

Specifications BORÉAL 44 3 CABINS (Sep 2017)

Characteristics:

- LOA	13.80 m
- LWL	11.63 m
- Beam	4.30 m
- Beam at waterline	3.40 m
- Draught	1.02/2.48 m
- Lead Ballast	3 800 kg
- Light displacement:	10 290 kg
- Displacement fully equipped:	12 200 kg
- Standard engine	Volvo D2 50 hp
- Sail area	100 m ²
- Mainsail	45 m ²
- Genoa	55 m ²
- Staysail	22 m ²
- Fuel	600 l
- Fresh water:	760 l

Architecture and design: Jean-François Delvoye

CONSTRUCTION

Hull

Triple chines on a floating frame and rails
5083 and 5086 H111 aluminium
Mig and Tig welding in Argon controlled by sweating

Structure

100 X 10 Ribs, 10 X 40 rails, floor-plate thickness 8 mm
Water-tight collision bulkhead 2.10 m behind the bow
Water-tight bulkhead at the rear, before rudder port 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 roller chain to the anchor locker at the foot of the mast.
Engine cradle and sternpost

Skin

Bottom plate and keel: 10 mm
Lower chine 8 mm, middle and top chine: 5 mm
Deck, roof, cockpit: 4 mm
Transom: 6 mm
Deckline tube 50 mm

Appendages

Swinging centerboard

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
4 ERTALON guides prevent the banging
Lifting System at mastfoot/(hydraulic with control in the cockpit optional)

Daggerboards

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

Rudder

Rudder NACA profile
Structure flats of 8 mm, 6 mm skin
Rudder stock diameter 100 mm, bearings in ERTALON

Ballast

3800 kg below the bottom plate in the keel core made of lead, insulated and embedded in sealing resin and welded in watertight compartments.

Tanks

Gauges built in
Decks filler (1 diesel, 2 water)
Visit trapdoors

Diesel

600 liters in the keel core

Fresh Water

760 liters, two tanks built into the hull on both sides of the daggerboard casing.
Tanks painted with Food quality paint

Boréal sarl

Deck

Bow fitting with double anchor roller and under deck aluminum tube bringing the chain to the anchor locker.
Anchor chain locker at base of mast, water drains into the sump, windlass, blocks, cleat mooring
8 welded deck 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 glass 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 Goiot hatch
Optional built-in compartement for life raft (in the stern)

STANDARD EQUIPEMENT EXTERIOR

Rigging and sails

Rigging

1 anodized aluminum mast with double spreaders; length 16.30 meters.
Rigging in single strand stainless steel
1 releasable and adjustable forestay for hooked staysail, furler optional
1 anodized aluminum boom
1 mast base
2 Winch 2 speed 40 AST lewmar
1 Winch 2 speed 30 AST Lewmar
1 furling genoa Profurl LC 42
1 mainsail halyard
1 genoa halyard
1 mainsheet
1 mainsheet webbing on the cabin roof.
1 edge of the mainsail and 3 reefing lines
2 genoa sheets
1 boom vang
2 lines to lower and lift the centerboard

Sails

Battened mainsail (Elvström) with 3 reefs: 45 m2
Furling Genoa with UV Strip (Elvström): 55 m2

Deck Equipement

Hatches from Goiot

1 forward sail locker
2 forward cabin
1 above each heads
2 saloon
1 above heater

Portholes and windows

4 opening windows in aft cabins : 2 in the side of the roof
Lewmar Size 3 , 2 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
7 glass 15 mm in panoramic roof (double glazing optional)

Recoveries of deck and bridges

Cockpit seating and rear deck covered with synthetic teak
Painting of bridge PU white until deck line
Anti Slip PU Sicomin Fullgripp on deck and roof

Safety

Tubular handrails in aluminum on the roof and vertical part of dog house
2 Pulpits with support beam
2 Granny bars at mast.
2 Pushpits
6 simple and 6 entrance stanchions
4mm single strand lifelines with fixed clevis and pelican hooks

Winches

2 primary winches 2 speed self tailing Lewmar 50 AST,
2 secondary winches Lewmar 45AST
1 roof winches 2 speed self tailing Lewmar 30AST
3 winch handles

Ground tackle

A windlass 12 v 1500 watts for 12 mm chain gypsy and wrapping end

Deck fillers for water (2), black water (1) and diesel (1)
1 webbing system for mainsail sheet
2 genoa sheet lead track 3 meters length with roller cars rail for self tacking jib,
3 jammers on piano roof
2 flat deck blocks at the back for the genoa
Steering system with wires,
1 steer column with compass, compass housing and engine single control lever
Steering wheel diameter 1400mm

STANDARD EQUIPEMENT INTERIOR

General

Insulation: Extruded polystyrene with a thickness of 50 mm under the bridge and 80 mm along the hull above the waterline
Joinery made of solid wood and veneer Ash (Oak optional)
Main bulkheads in 15 mm plywood
Plywood furniture in 10 mm plywood
Bathrooms made of lacquered white Comacell
Soles in chocolate coloured and lined 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
Quality Marine Hardware
Magnets and hinges on each of the doors
Upholstery in saloon covered in stamskin
Mattress in cabins foam thickness of 100 mm

2 Aft cabins (Different configurations are possible)

Either two similar cabins
either starboard cabin modular 1 or 2 bunks vs storage
in case of symmetrical cabins: 1 double berth with storage
closets and 2 individual mattresses
In each cabin : wardrobe and/or closet
lockers down the side
1 ceiling light
2 lights (1 at each headboard)
1 socket 12 V

Forward Cabin

1 double berth with storage under bed & drawer
1 office desk (starboard)
1 halogen ceiling spot on each side
1 light at each headboard
2 individual mattresses
1 socket 12 V

Deck saloon

1 Central bench seat with upholstery,
Removable backrest optional
1 bar furniture
1 L-bench with upholstery in Stamskin with storage volumes
1 Library Shelving
2 cabinets
1 fixed central table with toe
4 ceiling spotlights
Back rest on central seat of saloon (optional)

Galley

2 Stainless steel sink bowls
Single lever hot and cold water under pressure
1 sea water foot pump and spout
1-gimballed 3 burner gas oven with wooden door handle of
a glass door, pot holders and electronic ignition
1 fitted refrigerator 100 liters
Larger toploaded watercooled fridge optional
1 Stainless steel handrail
2 furniture dresser & 2 low furniture storage
3 ceiling spotlights (1 red)
1 socket 220 V
1 gas stopcock (gas alarm and remote solenoid optional)

Watch Post/Chart table in doghouse

Panoramic chart table
1 curved seat with its cushion (Stamskin) & storage
Instrument Panel anthracite color
Halogen ceiling spotlight, 1 fixed light for night passages
1 x 12V and 1 x 220V socket

Forward heads

1 Manual marine toilet Jabsco
1 Sink cabinet with mixing faucet, shower and storage
1 Shower tray
1 Mirror
1 Ceiling spotlights

Starboard heads

1 Manual marine toilet Jabsco
1 cabinet with mixing faucet / shower and storage
1 shower tray
1 mirror
1 ceiling spotlights

WATER AND DRAINAGE SYSTEM

Pressurized central water unit
Water Heater 220V, 40-litre (10.5 gals) engine with heat
exchanger
4 electric bilge pumps 12V
1 manual bilge pump
1 holding water tank (black waters) connected to the front
bathroom, pumping system
1 holding tank grey water with pumping system
Shower in the cockpit

ENGINE

Engine Volvo Penta D2-50hp (D2-60 or D2-75 hp 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
Engine control
Fixed three-bladed propeller

ELECTRICITY

1 alternator on engine 12V/105A
1 shore supply 220V
1 battery charger 220V / 12V
1 charge distributor
3 batteries (1 dedicated engine, 4 service of 130 Amps each)
1 panel 220V
Circuit 12V and 220V
1 electric panel 15 functions with bipolar leakage tester, volt-
meter and circuit breakers
1 electric panel 12 V in doghouse
1 gauge gas oil & 2 water gauge

CATHODIC PROTECTION

1 sacrificial anode behind the keel embryo
1 sacrificial anode on the rudder
1 sacrificial anode on the centerboard