

SwanLine



# The Story of Nautor





#### The Story of Nautor

Nautor's Swan was founded in 1966 by Pekka Koskenkyla in Pietarsaari, Finland. Hundreds of years of Finnish boat building history, combined with the unforgiving landscape around the small town of Pietarsaari, where temperatures can fall to -30° C in the depths of winter and the sea can be frozen for up to five months of the year, inspired his vision to start production of high-quality and high-performance sailing yachts. These yachts would be made for the those, who like Koskenkyla, had a passion for cruising and racing around the globe.

Pekka, educated in the USA, had the intuition and the ability to convince Sparkman & Stephens – New York, one of the most acclaimed yacht design studios at that time, to design his first sailing yacht, in fibreglass with wooden fittings. No-one before had built a yacht over 10 metres long, with this new material which was still in its infancy for boatbuilding, although which in future years would come to dominate the production of yachts.

The first Swan yacht ever produced was the Swan 36, which introduced, a significant number of innovations such as fibreglass hull construction, having the rudder positioned right aft, having a skeg separate from the keel, moving the widest point of the hull aft by using a bustle, and the swelling of the keel aft. These innovations all combined to provide improved steering stability.

In other words, a fibreglass vessel whose behaviour and safety equalled that of the traditional wooden vessels and which could provide greater steering stability but with less weight and better living space. A yacht which marked the dawning of one of the most prestigious boat yards in the world, whose products have come to embody luxury and quality in the sailing industry, always respecting the founder's motto of "the very best".

In spring 1968, a Swan 36 was delivered to British sailor, Dave Johnson, who skippered the yacht with remarkable success in regattas around the British Isles, and in particular in Cowes. His racing achievements generated such positive feedback that Nautor's Swan swiftly gained a reputation as the foremost manufacturer of high performance racing yachts. This led to the development of new bigger yachts, namely the Swan 37 and Swan 43, with the latter winning the Admiral's Cup in 1969 and becoming the choice of the most demanding of sailors of the day, such as Herbert von Karajan with his Swan 43 - Heliana II.

Sparkman & Stephens were the designers of approximately the first thousand Swan yachts built by the yard, including the memorable and iconic Swan 38 and Swan 47. Swan yachts have become synonymous with quality, elegance and enduring reliability, with their lines which seem to challenge the laws of time. Every Swan is marked simply by the unmistakable Arrow device recessed into the hull, without the need for the brand name.

In contrast to this overwhelming success, fate was soon to deal a blow that would have ramifications for years to come. Shortly before Christmas in 1969, the assembly hall of the Nautor's Swan boat yard burnt to the ground, destroying a dozen hulls in various stages of production. As a result, Pekka was forced to sell stakes in Nautor's Swan, to finance the rebuilding of the yard and to re-start production.





Pag. 2 Swan 36 "Tarantella"

> Pag. 4 Swan 65

Pag. 6
Swans ready to be sent by rail

Pag. 8 - 9 Swan 36 "Tarantella" Despite this setback, Nautor's Swan continued to fulfil expectations by entering the market for larger seaworthy, elegant and timeless yachts with the introduction of the Swan 55 and the Swan 65. These models offered owners all the joys of sailing combined with the opportunity for racing success. Most poignantly, this included Swan 65, Sayula II's victory in the first ever Whitbread Round the World Race in 1973/74.

Between 1978 and 1981, another very well known yacht designer, Ron Holland, began working with Nautor's Swan by designing five boats. Approximately 300 units were produced, including the well known Swan 37, Swan 39 and Swan 42.

In the 1980's, Nautor's Swan entered a new era with the appointment of German Frers as designer, who has since then been responsible for the design of all Swan yachts, maintaining in their design that vital balance of race ability, comfort and beauty. Over 700 yachts designed by Frers have been produced, including his first Swan, the Swan 51 in 1981, which was then followed by great successes, such as the Swan 46 I and II in 1983 and then in 1997; the Swan 53 in 1986; the new Swan 43 in 1985; the new Swan 36 in 1988; the new Swan 48 in 1995; finishing with the current models presented in this catalogue, including the Maxi Swan line with the Swan 60, Swan 75, Swan 80, Swan 82, Swan 90 and Swan 100.

In 2006, to commemorate Nautor's 40th anniversary, Frers designed the Swan 66, a model that is the embodiment of everything that 'Swan' stands for. The Swan 66 was conceived using forty years worth of knowledge in premium yacht building and cutting edge technology.

The contribution made by Frers has been instrumental in enabling Nautor's Swan to enter into one-design racing, with the Swan 45 in 2001. This was followed by the Club Swan 42 in 2005, developed in association with the prestigious New York Yacht Club to encourage a return to traditional Corinthian sailing competitions.

Today, Nautor's Swan has over 40 years of heritage, and is a leader in the luxury sailing yacht market. It is globally recognised as a producer of exquisitely crafted yachts, capable of offering the perfect balance of style and performance.

Since 1998 Leonardo Ferragamo and a group of investors have controlled and managed Nautor's Swan, continuing to push forward a whirlwind of innovations and changes that firmly place Swan yachts at the forefront of the international sailing world.









### The Yard





#### The Yard

Since the foundation of the company in 1966, almost 2000 Swans yachts have been produced, ranging from 36 to 131 feet and almost all of them are still in use.

The little yard built by Pekka Koskenkyla in Pietarsaari where he produced the first fibreglass Swan 36 has now developed into three main modern production facilities. The company has more than 400 employees together with a similar number of indirect staff, including specialists, subcontractors and consultants.

Today the historical plant in Kallby is dedicated to the lamination of all Swans' hulls, using one of the most advanced and fully computerized milling machines to shape the moulds perfectly. Another part of the plant is devoted to the assembly of the smaller sized yachts from Swan 42 to the latest Swan 60. The Kallby plant also includes an indoor water facility to test the yachts prior to delivery.

In 2002 a new yard was opened in Pietarsaari close to the sea. This was the result of a long-standing collaboration between the company and the city of Pietarsaari, who together had a vision of building a hi-tech boatyard, supported by the most advanced technology capable of assembling large yachts.

The new yard is entirely dedicated to the assembly of the Maxi Swan Yachts, from the Swan 66, Swan 82, Swan 90, to the Swan 100 and above. The plant includes a large and private marina, ideal for testing and commissioning the new yachts.

The third plant is in Kronoby and is where expert carpenters are dedicated to the bespoke preparation of the magnificent wood interiors, which have become a feature of all Swan yachts. The level of detail is such that a sample of the wood from each yacht is kept at the factory, so that an exact replacement could be made if required.

The most important asset in building a Swan yacht today remains the teams of boat builders and craftsmen, who have the requisite skills and know-how inherited from their forefathers. They spend painstaking hours crafting each section of the yacht in accordance with the projects developed by the Frers design team at Frers Naval Architecture and Engineering. The craftsmen are supported by Nautor's Swan Product Development and Technical Office departments which employ over 50 in-house designers and engineers.

It is thanks to these innovative manufacturing facilities and expert craftsmen that Nautor's Swan continues to be a leader in the luxury yacht market and is globally recognised as a producer of exquisitely crafted yachts. Nautor's Swan is renowned for offering the perfect balance of style and performance, ideal for both high performance racing and relaxed, luxurious cruising.

The perfectly shaped hulls, the innate strength of the design and structure, the clean deck with control lines routed below, and the installation of state of the art equipment are some of the elements which in the hands of Nautor's craftsmen make Swan yachts fast and easy to handle, sailing in complete safety even with a small crew.





Pag. 10
Club Swan 42 from the bottom

Pag. 12 Swan 100 keel

Pag. 14
Nautor yard and marina in Pietarsaari, Finland

 ${\it Pag.~15} \\ {\it Production stages at Nautor yards (Kallby, Pietersaari and Kronoby)}$ 







 ${\it Pag.~16} \\ {\it Milling~machine~at~the~yard~in~Kallby}$ 

Pag. 17 Swan 131 plug







## ClubSwan





Pag. 18 ClubSwan burgee

 ${\it Pag.~20} \\ {\it ClubSwan~house~in~Pietarsaari,~Finland}$ 

Pag. 22 - 23 Rolex Swan Cup - Porto Cervo, Sardinia

#### ClubSwan

ClubSwan provides an opportunity for Swan owners from all over the world to be united by their love of sailing and to share their enjoyment of and pride in their yacht.

The main aim of ClubSwan is to offer every member the chance to enjoy their Swan yacht to the full and also to share their experiences with other owners at a number of prestigious Nautor's Swan events, regattas and cruising rendezvous staged in some of the most exclusive destinations around the globe.

ClubSwan is a non-profit organization, whose members are all present, past and future Swan owners. The Club House is located at the Segelsallskapet Yacht Club in Pietarsaari, Finland, and the Chairman of ClubSwan is Leonardo Ferragamo. Some of the Honorary Members of ClubSwan are HRH Juan Carlos de Borbón King of Spain, Pekka Koskenkyla, German Frers, Olin J. Stephens (*in Memoriam*), Ron Holland and Pippa Blake. ClubSwan's values are to hold a respect for nature, passion for sport and all those values, such as the love for beauty, the feeling of freedom and the enjoyment of challenges which sailing at sea emphasizes.

The highlight of the racing calendar for Swan owners is the biennial Rolex Swan Cup, which embodies "The Spirit of Swan", both in its quality of sailing, and also in its glamour. The Rolex Swan Cup is held in Porto Cervo, Sardinia, in association with the Yacht Club Costa Smeralda.

Two other well known events are the Swan European Regatta, usually held in Cowes, in association with the Royal Yacht Squadron, and the Swan American Regatta which takes place in Newport, Rhode Island, in association with the New York Yacht Club.









ClubSwan has also been responsible for creating special racing classes, such as the Swan 45 Class, the Club Swan 42 Class and more recently the Swan Maxi Class. These new classes have been the focal point of an intense and competitive calendar of races in a variety of locations around the world. In addition, ClubSwan ensures that recognition is given to all Swan owners who have participated in Swan Challenges within famous regattas around the world, and provides prizes for the winners of these challenges.

For those owners who like to enjoy their Swan yacht in a cruising environment, ClubSwan is organising a series of annual cruising rendezvous in some of the most magical sailing locations in the world.

Every member is entitled to have a ClubSwan card that can be used in various locations. This card recognises the holder as a Swan owner, and can be used to gain access to some of the most exclusive yacht clubs around the world.

Finally, the Club publishes the ClubSwan Magazine each season and a quarterly E-zine naturally focusing on Swan and sailing related topics. The magazine contains a wide range of information that is invaluable to Swan owners, including articles relating to new yachts, upcoming regattas and events, customer care and brokerage activity. The magazine is also available to read online via the company web site, www.nautorswan.com.

 ${\it Pag.~24} \\ {\it Swan American Regatta - Club Swan~42~Class}$ 

Pag. 26 - 27 ClubSwan Caribbean rendez-vous - BVI

> Pag. 28 - 29 ClubSwan moments

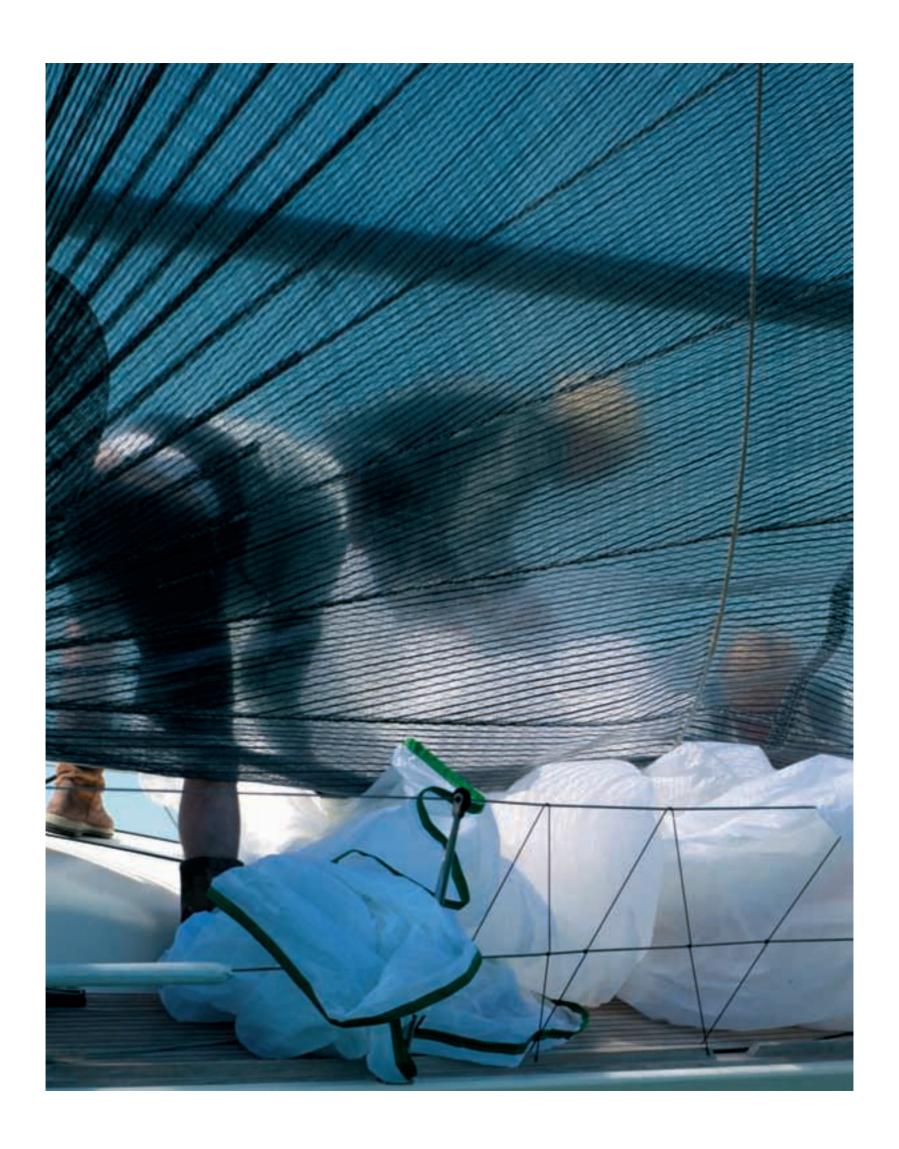
Pag. 30
Rolex Swan Cup, Porto Cervo, Sardinia

Pag. 32 Swan 82 "Grey Goose" - Giraglia Rolex Cup







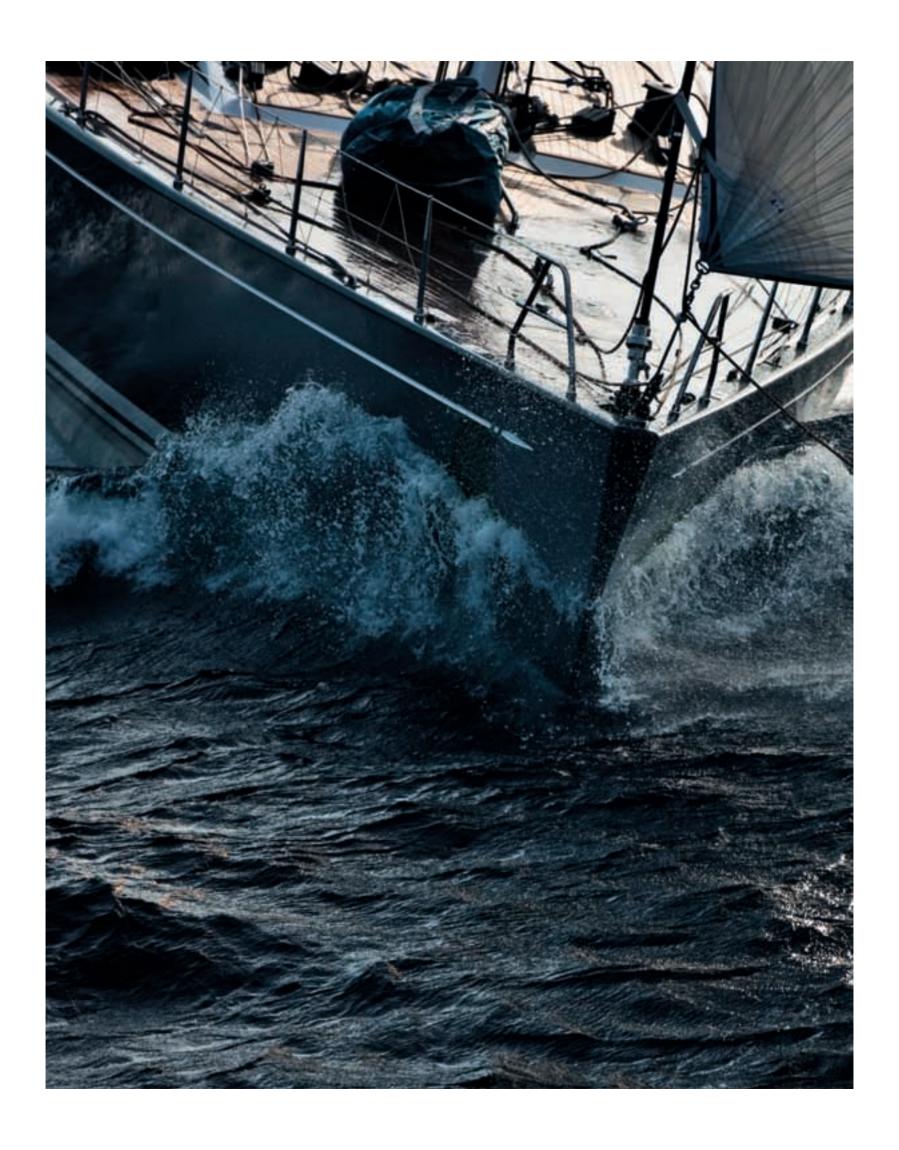






### **SwanLine**





#### SwanLine

Club Swan 42

Swan 53

Swan 60

Swan 66

Swan 75

Swan 80

Swan 82

Swan 90

Swan 100

Swan 110

Swan 130





### Club Swan 42









#### Club Swan 42

Nautor's Swan / Frers Design Office produced a winning concept based on a ground-breaking partnership between the NYYC and Nautor's Swan.

The NYYC unveiled a competition to produce a one-design yacht that satisfied the diverse needs of its Club Members; as well as being highly competitive, offering all the latest technology, the yacht had to be able to deliver comfortable cruising.

Through the Club Swan 42 Class, the NYYC had a vision to create a truly Corinthian class to be contested by owner-drivers and predominantly amateur crews. The model has a fast-growing presence on the global stage, and Nautor's Swan is fully committed to supporting the development of the class.

The philosophy on which the Club Swan 42 was built was that of a competitive offshore racer cruiser. Underlying the clean, modern lines of the yacht is a construction of the very highest quality which harnesses the latest in building and materials technology. A key challenge for the Frers Design Team was that as well as one-design racing, the yacht had to be capable of winning races within open divisions, even under the IRC handicap rule – something this unique Swan has already accomplished.

The hull and deck of the Club swan 42 are a sandwich construction of infusion moulded E-Glass / vinylester laminate featuring carbon fibre reinforcements. The material lay up provides high fore and aft stiffness for better performance, rig control and durability.

The Club Swan 42 has a T-shaped keep of composite construction with a fin of high-tensile steel and a 3.2 ton lead bulb at 2.7m below the water line. Both the keel and the rudder blade have been designed using Computational Fluid Dynamics and Finite Element Analysis to guarantee optimal foil shapes.

The model offers a modern interior with a light, airy feeling to it. The accommodation and the central areas such as the galley and navigation station have been planned to maximise space depending on whether the yacht is in racing or cruising mode. The finishing touches and high level of comfort reflect the quality for which Nautor's Swan is renowned.















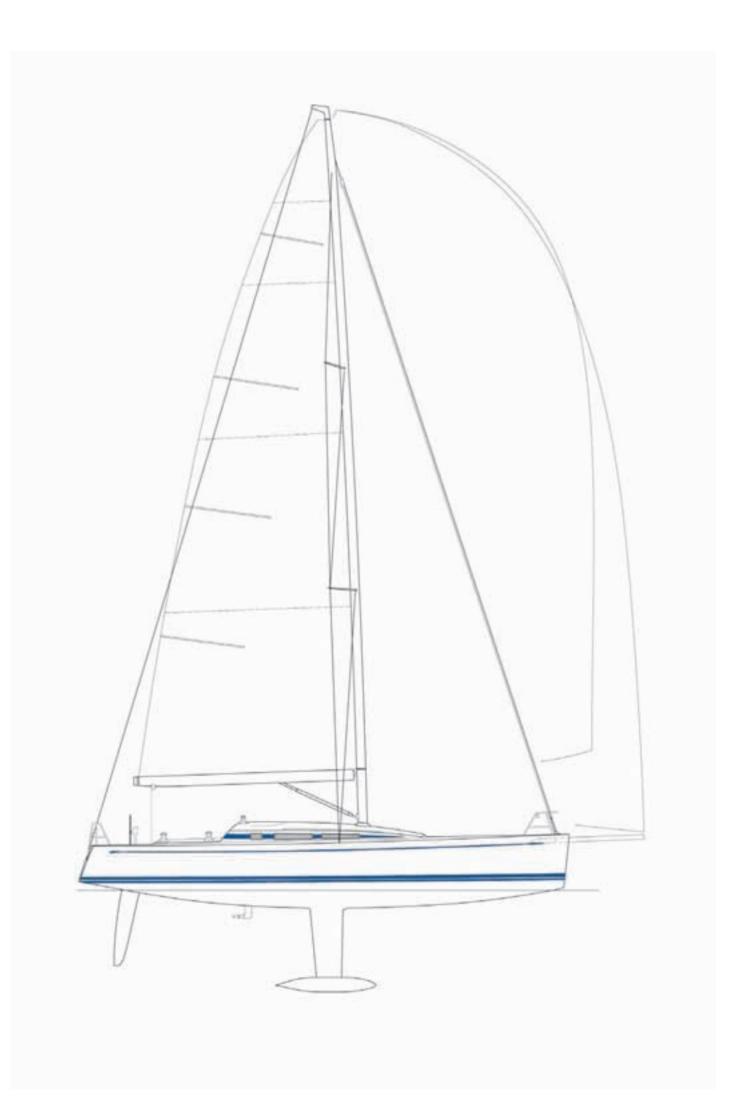






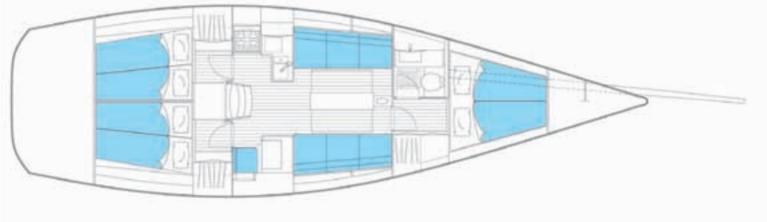






# SWAN 42





Three cabins

#### **CLUB SWAN 42**

General		
Length overall:	42.58 ft	12.98 m
Length of waterline:	37.04 ft	11.29 m
Beam:	12.89 ft	3.93 m
Draught (light):	8.86 ft	2.70 m
Ballast:	7046 lbs	3196 kg
Displacement (light):	15983 lbs	7250 kg
Technical specification		
Fuel:	36.9 US gal	140 ltr
Water:	84.5 US gal	320 ltr
Hot water:	5.30 US gal	20 ltr
Holding Tank:	15.9 US gal	60 ltr
DC Power:	12 V	320 Ah
Engine - Volvo Penta:	40 SHP	29 kW
Rig and sail dimensions		
IG:	59.06 ft	18.00 m
J:	16.34 ft	4.98 m
P:	56.56 ft	17.24 m
E:	18.95 ft	5.78 m
ISP:	62.96 ft	19.19 m
Sail areas		
Fore triangle:	485 sq ft	45.08 m <sup>2</sup>
Main sail:	661 sq ft	61.40 m <sup>2</sup>
Jib:	514 sq ft	47.80 m <sup>2</sup>
Asymm. spinnaker:	1991 sq ft	185.0 m <sup>2</sup>

CE category: A Ocean





#### Hull

Sandwich construction closed cell foam core E-glass / vinylester infused laminate with core, carbon and E-glass reinforcements in selected areas. GRP engine beds.
Single-point lift

Structural Bulkheads
Veneered sandwich construction or
marine grade waterproof plywood.
Water tight bulkhead at bow with a self-draining fore peak.

#### Keel

T-keel, steel fin with Antimony alloyed lead bulb and with upper flange. Fin recessed into hull and bolted with high tensile steel bolts. Epoxy coated and faired to class tolerances

#### Rudder

Foam filled rudder blade of GRP from female mould Carbon/epoxy stock.

Epoxy coated.

#### Gelcoat

Topsides: white with RAL 5003 dark blue cove line and double boot top. Hull bottom: epoxy coated sprayed finish, grey RAL 7005

#### Steering

Aluminium quadrant, wire steering with chain and sprocket.
Self aligning roller bearings
Roller bearing sheaves.

Twin composite pedestal integrated with cockpit sole.

Twin aluminium wheels, diameter 0,95 m. Lightweight aluminium emergency tiller.

#### Deck

Sandwich construction closed cell foam core E-glass / vinylester infused laminate with local core and fibre reinforcements. Gelcoat white with non skid. Stainless steel chainplate deck fittings. Liferaft stowage on deck by main companionway (GRP cover). Main companionway sliding hatch garage flush with coach roof. Removable plexiglass dropboards with designated stowage. ORC regulation toerails (30mm high) moulded in on the foredeck.

#### Deck hardware

Harken aluminium alloy winches and jib sheet tracks with purchase adjuster system. Harken main sheet track and halyard lead blocks.

Primary sheet winches B 60. 3STA

Mainsheet winches B 53. 2STA

Cabin top winches B 44. 2STA

Spinlock clutches. Single-line jib inhauler system. Bowsprit and furler controls lead aft under deck. Pad eye both sides for outboard sheeting. Crossover sheave for halyards on both sides.

Built-in GRP foot chocks for helmsman/tactician and mainsheet trimmer and on cockpit centre line. Stainless steel pushpit, pulpit and stanchions. 600 mm high life lines, with lower life lines at minimum ORC height. 2 folding pad-eyes for harness attachment in cockpit. Safety lines attachment to pulpit and pushpit base. Grab rails each side of coach roof and companionway.

One pair of mooring cleats at bow. Boarding ladder aft. Flagpole holder on stern. Mast collar with rubber seal.

Headstay attachment on stemhead. (below deck for Reckmann furler).

#### Deck Stowage

Lockers in foredeck, lazarette, cockpit coamings port and starboard and port aft coaming

#### Hatches

1 foredeck hatch Lewmar size 60 1 saloon overhead hatch Lewmar size 44 1 ventilation hatch in head Lewmar size 03 1 hatch to lazarette.

#### Windows

4 fixed coaming windows 2 openable coaming portholes – in aft, galley and navigation area. 4 openable coaming portholes in cockpit for aft cabins. hatch to lazarette.

#### Interior

Interior finish: teak with satin or white GRP/canvas lining.
Lockable plywood floorboards covered with bamboo veneer. Overhead liner GRP moulding, bonded in place.
Removable vinyl cover panels will provide access to deck hardware.
Foam mattresses over Scandi-Flex battens.
Curtains for side windows. Handrails throughout. Canvas leecloths for lower saloon and aft cabin berths.

#### Fore cabin

Double berth with stowage under Removable support structure for racing Reading lights above the berth Locker with shelves and doors Shelves on hull.

#### Heads

White GRP interior module with washbasin. Locker outboards, doors with teak.

Fresh water tap, shower, mirror and waste container.

#### Main cabin

Folding leaf table. Settee backrests fold up and convert into Pullman berths. Storage behind backrests.

Tanks below settees.

#### Galley

Two burner alcohol stove with oven, protected by stainless steel guard. Stainless steel double sinks with fresh water tap. Formica counter tops and sink cover. Drawer and lockers Top loading refrigerator 105 ltr, gravità drained with valve. Garbage bin.

Navigation area Forward facing chart table with seat. Chart stowage under table top.

Chest of drawers

Aft cabins P and SB side (mirror image) Double berth.
Stowage under berth.

Shelf on hull side.

Hanging locker in starboard side cabin, locker with shelves in port side cabin.

Engine space Service hatches

Removable front part of engine box incorporates teak companionway ladder. Engine control panel recessed in cockpit with 25mm sound proofing.

#### **Engine**

Volvo Penta D2-40 130 S marine diesel 29 kW 40 HP with Saildrive 2.19:1 and 2-blade 17" racing folding propeller. 140 ltr fuel in two polyethene tanks.

### Plumbing and ventilation

Flush mounted composite closing sea cocks for all through hull fittings below waterline.

Polythene tanks throughout.

Jabsco Marine toilet, sea water flushing. Y-valve in forward head, overboard discharge / holding tank.

Pressurised hot and cold water with a back-up foot pump. Oras single lever mixing faucets.

Holding tank with level indicator. Manual toilet discharge to holding tank. Tank emptied by hand pump or deck suction. Two manual and one electric bilge pump. Tank level indication for fuel. Battery driven refrigeration unit. Engine space air inlet from deck. Remote control fire extinguisher in engine space.

#### **Electrical**

12V DC insulated return system for lighting and general service Service battery of AGM type 12V 2 x 160Ah in saloon table base. Starting battery 12V 50 Ah. Bottom of mast, shrouds and stays grounded to keel.

12V outlet at chart table. 110V outlet at chart table (220V for EU boats).

Recessed halogen dome lights overhead. Flexible chart light at nav station. Red light above navigation station and in galley.

Navigation lights:

Red/green LED lights on pulpit. White stern LED light on pushpit. Steam light / deck light on forward side of mast.

Main switchboard 12V DC outboard of chart table. 115 A alternator with an electronic sensor

Shore power

110VAC system (220VAC for EU boats) 30 Amp shore power cord and inlet GFI duplex receptacle Inverter / battery charger Main distribution panel, contains 12VDC gauges,110/220VVAC gauges and circuit breakers, lighted.

#### Instrumentation

2 SUUNTO magnetic compasses, mounted on each steering pedestal. VHF antenna in mast top. Pre-wiring for B&G or Ockam electronics.

#### Rig

Clearcoat carbon fibre double spreader fractional rig. Black painted aluminium boom and aluminium spreaders swept 20 degrees.

Windex with light, one coaxial cable Recessed Reckmann furler.

Single line reefing arrangements for two reefs Main sheet double ended.

2 spinnaker halyards at masthead.

Flag halyard on stb spreader.

Navtec rod rigging with discontinuous shrouds, Series 500 deck turnbuckles.

Combined mainsail luff groove and track system.

Mainsail track for all OD racing Mechanical vang.

Holmatro hydraulic backstay system with one carbon control panel in cockpit.

Carbon retractable bowsprit in waterproof

All blocks and winches for asymmetrical spinnaker.

Complete running rigging package.

#### Miscellaneous

Owner's Manual in English
Four winch handles, two of these double grip
Two winch handle holders
Flag pole
Half model of hull
Gelcoat repair package
Safety belts for navigator and cook
Engine spare parts
Engine tool kit
Shipping cradle, adjustable height
Yacht prepared for shipment
OD certification from builder
IR C measurement One design certificate
filled in by Nautor.

#### NOTE:

please refer to the Class Rules for further specification details





# Swan 53









#### Swan 53

The Swan 53 has performance cruising at her core, providing the perfect solution for owners looking for a mid-range Swan which truly reflects Nautor's philosophy of quality, style and seaworthiness. Equally at home on the high seas covering long distances, or island cruising in shallow waters, the Swan 53 performs beautifully whatever the occasion.

The Swan 53 reflects Nautor's Swan's ongoing commitment to designing yachts that combine excellent cruising and racing capabilities, but boasts a number of innovations that make it really stand out. The model is available in two versions, each suited to a slightly different form of usage. The standard model features a 2.44 meters deep fin keel and a single rudder which ensure smooth, blue water sailing even in the strongest of winds. The daggerboard version, which has twin rudders, enables the keel to be raised to just 1.4 meters opening up access to a wealth of shallow cruising waters that would normally be out of bounds to a yacht of this size.

German Frers has designed the Swan 53 to be sailed by the smallest of crews and has included a number of clever design features to facilitate this. The rig uses twin set back spreaders with all lines leading directly to the generous cockpit. The non-overlapping jib and the single-line reefing system also add to the ease of handling.

To complement the powerful sail plan, the hull of the Swan 53 features very clean, modern lines with a narrow bow and large stern, all contributing to a performance-orientated set up. Designed with the ultimate in seaworthiness in mind, the Swan 53's elegant lines on its hull work to provide a spacious interior for perfect cruising.

The interior of the Swan 53 reflects the sense of style for which Nautor's Swan is famed, combining the precision of Finnish craftsmanship with the flair of Italian design. The model offers either a three or a four cabin layout, enjoying spacious cabins which can easily accommodate six people – and crew. The design of the interior space is very much centered on the saloon which is the heart of the yacht, and encourages guests to come together to relax.

















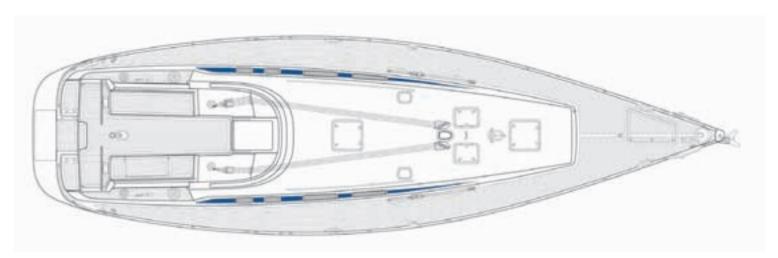








## **SWAN** 53





Four cabins SWAN 53

General		
Length overall:	54.07 ft	16.48 m
Length of waterline:	47.24 ft	14.40 m
Beam:	15.58 ft	4.75 m
Draught (light):	8.01 ft	2.44 m
Ballast:	18100 lbs	8200 kg
Displacement (light):	48500 lbs	22000 kg
Daggerboard keel with twin rudde	rs	
Draught board up:	4.59 ft	1.40 m
Draught board down:	12.14 ft	3.70 m
Ballast:	22400 lbs	10150 kg
Technical specification		
Fuel:	130.7 US gal	495 ltr
Water:	180.6 US gal	684 ltr
Hot water:	19.8 US gal	75 ltr
Holding Tanks:	31.7 US gal	120 ltr
DC Power:	24 V	626 Ah
AC Power:	7.7 kVA	230V 50 Hz
Shore Power:	7.36 kVA	230V 32 A
Engine - Yanmar folding prop:	106 SHP	79 kW
Rig and sail dimensions		
IM:	71.95 ft	21.93 m
J:	19.52 ft	5.95 m
P:	65.88 ft	20.08 m
E:	21.98 ft	6.70 m
SPL:	21.33 ft	6.50 m
ISP:	73.82 ft	22.50 m
Sail areas		
Fore triangle:	702.2 sq ft	65.2 m <sup>2</sup>
Mainsail:	839.6 sq ft	78.0 m <sup>2</sup>
100% jib:	705.0 sq ft	65.5 m <sup>2</sup>
Asymm Spinnaker:	2833 sq ft	263 m <sup>2</sup>

### SWAN 53 IS AVAILABLE IN THE FOLLOWING VERSIONS: - Fixed keel

- Dagger board with twin rudders Four cabin
- Three cabin



CE Category: A Ocean



#### Hull

The hull is of single skin construction using glassfibre reinforced isopolyester laminate with vinylester skincoat. Multiaxial or unidirectional fibres in selected areas. Structural bulkheads are of marine plywood with GRP reinforcements and bonded to hull and deck. Stiffener flanges are unidirectional lay-ups over hollow cores.

Gelcoats are of weather-resistant NGA type. Standard topside and deck is white, boot top, cove stripe and coaming stripe blue. Uncoloured gelcoat below waterline. Epoxy barrier coat layers sprayed on bottom, and finished with antifouling. The keel is a lead casting with antimony and carefully finished to accurate shape. Cast-in keel bolts are of high-tensile stainless steel.

Rudder of foam filled GRP with tapered high-tensile stainless steel stock, supported by two self-aligning bearings. Weed deflector in front of rudder. Steering system with two 1.05 m stainless wheels with elkhide cover, 2.1 turns H.O. to H.O. Composite pedestals with roller bearings, brake, and crash bar. Emergency tiller stowed in lazarette. Sea cocks of bronze for all through-hull connections below waterline, finished flush with outside and located in accessible positions. Inboard side of sea cocks fitted with stud long enough to take two hose clamps. Bathing platform storage in the lazarette.

#### Deck

Deck is of sandwich construction, using multiaxial glass fibre reinforced isopolyester laminate, with low-density closed cell foam core, and is bonded to the hull. High-density core under deck fittings. Unteaked deck surfaces finished in white gelcoat.

Harken electrical winches. Lewmar electric anchor windlass. Stainless steel stemhead fitting with one anchor roller. Stainless steel chainplates, headstay recessed for under-deck furler.

Main shroud chainplates bolted to reinforced web frames. Backstay chainplates attached to hull structure. Harken sheet tracks, cars, and blocks. Spinlock jammers and clutches. Winchard folding pad-eyes. Pop-up mooring cleats and fairleads at bow and stern. Two mooring cleats amidships.

Pulpit, pushpit and lifeline stanchions 600 mm high of stainless steel, with bases bolted through deck. Spacing conforming to ORC requirements. Lifeline gate both sides amidships, and in pushpit. Three folding eyes for jackline attachment in cockpit.

Teak toe rails with drain openings. Laid teak 9 mm nominal thickness in cockpits, on side decks, and on bathing platform, glued and vacuum bagged without screws. Hinged flush deck hatch for forepeak locker, windlass, chain box and optional bow thruster hatch.

Lewmar Medium and Low Profile recessed hinging deck hatches. Four openable coaming portholes, three portholes in cockpit. Parasol grey deck house windows by Form glass. Main companionway lockable sliding hatch of tinted acrylic with sliding drop board.

In cockpit hinged GRP hatches to lazarette, and to stowage locker with space for life raft. Under helmsman's seat gas bottle locker port side, stowage starboard side. Two seats with back rest on each side. Removable high gloss varnished teak cockpit table with folding leaves.

Large spray hood over the companion way with a recess in the deck, including a canvas cover over the recess. Padded canvas stowage bag for cockpit table. Two canvas bags for halyards tails, one on each side of the companionway.

#### Interior

Teak and oak are used for visible woodwork with hand rubbed satin finish. Topsides where visible lined with white wooden battens or removable vinyl panels. Mosquito screens and blinds for deck hatches.

Floorboards made of plywood with top face of oak with teak stripes same satin finish as the interior. Two suction lifters provided. Structural bulkheads are of marine plywood with GRP reinforcements.

Cabinets, tables, bureaus, seats, dressers etc. have rounded corners.

Doors, partitions and panelling are teak faced solid plywood or foam cored sandwich. Self-engaging latches with bumpers to hold doors in open position.

Hanging lockers are equipped with rods and hooks and automatic lights. Drawers are secured with latches. Hand rails at companion way and in saloon overhead. Companion way ladder with non-slip steps. Reading lights above each berth. Saloon table with Corian edge stripe.

#### Upholstery:

All fixed berths have foam mattresses over Scandi-Flex battens.
Forward and aft cabin berths equipped with teak leeboards/canvas leecloths. Textile covers with velcro zippers for berths and settees.
Textiles chosen from Nautor Swan's interior collection.

#### **Engine**

Engine space internally sound insulated. Drip tray integral with engine bed. Electrical lubricating oil change pump connected to main engine and genset.

Yanmar 4 JH4-HTE main engine with ZF25A gearbox and a 3-bladed folding propeller. Engine and reduction gear are supported on flexible mounts.

One filler line with strainer for each tank. Tanks vented to deck edge. Fuel filter/water separator with water alarm and shut off valve on feed line to engine. Thermostatically controlled fresh water cooling system with a heat exchanger for the engine.

Wet exhaust system for main engine and diesel generator. Water is discharged below the waterline and exhaust gases from main engine and diesel generators exit under the transom. Clean Agent (FM200) fire extinguishing system for engine room space.

#### Plumbing

Sea water system built of ruber hoses and nylon tubing, fresh water system built of polypropylene- and nylon tubing. Fuel, black and fresh water tanks of stainless steel provided with baffles, inspection cover, sounding plug, and vent pipe. Hot and cold pressure water, with back-up foot pump for cold only in galley. Consumable water can be heated either with engine cooling water, or with a heating element working on AC.

One deck shower with hot and cold water is installed at bathing platform, deck wash pump in foredeck. Hot water tank capacity 75 ltr (19.8 US gallons). Sea water spout in galley with foot pump. Galley sinks drained through sea cock. Washbasins and shower trays drained with electrical pump. Two manual Whale bilge pumps, one electric bilge pump in main bilge.

Electric PAR toilets using sea water for flushing. Y-valve for discharge either to holding tank or overboard. Holding tanks for toilets, emptied by electrical pump or deck suction. Stainless steel three-burner gimballed gas stove with oven and grill. Battery driven refrigeration unit with separate thermostat control for refrigerator and freezer. Natural ventilation in cabins. Exhaust blowers in galley and heads.

#### Electrical

24V DC system with insulated return 230V 50 Hz single phase three-wire grounded system. Wires are sized to minimise voltage drop.

For lightning protection the headstay, backstay (unless used as SSB antenna), main shroud chain plates and mast step are grounded to ballast keel bolts with heavy cable.

Batteries are 24V gelcell type for general service. Enersys maintenance-free gel type located in a ventilated GRP box in the fwd cabin.

24V 110A alternator with 3-step charge characteristics on the main engine for service battery bank. 24V 75A charger with 3-step charge characteristics, also for service battery.

Starting batteries for engine and generator maintenance free AGM type 12V 50 Ah Optima Red Top located in ventilated GRP boxes. 12V 80 A engine alternator for the starting battery. The genset has its own alternator for its starting battery.

The AC system can be fed either by a Fischer Panda 9000 ND PMS 7.7kW, 9.1kVA diesel generator, 230V 32 A shore power inlet, or a 24/2500VA 230V inverter with transfer switch. Shore inlet provided with polarity alarm, main switch, and land connecting cable. Outlets provided with earth fault protection. Connection to battery charger and water heater resistor element.

Comprehensive range of navigational and deck lights.

#### Instrumentation

Two SUUNTO 5" magnetic compasses on steering pedestals. Quartz clock and barometer at chart table.

A Brookes & Gatehouse Halcyon Gyro stabilised compass. Comprehensive Brookes & Gatehouse H3000 Hydra package. The main unit is a B&G Hydra H3000 Main processor and a B&G. Halcyon gyro processor. B&G monochrome Graphical Function Display and repeaters. Standard B&G depth and speed sensors with housing in plastic. There is a wind sensor at mast head, type vertical masthead unit.

Furuno NavNet 3D "black-box" radar/chart plotting system with processor unit connected to the TV at the navigation station, one Furuno NavNet 3D MFD 8,4" display on port steering console. Furuno GP-330 DGPS. Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet 3D plotter system.

Simrad RS-87H DSCVHF with two handsets. Sony MEX-DV1000 FM/CD/DVD stereo system with two B&W CCM50 speakers in saloon, DVD connected to the LCD TV. Sony 20" LCD TV connected to the Delta antenna for terrestrial TV.

There is a B&G H3000 autopilot system with one GPD control unit at the helm, with hydraulic ram connected to quadrant..

Furuno NavNet GP-330 DGPS. Furuno NavNet radar scanner (600 mm dome type).

Masthead R&R Electronic Delta DSC Biscaya active antenna for the VHF, TV and FM radio.

Spars built of extruded aluminium alloy sections painted white. Double spreader 15/16 fractional rig with discontinuous shrouds, and 20 degree swept back aluminium spreaders. Wide shroud base. Aluminium boom.

Mast of oval section, with external track for full-batten mainsail. Tapered and welded masthead with two gennaker sheaves, and one main halyard sheave. Two jib halyard sheaves, and one staysail halyard sheave. Internal wiring secured to mast. Spreaders of aluminium alloy. Folding footsteps on mast.

Standing rigging of round Navtec rod. C550 rigging screws with stainless covers for main shrouds. Headstay with toggles at upper and lower end. Aramid inner forestay and running backstays. Main boom of oval section with hydraulic outhaul, and arranged for two single line reefs.

Hydraulic boom vang with high-pressure return, tensioners for backstay legs, and mainsail outhaul. Single gauge System 50 central control panel in cockpit. Running rigging of colour coded Dynema. Main halyard with screw shackle, gennaker, jib and staysail halvards with snapshackles. Recessed Harken furler with furling line led to cockpit winch.

#### Equipment

Owner's Manual in English with directions for use and maintenance, drawings and diagrams for main systems and handbooks for machinery and components.

One 25 kg DELTA anchor on stemhead. 50m of 10mm Grade 40 chain spliced to 50m 16mm plaited nylon anchor line. Four mooring lines 20m each. 6 Air fenders with lines. One boat hook.

Two 6 kg aluminium LPG tanks, including securing arrangements and pressure regulator, supplied if the yacht is launched in Finland.

Sprayhood for main companionway, canvas bag for halyards each side of companionway, padded canvas stowage bag for cockpit table.

Fixed fire extinguisher in engine space with release handle at companionway. Portable extinguishers in interior, one in galley, one forward. Fire blanket in galley.

Two jackstays of webbing for side decks, one double for cockpit. Safety belts for navigator and cook.





# Swan 60









# Swan 60

The new Swan 60 was conceived to meet a growing demand for a model engineered for performance, comfort and style. Using the latest technology, design and construction methods, the Swan 60 combines a voluminous interior, large cockpit, high righting moment for comfortable cruising with racing performance potential.

This performance orientated yacht is designed to enhance the cruising experience and benefits from a practical cockpit layout and helm position, providing space for relaxation and unhindered movement around the boat at all times.

The boats high stability, direct steering system, foils, carbon fibre spar package, and forgiving performance contribute to a light, responsive yacht which can be sailed by a limited crew.

The deck is spacious and offers the choice of a clean open transom version or functional closed transom version which features a sunbathing area and dinghy garage.

The result of extensive research and use of advanced materials is a low drag hull and appendage package, with a long dynamic waterline at displacement and semi planing speeds. The Swan 60 has a T shaped blade keel and lead bulb and comes with two draft options at 3.6 m and 2.9 m, both using the same structure and offering enhanced stability.

Designed to maximise living space and offer plenty of natural light, the interior is of symmetrical linear layout and both attractive and practical. The large saloon combined with spacious navigation station forms the base of the interior with a generously sized owner's cabin forward and two symmetrical guest cabins with en-suite facilities aft.

















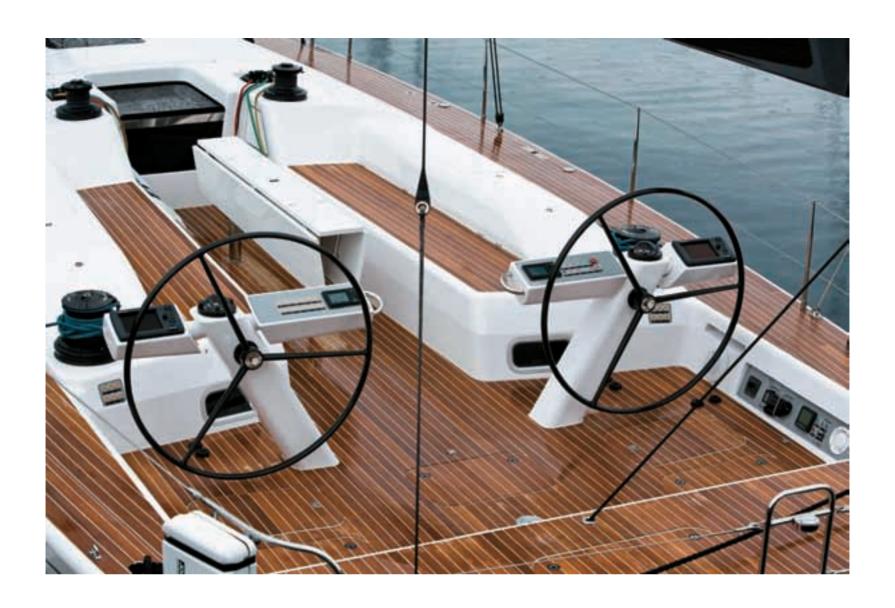
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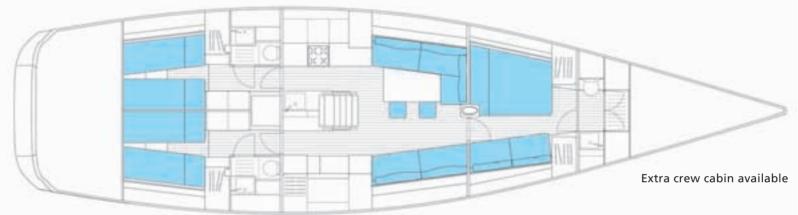






# **SWAN** 60





# SWAN 60

General		
Length overall:	61.89 ft	18.86 m
Length of waterline:	54.80 ft	16.70 m
Beam:	16.70 ft	5.09 m
Draught (light):	11.81 ft	3.6 m
Ballast:	17.000 lbs	7700 kg
Displacement (light):	41200 lbs	18700 kg
Table is all and althought and		
Technical specification	422.116 !	500 lt
Fuel:	132 US gal	500 ltr
Water:	105 US gal	400 ltr
Hot water:	13 US gal	50 ltr
Holding Tanks:	32 US gal	120 ltr
DC Power:	24 V	578 Ah
AC Power:	9.4 kVA	230 V 50 Hz
Shore Power:	11.5 kVA	230 V 50 A
Airconditioning:	36000 BTU	10.5 kW
Engine - Volvo:	110 HP	81 kW
Rig and sail dimensions		
IG:	83.53 ft	25.46 m
J:	23.19 ft	7.07 m
P:	79.79 ft	24.32 m
E:	27.88 ft	8.55 m
Call annual		
Sail areas	070 (1	00.4
Fore triangle:	970 sq ft	90.1 m <sup>2</sup>
Mainsail:	1355 sq ft	125.85 m <sup>2</sup>
Jib:	1023 sq ft	95.0 m <sup>2</sup>
Asymm. Spinnaker:	3444 sq ft	320 m <sup>2</sup>

# CE Category: A Ocean

#### SWAN 60 IS AVAILABLE IN THE FOLLOWING VERSIONS:

- Open transom
- Closed transom
- Side bed owner cabin
- Central bed owner cabin
- Extra crew cabin





#### Hull

Female moulded pre-preg carbon fibre /SPRINT® matrix. Corecell™ cored sandwich laminate throughout hull. Combination of materials with excellent strength to weight ratios and precise cure cycles result in optimum strength and fatigue properties and a lightweight hull structure.

Pre-preg carbon fibre /SPRINT® structural bulkheads bonded to hull and deck. All stiffeners are pre-made carbon fibre / epoxy resin layups with foam core. Engine beds are an integrated part of hull structure. Special care is taken to assure rigid foundation and proper adhesion to hull. Composite chain plates are built using pre-preg unidirectional carbon fibre straps laid over stainless steel bushings. The chain plates are bonded to the hull.

Hull is painted using a polyurethane paint system. Hull bottom treated with epoxy primer Gelshield and International Uni-Pro antifouling. The topsides are painted in Snow white, M1010, boot top and cove lines selected from chart.

Ballast bulb is lead casting with 4.5% antimony, attached high strength steel keel fin. The keel is attached to the hull with AISI 329 bolts and faired. The steering system is a twin wheel sprocket and a chain system with stainless steel cables. Isotop rudder, built using carbon fibre/epoxy skin on a foam core, with a tubular carbon fibre stock. The lower tip of the rudder is designed to break before the stock does. A weed deflector is located in front of the rudder.

Two JP3 self-aligning bearings, lower bearing has double seals. The rudder stock is provided with a fitting for the emergency tiller. The emergency tiller is stowed in the lazarette.

Lightweight aluminium steering quadrant and autopilot arm is bolted to rudder stock. Composite steering pedestals with display consoles and control buttons. Two 1200 mm clear coated carbon composite wheels.

Carbon fibre mast step with a tie rod attached between the mast collar and the step. Bronze sea cocks in engine room. All other through-hull fittings below waterline are Forespar Flotech.

Semi-closed transom version has a large transom hatch. Hydraulic transom hatch made of carbon pre-preg doubles as bathing/boarding platform with teak surface. Hatch extends up to deck level for maximum opening and discrete look giving direct access to lazarette. 4 tinted bull windows

Exit Engineering carbon folding gangway stored in the lazarette. Side boarding custom built carbon ladder, stored in sail locker. Carbon bathing platform ladder with flush stainless steel fittings stored in lazarette. Storage for sails and equipment in the fo'c'sle. Floorboards light weight composite construction. The top sides are faired and top coated. The boarding ladder doubles as an entrance ladder. There are provisions for storage of the yacht's equipment in the lazarette.

#### Deck

Stiff, robust and lightweight construction Corecell™ cored Pre-preg / SPRINT® matrix. Bonded to hull using high strength structural adhesives. High density foam core under deck fittings. All visible composite surfaces are painted Snow White M1010. Coaming stripe colour to be from Nautor's colour chart. Laid teak side decks, fore deck, cockpit sole and seats. Vacuumed and bonded with epoxy. Two angled adjustable helmsman's supports at steering consoles. 30 mm high teak toe rail forward of the mast.

All winches are electrically driven from a dedicated battery bank. All halyards are lead in gutters under deck to the halyard winches.

Magic trim<sup>™</sup> main sheet system. Single point main sheet, aft of the helmsman The control buttons are installed on the steering consoles.

Two Harken B 990.3 STRAD EH primary winches with free spinning base... primary winches with bases. Two Harken B 65.3 STRAD EH halyard winches with free spinning base halyard winches one on each side of the companionway hatch with bases. Harken 3155 tracks for jib sheet. Harken C9298 jib cars and stoppers. Hydraulic jib car adjuster.

Harken H 3010 100 mm block for jib sheet leads. Eight Harken H 3123 halyard lead blocks. Four Harken C 8832 56 mm blocks for gennaker sheet. Four Harken Custom U-bolt pad eyes Loup-blocks

Spinlock ZS 1214 jammer for the main halyard. Spinlock ZS 1214 jammer for the staysail halyard.

Six Spinlock ZS 1214 jammers forward of the halyard winches. Four Spinlock XX 0812 clutches forward of the halyard winches Two Spinlock XX 0812 clutches, aft on side decks for gennaker sheets.

Three Wichard 6505 folding pad eyes outboard on each side deck. Screw-in pad eye on the bow for gennaker tack line. Lewmar V6 electric anchor windlass with remote control on foredeck. Manually operated, gas spring supported, anodised aluminium arm for anchor arm stowage.

The pulpit, push pit and stanchion are 610 mm high with spacing according to ISAF/ORC requirements and made of a Ø 25 mm stainless steel tube. The life lines are stainless 8 mm wire with polished turnbuckles and eyes. Stainless fittings secure safety lines on deck.

Six 300 mm aluminium pop-up mooring cleats. Socket for flagpole on port side aft deck. Composite mast collar designed for use with Spartite support. Custom made canvas mast boot.

Nautor custom made flush mounted tinted acrylic hatches with gutters in white painted composite and supported by gas cylinders. Hinged hatches over forepeak, Owner's bathroom/ cabin and saloon. Teak covered hatches to anchor stowage, lazarette, liferaft stowage, LPG bottles and as helmsmans supports.

Six flush mounted tinted acrylic portholes.

Two flush mounted tinted acrylic side windows on each side in the coaming above the saloon.

Manually operated tinted acrylic sliding hatch for main companionway with 2-piece drop board

Large cockpit providing safe access to the interior, designed for maximum comfort both under sail and at anchor. 2.5 m (8' 2") long seat with backrest on each side of the cockpit. 2.0 m (6'6") semi permanent cockpit table with folding leaves which can be adjusted in height to be flush with seats. Recessed spray hood for the main entrance. Canvas sun awning. Cockpit cushions

with backrests for seats and for table top.

#### Interior

The interior is finished in teak with influence of white painted surfaces. The wood work is oil waxed and the surface has a satin finish. Vinyl clad removable overhead panels are installed in all accommodation areas.

Floorboards are of foam cored construction laid on vibration damping materials. The top face is teak with koto stripes having the same surface finish as the rest of the wooden interior. Structural bulkheads are covered with sound damping sandwich panels with teak veneered surfaces. Partitions are of sandwich construction on a 28 mm core Skin panels are foam sandwich with teak veneer surfaces.

Visible topsides covered with lightweight teak panels. All lockers doors are fitted with high quality furnishing hinges. Hanging lockers are fitted with rails and have automatic LED lights. In the saloon area hand holds are fitted as a part of the ceiling for safe movement under deck. Reading lights are installed at the head end of all berths and sofas. General cabin lighting is either spotlight down lighting or indirect fluorescent lighting with dimmer controls. Indirect and courtesy lights in cabins and saloon.

All open able deck hatches are fitted with manual roller blinds and mosquito screens. Hull and coaming windows are fitted with manually operated venetian blinds.

Mattresses of sprung type manufactured for marine use based on batten system for highest comfort. Fabrics and leathers chosen from Nautor's Swan interior collection. Textile covers with velcro zippers for berths and settees. Dust covers for sofas and settees. Canvas leecloths.

Galley lower lockers in wood, upper lockers painted white. Work tops are custom made in Corian. Forward bathroom bulkheads are covered in teak and has a separate shower stall. The two aft bathrooms have a showerhead arrangement. Non-slip floorboards following same style as cabin floor. Corian wash basins throughout. Acrylic door for shower stall with stainless steel fittings.

Insulated engine space can be accessed from three sides through removable hatches with rubber faced landings for maximum noise reduction.

## **Engine**

Main engine Volvo D3-110, 81 kW (110 hp) @ 3000 rpm. Engine and reduction gear supported on flexible mounts.

Volvo HS25A reduction 2, 48:1 gearbox The propeller shaft is made of high-tensile corrosion resistant steel. Shaft supported by water-lubricated rubber bearing at P-bracket and stern tube. Four-bladed folding propeller Brunton Varifold. Drip tray under engine and diesel generator.

Wet exhaust system for both main engine and diesel generator, composite gas/water separators.

Shut off valves are provided for each fuel tank. Cooling water is discharged below waterline, and exhaust gases discharged under transom. Thermostat-controlled fresh water cooling for engine and generator with sea water heat exchanger. Engine controls installed in cockpit coaming.

The powered hydraulic system is custom designed to supply all hydraulic functions quietly and smoothly. It has a manual back-up pump.

Low pressure compressed air system primarily intended to inflate the transom door sealing.

Also a quick connector in the lazzarette for low pressure air tools

Clean Agent (FM200) fire extinguishing system for engine room space.



## **Plumbing**

Seawater system made of rubber hoses and nylon tubing and fresh water system made of nylon tubing.

Fuel, fresh and black water tanks are made of polypropylene and provided with baffles, inspection covers, sounding plug and vent pipes.

Components and valves are labelled with function, and piping is colour coded with arrows to indicate direction of flow.

Pressurised hot and cold water system with a 8 liter pressure accumulator tank connected to system run by two 24V pumps for quiet operation. Valve chest has valves for each water tank and for water pressure pumps. Thermostat controlled stainless steel water heater 50 liter using cooling water or heating element running off AC power. Cold water deck wash. Deck shower on bathing platform.

Low pressure water maker with self priming feed water pumps made of bronze and AISI 316, situated in engine space. Remote control installed at the navigation table. Electrical deck wash pump with connection on foredeck, capacity 20 l / min. Sea water outlet and hose in forepeak locker.

Four bilge pumps, DC driven submersible located in lazarette, main bilge, fore peak and engine room. 2 manual Whale pumps one for the fore peak and accommodation area, the other one for the engine room and lazarette bilge.

Galley sink is drained directly to sea cocks. Shower trays and wash basins are drained with an electrical pump to overboard discharge. Toilet flushing by fresh water. Full black water tank disable flushing of toilets.

Space for two 6kg gas bottles in draining locker accessed via deck. Four-burner stainless steel gas stove and oven, gimballed with galley fan. Microwave oven, 115 liter refrigerator, front loading 80 liter freezer.

Forced ventilation directing fresh air into cabins and exhaust air out through heads. Silencers installed to reduce noise. Galley has its own independent system. Climate can be controlled with central cooled/heated waterbourne system condensation water collected in grey water tanks.

2 Frigonautica 24V DC water cooled compressors units. Clean Agent (FM200) fire extinguishing system for engine space. All tanks systems are monitored and status displayed on touch screen.

#### Electrical

Cables are labelled with identification numbers at both ends.

AC system is a 230 V 50 Hz single-phase three-wire AC-system powered by the diesel generator, shore connection or a DC/AC inverter. Shore power inlet is 230 V 1-pole 50 A with 15 m cable.

9.4 kW Mastervolt Whisper generator producing single-phase 230 V 50 Hz AC. Inverter that converts 24 V DC to 230 V AC 50 Hz 2500 VA for single-phase AC consumers.

Keel is the underwater earthing point. The propeller shaft and the keel have their individual sacrificing anodes.

DC system is 2-pole 24 V, with an insulated return, mainly used for lighting, fans and pumps. The wires are sized to minimise voltage drop. Multiplexing Technology DC-system. Functions controlled and monitored on a touch screen with manual override for key functions.

2 battery banks, service and handling systems with 24V charger and 3-step charge characteristics. 24V maintenance-free gel type for service systems powering lights, fans, pumps and electronics and two 12 Optima Blue Top for the handling systems powering for electrical winches, electrical head, headstay furler, windlass and the hydraulic power pack. Battery banks located in forward cabin under berth. 24V 110 A alternator on main engine charging both battery banks through a battery isolator.

Starting batteries two 12 V Optima Blue Top one for main engine and generator. Maintenance free AGM type, located in the engine room. 12V 140A alternator located on main engine for charging engine battery.

Comprehensive installation of navigation, rig and deck lights. Touch screen monitor at the navigation table for main yacht systems. Diesel generator with own control panels. Cockpit control panels for engine, navigation lights and sail handling.

#### Instrumentation

2x Suunto F-135 magnetic steering compasses. Georg Jensen clock and barometer. A Brookes & Gatehouse Halcyon Gyro stabilised compass. Comprehensive Brookes & Gatehouse H3000 Hercules package. The main unit is a B&G Hercules H3000 Main processor and a B&G. Halcyon gyro processor. B&G mono-chrome Graphical Function Display and repeaters. Standard B&G depth and speed sensors with housing in plastic. There is a wind sensor at mast head, type vertical masthead unit.

Furuno NavNet 3D "black-box" radar/chart plotting system with processor unit connected to a Dell 17" LCD screen at the navigation station, one Furuno NavNet 3D MFD 8,4" display on port steering console. Furuno GP-330 DGPS. Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet 3D plotter system. There is a Navtex receiver, Furuno NX-300.

Simrad RS-87H DSC VHF with two handsets. Inmarsat FleetBroadband 250 satellite telephone system from KVH. Bose Lifestyle 48 DVD/CD/FM stereo system connected to the LED TV.Two Bose 131 speakers are installed in the cockpit. The system is controlled by a Bose Personal Music Center II radio remote control in addition to the volume control knob in cockpit. Samsung 32" LED TV connected to the Delta antenna for terrestrial TV.

There is a B&G H3000 autopilot system with one GPD control unit at the Helm with dedicated 24V power pack powering the hydraulic cylinder. The autopilot is driving the steering quadrant via a Marsili cylinder.

Furuno NavNet GP-330 DGPS. Furuno NavNet radar scanner (600 mm dome type). KVH TracPhone FB250 satellite telephone antenna.

Masthead R&R Electronic Delta DSC Biscaya active antenna for the VHF, Navtex, TV and FM radio.

Dell OptiPlex 760 "Ultra small form factor" computer with a DVD station.

#### Ria

A Hall Spars swept back (21°) 2 spreader carbon mast, with discontinuous shrouds. Faired and painted white. Antal track for mainsail. Carbon spreaders with downlights. Sheave boxes have stainless steel chafe guards. Sheaves for 2:1 main halyard, Code-0 / masthead spinnaker, jib halyards, spare main halyard.

Neoprene mast boot with Dacron cover over deck partners. Four composite folding steps. White Female moulded Deep "V" cored section boom with deck lights. Provision inside boom for lazy jack. Hydraulic outhaul and Cunningham system and arrangement for two single line reefs. Preventer line attachment point.

Navtec rod rigging and Kevlar backstay. Colour coded Dyneema, Tylaska snap shackles or D shackles.

Reckmann UD3 Sphere electrically operated head stay furler with aluminium foil and hydraulic real time adjuster. Powered hydraulic rig functions: boom vang, mainsail outhaul, backstay, Cunningham. Removable hydraulic mast jack and manual pump.

# **Equipment**

An Owner's Manual is provided with instructions for use and maintenance, drawings and diagrams and handbooks for main systems, machinery and components.

CQR 75 lbs 34 kg galvanised anchor on folding arm. Danforth 60H 27 kg galvanised anchor stowed below deck 80 m 12 mm high-tensile anchor chain. 50 m 24 mm plaited nylon anchor line. 4 mooring lines 15 m each, diameter 20 mm. 2 mooring lines 25 m each, diameter 20 mm. 8 Avon air fenders with lines.

One boat hook stowed below. 4 10" power grip and two 10" single grip winch handles. 2 Bosun's chairs. Flag pole.

Portable extinguishers Gloria P2G for each cabin. Fire blanket in galley. Safety belts for navigator and cook. MOM is mounted on stern pulpit. 6-person AVON life raft.

Basic machinery spare parts and tool kit. There is one half model of the hull. 2 handles for opening deck hatches and sounding rods for fuel and water tanks are provided.





# Swan 66









#### Swan 66

The 40<sup>th</sup> anniversary model is the ultimate performance cruiser from Nautor's Swan. Conceived to provide a genuine performance cruising solution, it encompasses modern design, new materials and state of the art production to find a perfect balance between performance and comfort.

Designed by German Frers, the Swan 66 has a canoe body with large volume, offering a spacious interior constructed using the latest racing design technology and high tech materials. The deck layout has been carefully designed to allow for easy sail handling and good protection from the elements.

Available in Flush Deck (FD) and Semi Raised (S) saloon versions, the Swan 66 offers various design configurations, including two keel versions and two different deck and interior layouts. This gives the customer the opportunity to tailor their Swan 66 into a comfortable cruising yacht or a more performance orientated, competitive boat.

The top sides are composite sandwich construction, with carbon fibre reinforcements for a lighter, stiffer hull in addition to better sound and heat insulation. The structural design of the hull incorporates important collision safety aspects, with the structural bulkheads made from carbon fibre to ensure maximum stiffness. The underwater section is coated in a single skin laminate, which provides optimal impact resistance.

The teak joinery is complimented by a subtle styling and white surfaces throughout, allowing for a truly modern, spacious, functional and bright interior. The hull windows in the saloon create a spacious and bright living area. Two different layouts are available: one on the Flush Deck version with the owner cabin aft with a two cockpit deck configuration and the other on the Semi-raised saloon with the owner cabin forward, with a one cockpit layout.

























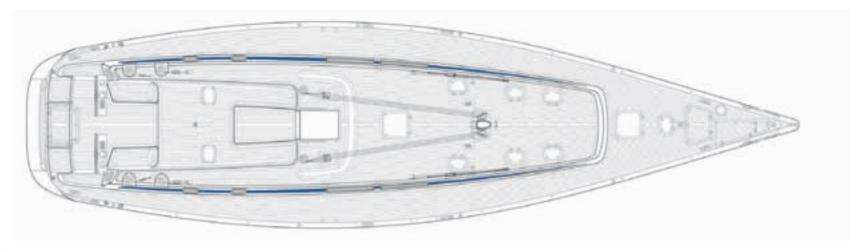








## SWAN 66 FD





General			
Length overall:	66.01 ft	20.12 m	
Length of waterline:	56.40 ft	17.19 m	
Beam:	17.68 ft	5.39 m	
Draught (light):	10.50 ft	3.20 m	
Ballast:	20720 lbs	9400 kg	
Displacement (light):	66000 lbs	30000 kg	
Technical specification			
Fuel:	211 US gal	800 ltr	
Water:	264 US gal	1000 ltr	
Hot water:	19.8 US gal	75 ltr	
DC Power:	24 V	720 Ah	
AC Power:	11.9 kVA	230 V 50 Hz	
Shore Power:	11.5 kVA	230 V 50 A	
Airconditioning:	50000 BTU	14.5 kW	
Engine - Steyr:	163 HP	120 kW	
Rig and sail dimensions			
IG:	90.22 ft	27.50 m	
J:	24.44 ft	7.45 m	
P:	82.84 ft	25.25 m	
E:	24.93 ft	7.60 m	
Sail areas			
Fore triangle:	1102.6 sq ft	102.4 m <sup>2</sup>	
Mainsail:	1308.9 sq ft	121.6 m <sup>2</sup>	
Jib:	1026.9 sq ft	95.4 m <sup>2</sup>	

CE Category: A Ocean



### SWAN 66 FD

#### Hull

Female moulded E-glass/polyester laminate with a vinylester skincoat. Monolithic structure up to waterline. Topsides are a foam cored E-glass/polyester sandwich structure. Excellent strength and fatigue properties due to a high proportion of unidirectional fibre in the laminate stack. Precise curing times and temperatures under vacuum used to maximise surface quality. All longitudinal stringers are glass/carbon lay-ups over pre- made hollow sections. Longitudinal girders and transverse keel floors are L-sections with a glass/carbon lay-up. Engine bed is made of GRP with steel backing plates. Structural bulkheads are infused carbon/vinylester sandwich structure secondary bonded to hull and deck. Composite main shroud and backstay chainplates bonded to the inside skin.

Hull finish is a weather resistant NGA type with topsides gelcoat white NGA 9650 and boot top and cove stripe in dark blue NGA 7344. Uncoloured gelcoat below waterline. Bottom treated with epoxy primer for improved blistering resistance, and antifouled.

The keel is a lead casting alloyed with antimony and bolted to the bottom grid. Keel bolts are of high-tensile stainless steel. Composite mast step. There are tie rods from the mast collar to the step. Bronze through-hull fittings below waterline with access. The inboard side of the sea cocks will be fitted with a stud long enough to take two hose clamps.

Single rudder with dual steering gear. The rudder blade is foam filled with carbon fibre/epoxy skins. Rudder stock is carbon/epoxy. A weed cutter is fitted in front of the rudder. The rudder bearings are self-aligning. Steering sheaves are provided with guards to prevent jamming. The aluminium steering quadrant is bolted to the rudder stock. Composite pedestals with roller bearings and friction brake. Sail handling and furling controls on port pedestal. Two 1.05 m clear coated carbon composite wheels. Emergency tiller stowed in lazarette.

Hydraulically operated transom door/bathing platform with teak surface and pneumatic seal. The transom door/bathing platform can be operated with a wireless remote control. The lazarette is separated with a watertight bulkhead from the interior. Separate locker for LPG tanks. Two tinted hull windows on each side of the saloon of toughened laminated glass.

#### Deck

The main deck is infusion moulded sandwich structure. Fibres are a mixture of carbon and glass with a vinylester resin system. High density foam core or solid laminate under deck fittings. The deck is bonded to the hull and is stiffened with deck beams of glass/carbon lay-ups over a foam core.

Coaming and coach roof gelcoat white NGA 9650. Laid teak on side and bridge deck, coach roof, cockpit sole and seats. Bonded to the deck, screws in hatch frames and borders. Two removable teak footrests for helmsman.

All winches are Harken self-tailing electric powered, 24V. Two Harken B980.3 STEA three speed main sheet winches. Two Harken B980.3 STEA three speed jib sheet winches. Two Harken B70.3 STEA two speed winches on coach roof. Harken screw in cups and blocks. Harken C7388 screw in top inner forestay chain plate and hydraulic tensioner.

Two Harken 3155, 2.1 m, tracks for jib sheet with end/ pin stops. Harken C3018 stand-up blocks for runners and gennaker sheets. Ten Harken 3123 mast base blocks for halyards, reefs and main sheet. Harken C3018 stand-up block for main sheet. Harken H1963 57 mm, footblock for leading gennaker tackline. Two Harken H3007 100 mm, single blocks for mainsheet. Harken H3009 100 mm, double block for mainsheet.

Spinlock ZS1214 jammers for halyards, main and jib sheet. Spinlock XX0812 clutch for gennaker tack line, jib car towing line. Whichard padeyes.

Electric anchor windlass, Lewmar V6, mounted under deck. Manual gas piston supported stainless steel folding anchor arm. Electric 24V, 2000W, retractable Sanguineti Chiavari 3710400, capstan drum mooring winch. Six stainless steel pop-up mooring cleats fore, aft and amidships.

Aluminium mast collar designed for use with Spartite support. Bathing ladder used at bathing platform, stored in lazarette. Side boarding ladder with fittings both sides amidships, also for entering the sail locker, stored in sail locker. One ladder from cockpit to bathing platform. Stainless steel halyard bail in front of the mast.

Life lines, stanchions, pulpit and push pit spacing conforms to ISAF/ORC requirements. Life lines stainless 8 mm wire with polished turnbuckles and eyes. Gates in lifelines amidships on each side. Pulpit, push pit, stanchions 610 mm high stainless steel tube. Pulpit is of open type. Push pit has gate for easy access to bathing platform / gangway. Stainless steel socket for flagpole on inner vertical push pit bar.

Nautor custom made flush mounted tinted acrylic hatches with gutters and frames in white painted composite. All hatches are supported by gas cylinders. Deck hatches leading to all cabin spaces and living areas. Teak covered hatch to anchor stowage, sail locker and lazarette.

4 Goiot Cristal 40-24R open able tinted acrylic portholes in coamings, flush mounted with aluminium frames.
2 tinted side windows on each side above saloon.

Two tinted acrylic deck lights, above owner's cabin.

The lockable companionway has a manually operated sliding hatch and drop board of tinted acrylic.

Two cockpits with an open steering aft cockpit.

Seats with backrests, each side of the cockpits. Integrated lockers for life raft storage in the aft cockpit seats.

One removable high gloss varnished teak cockpit table with folding leaves in forward cockpit, padded canvas stowage bag. One large spray hood recessed with a canvas cover over the main companionway. The spray hood has three windows in the front, the middle window is able to open, including two leather covered handrails. The structure is a stainless steel tube with light canvas top.

Cockpit cushions with backrests for forward cockpit. Canvas covers for the steering wheels and the pedestals. Two bags for halyard tails

#### Interior

Selected light teak is varnished and hand rubbed to give a satin finish for all visible woodwork. White vinyl covered removable overhead panels are installed in all accommodation areas. Visible topsides and coachroof lined with white painted paneling. Teak is mainly used for visible interior. Varnished floorboards with satin finish as the rest of the interior. PVCsandwich construction with grooved oak veneer and supported on vibration camping materials. Two suction lifters will be provided.

Structural bulkheads are foam cored carbon with separate skin panels. Water tight collision bulkhead between forepeak and forward head. Interior bulkheads and panels are a foam core sandwich construction with skins of teak-faced marine plywood and painted panels on upper parts. Partitions are built to meet 20 dB (A) level of airborne sound reduction.

All locker doors are fitted with high quality furnishing hinges. Hanging lockers are fitted with rails and have automatic internal lights. Hand rails are fitted throughout the vessel where needed for safe movement under deck. Reading lights are installed at the head end of all berths and sofas. General cabin lighting will have spotlight down lighting with dimmer controls in saloon.

Drawers are made of teak. Mirrors of marine quality, edges sealed. Companionway ladder has non-slip steps. Teak leeboards/canvas leecloths. Integrated roller blinds/mosquito screens for hinged deck hatches. Blinds for hull and coaming windows in saloon. Portholes with roller blinds.

Mattresses of sprung type manufactured for marine use based on batten system providing underside ventilation. Foam mattresses for Pullman berths. Fabrics and leather chosen from Nautor's Swan interior collection. Galley lockers in wood. Work top, fiddles, backsplash and sliding doors Corian, Cameo White.

Guest showers are painted in upper areas, GRP counter tops with a white Corian back splash. Lockers, walls and floorboards are in wood following the same style as the cabin. Shower walls and floor in GRP with teak floor grating. Tempered glass door for shower stalls with stainless steel fittings.

#### Engine

Engine space internally sound insulated and equipment mounted with consideration of noise and vibration reduction, fluorescent lighting. Propeller area sound insulated.

Main engine Steyr MO166M28 six-cylinder, output 120 kW 163HP at 2800rpm. Engine and reduction gear supported on flexible mounts. ZF 63 IV 2.48:1 ZF 63 IV 2.48:1 direct mounted hydraulic reverse/reduction gearbox The propeller shaft is made of high-tensile corrosion resistant steel with flexible shaft coupling. Drip-free shaft seal. Shaft supported by rubber bearing at bracket and stern tube. Four-bladed folding propeller Brunton Varifold. Max Power VIP 250, HYD 24 VDC retractable bow thruster with own battery bank and charger.

Super silencing wet exhaust system for both main engine and diesel generator. Fuel tanks with inspection hatches. Fuel valve chest with supply and return valve for each tank. Cooling water is discharged below waterline, and exhaust gases discharged under transom. Thermostatcontrolled fresh water cooling for engine. Separate heat exchanger for the consumable fresh water in the same circuit making hot water available whenever the engine is running. Hot water also with a heating element on AC.

Engine controls on starboard cockpit coaming. Thruster foot switches for port and starboard starboard wheel. Up and down control on starboard pedestal. Hydraulics are run on the basis of a central power pack supplying satellite valve groups located close to operating unit. This reduces inherent hydraulic noise and vibration.

Clean Agent (FM200) fire extinguishing system for engine room space. Two fire hydrants with hose reel, one forward and one aft.

#### **Plumbing**

Seawater system with rubber hoses and nylon piping, fresh water piping of polypropylene, nylon or copper tubing. Fuel, fresh, grey and black water tanks are of welded stainless steel and provided with baffles, inspection covers, sounding plug and vent pipes.

Pressurised hot and cold water with an 18 liter pressure accumulator tank connected to system run by two pumps for quiet operation. Thermostat controlled stainless steel water heater 75 liter using cooling water or heating element running off AC power. Insulated hot water pipes.

Water maker with self priming feed water pumps made of bronze and AISI 316. Electrical anchor wash/fire pump with connection on deck. Five bilge pumps, 3 electrical submersible located in lazarette, main bilge and fore peak. Two back up hand pumps in forward cabin and cockpit. Toilet flushing by fresh water. Full black water tank disable flushing of toilets.

Space for two 6kg gas bottles in drained locker accessed via anchor locker. Fourburner stainless steel gas stove and oven, gimballed with galley fan. Microwave oven, air compression general and two 125 liter refrigerators and top loading 126 liter freezer.

Forced ventilation directing fresh air into cabins and exhaust air out through heads. Silencers installed to reduce noise. Galley extractor own duct.Climate can be controlled with central cooled/heated waterbourne system. 3 custom made Frigonautica 24V DC water cooled compressors units.

All tanks systems are monitored and status displayed on main switch board. Fire alarm system and a Clean Agent (FM200) fire extinguishing system for engine space



#### **Electrical**

2-pole 24V insulated return DC-system for lighting, blowers, pumps etc. Wires are sized to minimise voltage drop.

Maintenance free traction gel type for general service and instruments, each with 24V bank and either one or two 24V chargers with 3-step charge. Battery banks for service and instrument batteries located in the saloon in ventilated GRP boxes. One 24V 140A alternator on the main engine for service and instrument battery banks.

Starting batteries of maintenance free AGM type with a paralleling switch. 12 V banks for main engine and generator, Optima Yellow/Red Top. 12 V 90 A alternator on main engine for engine starting battery. Generator with own alternator for its starting battery.

230V 50 Hz single-phase three-wire grounded AC-system fed by the diesel generator or shore power inlet or through DC/AC inverters. Conversion of 24 V DC to 230 V AC 50 Hz for single-phase AC consumers

Shore inlet plug 230V, in lazarette with polarity alarm, main switch and cable. Keel is underwater earthing point.

Fischer Panda 14.000 NE PMS (11,9 kVA) 230V AC diesel generator.

Comprehensive installation of navigation, rig and deck lights
AC and DC control panels on main switchboard.

#### Instrumentation

2 SUUNTO magnetic compasses on steering pedestals.

There is a comprehensive package of sailing instruments; navigation, communication and entertainment systems.

Wempe barometer and clock mounted at chart table.

B&G H3000 autopilot system with one control unit at starboard steering. Console with individual 24V constant running power pack. Autopilot is driving the steering quadrant via one Rexroth low friction hydraulic cylinder. Foghorn.

#### Rig

Offshore Spars swept back three spreader rig with discontinuous shrouds. White painted carbon mast with Antal mainsail track with gate at lower end for Antal batten car system. Carbon spreaders with lights. White carbon Park Avenue boom, vang and lazy jacks, arrangement for 2 reefs and built-in deck lights. Sheaves for two jib halyards, two gennaker halyards, with provision for 2:1 to be used with a possible Code 0, mainsail halyard with provision for 2:1. Antal trysail track.

Neoprene mast boot with Dacron cover over deck partners. Two pairs of folding foot steps. Navtec rod rigging. Main shroud turnbuckles barrel pin type.

Powered hydraulic rig functions: furling headstay, boom vang, jib halyard tensioner, mainsail outhaul, backstay, inner forestay tensioner, Cunningham. Hydraulic mast jack with spacers and removable manual pump. Inner forestay and runners are Aramid. Running rigging colour coded Dyneema with snap shackles or D shackles.

#### **Equipment**

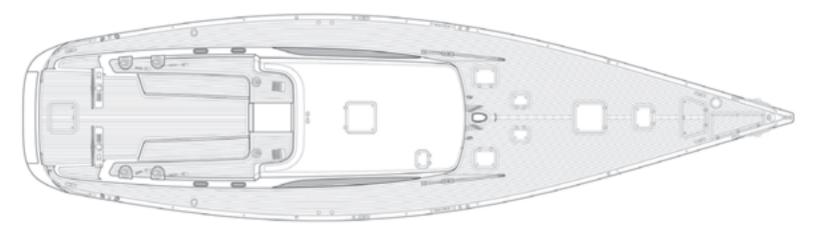
Owners Manual with drawings, diagrams and handbooks of main systems with instructions for use and maintenance CQR 75 lbs galvanised anchor on folding arm Danforth 60H (27 kg) galvanised anchor stowed below deck 80 m 12 mm (1/2") high-tensile anchor chain50 m 24 mm plaited nylon anchor line Four mooring lines 15 m each, diameter 20 mm Two mooring lines 25 m each, diameter 20 mm Eight white medium size air fenders with lines One boat hook stowed below 2 Harken H3012, 100 mm screw in stand-up blocks for staysail sheets 2 10" power grip and two 10" single grip aluminium winch handles 2 Bosun's chairs Flag pole, 175 cm Portable extinguishers Gloria P2G in interior Fire blanket in galley Safety belts for navigator and cook Two jackstays for webbing Spare parts Basic Engine and generator tool kits. One half model of hull Two handles for opening deck hatches

Sounding rods for fuel and water tanks.





## **SWAN** 665





General		
Length overall:	66.01 ft	20.12 m
Length of waterline:	56.40 ft	17.19 m
Beam:	17.68 ft	5.39 m
Draught (light):	10.5 ft	3.2 m
Ballast:	20720 lbs	9400 kg
Displacement (light):	66000 lbs	30000 kg
<u> </u>		
Technical specification		
Fuel:	343 US gal	1300 ltr
Water:	330 US gal	1250 ltr
Hot water:	19.8 US gal	75 ltr
DC Power:	24 V	720 Ah
AC Power:	11.9 kVA	230 V 50 Hz
Shore Power:	11.5 kVA	230 V 50 A
Airconditioning:	50000 BTU	14.5 kW
Engine - Steyr:	163 HP	120 kW
Rig and sail dimensions		
IG:	90.22 ft	27.50 m
J:	24.44 ft	7.45 m
P:	82.84 ft	25.25 m
E:	24.93 ft	7.60 m
Sail areas		
Fore triangle:	1102.6 sq ft	102.4 m <sup>2</sup>
Mainsail:	1308.9 sq ft	121.6 m <sup>2</sup>
Jib:	1026.9 sq ft	95.4 m <sup>2</sup>

CE Category: A Ocean





#### Hull

Female moulded E-glass/polyester laminate with a vinylester skincoat. Monolithic structure up to waterline.

Topsides are a foam cored E-glass/polyester sandwich structure. Excellent strength and fatigue properties due to a high proportion of unidirectional fibre in the laminate stack. Precise curing times and temperatures under vacuum used to maximise surface quality.

All longitudinal stringers are glass/carbon lay-ups over pre-made hollow sections. Longitudinal girders and transverse keel floors are L-sections with a glass/carbon lay-up. Engine bed is made of GRP with steel backing plates. Structural bulkheads are infused carbon/vinylester sandwich structure secondary bonded to hull and deck. Composite main shroud and backstay chainplates bonded to the inside skin.

Hull finish is a weather resistant NGA type with topsides gelcoat white NGA 9650 and boot top and cove stripe in dark blue NGA 7344. Uncoloured gelcoat below waterline. Bottom treated with epoxy primer for improved blistering resistance, and antifouled.

The keel is a lead casting alloyed with antimony and bolted to the bottom grid. Keel bolts are of high-tensile stainless steel. Composite mast step. There are tie rods from the mast collar to the step. Bronze through-hull fittings below waterline with access. The inboard side of the sea cocks will be fitted with a stud long enough to take two hose clamps.

Single rudder with dual steering gear. Rudder blade is foam filled with carbon fibre/epoxy skins. Rudder stock carbon/epoxy. A weed cutter is fitted in front of the rudder. The rudder bearings are selfaligning. Steering sheaves are provided with guards to prevent jamming. The aluminium steering quadrant is bolted to the rudder stock.

Composite pedestals with roller bearings and friction brake on starboard wheel with control buttons and displays.

Two 1.05 m clear coated carbon composite

Two 1.05 m clear coated carbon composite wheels. Emergency tiller stowed in lazarette.

Hydraulically operated transom door/bathing platform with teak surface and pneumatic seal. The transom door/bathing platform can be operated with a wireless remote control. The lazarette is separated with a watertight bulkhead from the interior. Separate locker for LPG tanks. Two tinted hull windows on each side of the saloon of toughened laminated glass.

#### Deck

The main deck is infusion moulded, vacuum assisted sandwich structure. Fibres are a mixture of carbon and glass with a vinylester resin system. High density foam core or solid laminate under deck fittings. The deck is bonded to the hull and is stiffened with deck beams of glass/carbon lay-ups over a foam core.

Coaming and coach roof gelcoat white NGA 9650. Laid teak on side and bridge deck, coach roof, cockpit sole and seats. Bonded to the deck, screws in hatch frames and borders. Two removable teak footrests for helmsman.

All winches are Harken self-tailing electric powered, 24V.

Two Harken B980.3 STEA three speed main sheet winches. Two Harken B980.3 STEA three speed jib sheet winches. Two Harken B70.3 STEA two speed winches on coach roof. Harken screw in cups and blocks. Harken C7388 screw in top inner forestay chain plate and hydraulic tensioner

Two Harken 3155, 2.1 m, tracks for jib sheet with Harken end/pin stops and cars. Harken stand-up blocks for runners, gennaker sheets. Eleven Harken 3123, 100 mm, mast base blocks for halyards, reefs, cunningham and main sheet. Two Harken C3033 125 mm, double footblocks for jib and stay sail sheets. Harken H1963 57 mm, footblock for leading gennaker tackline. Four Harken H3016 125 mm, single blocks for mainsheet. Harken H3021 150 mm, double block for mainsheet.

Spinlock ZS1214 jammers for halyards and mainsheet and Spinlock clutches for Cunningham, tack line, jib towing lines, halyards and reef lines.

Electric anchor windlass, Lewmar V6, mounted under deck. Manual gas piston supported stainless steel folding anchor arm. Electric 24V, 2000W, retractable Sanguineti Chiavari 3710400, capstan drum mooring winch.

Six stainless steel pop-up mooring cleats fore, aft and amidships. Aluminium mast collar designed for use with Spartite support. Bathing ladder used at bathing platform, stored in lazarette. Side boarding ladder with fittings both sides amidships, also for entering the sail locker, stored in sail locker. Ladder from cockpit to bathing platform

Stainless steel halyard bail in front of the mast

Life lines, stanchions, pulpit and push pit spacing conforms to ISAF/ORC requirements. Life lines stainless 8 mm wire with polished turnbuckles and eyes. Gates in lifelines amidships on each side. Pulpit, push pit, stanchions 610 mm high stainless steel tube. Pulpit is of open type. Push pit has gate for easy access to bathing platform / gangway. Stainless steel socket for flagpole on inner vertical pushpit bar.

Nautor custom made flush mounted tinted acrylic hatches with gutters and frames in white painted composite. All hatches are supported by gas cylinders. Deck hatches leading to all cabin spaces and living areas. Teak covered hatch to anchor stowage, sail locker and lazarette.

4 Goiot Cristal 40-24R open able tinted acrylic portholes in coamings, flush mounted with aluminium frames. 2 side windows above saloon. Parasol grey deck house windows by Form glass. The lockable companionway has a manually operated sliding hatch and drop board of tinted acrylic.

Open cockpit with dedicated lockers for liferaft stowage in coamings. Seats with backrests, each side of the cockpits. One removable high gloss varnished teak cockpit table with folding leaves, padded canvas stowage bag.

One large spray hood recessed with a canvas cover over the main companionway. The spray hood has three windows in the front, the middle window is able to open, including two leather covered handrails. The structure is a stainless steel tube with light canvas top.

Cockpit cushions with backrests for forward cockpit. Canvas covers for the steering wheels and the pedestals. Two bags for halyard tails

#### Interior

Selected light teak is varnished and hand rubbed to give a satin finish for all visible woodwork. White vinyl covered removable overhead panels are installed in all accommodation areas. Visible topsides and coachroof lined with white painted paneling. Teak is mainly used for visible interior.

Varnished floorboards with satin finish as the rest of the interior. PVC-sandwich construction with grooved oak veneer and supported on vibration camping materials. Two suction lifters will be provided. Bulkheads are foam cored carbon with separate skin panels. Water tight collision bulkhead between forepeak and forward head.

Interior bulkheads and panels are a foam core sandwich construction with skins of teak-faced marine plywood and painted panels on upper parts. Partitions are built to meet 20 dB(A) level of airborne sound

All locker doors are fitted with high quality furnishing hinges. Hanging lockers are fitted with rails and have automatic internal lights. Hand rails are fitted throughout the vessel where needed for safe movement under deck.

Reading lights are installed at the head end of all berths and sofas. General cabin lighting will have spotlight down lighting with dimmer controls in saloon. Drawers are made of teak. Mirrors of marine quality, edges sealed. Companionway ladder has non-slip steps.

Integrated roller blinds/mosquito screens for hinged deck hatches. Deckhouse windows will be fitted with electrically operated pleated blinds. Hull windows will have manually operated blinds. Mattresses of sprung type manufactured for marine use based on batten system providing underside ventilation. Foam mattresses for Pullman berths. Upholstery foams and fillings are non-flammable. Fabrics and leathers to chosen from Nautor's Swan interior collection. Teak leeboards/canvas leecloths.

Galley lockers in wood. Work top, fiddles, backsplash and sliding doors Corian, Cameo White. Guest showers are painted in upper areas, GRP counter tops with a white Corian back splash. Lockers, walls and floorboards are in wood following the same style as the cabin. Shower walls and floor in GRP with teak floor grate. Tempered glass door for shower stall with stainless steel fittings.

#### **Engine**

Engine space internally sound insulated and equipment mounted with consideration of noise and vibration reduction, fluorescent lighting. Propeller area sound insulated.

Main engine Steyr MO166M28 six-cylinder, output 120 kW 163HP at 2800rpm. Engine and reduction gear supported on flexible mounts. ZF 63 IV 2.48:1 direct mounted hydraulic reverse/reduction gearbox. The propeller shaft is made of high-tensile corrosion resistant steel with flexible shaft coupling. Drip-free shaft seal. Shaft supported by rubber bearing at bracket and stern tube. Four-bladed folding propeller Brunton Varifold. Max Power VIP 250, HYD 24VDC retractable bow thruster with own battery bank and charger.

Super silencing wet exhaust system for both main engine and diesel generator. Fuel tanks with inspection hatches. Fuel valve chest with supply and return valve for each tank. Cooling water is discharged below waterline, and exhaust gases discharged under transom. Thermostat-controlled fresh water cooling for engine. Consumable water can be heated either with engine cooling water or with a heating element working on 230V AC.

Engine controls on starboard coaming. Thruster foot switches for port and starboard wheel. Up and down control on starboard pedestal. Hydraulics are run on the basis of a central power pack supplying satellite valve groups located close to operating unit. This reduces inherent hydraulic noise and vibration.

Clean Agent (FM200) fire extinguishing system for engine room space. Two fire hydrants with hose reel, one forward and one aft.

#### **Plumbing**

Seawater system with rubber hoses and nylon piping, fresh water piping of polypropylene, nylon or copper tubing. Fuel, fresh, grey and black water tanks are of welded stainless steel and provided with baffles, inspection covers, sounding plug and vent pipes.

Pressurised hot and cold water with an 18 liter pressure accumulator tank connected to system run by two pumps for quiet operation. Thermostat controlled stainless steel water heater 75 liter using cooling water or heating element running off AC power. Insulated hot water pipes.

Water maker with self priming feed water pumps made of bronze and AISI 316. Electrical anchor wash/fire pump with connection on deck. Five bilge pumps, 3 electrical submersible located in lazarette, main bilge and fore peak. Two back up hand pumps in forward cabin and cockpit. Toilet flushing by fresh water. Full black water tank disable flushing of toilets.

Space for two 6kg gas bottles in drained locker accessed via anchor locker. Fourburner stainless steel gas stove and oven, gimballed with galley fan. Microwave oven, air compression general and 140 and 180 liter refrigerator and top loading 125 liter freezer.

Forced ventilation directing fresh air into cabins and exhaust air out through heads. Silencers installed to reduce noise. Galley extractor own duct. Climate can be controlled with central cooled/heated waterbourne system. 3 custom made Frigonautica 24V DC water cooled compressors units. All tanks systems are monitored and status displayed on main switch board. Fire alarm system and a Clean Agent (FM200) fire extinguishing system for engine space.



#### **Electrical**

2-pole 24V insulated return DC-system for lighting, blowers, pumps etc. Wires are sized to minimise voltage drop.

Maintenance free traction gel type for general service and instruments, each with 24V bank. Battery banks for service and instrument batteries located in the saloon in ventilated GRP boxes. One 24V 140A alternator on the main engine for service and instrument battery banks.

Starting batteries of maintenance free AGM type with a paralleling switch. 12V banks for main engine and generator, Optima Yellow/Red Top. 12V 90A alternator on main engine for engine starting battery. Generator with own alternator for its starting battery.

230V 50 Hz single-phase three-wire grounded AC-system fed by the diesel generator or shore power inlet or through DC/AC inverters. Conversion of 24V DC to 230 V AC 50 Hz for single-phase AC consumers

Shore inlet plug 230V, in lazarette with polarity alarm, main switch and cable. Keel

is underwater earthing point. Fischer Panda 14.000 NE PMS (11,9 kVA) 230V AC diesel generator.

Comprehensive installation of navigation, rig and deck lights AC and DC control panels on main switchboard.

#### Instrumentation

2 SUUNTO magnetic compasses on steering pedestals. There is a comprehensive package of sailing instruments; navigation, communication and entertainment systems. Wempe barometer and clock mounted at chart table.

Foghorn.

B&G H3000 autopilot system with one control unit at starboard steering. Console with individual 24V constant running power pack. Autopilot is driving the steering quadrant via one Rexroth low friction hydraulic cylinder.

#### Rig

Offshore Spars swept back three spreader rig with discontinuous shrouds. White painted carbon mast with Antal mainsail track with gate at lower end for Antal batten car system. Carbon spreaders with lights. White carbon Park Avenue boom, vang and lazy jacks, arrangement for 2 reefs and built-in deck lights. Sheaves for two jib halyards, two gennaker halyards, with provision for 2:1 to be used with a possible Code 0, mainsail halyard with provision for 2:1.

Antal trysail track. Neoprene mast boot with Dacron cover over deck partners. Two pairs of folding foot steps
Navtec rod rigging. Main shroud turnbuckles barrel pin type. Powered hydraulic rig functions: furling headstay, boom vang, jib halyard tensioner, mainsail outhaul, backstay, inner forestay tensioner, Cunningham.

Hydraulic mast jack with spacers and removable manual pump. Inner forestay and runners are Aramid. Running rigging colour coded Dyneema with snap shackles or D shackles.

#### Equipment

Owners Manual with drawings, diagrams and handbooks of main systems with instructions for use and maintenance

CQR 75 lbs galvanised anchor on folding arm. Danforth 60H (27 kg) galvanised anchor stowed below deck.

80 m 12 mm (1/2") high-tensile anchor chain. 50 m 24 mm plaited nylon anchor line.

Four mooring lines 15 m each, diameter 20 mm. Two mooring lines 25 m each, diameter 20 mm. Eight white medium size air fenders with lines. One boat hook stowed below.

2 10" power grip and two 10" single grip aluminium winch handles.

2 Bosun's chairs.

Flag pole, 175 cm.

Portable extinguishers Gloria P2G in interior.

Fire blanket in galley

Safety belts for navigator and cook.

Two jackstays for webbing.

Spare parts

Basic Engine and generator tool kits.

One half model of hull.

Two handles for opening deck hatches.

Sounding rods for fuel and water tanks.





# Swan 75









#### Swan 75

The Swan 75 is an impressive ocean going cruiser capable of crossing the most challenging waters. Despite her generous hull form, the Swan 75 offers impressive performance - even in the lightest of breezes - making her surprisingly pleasant when sailing in any conditions.

Available in two versions, the FD with two spacious cockpits and a choice of either a three or four cabin layout, and the S with a stylish deckhouse and a three cabin layout, the Swan 75 opens up a wealth of performance cruising opportunities.

The overriding design philosophy behind the Swan 75 S and FD is one of simplicity with both versions geared towards short-handed sailing; this is reflected in many aspects of the yacht, from the hydraulic furling system employed for the headsails to the mainsail which lowers directly into a Park Avenue boom. For designer, German Frers, durability was central to the design and construction process with the hull

Her ergonomically designed hull form balances performance with a generous internal space and delivers an exceptional, smooth motion when sailing, even in more challenging waters. Swan 75's hull has a draught of 2.9 m.

employing a high-spec single skin construction, the mast bulkhead constructed of carbon fibre pre-preg.

The Swan 75 offers a spacious interior that is both luxurious and adaptable. The teak surfaces accentuate the elegance of the design as well as affording the durability for which Swans are renowned. The accommodation offers the choice of the owner's cabin either forward or aft with either double or single berths and a further two or three guest cabins - depending on the version - all with their own heads. The layout of this model, combined with a multitude of modern touches throughout the living space, is perfectly suited to comfortable cruising and occasional racing.























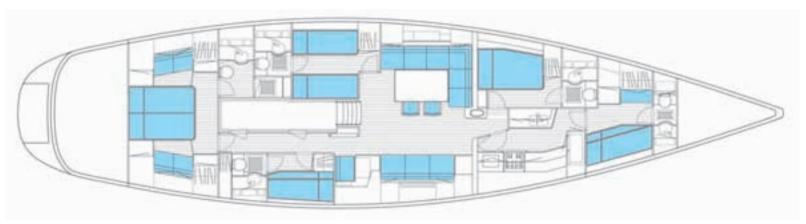






## **SWAN** 75 FD





Owner cabin aft

#### SWAN 75 FD

General		
Length overall:	76.44 ft	23.30 m
Length of waterline:	63.98 ft	19.50 m
Beam:	19.00 ft	5.79 m
Draught (light):	9.50 ft	2.90 m
Ballast:	27600 lbs	12500 kg
Displacement (light):	83800 lbs	38000 kg
Technical specification		
Fuel:	370 US gal	1400 ltr
Water:	264 US gal	1000 ltr
Hot water:	21 US gal	80 ltr
Water maker (per 24h):	900 US gal	3400 ltr
Holding tanks:	52 US gal	200 ltr
DC Power:	24 V	1000 Ah
AC Power:	17 kVA	230 V 50 Hz
Shore Power:	11.5 kVA	230 V 50 A
Airconditioning:	48000 BTU	14 kW
Engine - Steyr:	190 HP	140 kW
Rig and sail dimensions		
IG:	94.16 ft	28.70 m
J:	27.66 ft	8.43 m
P:	88.68 ft	27.03 m
E:	30.22 ft	9.21 m
ISP:	96.08 ft	29.285 m
Sail areas		
Fore triangle:	1310 sq ft	121.7 m <sup>2</sup>
Main sail:	1591 sq ft	147.8 m <sup>2</sup>
106% jib:	1388 sq ft	129.0 m <sup>2</sup>
Assym. spinnaker:	4811 sq ft	447.0 m <sup>2</sup>

CE Category: A Ocean

#### SWAN 75 FD IS AVAILABLE IN THE FOLLOWING VERSIONS:

- Owner cabin aft
- Owner cabin fwd



#### SWAN 75 FD

#### Hull

The hull is of single skin construction using glass/aramid hybrid fibre reinforced polyester laminate with vinylester skincoat. A high proportion of the fibres are unidirectional, giving a stiff laminate with excellent strength and fatigue properties. Structural bulkheads at bow and stern are of foam cored GRP, the mast bulkhead of carbon fibre pre-preg, and the rest of marine plywood, and bonded to hull and deck. Stiffener flanges are unidirectional carbon fibre lay-ups over hollow double bias glass formers. Carbon fibre chain plates are bonded to the hull. Recessed stainless steel chain plate for the headstay is bonded to the hull structure. Gelcoats are of weather-resistant NGA type. Standard topside colour is white, boot top, cove stripe, and coaming stripe blue. Uncoloured gelcoat below waterline. Bottom treated with epoxy primer for improved blistering resistance, and antifouled. The keel is a lead casting with antimony and carefully finished to accurate shape. Cast-in keel bolts are of high-tensile stainless steel.

Rudder of foam filled GRP with tubular carbon fibre stock, supported by two self-aligning roller bearings. Weed cutter on hull in front of rudder. Steering system with two clear coated carbon composite wheels with teak rim. Emergency tiller stowed in lazarette.

Sea cocks of bronze for all through-hull connections below waterline, located in accessible positions. Inboard side of sea cocks fitted with stud long enough to take two hose clamps. Folding bathing platform aft with hydraulic control. Transom door doubles as a bathing/boarding platform.

#### Deck

Deck is of sandwich construction, using glass/aramid hybrid fibre reinforced polyester laminate, with low-density closed cell foam core, and glued to the hull. High-density core or solid laminate under deck fittings.

Deck finish white NGA 9650. Laid teak deck on side and bridge deck, cockpit soles and seats, glued and vacuum bagged with only a few screws at the edges. Low toe rail inside composite bulwark.

There are two removable teak footrests for helmsman.

Electrical winches supplied by Harken. Two primary sheet winches B1111.3 STHECAC, three speed. Two secondary sheet winches B1111.3 STHECAC, three speed. Mainsheet winch B1111.3 STHECAC, three speed. Primary, secondary and mainsheet winches are supplied with carbon skirt and top, aluminium drum. Two halyard winches B70.3 STEA, three speed. Lewmar electric anchor windlass recessed under deck, with hand held

remote control. Retractable Sanquineti 3710400, capstan drum mooring winch. Stainless manual folding anchor arm raised and lowered through a system of counteracting gas rams.

Harken sheet tracks, cars, and blocks. Spinlock jammers and clutches. Main sheet system is double ended with a hydraulic traveller adjuster, which operates at the touch of a button. Stowage position for runners near main shrouds. One pair of aluminium mooring cleats at bow and stern, aft with retractable fairleads. Midships one pair of cleats and fairleads, both retractable. Stainless steel semi-open roller fairleads at bow and stern. Bulwark gutter drained to boot top.

Pulpit, pushpit and lifeline stanchions 740 mm high of stainless steel, with stainless bases through deck. Spacing conforming to ORC requirements. Lifeline gates each side amidships, and in pushpit. Stowage for liferafts in cockpit lockers. Hinged anchor well teak hatch near bow. Nautor composite deck hatches. Eight Goiot openable coaming portholes and one in cockpit seat side. Main companionway lockable sliding hatch of tinted acrylic with deck stowage lockers each side. Hinged GRP hatch to lazarette. Removable cockpit floor above engine space. Dinghy stowage with watertight bulkhead in lazarette. Fwd cockpit with cockpit table. Steering cockpit with closed transom aft. Cockpit cushions with backrests for forward cockpit.

#### Interior

The selected light teak is varnished and hand rubbed to give a satin finish for all visible woodwork.

Vinyl covered removable overhead panels are installed in all accommodation areas. Same material on inside of coach roof coamings.

The floorboards are of PVC-sandwich construction and the top face is teak with light stripes in Koto 70/4mm. The floorboards are varnished and have the same satin finish as the rest of the interior. All floorboards will be laid on vibration damping materials. Two suction lifters will be provided.

Topsides where visible lined with teak battens.

Structural bulkheads are covered with separate skin panels. Partitions are of sandwich construction on a core of 30 mm foam. Skin panels of marine plywood with 0.6 mm wooden veneers. Partitions between cabins are built to meet a 20 dB (A) reduction of airborne sound. Hardware and outfit components are of a type designed to eliminate rattling or hanging. The cabin doors are provided with double action locks and with catches to hold them in open position where

possible. The doors close onto rubber faced landings for maximum noise reduction. All locker doors are fitted with high quality furnishing hinges and are kept closed with push button latches. A doorstopper will be fitted where needed. The hanging locker internal light will automatically switch on when door is opened.

All bathroom mirrors are glass of a special marine quality. The edges are sealed.
All openable deck hatches will be fitted with manual roller blinds and mosquito screens.
Hand rails will be fitted at each side of the main companionway and in all toilets.
The mattresses will be of a sprung type manufactured for marine use. Mattress bases are of Deltaflex-type batten nets to provide ventilation to the underside. The mattresses for the pullman and the crew berths will be of foam type.

The berths are fitted with a canvas lee cloth. Reading light with a separate light switch will be installed at the head end of each berth. General cabin lighting will have spotlight down lighting.

The galley lockers are in teak. The work top and sliding doors are in Corian. The fiddles are in teak with inner edge in Corian. Stainless steel sinks.

Aft cabin toilet; furniture and floor in teak. The washbasin, backsplash and counter top in Corian, with a teak fiddle. Mirror on cupboard door. Shower stall walls and floor in GRP with a teak grate integrated into the floor. Shower stall door in tempered 6 mm clear glass. Fwd and amidships cabins' toilets; bulkheads are covered with GRP panels. Lower locker in GRP. The washbasin, backsplash and counter top in Corian, with a teak fiddle. Mirror on cupboard doors. Floor in GRP with a teak grate integrated into the floor.

#### **Engine**

function.

Engine space internally sound insulated and fire resistant. Fire shutters on ventilation ducts. Drip tray integral with engine bed. Electrical lubricating oil change pump connected to main engine and generator. Volvo D4-180 output 132 kW / 180 Hp at 2800 rpm with gearbox HS45AE 8° down angle, reduction gear 2.43:1. Four bladed folding propeller Brunton Varifold. Bow thruster MaxPower 300/15. Thermostatically controlled fresh water cooling system, with a heat exchanger on the engine and generator. Two-stage Halyard super silencing system with fibreglass silencer and gas/water separators for main engine and diesel generator. Cooling water is discharged below waterline, exhaust gases discharge near transom. Clean Agent (FM200) fire extinguishing system for engine room space. Hydraulic power pack for Jib Furler and Traveller

#### Plumbing

Sea water system with rubber hoses and nylon piping, fresh water hoses of nylon tubing. Shower sump tanks of GRP, integral with the moulded floor liner. Hot and cold pressure water with back-up foot pump in galley and dry tank protection for the pressure pump. The consumable water can be heated either with engine cooling water, or with a heating element working on AC. Hot water tank capacity 80 ltr (21 US gal). Deck shower aft with hot and cold water. AC-driven Sea Recovery water maker. Electrical deck wash/fire pump with outlets on fore and aft deck, 15 m (50 ft) hose provided. Connection to sea water spout in galley. Galley sinks drained through sea cock. Washbasin and shower trays drain to sump tanks, capacity about 70 ltr (18 US gal) each. Sump tanks are emptied by electrical pumps. Two manual Whale Titan bilge pumps, two electrical bilge pumps, one of them in lazarette. Tecma Silence toilets using fresh water for flushing and discharging into stainless holding tanks with level indication. In forward toilet Yvalve for discharge either to holding tank or overboard. Holding tanks emptied by electric pumps or via deck suction lines. Stainless steel four-burner gas stove with oven, gimballed and provided with fiddles. Flame failure protection on burners. Microwave oven. Front loading refrigerator 270 ltr, top loading freezer 185 ltr. Two 230 V AC-driven refrigeration units with hold-over plates for refrigerator and freezer. Possibility to run one of the compressors off the inverter. Thermostat control enabling freezer to be used as refrigerator. Forced ventilation in cabins, and for bilge and lazarette. Central cooled / heated waterborne system 230VAC 50 Hz is fitted for the entire accommodation.

#### Electrical

24V DC system with insulated return. 230V AC is a grounded three-wire system. Wires are sized to minimise voltage drop. For lightning protection headstay, backstay and main shroud chainplates as well as the mast are grounded to ballast keel bolts with heavy cable. One battery set 24V 1000 Ah/20h maintenance-free gel type for general service located in the saloon. 24V battery bank for instrument battery maintenance-free gel type. The engine (24V 50Ah/20h) and diesel generator (12V 50 Ah/20h) have their own starting battery banks, Optima Red Top. They are maintenance free AGM type. Battery sets are located in ventilated GRP boxes. The service batteries are charged by a 140 A alternator on the main engine or by two 75 A battery chargers working on AC. The starting batteries are charged by an 90 A alternator on the main engine, and a 50 A alternator on the generator engine.

The 230 V AC system can be fed either by a 17 kVA 50 Hz dieselgenerator with sound shield, 50 A shore power, or a 2500 VA inverter with transfer switch. Shore power provided with polarity alarm, main switch, and land connecting cable. Outlets provided with earth fault protection. Connection to battery charger, water maker, refrigeration, and water heater resistor element. Diesel generator controls with oil pressure, coolant temperature, hour and V-meter integrated with AC main panel. Main engine controls as per section in starboard coaming. Switches for the mast flood light, spreader lights, boom lights, compasses, navigation light in the port coaming. Sail handling and furling controls in the cockpit.

#### Instrumentation

Two SUUNTO 5" magnetic compasses on steering pedestals. Quartz clock and barometer at chart table.

A Brookes & Gatehouse Halcyon Gyro stabilised compass. Comprehensive Brookes & Gatehouse H3000 Hydra package. The main unit is a B&G Hydra H3000 Main processor and a B&G. Halcyon gyro processor. B&G mono-chrome Graphical Function Display and repeaters. Standard B&G depth and speed sensors with housing in plastic. B&G barometric pressure sensor. There is a wind sensor at mast head, type vertical masthead unit. Furuno NavNet 3D "black-box" radar/chart plotting system with processor unit connected to a Furuno 17" LCD screen at the navigation station. One Furuno NavNet 3D MFD 8,4" display on each steering console. Furuno GP-330 DGPS. Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet 3D plotter system. Simrad RS-87H DSCVHF with two handsets. Bose Lifestyle 48 DVD/CD/FM stereo system connected to the LCD TV. Four Sony XS-MP1610 speakers are installed in the cockpit. The system is controlled by a Bose Personal Music Center II radio remote control in addition to the volume control knob in cockpit. 40" LCD TV connected to the Delta antenna for terrestrial TV. Hydraulic autopilot driving on steering quadrant with control panel in aft cockpit. There is a B&G H3000 autopilot system with one GPD control unit at the Helm with dedicated 24V power pack powering the hydraulic cylinder. The autopilot is driving the steering quadrant via a Rexroth cylinder.

Furuno NavNet GP-330 DGPS. Furuno NavNet radar scanner (600 mm dome type). Masthead R&R Electronic Delta DSC Biscaya active antenna for the VHF, TV and FM radio.

Spars are built using standard modulus carbon fibre, and painted white. Four spreader fractional rig with discontinuous shrouds and 25 deg. swept back carbon spreaders. Mast of oval section, with external track for full-batten mainsail. Tapered masthead with four halyard sheaves, two of them for Code Zero headsails. Staysail halyard, trysail track P side. Internal wiring. Standing rigging of round Navtec rod with barrel pin turnbuckles at deck level. Headstay has toggles at upper and lower end. Inner forestay and runners of aramid cable. Park Avenue type main boom with internal hydraulic outhaul, two reefs and adjustable lazy jacks. Three flush boom lights provided. Hydraulic boom vang with high-pressure return, and tensioners for jib halyard, inner forestay, backstay, mainsail outhaul and mainsheet car control. Single gauge System 50 central control panel with two-speed pump in cockpit. Hydraulic mast jack with jack bar, rams, pump with gauge, and shims. Running rigging of Dyneema or polyester. Main halvard with screw shackle, gennaker, jib and spinnaker halyards with snapshackles. Hydraulic jib furler with power pack.

#### Equipment

Owner's Manual in English containing directions for use, maintenance and winterising as well as drawings and diagrams for main systems.

50 kg 110 lbs DELTA anchor on stemhead, 60 H (27 kg) Danforth stowed below deck. 80 m of 12 mm high-tensile chain, 100 m of 24 mm plaited nylon anchor line. Mooring lines. Winch handles.

Two 6 kg aluminium LPG tanks, including securing arrangements, and pressare regulator are supplied if boat is launched in Finland. Sprayhood for main companionway, canvas covers for steering wheels, padded canvas cover for cockpit table.

Two portable extinguishers in interior. Fire blanket in galley.

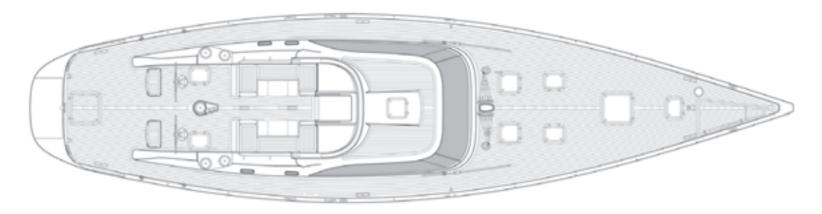
Two jackstays of webbing. Safety belts for navigator and cook.

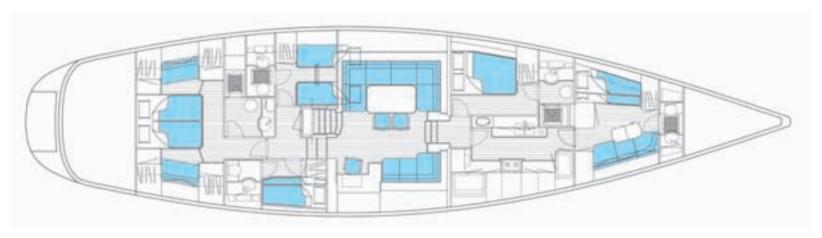
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## **SWAN** 75 S





Owner cabin aft

#### **SWAN 75 S**

General		
Length overall:	76.44 ft	23.30 m
Length of waterline:	63.98 ft	19.50 m
Beam:	19.00 ft	5.79 m
Draught (light):	9.50 ft	2.90 m
Ballast:	27600 lbs	12500 kg
Displacement (light):	83800 lbs	38000 kg
Technical specification		
Fuel:	502 US gal	1900 ltr
Water:	317 US gal	1200 ltr
Hot water:	21 US gal	80 ltr
Water maker (per 24h):	900 US gal	3400 ltr
Holding tanks:	52 US gal	200 ltr
DC Power:	24 V	1000 Ah
AC Power:	17 kVA	230 V 50 Hz
Shore Power:	11.5 kVA	230 V 50 A
Airconditioning:	48000 BTU	14 kW
Engine - Steyr:	190 HP	140 kW
Rig and sail dimensions		
IG:	94.16 ft	28.70 m
<u>J:</u>	27.82 ft	8.43 m
P:	87.96 ft	27.03 m
<u>E:</u>	30.22 ft	9.21 m
ISP:	96.08 ft	29.285 m
Sail areas		
Fore triangle:	1310 sq ft	121.7 m <sup>2</sup>
Main sail:	1577 sq ft	147.8 m <sup>2</sup>
106% jib:	1388 sq ft	129.0 m <sup>2</sup>
Assym. spinnaker:	4811 sq ft	447.0 m <sup>2</sup>

CE Category: A Ocean

#### SWAN 75 S IS AVAILABLE IN THE FOLLOWING VERSIONS:

- Owner cabin aft
- Three cabin





#### Hull

The hull is of single skin construction using glass/aramid hybrid fibre reinforced polyester laminate with vinylester skincoat. A high proportion of the fibres are unidirectional, giving a stiff laminate with excellent strength and fatigue properties. Structural bulkheads at bow and stern are of foam cored GRP, the mast bulkhead of carbon fibre pre-preg, and the rest of marine plywood, and bonded to hull and deck. Stiffener flanges are unidirectional carbon fibre lay-ups over hollow double bias glass formers. Carbon fibre chain plates and backstay are bonded to the hull. Recessed stainless steel chain plate for the headstay is bonded to the hull structure. Gelcoats are of weather-resistant NGA type. Standard topside colour is white, boot top, cove stripe, and coaming stripe blue. Uncoloured gelcoat below waterline. Bottom treated with epoxy primer for improved blistering resistance, and antifouled. The keel is a lead casting with antimony and carefully finished to accurate shape. Cast-in keel bolts are of high-tensile stainless steel. Rudder of foam filled GRP with tubular carbon fibre stock, supported by two selfaligning roller bearings. Weed cutter on hull in front of rudder. Steering system with two clear coated carbon composite wheels with teak rim. Emergency tiller stowed in lazarette. Sea cocks of bronze for all through-hull connections below waterline, located in accessible positions. Inboard side of sea cocks fitted with stud long enough to take two hose clamps. Folding bathing platform aft with hydraulic control. Transom door doubles as a bathing/boarding platform.

#### Deck

Deck is of sandwich construction, using glass/aramid hybrid fibre reinforced polyester laminate, with low-density closed cell foam core, bonded to hull. High-density core or solid laminate under deck fittings. Deck finish white NGA 9650. Laid teak deck on side and bridge deck, raised saloon top, cockpit soles and seats, glued and vacuum bagged with only a few screws at the edges. Low toe rail inside composite bulwark. There are two removable teak footrests for helmsman

Electrical winches supplied by Harken. Two primary sheet winches B1111.3 STHECAC, three speed. Two secondary sheet winches B1111.3 STHECAC, three speed. Mainsheet winch B1111.3 STHECAC, three speed. Primary, secondary and mainsheet winches are supplied with carbon skirt and top, aluminium drum. Two halyard winches B70.3 STEA, three speed. Lewmar 3000 electric anchor windlass under deck. Retractable Sanquineti 3710400, capstan drum mooring winch. Stainless manual folding anchor arm raised and lowered through a system of counteracting gas rams. Harken sheet tracks, cars, and blocks.

Spinlock jammers and clutches. Fixed main sheet led to winch pod on centerline. Stowage position for runners near main shrouds. One pair of pop-up aluminium mooring cleats at bow and stern, aft also with pop-up fairleads. Midships one pair of cleats and fairleads, both retractable. Stainless steel semi-open roller fairleads at bow and stern. Bulwark gutter drained to boot top. Pulpit, pushpit and lifeline stanchions 740 mm high of stainless steel, with stainless bases through deck. Spacing conforming to ORC requirements. Lifeline gates each side amidships, and in pushpit. Stowage for liferafts in cockpit lockers. Hinged anchor well teak hatch near bow. Nautor composite deck hatches.

Five Goiot openable coaming portholes. Parasol grey deck house windows by Form glass. Main companionway lockable sliding hatch of tinted acrylic. Hinged GRP hatch to lazarette. The cockpit is well protected with high coamings. Two sofas and tables forward, two steering pedestals with helmsman's seats aft. Cockpit cushions with backrests for forward cockpit.

#### Interior

The selected light teak is varnished and hand rubbed to give a satin finish for all visible woodwork.

Vinyl covered removable overhead panels are installed in all accommodation areas. Same material on inside of coach roof coamings. The floorboards are of PVC-sandwich construction and the top face is teak with light stripes in Koto 70/4 mm. The floorboards are varnished and have the same satin finish as the rest of the interior. All floorboards will be laid on vibration damping materials. Two suction lifters will be provided. Topsides where visible lined with teak battens. Structural bulkheads are covered with separate skin panels. Partitions are of sandwich construction on a core of 30 mm foam. Skin panels of marine plywood with 0.6 mm wooden veneers. Partitions between cabins are built to meet a 20 dB (A) reduction of airborne sound.

Hardware and outfit components are of a type designed to eliminate rattling or hanging. The cabin doors are provided with double action locks and with catches to hold them in open position where possible. The doors close onto rubber faced landings for maximum noise reduction.

All locker doors are fitted with high quality furnishing hinges and are kept closed with push button latches. A doorstopper will be fitted where needed. The hanging locker internal light will automatically switch on when door is opened.

All bathroom mirrors are glass of a special marine quality. The edges are sealed.
All open able deck hatches will be fitted

with manual roller blinds and mosquito screens. The deckhouse windows will be fitted with electrically operated pleated blinds

Hand rails will be fitted at each side of the main companionway and in all toilets. The mattress will be of a sprung type manufactured for marine use. Mattress bases are of Deltaflex-type batten nets to provide ventilation to the underside. The mattresses for the pullman and the crew berths will be of foam type.

The berths are fitted with a canvas lee cloth. Reading lights with separate light switch will be installed at the head end of each berth. General cabin lighting will have spotlight down lighting.

The galley lockers are in teak. The work top and sliding doors are in Corian. The fiddles are in teak with inner edge in Corian. Stainless steel sinks.

Aft and forward amidships cabins' toilets; furniture and floor in teak. The washbasin, backsplash and counter top in Corian, with a teak fiddle. Mirror on cupboard door and above the washbasin. Shower stall walls and floor in GRP with a teak grate integrated into the floor. Shower stall door is a tempered 6 mm clear glass. Fwd and aft amidships cabins' toilets; bulkheads are covered with GRP panels. Lower locker in GRP. The washbasin, backsplash and counter top in Corian, with a teak fiddle. Mirror on cupboard doors. Floors are in GRP with a teak grate integrated into the floor.

#### **Enaine**

Engine space internally sound insulated and fire resistant. Fire shutters on ventilation ducts. Drip tray integral with engine bed. Electrical lubricating oil change pump connected to main engine and generator. Steyr MO196K35 marine diesel engine, output 140kW / 190 Hp at 3500 rpm with direct mounted reduction gear. Marine gearbox ZF 45–1 vertical offset, hydraulic reverse/reduction gear 3.74:1. 3–bladed folding propeller Brunton Varifold. Propeller shaft Aquadrive CVB 32.30 shaftdrive. Bow thruster MaxPower 300/15.

Thermostatically controlled fresh water cooling system, with a heat exchanger on the engine and generator. Two-stage Halyard super silencing system with fibreglass silencer and gas/water separators for main engine and diesel generator. Cooling water is discharged below waterline, exhaust gases discharge near transom.

Clean Agent (FM200) fire extinguishing system for engine room space. Hydraulic power pack for Jib Furler.

#### Plumbing

Sea water with rubber hoses and nylon tubing, fresh water hoses of nylon tubing. Shower sump tanks of GRP, integral with the moulded floor liner. Hot and cold pressure water with back-up foot pump in galley and dry tank protection for the pressure pump. The consumable water can be heated either with engine cooling water, or with a heating element working on AC. Hot water tank capacity 80 ltr (21 US gal). Deck shower aft with hot and cold water. AC-driven Sea Recovery water maker. Electrical deck wash/fire pump with outlets on fore and aft deck, 15 m (50 ft) hose provided. Connection to sea water spout in galley. Galley sinks drained through sea cock. Washbasin and shower trays drain to sump tanks, capacity about 70 ltr (18 US gal) each. Sump tanks are emptied by electrical pumps. Two manual Whale Titan bilge pumps, two electrical bilge pumps, one of them in lazarette. Tecma Silence toilets using fresh water for flushing and discharging into stainless holding tanks with level indication. In forward toilet Yvalve for discharge either to holding tank or overboard. Holding tanks emptied by electric pumps or via deck suction lines. Stainless steel four-burner gas stove with oven, gimballed and provided with fiddles. Flame failure protection on burners. Microwave oven. Front loading refrigerator 360 + 195 ltr and a top loading freezer 215 ltr. Two 230V AC-driven refrigeration units with hold-over plates for refrigerator and freezer. Possibility to run one of the compressors off the inverter. Thermostat control enabling freezer to be used as refrigerator. Forced ventilation in cabins, and for bilge and lazarette. Central cooled / heated waterborne system 230VAC 50 Hz is fitted for the entire accommodation.

#### Electrical

24V DC system with insulated return. 230V AC is a grounded three-wire system. Wires are sized to minimise voltage drop. For lightning protection headstay, backstay and main shroud chainplates as well as the mast are grounded to ballast keel bolts with heavy cable. One battery set 24V 1000 Ah/20h maintenancefree gel type for general service located in the forward amidships cabin. 24V battery bank for instrument battery maintenance-free gel type. The engine (24V 50Ah/20h) and diesel generator (12V 50 Ah/20h) have their own starting battery banks, Optima Red Top. They are maintenance free AGM type. Battery sets are located in ventilated GRP boxes. The service batteries are charged by a 140 A alternator on the main engine or by two 75 A battery chargers working on AC. The starting batteries are charged by an 90 A alternator on the main engine, and a 50 A alternator on the generator engine. The 230V AC system can be fed either by a 17 kVA 50 Hz diesel generator with sound shield, 50 A shore power, or a 2500 VA

inverter with transfer switch. Shore power provided with polarity alarm, main switch, and land connecting cable. Outlets provided with earth fault protection. Connection to battery charger, water maker, refrigeration, and water heater resistor element. Diesel generator controls with oil pressure, coolant temperature, hour and V-meter integrated with AC main panel. Main engine controls as per section in starboard coaming. Switches for the mast flood light, spreader lights, boom lights, compasses, navigation light in the port coaming. Sail handling and furling controls in the cockpit. Main electrical panels are located at the navigation station.

Two SUUNTO 5" magnetic compasses on

#### Instrumentation

steering pedestals. Quartz clock and barometer at chart table. A Brookes & Gatehouse Halcyon Gyro stabilised compass. Comprehensive Brookes & Gatehouse H3000 Hydra package. The main unit is a B&G Hydra H3000 Main processor and a B&G. Halcyon gyro processor. B&G mono-chrome Graphical Function Display and repeaters. Standard B&G depth and speed sensors with housing in plastic. B&G barometric pressure sensor. There is a wind sensor at mast head, type vertical masthead unit. Furuno NavNet 3D "black-box' radar/chart plotting system with processor unit connected to a Furuno 15" LCD screen at the navigation station. One Furuno NavNet 3D MFD 12,1" display on each steering console. Furuno GP-330 DGPS. Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet 3D plotter system. Simrad RS-87H DSCVHF with two handsets. Bose Lifestyle 48 DVD/CD/FM stereo system connected to the LCD TV. Four Bose 131 speakers are installed in the cockpit. The system is controlled by a Bose Personal Music Center II radio remote control in addition to the volume control knob in cockpit. 26" LCD TV connected to the Delta antenna for terrestrial TV. Hydraulic autopilot driving on steering quadrant with control panel in aft cockpit. There is a B&G H3000 autopilot system with one GPD control unit at the Helm with dedicated 24V power pack powering the hydraulic cylinder. The autopilot is driving the steering quadrant via a Rexroth cylinder. Furuno NavNet GP-330 DGPS. Furuno NavNet radar scanner (600 mm dome type). Masthead R&R Electronic Delta DSC

Spars are built using standard modulus carbon fibre, and painted white. Four spreader fractional rig with discontinuous shrouds and 25 deg. swept back carbon spreaders. External track for full-batten mainsail. Tapered masthead with four halyard sheaves, two of them for Code Zero headsails. Staysail halyard, trysail track P side. Internal wiring. Standing rigging of round Navtec rod with barrel pin turnbuckles at deck level. Headstay has toggles at upper and lower end. Inner forestay and runners of aramid cable. Park Avenue type main boom with hydraulic outhaul, two reefs and lazy jacks. Three flush waterproof lights. Hydraulic boom vang with high-pressure return, and tensioners for jib halyard, inner forestay, backstay, mainsail outhaul and mainsheet car control. Single gauge System 50 central control panel with two-speed pump in cockpit. Hydraulic mast jack with jack bar, rams, pump with gauge, and shims. Running rigging of Dyneema or polyester. Main halyard with screw shackle, gennaker, jib and spinnaker halvards with snapshackles. Hydraulic jib furler with power pack.

Equipment Owner's Manual in English containing directions for use, maintenance and winterising as well as drawings and diagrams for main systems. 50 kg 110 lbs DELTA anchor on stemhead, 60 H (27 kg) Danforth stowed below deck. 80 m of 12 mm high-tensile chain, 100 m of 24 mm plaited nylon anchor line. Mooring lines. Winches. Two 6 kg aluminium LPG tanks, including securing arrangements, and pressare regulator are supplied if boat is launched in Finland. Sprayhood for main companionway, canvas covers for steering wheels, padded canvas cover for cockpit table. Two portable extinguishers in interior. Fire blanket in galley. Two jackstays of webbing. Safety belts for navigator and cook. Winch handles This catalogue contains non-contractual descriptive information about Nautor's Swan yachts including drawings, photographs as well as other data. All such information is subject to change at any time without prior notice and does not represent an exact description of any particular yacht. Photos or diagrams could include special equipment that is not part

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and FM radio.

Biscava active antenna for the VHF, TV



# Swan 80









#### Swan 80

The Swan 80 is an up to date expression of the fast Maxi-cruiser concept. She is the result of accumulated knowledge, yet drawn afresh. Nautor's Swan describes the vessel as a modern sailing yacht built to be fast, yet be perfectly in keeping with company's traditional core values: elegant lines, luxurious interiors, ease of handling and reliability. Her performance oriented hull and clean deck layout mask comfortable internal volume and a wealth of technical features that combine to offer outstanding long range cruising capabilities.

The hull form exhibits a near plumb bow with fine entry opening out to a modest beam carried aft with a broad flat section towards the stern. Below the waterline, a high performance T shaped bulb keel and a deep balanced rudder ensure responsive manoeuvrability.

Maintaining the seaworthy traditions of Nautor, the Swan 80 will meet the construction integrity and build specification expected of the marque. The hull is foam-cored carbon-fibre reinforced construction using the pre-preg lay-up, which ensures a stiff laminate with excellent strength and fatigue properties.

Two deck layouts are offered, but the difference is limited to the transom where the options allow for an open transom with an aft deck that sweeps sternwards at one level or a more protective closed transom with a raised aft deck. The deck has a sophisticated Spartan appearance. Uncluttered, but purposeful.

There are two cockpits. The one aft, situated behind the steering positions, offers ample space for relaxing and sunbathing. The second, amidships, provides comfortable protected seating around a semi-permanent table and access to the main companionway.

The high level of functional comfort continues below decks, where the design team has created three versions: Owner cabin aft, Owner cabin forward, Four cabins.

All three versions include crew quarters in the bow and a full width saloon just forward of the maximum beam. Depending upon the layout selected, the galley is situated forward next to the crew accommodation or midships, aft of the saloon.

All versions reflect the very latest interpretation of the classic Swan interior. Teak is the main visible joinery work, oil waxed with a satin finish. Light is a key feature that adds to the voluminous impression. Four hull windows (two each side) made of toughened and laminated safety glass add to the deck hatches and coaming ports in drawing light to the interior of the main below decks entertainment area. A large dining table with seating for eight dominates the port side, whilst the starboard side features an inviting settee and coffee table.

The overall impression of the Swan 80 is one of performance. She will be elegant to look at when stationary and convey a sense of power underway. Her proportion and lines will draw the eye and reflect a reputation and tradition that have been forty years in the making and show no sign of slowing up.



















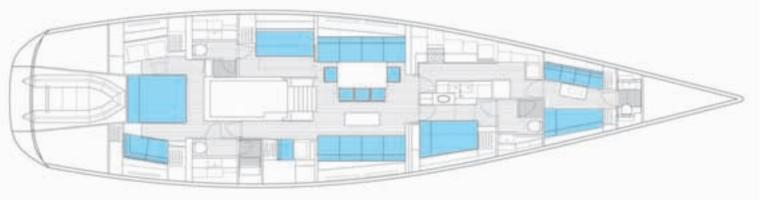






### SWAN 80 FD





#### SWAN 80 FD

25.08 m 22.19 m 6.08 m 4.00 m 36.200 kg 1500 ltr 1200 ltr 100 ltr 5304 ltr 270 ltr 1050 Ah
22.19 m 6.08 m 4.00 m 36.200 kg  1500 ltr 1200 ltr 100 ltr 5304 ltr 270 ltr 1050 Ah
6.08 m 4.00 m 36.200 kg 1500 ltr 1200 ltr 100 ltr 5304 ltr 270 ltr 1050 Ah
4.00 m 36.200 kg 1500 ltr 1200 ltr 100 ltr 5304 ltr 270 ltr 1050 Ah
1500 ltr 1200 ltr 100 ltr 5304 ltr 270 ltr 1050 Ah
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5304 ltr 270 ltr 1050 Ah
270 ltr 1050 Ah
1050 Ah
230V 50 Hz
230V 50 A
21 kW
140 Kw
32.00 m
9.40 m
30.30 m
10.40 m
33.40 m
150.00 m <sup>2</sup>
188.60 m <sup>2</sup>
162.00 m <sup>2</sup>

Germanischer Lloyd Classification

### SWAN 80 FD IS AVAILABLE IN THE FOLLOWING VERSIONS:

- Owner cabin aft / galley fwdOwner cabin fwd / galley mid-ship
- Four cabin / galley mid-ship
- Open transom
- Closed transom





#### Hull

Female moulded pre-preg carbon fibre /SPRINT® matrix. Corecell™ cored sandwich laminate throughout hull. Combination of materials with excellent strength to weight ratios and precise cure cycles result in optimum strength and fatigue properties and a lightweight hull structure.

Pre-preg carbon fibre /SPRINT® structural bulkheads bonded to hull and deck. All stiffeners are pre-made carbon fibre / epoxy resin layups with foam core. Engine beds are an integrated part of hull structure. Special care is taken to assure rigid foundation and proper adhesion to hull. Composite chain plates are built using pre-preg unidirectional carbon fibre straps laid over stainless steel bushings. The chain plates are bonded to the hull.

Hull is painted using a polyurethane paint system. Hull bottom treated with epoxy primer Gelshield and International Uni-Pro antifouling. The topsides are painted in Snow white, M1010, boot top and cove lines selected from chart.

Ballast bulb is lead casting with 4.5% antimony, attached high strength steel keel fin. The keel is attached to the hull with AISI 329 bolts and faired. The steering system is a twin wheel sprocket and a chain system with stainless steel cables. Isotop rudder, built using carbon fibre/epoxy skin on a foam core, with a tubular carbon fibre stock. The lower tip of the rudder is designed to break before the stock does. A weed deflector is located in front of the rudder.

Two JP3 self-aligning bearings, lower bearing has double seals. The rudder stock is provided with a fitting for the emergency tiller. The emergency tiller is stowed in the lazarette.

Lightweight aluminium steering quadrant and autopilot arm is bolted to rudder stock. Composite steering pedestals with display consoles and control buttons. Two 1200 mm clear coated carbon composite wheels.

Carbon fibre mast step with two tie rods attached between the mast collar and the step.Bronze sea cocks in engine room. All other through-hull fittings below waterline are Forespar Flotech.

Semi-closed transom version has a large transom hatch. Hydraulic transom hatch made of carbon pre-preg doubles as bathing/boarding platform with teak surface. Hatch extends up to deck level for maximum opening and discrete look giving direct access to lazarette. 6 tinted hull windows carbon folding gangway stored in the lazarette. Combined carbon ladder for bathing platform and side boarding with flush stainless steel fittings stored in lazarette. Floorboards light weight composite construction. The top sides are faired and top coated. There are provisions for storage of the yacht's equipment in the lazarette

#### Deck

Stiff, robust and lightweight construction Corecell<sup>TM</sup> cored Pre-preg / SPRINT® matrix. Bonded to hull using high strength structural adhesives. High density foam core under deck fittings. All visible composite surfaces are painted Snow White M1010. Coaming stripe colour to be from Nautor's colour chart. Laid teak side decks, fore deck, cockpit sole and seats. Vacuumed and bonded with epoxy. Two angled adjustable helmsman's supports at steering consoles. 25 mm high teak toe rail forward of the mast.

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

Captive Lewmar main sheet winch mounted under deck.

Two primary sheet winches H B1111.3 STCAC-HY three speed, with carbon skirt and top, aluminium drum. Two secondary sheet winches H B1111.3 STCAC-HY three speed, with carbon skirt and top, aluminium drum. Two B990.3 STAAC-HY three speed Halyard winches, with aluminium drum and base, carbon top.

Double Harken cars for jib and staysail sheets. Harken pin stops for jib sheet cars and end stops. Hydraulic jib car adjuster.

Through deck fittings for jib sheet leads. On deck mounted Harken HC8508 lead blocks for jib and gennaker halyards. Six under deck mounted lead blocks for halyards and reef lines lead aft under deck. Harken H3018 blocks for gennaker sheets. Harken H3010 runner blocks. Harken H3010 runner blocks for stay sail sheets. Organisers for halyards and reef lines lead aft under deck

Four Spinlock 1618 jammers between mast and halyard winches for two jib halyards, one code zero halyard and one spare. Two Spinlock ZS 1618 jammers, for tacklines forward of the halyard winches. Six Spinlock ZS 1618 jammers, installed at the end of the coamings, for halyards and reef lines lead aft under deck.

Screw-in pad eye on the bow for gennaker tack line block/code zero attachment. Five U-bolt pad eyes on bulwark, each side. One U-bolt pad eye for runner dead end on bulwark, each side.

Lewmar V6 electric anchor windlass with foot switch controls on foredeck. One hydraulically operated, pivoting anodised aluminium arm for stowing the bow anchor in the anchor locker.

The pulpit, push pit and stanchion are 610 mm high with spacing according to ISAF/ORC requirements and made of a Ø 32 mm stainless steel tube. The upper life lines are stainless 8 mm wire and the lower ones are of 5mm wire with polished turnbuckles and eyes.

Six 400 mm stainless steel pop-up mooring cleats. Socket for flagpole on port side aft deck. Composite mast collar designed for use with Spartite support. Custom made canvas mast boot.

Nautor custom made flush mounted tinted acrylic hatches with gutters in white painted composite and supported by gas cylinders.

Teak covered hatches to anchor stowage, lazarette, liferaft stowage and as helmsmans supports.

Four flush mounted tinted acrylic portholes.

Two flush mounted tinted acrylic side windows on each side in the coaming above the saloon.

Manually operated tinted acrylic sliding hatch for main companionway with drop

Large cockpit providing safe access to the interior, designed for maximum comfort both under sail and at anchor. 2.5 m (8' 2") long seat with backrest on each side of the cockpit. 1.8 m (5'11") semi permanent cockpit table with folding leaves which can be adjusted in height to be flush with seats. Recessed spray hood for the main entrance. Manually operated, lightweight carbon fibre and canvas bimini supported by gas cylinders. The bimini is recessed into the deck and becomes flush with the deck, when not in use.

Canvas sun awning. Cockpit cushions with backrests for seats and for table top.

#### Interior

Mainly teak is used for visible joinery work. It is oil waxed giving a satin finish. Vinyl clad removable overhead panels are installed in all accommodation areas.

Floorboards are of foam cored construction laid on vibration damping materials. The top face is teak with koto stripes having the same surface finish as the rest of the interior. Structural bulkheads are covered with sound damping sandwich panels with teak veneered surfaces. Partitions are of sandwich construction on a 35 mm core. Skin panels are foam sandwich with teak veneer surfaces

Visible topsides covered with lightweight teak panels. All lockers doors are fitted with high quality furnishing hinges. Hanging lockers are fitted with rails and have automatic LED lights. Reading lights are installed at the head end of all berths and sofas. General cabin lighting is either spotlight down lighting or indirect lighting with dimmer controls. Indirect and courtesy lights in cabins and saloon.

All open able deck hatches are fitted with manual roller blinds and mosquito screens. Hull and coaming windows are fitted with manually operated venetian blinds.

Mattresses of sprung type manufactured for marine use based on batten system for highest comfort. Fabrics and leathers chosen from Nautor's Swan interior collection. Dust covers for sofas and settees. Canvas leecloths.

Galley lower and upper lockers in teak. Work tops are custom made in Corian. All the bathrooms have a separate shower stall. The forward crew bathroom has an integrated shower arrangement.

#### Engine

Main engine Steyr Motors MO 196K35, 140 kW (190 hp) @ 3500 rpm. Engine and reduction gear supported on flexible mounts.

ZF 45-1 reduction 3,741:1 gearbox The propeller shaft is made of corrosion resistant steel. Shaft supported by waterlubricated rubber bearing at P-bracket and stern tube. Four-bladed folding propeller Brunton Varifold. Drip tray under engine and diesel generator. Bow thruster MaxPower 300/15. The bow thruster is powered by a hydraulic PTO on the diesel generator.

Wet exhaust system for both main engine and diesel generator, composite gas/water separators.

Shut off valves are provided for each fuel tank. Cooling water is discharged below waterline, and exhaust gases discharged under transom. Thermostat-controlled fresh water cooling for engine and generator with sea water heat exchanger. Engine controls installed in cockpit coaming.

The powered hydraulic system is custom designed to supply all hydraulic functions quietly and smoothly. Low pressure compressed air system primarily intended to inflate the transom door sealing.

Also a quick connector in the lazzarette for low pressure air tools Clean Agent (FM200) fire extinguishing system for engine room space.



#### **Plumbing**

Grey, fresh and black water tanks are made of polyethylene and provided with baffles, inspection covers, sounding plug and vent pipes.

Components and valves are labelled with function, and piping is colour coded with arrows to indicate direction of flow.

Pressurised hot and cold water system with a 24 liter pressure accumulator tank connected to system run by two 24V pumps for quiet operation. Valve chest has valves for each water tank and for water pressure pumps. Thermostat controlled stainless steel water heater 100 liter using cooling water or heating element running off AC power.

Cold water deck wash, fwd and aft. Deck shower on bathing platform.

Water maker with self priming feed water pumps made of bronze and AISI 316, situated in engine space. Remote control installed at the navigation table. Electrical deck wash pump with connection on foredeck, capacity 160 l / min. Sea water outlet and hose in forepeak locker.

There are four separate bilges: fore peak, accommodation area, engine room and lazarette bilge. Each bilge is equipped with a DC driven submersible pump. Two manual Whale pumps are installed as back-up pumps, one for the fore peak and accommodation area, the other one for the engine room and lazarette bilge. Galley sink is drained to grey water tank or directly to sea cocks. Grey water from wash basins, showers, condensing water from air conditioning and freezer/fridge is collected to grey water tanks, if necessary by transfer pumps. Toilet flushing by fresh water. Full black water tank disable flushing of toilets.

Space for two 6kg gas bottles in draining locker accessed via deck. Four-burner stainless steel gas stove and oven, gimballed with galley fan. Microwave oven, 2x160 liter refrigerator and one front loading 130 liter freezer. Two Frigonautica 24V DC water cooled compressors units.

Forced ventilation directing fresh air into cabins and exhaust air out through heads. Silencers installed to reduce noise. Galley has its own independent system. Climate can be controlled with central cooled/heated waterbourne system condensation water collected in grey water tanks.

Clean Agent (FM200) fire extinguishing system for engine space.

#### Electrical

Cables are labelled with identification numbers at both ends.

AC system is a 230 V 50 Hz single-phase three-wire AC-system powered by the diesel generator, shore connection or a DC/AC inverters. Shore power inlet is 230 V 1-pole 50 A with 15 m cable.

20 kW Northern Light generator producing single-phase 230 V 50 Hz AC. Inverters that converts 24 V DC to 230 V AC 50 Hz 2500 VA for single-phase AC consumers.

Keel is the underwater earthing point. The propeller shaft and the keel have their individual sacrificing anodes.

DC system is 2-pole 24 V, with an insulated return, mainly used for lighting, fans and pumps. The wires are sized to minimise voltage drop. Multiplexing Technology DC-system. Functions controlled and monitored on a touch screen with manual override for key functions.

2 battery banks, service and handling systems with 24V chargers and 3-step charge characteristics. 24V maintenance-free gel type for service systems powering lights, fans, pumps and electronics and 6x12V Optima Yellow Top for the handling systems powering the hydraulic power pack. Battery banks located in saloon under floorboards.
24V 140 A alternator on main engine charging service battery banks.

Starting batteries two 12 V Optima Yellow Top one for main engine and generator. Maintenance free AGM type, located in saloon under floorboard.

Comprehensive installation of navigation, rig and deck lights. Touch screen monitor at the navigation table for main yacht systems. All tanks systems are monitored and status displayed on touch screen. Diesel generator with own control panels. Cockpit control panels for engine, navigation lights, sail handling and diesel generator.

#### Instrumentation

2x Suunto F-135 magnetic steering compasses. Brookes & Gatehouse Halcyon Gyro. Georg Jensen clock and barometer. A Brookes & Gatehouse Halcyon Gyro stabilised compass. Comprehensive Brookes & Gatehouse H3000 Hercules package. The main unit is a B&G Hercules H3000 Main processor and a B&G. Halcyon gyro processor. B&G mono-chrome Graphical Function Display and repeaters. Four 30/30 repeaters mounted on the mast. GFDs also display hydraulic pressures for backstay, vang, outhaul, jib halyard, cunningham, inner forestay as well as forestay length adjuster position. Standard B&G depth and speed sensors with housing in plastic. There is a wind sensor at mast head, type vertical masthead unit.

A Furuno Navnet 3D black-box radar/chart plotting system comprising of processor unit MFDBB, control unit MCU-001 and 17 inch combined plotter/computer LCD screen Furuno MU-170C positioned at the navigation station.

Each steering console is installed with one Multifunction display 8,4 inch, Furuno Navnet 3D MFD8.

Furuno GP-320 DGPS . Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet 3D plotter system. There is a Navtex receiver, Furuno NX-300.

Simrad RS-87H DSC VHF with two handsets. Inmarsat FleetBroadband 250 satellite telephone system from KVH. Bose Lifestyle 48 DVD/CD/FM stereo system connected to the LED TV. iPod docking station, Apple universal dock. Connected to Bose stereo system. Four PolyPlanar speakers are installed in the cockpit. The system is controlled by a Bose Personal Music Center II radio remote control in addition to the volume control knob in cockpit. Samsung 32" LED TV connected to the Delta antenna for terrestrial TV.

There is a B&G H3000 autopilot system with one GPD control unit at the Helm with dedicated 24V power pack powering the hydraulic cylinder. The autopilot is driving the steering quadrant via a Marsili cylinder.

Furuno NavNet GP-320 DGPS. Furuno NavNet radar scanner (600 mm dome type).

KVH TracPhone FB250 satellite telephone antenna.

Masthead R&R Electronic Delta DSC Biscaya active antenna for the VHF, Navtex, TV and FM radio.
Dell OptiPlex 788 "Ultra small form factor" computer with a DVD station.

#### Ria

A Hall Spars three spreader fractional rig with discontinuous shrouds. The rig is set up for easy handling with swept back spreaders 21 degrees. The mast and the boom are white painted with Awlgrip paint.

The mast is a carbon fibre standard modulus, with track for mainsail. The masthead is a moulded carbon fibre unit integral with mast. Sheave boxes have stainless steel chafe protection. The main sail track is a Harken 32mm T-track with the Harken Battcar, Switch System at the lower part to reduce the stack height.

Carbon fibre spreaders. Neoprene mast boot with Dacron cover over deck partners and four composite folding steps. Two LED down lights installed in each lower spreaders.

A female moulded Deep "V" type boom of standard modulus and provision inside boom for lazy jack. Hydraulic outhaul system and arrangement for two single line reefs in the main sail. The inboard end has sheaves for reeflines. At the outboard end of the boom there is a pad eye for attachment of a preventer line. Three built in deck lights.

Navtec Nitronic 50 rod rigging. Kevlar 12T inner forestay and 9T running backstays.

Colour coded Dyneema, Tylaska snap shackles or D shackles.

Reckmann UD 4 Sphere hydraulically operated head stay furler with an aluminium foil. A hydraulic real time adjuster to control the length of the head stay.

Hydraulic functions powered by the central hydraulic system: Forestay, boom vang, mainsail outhaul, Cunningham, backstay and inner forestay.

A integral Holmatro hydraulic mast jack with a manual pump. Provisions for a through mast lifting bar.

#### Equipment

An Owner's Manual is provided with instructions for use and maintenance, drawings and diagrams and handbooks for main systems, machinery and components.

One CQR 140 lbs 66 kg galvanised anchor on folding arm. One Fortress FX-85 21.2 kg aluminium anchor + bag stowed below deck. 80 m 12 mm high-tensile anchor chain. 5 m 10 mm high-tensile spare anchor chain spliced to 50 m 18 mm plaited nylon spare anchor line. 50 m 24 mm plaited nylon anchor line. Four mooring lines 15 m each, diameter 20 mm. Two mooring lines 25 m each, diameter 20 mm. Eight air fenders with lines. One boat hook stowed below.

Two 10" power grip and two 10" single grip winch handles. Two Bosun's chairs. Flag pole.

Portable extinguishers Gloria P2G for each cabin. Fire blanket in galley. Safety belts for navigator and cook.

Basic machinery spare parts and tool kit. There is one half model of the hull. 2 handles for opening deck hatches and sounding rods for fuel and water tanks are provided.





# Swan 82 S









#### Swan 82 S

Whilst the Swan 82 S provides the ultimate cruising experience, the model also draws on Nautor's Swan's racing heritage and boasts a powerful racing hull that, combined with an advanced rig configuration, offers a surprising responsiveness that has lead to regatta success. Her size enables her to cope with a wide range of water and weather conditions effortlessly, giving outstanding blue water performance, whilst providing unexpectedly easy handling.

German Frers designed the Swan 82 S as performance cruiser, bringing together the stylish lines and luxurious interiors which are at the heart of Nautor's Swan's design philosophy, with high spec performance features such as a carbon fibre deck which adds rigidity to the hull, and a carbon fibre mast and boom. A low profile, streamlined deckhouse situated in front of the cockpit also adds to the high performance feel of this beautiful yacht.

The Swan 82 S is a light, stiff craft which is fast and responsive under sail, the embodiment of Swan

seaworthiness.

The hull is built of single-skin glass/aramid hybrid fibre with carbon reinforced stiffeners throughout and is finished in a high-gloss gelcoat layer. An L-shaped steel fin with a lead bulb gives a maximum draught 4.02, which enhances the model's racing capabilities. However the model also offers shallow keel of 3.4 meters – perfect for shallow harbours.

There are a range of layout options available with the Swan 82 S with a total of five cabins including an owner's cabin, three guest cabins and a crew cabin forward. The living area is spacious and elegant, bringing together the very best in Swan design. The saloon of the Swan 82 S is the hub of the yacht, featuring the latest in yacht building technology with a wide spectrum of entertainment equipment which can be customised to each owner's requirements.





















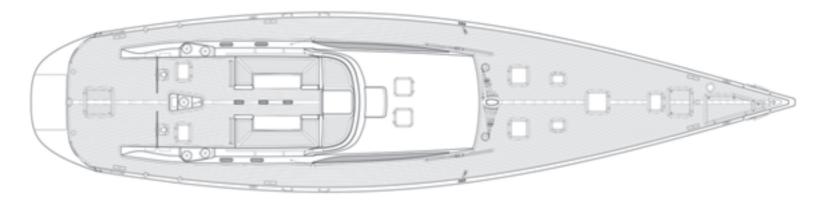


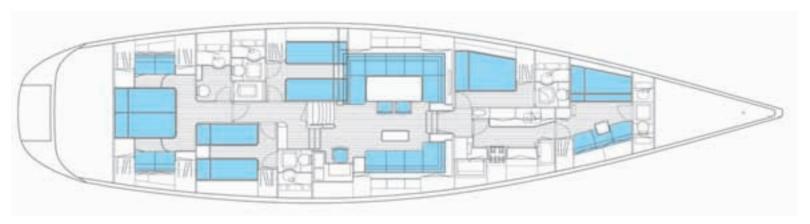






# **SWAN** 82 S





Owner cabin aft

# **SWAN 82 S**

General		
Length overall:	81.66 ft	24.89 m
Length of waterline:	69.75 ft	21.26 m
Beam:	19.22 ft	5.86 m
Draught (light):	13.19 ft	4.02 m
Ballast:	29300 lbs	13300 kg
Displacement (light):	90400 lbs	41000 kg
<u> </u>		
Technical specification		
Fuel:	487 US gal	1850 ltr
Water:	237 US gal	900 ltr
Hot water:	21.1 US gal	80 ltr
Water maker (per 24h):	1200 US gal	5300 ltr
Holding tanks:	53 US gal	200 ltr
DC Power:	24 V	1440 Ah
AC Power:	16 kVA	230 V 50 Hz
Shore Power:	11.5/5.7 kVA	230/115 V 50 A
Airconditioning:	48000 BTU	14 kW
Engine - Volvo D4-180 folding prop:	180 HP	132 kW
Rig and sail dimensions		
l:	105.48 ft	32.15 m
J:	29.66 ft	9.04 m
P:	102.79 ft	31.33 m
E:	34.12 ft	10.40 m
Sail areas		
Fore triangle:	1564 sq ft	145.3 m <sup>2</sup>
Main sail:	1754 sq ft	162.9 m <sup>2</sup>
110% jib:	1720 sq ft	159.8 m <sup>2</sup>
Asymm Spinnaker:	5631 sq ft	523.0 m <sup>2</sup>

Germanischer Lloyd Hull Construction Certificate





#### Hull

The hull is of single skin construction using glass/aramid hybrid fibre reinforced vinylester laminate with local carbon fibre reinforcements. A high proportion of the fibres are unidirectional, giving a stiff laminate with excellent strength and fatigue properties. Structural bulkheads are of Nomex honeycomb cored carbon fibre epoxy prepreg construction and laminated to hull and deck. Stiffener flanges are unidirectional carbon lay-ups over foam cores. Carbon fibre chain plates bonded to hull and to reinforced structural bulkhead. Recessed stainless steel chain plates for backstay and headstay bonded to hull structure.

Gelcoats are of weather-resistant NGA type. Standard topside colour is white, boot top, cove stripe and coaming stripe blue. Uncoloured gelcoat below waterline. Bottom treated with epoxy primer for improved blistering resistance, and antifouled.

The keel consist of a ballast bulb of lead casting alloyed with antimony attached to a steel fin. Keel bolts are of high-tensile stainless steel. Rudder blade with foam filled carbon fibre/epoxy skins and tubular carbon fibre stock, supported by two self-aligning roller bearings. Dual steering gear with two 47" (1.20 m) clear coated carbon composite wheels, 4.5 turns H.O. to H.O. Emergency tiller stowed in lazarette.

Sea cocks of bronze for all through-hull connections below waterline, located in accessible positions. Hydraulically controlled transom door/bathing platform with teak. Lazarette is separated with a watertight bulkhead from the interior. In the lazarette, there is stowage space for a folded inflatable and outboard engine, separate locker for the LPG tanks.

#### Deck

Main deck is of carbon fibre pre-preg sandwich construction with Nomex honeycomb core, and bonded to the hull. High-density core or solid laminate under deck fittings. Deckhouse and cockpits of glass fibre reinforced vinylester with low density foam core. Laid teak 9 mm nominal thickness on deck and deckhouse top. Glued and vacuum bagged.

Low toe rail inside composite bulwark from pushpit to main shrouds.

Recessed hydraulic windlass, LewmarV6 with gypsy/capstan. Retractable Sanquineti 3710400, capstan drum mooring winch. Harken electric winches, tracks, cars and end stops. Mainsheet B1111.3 STHECAC, three speed. Two primary sheet winches B1111.3 STHECAC three speed. Two secondary sheet winches B1111.3 STHECAC three speed. Primary, secondary and mainsheet winches are supplied with carbon skirt and top, aluminium drum. Two halyard winches H B980.3 STEA three speed.

Two harken H3033 double foot blocks for jib

and stay sail sheets. Two runner blocks Harken H3022 + dead end Harken pad eyes. Two MPS / aft guy block Harken 3022. Main sheet block Harken C7218 low led pivoting + dead end pad eye. Ten Harken H3022 roller bearing lead blocks for halyards and reef lines at the mast partners.

Four Spinlock jammers ZS1618 port side mast for reef lines and halyards. Three Spinlock jammers ZS1618 starboard side mast for reef lines and halyards. Spinlock jammer ZS1214 starboard side mast for the topping lift/staysail/halyard

Spinlock jammer ZS1214 for the tack line. Recessed stainless steel chain plates for backstay and headstay bonded to hull structure. Pop-up fairleads in bulwark forward, amidships and aft. Recessed aluminium mooring cleats, two on fore deck, two amidships, two aft.

Pulpit, pushpit and lifeline stanchions 740 mm high of stainless steel with composite bases. Spacing conforming to ORC requirements. Pulpit of the open type. Stainless steel lifelines. Gates in lifelines each side amidships. Stowage for two eight-man life rafts.

On fore deck hinged hatch to deck stowage, and anchor windlass. Flush hinged sail hatch and openable deck hatches of composite construction. Four Goiot Cristal 43–18R open able tinted acrylic portholes in coamings. Goiot 44.31 in port aft amidship guest cabin. Goiot 36.14 starboard aft amidship guest cabin toilet. Four flush mounted tinted acrylic coaming windows to the saloon. Three deck prisms in the cockpit above the corridor to the owner's cabin. Deckhouse windows of tinted glass. Main companionway lockable sliding hatch of tinted acrylic. On aft deck, hinged GRP hatches to lazarette.

Hydraulically controlled transom door/bathing platform. Lazarette separated with a watertight bulkhead from the interior. Stowage for a folded inflatable. Cockpit, 2 U-shapes sofas with backrests, folding cockpit table

# Interior

The selected light teak is varnished and hand rubbed to give a satin finish for all visible woodwork.

Vinyl covered removable overhead panels are installed in all accommodation areas. The floorboards are of a PVC-sandwich construction and the top face is teak with grooves. The floorboards are varnished and have the same satin finish as the rest of the interior. All floorboards will be laid on vibration damping materials. Two suction lifters will be provided.

Topsides where visible are lined with teak battens

Structural bulkheads are covered with separate skin panels. Partitions are a sandwich construction on a core of 30 mm foam. The skin of the panels is made of marine plywood and 0.6 mm wooden veneers. Partitions between cabins are built to meet a 20 dB (A)

reduction of airborne sound.

Hardware and outfit components are of a type designed to eliminate rattling or hanging. The cabin doors are provided with double action locks and with catches to hold them in open position where possible. The doors close onto rubber faced landings for maximum noise reduction.

All locker doors are fitted with high quality furnishing hinges and are kept closed with push button latches. A doorstopper is fitted where needed. The hanging locker internal light will automatically switch on when the door is opened.

All bathroom mirrors are a special marine glass. The edges are sealed.

All openable deck hatches will be fitted with manual roller blinds and mosquito screens. The deckhouse windows will be fitted with electrically operated pleated blinds.

Hand rails will be fitted on each side of the main companionway and in all toilets.

The mattresses are of sprung type manufactured for marine use. Mattress bases are of Deltaflex-type batten nets to provide ventilation to the underside. The mattresses for the pullman and crew berths are of foam type. The berths are fitted with a canvas lee cloth. Reading light with a separate light switch will be installed at the head end of each berth. General cabin lighting will have spotlight down lighting.

The galley lockers are in teak. Work top and sliding doors in are in Corian. The fiddles are teak with the inner edge in Corian. Stainless steel sinks. Aft cabin toilet; furniture and floor in teak. Wash basin, backsplash and counter top in Corian, with a teak fiddle. Mirror on cupboard door. Shower stall walls and floor in GRP with a teak grate integrated in the floor. Shower stall door in tempered 6 mm clear glass. Fwd and amidships cabins' toilets; bulkheads are covered with GRP panels. Lower locker is in GRP. The wash basin, back splash and counter top in Corian, with a teak fiddle. Mirror on the cupboard doors. Floors in GRP with a teak grate integrated in the floor.

#### Engine

Volvo D4-180 output 132 kW / 180 Hp at 2800 rpm, with direct mounted reduction gear. Marine gearbox HS45AE 8° down angle, reduction gear 2.43:1. Four bladed folding propeller Brunton Varifold. MaxPower 300/15 bow thruster Engine space internally sound insulated, fire resistance meeting SOLAS B-15 requirements. Propeller area sound insulated.

Propeller shaft made of high-tensile corrosion resistant steel with flexible shaft coupling. Drip-free shaft seal. Shaft supported by rubber bearing at bracket and stern tube. Thermostatically controlled fresh water cooling system, with a heat exchanger on the engine and generator.

A dual Separ SWK 2000/5UK fuel filter/water separator with water alarm on feed line to engine and a single SWK 2000/5K for diesel generator. Tanks are vented to deck edge. Filler lines each side. Two-stage Halyard super silencing system with fibreglass silencer and gas/water separators for the main engine and diesel generator. Cooling water is discharged below the waterline, exhaust gases are discharged near the transom. Hydraulic system is a custom designed system to supply all hydraulic functions quietly and smoothly.

### **Plumbing**

A pressurised hot and cold water system is installed. Sea water hoses of reinforced PVC tubing. Fresh water pipes are of polypropylene, nylon and copper tubing. 18 liter pressure tank is connected to the system. All tanks are stainless steel. A stainless steel water heater 80 liter. Hot water can be heated either with engine cooling water or with a heating elements working on AC. AC-driven water maker. Sea water spout in galley connected to deck wash pump. Electrical deck wash/fire pump 50 ltr/min (13 US gal) fore and aft deck. Toilet flushing by fresh pressure water. The function cycle is completely automatic. Galley sinks drained through sea cock. Wash basins and showers drain to sump tanks, capacity 70 ltr (18 US gallons) each. Sump tanks are emptied by electrical or manual Whale pump. Five bilges each with DC driven sub-mersible pump 140 l/ min and 3 Whale Titan 100 l/min back-up pumps. Forced ventilation with fresh air in to cabins and exhaust air out through toilets and showers. Galley extractor hood, microwave oven, refrigerator 195+260 liter, top loading freezer 170 liter, air compression general, four burner gas stove with oven. Central cooled / heated waterborne system 230 VAC 50 Hz is fitted for the entire accommodation. Main air conditioning unit has reverse cycle heating capacity 60000 BTU/ h (17.5kW). Four burner gimballed gas stove with oven. Microwave oven. Two 230V AC - driven 0.5 hp refrigeration units with hold over plates in refrigerator and freezer. Forced ventilation in cabins.

#### Electrical

24 V DC system with insulated return. Wires are dimensioned to minimise voltage drop. 230 V AC is a three-wire system. A lightning protector on the masthead is connected with heavy cable to a keel bolt. One battery set 1440 Ah / 20h 24 V traction type for general service.

16 kVA 50 Hz Panda 18 NE diesel generator The engine and diesel generator have their own 24 V 50 Ah banks Optima Red Top starting batteries. Maintenance free type batteries located under floorboards in port aft guest cabin. All battery sets are located in

ventilated GRP boxes. Voltage stabilizer for sensitive electronics and lights.

The AC system can be fed either by the diesel generator, shore power inlet 230V AC 50 A, or 115V AC 50A, or inverter.

Each inlet is provided with polarity alarm, main switch and land connecting cable.

Outlets provided with earth fault protection. The service batteries are charged by a 140 A alternator on the main engine or by two battery chargers 75 Ah each with automatic regulation. The main engine starting batteries are charged by a 55 A alternator on the main engine, the diesel generator starting battery is charged by a 35 A alternator on the generator engine.

Comprehensive range of navigational, rig and deck lights.

# Instrumentation

Two SUUNTO 5" magnetic compasses on steering pedestals. One Quartz clock at chart table.

A Brookes & Gatehouse Halcyon Gyro stabilised compass. Comprehensive Brookes & Gatehouse H3000 Hydra package. The main unit is a B&G Hydra H3000 Main processor and a B&G Halcyon gyro processor. B&G mono-chrome Graphical Function Display and repeaters. Standard B&G depth and speed sensors with housing in plastic. B&G barometric pressure sensor. There is a wind sensor at mast head, type vertical masthead unit.

Furuno NavNet 3D "black-box" radar/chart plotting system with processor unit connected to a Furuno 17" LCD screen at the navigation station, one Furuno NavNet 3D MFD 12,1" display on each steering console. Furuno GP-330 DGPS. Radar is a Furuno 4 kW 60 cm radome type antenna integrated with the Furuno NavNet 3D plotter system.

Simrad RS-87H DSCVHF with two handsets. Bose Lifestyle 48 DVD/CD/FM stereo system connected to the LED TV. Four Sony XS-MP1610 speakers are installed in the cockpit. The system is controlled by a Bose Personal Music Center II radio remote control in addition to the volume control knob in cockpit. Samsung 32" LED TV connected to the Delta antenna for terrestrial TV. There is a B&G H3000 autopilot system with one GPD control unit in the aft cockpit with dedicated 24V power pack powering the hydraulic cylinder. The autopilot is driving the steering quadrant via a Rexroth cylinder.

Furuno NavNet GP-330 DGPS. Furuno NavNet radar scanner (600 mm dome type). Masthead R&R Electronic Delta DSC Biscaya active antenna for theVHF,TV and FM radio.

Foghorn on mast.



### Ria

Spars are built of carbon fibre and painted white. Four spreader masthead rig with discontinuous shrouds and 18° swept back carbon spreaders built by reputable mast builder.

Mast of oval section, with external track for full-batten mainsail and trysail track. Tapered masthead with four halyard sheaves. Staysail halyard sheave. Internal wiring, shielded in PVC tubes secured to mast. Standing rigging of solid Navtec rod. Rigging screws with toggle at lower end. Headstay has toggles at upper and lower end. Flying inner forestay of aramid provided.

Park Avenue boom with hydraulic outhaul and two reefs, and arranged for slab reefing with two reefing lines, and lazy jacks, four each side. Hydraulic boom vang with high-pressure return. Four-function single-gauge System 50 central control panel with two-speed pump in aft cockpit for backstay, outhaul, jib halyard, and inner forestay. Hydraulic mast jack with spacers and removable manual pump. Recessed hydraulic headsail furler.

Single part main sheet with powered hydraulic adjustment and manual back-up. Controls in aft cockpit. Running rigging of Dyneema with Tylaska snap shackles.

# **Equipment**

Owner's Manual in English, containing directions for use, maintenance launching and winterising as well as drawings and diagrams for main systems.

One CQR 105 lbs (48 kg) anchor on carbon fibre folding arm, one Danforth 60 H (27 kg) anchor stowed below deck. Anchor chain. Anchor line.

Mooring lines. Air fenders Boat hook

Three 6 kg aluminium gas bottles including securing arrangements and pressure regulator are supplied if boat is launched in Finland.

Sprayhoods for main and aft companionway. Total flooding extinguishing system for engine and generator space with remote control at main companionway.

Three portable extinguishers in interior. Fire blanket in galley

Engine and generator tool kits One half model of hull

Sounding rods for fuel and water tanks. Two suction lifters for floorboards. Safety belts for navigator and cook.



# Swan 90









# Swan 90

The Swan 90 is a versatile high performance yacht with racing pedigree that combines superior cruising capabilities with the inimitable style of a Nautor's Swan. Swan 90 marks a new era in the SwanLine evolution, with refined lines and sleek hull, this high tech racing boats is suited to both competitive racing and extended cruising. Available in two versions; the Flush Deck (FD) and Semi Raised Saloon (S) the Swan 90 is already established as a benchmark in the Nautor's Swan range.

The Swan 90 uses German Frer's experience in designing high tech racing boats to produce a yacht that caters for racing and cruising needs. The design and deck layout makes the Swan 90 easy to handle with a limited crew.

The Swan 90 is available in two versions: Flush Deck (FD) and Semi-raised saloon (S). Swan 90 FD consists of a forward cockpit, providing social space area and main entrance to the saloon. A bridge deck links the forward cockpit to the steering cockpit providing access to the crew area and navigation station. The Swan 90 S differs with one cockpit which extends from the saloon entrance back to the helm, with no bridge deck offering a more spacious deck area.

Produced at the Nautor's Swan moulding shop in Kallby the hull is a female moulded carbon-fiber laminate and unidirectional carbon reinforcements in selected areas. It has a monolithic structure up to the waterline and carbon-fiber sandwich structure for the topsides, with excellent strength and fatigue properties due to a high proportion of unidirectional fibre in the laminate stack.

The hull waterline measures 24.55m and draws 4.4m which equates to a light displacement of 53 tons.

The Swan 90 offers a generously proportioned interior with stylish accommodation well suited to extended cruising, with a luxurious main saloon and galley area and spacious navigation system. Both versions comprise of owners cabin with double accommodation, three guest cabins that sleep two, and two crew cabins with bunk beds.

The layout varies between the different versions in order to allow a choice of deck configurations and to make best use of the space. The Flush Deck version places the owner's cabin forward and the crew aft. On the Semi-raised Saloon version the extra space in the saloon allows the owner's cabin to move aft.

Each guest cabin is ensuite. All visible woodwork is a light teak, varnished and rubbed to give a satin finish.











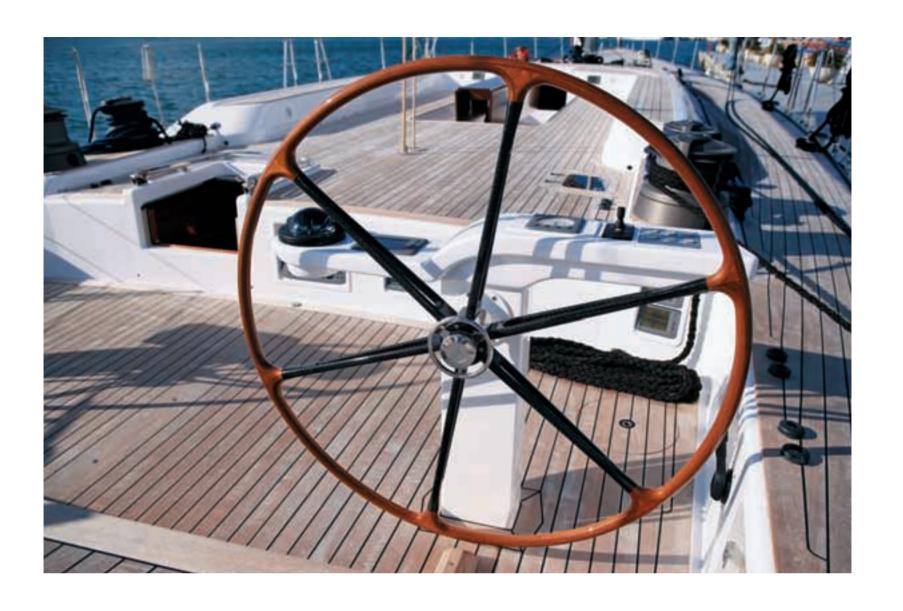
















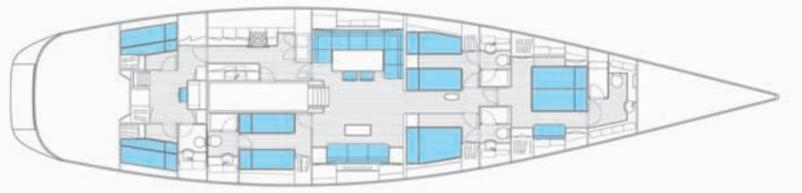






# SWAN 90 FD





Owner cabin fwd

# SWAN 90 FD

General		
Length overall:	90.91 ft	27.71 m
Length of waterline:	80.54 ft	24.55 m
Beam:	21.19 ft	6.46 m
Draught (light):	14.44 ft	4.40 m
Ballast:	40500 lbs	18350 kg
Displacement (light):	117400 lbs	53250 kg
Technical specification		
Fuel:	528 US gal	2000 ltr
Water:	264 US gal	1000 ltr
Hot water:	39.6 US gal	150 ltr
Water maker (per 24 h):	1458 US gal	5520 ltr
Holding Tank:	106 US gal	400 ltr
DC Power:	24 V	1200 Ah
AC Power:	26 kVA	230V, 50Hz
Shore Power transformer:	15 kVA	230V, 50Hz
Airconditioning:	72000 BTU	21 kW
Engine - Perkings Sabre:	225 Bhp	166 kW
Rig dimensions		
IG:	120.73 ft	36.80 m
J:	35.30 ft	10.76 m
P:	116.47 ft	35.50 m
E:	37.56 ft	11.45 m
Sail areas		
Fore triangle:	2130 sq ft	198.0 m <sup>2</sup>
Main sail:	2730 sq ft	253.8 m <sup>2</sup>
Jib:	2251 sq ft	209.1 m <sup>2</sup>
Asymm. Spinnaker:	8288 sq ft	770.0 m <sup>2</sup>

Germanischer Lloyd Hull Construction Certificate







#### Hull

Female moulded E-glass/vinylester laminate with aramid and unidirectional carbon reinforcements in selected areas. Monolithic structure up to waterline. Topsides are a foam cored E-glass/vinylester sandwich structure. Excellent strength and fatigue properties due to a high proportion of unidirectional fibre in the laminate stack. The hull laminate is post cured according to the resin manufacturer's recommendation.

Pre-made E-glass/vinylester stringers and web frames with carbon capping. Their hollow sections are used for ventilation purposes or as cable conduits. Engine beds are an integral part of the hull structure as stiffeners. Special attention is given to assure a rigid foundation and proper bonding to hull. Structural bulkheads carbon/epoxy pre-preg sandwich structure secondary bonded to hull and deck. Carbon fibre mast step. There are tie rods from the mast collar to the step.

Bronze sea cocks for all through-hull connections below waterline with access, well insulated. The inboard side of the sea cocks are fitted with a stud long enough to take two hose clamps. Two hull windows in main saloon and owner's cabin. One in each amidships guest cabin.

Hull finish topsides: painted in Snow white, RAL #9003 with blue cove line and double boot top.
Hull bottom: treated with epoxy primer and antifouling

Wet epoxy system using carbon fibre straps laid over stainless steel bushings. The chain plates are post cured according to resin manufacturer's recommendations. Main shroud and split backstay chainplates are bonded to the hull. There is a recessed head stay. Ballast bulb is lead casting with 4.5% antimony and is attached to a steel fin. AISI 329 bolts used for keel attachment. Fin is faired.

Isotop rudder with carbon fibre/epoxy skins on a foam core and a tubular carbon fibre stock. Lower tip of rudder designed to break before the stock. Weed deflector infront of rudder. Two self-aligning JP3 bearings. Lower bearing has double seals to prevent leakage. Lightweight aluminium steering quadrant bolted to rudder stock.

Twin wheel sprocket and chain system with stainless steel cables. Custom built composite pedestals with space for a compass, navigation– and control systems. Two 1200 mm clear coated carbon composite wheels with independent disconnection. The emergency steering is by autopilot. Transom.

Opening giving direct access to the dinghy garage. It has a piston compressor for transom door air seal. The door extends to cockpit level for maximum opening and discrete look using two custom built stainless steel hydraulic rams. Bathing/boarding platform made from carbon fibre pre-preg for maximum stiffness. 9 mm teak recessed on upper topsides. Shore connection hatch and a shore power cable 15m. City water connection with pressure regulator. Space for landline telephone connection. Carbon swim ladder with flush stainless steel fittings.

Storage for the sails and equipment in fo'c'sle for custom built stainless boarding ladder. Floorboards light weight composite construction. The top sides are faired and top coated.

Provisions for storage of the yacht's equipment in lazarette. Storage for 3.0 m carbon fibre powered telescopic gangway. Dinghy garage with access from main deck. Hot and cold shower with a hose adapter.

#### Deck

Infusion moulded carbon fibre / epoxy deck laminate. Core cell core with high density inserts under deck fittings.

Coaming and coach roof painted in Awlgrip Snow white RAL # 9003. Laid teak side decks and cockpit sole glued and vacuum bagged. Removable foot supports at helm stations. Integral toe rails with four pop up fairleads per side.

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

Drum winches
Four Harken B1110 STA HLHY primary
and secondary winches in cockpit.
Two Harken B990.3 STA halyard winches
near the mast.

Captive Lewmar LMS 77 main sheet winch mounted under deck. Anchor windlass Lewmar V8 hydraulic windlass with controls on a wandering 3.5m lead. Mooring winch electrically operated, retractable Sanguineti 3710400 capstan drum. Titanium anchor arm hydraulically operated for stowing bow anchor. Controls on 3.5 m wandering lead.

Harken jib sheet tracks with cars and stoppers. Harken C7056 double foot block on side deck for jib sheet leads and gennaker sheet. Single foot block for floating jib car towing line. Seven Harken C6355 Halyard lead blocks. Four Harken C5121 150 mm single blocks for runners and gennaker sheet. Six Spinlock ZS jammers for halyards on deck close to mast.

Eight stainless steel pop-up mooring cleats; two on fore deck, four amidships, two aft. Eight custom stainless steel pop-up fairleads recessed in bulwark. Combined pushpit stanchion feet/roller fair lead in aft corners (not on open transom).

Life lines, stanchions, pulpit and push pit spacing conforms to ISAF/ORC requirements. Life lines stainless 8 mm wire with polished turnbuckles and eyes. Gates in lifelines amidships on each side, push pit. Stainless fittings secure safety lines on deck. Pulpit, push pit, stanchions 610 mm high Ø 32 mm stainless steel tube. Push pit has gates for easy access to bathing platform / gangway. Socket for flagpole port side aft deck. White painted aluminium mast collar is designed for use with Spartite support. Custom made canvas mast boot.

Nautor custom made flush mounted tinted acrylic hatches with gutters and frames in white painted composite. All hatches are supported by gas cylinders. Square deck lights, one above the passage forward of the mast and one above the nav desk. Deck hatches leading to all cabin spaces and living areas. Teak covered hatches to anchor stowage, anchor windlass and sail locker. On aft deck two hatches to lazarette and one hatch to dinghy garage.

Six Goiot Cristal 43-18R open able tinted acrylic portholes in coamings, flush mounted with white painted aluminium frames. Lockable companionway has a manually operated sliding hatch of tinted acrylic and a GRP manually operated sliding drop board. There is an aft companionway lockable sliding hatch of tinted acrylic with sliding drop board.

Open steering cockpit in aft deck. Guests seats in forward cockpit, fixed teak cockpit tables with folding leaves and telescopic supports. Can be manually recessed flush with seat level. Large recessed spray hood, with a canvas cover over the main companionway. Stainless steel tube structure with a canvas top. Small spray hood over crew entrance, removable when not in use. Cockpit cushions with backrests.

#### Interior

The selected light teak is varnished and hand rubbed to give a satin finish for all visible woodwork.

Vinyl covered removable overhead panels are installed in all accommodation areas. The same material is on the inside of the coach roof coamings.

The floorboards are of PVC-sandwich construction and the top face is teak with light stripes in Koto 70/4 mm. The floorboards are varnished and have the same satin finish as the rest of the interior. All floorboards are laid on vibration damping materials. Four suction lifters are provided.

Structural bulkheads are covered with a noise barrier and separate skin panels. Partitions are of sandwich construction on a core of 30 mm foam. Skin panels of marine plywood with 0.6 mm wooden veneers. Partitions between cabins are built to meet a 20 dB (A) reduction of airborne sound.

Hardware and outfit components are of a type designed to eliminate rattling or hanging. The cabin doors are provided with double action locks and with catches to hold them in open position where possible. The doors close onto rubber faced landings for maximum noise

All locker doors are fitted with high quality furnishing hinges and are kept closed with push button latches. Doorstoppers are fitted where needed. The hanging locker internal light will automatically switch on when the door is opened.

All bathroom mirrors are made of glass. The edges are sealed.

All open able deck hatches are fitted with manual roller blinds and mosquito screens. Hand rails are fitted throughout the vessel where needed for safe movement under deck

The mattresses are of a sprung type manufactured for marine use. The mattress base is Deltaflex-type batten nets to provide ventilation to the underside. The mattresses for the pullman and crew berths are of foam type. The berth is fitted with a lee cloth each side and a teak leeboard in the middle.

Reading lights, two for the double berth and one for each single berth, with separate light switches are installed at the head end of each berth. General cabin lighting will have spotlight down lighting.

The galley lockers are in teak. Work top, sliding doors and back splash are in Corian. The fiddles are made in teak with the inner edge in Corian. Forward and amidships cabin toilets; furniture and floor in teak. The bulkheads are covered with painted panels and teak details. Wash basin and counter top in Corian, with teak fiddle. Mirror on cupboard doors.

Shower stall walls and floor in GRP with a teak grate integrated in the floor, door in tempered 8 mm glass with stainless steel fittings.

Aft cabin toilet; bulkheads covered with GRP panels. Lower locker in GRP. Wash basin, back splash and counter top in Corian, with teak fiddle, Mirror on cupboard doors. Floor in GRP with a teak grate integrated in the floor.



### **Engine**

Engine room internally sound insulated as well as the propeller area and equipment is mounted with consideration of noise and vibration reduction; fluorescent lighting. Fire resistance meets SOLAS requirements. Propeller area sound insulated. Engine room surfaces and technical equipment are painted in white RAL # 9010 where practical.

Main engine Perkins Sabre 225Ti 166 kW / 225 hp @2500 rpm with direct mounted reduction gear supported on flexible mounts. Marine gearbox is a ZF 80A 8° down angle, reduction 2, 5:1. The propeller shaft is made of corrosive resistant steel supported by waterlubricated rubber bearings at P-bracket and stern tube. 4-blade Brunton Varifold propeller. Hundested FT1R retractable bow thruster.

Wet exhaust system for both main engine and diesel generator. Fuel tanks with inspection hatches and shut off valves. Cooling water is discharged below waterline, and exhaust gases discharged under transom. Thermostat-controlled fresh water cooling for engine and generator. Drip trays connected to waste oil pump.

The engine and diesel generator have their own starting battery sets. Engine and thruster controls on cockpit pedestals. Hydraulics are run by a Bosch-Rexroth custom designed system providing power for sail handling, anchor windlass, and retractable bow thrusters. It has 2 different sources of power running independently of each other to ensure trouble free operation.

Clean Agent (FM200) fire extinguishing system for engine room space. Two fire hydrants with hose reel, one forward and one aft.

# **Plumbing**

Seawater hoses of reinforced PVC tubing, fresh water piping of polypropylene, nylon or copper tubing.

Engine room piping is colour coded, with arrows indicating direction of flow. 4 stainless steel water tanks.

Pressurised hot and cold water with a 24 liter pressure tank connected to system run by two pumps. Thermostat controlled stainless steel water heater 150 liter using cooling water or heating element running off AC power. Insulated hot water pipes. Water maker with self priming feed water pumps made of bronze and AISI 316. City water connection with filter enabling shore water supply to be piped directly into the pressure water system. Electrical anchor wash/fire pump with connection on deck. Capacity 180 l/min. Four separate bilge compartments, each with their own DC driven and manual back up pumps. Capacity 140 l/min. Toilet flushing by fresh pressurised water. 2 black water tanks, 2 grey water tanks.

Space for gas bottles in drained locker. Four-burner stainless steel gas stove and electric oven, gimballed. Extractor hood with built in lighting. Dishwasher, microwave oven, air compression general, waste disposal unit, washing machine and dryer. Two 1151 refrigerators and two 90l freezers.

Forced ventilation directing fresh air into cabins and exhaust air out through heads. Silencers installed to reduce noise. Galley has an independent system. Climate can be controlled with central cooled /heated waterbourne system.

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

All tanks systems are monitored and status displayed on main switch board in navigation area.

Fire alarm system and a Clean Agent (FM200) fire extinguishing system for engine room

#### **Electrical**

2-pole 24V insulated return DC-system for lighting, blowers, pumps etc. Wires are sized to minimise voltage drop.

Battery banks for service and hydraulic batteries located aft of engine room.

Enersys maintenance-free gel type for lights etc. and Optima Yellow Top batteries for auto pilot pump and central hydraulic system. The service batteries are being charged by a 24V 140A alternator located on the main engine and also have two 24V 100 A chargers with 3-step charge characteristics. Hydraulics battery is charged by main engine alternator via a splitting diode.

The starting batteries consist of two 24V banks, one for the main engine and one for the generator. They are maintenance free AGM type located under floorboards in port starboard guest cabin. Main engine starter battery has a 24V 60A alternator.

The onboard AC system is a 230 V 50 Hz single-phase system, and can be fed either by the diesel generator, shore power inlets or DC/AC inverters. The keel is the underwater earthing point.

Single-phase Northern Lights 26 kW generator producing 230V 50Hz AC. There is 24V 35A alternator on the diesel generator for its starting battery. Shore power via shore inlet plug 230V 3-pole 63A in transom. Separate shore inlet for air conditioning with a galvanic isolator. Shore power has a 15kVA isolation transformer. Inverters with separate transfer switch converting 24V DC to 230 V 50Hz AC One 2500VA for single phase consumers, one 1500VA for instruments and entertainment.

Prop shaft, keel and thruster have their own individual sacrificial anodes. Navigation, rig, deck and underwater lights.

AC and DC panels on main switchboard in navigation area.

#### Instrumentation

Wempe barometer

2 SUUNTO 5" magnetic compasses on steering pedestals.

There is a comprehensive package, consisting of Brookes & Gatehouse Hercules 3000 with central processor unit, masthead unit, speed/temperature sensor, depth sensors and barometric sensor. Navigation, communication and entertainment systems. Quartz clock

Autopilot running off its individual power pack is driving the steering quadrant via twin low friction cylinders. Hydraulic back-up for emergency use **EPIRB** Foghorn

# Rig

Offshore Spars swept back (25°) four spreader rig with discontinuous shrouds. White faired carbon mast with luff track for mainsail. Carbon spreaders with lights. Hi-Load sheaves. White carbon Park Avenue boom, vang and lazy jacks. Hydraulic outhaul system and arrangement for 2 reefs.

Built-in deck lights and preventer system. Masthead with four forward and one aft halyard, and staysail halyard. Internal wiring, shielded and secured to

Navtec rod rigging headstay and inner stay have toggles at upper and lower end. Main shroud rigging screws barrel pin

Powered hydraulic rig functions: furling headstay with double groove aluminium foil, boom vang, jib halyard, mainsail outhaul, backstay, inner forestay tensioner, Cunningham. Hydraulic mast jack with spacers and removable manual pump. Dynema running rigging. Main halyard with screw shackle, headsail halyards and sheets with snap shackles. Internal halyards.

# Equipment

An Owner's Manual is provided in with directions for use and maintenance, drawings and diagrams for main systems and handbooks for machinery and components.

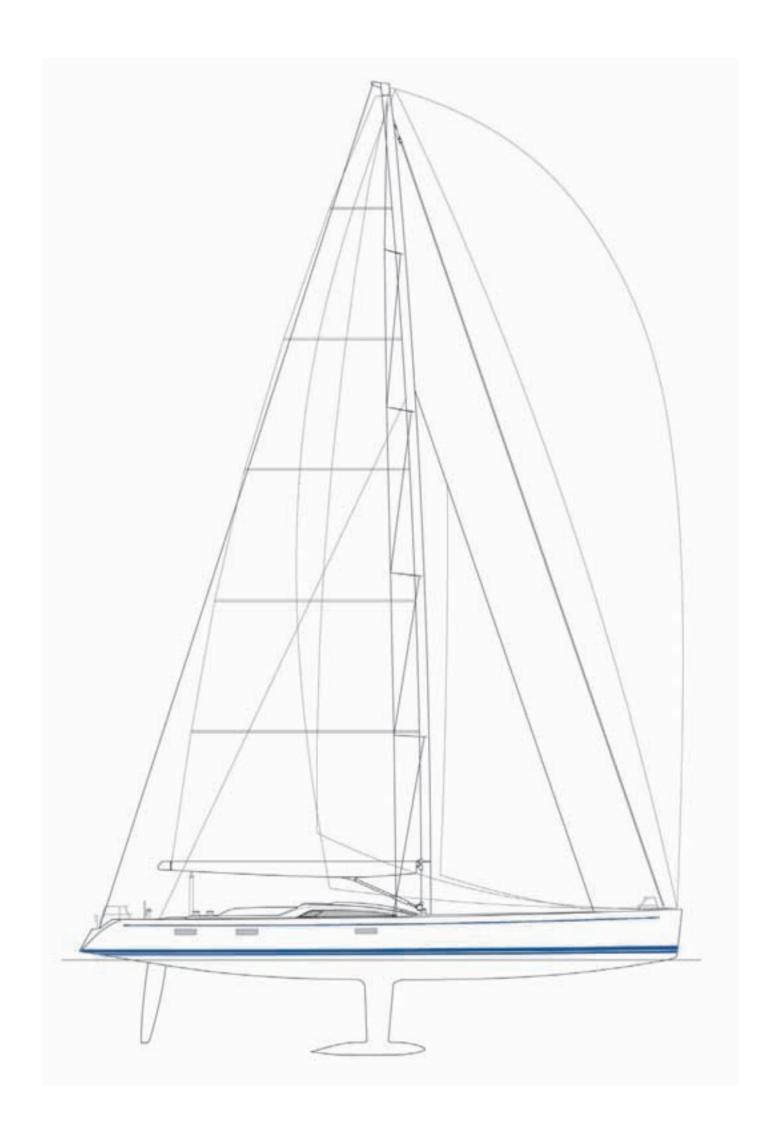
One CQR 180 lbs anchor on hydraulically powered swinging arm. Fortress FX-85 stern anchor, 100 m 12 mm high-tensile anchor chain. 100 m 25 mm plaited nylon anchor line. Four mooring lines 15 m each, diameter 22 mm. Four mooring lines 30 m each, diameter 22 mm.

Eight Avon air fenders with lines. Anchor light with cable and plug. Two boat hooks One removable MPS block Harken C5813 ø150 mm on C7403base

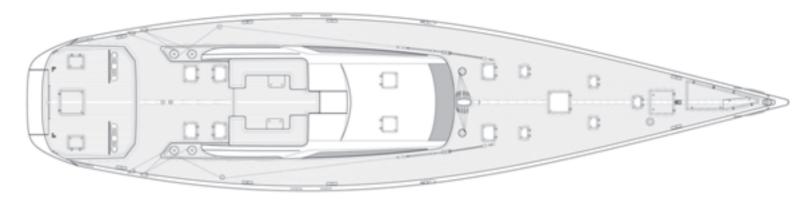
Four 10" double grip and four 10" single grip winch handles. Two Bosun's chairs. Flag pole

Sails to be provided by Customer.





# **SWAN** 90 S





Owner cabin aft

# SWAN 90 S

General		
Length overall:	90.91 ft	27.71 m
Length of waterline:	80.54 ft	24.55 m
Beam:	21.19 ft	6.46 m
Draught (light):	14.44 ft	4.40 m
Ballast:	40560 lbs	18400 kg
Displacement (light):	125000 lbs	56700 kg
Technical specification		
Fuel:	449 US gal	1700 ltr
Water:	264 US gal	1000 ltr
Hot water:	39.6 US gal	150 ltr
Water maker (per 24 h):	1458 US gal	5520 ltr
Holding Tank:	106 US gal	400 ltr
DC Power:	24 V	1200 Ah
AC Power:	2 x 20 kVA	230V, 50Hz
Shore Power transformer:	15 kVA	230V, 50Hz
Airconditioning:	72000 BTU	21 kW
VW Marine:	230 Bhp	172 kW
n' d'ann d'ann		
Rig dimensions	420.72 (:	26.00
IG:	120.73 ft	36.80 m
<u>J:</u>	35.30 ft	10.76 m
P:	115.48 ft	35.20 m
E:	37.56 ft	11.45 m
Sail areas		
Fore triangle:	2131 sq ft	198.0 m <sup>2</sup>
Main sail:	2732 sq ft	253.8 m <sup>2</sup>
Jib:	2251 sq ft	209.1 m <sup>2</sup>
Asymm. Spinnaker:	8288 sq ft	770.0 m <sup>2</sup>
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Germanischer Lloyd Hull Construction Certificate







#### Hull

Female moulded E-glass/vinylester laminate with aramid and unidirectional carbon reinforcements in selected areas. Monolithic structure up to waterline. Topsides are a foam cored E-glass/ vinylester sandwich structure. Excellent strength and fatigue properties due to a high proportion of unidirectional fibre in the laminate stack. The hull laminate is post cured according to the resin manufacturer's recommendation. Pre-made E-glass/vinylester stringers and web frames with carbon capping. Their hollow sections are used for ventilation purposes or as cable conduits. Engine beds are an integral part of the hull structure as stiffeners. Special attention is given to assure a rigid foundation and proper bonding to hull. Structural bulkheads are carbon/epoxy pre-preg sandwich structure secondary bonded to hull and deck. Carbon fibre mast step. There are tie rods from the mast collar to the step. Bronze sea cocks for all through-hull connections below waterline with access, well insulated. The inboard side of the sea cocks are fitted with a stud long enough to take two hose clamps. Two hull windows in main saloon and owner's cabin. One in each amidships guest cabin.

Hull topsides finish: painted in Snow white, RAL #9003 with blue cove line and double boot top.
Hull bottom: treated with epoxy primer and antifouling.

Wet epoxy system using carbon fibre straps laid over stainless steel bushings. The chain plates are post cured according to resin manufacturer's recommendations. Main shroud and split backstay chainplates are bonded to the hull. There is a recessed head stay. Ballast bulb is lead casting with 4.5% antimony and is attached to a steel fin. AISI 329 bolts used for keel attachment. Fin is faired.

Isotop rudder with carbon fibre/epoxy skins on a foam core and a tubular carbon fibre stock. Lower tip of rudder designed to break before the stock. Weed deflector infront of rudder. Two self-aligning JP3 bearings. Lower bearing has double seals to prevent leakage.Lightweight aluminium steering quadrant bolted to rudder stock. Twin wheel sprocket and chain system with stainless steel cables. Custom built composite pedestals with space for a compass, navigation- and control systems. Two 1200 mm clear coated carbon composite wheels with independent disconnection. The emergency steering is by autopilot.

#### Transom

Opening giving direct access to the dinghy garage. It has a piston compressor for transom door air seal.

The door extends to cockpit level for maximum opening and discrete look using two custom built stainless steel hydraulic rams. Bathing/boarding platform made from carbon fibre pre-preg for maximum stiffness. 9 mm teak recessed on upper topsides. Shore connection hatch and a shore power cable 15 m. City water connection with pressure regulator. Space for landline telephone connection. Carbon swim ladder with flush stainless steel fittings

Storage for the sails and equipment in fo'c'sle and custom built stainless boarding ladder. Floorboards light weight composite construction. The top sides are faired and top coated.

Provisions for storage of the yacht's equipment in lazarette. Storage for 2,5 m carbon fibre powered telescopic gangway. Dinghy garage with access from main deck. Hot and cold shower with a hose adapter.

#### Deck

The main deck is carbon fibre pre-preg sandwich construction, with honeycomb core, bonded to hull. High density foam core under deck fittings. The coach roof and coamings are infusion moulded carbon fibre reinforced vinylester with a low density foam core.

Coaming and coach roof painted in Awlgrip Snow white RAL # 9003. Laid teak side decks and cockpit sole glued and vacuum bagged. Removable foot supports at helm stations. Integral toe rails with four pop up fairleads per side.

All winches are hydraulically driven via the hydraulic main ring system and connected to the valve blocks with flexible hoses. Two Harken B1110 STA HLHY primary and secondary winches in cockpit. Two Harken B990.3 STA halyard winches near the mast.

Captive winch Lewmar LMS 77 main sheet winch mounted under deck. Anchor windlass Lewmar V8 hydraulic windlass with controls on a wandering 3.5m lead. Mooring winch electrically operated, retractable Sanguineti 3710400 capstan drum. Titanium anchor arm hydraulically operated for stowing bow anchor. Controls on 3.5 m wandering lead.

Harken jib sheet tracks with cars and stoppers. Harken C7056 150 mm double foot block on side deck for jib sheet leads and gennaker sheet. Single foot block for floating jib car towing line. Seven Harken C6355 Halyard lead blocks. Four Harken C5121 150 mm single blocks for runners and gennaker sheet. Six Spinlock ZS jammers for halyards on deck close to mast.

Eight stainless steel pop-up mooring cleats; two on fore deck, four amidships, two aft. Eight custom made stainless steel pop-up fairleads recessed in bulwark Life lines, stanchions, pulpit and push pit spacing conforms to ISAF/ORC requirements.

Life lines stainless 8 mm wire with polished turnbuckles and eyes. Gates in lifelines amidships on each side, push pit. Stainless fittings secure safety lines on deck. Pulpit, push pit, stanchions 610 mm high Ø 32 mm stainless steel tube. Push pit has gates for easy access to bathing platform / gangway.

Socket for flagpole port side aft deck. Composite mast collar is designed for use with Spartite support. Custom made canvas mast boot.

Nautor custom made flush mounted tinted acrylic hatches with gutters and frames in white painted composite. All hatches are supported by gas cylinders. Deck hatches leading to all cabin spaces and living areas. Teak covered hatches to anchor stowage, anchor windlass and sail locker. On aft deck two hatches to lazarette and one hatch to dingly garage.

3 Goiot Cristal 43-18R open able tinted acrylic portholes flush mounted with white painted aluminium frames. Parasol grey deck house windows by Form glass, chemically toughened, bonded to superstructure. Lockable companionway has a manually operated sliding hatch of tinted acrylic and a GRP manually operated sliding drop board.

Open steering cockpit in aft deck. 2 Ushaped sofas with back rests on each side, two fixed teak cockpit tables with folding leaves and telescopic supports. Can be manually recessed flush with seat level. Large recessed spray hood, with a canvas cover over the main companionway. Stainless steel tube structure with a canvas top. Small spray hood over crew entrance, removable when not in use. Cockpit cushions with backrests.

#### Interior

Selected light teak is oil-waxed for all visible woodwork.

Vinyl covered removable overhead panels are installed in all accommodation areas.

Floorboards PVC-sandwich construction with teak with koto stripes, supported on vibration damping materials. Oil-waxed as the rest of the interior. Four suction lifters are provided.

Bulkheads are covered with a noise barrier and separate skin panels. Interior partitions are a foam sandwich construction with skins of veneered marine plywood. Partitions are built to meet 20 dB (A) level of airborne sound reduction. Cabin doors close onto rubber faced landings for maximum noise reduction. All locker doors are fitted with high quality furnishing hinges. Hanging lockers are fitted with rails and have automatic internal lights.

Hand rails are fitted throughout the vessel where needed for safe movement under deck. Wall lamps are installed at the head end of all berths and sofas. General cabin lighting will have spotlight down lighting with dimmer controls.

Drawers are made of teak. Mirrors of marine quality, edges sealed. Teak leeboards/canvas leecloths.

Openable deck hatches are fitted with roller blinds and mosquito screens. Deck house windows fitted with pleated blinds. Hull windows are fitted with roller blinds.

Mattresses of sprung type manufactured for marine use based on batten system providing underside ventilation. Foam mattresses for Pullman berths. Upholstery foams and fillings are non-flammable. Fabrics and leathers chosen from Nautor's interior collection. Dust covers for sofas and settees and tables.

Guest bathrooms have white paneled bulkheads, teak floorboards, Corian counter tops and back splash. floorboards. Tempered glass door in shower stall with stainless steel fittings.

# Engine

Engine room internally sound insulated and equipment mounted with consideration of noise and vibration reduction with fluorescent lighting. Fire resistance meets SOLAS requirements. Propeller area sound insulated. Engine room surfaces and technical equipment are painted in white RAL # 9010 where practical.

Main engine Volkswagen TDIV6, 230hp@3500rpm with direct mounted reduction gear supported on flexible mounts. Gearbox is a ZF W220 vertical offset, reduction 3,555:1 gearbox. Drive shaft is a Aquadrive CVB 32.30 down angled 5°. The propeller shaft is made of corrosive resistant steel supported by water-lubricated rubber bearings at Pbracket and stern tube. 4-blade Brunton Varifold propeller. Hundested FT1R retractable bow thruster.

Wet exhaust system for both main engine and diesel generator. Fuel tanks with inspection hatches and shut off valves. Cooling water is discharged below waterline, and exhaust gases discharged under transom. Thermostat-controlled fresh water cooling for engine and generator. Drip trays connected to waste oil pump

The engine and diesel generator have their own starting battery sets. Engine and thruster controls on cockpit pedestals. Hydraulics are run by a Bosch-Rexroth custom designed system providing power for sail handling, anchor windlass, and retractable bow thrusters. It has two different sources of power running independently of each other to ensure trouble free operation.

Clean Agent (FM200) fire extinguishing system for engine room space. Two fire hydrants with hose reel, one forward and one aft.



# Plumbing

Seawater hoses of reinforced PVC tubing, fresh water piping of polypropylene, nylon or copper tubing.

Engine room piping is colour coded, with arrows indicating direction of flow. 2 stainless steel water tanks. Pressurised hot and cold water with a 24 l pressure tank connected to system run by 2 pumps. Thermostat controlled stainless steel water heater 150 l using cooling water or heating element running off AC power. Insulated hot water pipes. Water maker with self priming feed water pumps made of bronze and AISI 316.

City water connection with filter enabling shore water supply to be piped directly into the pressure water system.

Electrical anchor wash/fire pump with connection on deck. Capacity 180 l/min. Five separate bilge compartments, each with their own DC driven and manual back up pumps. Capacity 140 l/min. Toilet flushing by fresh pressurised water. 2 black water tanks, 2 grey water tanks both with SaniGard vent filter.

Space for gas bottles in drained locker. Four-burner stainless steel gas stove and electric oven, gimballed. Extractor hood with built in lighting. Dishwasher, microwave oven, air compression general, waste disposal unit, washing machine and dryer. Two 107 l refrigerators and two 95 l freezers.

Forced ventilation with electric heating mode directing fresh air into cabins and exhaust air out through heads. Silencers installed to reduce noise. Galley has an independent system. Climate can be controlled with central cooled /heated waterbourne system. Four custom made Frigonautica 24V DC water cooled compressors units for fridges and freezers.

All tanks systems are monitored and status displayed on main switch board in galley. Fire alarm system and a Clean Agent (FM200) fire extinguishing system for engine room.

#### **Electrical**

2-pole 24V insulated return DC-system for lighting, blowers, pumps etc. Wires are sized to minimise voltage drop. Battery banks for service and hydraulic batteries located aft of engine room.

Enersys maintenance-free gel type for lights etc. and Optima Yellow Top batteries for auto pilot pump and central hydraulic system. The service battery is charged by a 24V 140A alternator and also have 24V 100 A chargers with 3-step charge characteristics, two for service and one for hydraulics battery.

The starting batteries consist of two 12V banks, one for the main engine and one for the generator. They are of maintenance free AGM type located in engine room. Main engine starter battery has a 12V 180A alternator.

The onboard AC system is a 230 V 50 Hz single-phase three-wire system, and can be fed either by the diesel generator, shore power inlets or DC/AC inverters. The keel is the underwater earthing point.

2 single-phase Northern Lights 20 kW generators producing 230V 50Hz AC.

There is 24V 35A alternator on each diesel generator. Shore power via shore inlet plug 230V 3-pole 63A in transom. Separate shore inlet for air conditioning with a galvanic isolator. Shore power has a 15kVA isolation transformer.

Inverters with separate transfer switch converting 24 V DC to 230 V 50Hz AC. One 5000VA model for single phase consumers, one 1500VA for instruments and entertainment.

Prop shaft, keel and thruster have their own individual sacrificial anodes. Navigation, rig, deck and underwater lights.

AC and DC panels on main switchboard in galley.

#### Instrumentation

2 SUUNTO 5" magnetic compasses on steering pedestals.

There is a comprehensive package, consisting of Brookes & Gatehouse Hercules 3000 with central processor unit, masthead unit, speed/temperature sensor, depth sensors and external alarm. Navigation, communication and entertainment systems.

Quartz clock and Wempe barometer. Autopilot running off its individual power pack is driving the steering quadrant via twin low friction cylinders. Hydraulic back-up for emergency use EPIRB Foghorn

# Rig

Offshore Spars swept back (25°) four spreader rig with discontinuous shrouds. White faired carbon mast with luff track for mainsail. Carbon spreaders with lights. Hi-Load sheaves. White carbon Park Avenue boom, vang and lazy jacks. Hydraulic outhaul system and arrangement for 2 reefs.

Built-in deck lights and preventer system. Masthead with four forward and one aft halyard, and staysail halyard. Internal wiring, shielded and secured to mast. Navtec rod rigging headstay and inner stay have toggles at upper and lower end. Main shroud rigging screws barrel pin type.

Powered hydraulic rig functions: furling headstay with double groove aluminium foil, boom vang, jib halyard, mainsail outhaul, backstay, inner forestay tensioner, Cunningham. Hydraulic mast jack with spacers and removable manual pump. Dynema running rigging. Main halyard with screw shackle, headsail halyards and sheets with snap shackles. Internal halyards.

# Equipment

An Owner's Manual is provided in with directions for use and maintenance, drawings and diagrams for main systems and handbooks for machinery and components. One CQR 180 lbs anchor on hydraulically powered swinging arm. Fortress FX-85 stern anchor. 100 m 12 mm high-tensile anchor chain. 100 m 25 mm plaited nylon anchor line. Four mooring lines 15 m each, diameter 22 mm. Four mooring lines 30 m each, diameter 22 mm.

Eight Avon air fenders with lines. Anchor light with cable and plug. Two boat hooks One removable MPS block Harken C5813 ø150 mm on C7403 base.

Four 10" double grip and four 10" single grip winch handles. Two Bosun's chairs.

Sails to be provided by Customer. Portable fire extinguishers. Basic spare parts kit.





# **Swan 100**













### **Swan 100**

Perceived as a modern classic, the Swan 100 is technologically advanced and mirrors the four cornerstones of the Nautor's Swan brand; quality, aesthetics, performance and seaworthiness.

Responsive and easy to handle, the high tech cruiser further develops Nautor's building philosophy of the super yacht, offering comfortable accommodation without compromising on performance. The yacht is available in two versions, the Flush Deck (FD) and Semi Raised Saloon (S).

Designed by German Frers, the Swan 100 is intended for the utmost luxury and comfort, with safety, speed and easy sailing paramount to the design.

Swan 100S uses the latest technology and construction practices to offer the cruising practicality and spaciousness of a classic blue water cruiser, combined with the sleek high end performance pedigree of the well established Swan FD.

The hull is built with a single skin glass/aramid hybrid fibre in a female mould, with reinforced carbon stiffeners to increase strength and seaworthiness. Structural bulkheads are of Nomex honeycomb cored carbon fibre epoxy pre-preg construction, complete with topside white gelcoat finish for which Swan are renowned.

The Swan 100 enjoys good stability, responsiveness and willingness to accelerate upwind, attributed to an exceptional power to weight ratio. The keel comprises of a steel fin with lead ballast, weighing 29 tons and drawing 4m, giving an overall displacement of only 77 tons, impressive in a yacht of this size.

The Swan 100 interior is designed for comfort, style and functionality with a generously sized owners cabin, three luxurious guest cabins and crew cabins. Both versions (FD and S) use top quality materials with a striking hand polished teak finish on all visible woodwork throughout. Efficient storage and power systems coupled with a fully equipped galley allows for long periods at sea. All cabins including the spacious main saloon are equipped with entertainment systems.













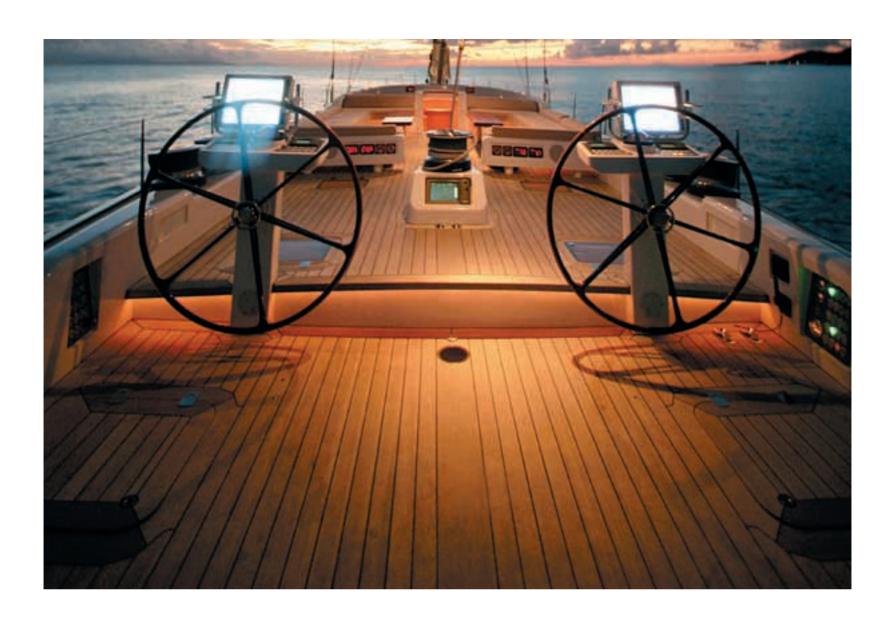










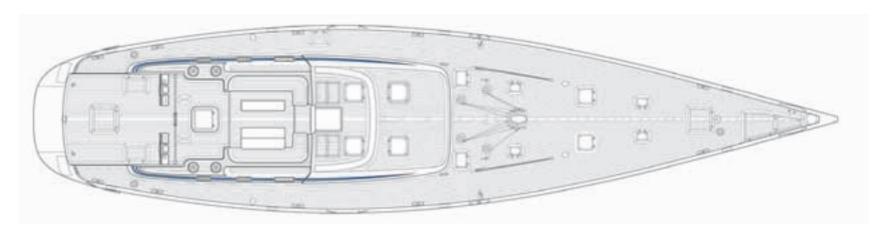


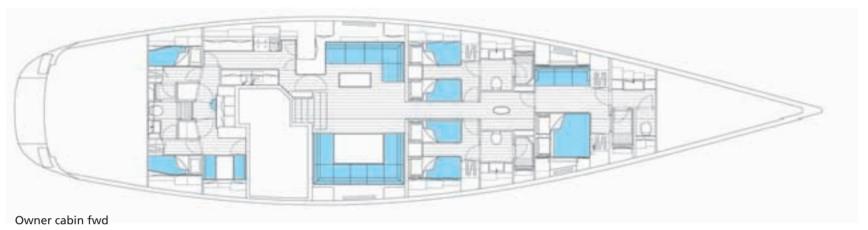






# **SWAN** 100 FD





# SWAN 100 FD

General		
Length overall:	99.11 ft	30.21 m
Length of waterline:	86.81 ft	26.28 m
Beam:	23.15 ft	7.06 m
Draught (light):	13.19 ft	4.70 m
Ballast:	65477 lbs	29700 kg
Displacement (light):	170638 lbs	77400 kg
Technical specification		
Fuel:	660 US gal	2500 ltr
Water:	396 US gal	1500 ltr
Hot water:	31.7 US gal	120 ltr
Water maker (per 24h):	1000 US gal	3700 ltr
Holding Tanks:	185 US gal	700 ltr
DC Power:	24 V	2000 Ah
AC Power:	26+26 kW	230 V 50 Hz
Shore Power converter:	24 kVA pf 0.8	180520 V, 4764 Hz
Airconditioning:	90000 BTU	15 kW heating mode
Engine - Cummins:	305 HP	224 kW
Rig and sail dimensions		
I:	131.23 ft	40.00 m
J:	35.10 ft	10.70 m
P:	126.31 ft	38.50 m
E:	40.88 ft	12.46 m
Sail areas		
Fore triangle:	2303 sq ft	214.0 m <sup>2</sup>
Main sail:	2583 sq ft	240.0 m <sup>2</sup>
110% jib:	2559 sq ft	237.7 m <sup>2</sup>
Asymm Spinnaker:	8582 sq ft	797.0 m <sup>2</sup>
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**Germanischer Lloyd Classification** 







#### Hull

The hull is of single skin construction built in a female mould using glass/aramid hybrid fibre reinforced vinylester laminate with local carbon fibre reinforcements. Structural bulkheads are of Nomex honeycomb cored carbon fibre epoxy prepreg construction. Stiffener flanges are unidirectional carbon fibre lay-ups over GRP shells. Topside gelcoat is white, boot top and cove stripe blue. Uncoloured gelcoat below waterline. Bottom treated with epoxy primer, and antifouled. The ballast bulb is lead casting with antimony and attached to a steel fin.

Carbon fibre mast step. Foam filled carbon fibre / epoxy skins with tubular fibre stock supported by 2 self-aligning bearings. Two destroyer type composite steering wheels on composite pedestals with roller bearings. Sea cocks for through-hull connections below waterline. Transom garage with hydraulically operated launching platform for dinghy. Winch for launching and hauling. Ladder to main deck, and swim ladder. Hot and cold shower in garage.

Passarelle stored in garage and light weight side boarding ladder, stored in sail locker. Shore connection locker with flush transom lid. Shore power cable outlet via cable master unit. City water connection, land line telephone connection, and cable – TV connection.

#### Deck

Main deck is of carbon fibre pre-preg sandwich construction with Nomex honeycomb core. High density core under deck fittings. Coachroof and coamings of glass fibre reinforced vinylester with low density foam core.

Laid teak battens on side decks, coach roof, coamings and cockpit sole.

GRP surfaces finished in white gelcoat, coaming stripes in blue gelcoat.

Lewmar hydraulic sheet and halyard winches. One Rondal captive main sheet winch. Lewmar hydraulic windlass recessed in fore deck.
Hydraulically operated retractable Sanguineti 3755000 Capstan drum mooring winches.

Anchor stowage below deck on a hydraulically controlled swinging arm.

Carbon fibre main shroud and backstay chain plates.

Recessed stainless chain plate for headstay.

Necessary sheet tracks, cars, lead blocks and screw-in sockets.

Fairleads integrated in bulwark and retractable mooring cleats.
Pulpit, pushpit and lifeline stanchions of stainless steel. Gates in lifelines each side amidships and in pushpit.
Stowage for life rafts in deck lockers.
Composite mast collar and mast boot.
Stainless fittings for securing safety lines on side decks.

Deck hatches to anchor stowage, anchor windlass, hose and sail locker.

Opening portholes in crew cabin and galley. Powered main companionway sliding hatch and vertically sliding door.

On aft deck two hatches to lazarette and one hatch to dinghy garage. Cockpit drink refrigerator and storage locker.

Removable foot supports for helmsman.

#### Interior

Selected light teak with hand rubbed satin finish used for visibile woodwork. Vinyl covered lightweight removable overhead panels in accommodation areas.

Floorboards are made of light weight sandwich plywood, top face in teak and holly. Hand rubbed satin finish and supported on vibration damping materials and provided with hinges where frequent access to the bilge is required.

Interior partitions are of sandwich construction, with skins of GRP covered teak plywood.

Cabin doors close onto rubber faced landings for maximum noise reduction. Hanging lockers are fitted with rails and have automatic internal lights. Drawers are made of teak. Mirrors of marine quality.

Openable deck hatches are fitted with roller blinds and mosquito screens. Coaming windows fitted with pleated blinds. Opening port holes have removable screens.

Mattresses of sprung type manufactured for marine use.

Upholstery foams and fillings are non-flammable.

Fabrics and leathers to Purchaser's choice. Dust covers for sofas and settees. Guest bathrooms have teak-veneered bulkheads, teak floor boards, stone counter tops and back splash.

Tempered glass door for shower stall. Handrails are fitted throughout the vessel where needed.

Partitions are built to meet 20 dB (A) level of airborne sound reduction.

# **Engine**

Engine room internally sound insulated and equipment mounted with consideration of noise and vibration reduction. Fire resistance meets SOLAS B-15 requirements. Propeller area sound insulated.

Main engine Perkins Sabre M300Ti 6cylinder marine diesel, output 221kW (265 HP) at 2500 rpm. with reduction gear 2.85:1.

Three blade controllable pitch propeller. Retractable bowthruster hydraulically driven. Wet exhaust system for both main engine and diesel generator. Cooling water is discharged below waterline, and exhaust gases under transom. Thermostat-controlled fresh water cooling for engine and generator. Stainless steel fuel tanks.

Two oil tanks are provided, one lubricating oil and one waste oil tank. The engine and diesel generator have their own starting battery sets. Engine and thruster controls on cockpit pedestals.

Heavy duty hydraulic system providing power for sail handling, anchor windlass, and retractable bow thrusters.

# Plumbing

Seawater hoses of reinforced PVC tubing, fresh water piping of polypropylene, nylon or copper tubing.

Engine room piping is colour coded, with arrows indicating direction of flow.

Pressurised hot and cold water in heads, galley, deck shower and bar. Integral water tanks with a total capacity of 1500 ltr.

Water maker with a production of 3700 ltr/day (1500 USG/d).

City water connection with filter enabling shore water supply to be piped directly into the pressure water system. Electrical anchor wash/fire pump with

connection on deck. Four separate bilge compartments, each with their own pumps.

Toilet flushing by fresh water. Black water tanks are provided.

Space for gas bottles in drained locker. Four-burner stainless steel gas stove and oven, gimballed.

Extractor hood with built in lighting. Two burner halogen hob, microwave oven, trash compactor, waste disposal unit, washing machine and dryer. Two refrigerators and two freezers of

domestic type.

Drink refrigerator in bar and in cockpit, ice cube maker in galley.

Forced ventilation in cabins with exhaust ventilators in heads and galley. Airconditioning 90 000 BTU, with electric heating mode.

#### Electrical

2-pole 24V insulated return DC-system for lighting, blowers, pumps etc. Wires are sized to minimise voltage drop.

The service batteries are of maintenancefree traction type, and consist of two 24 V banks, each with a capacity of 24 V 1000 Ah/10 h.The starting batteries consist of two 24V banks, one for the main engine and one for the generator.

The onboard AC system is a 230 V 50 Hz single-phase three-wire system, and can be fed either by the diesel generator, shore power inlets or DC/AC inverters. The AC system is equipped with a PLC-controlled power shedding system.

One Northern Lights 33 kVA generator. Shore power inlet in transom with isolation transformer 15 kVA. Single phase frequency converter accepting inlet voltages between 180-520 V AC, and 47 to 64 Hz. Conversion of 24V DC to 230V AC with two inverters, one for galley equipment, and another for entertainment. The main engine has two 140 A alternators for service battery charging. Four 100 A chargers with 3-step charge characteristics for service batteries, 25 A charger for starting batteries.

#### Instrumentation

SUUNTO 5" magnetic compasses on steering pedestals.

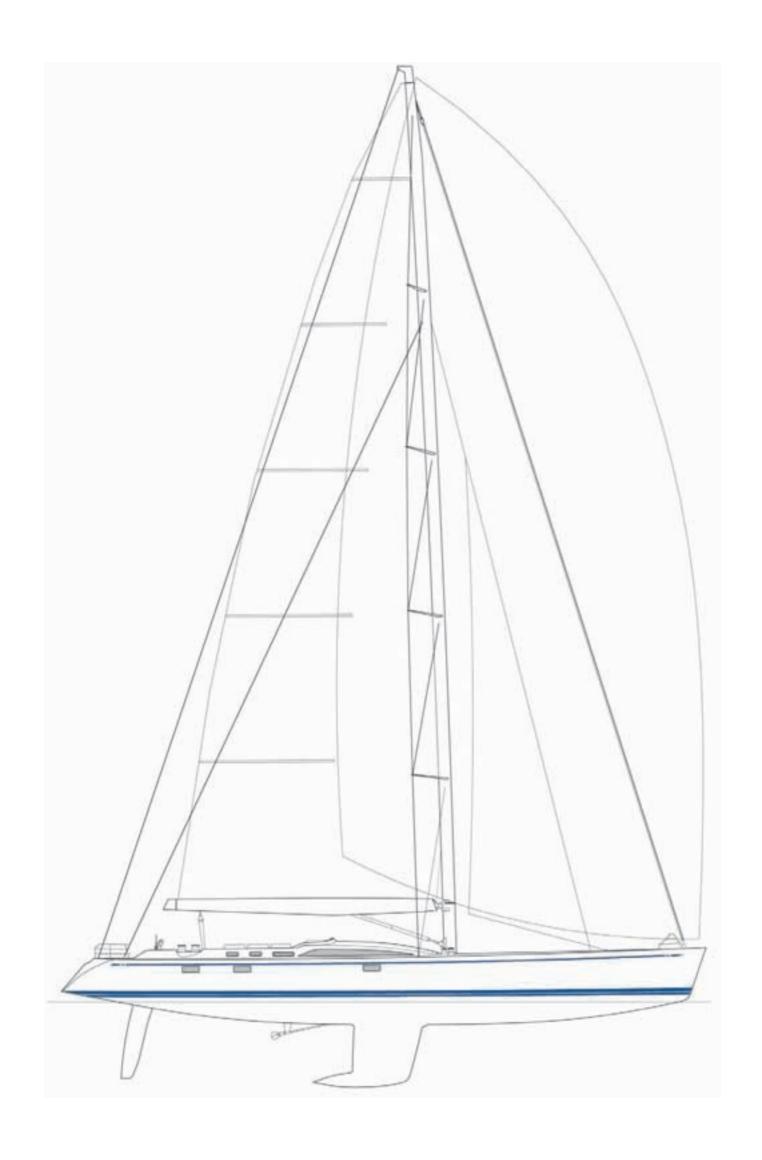
A hydraulic autopilot is driving the steering quadrant via twin cylinders. A back-up for emergency autopilot use is provided, fed by the central hydraulic system. Foghorn with manual and automatic control mounted on the mast. There is a comprehensive package of sailing instruments, navigation, communication and entertainment systems.

#### Ria

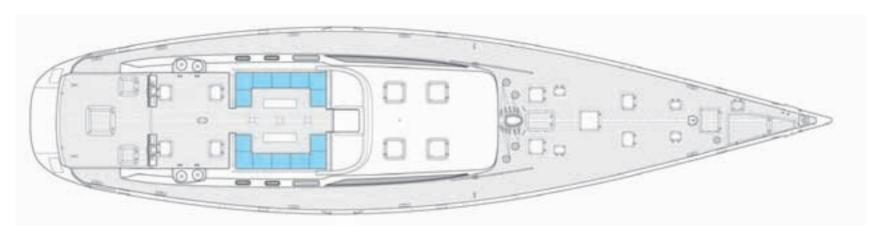
Four spreader swept back rig with discontinuous shrouds. White painted carbon fibre mast, with luff track for mainsail. Tapered masthead with three forward and one aft halyard, and staysail halyard. Internal wiring, shielded and secured to mast. Carbon fibre spreaders with lights. Standing rigging of Navtec rod. Removable inner forestay and runners of aramid. Carbon fibre Park Avenue boom with lazy jacks. Hydraulic outhaul system. Built-in deck lights and preventer system.

Powered hydraulic rig functions: furling headstay, boom vang, jib halyard, mainsail outhaul, backstay. Hydraulic mast jack with spacers and removable manual pump.





# **SWAN** 100 S





Owner cabin aft

# **SWAN 100 S**

General		
Length overall:	99.11 ft	30.21 m
Length of waterline:	86.81 ft	26.46 m
Beam:	23.15 ft	7.06 m
Draught (light):	13.19 ft	4.00 m
Ballast:	63500 lbs	28800 kg
Displacement (light):	172400 lbs	78200 kg
Technical specification		
Fuel:	660 US gal	2500 ltr
Water:	396 US gal	1500 ltr
Hot water:	58.1 US gal	220 ltr
Water maker (per 24h):	1400 US gal	5000 ltr
Holding Tanks:	185 US gal	700 ltr
DC Power:	24 V	2000 Ah
AC Power:	26+26 kW	230 V 50 Hz
Shore Power converter:	24 Kva pf 0.8	180520 V, 4764 Hz
Airconditioning:	90000 BTU	15 kW heating mode
Engine - Cummins:	305 HP	224 kW
5		
Rig and sail dimensions		
l:	131.24 ft	40.00 m
J:	35.10 ft	10.70 m
P:	126.31 ft	38.50 m
E:	40.88 ft	12.46 m
Sail areas		
Fore triangle:	2303 sq ft	214.0 m <sup>2</sup>
Main sail:	2583 sq ft	240.0 m <sup>2</sup>
110% jib:	2559 sq ft	237.7 m <sup>2</sup>
Asymm Spinnaker:	8582 sq ft	797.0 m <sup>2</sup>

Germanischer Lloyd Classification







#### Hull

The hull is of single skin construction built in a female mould using glass/aramid hybrid fibre reinforced vinylester laminate with local carbon fibre reinforcements. Structural bulkheads are of Nomex honeycomb cored carbon fibre epoxy prepreg construction bonded to hull and deck

Stiffener flanges are unidirectional carbon fibre lay-ups over GRP shells. Gelcoats are of weather-resistant NGA type.

Topside colour is white gelcoat, boot top and cove blue stripe. Uncoloured gelcoat below waterline.

Bottom treated with epoxy primer, and antifouled.

The ballast bulb is lead casting with antimony and attached to a steel fin. The mast is stepped through the deck onto a carbon fibre mast step. Rudder stock of hollow carbon fibre/epoxy with foam filled carbon blade.

Two destroyer type composite wheels on composite pedestals with roller bearings. Sea cocks for all through-hull connections below waterline.

Transom garage with hydraulically operated launching platform for dinghy. Winch for launching and hauling. Ladder to main deck, and swim ladder. Hot and cold shower in garage. Light weight manually extendable and light weight side boarding ladder.

Shore connection locker with flush transom lid. Shore power cable outlet via cable master unit.

City water connection, land line telephone connection, and cable – TV connection.

#### Deck

Main deck is of carbon fibre pre-preg sandwich construction with Nomex honeycomb core. High-density core under deck fittings.

Saloon and coamings of glass fibre reinforced vinylester with low density foam core.

Laid teak battens on side decks, coach roof, coamings and cockpit sole.

Integral toerail with four built in fairleads port and starboard.

GRP surfaces to be weather resistant. NGA type white gelcoat. Coamings stripes to be blue gelcoat.

Harken Harken B1130 STHA 80OMS

motor on Mainsheet winch (2:1) Cockpit coaming has two Harken B1130 STHA 100OMS motor primary winches and two Harken B1130 STHA 80OMS motor secondary winches Four Harken B990.3 STHA utility winches near the mast. Lewmar hydraulic windlass recessed in fore deck. Anchor stowage below deck on a hydraulically controlled swinging arm. Sanguineti 3755000 Capstan drum mooring winch. Lewmar tracks cars, blocks, padeyes. Spinlock jammers and clutches. Necessary sheet tracks, cars, lead blocks and screw-in sockets. Carbon fibre main shroud chain plates. Split backstay chainplates attached to hull

Fairleads integrated in bulwark and mooring cleats.

structure. Recessed headstay chainplate.

Pulpit, pushpit and lifeline stanchions 750 mm high of stainless steel.

Gates in lifelines each side amidships and in pushpit. Stowage for life rafts in deck lockers. Composite mast collar and boot painted white.

Stainless fittings to secure safety lines on deck. Removable foot supports at helm stations. Deck hatches to anchor stowage, and anchor windlass

propane locker, hose locker and sail locker. Tinted custom Nautor composite deck hatches, flush-mounted with white frames for all cabins and the galley.

Deck house windows of tinted, tempered and laminated glass.

Pneumatically powered main companionway sliding hatch and vertically sliding door. On aft deck two hinged hatches to lazarette and one hatch to dinghy garage.

Comfortable centreline cockpit with stowage, heigh adjustable table seating eight.

#### Interior

Selected light teak with hand rubbed satin finish is used for all visibile woodwork. Vinyl covered lightweight foam cored removable overhead panels in all accommodation areas.

Floorboards are made of a noise reducing plywood, top face of teak and holly. Hand-rubbed satin finish and lying on vibration damping materials. Interior partitions are of sandwich construction, marine plywood with teak veneers on a foam core.

Cabin doors close onto rubber faced landings for maximum noise reduction. All hanging lockers are fitted with rails and automatic internal light. Drawers are made of teak. Mirrors of marine quality. Handrails are fitted throughout the vessel where needed. Opening deck hatches are fitted with roller blinds and mosquito screens. The deckhouse is fitted with pleated blinds. Opening port holes will have removable screens. Mattresses are of sprung type high quality manufactured for marine use. Upholstery foams and fillings are non-flammable. Fabrics and leathers from Nautor's Swan interior collection. Dust covers for all sofas and settees.

Owner and guest bathrooms to have teak-veneered bulkheads and teak floor boards. Stone counter tops and back splash. Tempered glass door between head and shower stall.

# **Engine**

Engine room internally sound insulated and equipment mounted with consideration of noise and vibration reduction.

Fire resistance meets SOLAS B-15 requirements. Propeller area shall be sound insulated.

Main engine Cummins Mercruiser QSB 5.9-305, output 224 kW @ 2600 rpm Marine gearbox ZF280 -1A, 2.47:1 Brunton Varifold 4-blade propeller Hydraulically driven, retractable bow thruster Hundested FT 2R, 30 kW (~40Hp).

Wet exhaust system for both main engine and diesel generator.

Cooling water discharged below waterline and exhaust gases under transom.

Thermostat-controlled fresh water cooling for engine and generator.

Two oil tanks are provided, one lubricating oil tank and one waste oil tank. The engine and diesel generator have their own starting battery. Engine and thrusters controls on cockpit pedestals.

Heavy duty hydraulic system providing power for sail handling, anchor windlass and retractable bow thruster.

### Plumbing

Sea water hoses of reinforced PVC tubing, fresh water piping of polypropylene, nylon and copper tubing.

Piping is colour coded, with arrows indicating direction of flow. Pressurised hot and cold water in heads, galley, deck shower and bar.

Hemseries water maker with a production of 5000 ltr/day.

City water connection with filter that allows shore water supply to be piped directly into the pressure water system.

Electrical anchor wash/fire pump with connection on deck.

Two grey water tanks are provided, one aft one forward.

There are four separate bilges, each with their own pumps.

Two black water tanks are provided.

Space for two gas bottles in a drained locker. Four-burner stainless steel gas stove/oven, gimballed Extractor hood with external ventilation and built in light. Two burner halogen hob, microwave oven, trash compactor, waste disposal, washing machine and dryer.

Two refrigerators and two freezers of domestic type.

Drink refrigerator in bar and cockpit. Ice cube maker in galley.

Forced ventilation in all cabins. Exhaust ventilators in heads and galley. Airconditioning, 90 000 BTU, with electric heating mode.

#### Electrical

2-pole 24V insulated return DC-system for lighting, blowers etc. Wires are sized to minimise voltage drop.

The service batteries are of maintenance-free traction type and consist of two individual 24V banks, each with a capacity of 24V 1000 Ah/10 h.

The starting batteries consist of individual 24V Optima red Top banks. AGM type batteries located in the engine room. One for the main engine and one for each generator. Both main engine and generator have 24V 35A alternators. The onboard AC system is a 230 V 50 Hz single phase three-wire system, and can be fed either by the diesel generator, shore power inlets or DC/AC inverters. The AC system is equipped with a PLC-controlled power shedding system. Two 26 kW M944W Northern Light generators.

Shore power inlet in transom with isolation transformer 18 kVA. Frequency converter accepts inlet voltages of 180-260 V AC,45 to 65 Hz, single phase. Conversion of 24V DC to 230V AC with two inverters. The main engine has two 140 A alternators for service battery charging.

Four 24V 100A chargers with 3-step charge characteristics for service batteries, 25 A charger for starting batteries. 24 kVA the frequency converter accepts inlet voltages between 180-520 V AC, 47 to 64 Hz, single-phase or three-phase. Comprehensive range of navigational and deck lights.

#### Instrumentation

SUUNTO 5" magnetic compass on steering pedestals.

A hydraulic autopilot is driving the steering quadrant via twin cylinders. A control unit is positioned at starboard steering position and a hydraulic back-up for emergency use, supply is provided by central hydraulic system.

A fog horn with manual and automatic operation will be mounted on the mast. There is a comprehensive package of sailing instruments, navigation, communication and entertainment systems.

#### Riq

Four spreader rig with discontinuous shrouds and approx. 25 degree swept spreaders.

White painted carbon fibre mast standard modulus with luff track for mainsail. Tapered masthead with pivoting MPS block and two genoa halyards, two main halyards, and staysail halyard. Internal wiring, shielded and secured to mast. Carbon fibre spreaders. Integrated four spreader lights. External trysail track. Standing rigging of Navtec rod. Removable inner forestay and runners of aramid.

Carbon fibre Park Avenue boom with lazy jacks.

Hydraulic outhaul system. Built-in deck lights.

Boom preventer system.

Running rigging Spectra or Vectran. Main halyard with screw chackle, headsail halyards and sheets with snap shackles, internal halyards.

Powered hyduraulic rig functions, furling headstay, boom vang, jib halyard, mainsail outhaul, backstay.

Hydraulic mast jack with spacer and removable manual pump.





# **Swan 110**

**PRELIMINARY** 







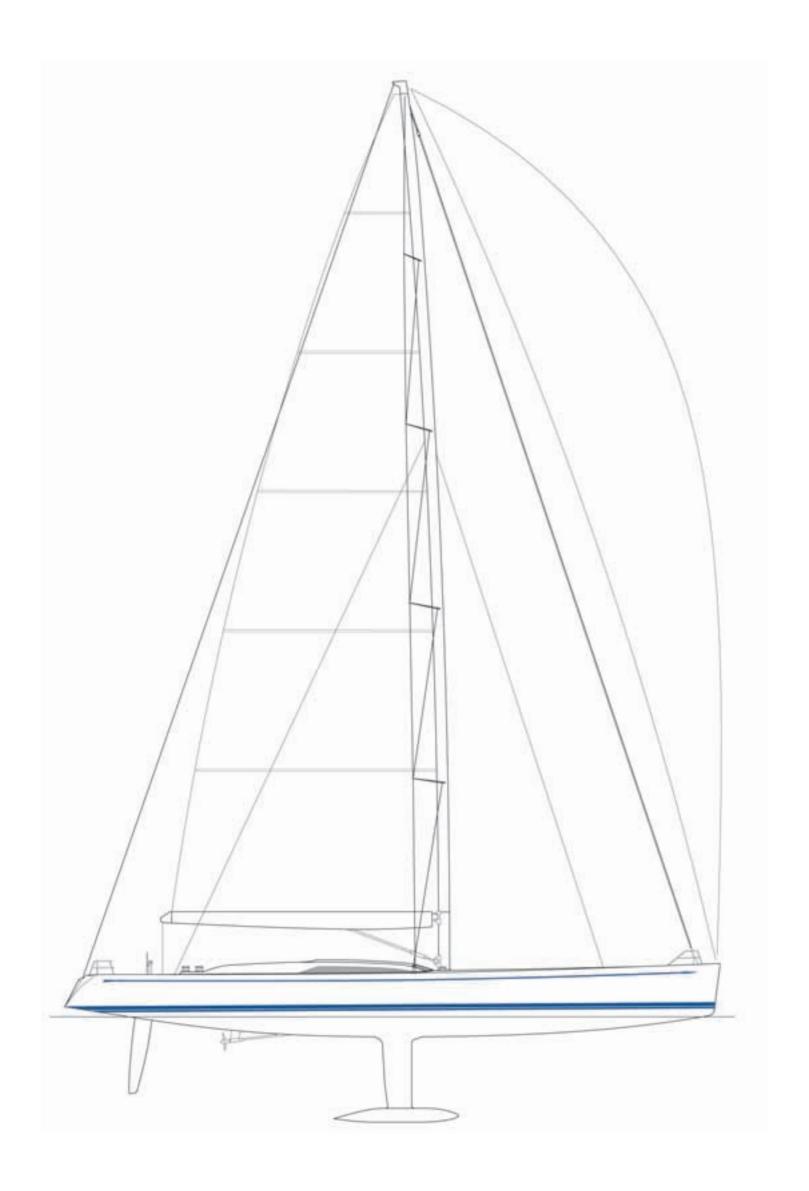




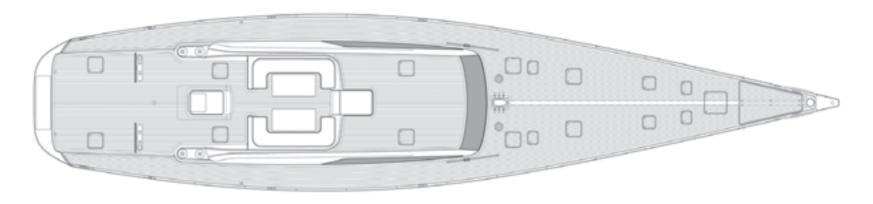


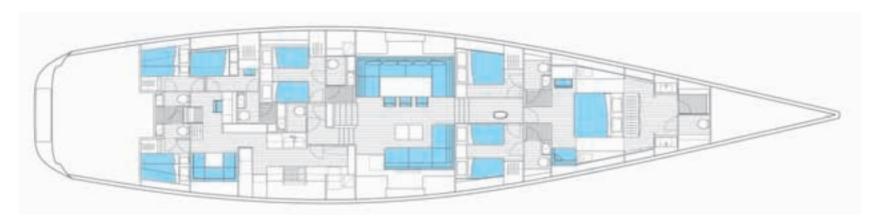






# **SWAN** 110





### **SWAN 110**

General		
Length overall:	110.00 ft	33.54 m
Length of waterline:	96.16 ft	29.31 m
Beam:	24.11 ft	7.35 m
Draught (light):	17.71 ft	5.40 m
Displacement (light):	209439 lbs	95.000 kg
Technical specification		
Fuel:	1055 US gal	4000 ltr
Water:	396 US gal	1500 ltr
Hot water:	55 US gal	210 ltr
Grey/black water:	158 US gal	600 ltr
DC power:	1200Ah + 300Ah	
AC power:	Northern Light 33kVA + 33kVA, 230V/400 V 50 Hz	
Shore power:	400 V 24 kVA, three phase	
Engine:	Caterpillar C7, 339kW (455 Bhp)	
Rig and sail dimensions		
<u>l:</u>	145.4 ft	44.33 m
J:	41.5 ft	12.65 m
P:	137.6 ft	41.95 m
E:	44.78 ft	13.65 m
Sail areas		
Fore triangle:	3000 sq ft	278.8 m²
Fore triangle: Main sail:	3000 sq ft 3082 sq ft	278.8 m² 286.3 m²

Classification: Germanischer Lloyd Certificate

SWAN 110 IS AVAILABLE IN ALTERNATIVE LAYOUTS







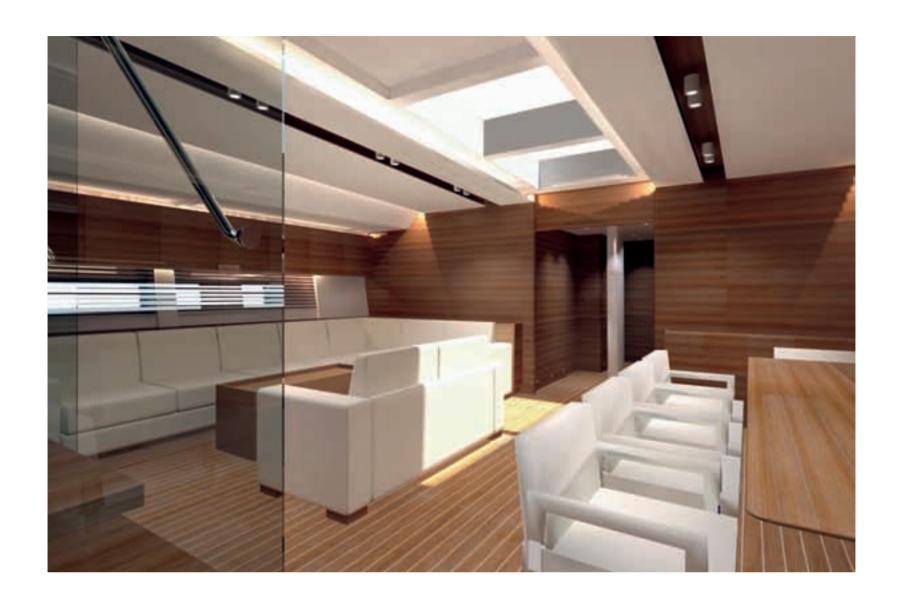




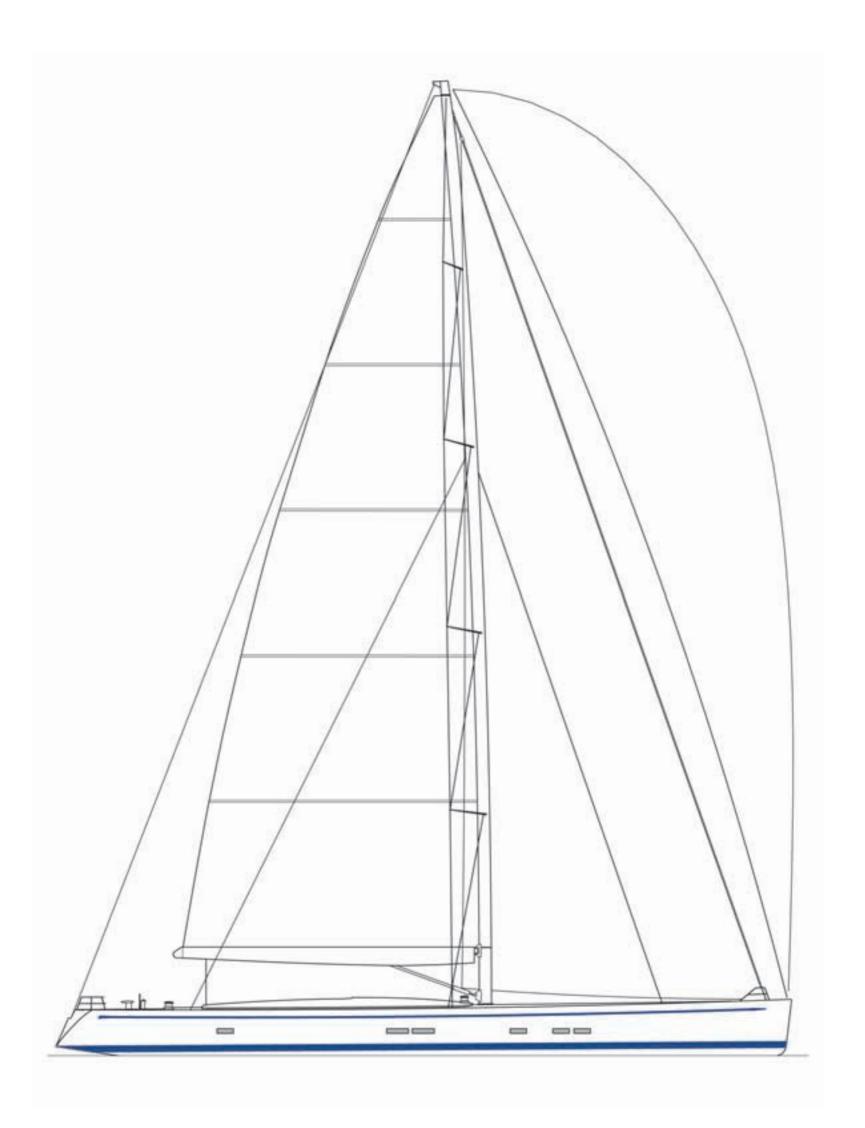




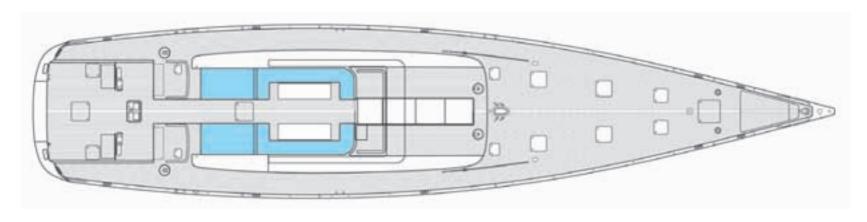








# **SWAN** 130





### **SWAN 130**

General		
Length overall:	131.50 ft	40.08 m
Length of waterline:	117.82 ft	35.91 m
Beam:	28.51 ft	8.69 m
Draught (light):	14.76 ft	4.50 m
Displacement (light):	292600 lbs	133 tons
<del>-</del>		
Technical specification		
Fuel:	3174 US gal	11000 ltr
Water:	792 US gal	3000 ltr
Hot water:	106 US gal	400 ltr
Grey/black water:	423 US gal	1600 ltr
Diesel generator:	2 x 55 kVA, 230/400 V 3-phase	
Shore power:	45 kVA 170-520 V 40-70 Hz 1 or 3 phase	
Engine:	MAN D2876 LE402, 412 kW (560 Hp)	
Rig and sail dimensions		
l:	48.96 m	
J:	14.95 m	
P:	46.58 m	
E:	16.13 m	
Sail areas		
Fore triangle:	366 m <sup>2</sup>	
Main Sail:	376 m <sup>2</sup>	
jib:	359 m <sup>2</sup>	

Classification: Germanischer Lloyd Hull Construction Certificate

SWAN 130 IS AVAILABLE IN ALTERNATIVE LAYOUTS



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