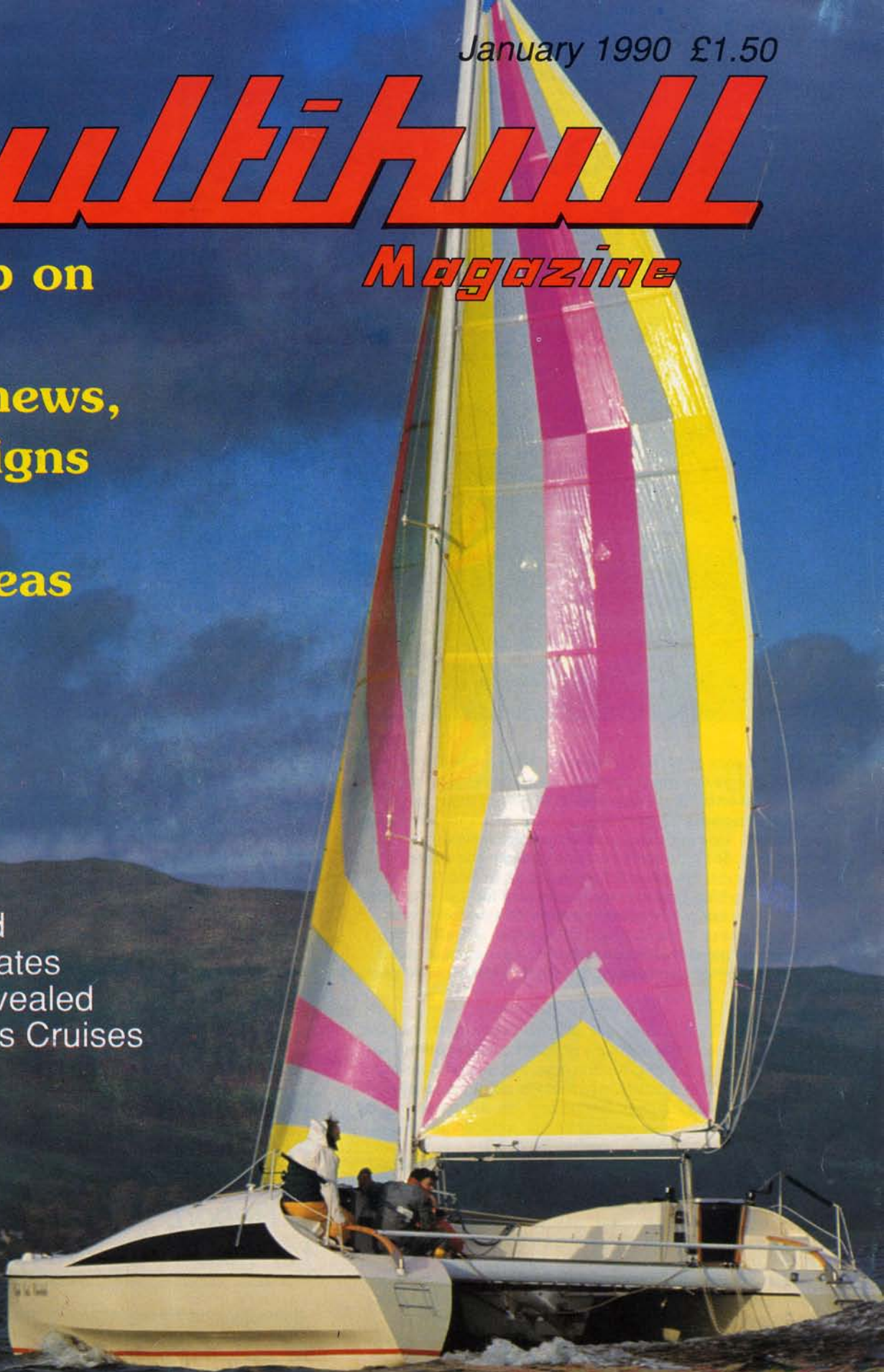


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The **Multihull** *Magazine*

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A Clean pair of keels



Cheetah showing her paces, smooth and stable.

The Clyde was once famous for its shipbuilding industry, but things are much quieter these days. The great steel ships and the oil rigs which followed them are no longer intrusively evident along the green shores of this great river. Boatbuilding and repair continues as it always has done, to maintain and restore the many traditional craft which sail for pleasure, or fish for a livelihood in this land of mountains and lochs. What is new to the area is the establishment of a construction company to build the Clyde Cat Cheetah, a craft which utilises the latest building methods to produce a blend of the traditional qualities of the Clyde with modern performance.

The Clyde Cat has sufficient space on deck, that one has to remind oneself fairly regularly of its relatively short overall length. The wide beam gives the craft a feeling of openness and expanse. There is plenty of room to carry the tender on board without noticing its presence and the current open bridgedeck unit provides seating for half a dozen people away from the area used for sailing the boat.

The interior of the craft is now very comfortably furnished compared to the part finished prototype which many people first saw at the Southampton Boat Show. A careful blend of dark blue carpeting, paler blue, and white paintwork, together with a short pile grey lining on the upper half of the hull, has transformed the boat into a cosy home afloat.

Catamarans with mainly-hull accommodation divide their usable space into two parts, so that it is not seen all at one time, in total, so the first impression may not be that it is palatial, only by being on the boat for a day does one begin to appreciate the true volume available below.

Microcats have usually concentrated on performance and as a result their accommodation in the main has been minimal. A commonsense equation dictates that the faster boats will be those with the slimmest hulls and the lightest structures, but this is where the Cheetah manages to be different. It isn't minimal, it is meaty and voluminous, it is a real cruiser rather than a skinny day-racer. The gains of this

approach relate to size, power, and stability, but one has tended to lose the assemble-it-on-the-beach-and-sail-away quality which was an essential part of the original micro concept. This boat is demountable rather than folding and it would probably be a day's work for two people to assemble it all. This would still allow it to reach new, distant cruising grounds by road, and over-winter cheaply in the back garden, but it won't be too easy to make a 200 mile trip to a race meeting and back over a weekend; it's not that kind of boat. It is really a full blown cruiser type of boat with six feet

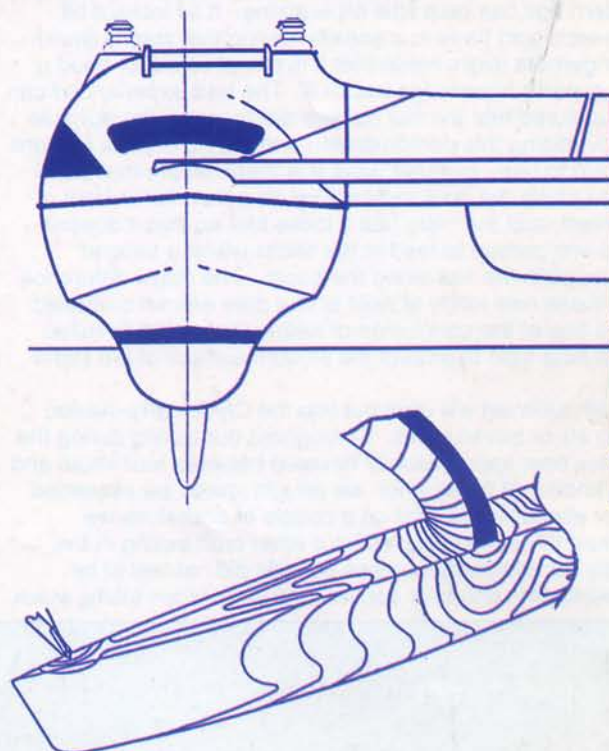
**The Multihull takes the
high road to the Clyde
and finds a real cruiser,
not a skinny day-racer.**

**Report: Paul Constantine
Photos: Jerry Stebbing**

of headroom in the central area of the two hulls, which are fitted with proper domestic live-aboard equipment. It has a full cooker, not a two burner stove, it has lots of cavernous lockers, bigish double berths, plumbed in marine toilet, dual water systems, two sinks, it is completely wired for domestic lighting, has more seating than most craft, and the strength and solidity of a real cruiser. Owners wanting to cruise in Northern France from the Solent, or in the Netherlands from the east coast will probably not hesitate to deliver the boat under sail rather than on its trailer.

Previous craft of this size and volume have not had the performance of the racers, but there can be no mistake that this boat can stay with them. In local racing it has shown a clean pair of keels to the opposition, much of which had a longer length and less space. It might be worth looking at the way that it manages to do this. These are some of the factors:

- a) The hulls are very heavily flared so that there is only a small amount of boat in the water (causing little drag) but a large internal volume above knee height to make living aboard comfortable.
- b) The rounded hull shapes are the result of extensive testing to minimise air drag which is one of the major factors slowing a boat to windward.
- c) The extra wide beam gives great stiffness to allow the rig to deliver maximum power into the boat's hulls.
- d) Very careful use of materials has kept the weight down to a minimum. Most of the boat is foam sandwich, but the layers of fibreglass aren't just rectangular pieces cut from a sheet, they are carefully shaped cloths arranged so that their fibres run in the correct direction to carry the stresses involved without concentrating the loads in vulnerable places. The arrangement of the shaped glass layers resembles the patterns revealed by stress diagrams such as the one shown here.



Sailing and Motoring

We found the Cheetah filling a space in Rhu marina. One immediately notices the rounded hull shape. There is a feeling of solidity when stepping aboard, due to the lack of movement caused by placing weight at her edges or corners. The many intriguing storage lockers around her present bridgedeck module invites one to open them to investigate their contents, bottled gas, outboard fuel, tools and warps. There were no bottles labelled 'Drink Me', but there was ample room for spare oilskins, and sandwiches. She was loaded for cruising, not stripped for speed.

To exit the marina the 9.9 Yamaha outboard easily provided adequate power. This engine is presently proving very popular due to possessing a number of features which sailors have been dreaming about for years. There was no thrashing around with a starter cord, just a press of the electric start button. The clean four-stroke motor purred into action, and in doing so recharged the ship's supply. The gearshift was positioned on the throttle arm thus grouping the essential controls together in the most accessible place. We reversed out, turned and cleared the Marina smoothly, to motor into a south westerly force three which occasionally reached four with the odd gust of five in it.



Left: Interior views of the port hull. Looking through the saloon into the forward double berth.



Below Left: Galley area with rear double berth behind removable entry ladder.



Right: Starboard hull, toilet and stowage area forward of large hanging locker.



Below Right: Navigation area and rear double berth.

Our real power was in the rotating mast and the brightly coloured sails engineered by Graham Goff from laminated sailcloth. To the average cruising sailor accustomed to yellowed white sails graced by the odd rust stain, these modern rigs can be a little bit worrying. It all looks a bit high-tech, and there is a sneaky feeling that such a garish arrangement might mean that it is complicated, or need a real expert's knowledge to use it. The less experienced can rest assured that the sail colours are more for the purpose of advertising this demonstrator, and the rig is quite straightforward to use. In some ways it is more simple than usual. For example the jib is self-tacking on a traveller in front of the mast, and the main has a loose foot so that it doesn't need one person to feed in the slides whilst a second person pulls the sail along the boom. The major difference with these new kinds of sails is that they are not crumpled into a bag at the conclusion of sailing, but carefully rolled into a long tube to protect the smooth surface of the stiffer cloth.

With sails set we went out into the Clyde close-hauled doing six or seven knots. Throughout our sailing during the day the boat speed usually hovered between four knots and nine knots. At times when we sought speed we exceeded ten or eleven knots, and on a couple of occasions we touched thirteen knots. Without other craft sailing in the vicinity for comparison, these speeds did not feel to be extraordinary, one only appreciated them when taking stock

The better-than-monohull performance to windward needs some further explanation.

i) Above the water surface this is a result of the modern smooth sails set at very close angles, on a rotating mast which reduces turbulence.

ii) Below the surface, the secret is in the keels. Fixed, low aspect ratio keels have replaced the complexities of daggerboards to deflect the boat upwind.



The designer John Shuttleworth has spent a great deal of time investigating the profile and section of the keels to develop the optimum shape for least drag. The result is a well-balanced boat which goes to windward exceptionally well. She is very steady on course on any point of sail, which gives her steering a stiff feeling, and when going through major alterations to the course, it is advisable to use the sails to steer as well as the tillers. This technique, as any expert will tell you, is what you should be doing anyway.



of the distance travelled within a certain time. Having noted this, it must be said that travelling at thirteen knots is a lot of fun, and it is extraordinary for a boat of this length and capacity. The boat is very stiff and one gained the impression that she could go faster without undue stress.

Speed wasn't really our purpose, we were actually testing her all round sailing performance, and probably her most useful sailing feature was her ability to sail hard on the wind at between seven and eight knots, then tack through only about seventy degrees.

I have been one of those people who for years has been instructing other people that a boat can sail no closer to the wind than 45 degrees (as though it was a law of Physics), so to experience a genuine no-go-zone of only 70 instead of 90 degrees was probably the biggest thrill of the day.

We returned to the marina in a failing breeze allowing us to set the assymetric drifter/spinnaker, to give her 5 knots of speed in 8 knots of wind, which was very useful when running in such light conditions. Stepping ashore once more, one was left with the thought that this craft probably

now defines the latest yardstick of what can be achieved in sailing cruisers of this size. If another craft can match her performance, will it have her space? If it can match her space, will it have her performance?

Seriously interested sailors might fly up to Glasgow to take advantage of Clyde Cat's offer to refund the air fare on domestic flights for those who buy one of the first five boats.

Sailing on the beautiful expansive waters of the Clyde one is impressed by the scale of the place. There is time to settle on a tack, time to hold it for half an hour or more. There is space to avoid conflicting courses with other yachts, and to appreciate the superb backdrop of mountains and villages. There is sufficient space to explore for many seasons, especially in a bonnie boat which speeds like a bird on the wing, over the sea ...to... wherever you will. This boat could do it. With you on board? *