IMPOSSIBLE DREAM

Impossible Dream

This extraordinary catamaran was created for Mike Browne, to whom she is a dream boat come true. But as Matthew Sheahan discovers, *Impossible Dream* is also a technical showcase for offshore sailing

Sailing quickly without getting wet or cold has long been a popular dream for many of us. Yet despite the proliferation of pilothouse and deck saloon cruisers with their wraparound panoramic windscreens and joystick controls, sailing from below decks rarely feels right.

Apart from the problems of restricted visibility, sailing a boat without having a hand on the sheets is surely the biggest problem. Even aboard boats that have push-button controls for the sheets and halyards, sailing from inside on a keypad is like flying a kite wearing boxing gloves – it's possible but frustrating.

But for Mike Browne, indoor sailing was an essential part of the brief. The yacht also needed to be capable of long-distance cruising and had to be suitable for a whole range of life experiences, from swimming with turtles in the Galapagos and snorkelling over coral reefs, to sailing around the frozen glaciers of the Arctic.

It was a tough brief to meet, given that Mike is paralysed from the waist down following a skiing accident. Before severing his spine Mike was the archetypal adventurer, climbing mountains and skiing all over the world. He made the outdoors his business as founder of the Snow + Rock retail chain. After his accident Mike decided he needed a new challenge and sailing was the answer.

"I was introduced to sailing the Mini 12s, 2.4m ▷

***Impossible Dream*'s cockpit is completely enclosed behind the curved, heated windscreen, with access from the stern (above left). However, there are two outdoor helming positions (above), one in each hull**

Photos:Malcolm White, Neils Obbee, Hovercam Ltd, Matthew Sheahan

Above: mission control. The central pod houses the main halyard and reefing lines. Above right, top: the well equipped gas-free galley lies opposite the saloon seating. Bottom: primary sheet winches may be inside but the crew have a good view

sailing boats, which I did for five or so years," says Mike, who went on to compete in the class at the 2000 Sydney Paralympics, where he finished 7th after being in medal contention right up to the final day.

"Although I'm a very competitive individual, I'm not very keen on face to face competition. I'm much happier pitting myself against Nature," he says. "Although I enjoyed sailing the 12, I wanted to find something that could give me a similar sensation to the attraction of heading off into the mountains. For me, offshore sailing does just that.

"When I saw the bright yellow Cool Cat at the London Boat Show in 1999 I thought: yes, that's what I'm after next, a 35ft version of her."

As often happens, modest ideas grow quickly, but this time into a boat nearly double the original length.

Mike believes that the multihull option was the safest choice for a person with his disability and that the configuration offers good performance as well. Freely admitting to being impressed and inspired by some of the Wally range, he also accepted that wheelchair access would still be a problem aboard a monohull.

Wide side decks, bulwarks the size of small walls and one level throughout the deck and saloon area were all essential criteria when considering how the boat could be handled by wheelchair users. All-round visibility from a seated position throughout the boat was also essential.

Although designed with Mike in mind, so innovative are some elements of Nic Bailey's design that *Impossible Dream* deserves serious consideration for a much broader range of future boats. The most obvious example is the indoor cockpit, the central feature to the boat's interior.

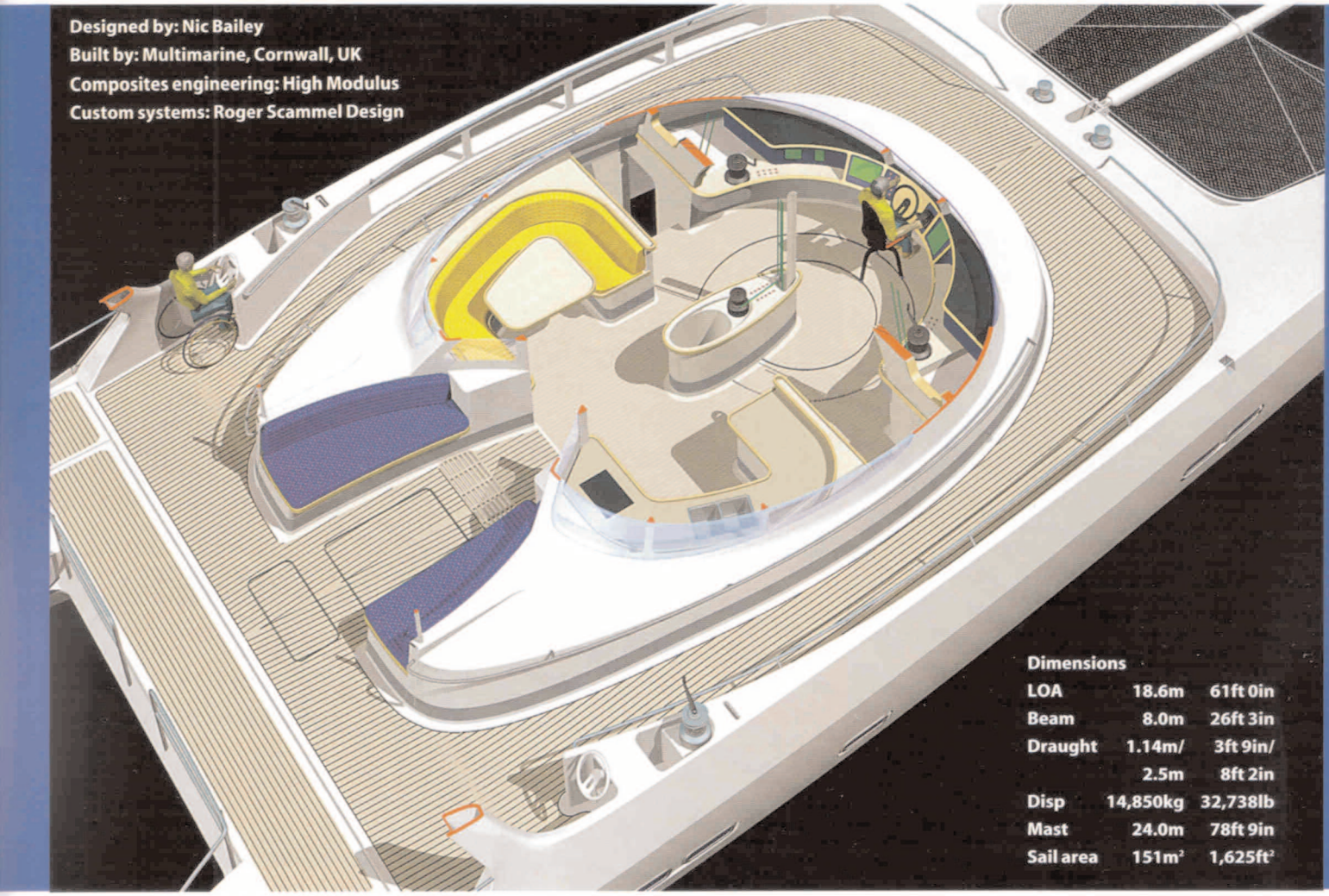
Where the saloon table and galley might normally lie, a small oval island houses an electrically driven self-tailing winch that operates the main halyard and reef lines. Above this station the cabin roof has large windows, enabling you to see the whole mainsail with ease. On the floor a pair of Harken tracks arc either side of the saloon, allowing the custom-built chairs to roll to wherever they are required in the area.

Further forward lies a Star Trek-type control console, complete with its centreline-mounted wheel and flanked by a pair of large self-tailing primary winches, again electrically driven. At first glance it appears that the whole of the main saloon area is actually a covered cockpit.

The main seating area is to port and the all-electric galley is to starboard, and it takes a while to appreciate just how big the accommodation area is.

But aside from the space, it is the overall concept of the saloon that is so striking. By having all the major sail controls here, *Impossible Dream* mixes business with pleasure in a way I've not come across aboard any other boat.

Although largely manual, with ordinary sheets and conventional self-tailing winches, the sail-handling systems allow for push-button hydraulic controls. The mainsail is an



in-boom furling affair built by Hood Yacht Systems and has a coarse and fine-tune hydraulic ram for the mainsheet. The mainsheet traveller is also hydraulically operated, but in this case the ram is located in the cockpit arch.

The headsails have a particularly clever system for fine tuning. They use hydraulic rams mounted on the forward face of the mast bulkhead which drive floating blocks to take a bight out of the loaded sheet and the system allows an amount of sheet to be dumped in an emergency. All of which gives Mike complete control from any helming position, where several red panic buttons are fitted.

However, when it comes to flying asymmetric spinnakers or the Code Zero, it was accepted right from the start that help would be required and the sails are hoisted using manual winches.

Elsewhere below decks the yacht has a spartan feel, something for which Mike makes no apology.

"I guess it's force of habit that I see a boat's cabin like my tent," he says. "Clutter annoys me and I'm the kind of person who prepares for a trip with a rucksack in mind."

In each hull lie two spacious yet simple double cabins. Wheelchair access down to this level is achieved using a pair of hydraulically operated lifts, similar to the pair used on the afterdecks for pontoon access. In order to allow enough floor space for Mike's wheelchair, the cabin sole is higher than would be normal, which in turn reduces the headroom, especially in the after cabin.

On the plus side, the high cabin sole does provide ample space beneath to fit hydraulically operated centreboards.

While the overall concept of this boat enables her to be sailed from inside, a pair of symmetrical outdoor cockpits are provided in each of the hulls. These fully fitted mini cockpits are designed to take Mike's wheelchair, but they are perfectly comfortable for able-bodied sailors too.

All round view

As you sit towards the extremities of the beam, the all-round view is impressive, especially given that there is a large deckhouse structure right in your line of sight. Yet with clever positioning of the windows and a distinct lack of obstacles, it's easy to see where you're going.

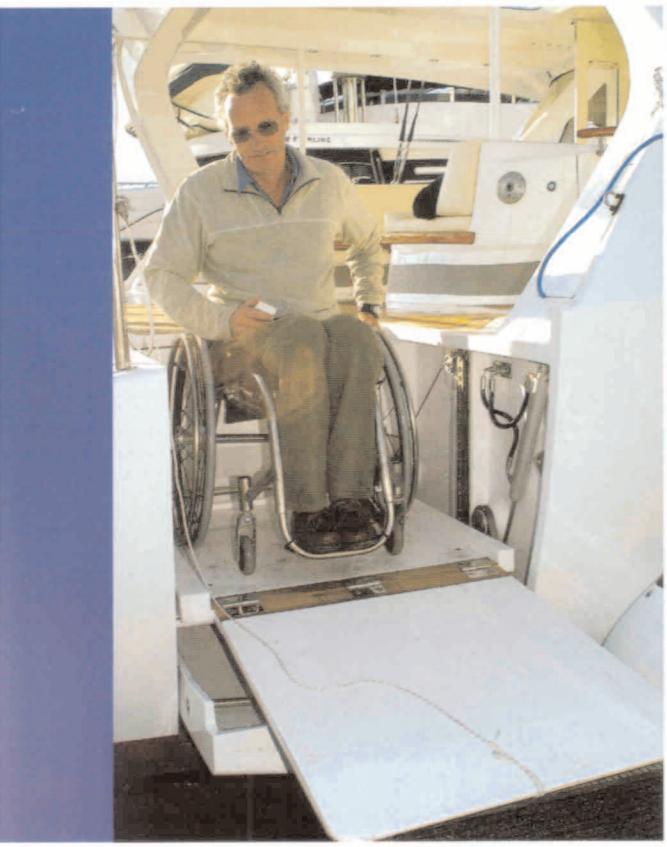
"Throughout the design process we were very aware of Mike's eyeline and the fact that he couldn't stand up to get a better view," says Nic Bailey.

The result is a very workable deck and here again there are valuable lessons for mainstream design. The huge locker spaces are very easy to access, fenders are built into the coamings and there are deep and practical rope tidy bins wherever there are tails to tidy. Just as impressive is the abundance of grabrails skilfully blended in without looking like an exercise in industrial scaffolding.

The boat is equally impressive under sail. Keen on performance himself Nic Bailey's designs are rarely short on sail area and *Impossible Dream* is no exception. Even ▷

Large and easily accessible lockers

Clever custom stowage in the bulwarks



"I'm not very good at face to face competition. I'm much happier pitting myself against Nature" Mike Browne

Top: one of four hydraulically operated lifts. Above: note the hydraulic fine tune and dump system for genoa sheets. Below: a good view from the starboard helm position

in light breezes of around 10-12 knots she is easily driven so long as you're prepared to sail her like a displacement multihull and drive off a little deeper to build up speed. Once you do, she starts to power up quickly and the slightly neutral feel on the wheel melts away.

She weighs 15 tonnes, less than half what you might expect from a bluewater cruising monohull, and as the breeze increased in the Solent she left little doubt that she'd outperform the monohulls too.

Helming from any one of the three steering positions is far easier than might first appear, especially from inside as you're positioned so far forward and the windscreen is so wide that you have an excellent view of the boat, the rig and where you're going. You're also sitting between the two primary winches, and whether tacking the sheets alone or with crew to help, she's still pretty easy to handle.

Although *Impossible Dream* carries around four tonnes of hydraulic equipment for the 40-plus controls, a great deal of attention has been paid to keeping weight down.

Much of the hull is in carbon, as is the rig and the 2.5m draught centreboards. Standing rigging is composite.

The hydraulic rams were custom-made in aluminium, and several other components were built in titanium. Even the twin 39hp Lombardini engines were chosen for their light weight, their aluminium blocks representing a 50 per cent weight saving over conventional steel versions.

Atlantic crossing

Aside from these more obvious weight-saving ideas, TP Electronics developed a new operational system which cut down on the size and weight of the wiring required for the various systems. So the boat has a number of computers operated from remote control stations, including a wandering palmtop and even a key fob.

Clearly, a boat with this many systems requires a good deal of power to keep it running, and for this *Impossible Dream* has several generating systems. The main generator is a 6.5kW Panda unit which produces both hydraulic and electrical power. There is also a 1,000W electric hydraulic pump for the lifting systems which is also capable of trimming the sails, albeit one at a time. Of the two engines, one is fitted with a 150ah alternator.

As this issue went to press, Mike and his crew were crossing the Atlantic on their shakedown cruise to the Caribbean before contemplating the more adventurous plans on his agenda. But during the Atlantic trip intrepid Mike took on yet another challenge. "I'm planning to take a Yachtmaster instructor with me across the Atlantic as I've got so much to learn it's not true," he explains.

I'd say he's got so much to offer as well. With one man's determination, two years' hard work and a ground-breaking design, *Impossible Dream* is an absolute reality. ❑