



We wanted to design a small boat that would teach children the art of catamaran sailing again. There has been no new boats like that built in the catamaran industry for well over 30 years.

above left: Wave piercing bows.
above right: Two young girls sailing
the boat, one has never sailed before.
below: On trailer with shallow
draft rudders.

# BY WARREN GUINEA

he Nacra 350 was designed by Ross Guinea with the goal of creating a craft that was small enough for children to be able to sail by themselves and show them all the thrills of what catamaran sailing has to offer.

The boat features modern day looks with wave piercing bows and high volume hulls with a skeg design hulls. It has kick up rudders, a boomless mainsail, non overlapping jib and a fairly simple layout with a very clean trampoline area.

A lot of design work and ideas have gone into making the boat very simple. The hulls are a sandwich construction with many bulkheads being incorporated into the hulls, this was done to withstand all the treatment young children will dish out to the boat.

The hulls are made in two halves with more buoyancy down low where it is needed. Non-skid tread was placed along the hull to help grip while trapezing. The decks between the beams feature non-skid patterns which help the crew to feel stable while sailing.

The hull design is very unique, we have been able to incorporate the reverse bow wave piercing formula into a skeg type design. The result is a non-daggerboard boat with fine entry yet still obtaining heaps of volume.

The skeg design blends with the cutaway bow which maximises the pointing, tracking and tacking capability of the boat.

The trampoline area is large featuring a one piece mesh which can be easily fitted by one person. There is a large pocket at the front for storing halyards and other equipment.

The rudders are in two versions.

Shallow draft – which allows them to stay fixed when approaching the beach in shallow waters this was designed for clubs while children are learning.

The other type is high aspect carbon reinforced. The rudder system also features Ackerman steering which makes turning more efficient. A kick up pivmatic is also standard which makes

for safe beaching and will kick up on impact with under water objects, this is all done with no springs, pulleys or cams, again keeping the simple theory. The rudder system also features the clip on and off system which makes taking the whole rudder system off when trailering very easy.

There are lots of other clever designs incorporated. For example the captive mast step system which allows for safe raising and lowering of the mast. This is done by placing a pin through the mast base which locks the mast onto the step system, this is also used in the full range of Nacra catamarans. The mast is small enough to be raised by one person very easily and was designed to fit into a 20ft container making transporting the boat around the

# A lot of design work and ideas have gone into making the boat very simple



below left: Part of the test crew we used over the week.

below right: Pulling the boat up on the beach is easy.

bottom: The difference in design – enough said.

country very easy. The boat is under 2.1m wide which means the trailer does not need clearance lights, again helping to keep the cost down. The boat can also be towed on a box trailer or even on the top of a camper trailer. We then added a two piece mast as an option to help with towing on these trailers. It is a

simple design but works very effectively.

The rear beam incorporates a built in traveller car which helps to maintain the overall cost of the boat.

The sails are made out of monofilm and look very modern, the mainsail features a square top sail and is boomless, again keeping to the simple







theory. The jib is non-overlapping which makes for easy tacking and gybing for children. A variety of colours are available in the sails which is what children are after these days.

Other controls are a 6-1 mainsheet system which is more than adequate to handle the small loads. The componentry is shared between Ronstan and Performance fittings, they are all high quality and perform very well.

A retractable righting system has been set up as well, which makes the righting system very easy to reach in the event of a capsize. The boat can be easily righted by small children, over the winter months we tested this many times to make sure the boat was safe and easily handled by one to three children.

# THE BOAT IS AVAILABLE IN TWO VERSIONS

Clubman – Designed to be used as a training boat at a club level. Features

shallow draft rudders, mainsail only and no traveller.

Sports –
Features non
overlapping jib,
traveller system
and a trapeze kit
to teach children
the art of trapezing.

Pricing for the boat is \$7990 for Clubman version or \$8990 for the Sports which is excellent value when compared to dinghy's of comparable sizing and cheaper in some cases.

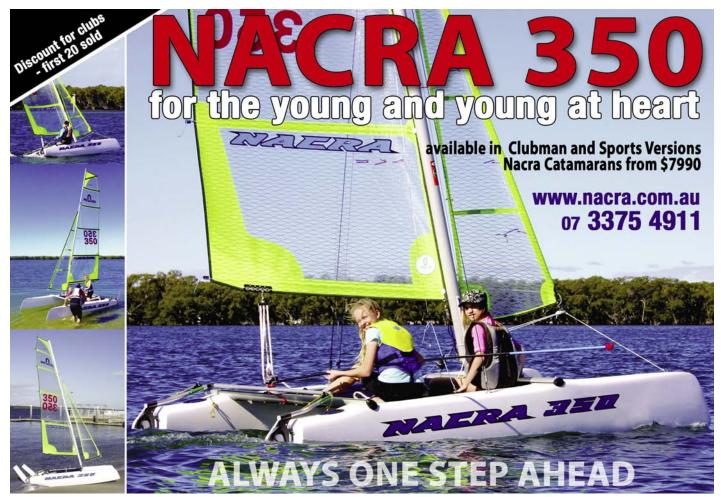
### THE BOAT FEATURES

- Moulded white sandwich hulls with built in non-skid
- Wave piercing design with large volume hulls
- Extra bulkheads for stiffness
- Boomless mono film mainsail modern design and looks sexy
- Pre shaped battens

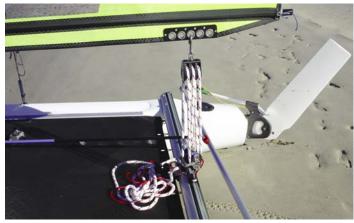


Clean clutter free trampoline, this was important as we wanted to make the sailing free of any sharp objects.

- Diagional cut mesh trampoline with pocket
- Ackerman steering system
- Kick up rudders for safe beaching
- Shallow or deep rudders
- Anodised spars
- Plastic coated shrouds for added protection to sail
- Adjustable trapeze system
- Incorporated traveller car system









top row from left:

6-1 mainsheet more than adequate.

Specially designed integrated traveller car system – helps to keep cost down.

Pivmatic kick up rudder system.

Shallow draft rudders.

above left: Boomless mainsail. above right: Captive mast step system.

• 6-1 mainsheet

- 2-1 jib system
- Captive mast ball system
- Colour scheme available
- Nacra's five year limited warranty

### PATHWAY TO THE FUTURE

The Nacra 350 is ideal for small children to learn the art of catamaran sailing, it is small enough to be handled around the beach. Over many years small monos have been appearing on the market place and children have been forced to learn to sail on them as there has been no NEW catamarans small enough for them to start on. With catamarans being used in the America's

Cup and now the Nacra 17 back as the multihull in the Olympics children are looking at multihulls and seeing them as exciting, faster, easy to sail and wanting to start learning on one.

This is part of Nacra's long term plan to design a range of catamarans that children can start on and work their way though the entire range and have a goal to aim for in the end. We feel the Nacra 350 will fit this perfectly, it can be used as a path through the mulithull scene to start out on and progress onto bigger and a faster boats one day. (Even America's Cup boats and Olympic catamarans). Children want the latest and greatest in all products in today's market so we designed this boat just for them.

It is still got enough excitement in it for the older person looking for a small catamaran to have fun on. We tested the boat many times with adults on it and was a ball of fun with the ease of simplicity in rigging.

The added trapeze system will bring a whole new life to children who have never experienced the art of flying a hull while on trapeze. At the time of this article going to print we had sold four boats with many quotes out to clubs for the boat as a training multihull in the their club. We expect to see them shortly around the country.

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# SAILING THE BOAT

Our test crew were some young girls aged between five and 12, all of them had a sail of the boat. Sometimes one up or three up. The boat sails very well and tacks and gybes very easily, it is simple to use with the boomless mainsail and all the other simple ideas on the boat yet has enough features to make sailing it very enjoyable once you have mastered the art of catamaran sailing.

One of the girls who used to crew on a larger catamaran had recently lost interest in sailing due to social pressures, after an afternoon of sailing the boat around by herself she was seen saying to her father to book the accommodation for the upcoming Nacra nationals where she will crew on a larger boat. I went to the club the following Wednesday afternoon where she was waiting for me to again use the boat. It was great to see that we had got children back onto catamarans.

We are offering clubs a discount on fleet purchases and the boat comes with a five year limited warranty.

More information can be found at www.nacra.com.au



# Dyneema<sup>®</sup> is the new revolutionary space age fibre used in our catamaran trampoline netting



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# WHAT IS DYNEEMA?

The world's strongest fibre (up to 15 times stronger than steel), providing maximum strength at minimum weight. This yarn may be found in products such as fishing nets, bulletproof vests, ropes, fabrics and other products that require little weight and maximum strength. DYNEEMA fibres are extruded from solution polyethylene and spun into yarn. It is a 'gel spinning process' invented by DSM. We have knitted this super fibre into a knotless netting especially designed for high performance trampolines.

- It is stronger than any other trampoline fabric
- It is much lighter than any other trampoline fabric (It actually floats)
- It is UV resistant with outdoor performance so far tested up to 10 years without any visible deterioration.
- It is soft and pliable and therefore pleasant to feet and skin.
- Its mesh size is ideal for draining so the boat gets no lift in heavy seas or retains water when scooping a wave
- It's suitable for any catamaran from a Hobie 16 to a large 60ft cat!

For more information on our Dyneema or other products please call Diane or Jan at Synergy Textiles:

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