

## Specifications BORÉAL 44.2 - 3 CABINS (10/2019)

### CHARACTERISTICS

- Length Overall (LOA):	13.87 m
- Length at the Waterline:	12.73 m
- Beam:	4.39 m
- Beam à Water Line:	3.56 m
- Draught:	1.02/2.48 m
- Ballast in lead:	3 800 kg
- Light displacement:	13 250 kg
- Displacement loaded:	16 600 kg
- Standard Engine:	50 hp
- Sail Area:	100 m <sup>2</sup>
- Mainsail:	45 m <sup>2</sup>
- Genoa:	55 m <sup>2</sup>
- Staysail:	26 m <sup>2</sup>
- Capacity Fuel:	635 l
- Capacity Water:	635 l

Architecture & conception: Jean-François Delvoye

### CONSTRUCTION

#### Hull

Triple chines on frames and floating stringers

5083 and 5086 H111 aluminum

Mig and Tig welding in Argon controlled by sweating

#### Structure

100 X 10 Ribs, 12 X 40 stringers, floor-plate thickness 8 mm

Water-tight collision bulkhead 1.85 m behind the bow

Water-tight bulkhead at the rear, before rudder post and dagger boards

Flat keel 120 X 10, enhanced to 300 X 30 at the forefoot

Chain plates and reinforcements under chain plates integrated into structure

Beams 100 X 10

Tube embedded in the beams to bring the chain to the anchor locker at the foot of the mast

Engine cradle and sternpost

#### Skin

Keel plate 10 mm, bottom plate 8 mm

Chines: lower and middle 6 mm, top 5 mm

Deck, roof, cockpit: 4 and 5mm

Transom: 6 mm

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## **Appendages**

### Swinging centreboard

NACA profile centerboard, flat structures of 10 mm, 8 mm skin  
Well 8 mm reinforced by ribs and a T-shaped structure of 50x50x5  
Shaft in ERTALON diameter 120  
2 lines to lift and lower the centerboard

### Daggerboards

2 lifting dagger boards in polyester (fuse) in their casing at the rear

### Rudder

Single rudder in aluminum, NACA profile, structure in flats of 8 mm, 6 mm skin  
Rudder stock diameter 100 mm, self aligning Ertalon bearings  
Emergency tiller

## **Ballast**

3 800 kg, below the bottom plate, in the keel core, made of massive lead, insulated and embedded in sealing resin and welded in watertight compartments.

## **Tanks**

Deck fillers (1 diesel, 2 black water, 2 water)

Diesel: 635 liters in the keel embryo

Fresh water: 635 liters in 2 tanks build into hull on both sides of the centreboard casing

Tanks painted with food quality paint

## **Deck**

Bow fitting with double anchor roller and aluminum tube under deck bringing the chain to the anchor locker

Chain locker at base of mast, water drains into the sump, support for windlass and rollers

8 welded cleats

Chain plates 80 X 20.

All reinforcements for attaching rails and winches.

9 Emplacements for hatches.

4 bookings for Plexiglas fixed in the upper skin

7 bookings for embedding the Plexiglas windows in the roof. (Double glazing optional)

2 reservations for recessed Plexiglas in the dog house.

1 watertight door in aluminum in the doghouse

A large rear cargo with access panel

Separate storage for 2 gas bottles (13 kg)

Sail locker in the front with access by Giot hatch

1 location for life raft on the transom (optional)

Lifting stern platform with its bathing ladder

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## STANDARD EQUIPMENTS EXTERIOR

### **Rigging and sails**

#### Rigging

1 anodized aluminum mast with double pushing spreaders

Length 17.5 m

Rigging in single strand stainless steel

1 anodized aluminum boom

1 mast base (deck stepped mast)

1 Winch 2 speed 45 AST (Lewmar), 1 Winch 2 speed 40 AST (Lewmar),

1 Winch 2 speed 30 AST (Lewmar)

1 genoa furler Profurl LC42

1 mainsail halyard, 1 topping lift and 1 mainsail sheet.

1 mainsheet system with webbing on the cabin roof.

1 outhaul of the mainsail and 3 reefing lines brought back to the cockpit

1 genoa halyard and 2 genoa sheets

2 lines to lift and lower the centerboard

Vang (rigid vang optional)

Staysail hanked-on on removable stay or on furler with halyard, 2 sheets & running check stays optional

Navigations lights as internationally approved (LED)

#### Sails

Mainsail with battens (Elvström, Dacron, horizontal cut) and 3 reefs 45 m<sup>2</sup>

Genoa on furler with UV protection strip (Elvström, Dacron, horizontal cut) 55 m<sup>2</sup>

### **Deck Equipment**

#### Goiot hatchest

1 x 490 x 490 forward sail locker

2 x 440 x 440 forward cabin

1 x 390 x 240 front heads

1 x 390 x 240 starboard gangway

2 x 490 x 360 saloon

1 x 390 x 240 aft heads

#### Portholes and windows

2 opening windows in the side of the roof Lewmar Size 3

2 opening windows in the side of the cockpit Lewmar Size 4

4 fixed hull ports (2 in forward cabin, 1 in each aft cabin)

2 smoked Plexis 15mm in the Dog House

4 transparent Plexis at the rear of the doghouse

7 15mm Plexiglass windows in deck saloon (double glazing optional)

#### Recoveries of deck and bridges

Cockpit seatings & cockpit floor covered with synthetic teak

Painting of deck PU white until deck line

Anti Slip PU Sicomin Fullgripp on deck and roof (grey)

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### Safety

Tubular handrails in aluminum on the roof, vertical part of dog house and steering columns  
2 pulpits with support beam and 2 pushpits, 2 granny bars at mast  
4 simple and 4 entrance stanchions  
4 mm single strand lifelines with fixed clevis & pelican hooks  
4 Wichard padeyes in cockpit  
Lifeline system all long the boat till the bow

### Lewmar Winchs

2 primary winchs for genoa 2 speed self tailing 55 AST  
2 secondary winchs for mainsail sheet 2 speed self tailing 50 AST  
3 winch handles  
2 genoa rails with car  
System to bring back to halyard of the main and the reefing lines back to the cockpit with two electric winch under the doghouse optional

### Ground tackle

Windlass 12 V 1500 Watt for 12 mm chain gypsy and wrapping end.

1 steering column with single engine control lever and system of steering cables.  
Enough space to build in plotters, pilot and other control panels  
1 Steering wheel diameter 1320mm  
Compass build in steering column  
Cockpit table optional

## **STANDARD EQUIPMENT INTERIOR**

### **General**

Insulation: Extruded polystyrene with a thickness of 60 mm under the bridge and 80 mm along the hull above the waterline and cork sprayed on frames

Joinery made of solid wood and veneer in natural Ash (or in oak - optional)

Main bulkheads in 15 mm plywood

Plywood furniture in 10 mm plywood

Soles in 15 mm plywood

Inspection traps - wherever possible - fixed part fitted around the bulkheads and furniture to facilitate the opening and prevent friction

Linings in white Comacell and white Sky

Quality Marine Hardware

Magnet and door stop on each door

Upholstery saloon in Stamskin

Mattress foam thickness of 100 mm

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2 Aft cabins: each with either a double bed either two bunks (bunk/storage)

Storage lockers under each bed

1 hanging locker

1 closet

1 locker down the side

1 ceiling light, 2 reading lights, 1 socket 12 V

Forward Cabin

1 double berth with storage under bed base and 2 individual mattresses

2 ceiling lights and 2 reading lights, 1 at each headboard, 1 socket 12 V

1 hanging locker, 1 office desk (starboard), several cabinets

Deck saloon

Raised deck saloon in U shape with view

Upholstery in Stamskin

L-bench with important storage volumes

1 bar furniture, 2 cabinets

1 library shelving

2 cabinets

1 fixed central table with toe rail

Back rest on central seat of saloon (optional)

2 ceiling spotlights

Galley

2 Stainless steel sink bowls with single lever hot and cold water under pressure

1 sea water foot pump and spout

1-gimballed 3 burner gas oven ENO with pot holders and electronic ignition (GN Cooker optional)

1 fitted refrigerator with 2 drawers 144 liters

2 cabinets for crockery & 2 lower cabinets

1 Stainless steel handrail

3 ceiling spotlights, 1 red (for the night), 1 socket 220 V

1 manual gas stopcock (gas alarm and remote solenoid optional)

Watch post/chart table in doghouse

Panoramic chart table with grey panel for navigation instruments

1 curved seat with its cushion covered in Stamskin

1 ceiling light

1 white/red fixed light for night passages

1 socket 12 V & 1 socket 220 V

Front heads

1 manual marine toilet

1 cabinet with sink, mixing faucet and storage

1 separate shower with door, shower tray and mixing faucet shower

1 mirror

2 ceiling spotlights

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#### Aft heads (starboard)

- 1 manual marine toilet
- 1 cabinet with sink and mixing faucet/shower
- 1 shower tray
- 1 mirror
- 1 ceiling spotlight

### **WATER AND DRAINAGE SYSTEM**

- Pressurized central water unit 15l/min, self priming and with electronic control
- Water Heater 220 V, 40 liter with heat exchanger on engine
- 2 holding tanks for black water
- 1 holding tank grey water in front heads
- Shower (cold and warm water) in the cockpit

#### Drainage

- 4 electric bilge pumps 12V
- 1 manual bilge pump

### **ENGINE**

- Engine Volvo Penta D2-50 hp
- (Engine Volvo D2-60 or 75 hp and Yanmar 4JH57 or 4JH80 optional)
- Electrical bipolar installation, mounted on flexible "Silent Blocks"
- Acoustic insulation with absorbent foam and visco-elastic mass
- Ventilation ducts for fresh air
- Control panel with alarms in the companionway
- Access through aft cabins and companionway
- Single lever engine control at port steering column
- Fixed three-bladed propeller

### **ELECTRICITY**

- 1 alternator on engine 12 V/115 A
- 1 shore plug 220 V
- 1 battery charger 220 V / 12 V
- 1 charge distributor
- 3 batteries (1 dedicated to the engine, 2 service batteries of 130 Amps)
- 1 panel 220 V
- Circuit 12 V – Circuit 220 V
- 1 electric panel bipolar 12 V dedicated to living area 15 functions with bipolar leakage tester, voltmeter and circuit breakers
- 1 electric panel bipolar 12 V dedicated to navigation in doghouse
- Gauges diesel (1), water (2), grey water (1), black water (2)

### **CATHODIC PROTECTION**

- 1 sacrificial anode on the hull
- 1 sacrificial anode on the centerboard
- 1 sacrificial anode on the rudder

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