

# S/Y Schwambo

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**For those  
who know  
the difference!**

- seaworthy
- comfortable
- reliable
- low maintenance

**FOR SALE!**

A sturdy, shallowgoing yacht equipped with reliable sailing gear, a heavy mainengine which runs when its needed, a small bowthruster with 16 hp (!) and windlasses which do not run out of power even after a necessary third try, ideal for cruising and anchoring without staying in crowdy marinas.

(See "Specifications" and "Layout"!)

Designed by the German naval architect K. Reinke for safe cruising on long distance trips and custom-built by a German Shipyard according to the highest standards of seaworthiness and quality, SCHWAMBO is the ideal sailingyacht for hasslefree travelling at sea. (See"History" and "New design"!)

National EU registration, payed VAT, approved materials together with a customised layout show her values: a unique sailingyacht in her class! Click on "Technical details"!

Well priced. Visit us and feel free to make your offer. We are looking forward to invite you for a meeting and a sailing test.

## History of basic design

The first Hydra was designed by the German naval architect Kurt Reinke, Bremen, in 1972 - 1974. It was a multichine construction with a centrecockpit and an additional aft cockpit for the helmsman and a conventional keel with 2,2 meter (7'3") draft.

The idea was to create an extremely seaworthy as well as a fast sailing yacht: a cruiser-racer. The world aluminium prices were high, but the owner choose aluminium, still today's best material.

The hull became a modernised replica of Colin Archers world famous rescue-boat-type, hull length 14 meter and beam 4 meter, hydrodynamically same shape. The original displacement of 36 tons was reduced to a construction displacement of 13 tons.

Seaworthiness was even increased by adding a whaledeck, commonly used for fishing vessels and the famous German rescue boats of these times, the Theodor Heuss-class and later the bigger John T. Essberger-class.

The original Colin Archer sailing-rescueboats were successful even into the late Thirtys of the last century, picking up sailors in the wintertime from wrecked steamers off the Norwegian coast.

The whaledeck gives additional floating power, even if the boat is heeled to an angle of much more than 90 degrees. That means she will come up again fast and easily after being rolled over by a freak wave. She fullfills the highest classification class "0" Trans-ocean, which is even above the former highest standard "1" High Sea.

In these days the designer Reinke had the chance to do tests on the Hydra hull design with models in a test tank at a British University. So, it was no surprise that the first Hydra, as a fully equipped cruiser with all necessary facilities for best comfort, won the Victoria/Maui race 1975 by calculated time against many real racers, as reported by the American magazine „Sailing“.

## New design and customised layout of Schwambo

It was the basic idea of the owner to build a sailing yacht with the highest amount of comfort: the extreme seaworthiness avoids stress and hassle even in very foul weather conditions. Cruising means to the owner to reach a destination without being exhausted from fighting against the sea.

Schwambo can be easily sailed by one person. A crew of two is ideal. Everything can be controlled from the cockpit with little power due to the use of oversized, best quality fittings from HARKEN, the two furlers, the nearby mainsheet gear and the hydraulic winch for the mainhalyard and the automatic single-line reefs.

All Hydras have a flush and clean deck, without any bulky equipment. The original one had a detachable small windshield. Schwambo has a low, tough windshield. Low enough to give good view around when doing "happy sailing, but ideal for protection in foul weather conditions, similar to the construction on the SUPER MARAMU, Shipyard AMEL.

To increase space inside the boat and make it a real comfortable cruiser, Schwambo does not have an aftcockpit, but asymmetric twin bilge keels with a Naca-profile, thus making her the latest edition of the famous Hydra design. This gives a shallow draft for safe sailing in beautiful, shallow waters like the Bahamas or the Motus of the Pacific. The previously used symmetric keels were not useful. With the new asymmetric keels the Hydra sails very good on up-wind courses. An additional positive effect of the twin bilge keels is reduced rolling, anchored in a swell.

The original rigging as a sloop with self-tacking jib was changed for the new Hydra types by adding a solid aluminum bowsprit and a cutterstay. This is the new type "semi cutter SC, giving increased comfort by the bow platform (safe bracket for the anchors and comfortable platform for entering and leaving when berthed bow-to).

The owners choice of a big-vessel-type hydraulic system makes anchoring and berthing easy: windlasses and bowthruster are much stronger and the chains are much longer than the usual ones used on this size of yachts. And they can work permanently without running out of electrical power. Setting and reefing the mainsail are very easy by using the strong hydraulic winch, if necessary.

Once installed properly the hydraulic high pressure system (250 Bar, 4.800 psi) works for many years without any maintenance. A change of oilfilter once a while and a change of oil every five to ten years, only. Due to the manual overrides at the valve controls, the system is even able to work when all electrical power sources broke down. It is driven by the high class Diesel-mainengine which keeps running even, if all of its electrical equipment is flooded.

To avoid the danger of fire aboard, all hydraulic lines and even fuel lines are made of steel and all electrical equipment is installed according to IP67 and IP68, waterproof. All cables are well sized heavy gauge rubber coated cables according to Germanischer Lloyd. Additionally all cables run in heavy plastic hoses type German PG Wellrohr for protection and easy replacement.

Simplicity, reliability and best quality systems guarantee hassle-free sailing and cruising-fun without permanent repairs to a crew of two!

## Specifications

### *Registration and Value Added Tax:*

National registration in the European Union. VAT payed!

### *Valuation survey report September 1996*

by a non-exclusive Det Norske Veritas-surveyor:

Replacement value: US \$ 635.000, (w/o VAT!), market value: US \$ 595.000,--

### *Design*

Designer: Kurt Reinke, Bremen, Germany

### *Construction*

- Aluminium-sailing yacht type "Hydra SC ASY-Twin"
- Whale decker, designed for a maximum of seaworthiness class "0 Transocean"
- Multichine construction with asymmetric twinkeels (NACA-profiles); 2,6 tons lead, each
- Plates: AlMg4,5Mn
- Frames: AlMgSi1,0 (F 28-32)
- Frame distance: 40 cm (16")
- 4 watertight aluminium bulkheads!
- Centrecockpit; solid alu-framed windshield with combined bimini/sprayhood
- LOA: 15,5 m (51 feet)
- Hull length: 14 m (46 feet)
- LCWL: 12,4 m (40 feet 10")
- Beam: 4 m (13 feet 2")
- Draft: 1,36 m (4 feet 6")
- Standing headroom: 1,95 m (6 feet 5")
- Total displacement: 17 metric tons

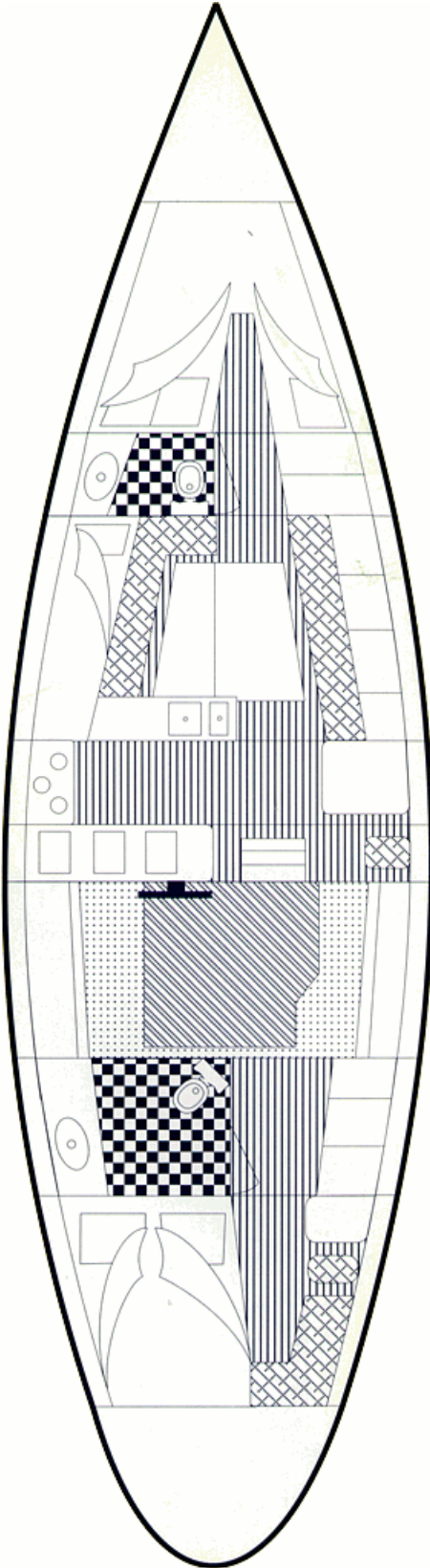
### *Shipyard*

KMS Bootsbau GmbH, c/o Hugo Peters, Wewelsfleth (near Hamburg), Germany

Hull built in 1994

Interior and rigging finished September 95

Layout



## Technical Details and Equipment

### ***Rigging***

Mast:	SPARCRAFT 16 m (53 feet), on deck, 10,5 kg/m (7,0 US lbs/foot), HARKEN battcar batten traveller system;
Boom:	ISOMAT with automatic reefs; single line reefs inside boom; springloaded boomvang;
Shrouds and stays:	Shrouds, two forestays and two aftstays (one insulated): 10 mm (about 3/8");two fixed backstays: 8 mm (about 5/16"); NORSEMAN-terminals and ACMO-toggles
Cutterstay and forestay:	HARKEN furlers, mechanical, Units 2.5
Selftacking jib:	HARKEN rail and traveller, big boat
Main control:	HARKEN rail and traveller, big boat
<b>New 2011:</b> Whiskerpoles:	2 pc. Alu, custom-made by MARINOX, Majorca with fittings from PFEIFFER, Germany; 4,5-8,0 m (13,5-24)

### ***Sails, Running Rigging and Fittings***

Cuttersail:	Allrounder with yankee cut, 2 x 64 squaremeter (2 x 678 squarefoot) with one luff, 220 gram/squaremeter (4,8 US-oz/squaremeter) with two port and starboard sheets
Jib:	Selftacking jib 31 squaremeter (334 squarefoot), 400 gram/squaremeter (8,7 US-oz/squaremeter)
Storm jib:	15 squaremeter (162 squarefoot) with hose-system, fits on furled-in jib
Blister:	150 squaremeter (1614 squarefoot) with blister-hosesystem for easy handling
Mainsail:	Fullbatten main with three reefs, cunningham and flattening and lazy jacks, 33 squaremeter (355 squarefoot), 440 gram/squaremeter (9,5 US-oz/squaremeter) Openends main-sheet;
Winches on mast:	ANDERSEN S.S.. two speed, selftailing, size 28 New 2011: ANTAL alu two speed, selftailing, size 40

### ***Cockpit winches***

Mainsail:	ANDERSEN S.S. two speed, selftailing, size 46
Foresails and furler winches:	2 pc. ANDERSEN S.S. two speed, selftailing, size 56
Hydraulic cockpit winch for main halyard and reefs:	HARKEN , two speed, selftailing, size 42
Halyards and lifts:	3 halyards for foresails, boomlift; New 2011: 2 spinnaker halyards, main halyard, 2 polelifts, 2 pole-toppings

All blocks, rails and genoa

railsliders on deck: HARKEN "big boat", 3" and bigger

All cleats automatic: LEWMAR superlock

Fittings, rails and portholes are mounted with s.s. bolts, isolated from deck/hull by nylon bushings KORREX , Germany

All necessary work for sailing manoeuvres can be done from inside the cockpit except catching of sheets with the whiskerpoles!

### **Steering**

Mechanical steering WHITLOCK, Type Mamba with s.s. shafts, Kardan-joints and gears; 3 foot s.s. destroyerwheel with manual clutch

### **Mainengine and Systems**

Mainengine: MTU MERCEDES-BENZ OM 314, 3,9 liter, 4 cylinders, 82 hp (DIN!)  
with 3,5 kW startermotor;  
New 2011: BOSCH 12 V alternator 90 Amps  
Two circuit coolingsystem  
Double seawater strainers, switchable  
AQUALARM sensor 12V for cooling sea water flow  
Double fuelfilter with turbine waterseparator and electrical 12V wateralarm and pressure gauge, SEPAR, Germany  
New 2011: WMMT 2 RM-1/2 magnetic fuel bacteriae killing and purifying unit

Gearbox: NEWAGE PRM 302; 1:2,7; professional hydraulic gear (steel housing!) suitable for 150 kW with power take-off for hydraulic pump

Prop: Maxprop system, 3 blades 23" x 19", nickelaluminium bronze, PROWELL, Bremen; 2 cutlass bearings; packless seal system, flushed by m/e seawatersystem; New 2011: shaft 40 mm (metric) S.S. German DIN 1.4571

Spareprop: Alu fixed 3 blades 23" x 19"

### **Hydraulic System**

100 m (330 feet) of hydraulic steel pipes

Pump: MANNESMANN-REXROTH A 10 VO 28, 35 kW, axialpiston type, flow and pressure self control DFR, mounted at power take-off gearbox.

Hydraulic devices  
driven by this pump:

Two windlasses SEAWAY FRANCIS, 1,8 tons real hauling power, each; bowthruster MANNESMANN HYDROMARINE, 16 hp, thrust: > 150 kP; hydraulic winch HARKEN 42 ST; 2 blocks with three valvecontrols, each, DANFOSS, Danmark, electrical with manual override  
Thick-wall aluminium tank for 90 l (25 gals) of hydraulic oil; oil-

cooler BOWMAN, England, integrated into raw-water system of main engine

### **GenSet**

New 2011: FISCHER-PANDA AGT-DDC 4000-12 PMS with Voltage Control System VCS 12 Volts, up to 260 Amps with 2-circuit cooling system; exhaust gas/water separator for silent use and custom-made automatic pumpout system (12V) for exhaust tank, according to suggestion of FISCHER-PANDA; fuel pre-filter SEPAR, Germany

### **Tanks**

500 l (132 gals) fuel in middle section tank

750 l (198 gals) water: one middle section tank and three combined s.s. tanks aft cabin

### **General Equipment**

Pulpit, pushpit, railing stanchions and foldable step bath ladder 1" aluminum solid material (tubes crease, solid material bends!)

Lifebelt-rail cockpit: 22 mm (7/8") aluminum solid material

Anchor gear: 2 pc. 60 lbs original CQR with 100 m (330 ft) chain, 3/8", each;

Stern anchor gear: TX-engbo electrical windlass 12 Volt/750 Watt, under deck in aft peak with 16 kg (35 lbs) special anchor and 75 m (250 ft) rope, 16 mm (5/8"), inside lead; special TX-engbo anchor gal-low, spring loaded

Docking gear 1 1/2" rope: 1 pc. 120 m (395 ft), 2 pc. 15 m (50 ft) and 2 pc. 30 m (100 ft), 5 fenders, blue, 38 cm (15") dia., 95 cm (37") length, ANCHOR MARINE, England

New 2011: 2 fenders, orange round, 55 cm (21") dia., 70 cm (28") length, POLYFORM, U.S.A.

Big tubular davit: Aluminum pipes 100 x 5 mm and 80 x 5 mm carrying: Radar, antennas, decklight, sternlight, dinghy with mounted outboard engine

New 2011: S.S. crane for outboard engine

New 2011:

Tender: VERGAPLAST Lario 320; Length 3,20 m, beam 1,33 m, height 0,56 m, weight 75 kg Cathedral-hull: 2 thick shells of CYCOLAC Polyurethane (GENERAL ELECTRIC), filled with closed-cell PU foam, unsinkable!

New 2011:

Outboard Engine: YAMAHA 15 FMH, 2-stroke, 15 hp, weight 34 kg with hoisting harness MOTORCADDY Bracket attached to starboard side of pushpit.

### **Pumps and Plumbing**

Forepeak: Electrical big membrane pump RHEINSTROM M50E, 12V, with aluminium housing, 1" i/o, with bilgeswitch;

Aft peak: Same pump RHEINSTROM M50E, with bilgeswitch



Foreward bathroom:	Lavac Zenith vacuum head; New 2011: Original manual WHALE sanitation pump; WHALE Gulper 220 pump with collectortank for easy discharge of sink and chain lockers
Pantry:	Manual HENDERSON Chimp II RH for discharge of pantry sinks;
Seawaterpump:	WHALE Pantry Mark 3
Aft bathroom:	RHEINSTROM M50E waste pump with 2-way valve for easy discharge of shower sink (with bilgeswitch) and LAVAC ZENITH vacuum head
Emergency bilgepump system:	One manual bilgepump RHEINSTROM M50, with thru-deck, in cockpit; Connectingline to main-engine, raw-water system with dividers in engineroom and 1 " sucking lines with valves and bilgestrainers for the watertight sections "forecabin and saloon", "engineroom" and "aftcabin and aftbathroom"
All seacocks and valves:	Reinforced Polypropylen, detachable with 4 S.S. bolts, nylon valveballs and teflon sealings, INTERNATIONAL HOSE AND PIPE, England

### ***Freshwater System***

PAR JABSCO heavy duty washdown pump 3/4" with Swiss s.s. accumulator tank 10 l (2,65 gal) supplies the watersystem including RHEINSTROM waterheater (electrical heating plus two coils for coolingwater from mainengine and optional generator)  
High quality German GROHE faucets at all sinks, onehand operation with removable spout, "fist-shower" type "Uno" (connectors for mouth shower)  
WHALE external shower at the stern  
City water connector  
Additional freshwater supply for both heads: cleans bowls and hoses easily by a few days use in a marina! Eliminates odors!

### ***Ventilation***

3 big hatches 62 x 62 cm (25" x 25"), GEBO, each with combined mosquito screen/darkening shade roller system; 2 small hatches pantry and navigation, GEBO;  
2 NICRO solarvents 4" forward bathroom and forepeak;  
New 2011: NICRO 12V vent 4" aft bathroom;  
12 Volt radialblower pantry with removable S.S. greasefilter; mobile 12V fan HELLAMAR-INE.

### ***Refrigeration***

New 2011: FRIGOBOAT Superfrigomatic W50F seawater-cooled unit with big DANFOSS BD50F compressor in engineroom;  
Big custom-made holdingplate for 2 S.S. refrigeration boxes, 70 l (19 gals) each

### ***Electrical***

#### **AC:**

Marine-type waterheater RHEINSTROM 25 l (7 gals), 240V/ 1000 Watts;  
240 V outlets in engineroom, navigation, galley, forecabin and aft bathroom;

Electrical room: Mainswitch shorepower; voltmeter; 3 amp-meters, thermo-magnetic automatic fuses for all circuits; European ground fault interrupter, type FI  
Shorepower 240 Volt with waterproof box (fuse, ground fault interrupter, control light) and 25 m (82 ft) heavyduty cable and CEE-plugs  
New 2011: Inverter/charger STUDER INNOTEK, Swiss, Type STUDER XTH 3000-12, 240 Volts, 50 Cycles, 2500 Watts permanent

**DC:**

Electrical room: Central panel with thermo-magnetic automatic fuses for all circuits;  
New 2011: Main busbar system, plus and minus with high-amp shunt and 2 BLUESEA Battery Links ACR for new heavy gauge wiring for loads of new GenSet, Inverter/Charger and battery banks

Cockpit: 12 Volt electrical control system for all hydraulic devices

Navigation: Switchboard and navigation lights control board

Bowlight: NIGHTBLASTER Blue Eye Beam 400.000 candle power spotlight with pulpit socket, removable for additional convenient portable operation

All lamps and lights inside: New 2011: Halogen downlights MR11, 12V-20Watts!  
Transistorized tubelight with navy-grade interference suppression, AQUASIGNAL, Germany

All navigation lights: AQUASIGNAL series 40 (anchor light with comfortable automatic daylight switch)

Others 2 utility floodlights on top of davit  
12 V workinglights in aftpeak and forepeak

Batteries: New 2011: 3 pc. 260 Ah for service;  
1 pc. 260 Ah for Inmarsat-C, computer and printer; all these batteries are gelbatteries from EXIDE  
Starter battery mainengine 12V/170 Ah

DCC 4000 amp-hour meter, counting up and down, and voltage meter, with alarms  
All thru-deck fittings, thru-bulkhead fittings, box inlet fittings and all boxes with IPON-fittings according to German standard IP67! (AC and DC!)

**Electronics**

Autopilot system SIMRAD J300 with autopilotmotor NECO, 12 Volt with interfaces to flux-gate compass, GPS and wind-indicator (steering modes: magnetic course, wind and GPS)  
New 2011: SIMRAD fluxgate compas type RFC35N  
SIMRAD wind-indicator with spare unit, depth sounder and speed; SIMRAD GPS RS5800, SIMRAD rudder feed back;  
VHF SIMRAD RS8110 with two handheld units (navigation and cockpit) and Intercom and all U.S., International and private channels;  
VHF handheld ICOM IC-M1EURO  
Radar RAYTHEON 11XX, open array, 24 nautical miles;

GMDSS INMARSAT-C Satcom, TRIMBLE NAVIGATION, USA, with built-in GPS and  
New 2011: Notebook FUJITSU-SIEMENS lifebook S and thermo printer SEIKO DPU 414  
Shortwave transceiver ICOM IC707; original "SMARTUNER" in aftpeak  
New 2011: Plotting system with notebook TOSHIBA Satellite and USB-GPS-mouse with  
software and all international charts  
New 2011: Mobile depthsounder EAGLE cuda 128 with leadbattery and sensor with cable  
Mobile depthsounder ECHOTEST, torche light type  
New 2011: WLAN amplifier-antenna unit with USB-cable for mobile installation on deck

### **Cockpit controls:**

Engine instruments: VDO logic combi, Germany, microprocessor controlled with program-  
mable maximum and minimum alarms, horn and light.

Functions: rpm, start-stop, voltage, temperature1, temperature2, pressure1, pressure 2,  
service hours, engine hours, trip hours, tank gauge, interface for PC.

Custom-built alarm system (horn and light): low seawaterflow engine, water in fuelfilters of  
engine;

Joystick for bowthruster control, IP67, DANFOSS

### **Entertainment:**

New 2011: Car radio with DVD-player and external stereo speakers with 19 monitor, inte-  
grated into salon.

### **Woodwork, Interior and Galley**

All woodwork inside in khaya-mahogany, outside teak; all plywood according to AW100  
standard, SOMMERFELD und THIELE, Germany;  
ceilings and pantry coated with 1,0 mm high quality Formica, MAX Schichtstoffplatte, Aus-  
tria;

Glue: best quality two component epoxy, SOMMERFELD und THIELE, Germany;

Embeddings: sicaflex 260 and 292; 3M 5200

Cockpit gratings and benches handmade

(All woodwork complete: 3400 man-hours) Leecloths at berths in saloon;

Beds f/w and aftcabin: no plywood, but special wooden battensystem with flexible siliconer-  
ubber bearings for yachts, YACHTIFLEX, Germany

Vanity with navigation type desk and mirror, aftcabin

Galley: S.S.-coated working area with integrated S.S. sinks

**LPG SYSTEM:** FORCE10 US-sized gas stove with big oven, model 61350; 120 qt. IGLOO  
box Quickncool (new 2011!) on aftdeck with 4 CAMPING GAZ LPG tanks, 3 kg each (total:  
26,5 lbs), German LPG regulator and solenoid valve;  
onepiece! copper gasline and TRUMA, Germany 12V DC gas-control-system inside galley

### **Painting and Varnishing**

Woodwork inside: Two component Polyurethane varnish, matte, ARTI, Germany,  
minimum 5 coats; bathroom: 7 coats

Teak woodwork

instrument panel cockpit: AWLBRITE PLUS KIT: 11 coats

Hull:

*Above waterline:*

Preprepared with zinc-cromate self-etch primer; HEMPEL: light  
primer and polyurethane paint, white; deck: additional semi-  
gloss white nonskid with pumice

*Below waterline:*

Sandblasted and downwash with phosphoric acid;  
AWLGRIP: 2 coats hullgard extended recoat; 3 coats hullgard  
water barrier; applied airless with gun after phosphoric acid  
etching; all 5 coats together: 26 gals (100 l)!  
JOTUN: 2 coats intermediate primer; 4 coats special antifouling  
ALUSEA classic: black, blue, black, blue: 10,5 gals (40 l)

### ***Upholstery and Canvas***

New 2011: Combined bimini/ sprayhood plus zippable aft piece to close like a dodger, stack pack with additional big mast collar and windshield cover, heavy STAMOID, sand, Switzerland; Awning from mast to stern with sides down to railing, SUNBRELLA, blue; many multiple bags for sheets, halyards and ropes, SUNBRELLA, sand, with mesh bottoms

Mattresses of berths  
forecabin and aftcabin: 10 cm (4") PU-foam with cotton cover and cloth-cover with zips

All other berths,  
seats and backrests: PU-foam with cloth-cover and zips, 5 - 10 cm (2" to 4")

### ***Safety***

Liferafts: BFA Ballonfabrik Augsburg, Pacific 6, in cockpit; recent service;

Others: 4 lifevests; 2 lifebelts; 4 lifelines; Jackline 1" from bow to stern; 100 m (330 ft) rescueline, yellow, 8 mm (5/16"), on S.S. drum; FORESPAR crew overboard pole with drogue on port aftstay SEA-MARSHALL rescue system with 2 around the neck antennas

New 2011: EPIRB ACR Satellite 406, registered

New 2011: Second magnetic compass SUUNTO in cockpit, lighted;

Third magnetic compass SUUNTO above navigation seat (bearing type); 2 fire extinguishers 2 kg (5 lbs), each; 1 automatic fire extinguisher 5 kg (11 lbs) in engine room

New 2011: Smoke detectors in all compartments

Complete set of flares for High Seas

Huge wire scissors FELCO C 112, Switzerland for cutting steel wire up to "

### ***Comfort Equipment***

New 2011: Scuba diving equipment including 10 litres pressure tank and buoyancy compensator device

New 2011: Flexible water tank, PLASTIMO, 150 litres for transporting water with dinghy

New 2011: Electrical handwinch 12 Volts Magicwinch JPROP, Italy; cable reaches from cockpit even to mast winches

New 2011: Custom made alu foldable trolley with heavy foldable plastic boxes for easy shopping

Fishing rod holder

Drill stand and vise in electrical room

Chain hoist and balancer for mainengine and genset

Much more than all necessary spareparts on board!

Much more than all necessary tools on board!



### *Most important:*

Complete documentation including pictures, plans, schematics, manuals, delivery notes and invoices for the yacht and all of its equipment on CD!!!

Yacht is prepared for the following options:

Controlled outlets for an additional hydraulic motor in engine room (to drive pumps, small generators, .....)

Important remark:

All gallons, ounces and lbs are US measurements!!