

## What to look for when shopping for a Catamaran. "Custom built or Production Catamaran"

There are a number of factors that should influence your decision in selecting a Catamaran such as the following:

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### Construction Materials and Methods

Foam core has several advantages: no deterioration, insulated, unsinkable and stronger than solid fiberglass, wood, and Aluminum when tested in the same manner. However, some foam cores are expensive, such as Airex. In comparison, some PVC foams say they are almost as good as "Airex", but in the long run, the minimal amount you would save using a inferior foam, would not pay off when the foam crushes under impact and you need to replace the entire foam and fabric section. Why would a production company knowingly install foam that will crumble under impact, or use a balsa-core which is heavy and will rot? They do!

We know wood rots, aluminum corrodes and solid fiberglass is heavy and an antiquated method of construction. So why not use materials that will outlast you and allow for great performance?

Vinylester resin is the latest in resins and allows, for the first time, ten-year warranties on hulls exposed to water against osmosis, otherwise known as blistering.

Epoxy resin is still probably the best, but expensive and in most cases, not necessary in most cruising cats.

Woven roving and thick, chonned strand mat is also obsolete. New materials are biaxial.

triaxial, kevlar, and carbon fiber, respectively increase in cost, which production builders find too expensive to use. They do allow strength without additional weight, which is a big factor in catamaran's performance.

Clients have realized that their custom build Airex foam cored multihull, has gone up in value over the years. Airex® foam core and sandwich construction produces a catamaran that is 35 times stronger than solid fiberglass, wood or aluminum. It is also is about 30 percent lighter; will not rot or corrode; and provides floatation that makes the catamaran "virtually" unsinkable.

Foam Types:

Foam Type	Features	Location	Brand Names
Linear Linked	impact resistant	should be used in hull, bulkheads, bridge decks	Airex
Cross Linked	less impact resistant	non-impact areas such as upper deck, above waterline walls	Airlite Herex

Most production companies build heavy solid fiberglass hulls, while others have a tendency to use foam that crumbles under impact in their hulls to advertise "foam core constructed" and must glue cut pieces into their mold. Unfortunately, the glue that is used in some cases, heats up as it cures and cause delamination before it is completed. All while trying to build fast and be able to say they are foam cored.

Hand layup of the composite materials allows for positive control, we apply a nylon release fabric to smooth out the fabric laminate which allows us to "squeeze" out any excess resins. The result is a smoother finish which requires little to no filler before applying the epoxy primer necessary for the final fairing. Expensive but well worth the results.

The bottom is protected with kevlar in areas, to allow for beaching and unexpected grounding. Kevlar is used as a lightweight, strong material and is used in bulletproof vests.

We choose a ten-year anti-fouling bottom coat called CopperPoxy. This product is very expensive and must be applied by hand by several people at once. Production builders roll on bottom paint, it's a less costly ways to build their boats. We know that our method will save the owner money in the long run when it comes time to haul-out the boat.

**Lightweight**

A catamaran must be light in order to perform well and carry a descent payload.

For example, a 50' Pedigree Catamaran built with composite foam core material weighs in around 15,000 pounds, whereas the same size production catamaran built from solid fiberglass or aluminum generally weighs over 48,000 pounds.

The equipment and personal belongings you place on board needs to be considered since it contributes to the total usable weight. Be careful of the pounds, they add up fast. Instead of

carrying 500 gallons of water or 4,000 pounds, consider a watermaker that produces 1 gallon per minute and a tank of 100 gallons or 800 lbs. Some production models push their range for selling purposes and must carry 20,000 lbs of fuel to do it as well as slow down to 10 knots.

Cats don't need to carry the several hundred feet of chain some builders list as standard equipment either. On a 50', 15' to 20' for each anchor should be more than enough for a properly built, light weight cat, with the proper scope.

#### **Performance**

Our lightweight foam core construction allow the best performance, smaller engines with less fuel consumption, resulting in longer range.

Production boats must use much larger engines to get even reasonable performance with their weight. Check out how much power they need. Also, for sailing yachts, production builders limit the mast height primarily because of the narrowness of the multihull therefore compromising stability. See below.

#### **Stability**

Check out the beam or width of multihulls, generally custom yacht are wider than production yachts. The wider your beam, the more stability and higher performance with taller rigs and less 'rocking and rolling.' Also, you will have more room with a wider beam.

#### **Safety**

Have you seen Boston Whaler boats cut in thirds and still remain afloat? They are foam core composite boats, and the same concepts remains true for our larger catamarans.

We can't say they are unsinkable (everyone learned that the hard way with the Titanic), but it is impossible to sink that much foam. Also we have reinforced our bows, bottoms, and keels and seal the area into separate compartments so water does not move throughout the boat if there is a leak somewhere.

#### **Latest in Design**

Pedigree Catamarans purchases the latest blueprint for each multihull we build from the designer chosen. The designers we use, are constantly tweaking out performance, checking on the latest materials they can use for weight and strength.

Production companies tend to use the same mold year after year in order to recoup their initial investment.

We do not build from molds that are 15 to 20 years old, each boat has a new mold built assuring that it is true and the latest design possible.

#### **Resale**

Wouldn't you prefer an investment that appreciates in value as opposed to decreasing in value as soon as you get it wet?

For 28 years, our multihulls have gone up in value for at least 5 years before leveling off since our boats are built from non deteriorating materials and to ABYC standards.

Another factor relating to resale value is where the catamaran was built. A boat needs to be built in the United States according to the Jones Act, before it is allowed to be chartered in U.S. waters.

#### Cost

Are production catamarans really cheaper? NO! The price is about the same for a custom boat than a production boat. Plus you get what you want, in the colors you want, not what someone else wants, to give you several selections to choose from then charge you extra for minor changes.

There is a downside to having a custom catamaran built for you, it will take time. Generally 10 months for a 50' catamaran, up to 3 years for a 105' yacht. But you get exactly what you want!

#### Watermaker Info

Most watermakers are rated by the number of gallons per day (gpd). But you will not want to listen to your generator for 24 hours a day, so you need to calculate how many times you plan on running your watermaker and how much water you need in between water generation. A 1500 gpd watermaker will produce about one gallon per minute at 95% efficiency. A belt driven 1500 gpd watermaker weights about 80 pounds, whereas an electric driven watermaker weights about 180 pounds.

Be careful of watermaker's ratings, generally, a watermaker will not operate at 100% efficiency in ideal conditions, plus there are other factors that determine efficiency including water clarity, temperature, and internal membranes.

For More Information, email us at [Info@PedigreeCats.Com](mailto:Info@PedigreeCats.Com)



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