

# RS CAT14



## Concept

The new RS CAT14 redefines the crisp handling and exciting performance attainable on a simple and durable catamaran. It truly surprises. Following refinement of the RS CAT16 over a three-year period, the RS CAT14 maximises advances in design and technology to deliver real novice-fun to performance-pathway sailing. Developed by design guru, Jo Richards and the RS team, the RS CAT14 will find a



natural home in sailing programmes; with young sailors aspiring to higher performance multihull skills and with recreational sailors looking for uncomplicated thrills.

The design-protected hull to beam joining system creates a significantly stiffer platform than other rotomoulded cats – providing the basis for advances in handling, enjoyment and durability.



## RS CAT14 specification

<b>Designer</b>	Jo Richards and RS Sailing
<b>Length</b>	4.25m 14' 0"
<b>Beam</b>	2.14m 7' 0"
<b>Hull construction</b>	Comptec PE3 rotomoulded polyethylene
<b>Mainsail – Dacron</b>	8.1m <sup>2</sup> 87ft <sup>2</sup>
<b>Jib – Dacron</b>	2.1m <sup>2</sup> 23ft <sup>2</sup>
<b>Gennaker</b>	9.0m <sup>2</sup> 97ft <sup>2</sup>
<b>Mast</b>	1-part aluminium alloy – foam filled top
<b>Rudder blades</b>	Aluminium alloy
<b>Rudder stock</b>	Moulded glass/nylon – lift & lock system
<b>Tiller extension</b>	Carbon fibre
<b>Capsize righting line</b>	Under trampoline

Optional launching wheels, masthead float, road trailer, wind indicator.

*“The boat’s inherent platform stiffness not only gives a crisp, performance feel, it also delivers more efficient transfer of power from the rig into boatspeed.”*

### **Stiffness**

Historically, rotomoulded polyethylene catamarans have suffered from flexing at the hull to beam joints, leading to a sloppy feel and sometimes a leak point due to the bolts “working” where they penetrate the deck. Dismantling the boat involves breaking the sealant around the bolts, necessitating careful re-sealing each time the boat is reassembled.

The RS CATs change all that. Their technical step forward is a design-protected hull to beam joint system. The beams are well supported in deck recesses and, most importantly, they are bolted through solid polyethylene into load-spreading bars located in recesses on both sides of the hulls.

Put simply, the strength and support in the join areas is enormous, so the overall platform is significantly stiffer - there is no possibility of leaking (because the bolts don’t penetrate into the hull) and you can

dismantle the boat quickly, with minimal tools, as often as you like because no re-sealing is required.

This fundamental improvement paves the way to precise, enjoyable handling and a higher performance feel than previously experienced in rotomoulded boats.

### **Durability & sustainability**

With stiffness issues solved by the RS system, the important benefits of rotomoulded cat construction are not compromised.

The hulls are highly durable; scratches are cosmetic and do not allow water ingress; they require virtually no maintenance; they are much less expensive than GRP boats.

RS Comptec PE3 rotomoulded polyethylene construction uses a three layer system:

- Hard outer skin
- Lighter polyethylene “foam” mid layer
- Inner skin.



The computer-controlled moulding process allows material thickness to be varied to provide strength where required – and minimize weight elsewhere.

The transom structural design has been handed down from the RS CAT16 where loads can be enormous. It allows rudder fittings to be bolted through a massively strong area without breaching the hull skin and removes risk of leaking. Worn transom fittings can be replaced easily and without sealant.

Importantly, RS rotomoulded hulls are also 100% recyclable. The recovered polyethylene can be made into lower tech products such as water tanks and truck bumpers (only the highest grade materials are used in the manufacture of RS boats).

Most other components such as spars, beams and fittings are metal, so the RS CAT14 is around 90% recyclable, by weight.

### **Carrying capacity & stability**

Versatility was a key element of the design brief for the RS CAT14. The boat had to work well singlehanded, with two youngsters (maybe more in school use) and moderate size adults.

The hulls have been designed with high levels of volume (buoyancy) compared to most boats of this length. A significant amount of the volume is incorporated into



the skegs under the mid section of the hulls, allowing the bows to remain fine enough for good performance but not so extreme as to create high risk of nosediving.

High volume allows the boat to carry more weight without digging in. It also gives exceptional reserve stability if the sailors are caught on the wrong side or on the trapeze during a lull. The volume makes the RS CAT14 tolerant when climbing aboard, lowering rudders or just having fun.

### **Rudder system**

Rudder systems are key components on all catamarans – especially when used by inexperienced sailors.

The RS lift & lock rudder system, which was developed and refined on the RS CAT16, is simple to use and largely eliminates risk of damage from grounding. Intuitive push and lock the tiller to lower the rudders – pull and lock to lift them – plus a quick-release if the blades hit the beach.

The rudder blades are aluminium alloy extrusions, so exceptionally strong.

Transom gudgeons incorporate built-in rudder retaining clips which are easier to operate and less prone to damage than old style separate clips.

### **Performance**

Reverse bows maximize waterline length, whilst saving weight forward and the high volume makes the boat tolerant, even when pushed hard – or inexpertly.

The boat's inherent platform stiffness not only gives a crisp, performance feel, it also delivers more efficient transfer of power from the rig into boatspeed. Hull panel stiffness is enhanced by the longitudinal recesses in the topsides. These recesses serve two additional purposes – hull to beam joining system and hand holds for easy lifting.

The RS CAT is well balanced, light on the helm and remarkably manoeuvrable. Tacking is more comparable to general purpose monohulls than to many cats – with the boat less prone to getting caught in irons. Learning or racing, this builds confidence and tactical options.

### **Rig**

Simplicity has been designed in at every opportunity, making the boat quick to rig and reliable. There is no boom, so safety aspects are maximized. The jib has simple hanks to remove the complexity associated with a furling system.

The mast incorporates a secure mast heel system to make stepping the rig quick and safe.

Options to use one, two or three sails compliment the versatility of the RS CAT14's hull platform. They allow the boat to be

configured to suit the sailor's experience and performance aspirations. Mainsail and jib are manufactured using high quality Dacron fabric for durability and UV resistance in strong sunlight regions.

### **Capsize recovery & safety**

The RS CAT14 is supplied with an aerodynamic, high volume mast head float and the top third of the mast is foam filled - both features reduce the likelihood of inversion and make capsize recovery safer and faster.

A capsize righting line is stowed in a pocket on the underside of the trampoline, within easy reach of the crew when stood on a hull. There is also stowage for a safety knife.

Toestraps below, as well as on top of the trampoline are incorporated to assist with capsize righting and holding onto the boat from the water.



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