

10 things to think about when buying a multihull

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1. FUNDAMENTAL QUESTIONS

Before we consider issues of particular importance to multihulls, remember some important points relevant to buying any boat:

1.1.1. Who will you be sailing with

This is the most crucial yet most ignored question to be answered. The ideal boat for four fit and experienced friends is most likely to be a disaster if chosen by an inexperienced couple.

1.1.2. Where will you be sailing

Not just coastal v ocean and tropics v high latitudes, but also whether shallow draft is required for your favourite spots.

1.1.3. Where will you keep the boat

This question has much more significance for a multihull because their large beam limits the availability of berths and increases marina costs. On the other hand if you have a shallow water mooring a multi is going to be well-suited.

Once you have answered these questions and you are still wanting to buy a multihull then you can start looking at the options.

2. STRUCTURAL INTEGRITY



Whilst multihulls are lighter than most equivalent monohulls, the loadings are not less everywhere. The cross beams in particular experience massive loads and on catamarans the mast step is not easily supported. Clearly you need a pre-purchase structural survey conducted by a person with structural engineering experience of multihulls. This usually means a qualified naval architect. It is perhaps more important with multihulls than for monohulls to choose a designer and builder with a

strong track record. It is ironic that multihulls attract the amateur builder and designer yet they are far less forgiving of design error.

3. WINDWARD PERFORMANCE

Most (not all) cruising multihulls have poor windward performance, usually due to low aspect ratio keels or the yacht being overweight. This might not be important to you if you are happy to turn on the motors and bash into the waves whenever the wind comes forward of 50 degrees true. However, this comprises about one third of your entire time on the ocean (sod's second law of the sea) so if you don't like motoring and you do enjoy sailing, consider a multihull with dagger boards or similar high-efficiency underwater profile. There are of course trade-offs in space and complexity when considering dagger boards.



4. SAIL PLAN



Whilst multihulls are no faster on average than their equivalent multihull (see separate article), they are significantly faster on reaches. This brings the apparent wind forward and makes asymmetric spinnakers much more useful than on displacement monohulls. Check out how the boat is equipped for handling these big sails.



Whilst on the subject of sail plans, I have never understood why so many cruising multihulls have adopted the fat-headed mainsail used in high performance yachts. There is no advantage in a high lift-drag ratio rig on the low lift-drag ratio hull of a multihull with stub keels (dagger boards change the equation). So the cruiser ends up with a tiny headsail and a giant mainsail with no benefit in windward performance. The huge mainsail can be very difficult to reef, so check out the reefing system carefully, especially how easy or difficult it is to put in that essential third reef.

5. ABILITY TO RESIST CAPSIZE

Most modern multihulls are almost as resistant to capsize as modern monohulls. However, there is a sector of the market that is offering high performance cruising, created by piling on the sail area and increasing beam in order to carry the sail. James Wharram, the great designer of Polynesian still catamarans, recently suggested a simple measure of tendency to capsize: the windspeed at which the windward hull lifts from the sea. (Multihulls Quarterly summer 2013). Whilst he has not quoted a specific figure, he implies should not lift until at least 25 knots true wind speed. (Sailing magazines could do us a great service by obtaining and publishing this figure for multihulls they review). Ask the seller of your preferred multihull what the hull-lifting wind speed is for his/her boat before explaining your reason for asking.

Perhaps the most comforting answer is “I don’t know, it has never happened in thousands of miles of sailing”.

6. LIVING SPACE

This is the great selling point of multihulls. They have immense cockpit and deck space, but they are not always so accommodating down below (on a dollar-for-dollar basis), especially trimarans. Is your type of sailing going to be in sunny climes where the outdoor space is used regularly, or is it in damper, colder regions where more time is spent down below?

7. MOTORING PERFORMANCE

Having already recognised that many cruising multihulls spend much of their time motoring to windward, the choice of motor is very important. The use of outboard motors becomes quite attractive for boats up to around 10m length – light, easy to maintain etc. For inboards, the range of options also increases, as the engine does not have to function at the large heel angles of a monohull motor-sailing to windward.

Weight

Loading up a monohull with gear slows it down a bit. Loading up a multihull with gear slows it down a lot and can make it unseaworthy.

8. BRIDGEDECK CLEARANCE

One reason some people really hate sailing catamarans is their tendency for the bridgedeck (between the hulls) to slam badly. This can be so extreme as to make it difficult to stay in a bunk and can even cause back injury. There have been many attempts to reduce the slamming loads by modifying the shape of the bridgedeck, but it is difficult to achieve (despite many doctoral theses on the subject). However, it is clear that the higher the bridgedeck the fewer the slams. A minimum clearance of 600mm is sometimes quoted as an irrefutable law. I would consider it a useful guide.

9. STEERING VISIBILITY



On a monohull the only thing that is likely to get in the way of the helm's vision (besides the crew) is the sprayhood. On a multihull the problem is more significant, not least because of the enormous beam. Twin wheels help, but you get a lot of exercise running from one side to the other in tight docking events. Placing the helm station high up on the roof eliminates this problem but you are cut off from the rest of



the activity down below. Think carefully how you are going to be sailing the boat, who with, and where you are going to moor/dock it. Practice some of these things on a trial sail before committing.

10. VALUE FOR MONEY

I should perhaps have started with this as it is often the main driving force in any boat purchase (or perhaps I should say, the main rational driving force). However, it has already been covered in CH June 2014. To summarise, dollar-for-dollar a multihull is shorter, lighter, shallower draft, less sail area, slightly slower, about the same saloon area, and more cockpit area. Clearly these are generalisations but they are based on statistical averages. So whether a multihull represents value for money depends on your particular circumstances and priorities.