

CATALYST

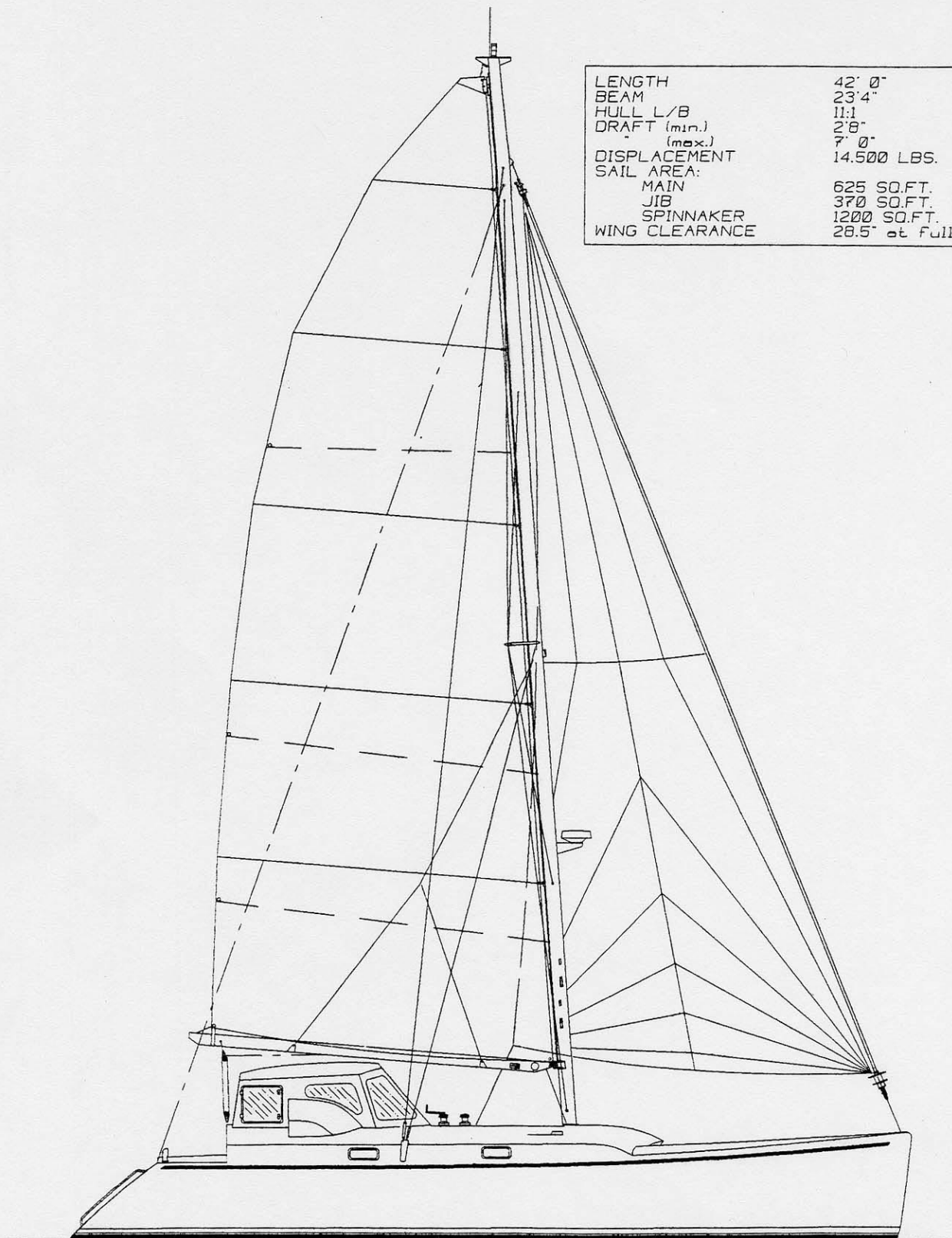
LOA 42', LWL 41', Beam 23'5", Draft 2'8" to 7'
Displacement 15,500 pounds (loaded)
Designer: Chris White
Built 2001 by Bongers Marine, Cape Town, South Africa



Catalist is an Atlantic 42 catamaran featuring a waist-high sailing cockpit forward of the pilot house. All sheets and halyards, the traveler, dagger boards, roller-furler lines, mainsail reefing and furling and windlass are tended from the cockpit, which also features a wheel and binnacle, seating, and easy access to two huge lockers in the wing deck forward of the cockpit. At the aft end of the cockpit, a sturdy watertight door leads into the pilot house. The pilot house, at the same level as the cockpit, contains a trawler-like inside steering station with 360° visibility, a forward-facing nav/computer desk, and a large U-shaped settee and folding table. The hulls contain a large galley, four staterooms (two with queen-size bunks), two heads, a separate shower compartment with a Spectra watermaker, and a workbench. Each hull contains a 27-hp Yanmar diesel with a Balmar alternator and a diesel-fired heater in a separate stern compartment. Solar panels and a wind generator power the refrigerator and lights. Instruments and autopilot are by B&G.

Catalist is constructed of vacuum-bagged epoxy resin and tri-axial glass laminate with ATC Core-Cell foam. She carries an asymmetrical spinnaker, a roller-furled Screacher that flies from a custom “prod,” jib, main and storm jib. For storm survival, she deploys an 18’ sea anchor with a bridle and 400’ of double braid line. After the launching in Cape Town she was sailed to New England by her owner and his family, with stops in St. Helena, Brazil, the West Indies and Bermuda. In 15,000 miles of sailing, the owners find she is a joy to sail, very comfortable, and fast. Her typical Bermuda – Buzzards Bay time is 75 hours (based on 3 trips), 200 mile days are normal, and her maximum speed so far is 20 knots. She points at 32° apparent going upwind using her dagger boards, and noses nicely up to the beach for picnics.

LENGTH	42' 0"
BEAM	23' 4"
HULL L/B	11:1
DRAFT (min.)	2' 8"
(max.)	7' 0"
DISPLACEMENT	14,500 LBS.
SAIL AREA:	
MAIN	625 SQ.FT.
JIB	370 SQ.FT.
SPINNAKER	1200 SQ.FT.
WING CLEARANCE	28.5" at full load



ATLANTIC 42

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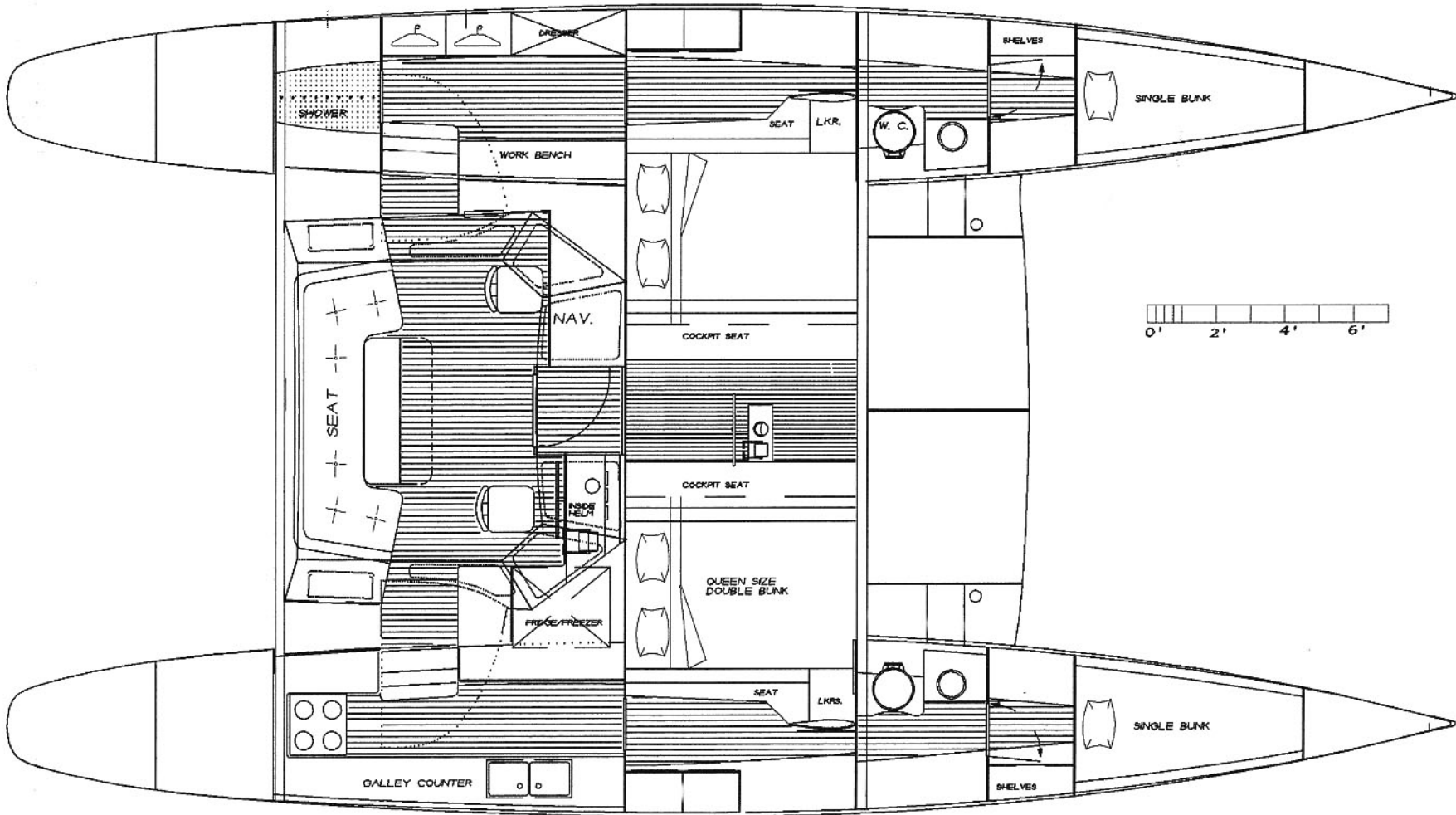
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Sailplan

Owner's comments: *Catalyst's* sail plan includes a powerful mainsail with full battens and a large roach. Instead of a backstay, the rig employs running backstays and cap shrouds that attach to outboard chainplates aft of the raked mast. This provides a very sturdy rig. One disadvantage of this rig is that the main boom cannot be eased out too far when the boat is running. We have experienced some chafe of the shrouds against the batten pockets. So you either jibe downwind or run deep with a chute and furlled main, which works very well. We run comfortably dead downwind steered by the autopilot under chute only in 25 knots true (boat speed 10-15), and the boat does not oscillate under the chute, unlike a monohull. *Catalyst* uses double runners – one part provides support at the masthead where the spinnaker and screacher halyards lead, and the other part supports the mast at the hounds. The hull is very stiff, and the backstays enable us to obtain excellent headstay tension. In addition to the jib shown in the sailplan, we added a 930 square-foot screacher (Code 0) that flies on a roller furler without a headstay from a short bowsprit that is guyed to each bow.



Owner's note: This rig works fine but puts a big load on the bowsprit guys; one of the eyebolts to which the guys are attached failed this summer while I was sailing single-handed, leaving me with a bent bowsprit and an inoperable roller-furler as the boat sailed at 16 knots toward a lee shore. I ended up dumping the screacher in the water, which slowed us right down, then dragging the sail back aboard. I replaced the eyebolts with eye nuts that are much stronger. The rig loads are high; this year we blew out a mainsail clew shackle and the spinnaker halyard chafed through at the masthead en route to Bermuda. We use the screacher almost every time we go sailing, and carry it to 20 knots apparent. In heavy air downwind we wing the screacher and jib to opposite hulls, which works well with no need for poles because of the width of the boat.



Accomodation Plan

Owner's note: It's great to have complete privacy between the two hulls, each of which has its own head. The layout is reminiscent of a split-level, with the central pilot house a few steps up from each hull. The "galley down" layout in the starboard hull provides excellent space for two or three people to cook together, and the steadiness of the boat makes cooking much more enjoyable than in a monohull. The electric refrigerator is at eye level, so you don't have to bend over to search for the mayo. There is a debate among multihull sailors about the merits of locating the galley down in a hull or up in the deck house between the hulls. Do you want your kitchen in your living room? The approach used on *Catalyst* provides better functional separation of spaces and a superior galley, but you do have to pass the food up to the table in the pilot house. The visibility from the table in the pilot house is superb in all directions. You can use the autopilot remote and steer while eating your roast beef and spuds. The U-shaped settee provides good back support for reading with your feet up, unlike the round style favored on many cats. The comfy swivel chairs at the nav desk and inside helm never topple over – honest! The door to the cockpit provides great ventilation. If it's rotten out there you learn to close it quickly.



View of the pilot house looking aft, showing the large U-shaped settee and drop-leaf table.



The inside helm. The dual steering systems are hydraulic and independent. The number of turns lock to lock is adjustable for each wheel, so it is easy to adjust helm pressure depending on sea state.



The galley is a few steps down from the pilot house in the starboard hull.



Work bench in the port hull. Owner's comment: for the first time in thirty years, I don't have to wake somebody up and pull up a bunk cushion to get to the tools.



Stateroom with queen-size rack. No need for lee cloths, but when she's going fast you might consider ear plugs because of the water noise.



The dinghy (and here a kayak as well) store conveniently on davits between the hulls.



The deep cockpit provides good protection and great visibility.



The outside helm includes dual-station engine controls and a VHF full-function remote microphone.



View across the foredeck shows the low-profile windlass and wing lockers.

Owner's comments:

Sailing *Catalyst* offshore is very different from monohull sailing. Often, she feels like a flying carpet skimming over the water rather than through it. Sometimes the power of the rig and hull are shocking, and it is thrilling when she really starts to go, with a rooster tail of a wake. But in a breeze you have to make sure you have an exit strategy, a way to de-power and slow down. This is the first boat I've had where you concentrate on when to slow down rather than how to go faster. I pay particular attention to the sea state when deciding when to shorten sail. Upwind in a sea she skitters over the waves and lacks the steady motion of a monohull, but the absence of heeling makes up for the rapid motion.

Reaching is sublime in this boat. Overall, passage-making aboard her is much less tiring than in a monohull of comparable size. One other point – you have to get used to people staring at you as you sail by.

Designer's comments

Having been involved with multihulls for more than 30 years I tend to overlook some of their greatest benefits because I am so accustomed to them.

With that in mind, I think that one of the most important and over looked features for ocean cruising is that a properly designed catamaran cannot possibly sink. Why? There is, of course, no ballast. And in the case of the Atlantic cat designs the hulls and decks are built with thick buoyant foam cores. In addition, there are two hulls each with multiple watertight sections that would allow containment of any flooding. Running into something hard is still something to avoid but it will not be the disaster that it could be in a ballasted "sinker".

With two hulls and a connecting bridge deck available to provide living space the modern cruising catamaran normally offers exceptional accommodations. That fact alone has been much of the reason for their recent popularity. Indeed, the demand for ever more interior space and the attendant "stuff" which tends to fill all available nooks and crannies has proven to be the catamaran's Achilles heel. Many current designs are so heavy and bloated that they are exceptionally poor performers. This is particularly true in the size range under 40' LOA. The Atlantic 42 design, while not exactly a "small" boat is in my opinion about the smallest size cruising cat that still works well. It has the ability to carry enough gear and stores for comfortable long term use without being over burdened. Loaded with all normal stores for a passage she is still an excellent sailing cat often making more than 200 miles per day. The best day's run reported to me is 267nm. In the right conditions steady speeds of 15 to 17 knots are fairly easy to achieve and occasionally 20 knots is reported by owners. However the big selling point to my way of thinking is the ease and comfort with which the 8 to 12 knot range is maintained. This is how you get places.

Speed under power is handy at times and the Atlantic 42 will chug along at 8 knots powered by twin Yanmar 27 HP diesels. The wide separation of the props allows incredible maneuverability under power which offsets the wide beam penalty in docking and very tight harbors. With practice it is possible to motor through a mooring field in *REVERSE*, with a strong cross wind. Spinning the cat is possible by using full reverse on one engine with forward on the other. I've timed more than two 360 degree revolutions in a minute while sitting stationary. Torque like this can be very handy when the wind has you pinned to the fuel dock.

Within the hulls there are dedicated spaces for sleeping, cooking and bathing. The emphasis is on seagoing functionality rather than sit at the dock spaciousness. There are ample lockers for tools and gear, a dedicated workbench, a wonderful shower area that gets toasty warm when the heat is on and a super galley that can be safely used in the roughest weather. Each hull contains two separate sleeping cabins that share a head located between them. The midship cabin has a queen sized double berth, the forward cabin has a single bunk. The interior layout works very well for a family or a cruising couple with occasional guests.

Since my first sail on a cat with the conventional aft cockpit I've objected to the notion of trying to sail a boat from behind a six foot high bulkhead. The trademark feature unique to the Atlantic series of catamarans is the "backward" configuration of cockpit and deck house. By placing the cockpit in the middle of the boat, just behind the mast, very easy and safe sail handling is gained. The mainsail can be reefed without leaving the cockpit and within arms reach of wheel, halyard and mainsheet. And when sailing it feels more like a flush decked race boat than a Greyhound Bus. But as we all know, after a few hours of taking it like a man most sailors are wiped out and looking for shelter. Two steps behind the cockpit is the nerve center of the boat, the pilot house. From this vantage the A42 can be steered, navigated and presided over. There is excellent visibility of the sails and horizon all around as well as plenty of ventilation. It is the watch keeping station of choice and the living room of the boat. During my first night watch onboard an Atlantic cat in October 1985 all I could do was laugh as I sat warm and dry watching the cold spray unable to reach me behind tempered glass. Other cruising boats have protected watch keeping stations but they are seldom as pleasing or as protected as the pilot house of an Atlantic cat.

Having had the good fortune to sail a bunch of catamarans of my own design I can truthfully say that the Atlantic 42 is probably one of the most versatile cats out there. She has lots of capability in a relatively small package and a reasonable cost. It continues to be my most popular design.

Chris White