

SWAN 77 1993

General Specifications:

LOA 24.68m 81ft
LWL 18.89m 62ft
Beam 6.00m 19ft7in
Draft 3.40m 11ft2in
Displacement 51 tonnes
Ballast 18 tonnes
Engine Perkins 162kW/220HP
Fuel Capacity 1740 litres
Water Capacity 1750 litres
Designer German Frers
Located Italy

Swan 77 has an enviable reputation as a charter yacht with repeat clients every year and a crew who really know how to make sure their guests get the maximum out of their time on board. A perfect charter layout with crew and galley forward, the layout also lends itself to longer distance cruising for an owner requiring maximum privacy. German Frers and Nautor have achieved a very special yacht with remarkable speed and power. She has the accommodation of a larger cruising boat with the agility and handling of a thoroughbred, even with a smaller crew.

Refit details 2012 in Scarlino, Italy.

New aft dodger
New awning, mainsail cover and lazy jacks
New covers for helm, binnacle and transom
Complete topside fairing and painting
Complete rig dismantling, sonogram tested and rod rigging replaced where needed
New paint on mast and boom (Awlgrip snow white, gloss)
Vang serviced by Navtec
New profile sections on Reckmann forestay
New mainsail track
New Spinnaker cars
New masthead sheaves
New aft seat cushions
Forward hatch and frame complete removal, service and painting
New plexi hatches throughout
Deck sanded
Interior varnish coats where needed
New lighting fixtures installed on boom for forward and aft cockpits
Four underwater lights installed in stern
Eight spreader lights installed on all four spreader levels
New Raymarine chart plotter in aft cockpit
New Raymarine AIS transceiver installed
Electronics completely re-wired and carefully integrated
New service batteries (GEL)
Dinghy re-fit
New refrigeration control units
New watermaker (Schenker Modular 100 digital)
New dorades and mushroom vents

New hydraulic motors and pumps for Lewmar Commander power pack

Refit details 2008/09

New Microwave oven and other galley utensils.
2 new vhf portable radios
Fold- up bicycle
All new mooring lines and also halyards and sheets.
New canvas sun-awning and windscoops.
New main bilge pump& some shower drain pumps also some head pumps.
New extractor fan x 2 in engine room
New Service battery charger
New air-conditioning unit in Saloon and aft guest Cabin.
2 new televisions (Samsung flat screen) in master Cabin and also Saloon.
New Raymarine Autopilot interfaced with the Chartplotter
New Raymarine Radar interfaced with the Chartplotter.
New babystay and inner forestay

Refit details 2006/07

Reconditioned engine fitted
New running rigging throughout New No1 Sail Sail cover for boom modified Refrigeration
overhaul 2 x new life rafts Replacement dinghy – AB 5.6m inflatable with 60hp outboard
Repairs to aft deck seat covers Installed chart plotter New curtains and some replacement soft
furnishings, seat covers etc Re-varnish interior in Antigua

Refit details 2004.

Complete new teak deck by HYS – Swan Service Centre
Repainted topsides and other painted surfaces
Full Osmosis treatment including rudder
Main engine and generator mounts replaced
New antifouling
New hull port lights
New toilet plumbing
All batteries tested and replaced as required
Sea cocks replaced or serviced as required
Overhaul of fuel system
Bilges treated and repainted
All sea water hoses replaced throughout
Commander hydraulic system serviced
New compass
All lenses in hatches replaced
All interior Halogen lights replaced
New sound insulation on both generator sets
New main engine exhaust line
New forward sprayhood and wind scoop
Racor fuel filters stripped and serviced
All heads serviced
A Navtec hydraulics serviced
New fresh water pumps
Full service to main engine and both generators.
Complete rig and rigging checked (whilst mast was unstepped)

HULL

CONSTRUCTION

The hull is of single skin construction using glass/aramid hybrid fibre reinforced polyester laminate

A high proportion of the fibres are unidirectional, giving a stiff laminate with excellent strength and fatigue properties

A synthetic surface mat is applied after the gel coat for increased resistance against water penetration

Engine beds are of GRP with steel inserts

FINISH

Hull colour is Blue Awlgrip – 2012.

Hull stripes

Bottom treated with epoxy and primed with Blue Micron with an extra coat at the water line – full epoxy treatment by Swan Service Centre 2004.

KEEL

The standard deep ballast keel is a lead casting with antimony

Cast-in keel bolts are of high tensile stainless steel

MAST STEP

The mast is stepped through the deck onto a galvanised steel mast step

Tie rods from the mast collar to step

RUDDER AND STEERING SYSTEM

Rudder of foam filled GRP with high strength stainless steel stock supported by two roller bearings replaced 2005

Weed deflector in front of rudder

Cable steering gear and sheaves provided with guards to prevent jamming

Aluminium steering quadrant bolted to rudder stock

70" recessed destroyer type wheel

Pedestal with roller bearings and friction brake

Emergency tiller stowed in lazarette

THROUGH HULL FITTINGS

Sea cocks of bronze for all through hull connections below the water line, finished flush with outside and located in accessible positions

Inboard side of sea cocks fitted with stud long enough to take two hose clamps

Extended transom including two deck hatches

Bathing platform extends hull to 81 feet in transom without extension

Protection fin for rudder

Two hull windows of dark Perspex

DECK

CONSTRUCTION

Deck is of GRP sandwich construction with foam core and glued and through bolted to the hull

High density core under deck fittings

TEAK WOODWORK

Teak deck including teak on forward and aft coaming

Teak hatch frame, sheet and halyard cleats

Laid teak battens on bridge deck, cockpit soles and seats

Lips each side of sheet tracks

WINCHES

Winches are of Ocean Series Wavespring type

Primary sheet winches 2 x Lewmar 1130 3-2 speed linked to removable pedestals

Secondary sheet winches 2 x Lewmar 1100/3 SST, grinder pedestal driven, including hydraulic drive

Mainsheet winch 1 x Lewmar 700/3 SST - top handle driven including hydraulic drive

Traveller control 2 x Lewmar 44 CST

Running backstay 2 x Lewmar 58 SST

Genoa halyards 2 x Lewmar 66 SST hydraulic, 1 x 2-speed and 3-speed

Spinnaker halyards 2 x Lewmar 66 SST, 2-speed

Main halyard 1 x Lewmar 66 SST, 2-speed

Spinnaker pole lift 2 x Lewmar 54 CST

Additional staysail halyard and foreguy winches 2 x Lewmar 54 CST

Commander 6-7 function 3076 including PTO interface to drive:

- 2 x secondary winches

- 1 x mainsheet

- 2 x halyard winches

- 1 x headsail furling (Reckmann RF90-3 R5 160 bar needed)

- 1 x anchor windlass

Eleven Safety switches

Recessed anchor windlass Lewmar 3000 MK2 vertical driven from the commander including remote control and one pair of Lewmar electric safety switches.

DECK HARDWARE

Removable deck fittings for spinnaker and jockey pole

Flush mounted stainless steel Genoa T-tracks

Flush mounted additional stainless steel Genoa T-track at station 6.8 to 7.8

Screw-in fittings at station 4, 6.5, 7 and 7.3 for additional sheeting possibilities (including eight sockets and four removable blocks)

Flush mounted stainless steel staysail T-tracks

Foot block at forward end of genoa tracks for car adjustment (Harken 508)

Two Jammers/Spinlock for spectra lines

One additional pair of fairleads on the stern

Flush mounted stanchion bases

Radar post with lifting arm on aft deck - horizontally adjustable from Navtec panel

Backstay adjuster installed under deck

OTHER FITTINGS

One winch handle holder on mast, two in aft cockpit

Teak toe rail with open roller fairleads forward, amidships and aft

16" Aluminium mooring cleats two on foredeck, two amidships, two aft

Pulpit, pushpit and lifeline stanchions 750mm high of stainless steel with bases bolted through deck

Pulpit of open type and equipped with seat

Stainless lifelines - 8mm top and bottom

Gates in lifelines each side amidships

Socket for flagpole on pushpit

Stowage for two eight-man life rafts in cockpit lockers

GRP MOULDINGS

Hood for companionway hatch, Dorade ventilation boxes, lazarette and cockpit stowage hatches

HATCHES AND WINDOWS

Fully flush mounted Goyot hatches - all lenses new 2001

Two hatches to forward storage space

Foredeck hatch Rondal - painted Awlgrip October 2002

Two Goyot Cristal hatches to forward toilet (flush mounted)

Two deck prisms

Four Goyot hatches to forward guest cabin toilet and galley (flush mounted and hinged at forward edge - painted Awlgrip October 2002)

Two Goyot hatches to saloon (flush mounted and hinged on aft edge)

Four Goyot hatches on coaming at centre cockpit

Two Goyot hatches in centre cockpit starboard side at station 7.2 - painted October 2002

One Goyot hatch on bridge deck (flush mounted and hinged on aft edge)

One Goyot hatch at forward end of aft cockpit - painted Awlgrip October 2002
Ten Goyot windows with special drains drilled - painted Awlgrip October 2002
Two storage lockers in aft cockpit port coaming
Two hatches to lockers at main entrance (starboard locker insulated)
Two lockers under aft cockpit seats (life raft stowage)
Two hatches in helmsman seat
Two hatches to lazarette storage area
Recessed shore power intake with a hatch

ANCHOR WINDLASS

Recessed electric windlass replaced in 2006 with single gypsy and rope drum
Hand control with 3.5m cable
Chain locker with hatch

MISCELLANEOUS AND GENERAL

Vang quick release and Lewmar emergency stop on starboard panel locker
Stainless steel bar as foot support in the aft cockpit (removable)
Stainless steel plate on deck as protection for anchor chain
Steering wheel with double spokes
Deck fittings for harness attachment
Outboard brackets with stainless steel protection
Two teak seats in pushpit corners

INTERIOR

GENERAL

All joiner work is done in accordance with the best yacht practice, using first grade materials
Teak with hand rubbed satin finish is used for all visible woodwork
Floorboards with laid teak veneer, providing access to bilge - all have been covered with ProtectaSurface since new
Topsides where visible lined with teak battens
Roller blinds/mosquito screens for hinged deck hatches from 0.5m width upwards
Doors, partitions and panelling throughout are teak faced plywood
Structural battens are of foam cored sandwich construction
Door sills have stainless steel chafing pieces
Self engaging latches with bumpers to hold doors in open position
Hanging lockers are equipped with rods and hooks and have bottom drawers where possible - doors provided with louvres
Shelves with Perspex or teak front
Nautor made door knobs
GRP and plywood boxes in bilge
Covers for saloon and cockpit tables
Covers for seats in saloon and navigation area
Curtains

FORE PEAK

LPG bottle and general stowage
Watertight collision bulkhead aft

FORWARD GUEST CABINS

Fixed lower double berth with two drawers and a lid
Fold-up upper berth
Hanging locker in starboard side forward
TV and video installed above desk (roll tops), copper tone mirror between deck and TV locker, drawers under desk

CREW CABIN

Roll tops for TV and video
Wooden berth on starboard side with lockers and drawers below
Table convertible to double berth

Floorboards lowered 5cm to give height of 193cm
Fold-up upper berth on port side and separate backrest against hull
Full length copper tone mirror on toilet door facing crew cabin
Chain box with lighting
Boarding/bathing ladder on aft bulkhead
NOTE – videos in all cabins replaced with multi region DVD players in summer 2005.

GALLEY

Corian Sierra Oceanic Blue working surfaces and sliding doors

STARBOARD SIDE

Fridge - plate on backside perforated
Ceramic electric hot plate installed with Corian cutting board with drawers under
Three extra drawers
Force 10 gas stove - New 2002
Microwave - New 2002

PORT SIDE

Locker forward
Stainless steel sinks installed below Corian surface
Waste disposer installed in forward side
Pull-out rubbish bin aft
Stainless steel plate rack with GRP bottom drained to the sink
Upper shelf teak
Freezer - 240 litres, below floorboards
Additional freezer (100 litres) aft of standard freezer
SALOON
Dining table folds and lowers to form coffee table
Starboard aft locker built for entertainment centre
21" TV installed in aft locker on port side
Hull window surrounded by teak
Main entrance ladder with six steps with stainless steel handrails
Polygrip anti-slip material on steps

NAVIGATION AREA

Roll tops for instruments
Horizontal chart stowage
Storage drawer in navigation seat

CAPTAINS CABIN

Lower berth with two lids on front
Settee/berth starboard side
Hanging lockers each side with drawers below
Isolation of aft bulkhead

Upper berth of Pullman type
Safe with combination lock (A4 internal size)
Passage door with stopper in open position

OWNERS CABIN

Double berth of dimensions
- length - 200cm
- width at foot end = 120cm
- width at middle = 132cm
- width at head end = 162cm
Height = 70cm
Drawers and locker under berth
Hanging locker and locker with shelves on port side with drawers below
Locker above double berth on port side
TV installed in the middle aft with roll tops

Desk with locker under TV
Video and stereo set starboard of TV with roll tops
Sofa on starboard side with lockers above
Coffee table
Hanging locker forward in the middle with shelves to starboard - lockable door
Copper tone mirrors on forward bulkhead and hanging locker door

HEADS

Crew Cabin
Mirror behind toilet
Par toilet with hand pump
Owners, Guest, and Captains Cabins
Vacuflush system
Drawers beside wash basins
Corian Sierra Oceanic Blue horizontal areas with Glacier White basins
Perspex shower screens come out to basin counter edge and cover upper section
Tiles for toilet compartments
Two small vertical hand holds and one long towel rail of white plastic
Shelves in white Perspex
Small rubbish bin on back of locker door below sinks

ENGINE

GENERAL

Engine space internally sound insulated
Drip tray with manual discharge pump under engine
Propeller area sound insulated

MAIN ENGINE

Perkins 4 M240 Ti 164 kW/220BHP (New recondition engine fitted in Palma October 2006 by Palma Perkins Agent) with Hurth HSW 800 A (new 1999) reverse/reduction gear 2.85:1

EXHAUST SYSTEM

Wet exhaust system with fibreglass silencer, discharge under transom

COOLING SYSTEM

Thermostat controlled fresh water-cooling with heat exchanger (new 2002)
Discharge through exhaust system

FUEL SYSTEM

Fuel capacity 1740 litres in two tanks with filter lines and shut-off valves for each tank and remote shut-off valves installed 2001
Fuel valve chest with return valve for each tank
Two Racor 2010 fuel filter/water separators with water alarm on feed lines to engine and KWA-50 for diesel generator
Fuel transfer pump

STARTING SYSTEM

The engine and diesel generator have their own starting battery sets - New 2002
Main engine with spare starter motor

ENGINE COCKPIT CONTROLS

Engine control On/Off
Start and stop buttons
Paralleling button for start and service batteries
Single lever control of throttle and gear shift
Coolant temperature gauge
Oil pressure gauge for engine
Warning light and audible alarm for low oil pressure/high coolant or exhaust temperature
Control light for starting and service battery charging
Fuel tank gauges

STERN GEAR

Propeller shaft made of high tensile corrosion resistant steel with flexible shaft coupling (New 2000)

Three bladed propeller type Max Prop

Shaft seal type OSS high speed 2" - New 1999

PLUMBING

GENERAL

Sea water hoses of reinforced PVC tubing

Fresh water hoses of nylon and copper tubing

All fuel and water tanks are of welded stainless steel and provided with baffles, inspection covers, sounding plug and vent pipes

Shower sump tanks are of GRP, integral with the moulded floor liner

FRESH WATER SYSTEM

Fresh water capacity 1740 litres in two tanks with one filler line from the deck and suction pipes on two levels on one tank

Empty water alarm

Tank vent pipes end at galley sink

Sigmar water heater with capacity of 80 litres, 1.2 kW - New 2000

Deck shower in aft cockpit on starboard side for fresh and sea water with permanent connected hoses - New 2002

Deck shower in aft platform - New 2002

Second water pressure pump installed in parallel - New 2002

Drinking water purifier with outlet in galley

Additional city water connection on deck opposite antenna post on starboard side

WATERMATER

Schenker Modular 100 digital 2012.

SEA WATER SYSTEM

Flowjet deck wash pump

Seawater spout in galley with 2m hose

DRAINAGE SYSTEM

Galley sinks drained through seacock

Wash basins and showers drain to sump tanks - capacity about 70 litres each

Sump tanks emptied by electrical pump or manual Whale pump

Outlet above waterline

BILGE PUMPS

Three bilge pumps - two manual type Whale Gusher Titan and one electric submersible type Jabsco 4000 with automatic switch

One additional bilge pump - electrical Par with automatic switch

Engine driven bulge pump (Jabsco)

Food waste disposer - type Disperator 77 - New 2001

Auto stop with vacuum switch for sump tank pumps

TOILETS

Vacuflush 506 toilets with connection to freshwater system

Crew toilet - manual PAR

Midships toilet starboard side - discharge alternatively to stainless steel holding tank

Holding tank emptied by electrical Vacuflush pump

Deck suction

Mistral over head showers

Sump tank pumps

VENTILATION

GENERAL

Natural ventilation in cabins with Dorade type inlets - all with Hella Turbo fans

Exhaust ventilators in heads and in galley with Hella Turbo fan

ENGINE ROOM

Air inlet water trap, outlet with blower installed with remote shut-offs for MCA in 2000

Separate outlet for diesel generator cooling air installed with remote shut-offs for MCA in 2000

BATTERY BOXES

Ventilated to mast

AIR CONDITIONING

Marine Air air-conditioning type Vector VHE 12-H, 220VAC with ECU-VR control units - total capacity 48000BTU including shore power intake

- One unit for Owners and skipper cabin
- Two units for saloon and aft guest cabin
- One unit for galley and crew cabin
- One unit for forward guest cabin

Possibility to run fans via inverter

REFRIGERATION

220V refrigeration/deep freeze unit with single 30D compressors

Refrigeration system was overhauled in 2006 with a new engine driven compressor.

Freezer under floorboards in galley - 240 litres

Additional freezer aft in galley - 100 litres under floorboards

Electric pump for fridge drainages

The new drinks fridge has a freezer compartment for ice making

ELECTRICAL

GENERAL

24V DC system with two-wire insulated return

New service batteries September 2000

Wires are dimensioned to minimise voltage drop

220V AC is a three-wire system

For lightning protection, the headstay, backstay, main shroud chain plates and mast step are grounded to ballast keel bolts with heavy cable

ELECTRIC CONSUMERS

Inverter Mass 1500 VA 24/220V for TV and video - New Mass 2500VA 2001

Inverter Mass 3000 VA 24/220V including transfer switch for microwave, trash compacter

Miele Washing machine only - no dryer

Westerbeke 20 BED-514 220V 50Hz with power take off for Commander

Dolphin and Lombardi 220V 50Hz No 2 Gen 8kVA - New 2001

Electric ceramic hot plate and galley extractor

Separate battery bank 320Ah for radios including charger MASS 24/50 - New 2002

Miele microwave

Diving compressor - Bauer Purus

220V outlet in printer drawer for VHD charging

Note June 2009:

New 24/50 Radio Battery Charger (Mastervolt) Another New 24/70 Service Battery charger (Mastervolt) 2 x 12V Starter batteries for Westerbeke generator 1 x 12V Starter Battery for Lombardini generator

PUMPS

Electric bilge pump - submersible - and PAR pump

Water pressure pumps - New October 2002

Sump tank pumps

Deck wash pump

Holding tank discharge pump

Four toilet vacuum pumps

FANS

Engine room

Diesel generator

Heads

Galley

DC Motors

Auto pilot hydraulic pump

PANELS AND CONTROLS

DC Main Panel

Located near the navigators space and protected by Perspex doors

Switches of trip-free circuit type

V- and A-meters of digital type

Main switch and fuses located in locker near switchboard

Switches for interior and navigation lights

Bilge water warning light with audible alarm

Cockpit Panel

Switches for mast flood light, spreader lights and foghorn

Remote gen controls and power take-off

Diesel Generator

Diesel generator controls with oil pressure, coolant temperature, hour and V-meter

AC Panel

Located near the DC panel and protected by a Perspex door

Switches of tri-free circuit type

One V-meter

One frequency meter

One A-meter

LIGHTS

Interior

Light dimmer in Owners cabin (two in saloon)

Lights beside mirrors in heads

Two Luff lights

Reading bed lights and bulkhead lights

Exterior

Nav lights - side, stern, bow and masthead

Spreader lights

Floodlight down

Windex light

Windlass locker light

All deck locker lights

INSTRUMENTATION

NAVIGATION

B&G Hydra Cruise Pack - plus extras comprising:

- Sonic transducers (excluding Hydra Cruise package sensor)

- Sea temperature sensor

- Depth transducer

- Masthead unit

- Halcyon compass sensor

- 6 x FFD (one piece in the package) positioned as:

 - 1 x crew quarters

 - 1 x skippers cabin

 - 2 x chart table

 - 2 x compass crash bar

- 6 x 20/20 displays positioned as:

 - 3 x companionway

3 x mast

- Analogue 360 wind display starboard of mainsheet winch
- Analogue 45 magnified wind display starboard of mainsheet winch

NOTE – 2 B and G units at wheel replaced 2005.

Additional depth transducer forward of rudder with change-over switch

Shipmate GMDSS Dual station Sigmar VHF radio telephone (new Summer 2005)

Antenna installed at the top of the mast and loud speakers on the deck and at the chart table

AP Phillips Mk 6 GPS navigator

Raymarine Radar is interfaced with the E120 Chartplotter 2008/09

Barograph - Sprecher Meteostar (Electronic)

Windex and light

New 2009 Raymarine E120 chart plotter to nav station

COMMUNICATION

SSB Sailor radio telephone connected to insulated backstay

New Iridium satellite handset - 2006

NMT antenna on the mast including wiring to navigation area and converter

ENTERTAINMENT SYSTEM

Pioneer stereo mixing amplifier

Alpine woofer/tweeter loud speaker combination - one in each corner of the saloon

Alpine car/stereo/CD changer/equalizer combination connected through the mixing amplifier

2 guest cabin and 1 crew cabin TV replaced summer 2005.

Pull down screen width 160cm on port side

DVD player

OWNERS CABIN

Alpine car stereo/CD changer/ equaliser combination

Two Alpine 3-way loudspeakers

TV and Video

CREW CABIN

Alpine car stereo/CD changer /equaliser combination

Two Alpine 3-way loud speakers

TV, VCR

Forward Guest Cabin

TV, VCR

Aft Guest Cabin

TV, VCR

COCKPITS

Two Sony waterproof speakers in aft cockpit and two pieces in forward cockpit with QEM speaker switch and stainless speaker covers

RIG

MAST – see refit notes at start of specification

New mast and all standing/running rigging - May 2000

4-spreader mast

I = 31.0m P = 28.4m E = 9.1m

Oval section with external stemball tang and Harken 758 track for full batten mainsail

Tapered and welded masthead with two spinnaker cranes and three halyard sheaves

Internal wiring shielded in PVC tubes secures to mast

Open spreaders with adjustable longitudinal angle

Spinnaker gooseneck tract on forward side

One toggle pin for jockey pole

Neoprene mast boom with Dacron cover over adjustable deck partners

BOOM AND POLES

Main Boom

Oval tapered white painted section with internal three part outhaul led to Lewmar 30 CST winch and arranged for slab reefing with three reefing lines

Poles

One spinnaker and one jockey pole (painted - Awlgrip October 2002) of round white painted section with appropriate fittings

Spinnaker pole in carbon fibre

HYDRAULIC SYSTEMS

Hydraulic furling headstay (Reckmann RF90-3 profile R5)

Navtec hydraulic system VI including Cunningham, outhaul in main boom and radar adjustment

Quick release for vang

Try-sail track on port side of mast

SAILS

Doyle Main 2001

New #1 - Doyle D4 - not used as Dec 2006.

#2 1993 battened – condition unknown

New #3 Elvstrom Sobstad 2006

#4 1993 – serviceable for deliveries

Spinnaker 0.75 oz 1993

Spinnaker 1.4oz 1993

EQUIPMENT AND MISCELLANEOUS

Cockpit table in centre cockpit

100m of 12mm high tensile chain

Spray hood for main companionway and aft cockpit with clear vision panels front and sides (Heights 157cm) and a zip on aft edge

For all berths except pipe cost, canvas or teak leeboards and mattresses

Halon total flooding system for engine and generator space with remote control at entrance

Hard weather safety lines

Gangway - Whittall 3m folding teak to be stowed in bow locker

Stainless steel bars in forward locker

Fire extinguishers

Cockpit cushions for aft and centre cockpit with backrests cushion to cover cockpit table and cushions for pushpit seats

Canvas covers for the compressor, gangway and fenders

Portable bilge pump

Banana, donut and mantaray for towing behind rib