

Wraps off Martin's 'flying saucer'

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A YACHT estimated to be 40 miles a day faster than Voortrekker II is being built for Springbok sailor John Martin's next attempt at the single-handed British Oxygen Challenge Around The World Alone.

The new Allied Bank, a 21m design by local naval architect Angelo Lavranos, is being built by British builder Phil Sharpe in a well-camouflaged shed in the southern suburbs — until recently under a cloud of secrecy.

Last week however, Martin decided to unveil the plans of his high-tech yacht.

The wooden male mould is nearing completion and this week the builders will have started lamination with high-tech plastics to build the hull.

On schedule

"We are on schedule with the work and aim to launch the boat in September," said Martin during an interview at the shed last week.

"The method of construction we are using has not been done here before and we're going to be doing some pioneering work.

"We are using a carbon-fibre and kevlar composite matting already impregnated with resin.

"The matting will be imported frozen from Britain in a freezer container to prevent the resin from running out of the material or setting.

"We will have to build a crude sort of oven over the mould and once the matting has been laid over it will have to be baked for six hours at 70C.

"At the same time, all the air bubbles in the matting will be removed by covering the construction with plastic and creating a vacuum to suck out the air.

"The purpose of the pre-impregnated matting is to ensure that the correct amount of resin is used.

Dish-like

"The two layers will be separated by a paper-thin Nomex honeycomb layer."

The hull design's main feature is a flat bottom with a dish-like profile when viewed from the stem or stern as opposed to the more conventional yacht's steep or sheer sides. It is also very wide.

The overhanging sides house the water ballast tanks for both port to starboard and fore and aft trim.

The keel design has not yet been finalised and although both Lavranos and Martin remain rather secretive about it, they are smugly satisfied that it would be something "different".

The whole hull has a very low profile which will prevent Martin from walking or standing upright below decks.

"It's like an oversized surfboard," said Lavranos. "The only place where John will be able to stand upright is in the covered cockpit.

"I started off with an idea and tested it, first racing it on computer against Voortrekker II.

"Soon this just wasn't a contest anymore, so I started racing it against itself and making changes here and there to improve performance.

"We have involved Dr Terry Griffin and his people of Finite Element Analysis Services at the University of Cape Town to do stress testing on every fibre of each layer and they have to tell us whether the material will stand up against the strain.

"This enables us to use the lightest materials possible, while maintaining sufficient strength."

"Off the wind, this yacht will be very fast. It will surf and plane much easier than anything I've sailed before and should be about 40 miles a day faster than Voortrekker II," Martin said.

"We decided to opt for a masthead rig (with the foresail reaching all the way to the masthead) and the whole boat has been designed for ease of use.

"There is still about a year to go before the BOC and I haven't really started with my physical preparations, but I've been living the race all the time.

"Throughout the design and construction of this yacht I have been thinking about the race, remembering what I had to do under specific circumstances during the previous race and customising this yacht to suit me.

"One feature of the boat is that no wood is going to be used on it — no chart table, no cupboards — everything will be composite".