# Factsheet Sialia Explorer





### General

Yacht:	Silent Straits explorer
Intended use:	Private use
Design:	Vripack
Naval Architect:	Vripack
Engineering:	Vripack

## Main dimensions

Length hull:	78,6' ft	23,95 Mtr
Length overall	78,6' ft	26,60 Mtr
Length on waterline :	78,6' ft	23,95 Mtr
Beam maximum :	27,9' ft	8,50 Mtr
Beam moulded :	27' ft	8,23 mtr
Design draught :	52,5'ft	1.6 mtr
Air draught(exl dome/antenna :	27,1' ft	8.28 mtr
Design Displacement :		± 115 MT

## Performance

Maximum speed diesel generator mode	± 11.0 kts
Cruising speed diesel generator mode	± 8.0 kts
Maximum speed electric mode	± 11.0 kts
Cruising speed electric mode	± 6.0 kts
Range diesel generator mode at 8 knots	± 3495 nm
Range electric mode at 6 knots	± 115 nm

# Capacities

Fuel Oil :	3.963 Gal	15.000 L
Lube Oil	80 Gal	300 L
Freshwater :	1585 Gal	6.000 L
Grey water	211 Gal	800 L
Black water	317 Gal	1.200 L

# Complement

Owners Accommodation :		
Number of cabins :	1	
Number of berths :	1 double	
Complement :	2	
Guest Accommodation :		
Number of cabins :	3	
Number of berths :	2 double	
	2 single	
Complement :	6	
Crew Accommodation :		
Number of cabins :	2	
Number of berths :	4	
Complement :	4	
Total compliment :	Maximum	1

### Enviroment

The yacht is specifically designed long distance cruising in or near territorial waters and ECA zones. The yacht is designed, built and delivered for the following environmental conditions:

#### Water Temperature

Minimum :		2 °C
Maximum :		32 °C
Air Temperature		
Minimum :	-5 °C	
Maximum :	35 °C	
	@ 75% humidity	

### Regulations

The Yacht will be designed, built, and delivered according to the following regulations:		
Classification:	CE Category A 'OCEAN' / ABYC USCG Relations and Green Plus certificat	
Flag state:	TBD	

### Hull, Deck & Superstrucutre

The hull will be built in Aluminium AA 5083. Temper H321 will be used for plate and stiffener material.

The superstructure will be built from aluminium AA 5083. Temper H321 will be used for plate and stiffener material.

All areas on the Yacht that may be subject to chafe will be cladded in stainless steel (AISI-316-L). When not painted, all exposed stainless steel will be gloss finished with no welds showing, completely smooth.

### Propulsion system

The Yacht will be equipped with 2 EM-PMI540-T3000-1300-700VDC engine. Standard water-lubricated shaft installation with 4 or 5 bladed propellers, type high skew. Sizes and diameters of the propellors will be calculated to engines and speed. When considering all electric equipment we foresee the following main components:

- A DC power system;
- HVAC system;
- Variable speed generators;
- Battery bank;
- Electric bow;
- Electric stabilizers;
- Anchor winches;
- > Tender crane;
- Mast & navigation equipment;
- AV system;
- Household appliances;
- Bridge equipment;
- Lighting.

### Manoeuvring System

One electro-hydraulic steering machine will be fitted onto the articulated rudder. The vessel will be equipped with twin spade rudders.

One electric tunnel type bow thruster will be fitted in the foreship.

### Stabilizer System

The Yacht will be equipped with an electric stabilizing system by Humphree or equal. The stabilizer location will be insulated for noise and vibration and readily accessible for survey and maintenance.

### **Electrical system**

Total electric installation engineered according to CE regulations, Class A, with automatic fuses and switchboards in the engine-room and various switches on panels in the wheelhouse.

The Yacht will be fitted with a hotel distribution system of 230V AC 50Hz for the European market or 120V AC 60Hz for the US market.

Note: Appliances and other electrical

#### The system contains the following main components:

- Main AC distribution panel and Main DC distribution panel.
- > One (1) Genset 169 kw FPT S30 230 E + Danfoss EM-PMI375-T500 Elc. Motor
- > One (1) Genset 419 kw FPT N67 570 E + Danfoss EM-PMI540-T2000 Elc. Motor
- Battery bank, for silent night operations.
- Start Batteries, for propulsion engines and generators.
- Emergency batteries for emergency equipment according to rules.
- Shore power frequency converter.
- > Shore power cable, motorised including drum. Glendinning or equal.

# Exhaust system

The main generators will have separate wet type exhausts systems. The system will be fitted with suitable water injectors, silencers/water lift/separator and compensators.

Mist eliminators will be installed in the supply air ducting.

# **Fuel System**

Integrated fuel tanks will be fitted in the hull construction. Tanks will be accessible through readily sized manholes.

The fuel system has to be suitable for pressurised fill (3bar) and consist of a fuel transfer system with a transfer pump, a handpump, filters and a fuel separator.

The fuel separator is fitted in the pipelines between the consumers and day tank to fill the day tanks.

All fuel tanks will have electrical gauging and an alarm system with a read-out in the engine room and on the bridge.

Fuel filling and tank ventilation pipes will be made of steel.

One (1) tank filling station with a digital screen to give tank filling info, will be fitted in tank filling recess in the superstructure.

### **Bilge System**

A central bilge system is to be placed in all watertight compartments.

The bilge system will consist of several branch pipes connected to a main bilge manifold. The branch pipes in the various compartments will be provided with strum/mud boxes. All readily accessible for maintenance.

All bilge points will have remote alarming. One main self-priming pump and a separate manual back up pump will be fitted.

# Seawater Cooling system

The seawater system is to consist of two main sea water inlet boxes in the engine room. Connected with a cross-over pipe.

The general service seawater system is to provide cooling of machinery and equipment on board.

Diesel generators are to be cooled using their own heat exchanger.

# Fresh Water System

Integrated fresh water tanks will be fitted in the hull construction. Tanks will be accessible through readily sized manholes.

The fresh water/ deckwash pump (230 Volt), with run-dry safety, will run on the inverter. All piping of synthetic material make Hp2o or equal.

Warm water supply by two 100 liter boilers and switched to the electric heating system.

A small sand and UV filter water maker for approx. 150 L/hour will be fitted. It is advised to use the water maker only at open sea.

### Waste water system

Integrated black/grey water holding tank with transfer system with Y-valve for discharge overboard or discharge at shore will be fitted in the hull construction. Tanks will be accessible through readily sized manholes.

A mini Hamann black water treatment plant to be fitted.

All toilets discharge system equipped with a Macerator pump or equal will be fitted.

The piping of the wastewater system will be executed in type approved plastics PP, PE or equivalent.

### Hydraulic system

Hydraulic equipment shall be equipped with local hydraulic power packs.

The various hydraulic power packs will be powered by the yacht's electrical system.

### Air Conditioning & Heating system

A reversed cycle air conditioning system will be installed for cooling and heating together with electrical (24V) radiant floor heating in the bathrooms.

The system shall be based on circulated chilled water from a central chiller/compressor plant which shall run to a number of fan coils situated inside the accommodation spaces. The yacht will be fitted with individual temperature control system in each individual accommodations.

The system will be designed for simultaneous heating and cooling.

The seawater cooled chiller plant to consist of multiple compressors and at least one compressor over capacity for internal redundancy.

The fan coils to be fed by chilled water in cooling mode or by hot water or electric element in heating mode.

Fresh air will be supplied by a fresh air make up unit, fitted to dehumidify the intake air.

All sanitary spaces with have an extraction fan.

Chilled water pipes will be insulated with Armaflex. Ventilation pipe for the extraction hood in the galley will be made of galvanized steel spiro duct.

All bigger stores and secondary technical compartments shall be provided with forced ventilation. Small stores and all other areas shall be provided with vent pipes or openings for natural ventilation.

### **Fire-Fighting Equipment**

Portable fire extinguishers to be provided. According rules throughout the accommodation.

The engine room will be fitted with a local dedicated fixed firefighting system. Operated from the bridge.

The batteries will be placed in a watertight compartment. Operation temperature will be approx. 40 degrees C.

If one of the battery compartments will reach the 55 degrees C, the compartment will shut down. If one of the battery compartments will reach the 85 degrees C, a valve in the compartment will open en flood the complete compartment, and a constant flow of seawater will cool the complete compartment.

The ER ventilation ducts will be equipped with fire dampers.

A firefighting pump will be fitted.

Recessed fireboxes amidships will be integrated in the superstructure construction on main deck level.

A fire hose of 20m will be stored in a bow locker.

#### Navigation & communication System

All electronic navigation & communication equipment will be supplied by the Yard. An allowance is provided by the yard.

A 19' screens will be fitted as general bridge system.

System to include Autopilot, Satellite compass, Radar, AIS, Wind- speed & Depth sounders, GPS, Engine integration, Tank level information.

VHF transceiver, SSB transceiver, Satellite communication & intercom

### Security system

A central security, alarm and monitoring system will be supplied by Yard.

A total of four (4) security camera's will be installed on board. One (1) will be fitted in the engine room. One (1) will be fitted at the aft of the upper deck, looking down on the swim platform. Two (2) will be fitted on port and starboard looking aft along the sidedecks.

At the back of the passarelle one (1) alarm button as door bell will be fitted.

The yacht can be locked with a key from the outside of the wheelhouse doors. All other hatches and doors can be locked from the inside with a leaver mechanism.

An allowance is provided by the yard.

### **Exterior Outfitting**

All exterior outfitting like hatches, cranes, outriggers, windows, portholes, railings, deck hardware, anchor and mooring system, fixed exterior deck furniture etc. as indicated on the general arrangement plan will be supplied, installed and commissioned by the Yard.

Loose deck furniture (not structurally integrated) will be supplied by the Owner.

Only equipment designed specifically for marine (yacht) use shall be installed. Due care shall be given to practical usage, maintenance access and requirements.

The swimming platform aft will have an integrated transformer for bathing and boarding. The structure around the transformer need to be demountable.

The Transformer will have a reach of approx. 1.75 m behind the transom.

The transformer will be able to rotate 0 to 55 degrees up and down.

The Transformer will be fitted with sockets for stanchions for a safety rope on both sides.

The front of the wheelhouse(bottom part), will be equipped with hatches, to access storage space.

The seating arrangement on the swimming platform aft will be partly integrated in the aluminium construction. Hatches to the storage in the fixed seating are made of marine plywood covered with the deck cladding material.

Cushions are minimal 100mm thick and upholstered with fabric from Sunbrella or equal. Eight (8) loose dining chairs are considered to be owners supply and may be included in an allowance.

The main deck aft dining table will be fixed on two polished stainless steel pedestals.

Two (2) electrical capstans, make Muir, Maxwell or equal will be fitted on the main deck aft together with a double set of polished stainless steel bollards on port and starboard side. Capstans to be operated by means of a foot switch. Fairleads in the bulwark to be executed in stainless steel

Two (2) bullhorns to be executed in polished stainless steel will be fitted amidship at main deck on port and starboard side. Fairleads in the bulwark to be executed in stainless steel

One (1) electrical capstan, make Muir, Maxwell or equal will be fit on the main deck forward together with a double set of polished stainless steel bollards on port and starboard side. Capstan to be operated by means of a foot switch. Fairlead on centerline in the bulwark to be executed in stainless steel.

The anchor arrangement at the bow will consist of two polished stainless steel HHP anchors. Anchors will be pulled into polished stainless steel anchor pockets and pipes. A polished stainless steel bow protection plate with stainless steel guide profiles will be installed to protect against chafing by the anchor chains.

The electric anchor winches, make Muir, Maxwell or equal will be mounted in an integrated and well below the deck. To be reached via two deck hatches Winches to be operated by means of a foot switch and remote control. Chain stoppers will be made of polished stainless steel.

The anchor chain to be according to class required length and thickness, with a minimum length of 200 feet.

The chain to be galvanised. The last link of chain to be securely connected under deck with possibility to be released in emergency case.

A painted air horn will be fitted. A painted (if possible) search light in LED will be fitted.

An electric-hydraulic and telescopic knuckleboom crane, brand NauticalStructures or equal, will be fitted on the sundeck at portside.

The crane will have a reach to allow tender launch and recovery on port.

11 underwater lights will be fitted.

The seating arrangement on the Sun deck aft (along the sides) will be integrated in the aluminum construction. Hatches to the storage in the fixed seating are made of marine plywood covered with the deck cladding material.

Cushions are minimal 100mm thick and upholstered with fabric from Sunbrella or equal. The pantry arrangement on the sun deck will be integrated in the aluminum construction. The countertop will be made of Dekton or equal. Bar cabinet doors will be fitted with concealed hinges and proper sea fastening. Appliances will be integrated in the bar behind cabinet doors, which will be fixed through a traveler to the appliance door itself to open simultaneously.

The seating arrangement on the upper deck forward will be integrated in the aluminum construction. Hatches to the storage in the fixed seating are made of marine plywood covered with the deck cladding material.

Cushions are minimal 100mm thick and upholstered with fabric from Sunbrella or equal.

The fixed T-top together with removable sunawingpoles will be a frame will for removable sun awning.

The awning canvas will be from Sunbrella or equal.

Electrical wiring and dimmable LED downlighting will be integrated in the poles and T-top.

A fixed polished stainless steel frame with single toughened glass will be fitted as windbreaker on the forward upper bridge deck. The glass will be glued in a gutter which runs round the perimeter of the deck.

The Yard will provide covers for deck furniture and external window shades in matching fabric. Fabric from Sunbrella or equal.

The swim platform will be equipped with a stainless steel shower and shower-faucet, hidden in a weathertight compartment.

### Deck cladding & Capping

All exterior decks including the swim platform and stairs will be covered by artificial wood

cladding with a leveling compound underlayer of approx. 6mm by Flexiteek, Ecodeck or equal. Deck cladding will be prefabricated and glued with vacuum pressure on carefully smoothed decks. Hatch covers will be covered by Teak wood cladding of 15mm or artificial wood cladding. A solid profile around the perimeter of 50mm high will be fitted. Steps will be covered by teak wood cladding of 15mm or artificial wood cladding. A solid stepnose at the front of the step will be 75mm high will be fitted.

Each step will get LED indirect lighting under the step nose.

Electrical wiring and Dimmable LED courtesy lights will be placed at approx. 1' / 300mm above the deck every 6/7' / 2000mm along the superstructure walls.

Electrical wiring and dimmable LED downlighting will be integrated in the exterior ceilings.

### Doors & hatches

Exterior doors and hatches will be yacht type, flush mounted and in the decks covered with the applicable deck cladding.

All deck and seating hatches will be fitted with gas struts. Al deck hatches will be openable from both sides, lockable from the inside.

All main deck hatches leading to crew, guest and technical accommodation will be watertight.

A double acting weathertight sliding door will be fitted on main deck aft. Sliding door will have two glass sliding.

The door will be installed on a sill in the aluminium construction, in correspondence with class.

On one side of the wheelhouse hinged weathertight doors with a glass window aligned to the other wheelhouse windows will be fitted.

The doors will be installed on a sill in the aluminium construction, in correspondence with class.

A weathertight sliding door with a glass window is fitted on top of the interior stairs to the fly bridge deck.

A watertight sliding door with a glass window is fitted in the transom.

### Windows & portholes

All windows in the hull and superstructure to be double laminated toughened glass, glued to the structure and fitted with a black border.

Glass thickness to be in accordance with the rule requirements. With exemption of the wheelhouse, all glass to be tinted.

In the wheelhouse 1 (one) openable window will be fitted.

Each of the owner/guest accommodation will have a openable portholes, all openable portholes will be fitted in the cabins. Bridge alarm is installed on all openable portholes.

### Insulation

The yard is to supply and fit insulation materials as required to meet the structural fire protection, noise, vibration and thermal requirements. All insulation material to be of approved material.

The exact specification of materials to be determined by a noise and vibration consultant. the following target noise levels in dB(A) are expected as listed below:

Space	Cond. 1	Cond. 2
Owner's Stateroom	45	50
Guest staterooms	45	55
Main Salon/Galley	45*	55*
Crew Cabin	50	55
Wheelhouse	45	55
Bathrooms	3 above adjacent roor	n
* without noise of extraction fan		

**Condition 1:** Anchor condition; One diesel generator running, other usual machinery running and

air-conditioning is assumed at low speed setting.

**Condition 2:** The main generators running at 80% load, and other usual machinery running. The air-conditioning is assumed at low speed setting.

## Paint System

A yacht finish paint system by Awlgrip or International Yachtpaint, will be fitted as per the instructions of the paint supplier and according ICOMIA standards. All exterior surfaces will be faired and yacht finish painted upto 150mm below the waterline

On all visible exterior surfaces of the hull and the superstructure high gloss paints should be applied.

The underwater ship will be finished with an antifouling

All painted surfaces will be thoroughly prepared prior to painting or fairing. Everything in accordance with the paint supplier.

Stripe coat to be applied as indicated by the paint supplier.

All paint work to be fully supervised by the country representative of paint manufacturer and to be to their satisfaction.

All painted surfaces are to be free of dust, runs or orange peel.

### Interior

The interior layout is based on the general arrangement.

The styling concept will be provided by Vripack.

Loose interior furniture (not structurally integrated) and fabrics will be supplied by the owner and may be covered in an allowance. Sustainability of the material will be high priority during selection.

The free-standing height at main deck is minimal 2.15m.

The free-standing height in at lower deck is minimal 2,10m.

The free-standing height in crew areas is minimal 1,95m.

All free-standing heights based on a floor finish thickness of 15mm.

For the interior wood, solid as well as veneers will be used. All woods will be properly finished and protected for marine environment.

All plywood will be of general marine quality or better.

All MDF will be of Tricoya quality or better.

All interior joinery work will be made in accordance with good yacht practice and of high quality.

Finished floors will be placed on a leveled base floor. The base floor is joined to the construction with sound insulation matters taken in account. Skirting will finish floor borders.

Finished walls will be mounted on base walls, some finished wall panels can be removable, by fast mounts or equal, to allow access to cabling and systems behind it. Base walls are joined to the construction with sound insulation matters taken in account.

Finished ceilings (panels) will be mounted on a base ceiling, by fast mounts or equal, to allow access to cabling and systems above it. The base ceiling is joined to the construction with sound insulation matters taken in account.

Paintwork will be applied on paint system matching base layers. Painting (spray) will take place in conditioned environment after sanding and proper dust cleaning.

Indirect lighting and (spot) downlighting will all be dimmable LED of 2700K (warm color). Decorative wall sconces, ceiling ornaments, table lamps and readings lights will all be dimmable LED of 2700K (warm color).

Down lighting, indirect lighting and decorative lighting will all be switched separately.

Considered brands are CJC Systems (sockets and switches) Delta Light, WKled, Porta Romana or equal.

Cabinet hardware will be of stainless steel quality. Considered brands are Turnstyle, Buster and Punch, Foresti & Suardi or equal.

Sanitary hardware will be of stainless steel quality. Considered brands are Doornbracht, Vola, Gessi or equal.

Sinks and drainplugs in the galley will be of stainless steel quality.

Sinks in the bathrooms will be integrated in the countertop, undermounted porcelain or equal.

Galley and bathroom countertops will be made of Natural stone, Dekton or equal. Cabinet doors will be fitted with concealed hinges and proper sea fastening. Appliances will be integrated in the carpentry behind cabinet doors, which will be fixed through a traveler to the appliance door itself to open simultaneously.

### Audio & video

Audio and video equipment will be installed by the yard but considered owner supply. An allowance will be provided by the yard.

A brand and list of equipment should be delivered prior start of interior design.

Star link satellite TV's to be provided in the main salon, owner stateroom, VIP cabin and guest cabin.

A TV lift will be fitted in the main salon cabinetry.

The indoor audio system will be Sonos or equal. Each area can be controlled separately. The main salon will get four (4) speakers. All other areas will get two (2) speakers.

The outdoor audio system will be Sonos or equal and will get four (6) speakers on main deck and four (6) speakers on the top deck.

An undercounter 19' rack will standard be taken in account in the wheelhouse. Speakers (and sub woofers when applied) will be placed in the base wall construction, meaning their finished panel to be flush with the finished wall/ceiling.

A beamer/project will be place on flybridge.

### Household equipment & appliances

In general all appliances to be Miele Professional or equal.

#### Galley to be equipped with the following equipment:

- 4-pit induction range;
- > Overhanging extraction hood (extraction through the mast);
- > Combi oven (steamer or microwave);
- > 2x Full height fridge with freezer drawers;
- Boiler (separate from the faucet);
- Dishwasher;
- Built-in coffee machine;
- Undercounter trash compactor;
- Undercounter ice maker;
- Stainless steel sink (large and small) and faucet.

#### Main salon to be equipped with the following equipment:

Undercounter wine cooler

#### Flybridge deck to be equipped with the following equipment:

- Undercounter fridge;
- Undercounter Icemaker;
- Electric teppanyaki / grill range;
- > Stainless steel sink (large and small) and faucet.

#### Laundry to be equipped with the following equipment:

Ix Washer

- Ix Dryer
- Stainless steel sink (large and small) and faucet.

# Leisure Tools

All leisure tools and tenders as indicated in the general arrangement will be supplied by the Owner.

#### Space reservations are made for:

> A 17 ft / 5,40m electric tender of approx. 645kg.

The yard will provide proper storage of the tools installed at the yacht.

### Main Parameters

For defining the initial bid price, the following main parameters can be used.

Luxury interior maindeck	51 m2
Luxury interior lowerdeck	78 m2
Crew Interior	19 m2
Hull paint area(without underwater)	207 m2
Superstructure paint area	± 275 m2
Anti fouling paint area	± 162 m2
Deck cladding area	± 129 m2
Glued glass area*	63 m2
Aluminium hull construction weight	± 24.5 Mt
Aluminium superstructure construction weight	± 8.6 Mt
Gross Tonnage	Tbd GT

\* Including the sliding door glass

These values are subject to further design and engineering reviews.

