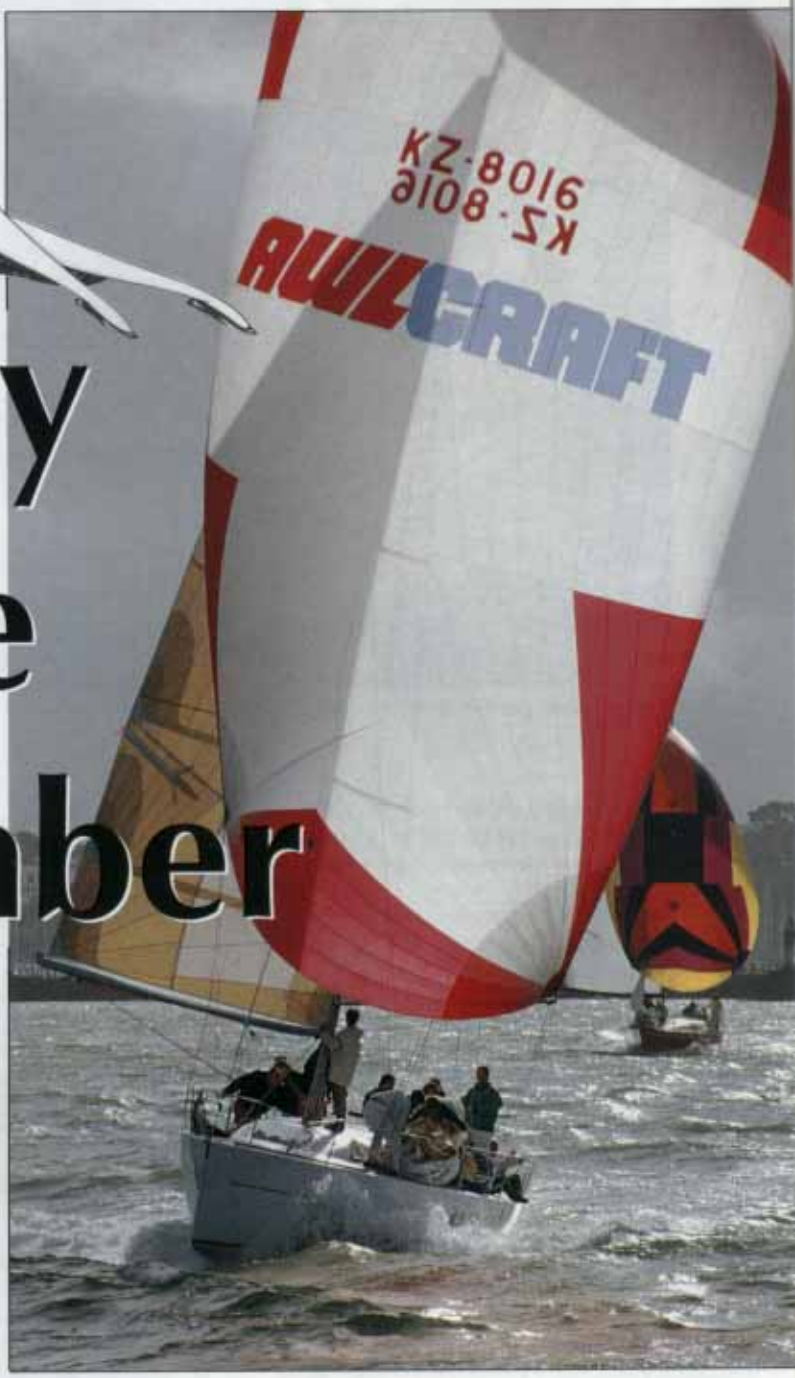
Sassy little number



My battered old dictionary says *sassy* is American slang and refers to the entry under *saucy*. *Saucy* is defined as being "impudent to superiors, cheeky, sprightly, smart, stylish".

Tom McCall's new Elliott 12m designed for the IMS rule is certainly all of those. On a Wednesday evening race which doubled as our boat test, we got the jump on the fleet at the startline and stayed ahead of boats 5m longer until a 25-knot squall suggested it was time to drop the big masthead spinnaker and change to a fractional chute.

Not showing too much respect for the bigger boats ... impudent almost. A few minutes

Even upwind Sassy's bow is inclined to lift clear of the water.

later, we cranked up to more than 14 knots and took some time out of the few ahead — most of whom seemed to be on the point of a fairly major skid.

In contrast, once Sassy had loaded up in the puffs, we were flat, driving fast and accelerating without any speed wobbles.

We were seeing the cheeky side of Sassy's personality.

After a bit of "excuse me!" around the turning mark as two fleets converged, Sassy showed her upwind performance is as sprightly as the dictionary indicated it should be.

Those watching from an escort powerboat reported she kept her bow up at all times, carried her sail well and didn't need too much effort from the crew to keep on her feet. Her whole attitude suggested a boat straining at the leash, wanting to leap up and surf at the slightest provocation.

Onboard, Sassy seemed to accelerate nicely in the puffs, with a good solid feel about her in the fresh evening breeze.

A very stylish lady, without too many airs and graces. And certainly no vices — unless you count a penchant for fast rides a vice.

After the crew packed Sassy away, Greg Elliott gave a walk-through and explained some of the philosophy behind the design.

"This is a general purpose 12m yacht designed to compete in open company and still be relatively competitive under IMS," he says.

"The IMS rule is like the IOR. You'll never beat it. But my thinking is that in five years, this boat will still be around and it will still be a good all-round 12m yacht. I think we have the best of both worlds.

"The boat is very well balanced," says Elliott, who helmed Sassy to an impressive fifth across the line, behind the much larger campaigners Starlight Express, Emotional Rescue, Longfellow and Icefire."

In terms of control, Sassy is no different from Tom's last boat, Peacemaker, he says. "In the round North Island race we used just one Autohelm 2000 on Peacemaker.

"When the boat was sold, they used the same Autohelm across the Tasman from Auckland to Melbourne and then for the Melbourne-Osaka race. These boats are easy to sail — which I think is important."

Three yachts have been built to date from the basic design. Sassy is the racer/cruiser, Total Recall (Ron Brittain) and Terminator (Bob Wilson) are the "sedan" version. The principal differences between the two versions are in the accommodations and rigs.

Our race aboard Sassy begs comparison with a One-Tonner, also about 12m long, but designed to the International Offshore Rule as a strict racer.

Below, the One-Tonner is stripped right out with a minimal galley that hardly justifies the name: a couple of camping gas bottles attached to a lightweight stainless steel frame and burners.

A One-Tonner's berths consist of pipe cots adjusted by a small rope tackle for angle. Of course, the berths are really just there for effect as the crew are required to perch on the rail all night to keep their charge on its feet. (That's assuming they've actually been forced to sail at night, which most thinking IOR crews desperately try to avoid.)

By comparison, Sassy has a full galley, plenty of bench space, a couple of sinks, pressure water, a number of fixed berths with backs, a fixed table, freezer, lockers with doors, full navigatorium, shower and enclosed toilet ... all the comforts an IOR crew dream about if they are ever caught on an overnight offshore race.

One could be excused for thinking that with all these creature comforts (read weight) stripped from them, the One-Tonners would

be slippery downwind and a real delight to sail. Not so.

In the conditions of our test, the One-Tonner would have been on the margins of control all the way down the harbour. At best it would have been doing 10-11 knots and not even looking like getting on to the plane.

By comparison, Sassy was flicking from 8 knots to more than 13 knots without any problems at all. The sensation is similar to a kid riding a skimmer along the water's edge. As the puff hits, the hull just seems to lift a couple of centimetres and the numbers on the log climb and climb. Absolutely magical.

Upwind, the performance of the IOR yacht and Sassy, the IMS counterpart, is not too dissimilar. One-Tonners were always fairly good upwind, but Sassy is better.

The relatively short tiller requires little movement to ease her through the puffs. The crew aren't exactly working their pants off to keep her trimmed in the gusty south-westerly. It's pretty much a case of sheeting on, cleating off and letting the rig and the hull do the work.

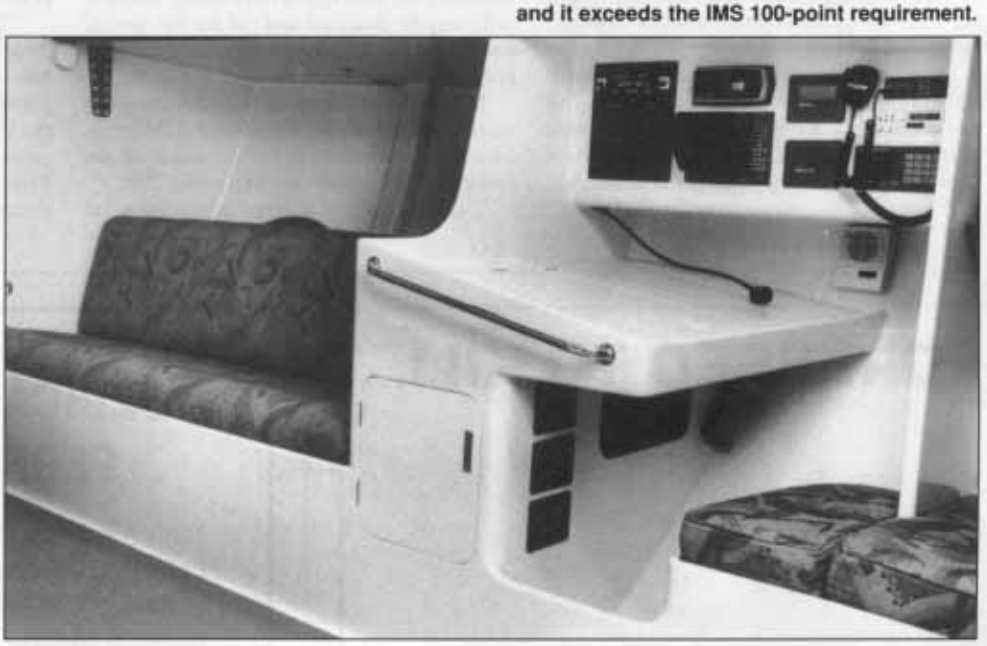
Price-wise, Elliott reckons Sassy is about half the cost of a One-Tonner. "Is there twice the enjoyment, with carbon rigging and the like aboard an IOR yacht?" asks Elliott. "I don't think so. And I'm sure there's not twice the speed.

"The name of the game in yachting should be to get as many people out on the water as possible, which you can't do if there's a high price tag attached. People just shy off once you start talking about carbon-fibre hulls, Nomex, titanium and carbon rigging.

"Internationally, I believe that IMS, and this style of boat, will be the direction of the sport.

"The glamour boys of IOR have changed the yachting scene around too much. Personally, I enjoy offshore racing.

Sassy's interior is bright and comfortable ... and it exceeds the IMS 100-point requirement.



"All that has happened under IOR is that races have got shorter and shorter. Crews won't go out unless the sun is shining. In the evening they wander back up the marina, guitar cases in hand and head for the yacht club.

"That's not offshore racing. It's supposed to be the International *Offshore* Rule, but the boats and crews are not capable of it any more. It is very difficult to race the modern type of IOR boat offshore. They don't want to slip through the water in a comfortable manner."

After this short, emotional outburst on the impact of the IOR on yachting's delinquent youth, designer Elliott returns to the guided tour of the deck layout.

The forestay is without a rigging screw. A short connecting length of rod is fitted between the jib foil and the forestay take-off point to give any adjustment.

"We don't adjust the forestay, just set it up at the designed rake and work from there. It saves the cost of high-performance rigging screws, which are not cheap these days."

A triple halyard system is carried forward and the two spinnaker halyards are Spectra with the covering stripped. "It saves weight aloft and also allows the halyards to run with less friction during a drop," explains Elliott.

Sassy's rig is by Sparcraft and is a three-spreader set-up plus jumpers. The "sedan" version of the design features twin spreaders plus jumpers on a larger section spar. Elliott says the difference in performance between the two is minimal. The larger section requires less control by the crew, making it more suitable for cruising and short-handed sailing.

The sail areas on the two rigs are similar.

The mainsheet system is the only obvious piece of IOR technology, being the "endless" type running forward from a winch either side of the cockpit.

The vang is a cascading wire and block system adjustable by the crew on the rail via a pair of swivelling Harken jammer cleats. During our test, vang adjustment was an easy, single-handed operation despite the tremendous loads involved.

All turning blocks are by Spinlock and most feature a concealed rope clutch to allow the sheet to be jammed before being transferred to another winch, or whatever.

The running blocks are by Ronstan, the first of the new 75mm and 100mm Maxi Block range to be used in Australasia. Sassy features Barient winches.

The mainsheet traveller is recessed below deck level and is supported by a foam beam running about 200mm above the cockpit floor.

While a rather obvious development, the lowered support beam still gives a full-length traveller while not creating a major obstacle across the cockpit.

The traveller control system is contained underdeck as is the checkstay adjustment. The intention is to have the mainsail controls completely accessible to the helmsman when short-handed sailing or when working watches offshore.

"The boat can be sailed two-handed quite comfortably because the mainsheet, runner winch and control lines are all close to the helmsman. It works well that way, but works equally well with a full crew," notes Elliott.

The remainder of the deck layout is fairly standard, except for the dual spinnaker poles, one for IMS, the other for PHRF and a masthead spinnaker. Depending on the event, one pole is left ashore, or, offshore the second is carried as a spare.

Sails are by Norths with a full inventory carried. Spinnakers are designed for the IMS or PHRF rigs. Consequently a full spinnaker inventory for both rigs is not carried. But new sails may be designed and cut for the special conditions likely to be experienced during a particular series.

Below decks, Sassy reflects the generous accommodation requirements of the IMS rule. Elliott says her interior is in excess of the minimum 100 points required under IMS.

The forepeak is a large open space, to facilitate sail drops down the forward hatch. The sedan version features a double berth as an option in the forepeak, one owner fitting a fixed berth, the other opting for two fold-down pipe berths.

Sassy's interior structure is constructed entirely from plywood, lightweight gaboon, which Elliott claims gives an interior only slightly heavier than the more commonly accepted foam and glass construction.

"It is very hard to build a lighter structure than a piece of 6mm ply," he says. "Provided the grain is run correctly, the panels will be stiff and no filler is required to smooth out the weave in the fibreglass construction.

"Before constructing the boat, we calculated the difference in weight between an interior made of foam and E-glass and one made of plywood was just 9kg.

"The cost of using kevlar and foam was three times that of glass and foam, which in turn was four times more expensive than plywood. That doesn't include the labour cost, but it is far more expensive to have someone construct a mould for a curved foam panel than it is to cut and fit a sheet of plywood directly into place."

Sassy's triple-spreader rig is topped with jumpers for masthead spinnakers. The forestay dispenses with an expensive rigging screw.

The finished effect is the same as for a foam and glass interior, with the plywood coming up very smooth with the use of Awlcraft Highbuild and then sprayed with a finishing coat.

An enclosed toilet is fitted, as required by the IMS accommodation requirements. The mast passes through the inner side of this structure and any water coming down the mast is contained within the toilet/shower area and drains into a sump below the floor. A hand-held shower unit is also fitted.

The door is hollow (plywood over a timber frame) and fitted with a recessed handle.

Built by Cooksons, Sassy's hull and decks are a foam and kevlar laminate.

Significant weight savings were obtained in the deck construction through the use of a male mould, as opposed to using a female mould.

"The interior finish on the deck is the way it came off the mould," says Elliott. "There is no filler in the deck at all. If we had used a female mould, it would have been extremely difficult to get this standard of finish without using substantial amounts of filler.

"The male mould allowed us to take the peel ply off and paint the interior on the same day. It saved a lot of labour and thus a lot of money."

The hull and deck were bonded before the interior was fitted.

The chainplates look deceptively short and undersized. However, on the other side of the bulkhead the radiused glass is apparent, which is duplicated and faired on the face side. The chainplates are double plates either side of the bulkhead.

The sinks are fibreglass moulded off a domestic unit. All the bench surfaces are timber with access holes made from ply panels over a timber frame.

The engine is a 27hp Yanmar diesel with a saildrive. It has been kept as low as possible to lower weight and to get as much length on the shaft. A second alternator will be fitted to give a double charging system.

The engine operates smoothly and Sassy will cruise under power comfortably at 7 knots, going up to 8 knots at maximum revs. In reverse, the racing prop is perhaps a touch over-refined, lacking initial bite. But once she has way on, she goes astern without vices.

The fuel tank is located aft of the engine and is a vertical oblong tank of polished stainless steel. It stands alone, without any attempt to cover or conceal.

Water tanks are by Structureflex and are located below the aft quarter berths. The tanks are claimed to be taint-free and are fitted with a large inspection cover for cleaning and flushing and to act as a breather if necessary.

The gas bottle is contained in a well in the cockpit, below the tiller.

The switchboard panel has an indicator to show battery consumption, which is so sensitive that it reacted to volume changes on the stereo system! Sassy has a capacity of 200 ampere hours.

All navigational instruments and equipment are by Furuno and include GPS, weatherfax, GPS plotter and VHF. The VHF has a cockpit speaker to enable the crew to hear recall signals at start-time.

SASSY

LOA	12m
LWL	11.2m
Beam	4.1m
Draft	2.45m
Displacement	5450kg
Designer	Greg Elliott
Builder	Cookson Boatbuilders
Owner	Tom McCall

The instrumentation is by Okham with four Branstadet large read-outs on the mast.

Elliott has spent almost a year developing the design, from initial drawings to getting the moulds made and boat built.

Campaign plans include the Kenwood Cup with the intervening period being handled on pretty much a take-it-as-it-comes basis.

"There's a lot more speed we can get out of it, mainly in terms of seconds rather than hours or minutes," says Elliott. "But under IMS, like IOR, seconds really count. The boats we were out against tonight owe us a lot of time under IMS. For instance, Icefire will give us about 18 minutes over an Olympic course and we finished only a minute or so behind her after a harbour race.

"Tom will campaign the boat properly. He is a very good organiser. And he does it for the enjoyment of sailing." ●