the pump.
- 2 Hot water is provided by a calorifier connected to the starboard engine cooling system, Webasto heating system and with internal electric immersion heater.
- 3 The galley is provided with a stainless sink unit and hot + cold water tap.
- 4 The heads is provided with a washbasin and shower with hot + cold water.

### **4.5 Black water system**

The manual toilet is connected to a divert valve for either direct overboard discharge or to a black water tank (250 litres). This can be discharged overboard via a waste transfer pump when appropriate or to a shore facility.

Controls and level gauges are fitted to the main control panel.

A discharge point is provided on the deck.

## **4.6 Ventilation**

- 1 The engine room is provided with natural and forced ventilation.
- 2 Natural ventilation is provided via two air intake ducts built in to the forward engine room access hatches, fitted with spray arresters and fire flaps.
- 3 Forced ventilation/extraction is provided by electric fans (reversible) located in the aft engine room escape hatches with spray arresters and fire flaps.
- 4 The tank rooms and cabins have natural ventilation provided through swan neck vents on the deck above with closures.
- 5 The heads have a 240V extraction fan fitted which will activate with the light switch located in the heads.
- 6 The galley is fitted with a 240V extractor fan above the cooker with localized switching.

## **4.7 Exhaust system**

### **4.7.1 Main engine exhausts**

- a) The exhausts of the main engines are seawater cooled and manufactured of approved rubber hoses. Stainless steel water injection pipes are fitted at the engine manifolds.
- b) The exhausts have an overboard connection at the transom with a stainless steel non-return flap and are fitted in accordance with engine and exhaust manufacturers recommendations.
- c) The exhausts are fitted with dual chamber water lift silencers.
- d) The exhaust discharges are located at the stern.

### **4.7.1 Generator Exhausts**

The exhausts of the generator engines are of similar design to the main engine exhaust systems.

## **5. Electric installation**

### **5.1 General description**

The design and layout of the electric system, the materials, installation and testing meet the MCA standards. All electric cables and materials are suited for marine application and are in accordance with the requirements for the safe and efficient operation of the vessel. All electric equipment, which function or application is not evident, shall be provided with notices.

The following networks are installed: -

1. 12 & 24V network
2. A 240V power network via shore supply
3. A 240V via generator

### **5.2 Power generating and distribution systems**

1. Beta Marine 11KW Generator
2. Alternators 24V
3. The main engines are fitted with 24V alternator units (engine maker supplied charging 4 x 12V batteries each, linked in series to provide a split 24V system, starter batteries/boat load batteries. 24 volt electrical power for engine starting, wheelhouse navigation equipment and emergency lighting is supplied from battery sets housed in the engine space and appropriately ventilated. Essential/emergency services are distributed through a separate board for automatic operation of communications.
4. Shore power connection

### **5.3 Lighting and Sockets**

1. Search light (Jabsco) x 1 and 4 good quality deck lights (Aqua Signal Series 80 Flood Lamps) suitably distributed.

2. The switches are located at the helm in a light switch console with all other lighting circuits that need to be controlled from the main helm to avoid interference with visibility when navigating during the hours of darkness.
3. The wheelhouse is lit by multi function LED lights giving both red and white light function.
  - Main wheelhouse 32 x LED Downlights
  - Flybridge helm 6 x LED Downlights (red/white)
  - Heads 2 x downlights
  - Cabins & crew area 2 x downlights (each side)
  - Reading light x 4 (one in each berth)
  - Engine & tank room 8 x lights
4. Engine space and other compartment lighting are switched near the compartment entrances.
5. Navigation lights are supplied from the 24V system and switched from the helm console and suitable for the length of vessel. The external fittings are connected through watertight plugs and sockets and are as follows: -
  - One(1) Masthead light
  - One(1) each Port and Starboard light
  - One(1) Stern light
  - One(1) Anchor light
6. Four(4) deck floodlights
7. One(1) remote electric control search light
8. One(1)1 NUC signals
9. One(1) restricted manoeuvrability signals
10. A number of sockets with an output of 240V are fitted in the wheelhouse and cabins: -
11. Two(2) x 1 double socket port and starboard in wheelhouse
12. Two(2) x 1 double socket in galley
13. One(1) x 1 double socket in each cabin
14. One(1)1 double socket by helm
15. 12v battery socket x 1

## ***5.4 Alarm installation***

The alarms of the diesel engines and others are displayed on the main dashboard. Each alarm has an indicator light and acoustic signal.

Other alarms include: -

1. High bilge water level alarm in each watertight compartment.
2. Smoke detection in engine room and accommodation
3. Heat detection in engine room
4. Auxiliary generator provided with manufacturer's alarm system

## **6. Deck equipment**

### ***6.1 Anchor equipment***

The anchor equipment and installation is in accordance with MCA Code of Practice, Category 2, 60 miles from safe haven

Electric windlass  
Bow roller.

### ***6.2 Mooring equipment***

- 1 Four(4)x 20m x 16mm diameter mooring lines are provided.
- 2 Five(5) x Fenders

### ***6.3 Life saving appliances***

The vessel is supplied with certified LSA equipment to meet MCA Code of Practice, Excludes liferaft(s)

## **7. Auxiliary systems**

### **7.1 Fire Prevention, Detection and Extinction**

- The vessel is fitted with a FirePro Fire system comprising of 4 x statx units @ 24 cubic metres each, 2 x control panel, 2 x thermal sensors (built in), 2 x smoke detectors, 2 x heat detectors and 2 x sounder beacons
- A separate electric pump is able to draw water from a filtered sea water supply to provide water for a fire and deck wash main.
- The engine room is lined with both acoustic and fireproof material to the underside of the decks, main bulkheads, bulkhead sides to 300mm below water level and wheelhouse bulkhead in air intake/access to engine/tank room.

## **8. Arrangement of service and living areas**

### **8.1 General**

The layout of the accommodation, wheelhouse is as shown on the General Arrangement Plan. All walls, ceilings and surfaces are of smooth, wipe clean or carpet finish. Floors are rubber mat.

### **8.2 Wheelhouse arrangement**

- Access to the main wheelhouse is from the aft deck through the main rear wheelhouse door, there is also side doors to port & starboard sides.
- There are steps port and starboard leading to the crew cabins below.
- There is a heads with manual toilet, wash basin and shower unit with hot and cold water. There is a frosted opening window and access door to main wheelhouse.
- The Galley is located to the rear of the wheelhouse and contains a sink and drainer with hot and cold water, worktop, electric hob (including fiddle rails) and built in oven, full size fridge and cupboard space.
- Free standing microwave
- Seating area as per GA drawing.
- Flybridge helm position with sprung helm seat.
- Passenger seating in main wheelhouse
- The seating area will accommodate 100 passengers in individual sprung “Air Craft Style “ seats with seat belts, head and armrests.
- The seats are bolted to the deck ,Further seating area of 19 G.R.P Seats located on the stern deck.

### **8.5 Crew accommodation**

- Two standard berths (2ft 6”) in each cabin with mattresses. Forward storage area to each cabin.
- Reading light above each berth

### **8.6 Engine room arrangement**

- Chequered aluminium floor plates are fitted in the engine room.
- Aluminium hand rails around engines and protective guards over exposed shafts and belts.

### **8.7 Insulation**

High density insulation to aluminium walls and ceilings in all main accommodation/cabin areas providing both thermal and acoustic insulation.

### **8.8 Heating**

- Webasto Thermo 90ST Marine diesel heater system for hot water
- Four(4) x Kalori Alize FAI matrix heater 3.8kw (main wheelhouse and bunk heating)
- One(1) x Kalori Compact D4 matrix heater 4.3kw (windscreen demist)

## 9. Navigation and communication equipment

Quantity	Unit	Part No	Description
2	Each	705-E52067	Raymarine Radome 4kw 24"
1	Each	330-M31LI	Icom IC-M31 handheld
1	Each	330-M505	Icom IC-M505 Fixed vhf
1	Each	330-MB75	Flush mount kit for IC-M505
2	Each	166-P110	Eagle Loudhailer 30watts
2	Each	345-SS1P	Plastic Deck Gland for above 4mm-9mm
1	Each	599-LV25	2.5mtr Pacific long reach vhf antenna white c/w 6m cable
1	Each	599-LDMS	Stainless antenna mount
1	Each	599-SCE10	VHF Coaxial cable extension X 10mtrs
1	Each	345-SS1 SS	deck gland for above
1	Each	705-E02022	Raymarine C120 12.1" Colour m/f display
1	Each	705-E02013	Raymarine E120 12.1" Colour m/f display
1	Each	705-E66080	Raymarine SS560 st.stl transducer & fairing
1	Each	705-E63069	Raymarine DSM300 Digital echo sounder unit
1	Each	792-ORI241220000	Orion DC Converter 24-12volts 20amp
2	Each	240-GOLD-XL3	Navionic XL3 Gold Navigation Chart UK/Ireland
3	Each	705-E32042	Raystar 125
1	Each		Icom M401 Fixed VHF c/w MD20 Antenna
1	Each	119-CSB200/AG	AIS class B transponder c/w 1m cables
1	Each	T his package includes	AG100 GPS pole mount unit c/w 10m cable
1	Each	818-AIS-MAST	V-Tronix AIS whip Antenna c/w 20mtrs RG58 cable
1	Each	818-ACC154 BNC	Plug for above RG58 cable (change end)
1	Each	705-E12092	Raymarine S3G hydraulic pack-gyro 12v/24v
1	Each	705-M81124	Raymarine Hydraulic Pump 24v Type3
1	Each	705-E12183	Raymarine Control Head Display ST8002

### NOTE:

**Where makes and models of machinery and equipment have been specified, these are indicative and can be substituted by equivalents according to the preferences of the purchaser or availability.**