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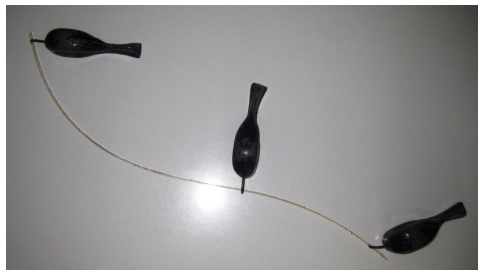
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DIBLEY MARINE SERVICES

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- Yacht Design
- Design Modifications
- Stability & Trim Analysis
- Keel and Rudder Design
- VPP & Performance Analysis
- Racing & Cruising Yachts
- Planing & Displacement Launches
- Design Reviews

Design Tools - What We Use!

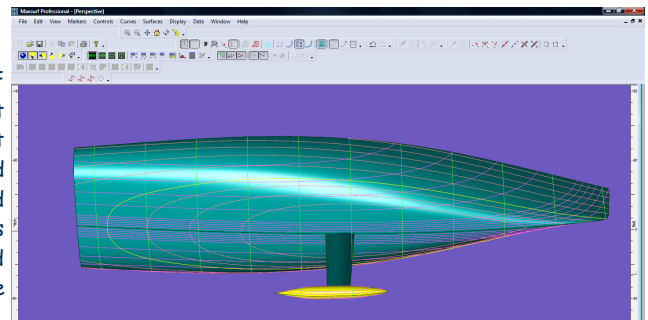
Long gone are the days of Splines, Weights and Ships Curves, though there are still designers out there that swear they use them and find them easier to work with.



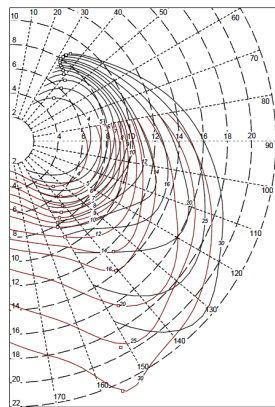
As a Westlawn Institute of Marine Technology graduate in 1991, I did the course long hand with a set of ten Weights and various tapered Splines that allowed practically any curve to be drawn. I had hard, medium and soft Mechanical Pencils, and a seemingly endless supply of erasers, though even this was never enough.... Any changes in the design were thought out carefully as the resulting work was 10-fold to implement those changes. I always felt this was the reason that the evolution of design was so slow before computer software speeded up the process.

Now-a-days there are plenty of programmes and software that can be bought specialising in hydrodynamics, performance, and yacht design in general. Using this software allows the designer to try numerous ideas and thoughts and in a very fast time.

At Dibley Marine, we use a variety of different software and design tools that allow us to provide the client with the best solution for the given brief. We would normally start with good old fashioned pencil and paper for the initial sketches and ideas. These would then be carried through to *Maxsurf* and *Hydromax* for the 3D hull modeling and hydrostatic study.

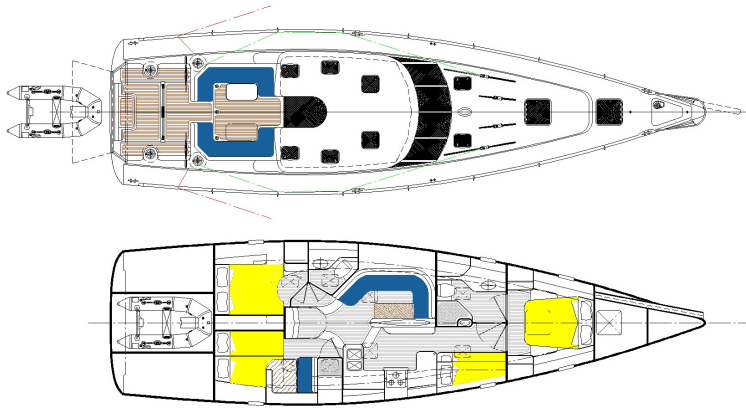


(picture to right) The 3D lines would then be transferred to 2D CAD. We use *Graphite* and *Rhino*, mainly, for our drawing software. *Microsoft Excel* is used for some of our calculations and tables. For our sailing yachts we use *WinDesign*, which is a Yacht Performance Prediction Software. This software computes the performances of one yacht, or a group of yachts, as well as allowing us to customise the hydrodynamic and aerodynamic force models and as a result, produce a variety of meaningful outputs for evaluation and analysis. (picture to left)



With all the above making our job easier and more accurate, the old adage of 'Garbage in—Garbage out' still applies. For a designer to understand what he is working with, they need a thorough understanding of the basics and a clear vision of what they want to produce at the end of the process. Yacht Design is as much an art as it is a science and though it is easy to be buried in numbers and formulae, with experience and time, a designer can get a feel for what works and what doesn't. What can work in a tank-test may not work in the 'real world', and vice versa. This is why the evolution of yacht design has not stopped and continues to grow in leaps and bounds. As boats are launched and tested and real numbers analysed, the database grows and the next generation of design improves.

ON THE DRAWING BOARD



SPECIFICATIONS:

LOA	17.400 m's	57' - 0"
LWL	15.660 m's	51' - 5"
BEAM	4.800 m's	15' - 9"
Beam Waterline	3.850 m's	12' - 8"
Draft (Board up)	2.000 m's	6' - 6"
Draft (Board down)	3.200 m's	10' - 6"
DISP (1/2 load)	18,500 kg's	40,785 lb's
Disp/Length Ratio	134	
Working Sail Area	165 sq.m's	1,780 sq.ft
Sail Area/Disp Ratio	24	
Engine Power	125 HP	
Fuel Capacity	1,000 litres	264 U.S. gal
Water Capacity	1,000 litres	264 U.S. gal

Dibley 57 Performance Cruising Yacht

Designed as a fast, offshore capable cruising yacht, the D57 is the perfect live-aboard yacht for a couple planning on extended voyages.

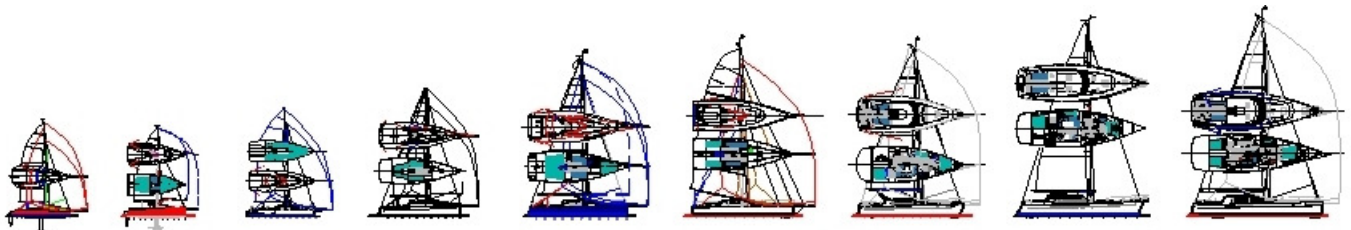
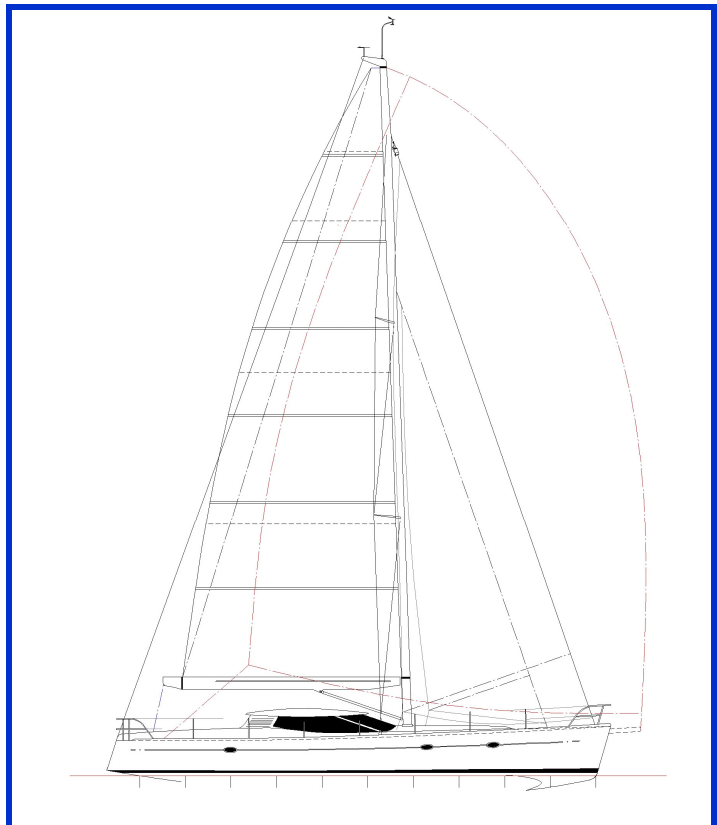
The cockpit is spacious and comfortable with a large entertaining area forward, and all sailing systems leading aft to the twin helm stations, for easy single handed sailing. The traveller aft is rebated into the deck so that the area can be used as a sun-bed, or a further seating area when deck chairs are used while at anchor.

Twin rudders allow for a 3-metre Rigid Inflatable to be stored in its own 'lazerette' underneath the aft deck. Access is by way of the transom which folds down to form a swimming / boarding platform.

The Rig is simple with a furling boom and headsails as well as a 1-metre protruding prod that extends forward to allow good gennaker separation from the rest of the sail plan.

The interior layout is open and spacious. The main salon, entertainment and dining area, while offering panoramic views while seated, has also been designed to create an air of intimacy. Separating the salon with the large galley to starboard is a half height centre case that allows the 3.2 metre draft to be reduced to 2.0 metres when anchoring or entering draft restricted marina's. Total berthage of 8 with two heads and a large navigation / office completes the interior.

This is an exciting yacht that is simple, easily sailed and full of comfort.



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Sailing Links and News

Sailing Anarchy
www.sailinganarchy.com

Crew.org.nz— NZ Yacht forum
www.crew.org.nz

2-Illustrate.
www.2illustrate.com

Yachting New Zealand
www.yachtingnz.org.nz

Westlawn Institute of Marine Technology
www.westlawn.edu

Super Yachts Unlimited
www.superyachtunlimited.co.nz

Yacht Yakka
www.yachtyakka.co.nz



Design Studio, Westhaven Marina, Auckland, NZ, 2009

FROM THE DESIGN OFFICE: The summer racing season has commenced in New Zealand with Wednesday night racing breaking up the weekday, and the longer Harbour courses filling in the weekend. The amount of yachts that get out on the start line is quite impressive, and yet during the Wednesday Night Series, the traffic jam to get to the marina car parks can be as tense as the starting line. A quick congratulations to Ray Haslar and his team who almost took out their division in the 2009 Hamilton Island Race Week in Australia. Leading overall in the last race, conditions just didn't smile on the smaller yachts, but the Davidson designed, and Dibley modified 'Jive Talkin' still managed a solid Second Place Overall. A fine effort.'
 Happy Boating. Kevin Dibley



Dibley Designed Radio Controlled Yachts, Dominate Fleets.

'DM-3-RM' (Picture to left) a Dibley designed *Marblehead*, won the 2009 New Zealand National Championships over the Labour Day Weekend. Owner and winning skipper, Paul Goddard commented, "The boat was very quick on all points of sail, a little sticky in the light, as predicted, but as soon as the breeze filled in it was a rocket. I won 12 of the 22 races discarding an 11th, 5th and a 3rd." The builder, Tom Kibblewhite, and sail-maker, Alec Newald, completed the winning package. This ISAF RSD International Class is an 'Open Rule' allowing great design and construction freedom within the main speed determining parameters restricted to 1290 mm length, 700 mm draft and 0.5161 square metres of measured sail.

After taking out the 2009 IOM National Championships back in April, The Dibley designed 'DM-1' (Picture to right) took out the 2009 North Island IOM Championships held in Kerikeri during the weekend of the 10-11th October. Two DM-1's were sailing in the fleet, with Kerikeri local Roddy Booth taking out the Championships followed by Paul Goddard in his 'DM-1' taking second overall. The tricky conditions over

the two days included 30 knot winds on the first day and tricky swinging wind on the second. The 2010 New Zealand IOM National Championships will be held in Tauranga in March.

The IOM (International One-Meter) class rule is fairly strict, however the rule is designed to allow some freedom in the design. Considered a 'Box-Rule', the important speed related criteria is limited to a maximum of Length (1000 mm); Draft (420 mm); Displacement (4 kg's); and a set Sail Plan with 3 prescribed rigs. Dibley Marine has recently been commissioned to design a more radical hull which will be called 'DM-2'. Launching due in November.



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