

the Spirited 380



■ designed by CRAIG SCHIONNING

This edition we review the first independent design from the newly established Spirited Design studios located on picturesque Port Stephens just two hours north of Sydney.

WITH any DIY system, one of the first things that comes to mind is ‘Can I really do this?’ There are certain expectations that every owner has when considering a new boat, but when it comes to boatbuilding, even accomplished builders want to know just how hard they’re going to have to work (and how much ‘extra’ money will be required) to see their dream boat come to life on the water, as opposed to in their dreams.

The first thing you notice when going through the assembly requirements and the plethora of high quality materials supplied with the Spirited 380, is that this all looks a little too good to be true. Boatbuilding shouldn’t look this easy.

The secret, according to Principal Craig Schionning, is the direct result of their customised ‘Virtual Boatbuilding’ CAD system developed to ensure that design issues are reduced to a minimum of work for the builder.

“The philosophy behind our system was to increase the amount of pre-production finishing and fabrication, to minimise the amount of brainwork and labour required in the assembly stage,” said Craig.

“Each assembly stage was then documented and assessed to find ways of further simplifying build procedures,” he added. “This process of continual refinement eventually led to the development of our customised Spirited

Assembly System (SAS), which now forms the basis of all Spirited Designs.”

Build and Construction

It’s clear looking over the plans that this is a very well thought out cat. Complex lines and shapes have all been CNC computer-cut to stringent tolerances to save complicated lofting, measuring and cutting, taking out all of the guesswork.

One of the standout differences between the 380 and other kit boat designs is the absence of chines. Considered by many to be an unsightly feature of traditional kit systems, the 380’s cleverly designed pre-made rounded hull and deck components cut out the need for chines giving the boat a far sleeker and modern appearance. Those who have been down the kit path before know only too well how much extra time is required when assembling a chine based construction which normally requires each chine to be taped both inside and out.

Molded hulls and curved decks are supplied standard as part of the kit. Every other conceivable part of the boat including saloon table, catwalk, and even the daggerboard cases have been included in the 'flat-pack' CNC-cut component kit.

Even daunting tasks like strip planking have been reduced to a minimum with only the Forebeam strip planking requiring attention. The Spirited 380 also includes parts pre-cut to accommodate coved/taped corners, saving you needless cutting when assembling. All temporary frames, hull cradles, daggerboard and rudder shaping formers, have been pre-cut to the exact size and shape and are ready to use, straight out of the crate.

The Spirited method of assembly enables the boat to be built the right way

up, from the ground up. This saves time and materials involved in building a strongback (building frame), not to mention the stress associated when turning both hulls. Everyone has heard (or worse, seen) horror stories of hulls being dropped accidentally, and anything that makes this phase easier is welcome news.

Once the main bulkheads are installed and the decks are on, another great advantage of the Spirited Assembly System is revealed. Unlike many other kits, the Spirited 380 enables the hull topsides to be left off until most of the internals have been done, providing access, light and ventilation to the interior of the boat. Usually restrictive and awkward tasks such as sail-drive engines,

rudder stocks and forebeam installation can be done from outside the hull while standing on the shed floor, with parts able to be easily passed in and out of the boat.

Even the fairing process has been simplified with the inclusion of Spirited's unique flush joining system incorporated into the molded hulls and decks. Fairing is one of those jobs that all boatbuilders dread, however, the Spirited 380 eliminates all major fairing on the outside of both hulls, a highly noticeable area on any boat. The rest of the boat is made up of simple, easy-to-fair surfaces with even the cabin sides supplied as a pre-cut surface. If that didn't already sound easy going compared to most kit designs, the Spirited 380 comes complete with pre-cut windows. The saloon top is made using pre-cut sheet foam, which is naturally a fair material, minimising lumps and bumps.

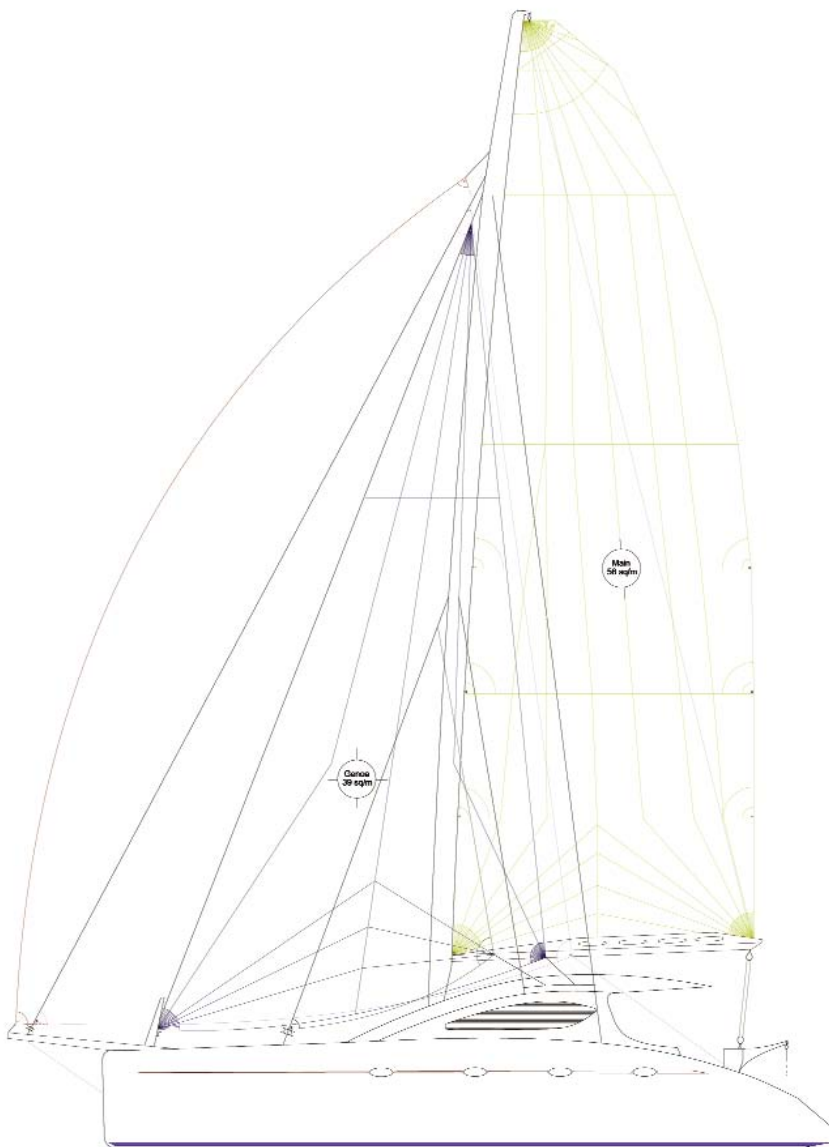
Performance and Sailability

With so much technology and innovation present throughout both the boat design and the custom assembly system, it's no wonder Designer Craig Schionning calls the 380 the "complete package".

"The 380 is a good all-rounder providing great performance and seaworthiness without sacrificing creature comforts for cruising", he said. "It is always a challenge to incorporate every aspect into one design, as everyone has different requirements. The secret is balance."

From a sailability point of view, the 380 can easily accommodate a wide variety of sailing conditions, from extensive ocean crossings to light wind conditions on the harbour. The design is a good balance of fresh modern styling, sailing performance and a generous amount of internal volume enabling a comfortable and functional layout.

With good bridgedeck clearance of 700mm, the 380 will not pound underway. The use of technologically advanced lightweight materials throughout help to reduce bridgedeck slamming and improve motion at sea. The lighter disposition additionally enables the 380 to lift easily over waves without that sluggish momentum often experienced on heavy cats.



The Spirited design incorporates a highly functional sail operating system that makes sailing the 380 a pleasure for both accomplished and novice sailors. Incorporated into the forebeam is a pre-cut composite prodder, which can be a fixture or hinged when in a confined area. It is designed to carry the inner forestay, main forestay and screecher which can all be kept in place on furlers, creating a 'gearbox' effect when performance sailing, from the bigger sails down to the smaller. Further flexibility is provided by being able to fly the spinnaker from the end of the prodder in light weather downwind conditions.

The storm jib, which can be carried on a furler, is fitted to the inner forestay, which has been anchored to the catwalk with extra support from the composite prodder below. This unique arrangement was employed to provide more space between the inner and main forestay, making it easier to tack the Genoa around.

"One of the main objectives of the 380 design was flexibility, and we have

developed the sail system with a view to increasing the sail combinations available," Craig said. "Having the storm jib on a furler means it can be used at any time as an upwind heavy air blade jib when reefed down, or for extra sail area when cruising downwind if needed."

The 380 can be turned into an almost bulletproof rig with the addition of the recommended carbon mast. While the rig size will put the 380 clearly in the 'performance' boating bracket, the balanced design allows it to perform ably in light airs with plenty of power on tap when the wind picks up.

The 380's open plan design provides ample room for larger crews. The lower shrouds have been cleverly designed to run down to the edge of the cabin top at the same height on the mast as the inner forestay, keeping the sidedeck clear for forward traffic. This performance format provides additional structural support for the mid-panel of the mast, increasing stability and minimizing stresses on the mast.

Crews will appreciate the extra space created on deck for sail handling. Reefing early is always a good option to take if the crew is inexperienced or short-handed and the area at the base of the mast gives good footing for reefing and sail handling. The additional vertical surface is ideally suited for mounting of opening hatches or windows leading into the saloon and forward bunks, providing greater vision and ventilation.

Form and Function

More intelligent design is evident as you head into the cockpit. The 380 features walkthrough transoms Port and Starboard, with a swimming platform (or duckboard area) installed along the entire width of the boat accessible from the aft hull steps at cockpit level. Those who like to swim from their boat will appreciate the addition of an extra-low hull step at water level providing easy access to and from the water to the boat.

Stylish hinged dinghy davits (supplied as pre-cut composite pieces), have been

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designed to swing out of the way when the swimming platform is in use, and are integrally mounted to the main aft bulkhead.

Those who enjoy entertaining guests on board will appreciate the additional seating in the cockpit with a wide radial seat located aft along with a central table. There is corner seating either side forward directly behind the saloon bulkhead, which double as steering stations. Craig points out the benefits of such a setup: "Twin helm is recommended and is certainly my preference... When helming the boat, the sails and tell tails can be seen clearly from a far better vantage point. A single helm offset can also be easily achieved."

A bench area against the saloon bulkhead has been designed to be used as an outdoor basin and barbecue area with a slide-out rubbish bin underneath. The attractive lines of the extended saloon cabin top provide excellent shade for the cockpit with ample headroom clearance below.

A large off-centre single door provides access into the saloon on the port side with big windows in the bulkhead, creating comfortable flow-through between the saloon and cockpit.

The well appointed 'L' shaped galley against the aft bulkhead on the starboard side makes sure the cook is included in the conversation both in the saloon and in the cockpit. Hot meals can be simply passed out onto the cockpit bench via a drop-down window in the aft bulkhead adjacent to the galley.

The sweeping saloon seating has two areas, a dining area opposite the galley, and a lounge area with a low 'coffee' table on the port side. On the end of the galley module is a built-in entertainment unit with the TV facing the cosy lounge area. On the starboard end of the saloon/dining seating is a bench area housing the fridge/freezer. This is directly opposite the galley, making the area very easy to get to and a pleasure to cater in. The central position keeps the weight more evenly distributed, accentuating the trim of the boat.

Accommodation and facilities

The Spirited 380's generous interior design space creates luxurious

accommodations for captain and crew. The 380 features a large private double cabin in the starboard hull accessed via the galley return. An additional office space (or navigation room) is located forward of the hull steps. Further forward in the hull is the forward double cabin, with a queen sized double bunk located on the bridgedeck with steps leading up to it.

Large opening windows located on the vertical surface surrounding the mast create an airy open atmosphere, in an area usually considered claustrophobic in other cats. An optional opening hatch in the ceiling above the bunk gives extra airflow on those balmy tropical nights and provides easy access from the saloon for families who need to keep an eye on the young ones.

The 380 has the additional luxury of either a walk-in-robe or an ensuite ahead of the forward cabins, with most owners

preferring the ensuite configuration ensuring that the 'owners cabin' gets the five-star treatment.

Main facilities are located in the port hull with access steps alongside the saloon bulkhead into the midship section of the hull. The head is situated in the aft area with a spacious separate shower cubical located aft. More space is provided further into the midship area featuring bench space inboard and lockers on the outboard side which can be utilised as an alternative office or navigation station. The forward cabin is a mirror image of the starboard hull and also features the option of either a walk-in-robe or ensuite.

The 380 incorporates substantial storage spaces located throughout the boat. A handy anchor locker is located forward on the deck starboard-side, along with a deck locker port-side in the nose-cone section forward of the cabin.



There are two big deck lockers located forward of the accommodation area on each side of the foredeck. Accessed through flush-mount hatches, the deck lockers can be used either as sail or general storage facilities. Additional storage is provided under the seats in the cockpit.

Motors and Daggerboards

Spirited Designs recommends installation of 20-25hp sail drive Diesels. "Reliable motors were specified for extra safety," states Craig, adding "The extra power means that when you've finished a long day of sailing, you can be confident that you will arrive home safely." A big hatch incorporated into the back steps provides excellent access to the motor bay which is just aft of the rear main bulkhead outside of the accommodation area. Shaft driven Diesels can be easily accommodated if preferred, with only minor modification required to the head and shower area. Outboard options are available, however this must be traded off against the functionality of the design.

The daggerboards can be built using E-glass or Carbon-fibre for weight saving with a chord length of 750mm. The compact daggerboard design is highly efficient upwind and reduces the overall penetration depth which accordingly reduces the draft of the boat.

Plans and documentation

The CAD construction plans include excellent layout and detail, specifically aimed at the amateur builder. The instructions are easy to follow, taking more of a 'commonsense' approach as opposed to the more common engineering approach. Throughout the project, you can call on professional technical support direct from the Spirited Design Studio, ensuring that at every stage of construction, you can check in to ensure you're on track.

Summary

Overall, a well thought out design and kit which enables even the most amateur boatbuilder to undertake this build-project with confidence.

The extensive pre-production and Spirited's intelligent assembly system

combine to minimize the build time and of course the additional build cost. The end result is a more professional finish resulting in a higher re-sale value.

The flexibility of interior design layout will be appreciated by those who have specific preferences catering for either a performance or entertainment focus.

Since the launch of the new 380 design, Spirited has received a great deal of enquiry from enthusiasts keen to see a 'Race' version. Such was the demand that we can exclusively reveal the addition of a competition version of the 380 from the Spirited Studios due in the second half of 2006. The race version will feature a range of technically advanced materials throughout, in particular carbon fibre. That's one boat we're certainly going to enjoy reviewing for a future edition.

For more information on the Spirited 380 or custom multihull designs contact:

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SPECIFICATIONS

LOA	11.7m/38ft
BOA	6.53 m/21ft 4"
Draft	500 mm/1ft 6" (Daggerboards up) 1.7m/5ft 6" (Daggerboards down)
Displacement	5200 kg 11464 pounds
Bridgedeck Clearance	700 mm 2 ft 3"
Mast Height	16 m/52 ft 4"
Sail Area	96 sq m/1033 sq ft
Payload	1800 kgs/3970 pounds
Headroom	2.09m in Saloon 1.9m in Hulls
Motors	2x 21hp Saildrive Diesels
Motor Speed	7.5 knots (cruise)
Sail Speed	11-12 knots (cruise)
Fuel Capacity	300 Litres
Fresh Water	400 Litres
Waterline Beam	
To Length Ratio	13:1
Berths	3x Private Double Cabins
Estimated Build Hours	3500 (basic standard of finish)