



boat has huge potential,' grinned a delighted Elliott afterwards.

Elliott Marine carries its beam well forward and its blister coach roof denotes a machine with serious off-shore work in mind. But it is higher up that this boat captures attention. Two equal length rotating carbon wing masts, with diamond stays and all Kevlar standing rigging, create something of a stir. The masts are well separated, with the aft mast considerably raked to maximise the separation for efficient use of staysails. Between them the masts represent 200 sq ft of sail area.

Then came the first outing and the sail plan, developed with North Sails, was revealed, giving new meaning to the term 'square rigger'. The two mainsails feature squared headboards made of Kevlar and carbon which project the roach well back from the mast and maximise the sail area on relatively short masts – big horsepower with a low centre of effort.

On the first sail the angle of the headboards was not quite right, allowing the top of the sails to open up. A simple realignment of the headboard angles cured the problem instantly.

The full sail inventory has yet to be decided, but it is already established that less, rather than more, will be the rationale. 'Depowering the boat will be key', Elliott agrees and to this end very deep reefs have been built into both mains, which would be reduced simultaneously to maintain balance. The boat will also sail very efficiently without headsails.

The BOC single-handed round-the-world race springs to mind, as does next year's Melbourne-Osaka race. The cockpit layout, with most of the major controls falling to hand close to the helmsman, suggests short-handed sailing is on the itinerary, but Elliott says the boat is not built with a narrow focus.

'My philosophy today is that you cannot afford to just go down one track,' he says, 'there has to be room for more than one type of racing'. Water ballast, for example, confines the boat to too few events (the BOC and the Globe) so Elliott Marine does not have any. Its stability comes from a very deep keel (more than three metres) which is made up of a carbon strut and lead bulb.

The plans are for the boat to compete in the Melbourne-Osaka race and Elliott makes a prediction designers rarely risk: 'I believe this is the boat that will win the Melbourne Osaka Race. I believe that very strongly.'

But Elliott Marine is also destined for fully crewed racing. 'With careful designing and ►

NEW ZEALAND

Every now and then a new boat comes along to nudge the state of the art – and define the designer. Greg Elliott's own racer Party Pro, which burst on the scene in 1986, was one such project.

It announced the arrival of a creative thinker prepared to follow his own instincts. Party Pro, with its pugnacious, slope-shouldered appearance, ignored the aesthetics of the time and the dictates of the IOR. This was definitely a boat with attitude, although it hardly had time to demonstrate its real performance before being lost in a wreck while comfortably leading the Fiji race in 1987.

Now, nearly a decade later, Elliott has come up with something different again. And while this may not exactly redefine the designer – some of its features have been seen in his earlier boats – it does present an amalgamation of concepts in a highly individualistic project.

Elliott Marine was not a commission built to the demands of a client, this is the designer's own. But he does have two partners in the boat: Tom McCall, who has been a faithful Elliott supporter, and Tauranga yachtsman Brian Petersen.

On its debut sail on a clear, windy Sunday afternoon in mid-July, Elliott Marine demonstrated a blistering turn of speed. In a brisk 20-22 knot westerly, the boat lifted its bow and hurtled along in the flat, sheltered waters of Auckland's East Coast Bays.

With just a No.4 headsail and the two distinctive mainsails up, the boat was tracked at 16.5 knots with the wind at about 60 degrees apparent. 'This

WHAT'S UP down under

Ivor Wilkins in Auckland and John Roberson in Perth

Main photo: Greg Elliott's latest creation showed great promise during early sailing trials off Auckland harbour in late August

The 50-foot Elliott Marine relies on a canard to provide the balance and lateral resistance necessary for good upwind performance. The main keel – plus bulb – are mounted well aft for good offwind speed and better control – especially when sailing short handed



planning you can do both,' says Elliott. 'Short-handed boats are never sailed to 100 per cent of their potential. Two people, or one person, simply cannot do the work of 12. The design has been set up so the management of the boat is kept close to the helmsman, but with enough space in the members' stand for a crew to work efficiently as well.'

Once the boom-to-mast angle has been set for the prevailing conditions (usually with the mast over-rotated), the mast will rotate automatically in response to mainsheet and traveller adjustments.

With all Kevlar standing rigging, the rig sounds like a major engineering feat, but Elliott insists it is not a complex arrangement. 'Actually it is very simple – far easier than the multi-spreader, multi-stay arrangements you see on an IMS boat, with all the rig tension and compression that goes with it.'

If the boat is different above the water, it is also interesting beneath the surface. The two masts are matched by two foils. The main keel, which can be raised on a portable gantry for getting in and out of shallow harbours – but not for sailing – is situated behind the mid-point of the boat, between the companionway and the steering position.

'Putting the keel in the back third of the boat promotes exceptional reaching and running performance,' says Elliott. For upwind efficiency, a retractable canard foil just ahead of the forward mast is used.

The hull construction comprises a carbon/Kevlar outer skin over a divinycell core with a Kevlar inner skin. For the bottom of the hull, the divinycell is replaced by a balsa core. The hull shell is well supported with bulkheads and frames. 'It is a girder and diaphragm arrangement like the old aeroplanes used,' says Elliott. 'The panels are kept small, not like some modern boats where the bulk-

heads are removed, and they rely on the core stiffness. I don't believe that's the way to go.'

The interior is spartan even by modern racing standards, with a single burner LPG cooker and a plastic tub making up the galley, a minimal stand-up navigation centre opposite and the familiar pipe berths down the side.

The Elliott gastronomic philosophy is to make plenty of sandwiches and freeze them. Hopefully you finish races so quickly that the last sandwiches are still defrosting. If the race goes on long enough for the sandwiches to get stale, you fry them. Clearly, for the sake of culinary well-being, if for no other reason, this is a boat in a hurry. Fortunately from its early showing it won't be that often that the sandwiches have time to go stale.

