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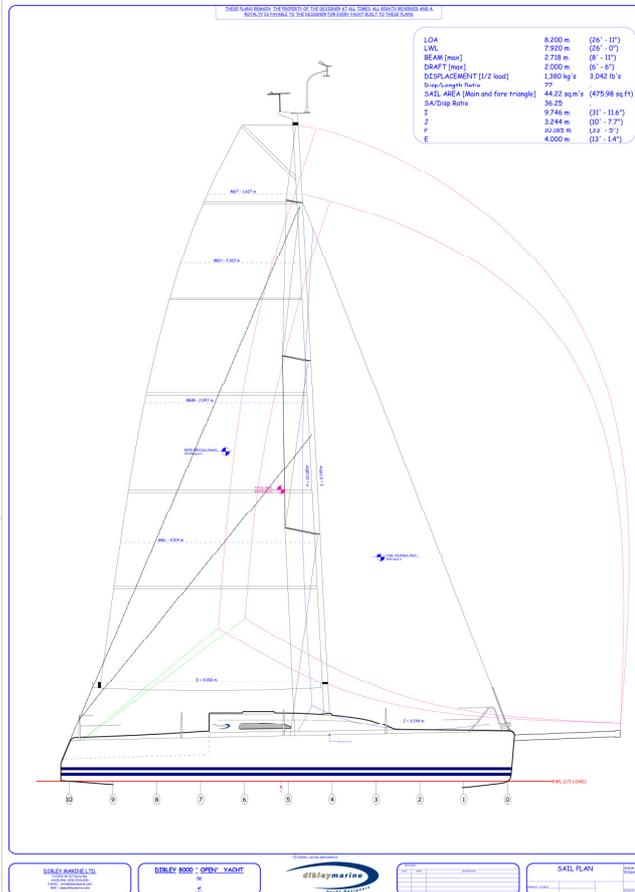
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DIBLEY OPEN STYLE 800



We have recently had a large increase on shorthanded capable racing yacht enquiries. The Classe 950 is our most popular to date, and the Class 40 is another that is showing a lot of interest. Both these Classes are well established globally, but the concept of safe 'Open type' offshore yachts can also be a 'concept and philosophy' that can fall under any size.

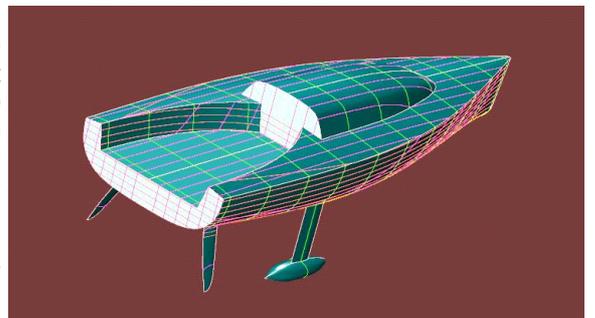
A couple of years ago, a client commissioned us to design a yacht that could be sailed in some of the offshore and coastal races on the West Coast of North America. An avid short-handed convert, the client wanted top performance in reaching and on the wind; and the layout above and below decks had to be clean and simple. The hull incorporates a fine 'U' shaped entry that flattens out into a nice run aft. Beam was maximised to the limits of what would work on and off the wind, and a well-balanced hull volume distribution was incorporated to maximise the performance. A lifting keel allowed the yacht to be dry sailed and stored during the non racing season. The keel and twin rudders incorporate the latest in foil design in order to maximize lift while minimizing drag.

The Main is full battened and powerful. A removable staysail will be incorporated for those races where advantages can be made having it. A protruding prod comes out of the port side 'prod-tube' which is faired into the hull. This 'prod tube' is completely water tight from the interior of the vessel, and all controls to pull it in and out are within easy reach of the helm.

The Interior is comprised of two watertight bulkheads that splits the interior into three watertight compartments. The layout is spartan and simple.

This is an exciting Yacht that will be perfect for those wanting to race in the short handed divisions and longer Coastal/Offshore races that are becoming popular for yachts of this size. Though not established as the Classe 950 and Class 40 yachts, being smaller may fit those with budgets that can't quite jump to the larger sized yachts. Full Construction Plans are available and semi custom changes can be made to suit any new clients requirements.

If this interests you, Email us for further information.



DIBLEY MARINE SERVICES

- Naval Architecture
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- VPP & Performance Analysis
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7.2 m RACING OUTRIGGER CANOE DESIGN



At the beginning of this year, New Zealand paddler, Kingi Gilbert, commissioned Dibley Marine to do some detailed study and resistance analysis for the Racing Outrigger Canoe project he was putting together. The following is in Kingi's own words.

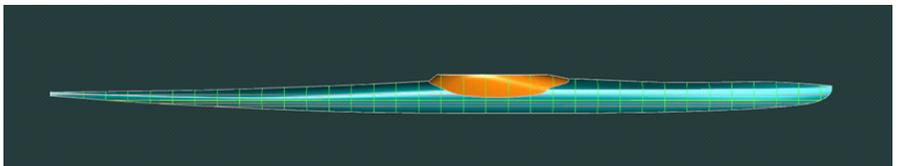
"The project goal was to build the most efficient, low resistance canoe for open ocean races in the Pacific, with the primary focus on New Zealand and Tahiti waveforms. Secondary focus was on smaller Hawaiian waveforms (coastal runs, not channel runs). I have competed for four years in outrigger canoe races out of Tahiti and Hawaii, racing with top sponsored teams as well as a solo paddler in both rudder and rudder-less divisions. My passion is rudder-less canoe design which in New Zealand is called a 'waka', in Tahiti a 'va'a' and in Hawaii a 'wa'a'. Rudder versions are commonly called an OC1.

I wanted to start from scratch in digital form, instead of shaping a hull from a tree trunk or milled wood like many traditional builders in Tahiti .

I wanted it done out of fiberglass plugs like builders were doing in New Zealand. I totally respect the traditional method but it is not something feasible within my Takapuna city environment, plus my daytime job as an artist and designer makes those digital tools easier to manipulate than a plane or skill saw!

I also saw development gains using digital visualization tools and quicker prototype construction using computer controlled cutting machines (CNC), so everything was designed with the digital process in-mind. To bridge the gap between real-world and digital-world design I relied solely on my own water-experience.

I approached Kevin Dibley to help optimize the shape of a high performance outrigger canoe, and its outrigger component called an 'Ama'. Initially designed in the software 'Kayak Foundry', Kevin imported my raw data and constructed a much improved hull in Maxsurf. Together we worked on various



elements of the shape by refining the bow and transom, and pouring over a lot of hydrostatic and Resistance data as well as 'real-world' assumptions about speed, buoyancy and general riding characteristics. We spent a great deal of time discussing water dynamics and with Kevin's expertise, we were able to really fine-tune the hulls shape and performance.."

Kingi, who plans to race in the top single events here and overseas, is now getting the first prototype CNC cut in foam by Ian Mitchell of 'Creative Cam NZ Ltd.' Boat builder, Chris Brown of 'Performance Composites Ltd.' will build the first hull with a wet laminate carbon fiber sandwich construction that will ensure strength, stiffness and lightness. Once sea-trails are finished, other building methods will be looked at including Autoclaves and Vacuum Bagging.

We will keep you updated on how the project goes and more importantly, the results that Kingi gets from his work and training.

You can design the fastest Hull form possible for the conditions, but it is still the 'engine' (Kingi) in the hull that makes the difference between a top result or lower placing.



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INTERNATIONAL ONE METRES—GO INTO PRODUCTION



Early in 2011, Carl Smith, Graham Roberts and Antony Sisson, approached Dibley Marine in regards to producing the DM range of International One Metre (IOM) radio controlled yachts that have dominated the New Zealand fleets since they came on the scene back in 2009. Carl Smith was Dibley Marine's first client back in the early 1990's when he built the Dibley 650 sportsboat 'Stealth'. Carl is currently building his third Dibley designed yacht, a 40-foot Canting Keeler which he is hoping to launch sometime this year. Joining Carl in the IOM venture is Graham Roberts who runs coaching and mentoring sessions at the Tauranga Radio Sailing Club, and Antony Sisson who, as a New Zealand Boatbuilder, has been building IOM's in his spare time for quite a while.

Originally the trio were asked to assist in tuning the Dibley designed DM-IOM's, for overseas clients, but they grabbed the opportunity to go into production when the possibility arose. A purpose built CNC machine, built by Graham, took Dibley Marine's 3-D model and produced precise tooling from which female moulds were produced.

Resin infusion and cooking was the chosen building method as it produced light, strong and very durable hulls.

It is envisaged that 20-24 boats will be produced annually as this is an after-hours hobby for the three, but they have the expertise, passion and drive to produce the best package that can be offered on the market.

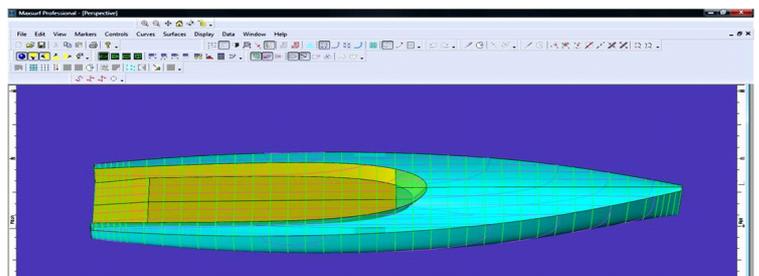


The first of the production DM2's will be out by the end of April and they will follow up with the DM1's which are more light air orientated. They also have great contacts for shipping anywhere in the world and can help with tuning hints and advise if needed.

Beside the recent successes, the DM-IOM design won the 2009 NZ National Championships as well as taking out 2nd, 4th, 6th and 8th in the 2010 NZ National Championships. They are proven winners, easy to handle, and beautiful to watch under sail.

Anyone interested should email Carl, Graham or Antony at : dm@ohope.co.nz for further details, costs and delivery times.

Or contact us and we will pass onto them for you.



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www.2illustrate.com

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Westlawn Institute of Marine Technology
www.westlawn.edu

Royal New Zealand Yacht Squadron
www.rnzys.org.nz

Yacht Yakka
yachtyakka.co.nz

Scuttlebutt Europe
www.scuttlebutteurope.com

Sailing Anarchy
www.sailinganarchy.com

Yacht Forum
www.yachtforums.com



Kevin Dibley—Design Studio, Westhaven Marina, Auckland, NZ , 2011

From the Design Office:

It has been a hectic beginning for 2011 with various projects ranging from Racing Outrigger Canoes; a Keel for Frank Pong's Jelik 1 (ex-Pyewacket) which is a R/P 75 footer; Concept work on a Class 40; as well as the push to get the Classe 950 up and running. The Classe 950 design, introduced in our last Newsletter has had great response from all around the world and our first client was signed up earlier this month for a European build. The plans have been coming along nicely and we expect a complete design package by Mid-April. For those that are keen on either home-building, or having a professional builder do the work for them, we would love to hear from you.

Winter is upon us, down in the southern hemisphere. Summer beckons for those in the north. Regardless, boating never stops and if by chance it slows a little, it is never far from our minds.

Happy Boating - Kevin Dibley

KEEL & BULB DESIGNS FOR 'JELIK' FLEET IN HONG KONG



Early in 2010, Laurie Davidson and I worked on a new bulb for Frank Pong who had just purchased the Davidson designed, Cookson built, TP52 called 'Alta Vita'. Renaming her 'Jelik 5', Frank wanted to modify the bulb shape to cater for the light weather conditions he was racing in along the Asian coastline.

Between Davidson and Dibley Marine we designed Frank a very efficient, low drag bulb that would excel in the conditions he was sailing. The results were very successful with 'Jelik 5' immediately showing a performance gain.

From that first design with Davidson, Frank commissioned Dibley Marine to re-design both keel and bulb for his other TP 52, the Juan K designed *Mui Mui*. The key to these

re-designs are to quickly work out what can and can't be moved, and then designing around these parameters. *Mui Mui's* keel was designed to slot in a case inside the hull, and as such, any work we did had to use the same shaped head to fit within that slot. This meant we were limited to where we placed the keel longitudinally, so that had some limiting affects on what could be done to improve helm balance and VMG.

There is a correlation between the Centre of Effort of the Sail Plan, and the position of the Keel, with helm balance. To simplify a little, if you had bad weather-helm, you could move keel aft [or rig forward] to correct. Working out that balance can be done in the Design Office well before problems arise. *Mui Mui* was well balanced already, but the whole exercise on the re-design was to make it a better light wind yacht, and the best way to do this was to reduce drag and maintain a light helm.

Two New Zealand based companies, Styrotech CNC cutting the bulb plug, and Mike Rees Castings pouring the Lead, were chosen for their price competitiveness and speed of delivery.

We will look at the various Jelik projects in more detail in the next newsletter, as well as fill you in on Frank's vision for the sailing youth of China.



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