

spider 22

One of Australia's leading manufacturers of high performance IOR yachts has entered the trailer sailer scene this year with an innovative mid-sized TS called the Spider 22.

Designed by company principal, Gunter Heuchmer, the Spider incorporates the latest thinking in hull and rig design as used by the top European IOR yachts such as Diva, Passion 2 and Outsider.

As with the top German and French one-tonners which rule the international ocean racing scene these days, the Spider combines a very lightweight hull with a powerful, yet squat fractional rig. Following the lead of European designers, Heuchmer has gone for a hull which has a much narrower waterline beam while still being quite wide at deck level.

The flare in the topsides, says Heuchmer, enables a crew of three to have a noticeable effect on the upwind stability of the 6.8 metre-long Spider. The whole boat weighs only 670kg so a moderate sail area can achieve quite impressive speed in light airs.

Heuchmer used a new Australian computer software called McSurf to test every aspect of the design including keel design. Again in keeping with the latest ideas in offshore yacht design, the Spider sports a deep dagger-style centreboard with all ballast concentrated in a keel bulb. "By keeping all the ballast in the bulb we have been able to keep total ballast down to just 200kg", says Heuchmer of his new trailer sailer design.

The modern hull of the Spider is matched by a relatively low fractional sloop rig with a heavily roached mainsail and headsail. The aim of the rig is to keep the tipping force low so the mainsail has two full-length head battens, while two headsails also have a single head batten to project extra area in the leech.

The rig is not unlike that of the classic TS 16 in that the mainsail is low aspect and long in the foot. The headsails are small with the largest of the two only overlapping the mast by a short way. Heuchmer describes the rig as being a dinghy-style rig which will be both effective in racing and also very easy to use while cruising. The mast is simply rigged with only single cap shrouds running over swept-back spreaders. There are lower support shrouds but no running or fixed backstays.

"The Spider is designed to be both a fast racing boat as well as an able

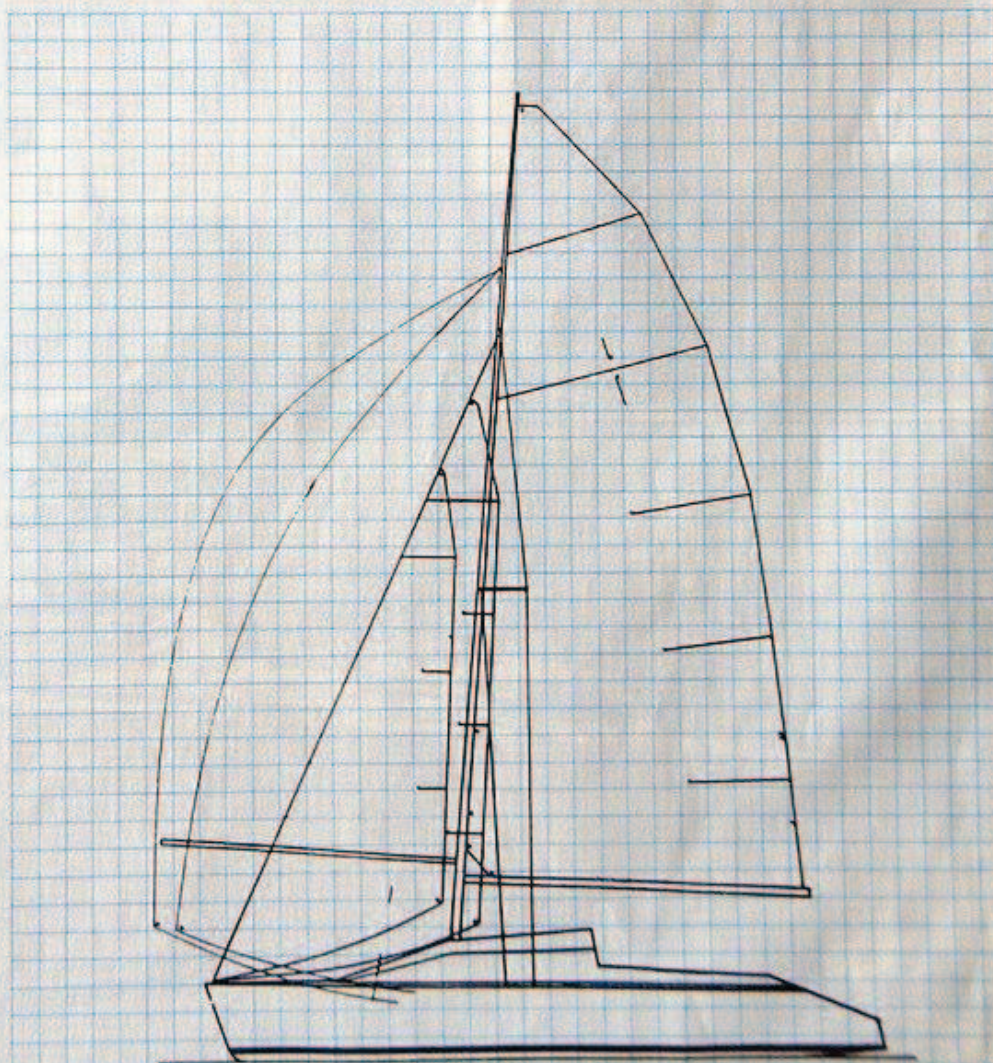
cruiser," says the boat's designer who intends racing the first boat in the 1986 Marlay Point race.

Glass Yachts expect to have the Spider in full production by May. The company says that unlike their racers they will be selling this new boat through a national dealer network. For a retail price of \$17,800 the Spider will be available in a sail-away stage with all basic rigging and two sails. The design features a long 2.7 metre cockpit with an open "landing board" transom and a small wedge-shaped cabintop on a flat deck. The deck is very clean without any sheet winches but efficiently equipped for the size of rig with mainsheet traveller, genoa tracks alongside the cabin and two Barlow 15

winches on the cabintop for halyards and spinnaker sheet/brace.

The Spider's retail price is being kept relatively low due to what Glass Yachts describe as a mass-production approach to the boat's construction. To speed up building, the whole interior is based on a one-piece furniture mould. The interior provides four to five berths and a galley unit but is sold without bunk cushions, carpets or other features.

One of the most interesting features of the design is a transom outboard bracket which pivots through 180 degrees to allow the outboard to be stowed on the cockpit floor when not in use. For further information on the Spider contact: Glass Yachts, Taren Point, Sydney.



CATCH 22

In its much-improved Mark II guise, the Spider 22 is still the one to catch in handicap racing.

James Hill reports

TEST: SPIDER MKII

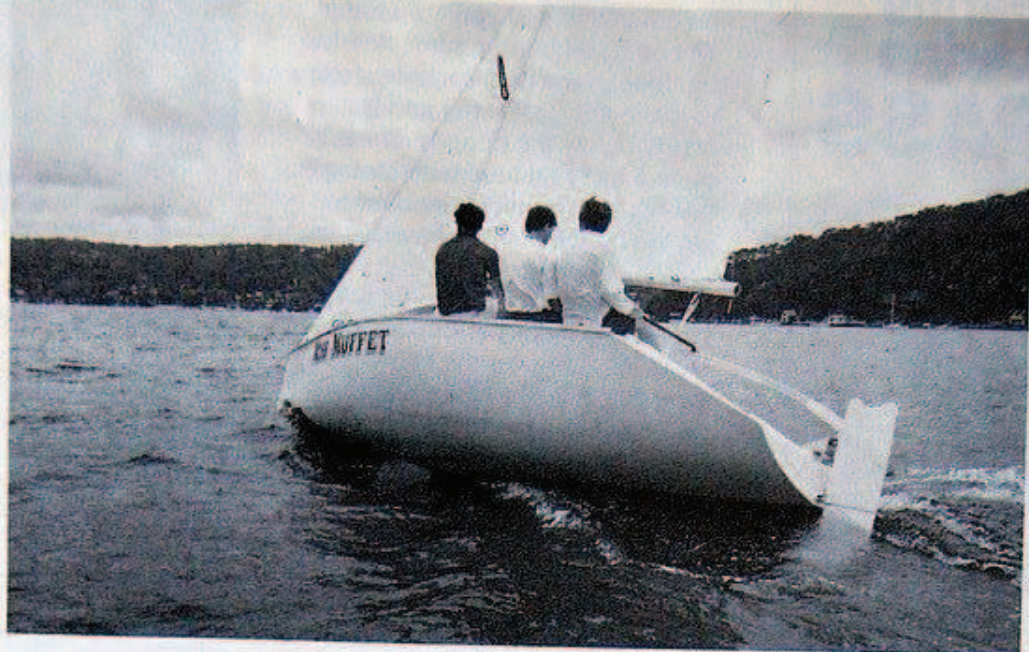


WITH the combination of light weight, extremely slippery hull shape and a skiff-style rig, the Aussie designed and built Spider 22 has long been the uncrowned champ of the pocket-rocket market and a true giant-killer.

However, things never stay the same for very long in the world of racing and the Spider has found something of a battle on its hands with the arrival of the new Kiwi Elliott 7m. Comparisons

are odious because the latter boat really is a bit bigger and carries more sail. But buyers naturally look at two similar-sized race boats and lump them together in terms of a contest of speed.

In the 1992/93 racing season in Sydney, the Elliott got the upper hand on boat-for-boat speed, though not on handicap. In the first TYA match between the two designs, the Spring Pittwater Island race, the Spider finished close enough behind to win on Class



Based Handicap (CBH).

Having crewed on this particular Spider, I was able to get a first hand view of how these two designs compare. I was able to gain further insight into how the Spider compares to other boats over a range of conditions when I had another opportunity to sail the same Spider, owned by sailmaker Chris Cairns.

Putting aside any favouritism to the "homeside", I have to say that the Spider 22 is still far from a spent force in competitive terms. Fairly judging the boat on the basis of design handicap, it is

"Acceleration out of tacks seems to be better, as does the boat's ability to get onto the plane early when the spinnaker is set"

very hard to beat for its size/sail area. The proviso, of course, is the boat has to be sailed well and have good gear.

At the time of writing, our Spider had only beaten the Elliotts boat-for-boat once, but it had also stayed close enough to always be a threat.

Interestingly enough, the time we did beat the Elliotts was in the very conditions you'd expect it to lose — very light air, fading to a near drift. However, despite having less sail, the Spider also has finer fore and aft underwater sections and this makes it a very slippery boat at low speed. The smaller sail plan equates to a lower handicap which makes the boat more competitive the stronger the wind blows.

Now, there is a new, improved model of the Spider 22 which promises

to add a little extra zing to performance without changing the moulds or rig. Builder, John Dean, in conjunction with David Bray, from Sydney Sailboat Centre, has quietly upgraded the boat into a MkII model. I was able to put the new model through its paces on Pittwater.

The boat, Miss Muffett, is only the third boat out of the mould since the revamp. Outwardly there's very little difference — except for a new twin-

spreader rig which has the cap shrouds in on the cabintop, rather than at the gunwale. Between the skins is where

the real changes are — the hull is now 90kg lighter thanks to a new hull layup which includes really strong biaxial E-glass layers sandwiching a 12mm core of Divinycell close cell foam. Below the waterline, the foam is substituted by Baltek balsa core to give extra impact strength for trailing and beaching.

The weight saved in the hull has been put into the deep, bulb-tipped lift keel which in turn has been upgraded with a Scott Jutson 90s style bulb, slimmer and longer sectioned. With more weight distributed in the keel and a hull which is both lighter and probably a fair bit stiffer than the old, the new Spider certainly feels fast. Acceleration out of tacks seems to be better, as does the boat's ability to get onto the plane early when the spinnaker is set.

In most other respects, the Spider is

no different when you are sailing. The boat still has the same flex-top rig, though the twin spreaders seem to make the mast stiffer and less bendy below the hounds. There is quite a bit of latitude with tuning this rig, so it wouldn't be hard to get the right match with whatever sails you were using.

The new mast is lighter in weight, which also helps performance. John Dean also believes the twin-spreaders give the spar greater panel support and make the rig more "bullet-proof" in very strong winds.

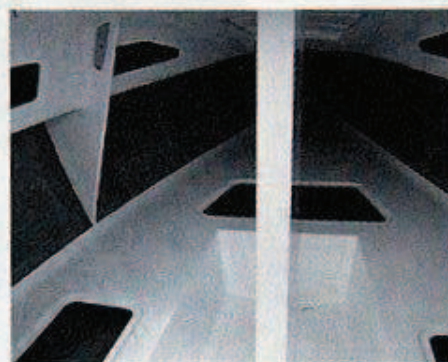
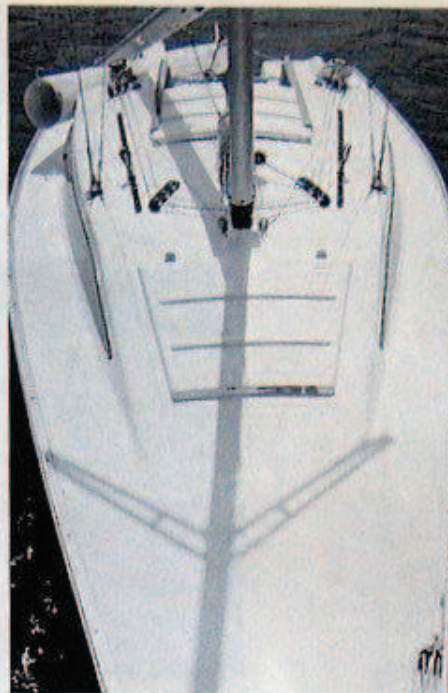
Interestingly, the new rig was not chosen to allow the headsails to be sheeted any closer. The fact that the boat already had a dinghy-style rig with short-footed headsails means the headsails do not have to overlap the main shrouds. However you could add a larger, over-lapping headsail if you wanted to increase light air sail area beyond the class handicap base.

Sailing in a breeze of 8-10 knots, the test boat felt fast and virtually fully powered up in the gusts. Ex-dinghy sailors will feel right at home with this boat because it has the same lightness of movement through the water and sensitivity to crew weight movement. The helm is beautifully light and reaffirms my early impression that the Spider is one of the most easily driven and best balanced boats I've sailed. It's also a safe boat because of its high stability at wide angles of heel.

Racing is certainly a key component in the appeal of this design but it features a quite spacious cockpit and plenty of side deck space to plonk crew weight.

There are a pair of low moulded coamings, but they hardly interfere with crew movement as you tack. In fact, the coamings can act as a good body-brace when you are sitting outboard.

The cockpit is a shallow, self-draining trench, opening out behind the helmsman into a wide landing platform. The platform is ideal for boarding when moored stern-to the beach. It's cleverly used to house the outboard which swings inboard on a hinged transom bracket. TYA rules require an outboard to be carried "in a ready to operate position" but the Spider's setup at least gets the



motor neatly inboard where its weight won't be so damaging to performance.

The anchor locker is also located in the floor of the cockpit to help centralise weight. On deck, the low, wedge-shaped cabintop leaves plenty of room for the racing crew and acts as a handy working bench for the two Maxwell 16 halyard winches and two banks of Ronstan rope jammers.

The sail systems are clean and simple and include a pair of tweakers on the anodised gunwale which can be used for the

spinnaker sheets, or the jib when sailing without the kite.

Ronstan gear is used exclusively, including a Ronstan 6:1 mainsheet block system with hexi-ratchet and jammer. Basically the gear worked well, though I'd like to see the rope diameter on the traveller lines increased to a level where they don't hurt your hands.

Other pluses on the new Spider include the new, moulded fibreglass



Ronstan deck gear is neat and effective, as is refined centreboard lifting system. Performance is also better with new two-spreader rig and lighter hull.

rudder box and fibreglassed timber tiller. The rudder assembly not only saves weight, but looks cleaner and smarter.

The new Spider also features a more refined tackle lift for the centreboard, making it easier to winch up the lift keel. The tower frame can also be removed once the keel is up, resting on its trailer bracket. This means you can drop the mast backwards without worry about the tower getting in the way.

To sum up, the MkII version of the Spider will enhance the boat's racing chances and keep it a strong contender for the TYA racing market. Increasing sail area might have seemed the logical

answer to increased competition, but sensibly, the builders have avoided this route to retain the essential one-design nature of the boat.

In terms of value, the Spider also retains its competitiveness by offering a sail away package, including two sails, for \$26,170 (ex Sydney). The cost of a Mackay single-axle trailer adds \$2250 to this price. In full TYA trim with spinnakers, outboard and safety gear, the complete price wouldn't be much more than \$30,000.

The Spider is also a light boat in terms of towing so it is suitable for people who drive medium sized, four and six cylinder cars. Total trailing weight should be under 1000kg. It will appeal to recreational sailors as well as dedicated racers. It's quick, it's roomy on deck and with the addition of liferails and a few creature comforts below, it could be a nice, cruising boat for two adults.



SPIDER 22

LOA:	6.80m
BEAM:	2.48m
DISPLACEMENT:	670kg
BALLAST:	235kg
SAIL AREA:	
Main:	19.8sq m
Headsail:	8.3sq m
Spinnaker:	32.0sq m
BERTHS:	4
DISTRIBUTOR:	Sydney Sailboat Centre 1710 Pittwater Rd, Bayview NSW.