

Naval Yachts

Hull Number : XPM85_01

TECHNICAL SPECIFICATION

for:

Prepared by:
Naval Yachts Co. Antalya

TECHNICAL SPECIFICATIONS

I . MAIN DIMENSIONS OF VESSEL

Length Overall (LOA):	26.00 m
Beam Overall	6.40m
Draft (Full Fuel Load)	1.60 m
Displacement (Light Load)	Approx. 58 metric Tons
Fuel capacity	17.000 litres total/incl. Day Tank
Water capacity	7.800 litres
Black & Grey water capacity	2.000 lt.

I . 1 MAIN INFORMATION

I.1.1 Authorities

- The yard for this project is to be Naval Yachts Co. (NVL Denizcilik Muh Gemi İmalati Ltd. Sti), referred to as “Builder”.
- The designer; Dennis Harjamaa, Artnautica Yacht Design Ltd., Auckland NZ, herein referred to as “Designer”

I.1.2 Classification, Standards of Construction and Performance

- The yacht shall be designed and built in accordance with the requirements to obtain:
- CE, A Class Open Ocean yacht compliance classification.
- Full Speed of the yacht at light load, on flat water, wind force: 0 and wind speed: 0-1 knots and with max. 5 people on board is calculated as follows:
- 14 knots and with 2 x 300HP Scania Engines.
- The range of the yacht with half fuel tanks (average) and rest of the tanks empty, on flat water, wind force: 0 and wind speed: 0-1 knots, no currency and with max. 5 people on board is calculated as follows:
- @8 knots: 6.000 NM.

I.1.3 Delivery of Yacht

Yacht will be fully completed and ready for Sea Trials within 13 months.

II . STEERING

II . 1 GENERAL

Steering system shall be Wills Ridley or Kobelt

Rudder angle shall be capable of safely turning through +/-40 degrees to each side for a total rotation of 80 degrees in min. 14 seconds with both pumps operating.

The boat shall have one Helm Station; helm station located on the Flybridge.

All steering gear shall be hydraulic based and controlled by electronic control stations at the Flybridge Helm. Steering shall have a total of four methods of being controlled in the following priority:

- Primary via the Furuno Auto Pilot system from helm station.
- Electric Full Follow Up Knob (Wills Ridley)
- Manual hydraulic steering pump & steering wheel (Wills Ridley) at helm station.
- Emergency tiller mounted to tiller arm atop rudder post.

II . 2 WIRELESS REMOTE CONTROLLER (OPTIONAL)

Builder will fit a remote wireless Dockmate Brand Controller.

III . PROPULSION

III . 1 MAIN ENGINE

- Make: SCANIA twin engine set up
- Model: D109 70M, 9.3 liters
- Rating: 300HP @ 1800 RPM

Diesel engine shall be installed by the Builder with wet exhaust system as per the Designer's specifications and drawings.

Engine mounts will be supplied by the Builder to attach to engine beds in hull.

Engine mounts shall be capable of supporting all propulsion equipment in the occasion the vessel becomes inverted (rollover)

Engine mount system will ensure that the engine remains fully electrically isolated from the hull

2x NOGVA marine gearbox type HC-168 with reduction ratio 2,95:1

PTI part has been installed on the gearbox.

The gearbox will be delivered with built-in servomechanism and shaftbrake. Oil-cooler.

III . 2 PROPELLER AND DRIVE LINE

Builder shall fit propeller, bearings, rope cutter, shafts, couplings, anodes and seals.

2x NOGVA marine gearbox type HC-168 with reduction ratio 2,95:1

2x NOGVA 4-blade controllable pitch propeller type N4-215 with propeller diameter 975 mm. Propeller shaft Ø65 x 2500 mm. Water lubricated bearing and flexible stuffingbox. Alu. water lubricated Stern tube 1000 mm included. Shaft-flange.

III . 3 BOW & STERN THRUSTER (STERN THRUSTER OPTIONAL)

A bow tunnel thruster will be supplied and installed by Builder. Bow and stern thruster brands are Sleipner. Stern thruster shall be retractable, Sleipner ERV300 eVision retract thruster. Bow thruster shall be fixed type, Sleipner E300 eVision. Both thrusters will be 48V. A separate AGM battery package will be installed for bow&stern thruster. 200A x 48V 4 pcs. each zone. A waterproof hatch shall be installed on the swim platform for stern thruster access. The separate AGM battery package shall be in the lazarette or swim platform for stern thruster. The AGM batteries for the bow thruster shall be in the forepeak.

III . 4 ACTIVE STABILIZERS

A stabiliser system shall be supplied and installed by the builder. The brand: Humphree. Fin size: 1 sqm. System to be fitted in to the hull per manufacturer guidelines preferably towards the stern within the engine room space.

IV . SYSTEM

IV . 1 GENERAL

Simplicity of all different systems as well as for the whole technical installation is of utmost importance. Where possible, the builder will use similar equipment in the different systems, in order to have interchangeable parts. Pump capacities and pipe diameters will be calculated by the Builder and be ample in pressure and flow for all systems throughout the vessel.

Manufacturer's recommendations concerning the installation of the equipment will be observed.

All systems planning must understand that this boat will be a battery based. The primary voltages will be 24v DC and 220/240v AC.

IV .1.1 Engine Room and technical room General

The conditions 'Engine Room and technical room General' are used throughout the vessel for the determination and selection of the appropriate equipment, unless otherwise indicated.

All systems will be designed and installed according to CE and MCA regulations.

Accesses to technical room:

- 1- A hatch from saloon floor,
- 2- A watertight door from engine room.

Accesses to engine room:

- 1- A watertight door from technical room,
- 2- A watertight door to lazarette.

Engine Room and technical room area is to be the primary location for equipment.

- Fuel pumps and filters, service tanks
- Water maker, diesel heater, sea water services, boiler
- Hydraulic pumps which are not engine driven
- Technical room area to be primary location for electrical equipment.

IV .1.2 Serviceability of equipment

a) Care will be given to the installation of piping, wiring and equipment to ensure:

- Optimised accessibility for installation and maintenance with thoughtful placement, spacing and location.
- Leave equipment, wiring and hoses exposed with minimal to zero use of cover panels or other coverings

IV .1.3 Integral Hull Tanks

b) Internal tank surfaces shall be left as bare aluminium, no paint or other coverings to be applied. All tanks will be thoroughly cleaned before securing of access ports and filling.

All tanks will be equipped with all necessary plumbing and connections for venting, level control, alarm sensors, level sensors and emptying (holding tanks only).

Venting of all fuel tanks shall enable rapid high volume filling

Each tank will have an electronic sensors connected. The brand is Maretron.

Each tank will have manholes or hand holes for cleaning and inspection, according to the tank size such that all bays in all tanks are accessible for future maintenance.

All tanks are to be tested to a pressure of 0.2 bar for minimum of 12 hours.

IV .1.4 Piping

The location of pipes will be practical for ship's use, not blocking entrances, other equipment etc.

All pipes which travel through bulkheads to be made fully watertight and compliant with CE-A and ABYC standards. All cut outs for the pass through of pipes or wires or cables shall provide generous support surface area where the pipes might touch and be fully secured so as not to move or vibrate when underway. Pipelines are installed as straight as practical reference the X, Y and Z axis of the ship. An exception is those requiring a drop for proper draining or flow. Pipe expansion will be compensated by bends, compensators and flexible connections. Pipes to be mounted without initial tension or stress.

Piping shall be none metallic wherever possible and approved for such. Copper pipe shall not be used.

All, main, potable hot water pipes to be suitably insulated, Oneflex or equivalent.

Flow velocities are related to the clear pipe diameter and are kept to an acceptable minimum to avoid erosion and noise. Pipes will be pressurised tested the Builders standards.

All main valves flanges, connected to inlet boxes and manifolds, will be by means of marine approved marine grade stainless steel bolts.

All pipes to be colour coded, for medium and flow direction, according international practice. Basic material schedule of piping:

- Sea water pipes: AL or Certificated rubber exhaust hoses,
- Submersible Bilge lines: White sanitary hoses or Polypropylene
- Potable water: Polypropylene
- AC circulation pipes: Polypropylene,
- Grey water pipes: UPVC and certified potable water hose
- Black water pipes: UPVC, and certified waste water hose
- Potable Water Filling and Tank vent pipes Certified potable water hose or AL
- Fuel Filling and vent pipes: Certified fuel filling hose or AL
- Fuel pipes and lines: Certified fuel hose

V . ELECTRICAL SYSTEM

V . 1 GENERAL

As with all system components, all electrical equipment to be optimally located and installed for best possible access for installation, maintenance and use.

CE standards will be used as guidelines when designing the electrical system. All cabling used must be marine specification. All electrical equipment, wiring, cables, fixtures and the complete installation to be provided by the Builder in accordance with the Electrical Specification.

The voltages will be 24v DC and 220/240v AC 50Hz.

The house battery banks will be provided with MG Lithium batteries 41 kwh. House batteries will be stored within their own dedicated tray system and secured from damage by inversion. Battery bank will primarily be charged by two sources:

- solar panels mounted as shown in the renders. Brand will be Fly Solartech and the layout of areas shall be sent and supplier fits their product in most efficient way possible.
- Shore power Victron 3600W 115/230v.
- AC power, 230v will be provided by inverters off the House Battery bank.

V . 2 AC/DC ELECTRIC SYSTEM

V .2.1 AC Systems - General

This boat is primarily a “AC Concept battery boat” meaning that the overall design of the AC system needs to be based on the assumption that the primary source of all AC power is the 24V house battery banks via inverters.

Primary source of power to charge the batteries is 12 KW PANDA 15000i PMS IC2 GFK 4DS 230V/50HZ MARIN Genset and the large solar banks.

V .2.2 DC Systems – General

DC electrical system be completely isolated from the hull such that zero current is flowing through any parts of the aluminium hull as measured by an accurate voltmeter reading less than 1.0mv. Primary DC system will be 24 Volts

The hull is to be kept completely isolated from any electrical current and is to be tested with a high accuracy volt meter as noted above.

USB Type C charging port will be installed. 1 pc.control station on flydeck.

220 VAC power outlets are to be provided where specified.

V . 3 BATTERIES & ANODES

V .3.1 Battery Banks – General

- c) Battery bank shall be installed according to the manufacturer’s installation manual.
- d) BMS – Battery Management System

BMS shall be supplied by the manufacturer of the batteries and installed according to manufacturer’s installation manual.

V .3.2 House Battery Banks

All batteries will be secured in place with aluminium frames which fasten around their top edges and be strong enough to keep all batteries in place in the event of a full roll over.

V .3.3 Engine Start Battery Bank

24v Start Battery Bank will be provided and installed in the engine room as per the Electrical Schedule

V .3.4 Anodes

Zinc anodes will be affixed to the hull in strategic locations determined by Builder, most likely 2 near midships and 2 near rudder. A sufficient amount of these anodes will be placed to create a voltage differential between the water and the hull of between .87 and .93 of a volt.

V .3.5 Current Leak Detector

A low current +/- 50mA 24v electric leak test gauge will be installed on 24V switchboard.

V . 4 LIGHTING SYSTEMS

V .4.1 General

The lighting systems can be broken down in:

- Equipment space lighting (engine room, Workshop, Basement & Forepeak),
- Deck lighting,
- Navigation lighting,
- Interior living space lighting
- Emergency lighting.

See Lighting Schedule for details on individual light placement and specifications. Majority of Lighting will be 24 V DC LED's. All lightings with adequate size to be supplied by Builder. All lamps to be 24VDC LED type with warm colour same as bulb lamp. All switches, sockets etc. to be Vimar Idea type or equal.

VI . ANCHOR & MOORING SYSTEM

VI .1.1 General

Anchors will be provided at bow and stern. Anchors will be provided with Chain, Chain bin, anchor windlass, , chain stopper, chain snubber as described herein.

UHMW "silent" V grooved rollers will be installed on shafts secured between the anchor cheeks as per the Build Plans.

Hand operated anchor tensioner will be installed to pull the anchor blade securely against the anchor cheeks with no movement or noise when bow is submersed in large waves.

Anchor chain stopper/lock will be installed between end of anchor stem and the windlass.

VI .1.2 Anchor Windlasses

Anchor windlasses will be provided. The brand is Maxwell for 12mm chain. Controlled by foot switches nearby on deck and on the helm. Hand controlled remote control is part of the supply.

VI .1.3 Capstans/rope winches

Rope winches will be installed on the aft deck on starboard and portside for mooring. The brand is Maxwell or Lewmar.

VI .1.4 Anchors

Single main anchor at the bow, Rocna or Manson designed type 110 KG, galvanised steel installed with proper fit to integral AL anchor roller cheeks.

30kg stern aluminium Fortress anchor for stern and kedging anchor to be stored in the lazarette. Stern anchor shall be manually thrown into the water and pulled back with the stern capstans.

VI .1.5 Chain Stopper and tensioner

One SS 12mm combo unit of chain stopper and tensioner bolted to welded on AL base-plate on anchor deck. It will be set at the correct height to cause no horizontal or vertical deflection of the chain when locked.

VI .1.6 Deck and Fairleads

Cleats will be stainless and installed along rub rails on both sides as per Build plan. Cleats and Stainless Steel rub protection.

Holding large cleats for lifting up the vessel shall be of aluminum material.

Towing hole on the front peak shall be made of aluminum.

VI .1.7 Mooring Equipment

Mooring line will be provided in black colour. 4 pcs. 2x13mt and 2x26mt.

Towing lines will be provided in black colour.

Fenders will be provided Majoni. 42inches in length, 18inches in width. 8 pcs. And two baloon fenders: 65x88mm

VII . FUEL SYSTEM

VII .1.1 General

A Fuel System Schedule and Schematic will be provided by the Builder and agreed by the Owner prior to commencement of build. The fuel system can be divided into the following units:

- Fuel tanks (as per designer's 3D model)
- Fuel filling and vent system
- Fuel transfer system and delivery/return lines
- Fuel polishing system (Alfa Laval MIB 503)
- Fuel consumer supply/return system
- On board are the following diesel consumers:
- Main diesel engines
- Diesel fired hot water boiler (webasto)

All valves shall be ball type certified for fuel use.

2 day tanks are to be fitted. Fuel capacity, with Day Tank is approximately 17,400 litres.

VIII . HYDRAULIC SYSTEM

VIII .1.1 General

No overall hydraulic system for the boat will be installed on board except steering system details of which are specified in the Steering System of this document.

IX . VENTILATION

IX .1.1 General

Particular care will be given to natural (passive) and forced (active) ventilation throughout the vessel. The design of the ventilation systems will give due consideration to low noise levels and to ensuring privacy. Active mechanical ventilation provided for:

Engine room via on deck vent boxes and insulated vent ducts as per Build Plans.

Forced ventilation will be added where needed through the use of 24v fans. Such fans can be installed inside the ductwork or within vent boxes as appropriate. Ventilation fan make, and model will be MSI QuietVent or equivalent.

Natural ventilation via hatches or Dorade vents provided as per Build Plans for:

- Salon
- Cabins
- Forepeak
- FlyBridge

Additional ventilation capacities may be based on the following minimum air changes per hour:

- Heads 6,
- Engine Room 10

IX .1.2 Exhaust Vents: Heads, Galley

All heads (shower and/or toilets) will have 24v extraction fans, Delta T, MSI Quiet Vent or equivalent, venting outside through down flooding protected vents. Extraction fans to be wired in parallel with the light switches so as to always run when lights are switched on.

Aspirator pulling air from up near the ceiling.

All the above extraction fans will be controlled by switches contained within the Distribution Control Panels as well as locally near the fan where appropriate such as in the Galley.

IX .1.3 Engine Room Ventilation

The quantity of supply and extracted air will meet the requirements of combustion air quantity and heat reduction necessary for the engine installed which has been taken into account with the sizing in the Build Plans.

Engine Room intake and exhaust air shall be through vent system designed per the Build Plans. Each vent box to be equipped with demister grills to eliminate/reduce salt air and water ingress.

Engine room intake vent will be passive.

Engine room exhaust fan will be fan controlled.

The fans to have emergency stop switches outside the engine room. These shut off devices will also have the ability to be manually controlled.

IX . 2 AIR CONDITIONING AND HEATING SYSTEM

IX .2.1 Air Conditioning

AirCon system will be Webasto.. Systems will be based on a centralised Chiller with individual air handlers in the 4 living areas:

- Salon
- Cabins 1,2,3,4
- Flybridge

AirCon cooling water will be FRESH not salt water cooled, provided by main water tanks. Chiller will be located in technical space with well insulated PPR-C pipe runs to each living area. Chiller plumbing will be interconnected to the hot water heating circuits such that the same pipes to the air handlers can be used to carry both hot and chilled water. All chilled water pipes will be fully insulated with OneFlex or equivalent EPDM insulation carefully installed as per manufacturer's specifications and recommendations.

Air handlers will be located within cabinetry in locations to be agreed upon by Builder & Owner. Air conditioning & heating outlets placed along side and front windows in Salon for defogging windows.

- Salon: outlets in galley, salon,
- Master cabin; with an outlet as well into Head.
- Guest cabins, with an outlet as well into Head.
- VIP cabin; with an outlet as well into Head.

Values are to be calculated according to manufacturer's instructions.

Air condition to be extended with heating function with a diesel heater and domestic hot water system.

IX . 3 HEATING – LIVING SPACES

IX .3.1 Heating

Heating of all living spaces will be provided in two ways:

- Hot water to the AirCon air handlers
- Towel rack warmers in headrooms (electric)
- Hot Water Air Handlers

Hot water for the AirCon air handlers will be provided from the centralised Boiler which has two heat sources:

- Diesel fired Boiler, Webasto, or equivalent
- Centralised Boiler/Water Heater, Webasto, or equivalent.

Air Handlers as part of the AirCon system will serve double purpose within each living space by providing hot air into each space.

Thermostat control units for AC and Heat will be installed in the most convenient position for regular use on the walls within each room.

IX .3.2 Shower Towel Rack Warmers

All showers will have electrical heated towel rails.

X . FRESH WATER SYSTEM

X .1.1 General

A complete fresh water system will be installed throughout the vessel. The system can be divided into the following main units:

plumbing,

fresh water tanks

water pressure pumps and accumulator tank

hot water system

water maker

The schematic will be an attachment to the specification.

X .1.2 Plumbing

All piping for hot and cold water will be done with pprc tubing and fittings. All piping will be pressure tested for leaks and able to hold 0,2 bar for over 12 hours. All plumbing will be cleaned with food safe cleaning solvent prior to first filling. Customer shall send a surveyor on his own costs to examine and approve the plumbing tests.

X .1.3 Freshwater Tanks

Fresh potable water will be stored in two locations:

Integral to the hull AL water tanks.

All tanks shall be plumbed to a common manifold with valves enabling water to be supplied by any tank and water moved from one tank to any other tank via the water pumps. All integral water tanks will be pressure tested to hold 0,2 bar for over 12 hours. All tanks will be plumbed such that they can be filled from sealed water fills on the exterior of the boat. Water filling and venting station will be located beside fuel filling station, but in separate box as per Build Plans drawn up by Builder.

Manholes, sufficient in size and number,

All water tanks will have minimum 20mm ID vents leading to water filling station box.

Filling and vent pipes out of UPVC hose approved for potable water.

Filling stations on deck inside box will have stainless steel, "Water" engraved screw on caps,

Tanks to be fitted electronic level sensors for remote indicating the level and shall be calibrated and connected to boat's NMEA2000 data bus.

Heat exchanger for Hot water from the diesel heater

internal heating coil

X .1.4 Diesel Water Heater

The primary source for hot water will be from this diesel fired water heater Webasto. This water heater will be installed in the Engine Room with exhaust exiting the side of the hull above the waterline as per manufacturer's recommendations.

Diesel water heater will be plumbed into the overall boat water heating system through a central boiler such that the boiler is providing hot water for DHW, hot water/air heat exchangers/air handlers in all living spaces and heating

X .1.5 Water Maker

One AC 380V triphase powered watermaker: Delfin Brand Maxi 4500. Capacity:190L/hour. Remote control unit. A PH balancer will be used on the watermaker.

Sea water supply for watermaker will be from the closest intake sea chest. Sea water supply filtration shall consist of three separate filters prior to reaching the high pressure pump;

Water maker shall be securely installed in the Workshop/Lazarette able to withstand a full roll over. Water maker will be installed with great attention to noise attenuation such that it cannot be heard anywhere on the boat outside of the Workshop. Water maker shall be installed such that all filters can be easily seen and serviced without the need to remove or move anything. Water maker filters shall be installed such that sea water leaks or spills while servicing is fully contained for easy draining overboard and cannot wet any other components or equipment.

X .1.6 Swim Platform Shower

A mixer-controlled hot/cold deck shower is to be mounted in its own box built into a recessed Al box built into the enclosed stairs from aft deck down to the swim platform and connected to fresh water.

XI . SEA "RAW" WATER SYSTEM

XI .1.1 General

All sea water consumers will source their water from the closest intake sea chest. Sea water consumers are:

Wet exhaust on main engine mixing elbow.

Watermaker

Propeller shaft lubrication

All sea water lines after ball valves connected to sea chest, will be certificated sea water hoses.

XII . GREY WATER

XII .1.1 General

There will be a complete system to collect used water from all sinks and showers.

XII .1.2 Grey and Black Water Holding Tanks

A single (8 person) black and grey water holding tank will be fitted. This tank will be a Type II sewage treatment system as defined in USCG regulations. Additionally Grey Water may be selected to discharge directly overboard.

Sewage treatment system will be Selmar Brand with 4000lt/day capacity.

The holding tank will be plumbed to allow for overboard discharge or discharge to a Pump Out Station.

XIII . SANITARY "BLACK WATER" SYSTEM

XIII .1.1 General

An electrical toilet system will be fitted. Tecma Breeze brand toilets will be used. The system to be according to CE recommendations. A sewage sytem shall be installed. Selmar Brand. 2.500lt/day capacity.

XIII .1.2 Black Water Pumps

The Black water tank will have their own discharge pump. The pump has its own discharge to a Y valve for selecting either overboard through Exit sea chests or up to pump out fittings on deck. Pump brand: Johnson.

XIII .1.3 Toilet System

Electric Tecma toilets will be installed and plumbed one in each Head.

XIII .1.4 Plumbing and Piping

All Black Water piping and hoses will be UPVC pipes.

XIV . BILGE & OTHER WATER SYSTEMS

XIV .1.1 General

All bilge and other water systems as described in schematics. Extra attention has to be given to simple operation of these systems and a good access to valves, manifolds and pumps.

Each compartment/room will be fitted with an el

Electric bilge alarm wired into the boats data network and alarm system. There will be two types of bilge water removal systems:

Low volume pumps located in each compartment for day to day removal of any water which finds its way into the bilges of the boat.

A centralised High volume pump for emergency use when taking on large volumes of water.

Each diaphragm pump in the Low bilge water systems above will be switched on with a solid state water level sensor. Bilge system to be calculated to CE standards. The system shall be tested as soon as practical. (Priming).

XIV .1.2 Bilge Piping and Valves

Bilge pipes or hoses shall be CE approved. Hoses to be kept straight wherever possible. Stainless steel clamps and plastic valves to be fitted in bilge system. All bilge pumps are equipped with a high bilge alarm located on console with visual and audial alarm, connecting to Praxis Automation system.

XIV .1.3 Deck Pressure Wash System

As per the Fresh Water Schematic there will be a Fresh water pressure wash systems installed on the Aft Deck and the Foredeck/bow and on the flybridge. Fresh water wash will be supplied by the domestic water system.

Each pressure wash outlet will be equipped with a manual shut off ball valve prior to the connection to the pressure wash hose & nozzle. Each of the four deck wash outlets will be equipped with a quick connect hose, minimum 20mm ID by 10m long with an adjustable spray nozzle.

Brand: Aqua Jet WPS5.2 24volt

XIV .1.4 Fire Fighting System

As per the Bilge/Fire schematic, the bilge/fire manifold will have a discharge connection on deck for connecting a fire hose. Fire hose will be stored at aft storage area on deck. Location will be decided later. On board will be one hose of 25 meters length provided with jet nozzle.

In engine room an automatic fire extinguishing system will be installed as SeaFire.

XIV . 2 MAIN DECK DETAILS

XIV .2.1 GENERAL

All aluminium deck surfaces to be covered with white or gray Treadmaster type non-skid material adhesively applied (example: M7Y Mobius) or artificial teak deck (ELASTEAK BRAND) Example: M/Y GN47.

XIV .2.2 Deck Hatches

Hatches will be CE approved type.

600x600 watertight hatch will be installed at the entrance of fore peak.

600x600 watertight hatch with glass will be installed at the top of VIP cabin and named as escape hatch. Hinges will be hidden. Manfred Frank brand hinges.

600x600 2 pieces of weathertight hatches for the storages at forward deck.

600x600 watertight hatch at the salon floor, down to the technical room.

600x600 watertight hatch, down to lazarette.

8 hull side portholes will be fitted and sealed permanently shut. All windows, portholes and portlights to be fitted with double glazed and tempered glass for sun protection.

Storm shutters are going to be applied if required by MCA.

All windows, portholes and portlights to be fitted with special curtain system which also have a blackout curtain. Then you can close either the soft curtain or blackout curtain. Window cases around curtains, so provision of complete darkness inside for sleeping.

XIV .2.3 Weathertight Exterior Doors:

There are four WT Exterior doors:

Main entrance from Aft deck into the Salon

Swim platform in/out of Workshop (pantograph door)

Helm station to port & starboard side deck (pantograph door)

All doors will exceed CE and mca requirements for weather tightness.

Main entrance door shall have maximum, size glass, Swim Platform/Workshop door will be all aluminium. Doors will be secured at multiple points around their circumferences by multiple handles. Doors will compress the seals so as to be completely water tight under any and all circumstances at sea. The latching mechanisms will be operable from the inside as well. Doors will have a locking mechanism so as to be fully secure when boat is left unattended.

XIV .2.4 Deck Railings

Deck railings will be constructed and attached to the deck in such a way as to have maximum rigidity and strength to minimize movement when heavily leaned upon by adults. Deck railings will be fabricated using the stainless steel pipes described in Miscellaneous Clause.

XIV .2.5 Mooring Fore Deck

- a) Anchoring system as General Arrangement.
- b) Foredeck covered with Synthetic Treadmaster or artificial teak to match with rest of decks.
- c) Built in chain bin below in foredeck storage area with fresh water and salt water wash down taps. Removable Clear plastic "mud splash guard" installed around rim of anchor chain bin up to flange under deck around hawse pipe to keep all mud and water from the anchor chain contained within the chain bin.
- d) Windlass with foot switches and remote control in Helm station and wired hand controlled remote control
- e) Single large Samson post as per Build Plans

XIV . 3 AFT DECK DETAILS

XIV .3.1 Aft Deck

Deck covered with Treadmaster or equivalent non-skid material adhesively applied in tile shapes same as other deck surfaces.

Removable covers to protect from wind, rain are to be arranged above the aft deck. Removable wind and rain covers to enclose the seating area and cockpit. A recess into roof shall be provided as suitable as possible.

XIV .3.2 Swim Platform

To be covered with Treadmaster or artificial teak used on rest of deck.

Two large solid stainless cleats on vertical transom surface on each far side of swim platform to fasten the tender and to be able to withstand ocean going conditions. Similar to deck cleats with centre opening of at least 50mm well radiused fairlead hole. Bases to be slotted around inner framework for strength similar to other cleats on deck.

Removable aluminium passerelle (2 pieces of stainless steel rails, mounting parts, rope and plastic wheels are included. Length 3.1 m, width 36 cm, weight 22 kg. Foldable.) to be built in house with pivoting mounts in the following locations;

One on side of the aft Swim Platform.

One on each side of the main deck at the boarding gates.

One at the top of the swim platform steps.

Large thick (8-10mm) CNC cut Stainless letters to spell out Boat Name and Home Harbour Name and glued in place centred just below edge of upper deck and transom wall.

Four removable aluminium stanchions in pipe socket mounts, same as Deck stanchions.

A folding aluminium swimming and emergency entry ladder to be custom produced.

XV . FLYBRIDGE DETAILS

Flybridge floor covered with Synthetic Treadmaster or Adofloor or synthetic flooring material.

Flybridge interior explanation is described in the XVI. Interior section.

Flybridge Helm station to have the following installed:

Praxis screen and systems including bilge, navigation lights,

Steering system

Navigation System

Switches for exterior lightings, horn...etc.

Windlass control

Cushions with marine fabrics on cushions at Helm station.

XVI . INTERIOR

XVI . 1 INTERIOR DESIGN OVERVIEW

XVI.1.1. Introduction

This specification is about to figuring out the quality and interior design features for a XPM 85 -02. All materials used in XPM 85-02 must meet with all related regulations. Accommodation to be arranged as signed GA.

The interior will be prepared according to approved general arrangement drawings in the Build Plan. The concept of interior design will be decided as a collaborative effort between the Owner and Builder.

Builder will prepare 3D renders for Owner to assist in finalising the interior design, cabinetry, joinery, material selection, lighting, etc.

Following is a list of interior design features.

XVI.1.2. Interior Construction Details

XVI.1.3. General Construction

- Materials of marine quality are to be used in the construction of XPM 85.
- Accesses are to be provided to valves, pipe fittings, junction boxes and such items for maintenance and repair.
- Unless otherwise stated all ceiling panels are to be removable.

XVI.1.4. Interior Bulkheads

- All partitioning is to be insulated to provide sound attenuation where possible as predicted by sound and vibration targets (Rina Standards as shown in the silent line quotation)
- Bulkheads are to be finished with painted finish, fabric wrapped panels, vinyl, or decorative artificial leather panels.
- Stairway walls are to be wood panels, finished to match cabinetry.

XVI.1.5. Decks and floors

- In floor access will be achieved using hidden frames and removable covers.
- All carpeting is to include a sound absorbent underlay and carpet..
- All guest bathrooms are to be exterior paint lacquered panel flooring.
- Main salon and galley to be a marine suitable artificial floor. Adofloor flooring or equivalent.

XVI.1.6. Interior doors

- All doors are to include hold backs. Door stoppers.
- Doors hardware is to be System Brand or equivalent.

XVI.1.7. Furniture Varnish

- Interior finish is matte or satin.

XVI.1.8. Closets

- Clothing and linen locker cabinets shall be lined with main veneer in guest areas and master areas.
- One (1) fixed upper shelf and a lower dress hanger.
- Interior lighting is to be battery powered automatic when to door is opened.
- Inside of the closet doors is to include a mirror if required.

XVI.1.9. Ceilings

- Unless otherwise stated all ceilings are to be painted panels.
- Bathrooms are to be panels with painted finish.
- Ceiling panels are to be secured using a clip system.

XVI.1.10. Appliances

- One (1) Miele, WTR860WPM, 8/5 kg Washer&Dryer

- One (1) Miele H 7264 B, Electrical oven
- One (1) Miele KM 6520 FR, Electrical cooktop
- One (1) Miele DA 2360, Hood
- One (1) Miele G7610, Dishwasher with autodos
- One (1) Siemens IQ500 KI87, Built-in refrigerator
- One (1) Siemens IQ500 KI87, Built-in refrigerator (Second option)
- One (1) Miele M 7240 TC, Microwave (option)
- One (1) Bora Basic Hyper, Exhaust air 76 cm Induction cooktop (option)
- One (1) Kenyon B70081, 21” Built-in Electric Grill (option)
- One (1) Isotherm 5S21A11A00000, Ice maker (option)
- One (1) Isotherm DR49, Refrigerator with freezer (option)

XVI.1.11. Loose Furniture

- All loose furnitures excluded. Bar chairs

XVI.1.12. Lighting

- BCM, Lite Charlotte 55, overhead lights (interior)
- BCM Lite Phoenix 90, overhead lights (exterior)
- BCM, Tampa 40, courtesy light
- BCM, LED lights
- BCM, Arizona, reading lamps

XVI.1.13. Switches and Sockets

- Panasonic or equivalent

XVI.1.14. Sanitary

- Grohe or equivalent

XVI.2. Living Spaces

XVI.2.1. Lower Deck

XVI.2.1.1. Master Stateroom

- **Bed:** One (1) super king sized (1800x2000 mm) berth. Decorative wood frame with fabric upholstered panels at fronts. Flush drawer fronts in the side of the base with full extension slides and push/pull button hardware. Lift up bed. Mattresses are to be hybrid (memory foam+sponge)
- **Nightstands:** Two (2) approximately 500 mm high, with decorative profiled edge. To include one nightstand, two (2) drawers with flush mounted drawer front with slides and push/pull button hardware.
- **Vanity:** The vanity will include a wood top with one (1) lift up lid , decorative framed mirror and two (2) drawers with flush mounted drawer front with slides and push/pull button hardware. The chair or pouf with padded seat excluded
- **Sofa:** One (1) sofa and to include storage under the sofa. Two (2) nightstands on sides of the sofa.
- **Closet:** Closet will include double doors with mirror fronts. Interior to be lined with veneer, outfitted with one (1) light, one (1) automatic light switch, one (1) shelf keeper and three (3) lower drawer, one (1) wooden closet rod.
- **Cabin sides:** Combination of upholstered fabric and wood veneer or wallpaper.
- **Doors:** All doors are to be wood veneer finished with hardwood door jambs, door handle and anti-vibration mortise locks.

- **Overhead:** To be padded fabric panels with recessed lighting.
- **Soffit:** Decorative wood soffit will run the perimeter of the room with concealed lighting.
- **Flooring:** To be carpet throughout.
- **Window treatment:** Manuel blinds. Manual curtains.
- **Lighting:**
 - Twenty (20) BCM, Tampa 40, overhead lights
 - Two (2) BCM, Arizona, reading lamps
 - Three (3) Panasonic, dimmer switches
 - Four (4) Panasonic, single outlets
 - 2 wall lamps to be mounted.
- **Decorations:** Quilt, pillow, linen sets, decorative pillows, table lamps, decorations are excluded.

XVI.2.1.2. Master Bathroom

- **Shower:** One (1) custom exterior paint lacquered or ceramic covered shower with one (1) hinged clear doors. Mixer and fixtures are to be Grohe (or equivalent).
- **Toilet:** One (1) Tec Tecma .
- **Sink:** One (1) over mount Vitra (or equivalent) sink is to be porcelain. Fixtures are to be Grohe (or equivalent).
- **Sink Vanity:** One (1) sink vanity will a corian countertop. cabinet is to include drawers and undercounter storage. Fixtures are to be Grohe (or equivalent). Vanity is to include a framed mirror with recessed light above.
- **Towel heater:** One (1) electrical towel heater is to be Hammam, Laris (or equivalent).
- **Cabin sides:** Exterior paint lacquered at shower walls, wallcovering throughout.
- **Overhead:** To be lacquer panels, semi gloss or matte finish with recessed lighting.
- **Flooring:** Bolon or similar brand. Shower tray to have removable inset stone floors.
- **Walls:** Veneer or lacquered panels.
- **Window treatment:** Manuel blinds. Manual curtains.
- **Lighting:**
 - Four (4) BCM, Lite Charlotte 55, overhead lights
 - Two (2) Panasonic, dimmer switches
 - One (1) Panasonic, single outlets
- **Miscellaneous:** To include One (1) toilet paper holder, One (1) towel bar, One (1) toilet brush / holder. To be Grohe (or equivalent).
- **Decorations:** Towels, robes, bathroom mats decorations are excluded.

XVI.2.1.3. Companionway

- **Cabin sides:** To be wood veneer mat or semi gloss finish.
- **Overhead:** To be lacquer panels, semi gloss or matte finish with recessed lighting.
- **Soffit:** Decorative wood soffit will run the perimeter of the room with concealed lighting.
- **Linen closet:** One washer-dryer combo unit and adjustable wood shelving.
- **Flooring:** Carpet.
- **Stairs:** Bolon or similiar.
- **Window treatment:** Manuel blinds. Manual curtains
- **Appliances:**
 - One (1) Miele, WTR860WPM, 8/5 kg Washer&Dryer
- **Lighting:**

Six (6) BCM, Lite Charlotte 55, overhead lights
Nine (9) BCM, Tampa 40, courtesy light
Two (2) Panasonic, dimmer switches
Two (2) Panasonic, single outlets

- **Miscellaneous:** One (1) smoke detector and one (1) heat detector, both with an audible alarm and both monitored from the pilothouse fire safety system.

XVI.2.1.4. PS Guest Stateroom

- **Bed:** Two (2) single size (800x2000 mm) berth. Decorative wood frame with fabric upholstered panels at fronts. Flush drawer fronts in the side of the base with full extension slides and push/pull button hardware. Mattresses are to be hybrid memory foam + sponge..
- **Nightstand:** One (1) approximately 500 mm high, with decorative profiled edge. To include two (2) drawers with flush mounted drawer front with full extension slides and push/pull button hardware.
- **Closet:** Closet will include double doors with mirror fronts. Interior to be lined with veneer, outfitted with one (1) light, one (1) automatic light switch, one (1) shelf keeper and three (3) lower drawer, one (1) closet rod.
- **Cabin sides:** Combination of upholstered fabric and wood veneer.
- **Doors:** All doors are to be wood veneer finished with hardwood door jambs, door handle and anti-vibration mortise locks.
- **Overhead:** To be padded fabric panels with recessed lighting.
- **Soffit:** Decorative wood soffit will run the perimeter of the room with concealed lighting.
- **Flooring:** To be carpet throughout and will include sound absorbent underlay.
- **Window treatment:** Manual blinds. Manual curtains
- **Lighting:**
 - Six (6) BCM, Lite Charlotte 55, overhead lights
 - Two (2) BCM, Arizona, reading lamps
 - Three (3) Panasonic, dimmer switches
 - Three (3) Panasonic, single outlets
- **Miscellaneous:** One (1) smoke detector, both with an audible alarm and both monitored from the pilothouse fire safety system.
- **Decorations:** Quilt, pillow, linen sets, decorative pillows, table lamps and wall lamps decorations are excluded.

XVI.2.1.5. STB Guest Stateroom

- **Bed:** Two (2) single size (800x2000 mm and 900x2000 mm) with bank bed. Decorative wood frame with fabric upholstered panels at fronts. Flush drawer fronts in the side of the base with full extension slides and push/pull button hardware. Mattresses are to be hybrid memory foam + sponge.
- **Nightstand:** One (1) approximately 500 mm high, with decorative profiled edge. To include two (2) drawers with flush mounted drawer front with full extension slides and push/pull button hardware.
- **Closet:** Closet will include one doors with mirror fronts. Interior to be lined with one (1) light, one (1) automatic light switch, one (1) shelf keeper and three (3) lower drawer, one (1) closet rod.
- **Cabin sides:** Combination of upholstered fabric and wood veneer.
- **Doors:** All doors are to be wood veneer finished with hardwood door jambs, door handle and anti-vibration mortise locks.
- **Overhead:** To be padded fabric panels with recessed lighting.
- **Soffit:** Decorative wood soffit will run the perimeter of the room with concealed lighting.
- **Flooring:** To be carpet throughout and will include sound absorbent underlay.
- **Window treatment:** Manual blinds. Manual curtains
- **Lighting:**

Six (6) BCM, Lite Charlotte 55, overhead lights
Two (2) BCM, Arizona, reading lamps
Three (3) Panasonic, dimmer switches
Three (3) Panaonic, single outlets

- **Miscellaneous:** One (1) smoke detector, both with an audible alarm and both monitored from the pilothouse fire safety system. Wall lamps will be installed. The Owner will supply the wall lamps.
- **Decorations:** Quilt, pillow, linen sets, decorative pillows, table lamps, decorations are excluded.

XVI.2.1.6. Guest Shower

- **Shower:** One (1) custom exterior paint lacquered or ceramic covered shower with one (1) hinged clear doors. Mixer and fixtures are to be Grohe (or equivalent).
- **Cabin sides:** Exterior paint lacquered at shower walls, wallcovering throughout.
- **Overhead:** To be lacquer panels, semi gloss or matte finish with recessed lighting.
- **Flooring:** Shower tray to have removable inset stone floors
- **Walls:** Veneer or lacquered panels.
- **Towel heater:** One (1) electrical towel heater is to be Hammam, Laris (or equivalent).
- **Lighting:**
 - Two (2) BCM, Lite Charlotte 55, overhead lights
 - One (1) Panasonic, dimmer switches
 - One (1) Panasonic, single outlets
- **Miscellaneous:** To include One (1) towel bar and Two (2) robe hooks. To be Grohe (or equivalent).
- **Decorations:** Towels, robes, bathroom mats, decorations are excluded.

XVI.2.1.7. Guest Head

- **Toilet** One (1) Tecma .
- **Sink:** One (1) over mount Vitra (or equivalent) sink is to be porcelain. Fixtures are to be Grohe (or equivalent).
- **Sink Vanity:** One (1) sink vanity will a corian countertop. Cabinet is to include drawers and undercounter storage. Fixtures are to be Grohe (or equivalent). Vanity is to include a framed mirror with recessed light above.
- **Cabin sides:** Exterior paint lacquered at shower walls, wallcovering throughout.
- **Overhead:** To be lacquer panels, semi gloss or matte finish with recessed lighting.
- **Flooring:** Bolon or similar brand.
- **Walls:** Veneer or lacquered panels.
- **Lighting:**
 - Two (2) BCM, Lite Charlotte 55, overhead lights
 - One (1) Panasonic, dimmer switches
 - One (1) Panasonic, single outlets
- **Miscellaneous:** To include One (1) toilet paper holder, One (1) toilet brush / holder. To be Grohe (or equivalent).
- **Decorations:** Towels, robes, bathroom mats, decorations are excluded.

XVI.2.1.8. VIP Cabin

- **Bed:** One (1) King sized (1600x2000 mm) berth. Decorative wood frame with fabric upholstered panels at fronts. Flush drawer fronts in the side of the base with full extension slides and push/pull button hardware. Lift up bed. Mattresses are to be hybrid memory foam + sponge.

- **Nightstands:** Two (2) approximately 500 mm high, with decorative profiled edge. To include one nightstand, two (2) drawers with flush mounted drawer front with full extension slides and push/pull button hardware.
- **Closet PS and STB:** Closet will include double doors with mirror fronts. Interior to be lined with one (1) light, one (1) automatic light switch, one (1) shelf keeper and three (3) lower drawer, one (1) wooden closet rod.
- **Cabin sides:** Combination of upholstered fabric and wood veneer.
- **Doors:** All doors are to be wood veneer finished with hardwood door jambs, door handle and anti-vibration mortise locks.
- **Overhead:** To be padded fabric panels with recessed lighting.
- **Soffit:** Decorative wood soffit will run the perimeter of the room with concealed lighting.
- **Flooring:** To be carpet throughout and will include sound absorbent underlay.
- **Window treatment:** Manual blinds. Manual curtains
- **Lighting:**
 - Six (6) BCM, Lite Charlotte 55, overhead lights
 - Two (2) BCM, Arizona, reading lamps
 - Two (2) Panasonic, dimmer switches
 - Three (3) Panasonic, single outlets
- **Miscellaneous:** One (1) smoke detector and one (1) heat detector, both with an audible alarm and both monitored from the pilothouse fire safety system. Wall lamps will be installed. The Owner will supply the wall lamps
- **Decorations:** Quilt, pillow, linen sets, decorative pillows, table lamps, decorations are excluded.

XVI.2.1.9. VIP Head

- **Toilet:** Tecma .
- **Sink:** One (1) over mount Vitra (or equivalent) is to be porcelain. Fixtures are to be Grohe (or equivalent).
- **Sink Vanity:** One (1) sink vanity will a corian countertop. Cabinet is to include drawers and undercounter storage. Fixtures are to be Grohe (or equivalent). Vanity is to include a framed mirror with recessed light above.
- **Towel heater:** One (1) electrical towel heater is to be Hammam, Laris (or equivalent).
- **Cabin sides:** Exterior paint lacquered at the walls, wallcovering throughout.
- **Overhead:** To be lacquer panels semi gloss or matte finish with recessed lighting.
- **Flooring:** Artificial parquet or similar brand.
- **Walls:** Veneer or lacquered panels.
- **Lighting:**
 - Two (2) BCM, Lite Charlotte 55, overhead lights
 - One (1) Panasonic, dimmer switches
 - One (1) Panasonic, double outlets
- **Miscellaneous:** To include One (1) toilet paper holder, One (1) towel rail, One (1) toilet brush / holder. To be Grohe (or equivalent).
- **Decorations:** Towels, robes, bathroom mats, decorations are excluded.

XVI.2.1.10. VIP Shower

- **Shower:** One (1) custom exterior paint lacquered wall or ceramic covered shower with one (1) hinged clear doors. Mixer and fixtures are to be Grohe (or equivalent).
- **Cabin sides:** Exterior paint lacquered at the walls, wallcovering throughout.
- **Overhead:** To be lacquer panels semi gloss or matte finish with recessed lighting.
- **Flooring:** Shower tray to have removable inset stone floors

- **Lighting:**
 - Two (2) BCM, Lite Charlotte 55, overhead lights
 - One (1) Panasonic, dimmer switches
 - One (1) Panasonic, double outlets
- **Miscellaneous:** To include One (1) towel bar and Two (2) robe hooks. To be Grohe (or equivalent).
- **Decorations:** Towels, robes, bathroom mats, decorations are excluded.

XVI.2.2. Main Deck

XVI.2.2.1. Galley

- **Lower cabinets:** Approximately 920 mm high cabinets with flush door/drawer fronts. Franke or equivalent sink. Fixtures are to be Grohe. Countertop is to be corian with matching back splash. Also countertop back storage will be produced like in M/V Mobius.
- **Cabin sides:** Finish is to be selected from designer options.
- **Loose furniture:** Two (2) bar stool excluded
- **Overhead:** To be lacquer panels, silk matte or matte finish with recessed lighting.
- **Soffit:** Decorative wood soffit will run the perimeter of the room with concealed lighting.
- **Flooring:** Artificial parquet or similar.
- **Window treatment:** Motorised blinds and curtains.
- **Appliances:**
 - One (1) Miele H 7264 B, Electrical oven
 - One (1) Miele G7610, Dishwasher with autodos
 - One (1) Siemens IQ500 KI87, Built-in refrigerator
 - One (1) Siemens IQ500 KI87, Built-in refrigerator (Second option)
 - One (1) Miele M 7240 TC, Microwave (option)
 - One (1) Bora Basic Hyper, exhaust air 76 cm Induction cooktop (option)
- **Lighting:**
 - Six (6) BCM, Lite Charlotte 55, overhead lights
 - One (1) Panasonic, dimmer switches
 - One (1) Panasonic, double outlets
- **Miscellaneous:** One (1) smoke detector and one (1) heat detector, both with an audible alarm and both monitored from the pilothouse fire safety system. Countertop hinged storage boxes as shown on GA.
- **Decorations:** Cutlery, dish set, glasswares, pots and pans, table covers, napkins, dining sets, decorative pillows, decorations are excluded.

XVI.2.2.2. Main Saloon

- **TV cabinet:** Cabinet with audio equipment storage. 50 inch Pop-up TV
- **Cabin sides:** Combination of upholstered fabric panels and wood veneer
- **Loose furniture:** One (1) L shape sofa, Two (2) cigarette chair (excluded), One (1) foldable table with motorised stainless steel leg.
- **Chart Table:** Finish is to be selected from designer options. Mechanism is option.
- **Overhead:** Combination of upholstered fabric panels and lacquer panels, silk matte finish with recessed lighting.
- **Flooring:** Artificial parquet or similar.

- **Window treatment:** Port & starboard custom valances and window motorized electric blinds and curtains.
- **Soffits:** Decorative wood soffit will run the perimeter of the room with concealed lighting
- **Lighting:**
 - Six (8) BCM, Lite Charlotte 55, overhead lights
 - Eight (8) BCM, Tampa 40, courtesy light
 - One (1) Panasonic, dimmer switches
 - Two (2) Panasonic, double outlets
- **Miscellaneous:** One (1) smoke detector and with an audible alarm and both monitored from the pilothouse fire safety system, furniture as shown in the GA.
- **Decorations:** Cutlery, dish set, glasswares, pots and pans, table covers, napkins, dining sets, decorative pillows, table lamps, wall lamps, decorations are excluded.

XVI.2.2.3. MD Dayhead

- **Toilet** One (1) Tecma .
- **Sink:** One (1) over mount Vitra (or equivalent) sink is to be porcelain. Fixtures are to be Grohe (or equivalent).
- **Sink Vanity:** One (1) sink vanity with a corian countertop. Cabinet is to include drawers and undercounter storage. Fixtures are to be Grohe (or equivalent). Vanity is to include a framed mirror with recessed light above.
- **Cabin sides:** Exterior paint lacquered at shower walls, wallcovering throughout.
- **Overhead:** To be lacquer panels, semi gloss or matte finish with recessed lighting.
- **Flooring:** To be Stone.
- **Lighting:**
 - Two (2) BCM, Lite Charlotte 55, overhead lights
 - One (1) Panasonic, dimmer switches
 - One (1) Panasonic, single outlets
- **Miscellaneous:** To include One (1) toilet paper holder, One (1) toilet brush / holder. To be Grohe (or equivalent).
- **Decorations:** Towels, robes, bathroom mats, decorations are excluded.

XVI.2.3. Upper Deck

XVI.2.3.1. Pilot House

- **Cabin sides:** Combination of upholstered fabric panels and wood veneer
- **Loose furniture:** One (1) L shape sofa with storage and drawer, One (1) table with manual up&down mechanism.
- **Chart Table:** Finish is to be selected from designer options. Mechanism is option.
- **Storage cabinet STBD:** STBD side storage cabinet, located as per plans will include two (2) flush doors with concealed hinges and push/pull door latches. To include sink and corian countertop.
- **Overhead:** Combination of upholstered fabric panels and lacquer panels, silk matte finish with recessed lighting.
- **Flooring:** To be LVT / Artificial parquet flooring.
- **Window treatment:** Manual blinds.
- **Soffits:** Decorative wood soffit will run the perimeter of the room with concealed lighting
- **Dashboard:** The dashboard design will be agreed with the owner and the designer after the equipment has been determined. To include two (2) drawers, two (2) helm chair Llebrock brand Omega Series 2.

- **Lighting:**
 - Six (6) BCM, Lite Charlotte 55, overhead lights
 - Three (3) BCM, Lite 55, overhead lights (red)
 - Two (2) BCM, Arizona, reading lamps
 - One (1) Panasonic, dimmer switches
 - Three (3) Panasonic, double outlets and one of them with USB charger.
- **Miscellaneous:** One (1) smoke detector and one (1) heat detector, both with an audible alarm and both monitored from the pilothouse fire safety system.

XVI.3. Exterior Outfitting

XVI.3.1. Forward Deck

- **Decking:** To be treadmaster or artificial teak (Elasteak brand)
- **Sun pad:** To be recessed into the forward superstructure as per plans.
- Sun pad will include 4" cushions with canvas cover. Hinged headrest.
- **Decorations:** Towels, glasswares, decorative pillows, winter covers are excluded.

XVI.3.2. Aft Deck

- **Decking:** To be treadmaster or artificial teak.
- **Wet bar:** Wet bar will be appx. 2 meters length. To include one (1) stainless steel sink with lift up lid, <https://www.marintekstore.com/?pId=5932&gId=2482&catId=126&lng=en>
- one (1) electrical grill (option) , One (1) ice maker (option) and two (2) lockers. finished with exterior paint.
- **Seating:** One (1) U shape fiberglass bench seat as per plans finished with exterior paint.
- **Dining table:** Two (2) up&down table with teak veneer (matte finish) with removable cushions with connecting leafs to create one long table.
- **Loose furniture:** All loose furnitures excluded.
- **Storage cabinet Port:** Port side storage cabinet, located as per plans will include two (2) flush doors with concealed stainless steel hinges and push/pull door latches.
- **Storage cabinet STBD:** STBD side storage cabinet, located as per plans will include two (2) flush doors with concealed stainless steel hinges and push/pull door latches.
- **Overhead:** Overhead is to be lacquered panels finished with exterior paint.
- **Appliances:**
 - One (1) Kenyon B70081, 21" Built-in Electric Grill (option)
 - One (1) Isotherm 5S21A11A00000, Ice maker (option)
- **Lighting:**
 - Sixteen (16) BCM Lite Phoenix 90, overhead lights
 - Two (2) Schneider PKF32F723 IP67, watertight single outlets
- **Decorations:** Towels, glasswares, decorative pillows, winter covers are excluded.

XVI.3.3. Swim Platform

- **Decking:** To be treadmaster or artificial teak(Elasteak brand)
- **Door:** One (1) watertight pantograph door recessed into the transom bulkhead located on centerline.
- **Lighting:**
 - Eight (8) BCM Tampa 40, courtesy lights

XVI.3.4. Side companionways (Port)

- **Deck:** To be treadmaster or artificial teak(Elasteak)
- **Lighting:**

Nine (9) BCM Tampa 40, courtesy lights

XVI.3.5. Side companionways (STB)

- **Deck:** To be treadmaster or artificial teak.
- **Lighting:** Nine (9) BCM Tampa 40, courtesy lights

XVI.3.6. Flybridge Deck

- **Loose furniture:** All loose furnitures excluded.
- **Wet bar:** To be wet bar. To include one (1) refrigerator, and two (2) lockers. Finished with exterior paint. Storage Access via rear pillars each side of wet bar.
- **Decking:** To be treadmaster or artificial teak.
- **Doors:** Two (2) sliding or pantograph doors to the pilothouse to be Tessera or equivalent.
- **Appliances:**
 - One (1) Isotherm DR49, Refrigerator with freezer (option)
- **Lighting:**
 - Nine (9) BCM Lite Phoenix 90, overhead lights
 - Nine (9) BCM Tampa 40, courtesy lights
 - Two (2) Schneider PKF32F723 IP67, watertight single outlets
- **Decorations:** Towels, glasswares, decorative pillows, winter covers are excluded.

XVI.4. Revisions

- On completion of the interior designs, designer will present the designs to client.
- Designer will incorporate any comments that client has in a revised design plan that meeting and submit the revised design plan to client for final approval. This process can be repeated a maximum of two (2) times.
- The client has 7 days to approve final designs or provide comments to the shipyard.
- Designs not approved by the customer in a timely manner will be charged extra by the shipyard as it incurs additional cost to the design team and production process.
- Additional revisions to the design plan or time spent sourcing and obtaining individual substitutions of hardware (e.g. drawer pulls), fixtures, furnishings, etc., shall be billed at designer's standard hourly rate (50 USD) as set forth in the payment section.
- If production changes are made at the request of the customer after the design is approved, It will be calculated 20 USD per manufacturing man hour.
- In case the client requests major revisions after the approval for the renders, the revision fee will be paid to the designer, upon mutual agreement of the parties, depending on the scope of the work.

XVI.5. Entertainment Equipments

XVI.5.1. TV/Audio Equipments

XVI.5.1.1. Lower Deck

Master Stateroom

One (1) Samsung 43" Full HD Smart TV. (option)
One (1) Dune, HD Solo 4K Media Player
Two (2) Bowers & Wilkins Speakers, White, 8"
One (1) Control4, TS-SAMP1-100-BL Network Amfi

PS Guest Stateroom

One (1) Samsung 43" Full HD Smart TV (option)
One (1) Dune, HD Solo 4K Media Player
Two (2) Bowers & Wilkins Speakers, White, 8"
One (1) Control4, TS-SAMP1-100-BL Network Amfi

VIP Cabin

One (1) Dune, HD Solo 4K Media Player
Two (2) Bowers & Wilkins Speakers, White, 8"
One (1) Control4, TS-SAMP1-100-BL Network Amfi

XVI.5.1.2. Main Deck

Main Saloon

One (1) Samsung 50" Full HD Smart TV with plazma lift
One (1) Dune, HD Solo 4K Media Player
Four (4) Bowers & Wilkins Speakers, White, 8"
One (1) Control4, TS-SAMP1-100-BL Network Amfi
One (1) Denon, AVRX2700H Amplifier

XVII . INSULATION

XVII . 1 GENERAL

Armaflex EPDM Insulation on aluminium surfaces + Decicoat or Mascoat

XVIII . NAVIGATION AND COMMUNICATION

XVIII . 1 GENERAL

Navigation and communication equipment shall be Furuno brand. The budget given is 40.000 USD.

XIX . ENTERTAINMENT

XIX .1.1 General Entertainment Notes:

All entertainment automation Budget: 50.000 USD

XX . SAFETY EQUIPMENT

XX . 1 GENERAL

XX .1.1 General

All safety equipment The Builder will install safety equipment.

fire extinguishers,

fuel shutoff,

2 fire blankets,

first aid.

2 Life rafts with a capacity of 8 persons,

Life jackets,

2 Life buoys,

12 Parachute flares,

6 red hand flares,

2 smoke flares,

XXI . PAINT & FINISHES

XXI . 1 GENERAL

The hull will be painted completely as yacht finished.

Roof of cabin and flybridge will be painted black. Jotun brand filler and International topcoat will be applied.

All colour schemes, styling lines and special features are to be determined by discussions between Owners and Builder and approved by the Owner.

Builder will provide renderings of proposed internal finishes and materials to assist with the decisions.

XXI . 2 HULL BOTTOM ANTI FOUL PAINT

Jotun Brand Antifouling paint to be applied underwater.

XXII . MISCELLANEOUS

XXII . 1 GENERAL

Stainless Steel Protection Planting against hitting the anchor to the bow.

4 x 2 pieces of Scuppers in the bulwark.

42mm. handrail on fly deck and main deck. The stanchions will be 32mm. if rectangular used stanchions will remain 32mm. rest 50mm./30mm.

Two storages on the two pillars on fly deck aft area.

Aft deck seating area will be built from composite material.

The air intake and out put for ER will be opened from sides of the seating area.

Backrest on the aft deck will be net 50 cm.

One piece Waterproof socket for electric if available with USB on the aft deck and flybridge aft deck.

Aft deck lockers will be for storing/hanging wet diving suits with hangers. There will be grill on the door.

Outside Galley will have sink, tab, countertop, Kenyon Grill(optional) underneath: One Icemaker(optional) and two storages. Outside galley will be built from composites. The aft deck window behind the galley will be one single piece.

The solar panels will be solid on the hard top and the flexible on the front decks, there will be four separate zones. Solar Panel brand is Fly Solar or CW Solar.

Crane will be a hydraulic telescopic boom marine crane Puma Brand. 650kg at 3,5 meters to be installed on the aft deck. The model is PMA TLS 1.5.

Pad eyes to be installed on the deck to secure any loose furniture.

All external hatches and doors have locks with keys.

Access to rear storage area with watertight door to be amended as per general arrangement. Door type to be specified to the Owner. The entrance structure will be sent for approval.

Anchor protection plate shall be built in stainless steel, shown in 3d renders and the final design shall be sent for approval.

Clean oil capacity shall be around 80 liters. Clean oil capacity for gear box shall be same capacity what the gearbox is needed. Tanks to be fitted for both clean engine and gear box oils. The capacity of each tank will be sufficient for both engines and both gear boxes.

PANDA 15000i PMS IC2 GFK 4DS 230V/50HZ Marin Genset shall be installed

END OF TECHNICAL SPECIFICATION