

Saba 50



USER GUIDE



FOUNTAINÉ PAJOT
SAILING CATAMARANS

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TECHNICAL INFORMATION

A) IDENTITY FILE

Catégorie A : « Ocean-going »

The ship is designed for long journeys during which the wind may exceed force 8 (on the Beaufort scale) and the waves of significant height of 4 metres, for which these ships are broadly self-sufficient.

HIN NUMBER :	
055	
BUILDER :	FONTAINE PAJOT Zone industrielle - 17290 AIGREFEUILLE
TYPE OF CRAFT:	SERIE :
CATAMARAN	SABA 50

B) Characteristics

Length (LMAX):	14.98 m / 49.15 ft	Draft:	1.25 m / 4.1 ft
Width of hull (BH) :	7.99 m / 26.21 ft	Light displacement:	15474 kg
Air draft (excluding antenna):	22.21 m / 72.87 ft	Maximum recommended load:	3995 kg
		Maximum load displacement :	19069 kg

Sails:

Main sail:	Genoa:	Asymmetric spinnaker (optional):	Gennaker (optional):
83.5 m ² / 898.79 ft ²	57.5 m ² / 618.92 ft ²	135 m ² approx / 1453.13 ft ²	115 m ² approx / 1237.85 ft ²

Number of people / Maximum load per category:

A: 14 / 5190 Kg	B: 14 / 4910 Kg	C: 24 / 5530 Kg	D: 30 / 5890 Kg
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Inboard engines:

Brand	Reference	Power	Cruising rate	Max rate
VOLVO	D2-55	2x55 hp / 2x40.5 kw	2300	3000
YANMAR	4JH5-CE	2x55 hp / 2x39.6 kw	2200	3000
VOLVO	D2-75	2x75 hp / 2x55.9 kw	2300	3000
YANMAR	4JH4TCE	2x75 hp / 2x55.2 kw	2000	3200

Tank capacity:

fresh water:	700 l	gas (Option):	2x13 kg
Port diesel tank:	470 l	Starboard diesel tank:	470 l
Hot water tank:	60 l	Holding tank for each WC (option):	45 l

Electricity:

Starboard engine battery park	12V	1 x 50 Ah
Service / port battery park	12V	5 x 150 Ah

Dinghy:

Max dinghy length	3.80 m	Max load per davit	100 kg
Max raft dimensions	920x400x580 mm 12 seats		

C) Rigging and fitting ropes

SABA 50				
Description	Quality	Quantity	Ø en mm	Finished length
Mainsail sheet	Polyester 24fx, core polyester braided 12/16fx	1	12 mm	45
Mainsheet traveller Port side (Splice larks head)	Double braid polyester sheath 16fx, core 12/16fx	1	10 mm	36
Genoa sheet Port Side	Polyester 24fx, core polyester braided 12/16fx	1	14 mm	18
Genoa sheet Starboard	Polyester 24fx, core polyester braided 12/16fx	1	14 mm	15
Roller reefing	Double braid polyester sheath 16fx, core 12/16fx	1	10 mm	30
Lashing border	Dyneema® SK75 16fx, extended braiding, oiled	1	6 mm	2
RUNNING RIGGING				

SABA 50

Description	Quality	Quantity	Ø en mm	Finished length
Mainsail halyard	Double braid polyester 24fx, core Dyneema® SK78 12fx	1	14 mm	64
Genoa halyard	Dyneema® SK78 12fx preextended et oiled	1	10 mm	20
Gennaker Halyard	Polyester 24fx, core polyester braided 12/16fx	1	14 mm	44
Reef 1 (auto)	Polyester 24fx, core polyester braided 12/16fx	1	14 mm	35
Reef 2	Polyester 24fx, core polyester braided 12/16fx	1	14 mm	32
Reef 3	Polyester 24fx, core polyester braided 12/16fx	1	14 mm	35
Lazy Jack 23ml	Polyester 16fx, core polyester //	2	8 mm	23
Lazy Jack 6,5ml	Polyester 16fx, core polyester //	6	8 mm	6,5
Topping lift	Double braided polyester sheath 16fx, core 12/16fx	1	12 mm	44
Messenger	Double braid polyester sheath 16fx, core 12/16fx	1	6 mm	40

RIGGING MAST

SAILING

A) Leaving terminal

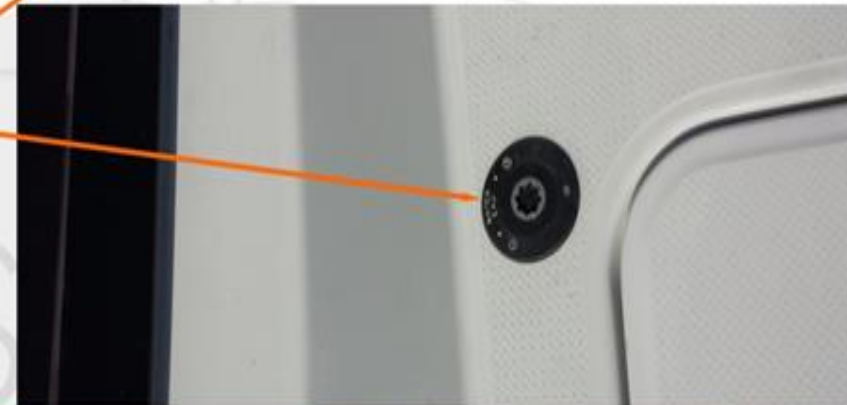
Close all the hull portholes, the covers, and the deck and windscreen panels.

Unlock all the doors and chests then check that the water has been emptied from the bilges.

Open the diesel valves and the "sea water" inlets

Fill:

- The fresh water tanks from the front port deck plug.
 - The diesel tanks from the plugs on the flats
- ✓ Interior rear port and starboard cockpit descents.



Connect the circuit breakers (port and port engine compartments) and check that the windlass circuit breaker is triggered.

Caution - Battery coupling principle:

- The coupling between the service battery pack and the engine battery is triggered when the voltage on one of the parks exceeds 13.2 V.
- The coupling is maintained until the park voltage falls below 12.8 V.
- When the voltage is below 12.8 V, the coupling is interrupted and the engine battery is then isolated from the service park
- The BACKUP/START-UP circuit breaker enables the battery parks to be coupled IF ONE PARK IS INSUFFICIENT.

It must always be disconnected as soon as the engine is running.



In contact



Fuse panels:

The 3 fuse panels are positioned as follows:

- 1 under the chart table in the saloon,
- 1 in the rear port engine compartment
- 1 in the starboard passage hanging closet.

The content of each box is detailed on the lid



Check the water and diesel levels on the dashboard
("Navigation instruments" switch on the electrical panel).



Place the safety equipment outside (life belts, life rafts, etc.).



Check that there is no fuel and gas vapour inside the compartments.

Starting the engines

Check the engine and base levels every month.

Check the opening of the water intake valve on the base in the engine compartment.

Volvo engines: EVC system

Activate the EVC system by pressing the ON/OFF button.





NB: The EVC control panel cannot be deactivated if an engine is running.







Seawater intake valve



VOLVO REV COUNTER
LCD display

-  Pre-heating
-  Starter
-  engine launch
-  Off



-  System fault
-  Cooling fluid temperature
-  Oil pressure
-  Batteries

Manoeuvres common to the different engine types:

- (1) Clutch, position the lever ½ forward,
- (2) Start by pressing the START button and let the engines run for 5 min at 1000 rpm (reduced speed to warm up the engine .

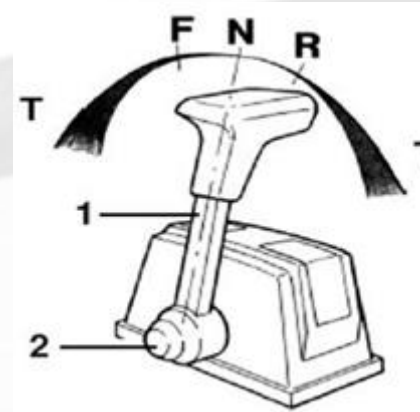
CAUTION :

Never activate the starter motor more than ten seconds to start up the engine as water may get into the exhaust and damage the engine

Check that the cooling water leaves the exhaust and the anti-siphon through-hull fitting.

Caution - engine supplier's recommendation:

Before starting a navigation under sails, consult the engine supplier's instruction manual.



N: Neutral
F: Forward
R: Reverse
T: Acceleration

1: Lever
2: Clutching



Commission the electronic appliances: speedo, log, GPS, VHF, etc. according to the options installed.









In strong winds, carefully secure anything which could move.

Check operation of navigation lights before night sailings.



B) Sailing

B1) Sail reduction table according to apparent wind

		<i>Beat and close reaching</i>	<i>Downwind and broad reaching</i>
Maximum sail area		0-18 knots	0-15 knots
Main sail 1 reef Genoa 2/3		18-25 knots	15-20 knots
Main sail 2 reef Genoa 1/2		25-30 knots	20-25 knots
Main sail 3 reef Genoa 1/3		30-35 knots	25-30 knots
Main sail 3 reef Genoa 1/5		35-40 knots	30-35 knots
Main sail down Genoa 1/10		> 40 knots	> 35 knots

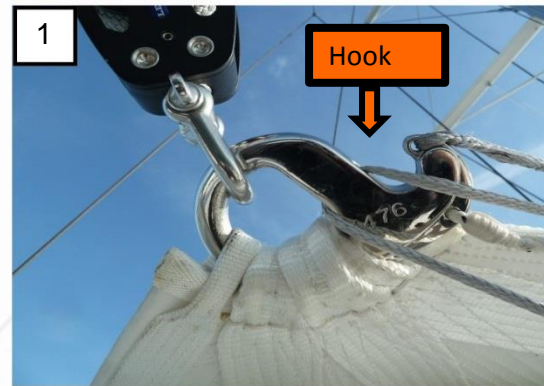
Using the asymmetric spinnaker or gennaker (optional)

The asymmetric spinnaker and the gennaker are sails that are designed to be used in high speeds and relative wind below 15 knots.

-They must be stored:

- In winds over 15 knots
- When anchored
- In dock
- When not used in sailing

B2) Main sail



Hoisting the mainsail

1) **Hoist** the mainsail almost to the 1st spreaders' level.

The mainsail head comes close to the mast

2) Using the green handle, **bring** the stainless steel hook into contact with the headboard car

Pull sharply the handle in order to hook the mainsail head onto the headboard car

3) **Store** properly the 2 handles (red and green) into the pocket , that avoids the hook lines getting trapped into the standing rigging or the lazy jacks.

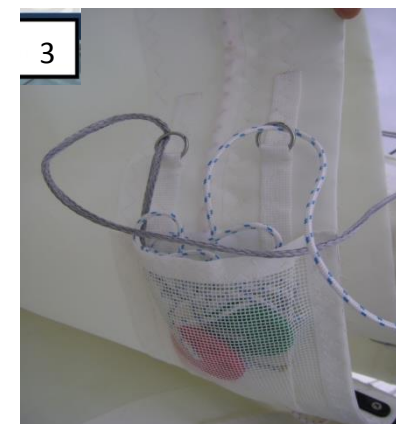
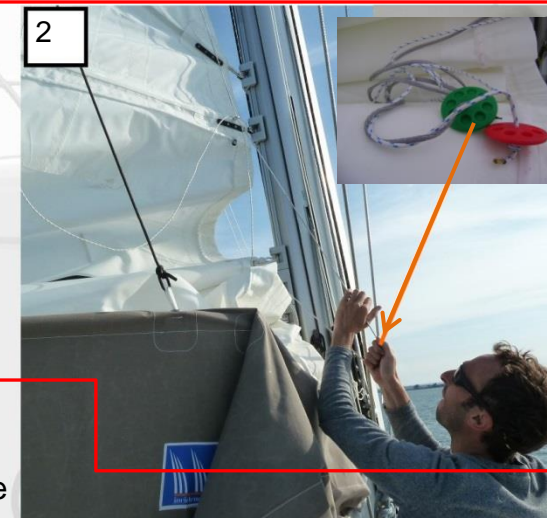
4) **Hoist** the main sail

Lowering the mainsail

1) Bring the mainsail down to until you can reach the hook handle pocket and bring out the red handle

2) Pull sharply onto the red handle to unhook the mainsail

3) Lower the rest of the mainsail, the head batten will stack properly along the mainsail



B3) Helm system

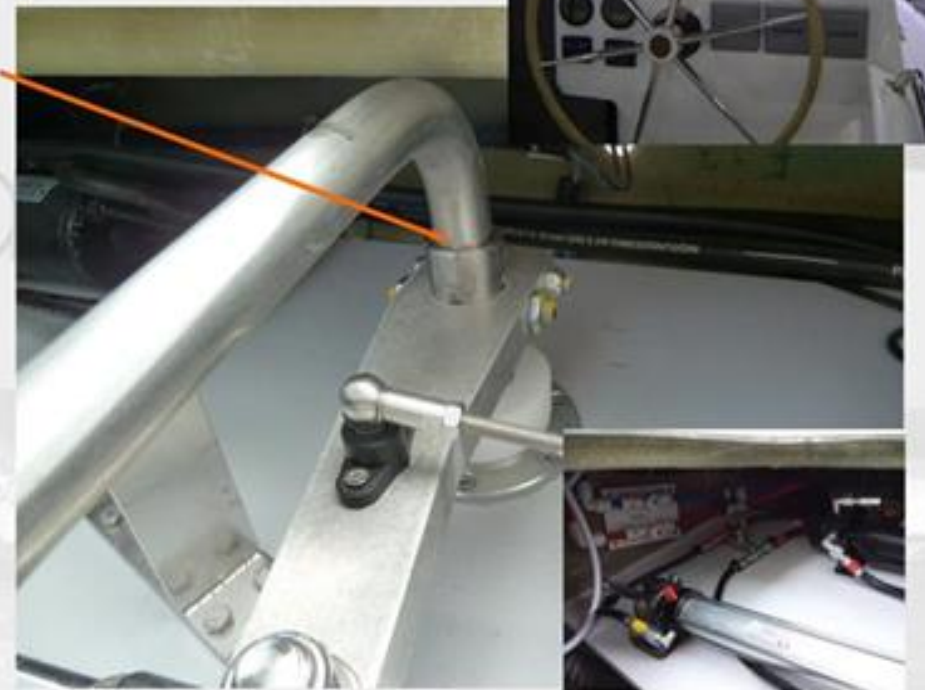
The steering wheel pilots a hydraulic system which uses the starboard cylinder to drive a transverse link tiller that connects the 2 stock arms on the rudder blade.

To use the emergency tiller, you must first release the hydraulic circuit cylinder using the "BY-PASS" in "ON" position.

The emergency tiller is secured to the top of the PORT or STARBOARD rudder blade. It is only designed for sailing at reduced speed in the event of damage to the helm.

LINK TILLER

HYDRAULIC CYLINDER



C) Anchoring:

Check that the port engine is running (1500 rpm).

The windlass is controlled using the remote control in the anchor tub.

C1 Setting up the anchor

Unhook the safety hoist and drop the anchor and chain to a few metres from the final length desired.

Hook the chain to the bridle snap hook available in the anchor locker



Drop the end of the length of chain desired until the anchoring tension is picked up by the bridle.



C2) Lifting the anchor

Raise the anchor to the bridle snap hook and undo the snap hook from the bridle.



Raise the anchoring slowly, checking that the anchor is placed correctly in its davit.

When the anchor is close to the davit, check that the tip moves into the davit entry roller in the right direction.



Lock the chain with the hoist provided.



The circuit breaker is triggered if there is too much effort applied to the windlass;

reset it to restart the windlass.



Attention

During operation, keep away from the windlass and the chain.

In particular, make sure that you protect your hands and feet.

D) Arrival at terminal:

Volvo engines: EVC system

Stop the engines by pressing the STOP button (1), then press the ON/OFF button to deactivate the system. (2)

NB: Always let the engines run idle for a few minutes before shutting them down completely.

Disconnect all the functions on the electrical panel.

Close all the gas supply valves (bottle, appliances).

Check that the water has been drained from the bilges.

Disconnect the battery circuit breakers when stopped for a long period.



Close the diesel tank valves when there is a long stoppage period.
These are located under the bed frame in the port and starboard aft cabins.



COMFORT

A) Electricity:

A1) Electrical installations

Engine 12 V DC network

The onboard power is produced by the engine alternators (130 Ah) and stored by 12V DC batteries.

The batteries are separated into 2 separate parks:

- ✓ Engine battery / port service park = 5 x 150 Ah
- ✓ Starboard engine battery park = 1 x 50 Ah

The starboard engine battery park powers:

- ✓ the starboard engine only

The port engine battery powers

- ✓ the port engine
- ✓ All the 12v functions on the electrical distribution panel.

220 V AC alternating network: (optional)

The 220 V AC alternating network is powered:

- Either by a dock extension
- Or by a power generator (optional)

The whole network is protected by a 30 mA differential circuit breaker.

- Each function is protected by a circuit breaker

Caution - Battery coupling principle:

The coupling between the service battery park and the engine battery is triggered when the voltage on one of the parks exceeds 13.2 V.

The coupling is maintained until the park voltage falls below 12.8 V.

When the voltage is below 12.8 V, the coupling is interrupted and the engine battery is then isolated from the service park.

The BACKUP/START-UP circuit breaker enables the battery parks to be coupled IF ONE PARK IS INSUFFICIENT.
It must always be disconnected as soon as the engine is running.

A2) 220 V AC circuit: (optional)

Connect the dock extension by rolling it out fully or start the power generator.

Check the cable's condition,

If the cable is damaged, replace it with an identical cable.

Attention

Never connect an extension whose plug is damp.

Check that the current is flowing using the light indicator on the 220V unit.

Push in the differential circuit breaker and the circuit breakers for the function required (starboard engine compartment).

Light indicator



A3) Power generator (optional):

To use the generator, refer to the supplier's documents.

Push in the generator's circuit breaker before you start it up.

The generator may be started locally in the starboard compartment, or by remote from the chart table in the saloon.

The dock / generator switch is selected automatically.



A4) Sockets on inverter (optional):

Push in the differential circuit breaker and the circuit breakers (starboard engine compartment)

A remote control panel is located on the back of the chart table.



B) Cold:

Check the service battery park charge status (aft port compartment) on the battery controller on the chart table.

Attention

If the service battery park charge level is $\leq 11.7V$, the refrigeration unit switches to safety.



B1) 2-drawer galley fridge

This is started up using the "Refrigerator" switch on the electrical panel.

Set the cooling thermostat to the temperature required.



Attention

Respect the following instructions to limit the 12V energy consumption:

- Set the refrigerator thermostat to the minimum necessary
Limit door opening.
- Keep the refrigerator well filled,
- Defrost the refrigerator regularly.

B2) Additional galley 12V 90L freezer/ or 130L refrigerator (OPTIONAL)

This is started up using the "Refrigerator" switch
on the electrical panel.

Set the freezer thermostat to the temperature required.

(For maintenance, see the manufacturer's manual)



B3) Additional 12V cockpit freezer (OPTIONAL)

This is started up via the thermostat.

Set the freezer thermostat to the temperature required.

(For maintenance, see the manufacturer's manual)



C) Gas:

Open the regulator shut-off valve attached directly to the bottle (gas unit in the cockpit).

Open the general shut-off valve and the shut-off valve for the appliance to be used (kitchen cupboard).
(valves open in the direction of the pipe)

Each gas appliance has a safety system.

To switch it on, hold the button down.

Attention

Ventilate fully when using the cooking surface.



D) Water:

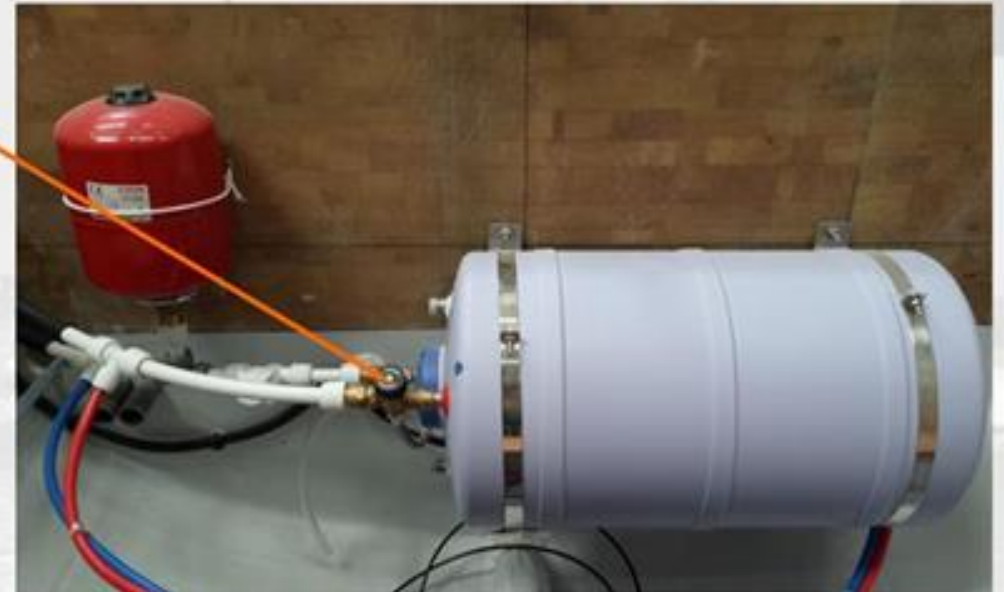
D1) Fresh water circuit

Open the main valve on the circuit to power the circuit from the tanks (accessible under the chart table).



Check that the hot water tank supply valve (aft port cabin) is in open position at all times.

Trigger the fresh water pump function on the electrical panel



Deck shower (mixer tap optional)

The deck shower is located on the aft starboard skirt.

It is commissioned by two taps (aft starboard compartment) and activated by a mixer just beside it (optional).



D2) Sea water circuit (OPTION)

Open the sea water supply valve at the bottom of the port passage staircase.

Future option

Trigger the sea water pump function on the electrical panel

D3) Using the toilets

Check that the sea water intake valves and the W.C. evacuation valves are open.

The floor hatches open using suckers (stored in the chart table).

Supply:

2 valves in each hull located under the forward port/starboard and aft port/starboard cabins.

Evacuation:

1 evacuation valve per bathroom, accessible via the hatch located in each shower.



Use the toilets in open sea only unless the craft is equipped with a Holding tank.

Set the W.C. lever to "Water intake" position and pump at least 10 times to evacuate and dilute the black water.

Set the W.C. lever to "Evacuation" position and pump a few times to empty the bowl completely.

Repeat the operation at least twice.



D4) Using the holding tanks

To store the black water in the holding tanks:

- Close the evacuation valve (accessible via the hatch in each shower)

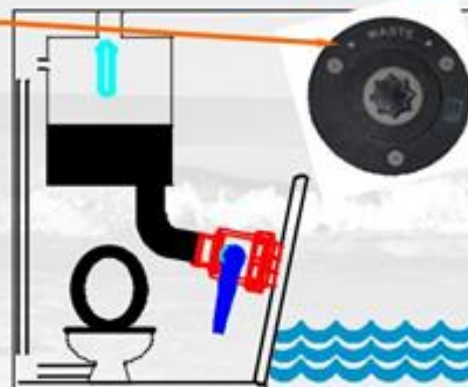
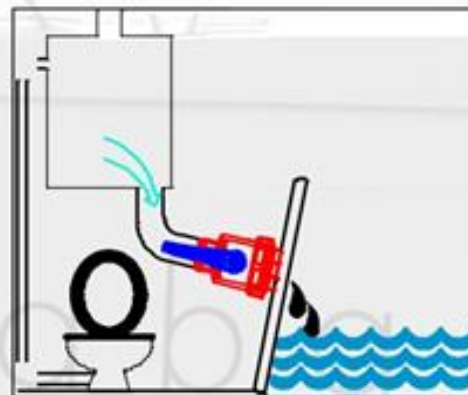
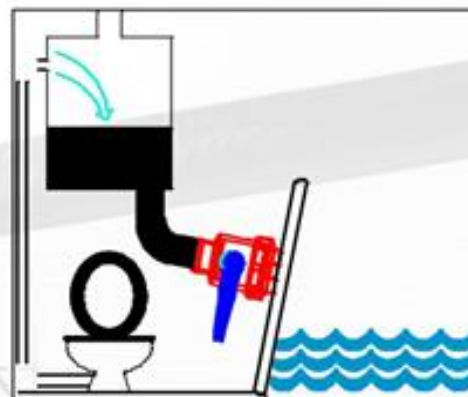
Attention :

Never force the pump.

Storage capacity: 45 litres.

Drain the holding tank regularly :

- By evacuating the black water directly into the sea (Open the evacuation valve when out at sea only)
- At the dock by pumping in the "Waste" deck plug.



D5) Shower evacuation

The shower drain is automatic. The grey water is stored in a tank under the passage floors that evacuates directly into the sea.

These tanks may be cleaned via a screwed-down access hatch.



D6) Sink evacuation

1 port sink evacuation valve and 1 starboard sink evacuation valve, accessible via the hatches in the after port and starboard showers.



D7) Bilge pumping

Manual bilge pump (in cockpit locker)

Open and unfold the manual pump on the aft port front panel in the aft bench. A pipe stored inside the locker must unrolled to drain the desired zones.



Electric bilge pumping

The craft is fitted with 6 electric bilge pumps :

- 1 per engine compartment,
- 2 per hull.

Push in the switch on the electrical panel: 2 positions possible

1) *AUTO position (optional):*

The bilge pump is triggered automatically if any water gets in and its operation is indicated by an alarm.

1) *MANUAL position:*

The bilge pump is triggered manually by activating the switch on the electrical panel.

Set the switch back to OFF position when drainage is complete.



IV- MANOVERBOARD AND RECOVERY

During a passage at sea, it is recommended to remain in the areas of the deck that are designed for it. These areas (sidewalks, cockpit, coachroof, mast step etc.....) are covered with an antiskid surface or teak covering that allow the crew to move on the boat in a secure way.

It is also recommended, according to sea or wind conditions, to wear safety harnesses and use the various securing points on the deck that are mentioned in the deck plan.

SABA is equipped with sternladder (starboard transom) that is designed to allow a crew to climb back on board in a manoverboard situation



V – FIRE PROTECTION

A) Installation

Fire extinguishers are subject to national rules, thus they are not supplied with the boat. However, while being used, the boat must be equipped with portable extinguishers with the following fire fighting capacities and these must be stored in specific areas of the boat.

- 1 kg powder extinguisher : entrance of saloon (galley cabinet)
- 1 kg powder extinguisher : port fore cabin
- 4 kg powder extinguisher + flexible : port aft cabin
- 4 kg powder extinguisher + flexible : starboard aft cabin

If you choose to install a carbon dioxide extinguisher, it can not be installed in any living space holding any electrical equipments under tension (for example electrical motors, battery compartment, powered hatches..) or inflammable liquids (in galley for example).

A fire blanket should also be stored near the galley, that is useful in case of gas stove fire (cause by oil for example)

A) Recommendations

WARNING

If an extinguisher working with CO2 is installed, the following information has to be put up nearby by its location:

“This extinguisher containing CO2 - It has to be used only to fight fires of electrical origin or kitchen fires. To avoid asphyxiation after discharge, leave immediately the area. Ventilate before entering.”

Safety instructions

BE CAREFULL!

The owner/ the skipper has the responsibility:

- to check the equipments to fight fire in accordance with the prescriptions of the constructor and the country regulations
- to replace the equipment for fire-fighting if it is expired or discharged, by fire-extinguishing systems with equal or greater capacity.
- to indicate to the crew members :
 - the location and the operating instructions of the equipment for fire-fighting
 - the location and the discharge opening of the engine-room
- to make sure that the equipment for fire-fighting is easily accessible when the boat is occupied.
- to always have the sumps cleaned and to check that there is no fuel or gas.
- to indicate the escape routes.

Never:

- Obstruct the passages leading to the emergency exits (deck hatches).
- Obstruct the safety controls (gas valves, fuel valves, electric switches)
- Obstruct the storages containing extinguishers.
- Let the boat empty with a stove or a heater lighted.
- Use gas lamp in the boat

Refill fuel storage or change a gas bottle when the engine, the stove or the heater are working.

- Smoke manipulating fuel or gas.
- Hang curtains hanging freely nearby by a stove or other equipment with an open flame.
- Store fuel products in the engine compartment.
- Modify the boat installations (above all the electrical, fuel or gas installation) or an unqualified staff proceeding to the modification.

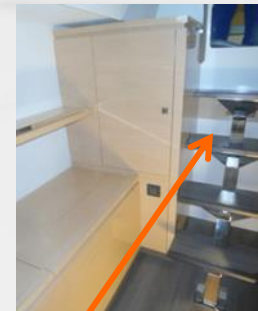
B) Installation

Engine room fire extinguisher orifice are located behind the mattress below the bed headboard

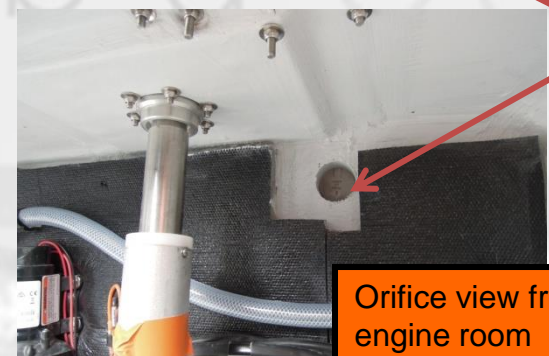


Engine room fire extinguisher orifice

In order to access to this orifice, it is required to move the mattress. Then punch through the orifice with the fire extinguisher's flexible and trigger the extinguisher according to manufacturer's instruction



Engine room fire extinguisher orifice



Orifice view from engine room

MAINTENANCE

Drainage

DATE	SAILING TIMES	FILTER CHANGE

