

# DESCRIPTION



## CATANA 431 "PRESTIGE"

Owner's version, 3 cabins

Architect: Christophe BARREAU

Ocean going catamaran

"EC" approved construction, category A (high seas)

Unsinkable: vacuum bagged sandwich throughout

Construction: TWARON® Impact process

Black fiber System carbon mast and boom

10 years warranty on structure

## ***CARACTERISTICS***

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LOA:	13,10 m, 43 ft	Sails surface, broad reach:	202 m <sup>2</sup> , 2174 sq ft
LWL:	12,80 m, 42 ft	Motorization:	2 Volvo 40 HP
Maximum beam:	7,30 m, 24 ft	Water capacity:	2 x 300 L, 2 x 80 gal
Displacement:	8 000 kg, 17640 lbs	Fuel capacity:	1 x 350 L, 92 gal
Draft, daggerboards up:	1,20 m, 4 ft	Refrigerator – deep freeze:	1 x 200 L + 1 x 100 L
Draft, daggerboards down:	2,20 m, 7 ft	Water-maker:	27 l / h, 7 gal/h
Clearance from waterline:	19,50 m, 64 ft	Power generator:	1500 rpm, 3,5 kWh
Mast height:	17,60 m	Water central heating:	fuel, 2 x 4kW/h
Sails surface, closed reach:	118 m <sup>2</sup> , 1270 sq ft	French flag	

## ***OUTSIDE***

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### **Sails by *INCIDENCES***

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- Full batten SPECTRA mainsail 72 m<sup>2</sup> / 775 sq ft, triples stiches and circumnavigation finish
- Genoa 46 m<sup>2</sup> / 495 sq ft SPECTRA, radial cut with and UV protection sheet, triples stiches and circumnavigation finish
- Self tacking jib 30 m<sup>2</sup> / 323 sq ft, DACRON
- Symetrical triradial cut spinnaker, 130 m<sup>2</sup> / 1400 sq ft

### **Mast and rigging**

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- Carbon mast black varnished by ESPACE COMPOSITE
  - High beam deck projector
  - Masthead tricolor and mooring lights
  - Steaming light
  - Radar and antennas support (VHF, HF, GSM)
  - Wind vane and anemometer
- Ball and socket laid mast
- Mainsail on HARKEN battcar system
- Profurl genoa roller system
- Carbon boom black lacquered
- Carbon front cross-beam, white lacquered
- Forestay in stainless steel rod
- 2 stainless steel upper shrouds, 1 strand covered with white vynil

### **Manœuvres**

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- Mainsheet on traveller and track
- HARKEN genoa roller system
- Automatic 3 sheets reefing system on electrical HARKEN 2 speed winch, manoeverable from the cockpit
- Mainsail head block (2:1 hallyard)
- Battened mainsail red lazy bag (2007) with lazy jacks adjustable from mastfoot
- dyneema halyards (mainsail, genoa, spinnaker) and reefing lines
- Double braided mainsail and genoa polyester sheets
- Spinnaker furling sock

### **Outfittings**

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- Top quality gear, all selftailing winches by HARKEN in black aluminium
  - 2 \* 48.2 STA to handle the genoa sheets
  - 1 \* 48.2 STAE electric to handle mainsail halyard and reefs
  - 1 \* 46.2 STA to handle mainsheet
  - 1 \* 46.2 STA to handle mainsheet traveller
  - 2 \* 44.2 STA to handle spinnaker and daggerboards
  - 1 \* 44.2 STA to handle genoa, spinnaker and jib halyards, on mast
- Mainsail sheet ball bearing tackle with track and traveller by HARKEN

- Full genoa gear (ball bearing blocks, tracks and travellers) by HARKEN
- Full self tacking jib gear (ball bearing blocks, track, traveller and stopper) by HARKEN
- Full spinnaker gear (roller, blocks, guys and stoppers, cleats) by HARKEN
- 20 stoppers (SPINLOCK XC)
- 18 opening hatches by MOONLIGHT:
  - 2 opaque deck hatches (620mm x 620 mm / 24.4" x 24.4") accessing front lockers, with vents
  - 2 teck slatted hatches accessing machine rooms (620 mm x 620 mm / 24.4" x 24.4")
  - 2 ventilation and emergency escape hatches laid on the inboard side of each hull (500 mm x 370 mm / 19.7" x 14.6")
  - 2 roof front portholes (450 mm x 320 mm / 17.7" x 12.6"), for salon ventilation
  - 4 giant "seaview" portholes on the outboard side of the cabins and owner's bathroom (1200 mm x 400 mm / 47.3" x 15.7") for light and ventilation
  - 2 portholes (600 mm x 180 mm / 23.6" x 7.1") in the cockpit for aft cabins ventilation
  - 4 portholes (380 mm x 180 mm. / 15.0" x 7.1") in the companion ways and guest bathroom

### **Deck fittings**

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- 2 white covered stainless steel lifelines above the front cross-beam
- Flat braided nylon lifeline around the roof
- High comfort trampoline attached mesh by mesh
- Forward and aft pulpits in strong stainless steel pipes
- 2 forward Swedish pulpits with teck seating
- Toerails and handholds in solid teak
- 8 \* 60cm/23.6" stainless steel stanchions on the sides and 4 at the stern
- Double white covered stainless steel lifelines all around the bridge
- 8 large mooring cleats 450 mm / 17.7"
- 1 large mooring cleat in front of mast
- Chainplates for safety harnesses or boom bowsing lines
- 60 cm / 23.6" high robust nylon safety nets all around, tightened to double lifeline and stanchions

### **Mooring**

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- LEWMAR 1500 W electric windlass with safety

- breaker and handheld remote control
- 3 strands 18mm polyester bridle with rubber dampers
- Chain roller fitted under front cross-beam
- 3 mooring sets in locker at mast foot:
  - 1 \* 25 kg / 120 lbs DELTA anchor equipped with 50 m / 165 ft chain (marked every 5 meters), diameter 10mm / 0.4 inch spliced to 50m / 165 ft 3 strands black nylon diameter 18 mm / 0.71 inch
  - 1 \* 25 kg / 120 lbs BRITANY anchor equipped with 10 m / 33 ft chain, diameter 10mm / 0.4 inch spliced to 50m / 165 ft 3 strands black nylon diameter 18 mm / 0.71 inch
  - 1 \* 7,6 kg / 17 lbs aluminium FOBLIGHT anchor equipped with 10 m / 33 ft chain and 50m / 165 ft double braided polyester diameter 14 mm / 0.55 inch
- Fenders:
  - 8 white tubular, F3 type
  - 2 white tubular, F4 type for transoms
  - 4 spherical, A3 type
- Set of 16 mm / 0.63 inch black polyester squareline mooring lines with spliced eye at each end:
  - 2 \* 10 m / 33 ft long
  - 2 \* 25 m / 82 ft long
- 2 \* 50 m / 165 ft white polyester squareline ropes diameter 18mm/ 0.71 inch

### **Steering, helm stations**

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- 2 "panoramic view" helm stations with seats:
  - Starboard side: engines controls, ST50 repeater and pilote control unit, VHF handset and loudspeaker
  - Port side: handheld autopilot repeater and control unit with 5 meters cable
  - 2 magnetic compasses with adjustment magnets and hood, red lighting
  - leather covered steering wheels
  - helmsman seat with sealed foam cushion holstered in white PVC leatherette
  - grey tergal cloth wheel covers
  - 2 line holding bags on front of helm stations
- WHITLOCK mechanical transmission system between the wheels and the rudder blades
- 2 balanced spade rudders on self-aligning spherical

- bushers
- Emergency tiller

### **Cockpit fittings**

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- Large methacrylate aluminium framed sliding door accessing the salon
- Tip-up teak covered cockpit table with two flaps
- Table cover in grey tergal cloth
- Sealed foam cockpit cushion for each 3 seats, holstered in white PVC leatherette
- Bimini in grey tergal and PVC laid over aluminium tubular structure (usable as flying gangway to operate on boom), easily folded for sunbathes
  - Front fitted with transparent and removable wind screen
- Lighting on the roof for the cockpit and on the piano for sheets, reefs and halyards operations at night
- 3 large storage lockers, self draining
  - one under table seating and two at floor level
- aft transoms:
  - Teak slatted
  - 4 stainless steel handhold in transom sides
  - Folding mooring cleat for the dinghy (port side)
  - Stainless steel swim ladder (port side transom) with teak steps
  - Cockpit shower (port side stern) with pressurized fresh water

- Bushing for gangway swivel (starboard side stern)

### **dinghy**

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- Pair of aluminium davits with SPINLOCK stoppers
- 2 lifting line with stainless steel snappers
- Hard bottom dinghy 3,10 m / 11.2 ft by ZODIAC
- Dinghy cover in white PVC
- 4hp outboard engine with fuel tanks by YAMAHA

### **Motorization**

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- Propulsion by 2 40 HP diesel engine VOLVO MD2040 (1 450 hours) in dedicated soundproofed machine rooms isolated from accommodations
- 2 saildrive transmission units
- 2 \* 3 folding blades propellers
- 2 engine instrument panels with warning display and engine coolant temperature
- 2 Engine control levers on starboard side helm station
- Fuel prefilters and water drains
- Power generator by Northern Light, in soundproof enclosure, silent 1500 rpm 220V 3,5 kW/h (450 hours)

## **ACCOMODATION**

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### **Premium quality finishes**

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- Bulkheads and inside furniture are of foam or balsa cored sandwich, ultra light and stiff
- Floors are in ultra light foamed sandwich veneered in black stripped teak, STRATIFIL process (maintenance free)
- Cabinetworks and inner planking in Canadian Mapple wood veneer (OBERFLEX system, maintenance free)
- All trims in laminated and varnished teak
- Ceiling are isothermal and extralight (BIPLEX system, maintenance free)
- Halogen lighting all over the boat
- Detachable insulating roof window screens (stops 90% of sun thermal radiance while allowing

unobstructed vision from the inside to the outside)

### **Salon**

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- 360° panoramic view
- Large stowage compartments under salon and cabins seats
- All seats in the salon are alcantara covered and made of BULTEX high density foam, color is "Sahara sand"
- Large (1,6 m x 0,8 m / 5,2 x 2,6 ft) oval table with bar compartment underneath and 2 swing out extra seats
- Halogen lightings
- 220V electrical outlets
- heating

## **Galley**

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- Galley is facing the cockpit and is separated from it by a sliding methacrylate window
- Ample working surface
  - 2 sinks with cover, oven with cover
- Numerous lockers, build-in garbage can
- Ceramic mixer tap (hot and cold pressurised water)
- Drains from water maker
- Refrigerating and high freezing equipment by Danfoss, very low noise and high performing with electronic controls and water exchanger:
  - 200 liters (7 cubic feet) on starboard side, top opening, equipped with sliding baskets
  - 100 liter (3.5 cubic feet) on port side, front opening, equipped with wire shelves
- Stainless steel gas stove with oven and 4 burners by "FORCE 10":
  - Under flap that increases working surface

## **Charts table**

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- Tip-up table with storing compartment
- Large locker underneath for emergency and safety bags (flares, tools, emergency hull repair kit, 1<sup>st</sup> level spare parts)
- Seat with alcantara cushion and storage under it
- Every navigation and radio communication within reach (radar, GPS, Navtex, autopilot, displays, ...)
- 12V electrical outlet, swivelling red or white light
- 220V electrical outlets from inverter, generator or shore
- Equipments: see section below "Electricity and electronics"

## **Owner's hull**

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- Starboard hull is entirely dedicated to owner's suite
- Forward bathroom, hallway with storage and hanging lockers, large bookshelves, desk, aft stateroom
- Office with desk, drawer, halogen reading light and NMEA plug with information from every navigation equipment, alcantara covered swing out seat
- 2 portholes (380 mm x 180 mm. / 15.0" x 7.1") in the hallway and above owner's desk
- Alcantara covered bench with storage under, facing a storage locker
- Aft owner's stateroom

- Queen sized berth 1,90 m x 1,75 m (6 ft 4" x 6 ft 10")
  - slatted bed base in two independent parts
  - high resilience BULTEX foam mattress matelas, thick and very comfortable, in two independent parts
- Halogen lights
- 2 reading lights above berth
- Huge storage space under berth
- 2 portholes for lighting and ventilation:
  - 1 giant "sea view" porthole on the outboard side (1200 mm x 400 mm / 47.3" x 15.7"), fitted with winding mosquito screen and blind
  - 1 porthole (600 mm x 180 mm / 23.6" x 7.1") on the cockpit side
- Heating

## **Owner's bathroom**

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- Huge space separated in two areas for shower and for head with cabinet, sink and toilet
- Shower floor in teak duckboards
- Thermostatic ceramic mixer taps (hot and cold pressurised water) for both the shower and the sink
- Lighting and ventilation:
  - one giant "sea view" porthole on the outboard side (1200 mm x 400 mm / 47.3" x 15.7") of the head, fitted with winding mosquito screen and blind
  - one escape hatch laid on the inboard side of the shower (500 mm x 370 mm / 19.7" x 14.6"), fitted with blind cloth
- Storage area under the sink and in the mirrored cabinet above
- 220V electrical outlet in the cabinet
- Heating

## **Guest's staterooms**

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- Port hull is dedicated to guest's accommodation
- Forward stateroom, hallway with storage and hanging lockers, head, aft stateroom
- Forward double stateroom with 1,95 m x 1,50 m (6 ft 6" x 5 ft) double berth
- Aft queen size stateroom with 1,90 m x 1,60 m (6 ft 4" x 5 ft 4") double berth
  - slatted bed base in two independent parts

- high resilience BULTEX foam mattress matelas, thick and very comfortable, in two independent parts
- 2 portholes for lighting and ventilation in each stateroom:
  - 1 giant "sea view" porthole on the outboard side (1200 mm x 400 mm / 47.3" x 15.7"), fitted with winding mosquito screens and blinds
  - 1 porthole (600 mm x 180 mm / 23.6" x 7.1") on the cockpit side in aft stateroom
  - 1 escape hatch laid on the inboard side of the hull (500 mm x 370 mm / 19.7" x 14.6") in forward stateroom, fitted with blind cloth
- Huge storage space under each berth
- 1 storage and 1 hanging locker in each stateroom
- Alcantara covered bench with storage under in forward stateroom
- 2 portholes (380 mm x 180 mm. / 15.0" x 7.1") in the hallway and in the head
- Halogen lights
- 2 reading lights above each berth

- 220V electrical outlets
- heating

### **Guest's head**

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- Equiped with separate shower, sink, cabinet and toilet
- floor in teak duckboard
- Storage area under the sink and in the mirrors fitted cabinet above
- 220V electrical outlet in the cabinet
- Ceramic mixer tap
- Heating

### **Skipper's cabin**

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- Located in the forward port lock
- Berth, tip-up aluminium frame
- Lighting
- Porthole
- Heating

## **TECHNICAL FITTINGS**

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### **Hi-fi**

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- PIONEER 60W CD and FM radio receiver with 2 stereo speakers in salon and 2 (waterproof) in the cockpit

### **Water and water circuits**

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- 2 \* 300 liters (2\*80 gal.) fresh water tanks
- 1 \* 350 liters (92 gal.) fuel tank
- Ceramic mixer taps
- Plumbing of food graded rigid plastic pipes
- 2 independent pressurised hot and cold water circuits:
  - 2 pressure pumps with expansion tank
  - circuits can be interconnected if needed, either before or after pressure pump (redundancy)
- 2 shower drain pumps
- 4 automatic bilge pumps with inlet strainers controlled by 4 electronic water sensors pumps, in engine rooms and under hallways in both hulls
- 2 manual high capacity safety bilge pump located in cockpit close to helm stations
- 2 \* 20 liters (5.3 gal.) water heater by 220V (800W) or by engine heat exchangers or by central heating exchangers
- 2 Eberspacher D4W (4 kW/h, fuel) water circuit central heating:
  - 4 radiators on port side and 3 radiators on starboard side

### **Water maker**

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- 12 V Sea Recovery water maker (desalinisator), 27 liter/h – 7 gal/h (250 hours):
  - 20 gallons dedicated tank and circuit for fresh water or biocide mixture (eases periodical rinsing cycles)
  - Charcoal filter on 20 gal. tank filling circuit (removes chloride)
  - Filter on seacock intake
  - High power LP feed pump (instant priming) and modified fiber-glass housing for easy access to serviceable parts (HP pump, ...)

### **Electrics**

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- Northern Light M643K (1500 tpm , 3,5 kW/h, 220V,) power generator in soundproof cannister housed under the cockpit table (450 hours)
- 4 \* 50W NESTE solar pannels in two independant groups with two NAPS regulation units
  - Pannels are housed in an aluminium frame with tilting mecanism mounted between dinghy davits
- 2 \* 60 A alternators and repartitors on propulsion engines
- Battery charger 50A (boost, bulk and floating) fed by generator or shore power
- 220V 800W inverter fed by house batteries
- 2 \* 115 Ah SONNENSCHHEIN (maintenance free) starting batteries
- 6 \* 120 Ah Exide Gel (maintenance free) house batteries
- 1 battery low alarm buzzer
- 1 \* 65 Ah SONNENSCHHEIN (maintenance free) power generator starting battery
- SIRTEC electric control system with central pannel for all electrical fonctions aboard (12 Volts and 220 Volts)
  - Remote power breakers and circuit protection housed in electrical waterproof boxes scattered all over the ship (to minimize cable length and reduce weight)
  - 12V and 220V circuits protection by current limited breakers or magnetothermic teleprotect modules
- Water tanks and fuel tank levels
- Digital voltmeter and ampmeter (2 engine shunts, 1 house shunt)
- Water meters for each tank
- Waterproof power socket on stern of hull and 25 meters (83 ft) power cord to shore
- Numerous 220V outlets inside:
  - 10 with shore or generator power
  - 2 with inverter power
- 1 \* 12 V outlets at chart table

## **Electronics**

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### NAVIGATION ELECTRONIC

RAYTHEON ST50 instrumentation

- Functions: Loch, wind speed, depth, alarms, vane, anemometer, VMG, sea temperature, ...
  - 1 multifonction display unit above charts table
  - 1 multifonction and 1 speed display unit in the cockpit, above salon entrance
  - 1 multifonction display unit with autopilot control unit at portside helm station
  - 2 wind direction and speed displays (true and apparent wind) on the main entrance sides, facing helm stations
  - 1 extra electronic speed and temperature transducer, no paddle wheel (foul free)
- SeaTalk – NMEA converter and multiplexor:
  - Shares informations originating from Raytheon equipments (SeaTalk) and other (NMEA)
- NMEA to USB converter:
  - All informations generated by SeaTalk or NMEA equipments are made available to a computer and its navigation software through USB or DB9 connector

### PILOT

RAYTHEON ST6000 auto pilot and CC300 course computer:

- Control unit above charts table, at starboard side helm station and handheld unit at port side helm station (5 meters cable)
- ST 6000 type 1 linear drive unit
- Fonctions: on, stand by, +1 -1, +10 -10, automatic tacking, connected to gyrocompas and wind transducer ,...

### GPS

MLR 2008 and differential receiver DF300

## **Others**

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- Folding aluminium gangway, teck slatted, 2,50 meters (8 ft)
- Numerous maintenance kits and spare parts:
  - Catana
  - Volvo MD 2040
  - Sea Recovery water maker
  - Northern Light power generator

- Connected to VHF (DSC distress call includes ship position) and to the radar (screen displays GPS position)

### RADAR

Radar FURUNO M821

- LCD screen
- EBL, EVRM, echo trails, guard zone alarm, watch mode, zoom
- 24 M range, interfaced with MLR GPS

### RADIO

VHF SHIPMATE RS 8300 by SIMRAD

- 25 W, 55 channels, double watch, DSC call
- Get ship position from GPS unit
- Dialing handset available at chart table and starboard side steering wheel station
- Loudspeaker both at the charts and at the starboard side helm station (water proof)
- VHF, HF and GSM antennas on mast top
- Call ID: FW7007

### BEACON

- KANNAD S406 EPIRB, Copar – Sarsat system
  - Operating on 406 MHz and 121,5 MHz
  - MMSI: 227 525 730

### NAVTEX

- FURUNO FX300 Pro

## **Safety equipments**

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- Complete safety equipment for 8 persons
- 1<sup>st</sup> category (high seas) Zodiac MPLS 8 liferaft for 8 persons
- Compulsory safety equipment per French regulations
- Numerous fire extinguishers
- Emergency hull repair kit

- Zodiac dignhy and Yamaha outboard
- Harken
- shackles, gears, head pumps, porhole handles, ...
- Documentation, manuals, drawings, track records, bills, ... in pdf on CD (along with paper version)
  - Up to date of every improvement made (water and electricity circuits, ...)

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