

## ALIX — NAUTOR'S SWAN



**Судостроитель:** NAUTOR'S SWAN

**Год постройки:** 2009

**Модель:** Cruising/Racing Sailboat

**Цена:** ЦЕНА ЯХТЫ ПО ЗАПРОСУ

**Местонахождение:** Spain

**Длина общая:** 90' 11" (27.71m)

**Ширина:** 21' 3" (6.46m)

Купить **ALIX — NAUTOR'S SWAN** а также выбрать подходящую вам яхту из нашего каталога яхт вам поможет опытный яхтенный брокер Андрей Шестаков. На сегодняшний день компания **Shestakov Yacht Sales Inc.** имеет большое количество яхт в собственном списке продаж, а также тесно сотрудничает со всеми крупными яхтенными производителями по всему миру.

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# ОГЛАВЛЕНИЕ

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# ХАРАКТЕРИСТИКИ

## Основная информация

Тип судна: Cruising/Racing Sailboat	Подкатегория: Крейсерская яхта
Модельный год: 2009	Год постройки: 2009
Вид обновления: 2015	Страна: Spain

## Размеры

Длина общая: 90' 11" (27.71m)	Длина по ватерлинии: 80' 7" (24.55m)
Ширина: 21' 3" (6.46m)	

## Скорость, вместимость и масса

Водоизмещение: 121254 Pounds

## Размещение

Всего кают: 4

## Корпус и палуба

Материал корпуса: Carbon Composite	Цвет корпуса: Anthracite Grey
Дизайнер корпуса: German Frers	

# ПОДРОБНОЕ ОПИСАНИЕ

## Detailed information

Another successful collaboration between Germán Frers and Nautor, the Swan 90S 'Alix' is the quintessential performance cruiser combining elegant and powerful lines with Finnish quality to achieve an aggressive beauty. The anthracite grey colour scheme and customized four-cabin interior with Wengé and tinted oak give Alix a modern edge while maintaining the classic and timeless appeal of a Swan yacht.

Alix is under original ownership since new and has been based in the Med with light usage during the summer months except for two winters in the Caribbean (2011/2012 and 2016/2017). She has done a few charters each year but not more than three weeks annually. The owner has carefully selected the charter clients.

Alix has been maintained to the highest level and benefits from three substantial maintenance periods in 2014, 2015 and 2018. The new engine, carbon standing rigging and complete paint job have kept her looking and working like new.

The yacht is MCA LY2 coded for commercial use and was inspected by MCA in June 2018.

## HULL & APPENDAGES

### Construction

The hull is constructed in carbon fibre, infused with epoxy in a female mould. Topsides are sandwich construction with carbon reinforcement. The bottom laminate from the waterline down is monolithic. Structural bulkheads are of foam cored pre preg carbon fibre construction with a noise barrier and separate skin panels. There are six hull windows in total. Two the in saloon, two in the Master cabin and one in each of the aft guest cabins. 2 coats of International Micron antifouling applied with spray gun in 2018.

### Hull Finish

Topsides are painted in DuPont metallic Anthracite grey with silver stripes on coaming and boot top

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2 coats of International Micron antifouling applied with spray gun in 2018

## Keel

The ballast bulb is lead casting with 4.5% antimony and attached to a Weldox 700 steel fin. The keel is attached to the hull with AISI 329 bolts.

## Rudder

The rudder is provided by Isotop and built using carbon fibre/epoxy skin on a foam core, with tubular carbon fibre stock supported by two self-aligning bearings supplied by JP3. The lower bearing has double seals to prevent leakage. There is a lightweight aluminium steering quadrant bolted to rudderstock. Rudder was pulled in 2014 and bearings returned to JP3 for complete overhaul.

## Steering Systems

Custom built composite pedestals with compass, navigation and control systems. Two 1200 mm clear-coated carbon composite wheels that can be independently disconnected. New cables were fitted in December 2015

## Transom

The transom door doubles as a bathing/boarding platform and is made from carbon fibre pre-preg for maximum stiffness. There is 9mm teak recessed on the topside. Two custom-built stainless steel rams hydraulically operate the door. Two stainless/teak ladders, one to provide access from deck to the platform, the other a swimming ladder. Hot/Cold water shower on swim platform

## Lazarette

Storage space with access to all components via lightweight panels. Storage for Williams jet tender with remote winch for hoisting and rollers for launching and deployment

## Forepeak

Storage for sails and equipment, lightweight floorboards, topsides faired and top coated

## DECK

### Deck Construction

Deck is constructed in fibre pre-preg sandwich with honeycomb core, glued to the hull. High-density foam core under the deck fittings. The coach roof and coamings are of infusion moulded carbon fibre reinforced epoxy with a low-density foam core. Laid teak 65 x 9 mm nominal thickness, quarter cut, battens on side decks, coamings and cockpit sole glued and vacuum bagged without screws.

### Deck Equipment

One hydraulically operated titanium anchor arm for stowing the bow anchor in deck locker. The controls are on a wandering lead with a 3.5 m (11') cable. Pulpit and pushpit are 610 mm high with spacing according to ORC requirements and made of a Ø 32 mm stainless steel tube. Pushpit have gates for easy access to bathing platform /gangway

### Cleats and fairleads

Eight 400 mm Olcese Ricci stainless steel pop-up mooring cleats; two on fore deck, four amidships, two aft. Custom made stainless steel pop-up fairleads recessed in bulwark; two forward, four amidships and two aft

### Hatches

Nautor custom made flush mounted tinted acrylic hatches with gutters and frames in white painted composite. Gas cylinders support all hatches, sizes are for clear openings. Escape hatch in aft cabin above bed and crew cabin. Nautor custom made teak covered hatches for access to deck lockers and lazarette

### Deckhouse

Parasol grey deckhouse windows made by Form glass, chemically toughened, laminated and glued to the superstructure. Main companionway lockable sliding hatch of tinted acrylic with sliding drop board.

### Cockpits

Aft cockpit is recessed into deck, forward cockpit with two U-shaped settees and two clear coated carbon fibre cockpit tables that can be lowered to seat level to create an expanded sun bathing area

## Winches

All winches are hydraulically driven via the hydraulic main ring system and connected to the valve blocks with flexible hoses

Four Harken B1110 STA HLHY primary winches in cockpit.

Two Harken B990.3 STA halyard winches near the mast

In 2018:all 6x Harken deck winches were serviced.

One Lewmar LMS 77/2 2 speed captive mainsheet winch including a hydraulic feeder mounted in port lazarette

One Lewmar vertical 4000 hydraulic windlass installed in anchor locker – serviced in 2018

One hydraulically operated, retractable hydraulic Sanguinetti 3710400 Capstan drum-mooring winch installed on fore deck.

## Sailing Hardware

Harken deck hardware and Spinlock jammers/clutches

Harken 125 mm single foot blocks for floating jib car towing line.

Harken 1706 tracks for jib sheet with Harken C6278 cars and stoppers

Seven Harken 3022 150 mm stand-up fixed single blocks for halyards.

Four Harken C5121 150 mm stand-up fixed single blocks for runners and Gennaker sheet

In 2018:all Harken deck hardware were serviced.

## INTERIOR

### General

Mainly European oak is used for visible interior and has a waxed natural effect finish. Vinyl covered removable overhead panels are installed in all accommodation areas (new 2015) the floorboards are of PVC-sandwich construction and the top face is Wenge. All openable deck hatches are fitted with manual roller blinds and mosquito screens. The deckhouse windows are

fitted with electrically operated blinds. Handrails are fitted throughout the vessel where needed for safe movement under deck. Partitions are of sandwich construction on a core of 30 mm foam. Skin panels of 5 mm marine plywood with 0.6 mm veneers, painted light board or padded panels.

General cabin lighting is with spotlight down lighting.

## Interior Arrangement

### Forward Cabin (Crew)

Upper and lower berths to port, hanging locker forward of berths. Settee to starboard with table and folding Pullman berth above settee. Independent access to deck via 80cm x 80cm hatch with ladder. Head compartment forward with shower, mirrors, storage lockers and Tecma WC. Washing machine and tumble driers are located aft outboard

### Forward Guest Cabin

Guest cabin starboard side forward of saloon with queen sized double berth outboard. Storage lockers and drawers below berth. Storage lockers outboard. Hanging locker forward of berth, Ensuite head compartment with separate shower stall, sinks, mirrors and Tecma WC

### Starboard Aft Guest Cabin

Side by side twin berths with bedside table in between, full height-hanging locker forward of the outboard berth. Pullman berth above inboard berth. En-suite head compartment forward with separate shower stall, washbasin, mirrors, storage lockers, heated towel rack and Tecma WC. The head has a separate entrance to allow use as day heads.

### Port Aft Guest Cabin

Side by side twin berths with bedside table in between, full height-hanging locker aft of the outboard berth. Pullman berth above inboard berth. En-suite head compartment aft with separate shower stall, washbasin, mirrors, storage lockers, and Tecma WC.



## Master Cabin (Aft)

Double berth on starboard side outboard. Settee with vanity desk and seat to port. Mattresses are of a sprung type, high quality, manufactured for marine use and supported by Deltaflex type batten to provide ventilation of underside. Hanging lockers are fitted with a rail for dress hanging. A light automatically switches on when door is opened. Entertainment instruments are located in upper lockers outboard. Head compartment port and forward with Tecma toilet, mirrors, wash basing and storage lockers

## Saloon

Dining area for eight persons on starboard side with L-shaped settee outboard starboard and a large rectangular dining table (size 800 x 1850cm) with two chairs. Settee with armchairs to port. Lockers in forward corners of the saloon.

## Galley

The galley is located on port side of the yacht with access to saloon; crew quarters engine room and deck. Two sinks and dishwasher are located in counter inboard. Cooker and microwave oven, f are located outboard. Fridges and freezers are located forwards Main electrical switchboard is in aft and outboard corner of galley. Storage drawers and lockers for pots, pans and tableware in the upper lockers.

### Galley/laundry Equipment

Dishwasher: Miele G1270 SCVi 230V 2.3kW

Microwave oven: Miele M8261 2.2kW

Washing machine: Miele W2839i, 2.4kW 5kg 1600rpm

Clothes dryer: Miele T4839Ci, 2.9kW condensing type, 6 kg

Refrigeration: 2 x 107 l Frigonautica custom built 24 V DC.

Freezers: 2 x 95 l Frigonautica custom built 24 V DC.

Stovetop: Miele Induction hob 230 V

Oven: Miele electric oven H3140B 3.3kW stainless steel front.

## Nav Station

Nav station is located on starboard aft corner of saloon with navigator seat, flush mounted instrument displays

## Engine Room

The engine room is located on CL below the saloon. The structure is built in aluminium profiles with entrance from galley. Engine room surfaces and technical equipment are painted white

Partitions between cabins, toilets, corridors, etc. are built to meet a 20 dB reduction of airborne sound.

The engine room is insulated towards cabins and saloon with various layers of rock wool with noise barrier sheets in between. The engine room door is of similar construction as the surrounding partitions. They close onto rubber faced landings for maximum noise reduction

## ENGINE & SYSTEMS

Volkswagen marine engine TDI V6, 230hp@3500 rpm with direct mounted reduction gear. Engine replaced in 2015. Gearbox ZF 45-1 vertical offset, reduction 3741:1. Folding propeller BRUNTON Varifold 4.61 Ø 760x526 (30x21") the propeller shaft is turned out of corrosion resistant steel, supported by a water lubricated rubber bearing at the P bracket and stern tube. Shaft pulled in 2014. The stern tube has a flexible shaft coupling with drip free shaft seal.

In 2018: Full check and service of engine, n1 and n2 generators. Engineering service by Marine engineering Palma.

## Fuel System

The feed lines to the engine and diesel generator are equipped with 30-micron fuel filter/water separators with water alarm. Dual version mounted for main engine so as to permit uninterrupted running of the engine while changing filter elements. Single version for diesel generator, water alarm mounted.

Fuel capacity 1630 L in two in stainless steel tanks, with individual level indicator. Filler line on port and starboard side. Tanks are equipped with hatches of adequate size to permit inspection and cleaning. All tanks are pressure tested to 0.3bar. Shut off valves are provided for each tank.

In 2018: Clean and inspect fuel tanks. Changed all Fuel filters and separator filters, oil filters, oil, raw water pumps and impellers, fuel line.

## Exhaust System

The Halyard exhaust system has fibreglass silencers and gas/water separators installed for both main engine and diesel generator. Water is discharged below the waterline and exhaust gases from main engine and diesel generator exit under the transom. Silencers are provided with a drain tap. They are flexibly supported on vibration dampening brackets.

## Diesel Generator

Two 20 kW M864W Northern Light generator producing single-phase 230 V 50 Hz AC. The units are mounted on elastic seating. Major service in 2015 including fuel injection pumps, alternators and cooling systems

## Generator Hours (June 25, 2016)

Port: 6,147

Starboard: 6,900

## Bow Thruster

Hundested FT1R retractable bow thruster, thrust power 18.4kW

Powered by PTO pumps on both diesel generators

Checked in 2018.

## Hydraulic Systems

The hydraulic system is a Bosch-Rexroth custom designed system to supply all hydraulic functions quietly and smoothly, eliminating any inherent hydraulic noise. The alternative power sources are installed to meet the demands of the sail handling equipment. Central hydraulic system is PLC controlled.

The hydraulic system is defined on a basis of a central power pack supplying regionally located

valve groups, thereby achieving minimal weight to power ratio with the effect of using minimum electrical power with maximum hydraulic movement. Each control valve group is situated close to the operating unit, giving a precise control and allows for a quiet and smooth operation, eliminating inherent hydraulic noise and vibration. The system has two different sources of power. Each source will be operated independently of each other. The sources are obtained from:

1. Generator PTO pump Bosch-Rexroth A10V045 on each genset, 22kW each
2. Two DC Electric motor standby pump units Bosch-Rexroth A10V028, 5 kW each

All pumps are equipped with a horsepower controller. The function is based on the power requirement from the users with the style of maximum speed/ minimum pressure and maximum pressure/ minimum speed. The alternative power sources are installed to meet the demands of the sail handling equipment. Since the sail handling is dependent on hydraulic systems it is important to have alternative power sources to ensure trouble free operation.

## Hydraulic Functions

- Anchor windlass
- Forward mooring Sanguinetti
- Jib furler
- Anchor swing arm
- Bow thruster plus up/down (by independent system)
- Autopilot back up, supplies oil to auto pilot cylinders from a genset PTO pump.
- Main sheet captive winch
- Outhaul
- Cunningham
- Jib halyard tensioner
- Backstay tensioner
- Boom vang
- Inner forestay
- Reckmann Real time forestay adjuster
- 2x Halyard winches
- Primary and Secondary winches
- Genoa Car Pullers
- Transom hatch cylinders

## Pneumatics

There is one low pressure (6 bar) piston compressor with quick acting couplings in lazarette, engine room and forepeak. The piston compressor is a Thomas 327 CDC. There is a separate pneumatic system for sealing the transom door. This was renewed in 2015.

## PLUMBING SYSTEMS

All systems are based on reliable components with world wide service. Components and valves are labelled with function, and piping is labelled with colour code, including an arrow to indicate direction of flow.

56/24.

### Fresh water System

A pressurized hot and cold water system is installed. The fresh water piping is of polypropylene, nylon and copper tubing. Filler line on side deck is led to a valve chest. The valve chest has valves for each water tank and for water pressure pumps. Hot and cold water is distributed to all heads, to the galley and to deck shower. Cold water deck wash, one fwd and one aft. There are single lever mixing faucets for wash basins, galley sinks and showers.

There are two stainless steel tanks with a total capacity of approx. 1000 L. The tanks are provided with baffles, hatches, level indicators and vent pipes. All tanks are pressure tested to 0.3 bars. Tank levels are shown on electrical main switchboard.

The water pressure system is equipped with two Reya A95, 24 V pumps. One 24 litre pressure tank is connected to the system. There is a city water connection that allows shore water supply to be piped directly into the pressure water system via a pressure regulator and check valve.

### Hot Water System

Two Isotemp hot water tanks with a total capacity of 150 litres . The hot water pipes are insulated with pipe insulation, hot water circulation via a 24 volt pump quickly distributes heated water throughout boat. Inlet has a check valve to prevent hot water back flow. Outlet has a relief valve for over-pressure protection. There is a thermostat mixing valve to prevent too hot water in the system.

### Watermaker

The water maker is an Idromar Mini Compact model MC8S, vertical version. The water maker produces 240 l/h installed in the engine room. The water maker is provided with dual pre-filters, primary with 25 micron cartridge, secondary with 5 micron cartridge. The feed water pumps are

self priming with sea bronze body and internal parts in stainless steel AISI 316. The high pressure pump is constructed to work with sea water.

In 2018: Complete service of watermaker, filters and clean 5 membranes.

### Refrigeration System

There are three custom made Frigonautica 24V DC water cooled compressors units for fridges and freezers.

In 2018: Service freezer and fridge compressors. Add freon gas. Change 1 cooling pump.

### Sea Water System

There are seacocks of bronze for all through-hull connections below waterline located in accessible position. Inboard side of seacocks fitted with stud long enough to take two hose clamps.

There is an electrical fire/anchor wash pump with connections on fore and aft deck. G&R type CB 25/16 24 VDC, capacity 180 l / min. There are two fire hydrants with hose reel, one forward and one aft. An auxiliary fire pump is fitted under the floor in the galley aft of the engine room door. This has an independent quick fit connector.

### Grey Water System

Grey water from sinks, basins, showers, air conditioning and washer/dryer is collected in two stainless steel grey water tanks, total capacity 400L. Level switches are fitted to each tank, with indication at  $\frac{3}{4}$  full and full. The grey water tanks are emptied by 24 V Rheinstrom "T" model pumps these were rebuilt by the factory in 2015 sea cocks via siphon breaks.

In 2018: Clean and inspect Grey water tanks and pumps.

### Black Water System

All toilets are connected to the black water tank. Two stainless steel black water tanks are provided, one for aft toilets and one for forward toilets, total capacity 200 l + 200 l, with indication at  $\frac{3}{4}$  full and full. The tanks are fitted with baffles, inspection covers, and vent lines. The tanks can be emptied by 24 V electrical Rheinstrom model T pumps to sea cocks via siphon breaks. Each tank is also provided with a deck suction line.

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In 2018: Clean and inspect Black water tanks and pumps.

## Toilet Systems

The toilets are Tecma Standard Plus, 24 V. Flushing by fresh pressure water. The function cycle is completely automatic. The high performance turbine pump enables a complete fragmentation of the organic residues. Full black water tank disable flushing of toilets.

## Bilge Pump Systems

There are five separate bilges, i.e. fore peak, forward cabin, engine room, aft cabin and lazarette bilges. Each bilge is equipped with a DC driven submersible pump 140 l / min. Two manual Whale Titan, 100 l / min are installed as back-up pumps, one for fore peak and forward bilge, the other for aft engine room and lazarette bilge.

Whale gulper 24 volt 320 drainage pumps are installed in all bilges

In 2018: Clean all bilges. Check and change filters of Hydraulic pump system.

## VENTILATION SYSTEM

### Air Conditioning

A central cooled / heated waterborne system 230 VAC 50 Hz is fitted for the entire accommodation. Condensation water from the system is collected to the grey water tanks.

The total cooling / heating capacity is divided in proportion to cabin volume and position. The system is designed for air handler to run on low speed for silent operation. There is an individual temperature control in each cabin. The main unit is a Condaria PWM/FCL/18002, 72 000 BTU/h (21 kW).

Forced air ventilation system in all cabins

Independent engine room ventilation and extraction

Battery boxes are ventilated

In 2018: Service Air conditioning

## ELECTRICAL SYSTEM

The electrical components are chosen based on Nautor's long experience in the yachting industry. Special attention is given to reliability and world wide service ability. Electrical diagrams will be delivered with the yacht, for both DC and AC systems and showing the location of all junction boxes. Cables are labelled with identification numbers at both

ends. At watertight bulkheads wires are run up to deck head height when penetrating the bulkhead or are sealed in place to produce water tightness.

Mast and shrouds are electrically connected to the keel. In the top of mast is an air terminal connected to a lightning conductor, which runs down to the keel. The prop shaft, keel and thruster have their individual sacrificial anodes.

### DC System

2-pole 24 V insulated return DC-system for lighting, blowers, pumps etc. The wires are sized to minimize voltage drop. There are two battery banks, one for service and one for hydraulics. The service battery bank is 24 V 1200 Ah /1h, powering lights, blowers, pumps, electronics etc.. Hydraulic batteries are Optima 300 Ah / 20 h and consist of eight Optima Yellow Top S5,5 12 V 75 Ah. The hydraulic bank is used for the 2 x 5 kW central hydraulic and the auto pilot pump. The battery banks are located aft of the engine room.

There is one 24 V 140 A Bosch alternator on the main engine common for service and hydraulics battery banks, through a battery isolator. The hydraulics battery is charged by the main engine alternator through splitting diodes.

24 V DC outlets, one in the port side lazarette, one in engine room, one in anchor locker, one on the mast and one in aft cockpit.

In 2018:Voltage test of battery system.

### AC System

Power supply of 230 V 50 Hz single-phase three-wire AC-system. The 230 V system can be fed by the diesel generator or shore power inlet. The bus is of split bus type. There are also a number of 230 V 50 Hz appliances fed through DC/AC inverters.



Shore inlet plug, 230 V 3-pole 63 A is accessed through a hinged lid at transom. There is a separate shore inlet for air conditioning. For the separate air conditioning inlet, a galvanic insulator is installed in the ground wire. Power from ashore is led to a 15 kVA isolation transformer.

There are two 20 kW M864W Northern Light generator producing single-phase 230 V 50 Hz AC.

There are two Mastervolt, Mass 24 V 100 A chargers with 3-step charge characteristics, for the service battery. There is one Mastervolt, Mass 24 V 100 A charger with 3-step charge characteristics, for hydraulics battery. The starting batteries can be charged by one Mastervolt Mass 12 V 10 A charger with 3-step charge characteristics via isolator diode.

In 2018:Change N1 battery charger for new one.

Conversion of 24 V DC to 230 V AC 50 Hz for single-phase AC consumers. There is one Mastervolt 24/2500 VA for misc. and one Mastervolt 24/1500 VA for instruments and entertainment. Both inverters have a separate transfer switch.

There are 230 V outlets of schuko type. One outlet per toilet, two outlets per cabin, three in galley, four in saloon, one in engine room, one in sail locker and one in the port side lazarette.

## ELECTRONIC SYSTEMS

### Navigation Instruments

Two Suunto 5" magnetic steering compasses at helm adjustable for global balancing.

B&G gyro rate compass as the main heading source for the navigation instruments, autopilot and other instruments requiring accurate heading information. A B&G fluxgate compass is used as the backup heading source.

### Sailing Instruments

There is a comprehensive Brookes & Gatehouse H3000 package consisting of central processor unit, 1450mm masthead unit, speed/temperature sensor, depth sensor and barometric sensor. B&G Hercules H3000 Main processor and a Halcyon gyro processor. Barometric pressure is displayed in the B&G H3000 system.

One B&G Graphical Function Display (mono-chrome GFD) at the helm and one NMEA Full Function Display (FFD) located at nav station. One GFD display in aft cabin and one in crew cabin

Four 30/30 repeaters mounted on the mast.

Four 30/30 repeaters in aft cockpit

B&G 360° and 45° analogue wind direction displays on each side of cockpit backrest.

## GPS & Radar

A Furuno NavNet 3D + blackbox radar/chart plotting system consisting of one Furuno 1834C/C-MAP radar/plotter display at the navstation.

Two Furuno 8" chart plotters (one at each helm station)

Furuno GP-320 DGPS to be used as the main navigator for:

- Furuno NavNet radar/chart plotting system
- PC cartography software MaxSea NavNet Commander V12
- Brookes & Gatehouse
- Brookes & Gatehouse autopilot system

A Furuno GP-37 GPS navigator with WAAS software as back-up.

Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet plotter system.

PC cartography software MaxSea NavNet Commander V12, on the computer. The MaxSea NavNet software can also be viewed in the saloon TV. The chart system for the Furuno NavNet system is C-MapNT MAX.

Furuno FA-150 class A type AIS system. The target information is sent to the Furuno NavNet system and integrated with the MaxSea NavNet software.

## Antennas

The Furuno NavNet GP-320 DGPS antenna on the port lower pushpit rail.

The Furuno GP-37 GPS antenna is mounted on starboard 2nd spreader.

The Furuno FA-150 AIS GPS antenna is mounted on port 3rd spreader.

The Furuno NavNet radar scanner, 60 cm dome type, is mounted front of mast.

The Furuno NX-3H-D Navtex antenna is mounted on 2nd spreader port side.

### Auto Pilot System

B&G H3000 ACP2 autopilot system with one Graphical Pilot Display (mono-chrome GPD) control unit at each steering pedestal. Powered by an individual 24V Marsili/ Bosch Rexroth power pack driving the steering quadrant via twin Rexroth low friction cylinders. There is a hydraulic back-up for emergency use, supplied from the main hydraulic system.

### Computer Systems

Two computer station connected to two 17" LCD flat screens at the navigation station, one for communication, one for navigation.

A Canon printer is provided for hardcopy printouts.

## COMMUNICATION SYSTEMS

### VHF Radio

The Simrad RS-87 DSC VHF has two handsets, one at the nav station and one at the helm, with intercom possibility between the two. Handheld Simrad VHF radio.

### Satellite communication

Fleet Broadband with handset at nav station

Connected to computer for internet access

Antenna mounted on first spreader

1 Inmarsat C GMDSS package

### Cellular Phone Systems

Nokia E60 quad band GSM phone with internet capability

## Other

Yachspot Internet Wi-Fi system that searches for public "hot-spots" and broadcasts them onto the yachts local area network (LAN/WLAN). Antenna mounted on 2 spreader stbd side.

Pepwave 4G Router with Antenna mounted behind 30/30s on mast

Furuno NX300 Navtex Receiver

3x ICOM Handheld VHF mobile radio

1X ICOM Handheld GMDSS Radio with spare battery

## Entertainment Systems

Saloon:

The yacht is equipped with a Bose Lifestyle system throughout with televisions and DVD players in each cabin. The cockpit has a separate Lifestyle system with four independent Poly Planar Speakers

## MAST & RIGGING

In 2018: Mast and boom fully disassembled, inspected, repaired and repainted with Awlgrip White.

Service pressure test of all Hidraulic rams.

Service and pressure test of boom vang.

Four spreader mast with discontinuous shrouds by Offshore Spars, faired and painted white. The rig is set up for easy handling with swept spreaders 25 degrees. The Boom vang is used on the wind to complement mainsheet. The mast is a carbon fibre intermediate modulus, with luff track for mainsail. The masthead is a moulded carbon fibre unit integral with mast. There is an active antenna at the masthead for the VHF, TV and FM radio (new 2018). Marco EW3 24 V foghorn.

$l = 36,80 \text{ m} - J = 10.76 \text{ m} - P = 35.50 \text{ m} - E = 11.45 \text{ m}$

The shrouds were replaced with Navtec Carbon in 2013. The headstay was inspected and reheaded in 2015.

## Boom

Carbon fibre Park Avenue boom, clear coated. Hydraulic outhaul system. Arrangement for three reefs in the main sail. Leech reef lines with stoppers at goose neck. Boom preventer system. Built-in deck lights. Lazy jacks

## Standing Rigging

Navtec carbon fibre rigging with rod headstay. Kevlar inner forestay and running backstays.

In 2018: Full service by Riggers (Pro-Rigging). Check of all rigging.

## Running Rigging

Inventory of running rigging available on request.

## Rig Hydraulics

All hydraulic functions are powered by central hydraulic system. Reckmann UD4 Sphere hydraulic furling head stay with real-time headstay adjuster and R6 double groove aluminium foil.

- Navtec cylinder for inner forestay tensioner, Navtec -40 SE.
- Navtec boom vang, Navtec -90
- Navtec jib halyard tensioner, Navtec -30 FE
- Mainsail outhaul, Navtec -22 FE.
- Cunningham Navtec -17 FE

## EQUIPMENT

### General Equipment

Owner's Manuals are provided with directions for use and maintenance, drawings and diagrams for main systems and handbooks for machinery and components.

Mooring & Anchoring:

Swim Ladder's.

Multiplex carbon hydraulic stowaway gangway.

180lb CQR anchor on hydraulically powered titanium swinging arm.

Fortress stern anchor.

Steel anchor SPADE 45kg

Tender

Williams Turbojet Tender 385, stored in the lazarette. Fully serviced in 2018 by Williams Palma.

Canvas

Removable bimini over centre cockpit. Covers for steering pedestals, wheels, cockpit tables and mainsail.

## Safety Equipment

The yacht is supplied with full safety equipment as required by MCA LY2 Code.

In 2018: All safety gear has been inspected, tested, renewed and certified according to MCA regulations by Oscar Sierra in Palma.

SAILS

Complete check and repairs in 2018.

Sail	Year	Sailmaker	Material/Notes
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### MAINSAILS

Mainsail	2014	North Sails	3DI – full batten
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### UPWIND

Furling Jib	2014	Doyle	Stratis
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Staysail	2009	North Sails	
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### DOWNWIND

A2+            2009 North Sails

Price may be changed without notice

Boat is offered subject to still being available

The particulars are believed to be correct but not guaranteed

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## SWAN 90-708 ALIX

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Another successful collaboration between Germán Frers and Nautor, the Swan 90S 'Alix' is the quintessential performance cruiser combining elegant and powerful lines with Finnish quality to achieve an aggressive beauty. The anthracite grey colour scheme and customized four-cabin interior with Wengé and tinted oak give Alix a modern edge while maintaining the classic and timeless appeal of a Swan yacht.

Alix is under original ownership since new and has been based in the Med with light usage during the summer months except for two winters in the Caribbean (2011/2012 and 2016/2017). She has done a few charters each year but not more than three weeks annually. The owner has carefully selected the charter clients.

Alix has been maintained to the highest level and benefits from three substantial maintenance periods in 2014, 2015 and 2018. The new engine, carbon standing rigging and complete paint job have kept her looking and working like new.

The yacht is MCA LY2 coded for commercial use and was inspected by MCA in June 2018.

### HULL & APPENDAGES

## Construction

The hull is constructed in carbon fibre, infused with epoxy in a female mould. Topsides are sandwich construction with carbon reinforcement. The bottom laminate from the waterline down is monolithic. Structural bulkheads are of foam cored pre preg carbon fibre construction with a noise barrier and separate skin panels. There are six hull windows in total. Two the in saloon, two in the Master cabin and one in each of the aft guest cabins. 2 coats of International Micron antifouling applied with spray gun in 2018.

## Hull Finish

Topsides are painted in DuPont metallic Anthracite grey with silver stripes on coaming and boot top

2 coats of International Micron antifouling applied with spray gun in 2018

## Keel

The ballast bulb is lead casting with 4.5% antimony and attached to a Weldom 700 steel fin. The keel is attached to the hull with AISI 329 bolts.

## Rudder

The rudder is provided by Isotop and built using carbon fibre/epoxy skin on a foam core, with tubular carbon fibre stock supported by two self-aligning bearings supplied by JP3. The lower bearing has double seals to prevent leakage. There is a lightweight aluminium steering quadrant bolted to rudderstock. Rudder was pulled in 2014 and bearings returned to JP3 for complete overhaul.

## Steering Systems

Custom built composite pedestals with compass, navigation and control systems. Two 1200 mm clear-coated carbon composite wheels that can be independently disconnected. New cables were fitted in December 2015

## Transom



The transom door doubles as a bathing/boarding platform and is made from carbon fibre pre-preg for maximum stiffness. There is 9mm teak recessed on the topside. Two custom-built stainless steel rams hydraulically operate the door. Two stainless/teak ladders, one to provide access from deck to the platform, the other a swimming ladder. Hot/Cold water shower on swim platform

## Lazarette

Storage space with access to all components via lightweight panels. Storage for Williams jet tender with remote winch for hoisting and rollers for launching and deployment

## Forepeak

Storage for sails and equipment, lightweight floorboards, topsides faired and top coated

## DECK

### Deck Construction

Deck is constructed in fibre pre-preg sandwich with honeycomb core, glued to the hull. High-density foam core under the deck fittings. The coach roof and coamings are of infusion moulded carbon fibre reinforced epoxy with a low-density foam core. Laid teak 65 x 9 mm nominal thickness, quarter cut, battens on side decks, comings and cockpit sole glued and vacuum bagged without screws.

### Deck Equipment

One hydraulically operated titanium anchor arm for stowing the bow anchor in deck locker. The controls are on a wandering lead with a 3.5 m (11') cable. Pulpit and pushpit are 610 mm high with spacing according to ORC requirements and made of a Ø 32 mm stainless steel tube. Pushpit have gates for easy access to bathing platform / gangway

### Cleats and fairleads

Eight 400 mm Olcese Ricci stainless steel pop-up mooring cleats; two on fore deck, four amidships, two aft. Custom made stainless steel pop-up fairleads recessed in bulwark; two forward, four amidships and two aft

## Hatches

Nautor custom made flush mounted tinted acrylic hatches with gutters and frames in white painted composite. Gas cylinders support all hatches, sizes are for clear openings. Escape hatch in aft cabin above bed and crew cabin. Nautor custom made teak covered hatches for access to deck lockers and lazarette

## Deckhouse

Parasol grey deckhouse windows made by Form glass, chemically toughened, laminated and glued to the superstructure. Main companionway lockable sliding hatch of tinted acrylic with sliding drop board.

## Cockpits

Aft cockpit is recessed into deck, forward cockpit with two U-shaped settees and two clear coated carbon fibre cockpit tables that can be lowered to seat level to create an expanded sun bathing area

## Winches

All winches are hydraulically driven via the hydraulic main ring system and connected to the valve blocks with flexible hoses

Four Harken B1110 STA HLHY primary winches in cockpit.

Two Harken B990.3 STA halyard winches near the mast

In 2018: all 6x Harken deck winches were serviced.

One Lewmar LMS 77/2 2 speed captive mainsheet winch including a hydraulic feeder mounted in port lazarette

One Lewmar vertical 4000 hydraulic windlass installed in anchor locker – serviced in 2018

One hydraulically operated, retractable hydraulic Sanguinetti 3710400 Capstan drum-mooring winch installed on fore deck.

## Sailing Hardware

Harken deck hardware and Spinlock jammers/clutches

Harken 125 mm single foot blocks for floating jib car towing line.

Harken 1706 tracks for jib sheet with Harken C6278 cars and stoppers

Seven Harken 3022 150 mm stand-up fixed single blocks for halyards.

Four Harken C5121 150 mm stand-up fixed single blocks for runners and Gennaker sheet

In 2018: all Harken deck hardware were serviced.

## INTERIOR

### General

Mainly European oak is used for visible interior and has a waxed natural effect finish. Vinyl covered removable overhead panels are installed in all accommodation areas (new 2015) the floorboards are of PVC-sandwich construction and the top face is Wenge. All openable deck hatches are fitted with manual roller blinds and mosquito screens. The deckhouse windows are fitted with electrically operated blinds. Handrails are fitted throughout the vessel where needed for safe movement under deck. Partitions are of sandwich construction on a core of 30 mm foam. Skin panels of 5 mm marine plywood with 0.6 mm veneers, painted light board or padded panels.

General cabin lighting is with spotlight down lighting.

### Interior Arrangement

#### Forward Cabin (Crew)

Upper and lower berths to port, hanging locker forward of berths. Settee to starboard with table and folding Pullman berth above settee. Independent access to deck via 80cm x 80cm hatch with ladder. Head compartment forward with shower, mirrors, storage lockers and Tecma WC. Washing machine and tumble driers are located aft outboard

#### Forward Guest Cabin

Guest cabin starboard side forward of saloon with queen sized double berth outboard. Storage lockers and drawers below berth. Storage lockers outboard. Hanging locker forward of berth, Ensuite head compartment with separate shower stall, sinks, mirrors and Tecma WC

#### Starboard Aft Guest Cabin

Side by side twin berths with bedside table in between, full height-hanging locker forward of the outboard berth. Pullman berth above inboard berth. En-suite head compartment forward with separate shower stall, washbasin, mirrors, storage lockers, heated towel rack and Tecma WC. The head has a separate entrance to allow use as day heads.

### Port Aft Guest Cabin

Side by side twin berths with bedside table in between, full height-hanging locker aft of the outboard berth. Pullman berth above inboard berth. En-suite head compartment aft with separate shower stall, washbasin, mirrors, storage lockers, and Tecma WC.

### Master Cabin (Aft)

Double berth on starboard side outboard. Settee with vanity desk and seat to port. Mattresses are of a sprung type, high quality, manufactured for marine use and supported by Deltaflex type batten to provide ventilation of underside. Hanging lockers are fitted with a rail for dress hanging. A light automatically switches on when door is opened. Entertainment instruments are located in upper lockers outboard. Head compartment port and forward with Tecma toilet, mirrors, wash basing and storage lockers

## Saloon

Dining area for eight persons on starboard side with L-shaped settee outboard starboard and a large rectangular dining table (size 800 x 1850cm) with two chairs. Settee with armchairs to port. Lockers in forward corners of the saloon.

## Galley

The galley is located on port side of the yacht with access to saloon; crew quarters engine room and deck. Two sinks and dishwasher are located in counter inboard. Cooker and microwave oven, f are located outboard. Fridges and freezers are located forwards Main electrical switchboard is in aft and outboard corner of galley. Storage drawers and lockers for pots, pans and tableware in the upper lockers.

### Galley/laundry Equipment

Dishwasher: Miele G1270 SCVi 230V 2.3kW

Microwave oven: Miele M8261 2.2kW

Washing machine: Miele W2839i, 2.4kW 5kg 1600rpm

Clothes dryer: Miele T4839Ci, 2.9kW condensing type, 6 kg

Refrigeration: 2 x 107 l Frigonautica custom built 24 V DC.

Freezers: 2 x 95 l Frigonautica custom built 24 V DC.

Stovetop: Miele Induction hob 230 V

Oven: Miele electric oven H3140B 3.3kW stainless steel front.

## Nav Station

Nav station is located on starboard aft corner of saloon with navigator seat, flush mounted instrument displays

## Engine Room

The engine room is located on CL below the saloon. The structure is built in aluminium profiles with entrance from galley. Engine room surfaces and technical equipment are painted white

Partitions between cabins, toilets, corridors, etc. are built to meet a 20 dB reduction of airborne sound.

The engine room is insulated towards cabins and saloon with various layers of rock wool with noise barrier sheets in between. The engine room door is of similar construction as the surrounding partitions. They close onto rubber faced landings for maximum noise reduction

## ENGINE & SYSTEMS

Volkswagen marine engine TDI V6, 230hp@3500 rpm with direct mounted reduction gear. Engine replaced in 2015. Gearbox ZF 45-1 vertical offset, reduction 3741:1. Folding propeller BRUNTON Varifold 4.61 Ø 760x526 (30x21") the propeller shaft is turned out of corrosion resistant steel, supported by a water lubricated rubber bearing at the P bracket and stern tube. Shaft pulled in 2014. The stern tube has a flexible shaft coupling with drip free shaft seal.

In 2018: Full check and service of engine, n1 and n2 generators. Engineering service by Marine engineering Palma.

## Fuel System

The feed lines to the engine and diesel generator are equipped with 30-micron fuel filter/water separators with water alarm. Dual version mounted for main engine so as to permit uninterrupted running of the engine while changing filter elements. Single version for diesel generator, water alarm mounted.

Fuel capacity 1630 L in two in stainless steel tanks, with individual level indicator. Filler line on port and starboard side. Tanks are equipped with hatches of adequate size to permit inspection and cleaning. All tanks are pressure tested to 0.3bar. Shut off valves are provided for each tank.

In 2018: Clean and inspect fuel tanks. Changed all Fuel filters and separator filters, oil filters, oil, raw water pumps and impellers, fuel line.

## Exhaust System

The Halyard exhaust system has fibreglass silencers and gas/water separators installed for both main engine and diesel generator. Water is discharged below the waterline and exhaust gases from main engine and diesel generator exit under the transom. Silencers are provided with a drain tap. They are flexibly supported on vibration dampening brackets.

## Diesel Generator

Two 20 kW M864W Northern Light generator producing single-phase 230 V 50 Hz AC. The units are mounted on elastic seating. Major service in 2015 including fuel injection pumps, alternators and cooling systems

## Generator Hours (June 25, 2016)

Port: 6,147

Starboard: 6,900

## Bow Thruster

Hundested FT1R retractable bow thruster, thrust power 18.4kW

Powered by PTO pumps on both diesel generators

Checked in 2018.

## Hydraulic Systems

The hydraulic system is a Bosch-Rexroth custom designed system to supply all hydraulic functions quietly and smoothly, eliminating any inherent hydraulic noise. The alternative power sources are installed to meet the demands of the sail handling equipment. Central hydraulic system is PLC controlled.

The hydraulic system is defined on a basis of a central power pack supplying regionally located valve groups, thereby achieving minimal weight to power ratio with the effect of using minimum electrical power with maximum hydraulic movement. Each control valve group is situated close to the operating unit, giving a precise control and allows for a quiet and smooth operation, eliminating inherent hydraulic noise and vibration. The system has two different sources of power. Each source will be operated independently of each other. The sources are obtained from:

1. Generator PTO pump Bosch-Rexroth A10V045 on each genset, 22kW each
2. Two DC Electric motor standby pump units Bosch-Rexroth A10V028, 5 kW each

All pumps are equipped with a horsepower controller. The function is based on the power requirement from the users with the style of maximum speed/ minimum pressure and maximum pressure/ minimum speed. The alternative power sources are installed to meet the demands of the sail handling equipment. Since the sail handling is dependent on hydraulic systems it is important to have alternative power sources to ensure trouble free operation.

## Hydraulic Functions

- Anchor windlass
- Forward mooring Sanguinetti
- Jib furler
- Anchor swing arm
- Bow thruster plus up/down (by independent system)
- Autopilot back up, supplies oil to auto pilot cylinders from a genset PTO pump.
- Main sheet captive winch

- Outhaul
- Cunningham
- Jib halyard tensioner
- Backstay tensioner
- Boom vang
- Inner forestay
- Reckmann Real time forestay adjuster
- 2x Halyard winches
- Primary and Secondary winches
- Genoa Car Pullers
- Transom hatch cylinders

## Pneumatics

There is one low pressure (6 bar) piston compressor with quick acting couplings in lazarette, engine room and forepeak. The piston compressor is a Thomas 327 CDC. There is a separate pneumatic system for sealing the transom door. This was renewed in 2015.

## PLUMBING SYSTEMS

All systems are based on reliable components with world wide service. Components and valves are labelled with function, and piping is labelled with colour code, including an arrow to indicate direction of flow.

56/24.

## Fresh water System

A pressurized hot and cold water system is installed. The fresh water piping is of polypropylene, nylon and copper tubing. Filler line on side deck is led to a valve chest. The valve chest has valves for each water tank and for water pressure pumps. Hot and cold water is distributed to all heads, to the galley and to deck shower. Cold water deck wash, one fwd and one aft. There are single lever mixing faucets for wash basins, galley sinks and showers.

There are two stainless steel tanks with a total capacity of approx. 1000 L. The tanks are provided with baffles, hatches, level indicators and vent pipes. All tanks are pressure tested to 0.3 bars. Tank levels are shown on electrical main switchboard.

The water pressure system is equipped with two Reya A95, 24 V pumps. One 24 litre pressure tank is connected to the system. There is a city water connection that allows shore water supply to be piped directly into the pressure water system via a pressure regulator and check valve.



## Hot Water System

Two Isotemp hot water tanks with a total capacity of 150 litres . The hot water pipes are insulated with pipe insulation, hot water circulation via a 24 volt pump quickly distributes heated water throughout boat. Inlet has a check valve to prevent hot water back flow. Outlet has a relief valve for over-pressure protection. There is a thermostat mixing valve to prevent too hot water in the system.

## Watermaker

The water maker is an Idromar Mini Compact model MC8S, vertical version. The water maker produces 240 l/h installed in the engine room. The water maker is provided with dual pre-filters, primary with 25 micron cartridge, secondary with 5 micron cartridge. The feed water pumps are self priming with sea bronze body and internal parts in stainless steel AISI 316. The high pressure pump is constructed to work with sea water.

In 2018: Complete service of watermaker, filters and clean 5 membranes.

## Refrigeration System

There are three custom made Frigonautica 24V DC water cooled compressors units for fridges and freezers.

In 2018: Service freezer and fridge compressors. Add freon gas. Change 1 cooling pump.

## Sea Water System

There are seacocks of bronze for all through-hull connections below waterline located in accessible position. Inboard side of seacocks fitted with stud long enough to take two hose clamps.

There is an electrical fire/anchor wash pump with connections on fore and aft deck. G&R type CB 25/16 24 VDC, capacity 180 l / min. There are two fire hydrants with hose reel, one forward and one aft. An auxiliary fire pump is fitted under the floor in the galley aft of the engine room door. This has an independent quick fit connector.

## Grey Water System

Grey water from sinks, basins, showers, air conditioning and washer/dryer is collected in two stainless steel grey water tanks, total capacity 400L. Level switches are fitted to each tank, with

indication at  $\frac{3}{4}$  full and full. The grey water tanks are emptied by 24 V Rheinstrom "T" model pumps these were rebuilt by the factory in 2015 sea cocks via siphon breaks.

In 2018: Clean and inspect Grey water tanks and pumps.

## Black Water System

All toilets are connected to the black water tank. Two stainless steel black water tanks are provided, one for aft toilets and one for forward toilets, total capacity 200 l + 200 l, with indication at  $\frac{3}{4}$  full and full. The tanks are fitted with baffles, inspection covers, and vent lines. The tanks can be emptied by 24 V electrical Rheinstrom model T pumps to sea cocks via siphon breaks. Each tank is also provided with a deck suction line.

In 2018: Clean and inspect Black water tanks and pumps.

## Toilet Systems

The toilets are Tecma Standard Plus, 24 V. Flushing by fresh pressure water. The function cycle is completely automatic. The high performance turbine pump enables a complete fragmentation of the organic residues. Full black water tank disable flushing of toilets.

## Bilge Pump Systems

There are five separate bilges, i.e. fore peak, forward cabin, engine room, aft cabin and lazarette bilges. Each bilge is equipped with a DC driven submersible pump 140 l / min. Two manual Whale Titan, 100 l / min are installed as back-up pumps, one for fore peak and forward bilge, the other for aft engine room and lazarette bilge.

Whale gulper 24 volt 320 drainage pumps are installed in all bilges

In 2018: Clean all bilges. Check and change filters of Hydraulic pump system.

## VENTILATION SYSTEM

### Air Conditioning

A central cooled / heated waterborne system 230 VAC 50 Hz is fitted for the entire accommodation. Condensation water from the system is collected to the grey water tanks.

The total cooling / heating capacity is divided in proportion to cabin volume and position. The system is designed for air handler to run on low speed for silent operation. There is an individual

temperature control in each cabin. The main unit is a Condaria PWM/FCL/18002, 72 000 BTU/h (21 kW).

Forced air ventilation system in all cabins

Independent engine room ventilation and extraction

Battery boxes are ventilated

In 2018: Service Air conditioning

## ELECTRICAL SYSTEM

The electrical components are chosen based on Nautor's long experience in the yachting industry. Special attention is given to reliability and world wide service ability. Electrical diagrams will be delivered with the yacht, for both DC and AC systems and showing the location of all junction boxes. Cables are labelled with identification numbers at both

ends. At watertight bulkheads wires are run up to deck head height when penetrating the bulkhead or are sealed in place to produce water tightness.

Mast and shrouds are electrically connected to the keel. In the top of mast is an air terminal connected to a lightning conductor, which runs down to the keel. The prop shaft, keel and thruster have their individual sacrificial anodes.

## DC System

2-pole 24 V insulated return DC-system for lighting, blowers, pumps etc. The wires are sized to minimize voltage drop. There are two battery banks, one for service and one for hydraulics. The service battery bank is 24 V 1200 Ah /1h, powering lights, blowers, pumps, electronics etc.. Hydraulic batteries are Optima 300 Ah / 20 h and consist of eight Optima Yellow Top S5,5 12 V 75 Ah. The hydraulic bank is used for the 2 x 5 kW central hydraulic and the auto pilot pump. The battery banks are located aft of the engine room.

There is one 24 V 140 A Bosch alternator on the main engine common for service and hydraulics battery banks, through a battery isolator. The hydraulics battery is charged by the main engine alternator through splitting diodes.

24 V DC outlets, one in the port side lazarette, one in engine room, one in anchor locker, one on the mast and one in aft cockpit.

In 2018: Voltage test of battery system.

## AC System

Power supply of 230 V 50 Hz single-phase three-wire AC-system. The 230 V system can be fed by the diesel generator or shore power inlet. The bus is of split bus type. There are also a number of 230 V 50 Hz appliances fed through DC/AC inverters.

Shore inlet plug, 230 V 3-pole 63 A is accessed through a hinged lid at transom. There is a separate shore inlet for air conditioning. For the separate air conditioning inlet, a galvanic insulator is installed in the ground wire. Power from ashore is led to a 15 kVA isolation transformer.

There are two 20 kW M864W Northern Light generator producing single-phase 230 V 50 Hz AC.

There are two Mastervolt, Mass 24 V 100 A chargers with 3-step charge characteristics, for the service battery. There is one Mastervolt, Mass 24 V 100 A charger with 3-step charge characteristics, for hydraulics battery. The starting batteries can be charged by one Mastervolt Mass 12 V 10 A charger with 3-step charge characteristics via isolator diode.

In 2018: Change N1 battery charger for new one.

Conversion of 24 V DC to 230 V AC 50 Hz for single-phase AC consumers. There is one Mastervolt 24/2500 VA for misc. and one Mastervolt 24/1500 VA for instruments and entertainment. Both inverters have a separate transfer switch.

There are 230 V outlets of schuko type. One outlet per toilet, two outlets per cabin, three in galley, four in saloon, one in engine room, one in sail locker and one in the port side lazarette.

## ELECTRONIC SYSTEMS

### Navigation Instruments

Two Suunto 5" magnetic steering compasses at helm adjustable for global balancing.

B&G gyro rate compass as the main heading source for the navigation instruments, autopilot and other instruments requiring accurate heading information. A B&G fluxgate compass is used as the backup heading source.

## Sailing Instruments

There is a comprehensive Brookes & Gatehouse H3000 package consisting of central processor unit, 1450mm masthead unit, speed/temperature sensor, depth sensor and barometric sensor. B&G Hercules H3000 Main processor and a Halcyon gyro processor. Barometric pressure is displayed in the B&G H3000 system.

One B&G Graphical Function Display (mono-chrome GFD) at the helm and one NMEA Full Function Display (FFD) located at nav station. One GFD display in aft cabin and one in crew cabin

Four 30/30 repeaters mounted on the mast.

Four 30/30 repeaters in aft cockpit

B&G 360° and 45° analogue wind direction displays on each side of cockpit backrest.

## GPS & Radar

A Furuno NavNet 3D + blackbox radar/chart plotting system consisting of one Furuno 1834C/C-MAP radar/plotter display at the navstation.

Two Furuno 8" chart plotters (one at each helm station)

Furuno GP-320 DGPS to be used as the main navigator for:

- Furuno NavNet radar/chart plotting system
- PC cartography software MaxSea NavNet Commander V12
- Brookes & Gatehouse
- Brookes & Gatehouse autopilot system

A Furuno GP-37 GPS navigator with WAAS software as back-up.

Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet plotter system.

PC cartography software MaxSea NavNet Commander V12, on the computer. The MaxSea NavNet software can also be viewed in the saloon TV. The chart system for the Furuno NavNet system is C-MapNT MAX.

Furuno FA-150 class A type AIS system. The target information is sent to the Furuno NavNet system and integrated with the MaxSea NavNet software.

### Antennas

The Furuno NavNet GP-320 DGPS antenna on the port lower pushpit rail.

The Furuno GP-37 GPS antenna is mounted on starboard 2nd spreader.

The Furuno FA-150 AIS GPS antenna is mounted on port 3rd spreader.

The Furuno NavNet radar scanner, 60 cm dome type, is mounted front of mast.

The Furuno NX-3H-D Navtex antenna is mounted on 2nd spreader port side.

### Auto Pilot System

B&G H3000 ACP2 autopilot system with one Graphical Pilot Display (mono-chrome GPD) control unit at each steering pedestal. Powered by an individual 24V Marsili/ Bosch Rexroth power pack driving the steering quadrant via twin Rexroth low friction cylinders. There is a hydraulic back-up for emergency use, supplied from the main hydraulic system.

### Computer Systems

Two computer station connected to two 17" LCD flat screens at the navigation station, one for communication, one for navigation.

A Canon printer is provided for hardcopy printouts.

## COMMUNICATION SYSTEMS

### VHF Radio

The Simrad RS-87 DSC VHF has two handsets, one at the nav station and one at the helm, with intercom possibility between the two. Handheld Simrad VHF radio.

## Satellite communication

Fleet Broadband with handset at nav station

Connected to computer for internet access

Antenna mounted on first spreader

1 Inmarsat C GMDSS package

## Cellular Phone Systems

Nokia E60 quad band GSM phone with internet capability

## Other

Yachtspot Internet Wi-Fi system that searches for public "hot-spots" and broadcasts them onto the yachts local area network (LAN/WLAN). Antenna mounted on 2 spreader stbd side.

Pepwave 4G Router with Antenna mounted behind 30/30s on mast

Furuno NX300 Navtex Receiver

3x ICOM Handheld VHF mobile radio

1X ICOM Handheld GMDSS Radio with spare battery

## Entertainment Systems

Saloon:

The yacht is equipped with a Bose Lifestyle system throughout with televisions and DVD players in each cabin. The cockpit has a separate Lifestyle system with four independent Poly Planar Speakers

## MAST & RIGGING

In 2018: Mast and boom fully disassembled, inspected, repaired and repainted with Awlgrip White.

Service pressure test of all Hidraulic rams.

## Service and pressure test of boom vang.

Four spreader mast with discontinuous shrouds by Offshore Spars, faired and painted white. The rig is set up for easy handling with swept spreaders 25 degrees. The Boom vang is used on the wind to complement mainsheet. The mast is a carbon fibre intermediate modulus, with luff track for mainsail. The masthead is a moulded carbon fibre unit integral with mast. There is an active antenna at the masthead for the VHF, TV and FM radio (new 2018). Marco EW3 24 V foghorn.

I= 36,80 m - J = 10.76 m - P = 35.50 m - E = 11.45 m

The shrouds were replaced with Navtec Carbon in 2013. The headstay was inspected and reheaded in 2015.

## Boom

Carbon fibre Park Avenue boom, clear coated. Hydraulic outhaul system. Arrangement for three reefs in the main sail. Leech reef lines with stoppers at goose neck. Boom preventer system. Built-in deck lights. Lazy jacks

## Standing Rigging

Navtec carbon fibre rigging with rod headstay. Kevlar inner forestay and running backstays.

In 2018: Full service by Riggers (Pro-Rigging). Check of all rigging.

## Running Rigging

Inventory of running rigging available on request.

## Rig Hydraulics

All hydraulic functions are powered by central hydraulic system. Reckmann UD4 Sphere hydraulic furling head stay with real-time headstay adjuster and R6 double groove aluminium foil.

- Navtec cylinder for inner forestay tensioner, Navtec -40 SE.
- Navtec boom vang, Navtec -90
- Navtec jib halyard tensioner, Navtec -30 FE
- Mainsail outhaul, Navtec -22 FE.
- Cunningham Navtec -17 FE



## EQUIPMENT

### General Equipment

Owner's Manuals are provided with directions for use and maintenance, drawings and diagrams for main systems and handbooks for machinery and components.

#### Mooring & Anchoring:

Swim Ladder's.

Multiplex carbon hydraulic stowaway gangway.

180lb CQR anchor on hydraulically powered titanium swinging arm.

Fortress stern anchor.

Steel anchor SPADE 45kg

#### Tender

Williams Turbojet Tender 385, stored in the lazarette. Fully serviced in 2018 by Williams Palma.

#### Canvas

Removable bimini over centre cockpit. Covers for steering pedestals, wheels, cockpit tables and mainsail.

### Safety Equipment

The yacht is supplied with full safety equipment as required by MCA LY2 Code.

In 2018: All safety gear has been inspected, tested, renewed and certified according to MCA regulations by Oscar Sierra in Palma.

## SAILS

Complete check and repairs in 2018.

Sail	Year	Sailmaker	Material/Notes
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### MAINSAILS

Mainsail 2014 North Sails 3DI – full batten

### **UPWIND**

Furling Jib 2014 Doyle Stratis

Staysail 2009 North Sails

### **DOWNWIND**

A2+ 2009 North Sails

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## **Исключения**

При продаже яхты исключаются личные вещи владельца.

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## **Отказ от ответственности**

Компания предоставляет описание судна или яхты добросовестно, но не может гарантировать точность этой информации, а также не ручается за техническое состояние. Покупатель должен проинструктировать своих агентов или оценщиков исследовать представленную информацию более подробно, по собственному желанию. Продажа судна или яхты, изменение цены или снятие с продажи будет происходить без предварительного уведомления.

# ФОТОГРАФИИ











# КОНТАКТЫ

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Андрей Шестаков (Andrey Shestakov) – ведущий яхтенный брокер отдела продаж яхт и судов компании Shestakov Yacht Sales Inc. Официальный представитель Shestakov Yacht Sales Inc. для русскоговорящих клиентов в центральном офисе компании в Майами/Форт Лодердейл/Флорида/США.

## Контактная информация

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Email: [andrey@shestakovyachtsales.com](mailto:andrey@shestakovyachtsales.com)

Web: [shestakovyachtsales.com](http://shestakovyachtsales.com)

## Телефоны

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Краснодарский край: **+7(918)465-66-44**

США, Майами, Флорида: **+1(954)274-4435**

## Время работы

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Понедельник – Суббота: **9:00 - 21:00**  
EDT

Воскресенье: **Закрето**

## Адрес

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Harbour Towne Marina, 850 NE 3rd St,  
STE 213, Dania, FL 33004