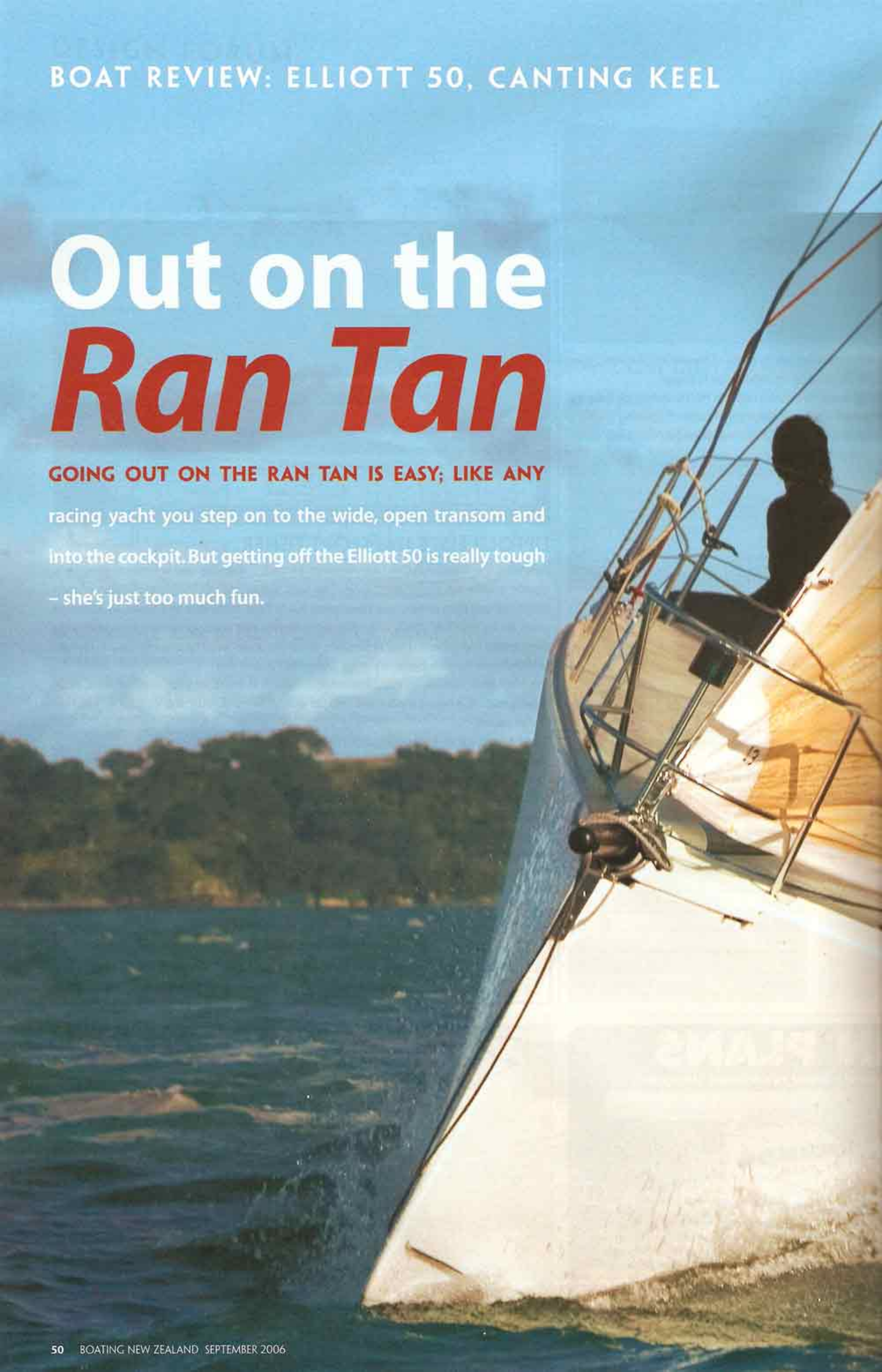


BOAT REVIEW: ELLIOTT 50, CANTING KEEL

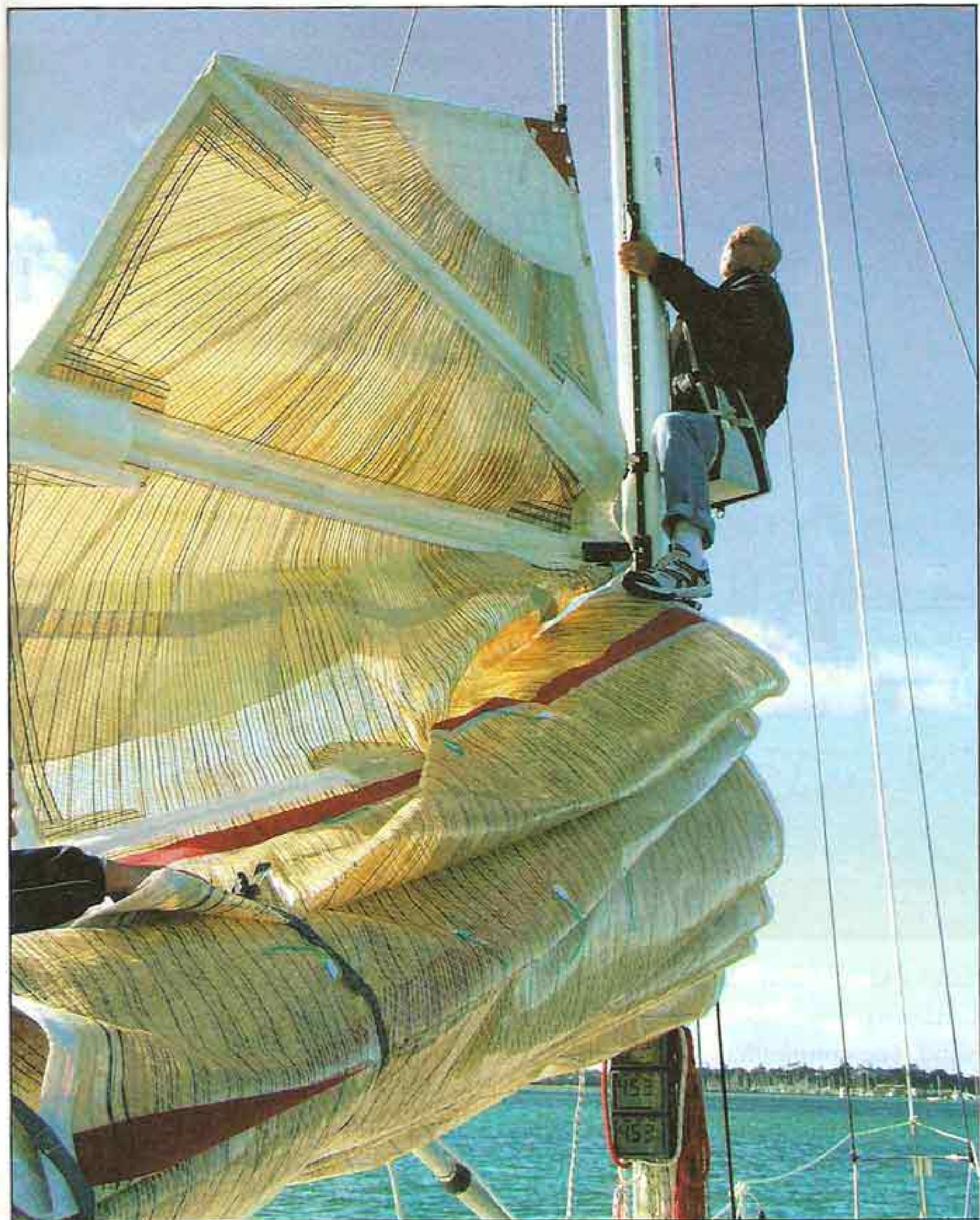
Out on the *Ran Tan*

GOING OUT ON THE RAN TAN IS EASY; LIKE ANY racing yacht you step on to the wide, open transom and into the cockpit. But getting off the Elliott 50 is really tough – she's just too much fun.









Most of that enjoyment comes from the sense of being directly in touch with the beast: the wind slides over the sails – the electronic speed log whizzes up like the bathroom scales on Christmas Day. The stiff, light construction translates the boat's every movement to the crew; it's pure sailing.

Ran Tan II is the younger sister to *Sportivo*, featured in last month's story on the Auckland to Fiji Race, by racing crew Richard Bicknell of North Sails. Bicknell's story describes ocean racing on an Elliott 50 in more than 40 knots. However, *Sportivo* is publicity shy and so it fell to *Ran Tan II*, owned by Wellingtonian John Meade, to face the media for a boat review. *Boating's* sail on *Ran Tan II* was non-racing, and in less than 20 knots – tame compared with 40 knots to Suva but it provides another perspective as canting keel yachts move from the world of international mega-sponsorship to a marina berth near you.

For our sea trial in the sunshine, I joined Doyle Sails' Richard Bouzaid, Phil Houghton and Andy Pilcher; boatbuilder Greg Salhouse of Salhouse Boatbuilders in Greenhithe, who also built *Sportivo*; and *Ran Tan II* crew Ross Masters.

I'd expected to be daunted by the hi-tech racer that attracts rock star sailors but it just seemed so darn easy. The deck layout is similar to the Elliott 11m, *Mrs Jones*, [*Boating* April 2006]. Wide clear sidedecks make it easy to move sails around. The genoa cars are short and well inboard, for the 108% all-purpose genoa and smaller headsails. The coachroof is relatively uncluttered by control lines and, despite there being no labels, it was simple logic to identify the right line.

These included the control lines for the retractable, rotating prod, and for the

ABOVE: Richard Bouzaid feeds the mainsail, standard procedure with square-topped mains. **FAR LEFT:** From left – Phil Houghton, Doyles; Greg Salhouse, Salhouse Boats; Richard Bouzaid, Doyles. **LEFT CENTRE:** The two buttons control the electric hydraulic system for the canting keel, pictured in its wetbox, left.



The immaculately built, Elliott 50, *Ran Tan II* was built in foam core-carbon fibre sandwich by Salthouse Boatbuilders in Greenhithe. Downwind, boat speed comes close to true wind speed. On this run, she kissed 18 knots although her wake would suggest a gentler pace.

lifting canard, or daggerboard, which goes through the hull for'ard of the keel. This provides directional stability upwind when the keel is canted. *Sportivo's* canard is angled to gain lift but needs to be adjusted for every tack. Meade, *Ran Tan II's* owner, opted to forego that job in the

tacks and accept the slight loss of lift. The canard is partly raised when sailing downwind. The cunningham and outhaul are out of the way, on the mast.

There's a winch for every job, too. *Ran Tan II* has two, two-speed Lewmar power 48s on the coachroof for halyards and

gennaker trim, which makes for a comfortable grinding position. Despite being on a boat with four strong lads I found myself grinding the kite – I'm no Goliath but could manage only low gear in 15 knots of breeze so the winches may be a tad under-powered. However, Meade

likens the boat to an elongated 45-footer, in terms of reduced mast size and winch power, because she is so easily driven.

The racing style cockpit has three pairs of winches for primaries (54), mainsheet and runners (48 each). The traveller runs across the cockpit sole behind the helmsman with mainsheet and traveller controls led forward for trimming in front of the helm, to keep weight forward and for good helm-trimmer communication.

The twin helms are well forward to keep weight out of the back of the boat so the working space in front can get crowded with a full crew, however the space between the twin wheels helps here.

At six tonnes all up, *Ran Tan II* has 2.5 tonnes of ballast in her canting keel. Bow on, the boat's waterline presents a sharp entry and the flared topsides reach a maximum beam of only 3.86m, narrow for a 15.2m (50ft) boat. Her draft, keel down, is 3.8m.

All of which means she glides through the water like oil over teflon. Just tootling along under mainsail while we hoisted the jib, we were doing 10 knots.

The sails are Doyle Stratis technology, moulded sails made in New Zealand. The fully battened mainsail has C-Tech carbon fibre battens to maintain the square top roach and, it may not make them go faster, but the sunlight on the gold threads looked particularly pretty for our cover shot.

Salthouse was at the helm as we sheeted on. In less than eight knots of

true wind, the Elliott's keel would be centred beneath the boat but we had about 15 knots – soon a hydraulic whine announced the keel was canting up to windward.

The keel operation is so simple that even I could helm the boat through a tack and operate the keel at the same time. There are two buttons, red and green, on the helm console. Say the keel is out to windward, eg to starboard, and you want to tack. You press the red, port-side button to centre the keel. The boat's PLC, programmable logic computer, ensures the keel stops exactly in the centre. It takes about two seconds.

Then, you turn the wheel to tack the boat and hit the red button again as the boat comes through the wind. The hydraulics whine again and the PLC stops the keel at its windward position. You can even look over the side to see it for yourself. The hydraulics are electrically powered by a dedicated, 24V battery bank so, at least on harbour races, there is no need to run the engine while sailing.

On the wind, *Ran Tan II* tacked through less than 60 degrees, and was up to speed within seconds. Upwind, she sails at 24 apparent wind angle.

If you start to cant the keel but change your mind, you just hit the button again to stop it; hit it again to take it back the other way.

There is also that bothersome trait of canting keel boats to lay down on their sides if the keel somehow ends up out to

JOHN MEADE, OWNER

In his younger days, John Meade was a competitive long distance runner. Twenty years ago, aged 46, he set himself a goal – to skipper his own offshore racing yacht.

He knew nothing about sailing, but took his friends' advice to buy a Noelex 25, as a class boat. He towed it to the Auckland nationals and found some crew on the dock. "We put up an enormous fight not to be last," he deadpans. "We could get to the top mark but from there it went downhill, literally." They finished second to last.

After five years he had improved hugely and his friends suggested a Young 88, which he still owns. He began another learning curve but did races to Nelson and Gisborne in 1995 and collected 14 cups, winning on IMS, PHRF and club handicap.

The discipline he had honed as a long distance runner came in useful. "If you could helm through the night, you had an edge. You keep concentrating, stay on the gas." It is that aspect which attracts him to offshore racing.

The 1987 recession slowed his progress into a 50-footer but, meanwhile, yacht racing evolved to canting, lifting keels.

When he saw *Sportivo*, he knew: "This is me."

"As a designer, Greg Elliott has always been at the forefront of design," Meade says. "Most of the people who go to Greg have to have a sense of adventure."





Ran Tan II is surprisingly easy to sail but, as a powerful boat, she needs experienced crew in a strong breeze.

leeward, such as a Chinese gybe or — as has happened — the skipper gets flustered during a tacking duel and hits the wrong button. The fixed-keel opposition should take note.

The plus side is that the hydraulics and two-button controls make it relatively easy to get the boat on her feet again.

I've always found Elliott boats particularly nice to helm and *Ran Tan II* continued the trend, although I wasn't doing a 100% job of it. In common with modern racing yachts and canting keel boats especially, there's little weather helm; the boat doesn't naturally take the lifts, it's up to the helmsperson to twitch the wheel and go and get them.

That's not a downside; the steering response is instant and accurate. You want five degrees to port? You put the boat there.

Ran Tan II has conventional wire and quadrant steering, with the rudder in the conventional position. This differs from *Sportivo* which has a transom-hung rudder. *Sportivo's* keel lifts to 1.8m draft to accommodate the Tamaki Estuary and it was preferable to have the transom hung rudder. *Ran Tan II's* keel lifts to 2.4m draft, so the keel still protects the rudder.

Ran Tan II usually has a maximum of 10 crew around the buoys, and expects to have eight for offshore. We were light with just five and even with her ballast canted to maximum, she felt tender. If we

centred the keel when sailing, from canted, the boat immediately heeled by about 15 degrees.

Ran Tan II has a basic suit of sails, designed by Richard Bouzaid from his Volvo 70 experience. We first hoisted the $\frac{3}{4}$ oz masthead gennaker for up to 25kts true running, and later the heavier, fractional gennaker. The wardrobe will eventually include specialised reaching sails.

Under gennaker, the boat speed almost matched true wind speed: thrilling stuff that kissed 18 knots on the log. Meade had said that on his first sail on *Ran Tan II*, he couldn't wipe the grin from his face and was amazed that there was no wake: "That's a true sign of an easily driven hull," he said. He's right; look behind *Ran Tan II* and you can barely tell you've just been there.

The downhill slide was so enjoyable, I didn't want it to end but the efficiency with which the boat translates wind into speed makes it obvious that in a strong breeze her crew could quickly have a tiger by the tail. Those who have sailed on Elliott 50s in such conditions confirm this to be true and Meade is scouting carefully for crew to campaign his boat. Two-handed racers would need to be expert, young and fearless.

During the sail, I also checked out the holy grail: the canting keel. It lives in its wetbox, between two bulkheads. I'd peeked in here before we left the dock — it's still hard to accept all that sea water has a legal right to be inside the hull. Westhaven silt lay either side of the opening where the keel passes through



FROM TOP: The rotating, retracting prod; ocean racing galley with bench, stove and sink; home, sweet home.



the hull but this was soon cleaned out by the automatic rinse cycle as we motored out of the fairway. On a fast blast downwind, the wetbox even develops a rooster tail.

The most impressive part of the wetbox is the brute, metallic strength of the canting keel and its keel box. No kilos spared here, unlike the rest of the boat where a tap on the inside of the hull sounds like fingers tapping a drum. The hull construction is foam sandwich inside carbon fibre, unidirectional skins.

Most canting keel boats have a massive

hydraulic ram which cants the keel. On *Ran Tan II*, the ram cants the keel box, which contains the keel, to simplify the process when lifting the keel. Rather than disconnect the hydraulic canting ram, the crew take the lifting strop from inside the centre case, attach it to the top of the keelbox and wind it up using a separate hydraulic ram and pulley system secured at the bulkhead.

The trade off of the keelbox is that the keel cants to only 35 degrees, instead of 40, losing some righting moment.

Meade doesn't plan to cruise *Ran Tan II* beyond having a few friends onboard for a few days after a Fiji race but he describes it as having all the trappings for cruising apart from a full galley – 'trappings' is relative. The décor is carbon black with relief from white lockers and while *Sportivo* has scarlet squabs of a colour I once likened to a naughty lady's fingernails, *Ran Tan II*'s squabs, from Doyles, are as yellow as a polka dot bikini.

There is a vee berth up for'ard; just aft is the sail locker directly below the for'ard hatch and then, aft again, the spacious head. It's private, sort of, by racing yacht standards. She has a marine grade toilet with space for a Porta-Potti in lieu of a holding tank in port, and a califont and shower but comforts are minimal.

The galley uses the wetbox as a seat from which to operate the gas stove and sink; think dehydrated mulch rather than Sunday roast.

Sportivo is sometimes described as the "wicked up" version of the two and even Meade describes *Ran Tan II* as the "dumbed down" version of *Sportivo*.

He's referring to features such as the non-angled canard, the keel canting to only 35 degrees and *Ran Tan II*'s conventional carbon mast, rather than a rotating wing mast. This saves the extra complication when tacking and gybing, but while Meade believes a rotating mast to be faster, he believes it can create drag if not tuned correctly.

Meade is absolutely sold on canting keels, especially lifting canting keels. "I believe that, ten years out from now, if canting keels prove themselves in cruising boats, every new boat will have one.



Ran Tan II bears away as the sun filters through her Doyle Stratis sails. On a good day, she can race with as few as six crew, and a maximum of 10.

SPECIFICATIONS

loa	15.2m
beam	3.86m
draft, keel down	3.8m
keel up	2.4m
disp	6000kg
ballast	2500kg
engine	3JH4E 39hp Yanmar saildrive

"They're great for a family or owner to go on a voyage in quick time without having a lot of people on the rail."

That remains to be seen. Certainly

they will become more common and, as *Ran Tan II* shows, their operating systems are getting simpler. But, a canting keel still generates serious horsepower

and, in a building breeze, horses can bolt. Meanwhile if you're invited out with a good crew for a day on the *Ran Tan II*, go for it.



Suppliers to *Ran Tan II* include – Elliott Marine: design; Salthouse Boats: construction; Doyle Sails: sails, squab covers; Power and Marine: engineering; AGM: batteries; Mast and Spars: mast; Kiwi Yachting: Lewmar winches; Marine Metal Fabrication: stainless steel work; Fosters: Harken deckgear; Whitlock steering; Silva autopilot; ICOM VHF, SSB; BEP switchboard; Force 10 stove; Awlcraft Paints; Alpine lacquer; High Modulus: structural engineering; Jabsco head, Whale taps; Hydraulic and Engineering, Whangarei.