

PBO TESTED



5 budget liferafts

THE PBO TEST TEAM



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RYA Yachtmaster examiner and British Joint Services Sail Training Skipper Nigel Rennie has logged more than 50,000 sea miles.



Alan Watson is an ex-Merchant Navy radio officer and a Yachtmaster with commercial endorsement, and runs a 12.8m (42ft) Nelson 42 powerboat.



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The PBO test team assess five budget liferafts under £1,000 for ease of inflation, construction, comfort, survival pack contents and ease of entry. Alex Bell reports

The most widely purchased liferafts in the UK meet no UK or international standard: we rely on the reputation of the manufacturer to save us in the rare but potentially catastrophic event of having to abandon ship.

The reason we buy budget liferafts is probably because most of us only make short coastal passages and the occasional sortie across the English Channel to France, and our expectation is that rescue in these busy waters would hopefully not require us to be in the raft for more than 24 hours. For intrepid blue-water sailors, a raft complying with an international standard would be a more prudent purchase.

As with a lot of our emergency equipment, we all hope we'll never need to use it: but if we do, we need to be familiar with it and have confidence it will work. The obvious need for a liferaft is in the event of a sinking craft which could be caused by a number of factors including grounding, collision, capsizing or fire.



Four-person liferafts are a snug fit for four, but do help conserve body heat

Sea survival courses involve launching a liferaft and entering it from the water, and are well worth their relatively small financial outlay. The experience of those who have used a liferaft after abandoning ship report that a raft is not the cosy retreat it can appear to be when inflated at a boat show: in a lively sea the motion is highly conducive to seasickness, and an early task would be to take seasickness tablets.

In this test we look at five rafts costing between £599 and £950.

As an alternative you can hire a raft for your annual cruise and that will cost you upwards of £50 per week.

Your purchased raft will require a service every three years, which will also keep the raft's flare pack in date if it has one. This will involve taking the raft to a service station and will set you back between £100 and £250 depending on its age, so you have to weigh up the length of time a year you need a raft and the convenience of ownership against the cost of hiring one.

The inflation process



1 Throw the bag in the water and pull out the slack in the painter.



2 With the slack removed, a sharp tug on the painter line...



3 ...and the raft begins to inflate, bursting out of its bag.



4 The tubes inflate first, then the canopy support fills with air...



5 ...erecting the canopy. Over-pressure vents release any excess CO₂. Some rafts have the sea anchor deploy automatically, while others store it internally, requiring manual deployment.

Liferaft features

All the rafts tested have two inflation chambers and a canopy which is supported by an inflatable tube. Canopy closure varies. All rafts inflate with their doors open for ease of access. Some rafts have one entry, others two. The door can be closed by a zip, which is attached to the upper tube. Two zips working from the bottom can be closed in such a way that a window can be left open at the top for ventilation or for keeping a

lookout. Alternatively, closure is made by a door attached to the roof tube and secured by pushing it over the upper tube where it is held by a shock cord.

The rafts have different solutions for the location of gas bottles: some were located at the entrance, others at the back or the side. Bottle location can be important if you have to right an inverted raft as you don't want the bottle landing on your head. Some bottles couple directly to the main

Liferaft features compared

Item/make	Arimar International	Crewsaver Offshore	Plastimo Cruiser	SEAGO GX Offshore	Waypoint Offshore
Rainwater collection	Yes	Yes	Yes	Yes	Yes
Rescue quoit and line	Yes	Yes	Yes	Yes	Yes
Sea anchor	Yes	Yes	Yes	Yes	Yes, with swivel
Thermo-insulated floor	No	Yes	Yes	Yes	Yes
Canopy mounted	No	No	No	Yes	No
Number of ballast pockets	2	4	3	4	4
Knife	Yes	Yes	Yes	Yes	Yes
Internal ladder	No	No	No	Yes	Yes
Reflective tape	No	Yes	Yes	Canopy/under floor	Yes
Lights	No	No	No	External/internal	No

inflation chambers, while others are linked to the tubes by a high-pressure flexible hose.

The raft floor can be single-skin with no insulation, but those with insulation were favourites with the testers: a layer of polystyrene or other material protects the bodies of those onboard from more direct contact with the cold water.

One crucial difference between rafts was the number, location and size of the ballast pockets located underneath the rafts. It was in the infamous 1979 Fastnet Race, when many crews abandoned their yachts after being struck by a severe storm, that the inadequacy of rafts without this feature was identified. The number of ballast pockets of the rafts tested ranged from three to four, and varied in capacity. Ideally they should also be weighted to ensure quick and effective deployment.

Liferaft contents

PBO has been critical in the past of the quality of the survival aids that are stored in rafts. There are surprising differences between the manufacturers: all rafts provided a basic kit including two paddles, a sea anchor to prevent drift, and a bailer and sponge, but not all provided a torch or a pump to top up the inflation tubes. None of these rafts will have water or any rations in the survival pack although water collection from the canopy features in some of the rafts. It is important, therefore, to have a grab bag on hand containing water, seasickness tablets and food rations in addition to other essential items such as a handheld VHF radio.

How we tested them

We assembled an eight-person test team comprising seasoned liferaft testers together with newcomers and made sure that both genders were represented. We tested the rafts in seawater at Warsash Sailing Club's Lobster Quay pontoon on the River Hamble: the late October weather

LIFERAFT CHOICES

Canister or valise?

Canister

- A canister provides greater protection for the raft.
- It can be secured on board neatly and safely on deck with an optional cradle.
- It is easier to launch from a pushpit cradle.
- A canister is more expensive to buy than a valise.

Valise

- A valise is made from highly resistant coated fabric, impervious to UV-rays.
- It does offer relative protection, but does not match the security of a canister.
- A valise requires careful storage where it can be easily deployed.
- The valise can be easily perforated or ripped if dragged around or stored inappropriately.
- It is less expensive to purchase than a canister.

was kind, with a light south-westerly wind and a gently flooding tide. The sea temperature was around 15°C.

After checking the rafts' weight, we threw them into the river, pulled on their inflation tether cords and timed how long it took for them to inflate. Each team of four then boarded the rafts from the pontoon to check them out for 'dry' comfort. They tried out the paddles, closed off the entry door and then swapped over until they had tried all five rafts.

We then inverted the rafts and each skipper had to enter the water, attempt to right the raft and enter it solo before assisting the others on board. Nigel, a seasoned sea survival expert, also tested the stability of the rafts by attempting to capsize them by standing up and leaning over one side.

Liferaft survival aids compared

Item/make	Arimar International	Crewsaver Offshore	Plastimo Cruiser	SEAGO GX Offshore	Waypoint ORC Offshore
Red hand flares	No	????	3	3	Yes
Whistle	Yes	????	Yes	Yes	Yes
Hand pump	No	????	Yes	Yes	Yes
Manual	Yes	????	Yes	Yes	Yes
Pair of paddles	Yes	????	Yes	Yes	Yes
Repair kit	Yes	????	Yes	Yes	Yes
Anti-seasickness pills	No	????	Six per person	Six per person	Yes
Torch	No	????	Yes	Yes	Solas/MED approved

Arimar International

PRICE **£626** • CONTACT www.adecmarine.co.uk



Plastimo Cruiser 2882

PRICE **£949.63** • CONTACT www.plastimo.com





Seago Offshore GX

PRICE £599 • CONTACT www.seagoyachting.co.uk

This offshore liferaft, designed for coastal and offshore recreational sailing for non-coded boats, has evolved from the previous G model into the new GX and is available in 4-, 6- and 8-person sizes, either in valise or canister.

The tubes are constructed from black butyl rubber and the raft has an orange high-visibility ripstop nylon canopy. It was the only raft on test fitted with high-visibility (SOLAS-approved) retroreflective tape both on the canopy and the underside of the raft floor.

The large-capacity ballast pockets are lead-weighted to ensure quick filling.

An automatic high-visibility external flashing light and an internal light are fitted.

The one entry door is secured by two

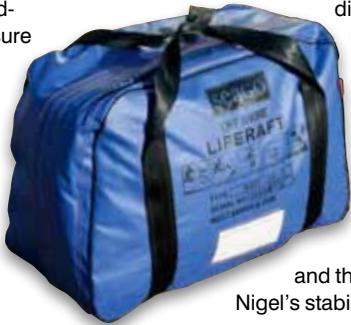
zips which could be worked from both inside and outside: this has the advantage that the top portion can be left open for ventilation. The door can be held open by Velcro fastener.

The inflation bottle is mounted to one side of the raft, with a two-hose inflation system.

Entry was straightforward both from the pontoon and solo from the water, using the two-rung ladder and internal ladder.

The raft, which had clear labelling both internally and externally, was very easy to right

when capsized because it did not fully invert – it floated on one side of the roof and righting was aided by a webbing strop attached for the purpose. The floor was stable and comfortable, and the raft passed Nigel's stability test.



Well-built with a wide door opening, the Seago was a good performer



Good-sized ballast pockets gave the raft stability...



...and meant that it stayed upright when one man boarded from the water

Waypoint Offshore ORC

PRICE £699 • CONTACT www.waypointliferafts.com



Crewsaver Coastal Leisure

PRICE £599 • CONTACT www.survitecgroup.com



More liferaft facts at a glance

Manufacturer	ADEC Marine	Crewsaver	Plastimo	Seago	Waypoint
Model	Arimar International	Leisure	ORC Cruiser 2882	Offshore GX	Offshore ORC
Weight measured (kg)	23.5	27.9	21	26	19.1
Size packed (mm)	690 x 300 x 350	680 x 380 x 250	700 x 420 x 250	650 x 300 x 320	600 x 420 x 240
Raft Size inflated external (mm)	1,600 x 1,600	????????	1,640 x 1,640	1,650 x 1,650	1,650 x 1,650
Size inflated internal (mm)	1,200 x 1,200	????????	1,220 x 1,220	1,220 x 1,220	1,430 x 1,430
Tube diameter (mm)	2 x 200	????????	2 x 210	top 200, lower 215	2 x 200
Material (tubes/canopy)	PVC/nylon	EV Marine Compound/????	PVC-coated polyester/polyester	Butyl rubber/ripstop nylon	HT nylon PU-coated/MT nylon PT-coated
Service interval (years)	3	3	3	3	3
Freeboard fully loaded (mm)	320	350	300	300	350
Time to inflate on test (sec)	20	12	12	15	23
Warranty (years)	12	????????	12	12	12

Buy or rent?

Typical rates for hiring a four-person valise liferaft are from £50 per week, but they need to be booked ahead at peak season.

A liferaft requires servicing every three years. This typically costs between £90 and £250 depending on age and contents.



PBO verdict

All the rafts tested came vacuum-packed in polythene. The test team preferred rafts with an insulated floor, and found the Waypoint raft's floor insulation to be the most comfortable. The team also preferred a weighted bottom rung on the boarding ladder: Seago feel

that a floating rung is easier to locate. The Waypoint was easiest to board from the water, followed by the Seago.

There were mixed feelings about door closure, but the consensus was that a zip closure offered better protection in bad weather, with the advantage of an upper ventilator and observation window.

The Crewsaver's rear window was declared a useful feature for keeping a lookout with the door closed. Two doors, however, give the benefit of being able to keep a lookout from both sides of the raft.

Bottle location should be either at the opposite side to the boarding ladder or at the side. An internally-stowed ladder was

essential for the first person to be able to board from the water. Four large-capacity weighted ballast pockets are clearly the best solution for raft stability.

The test teams identified two clear winners in this test: the Seago GX and the Waypoint Offshore, which jointly win the best buy accolade.