

The Hard Dodger Story

How we developed the Bluewater 420
Raised Saloon Hard Dodger



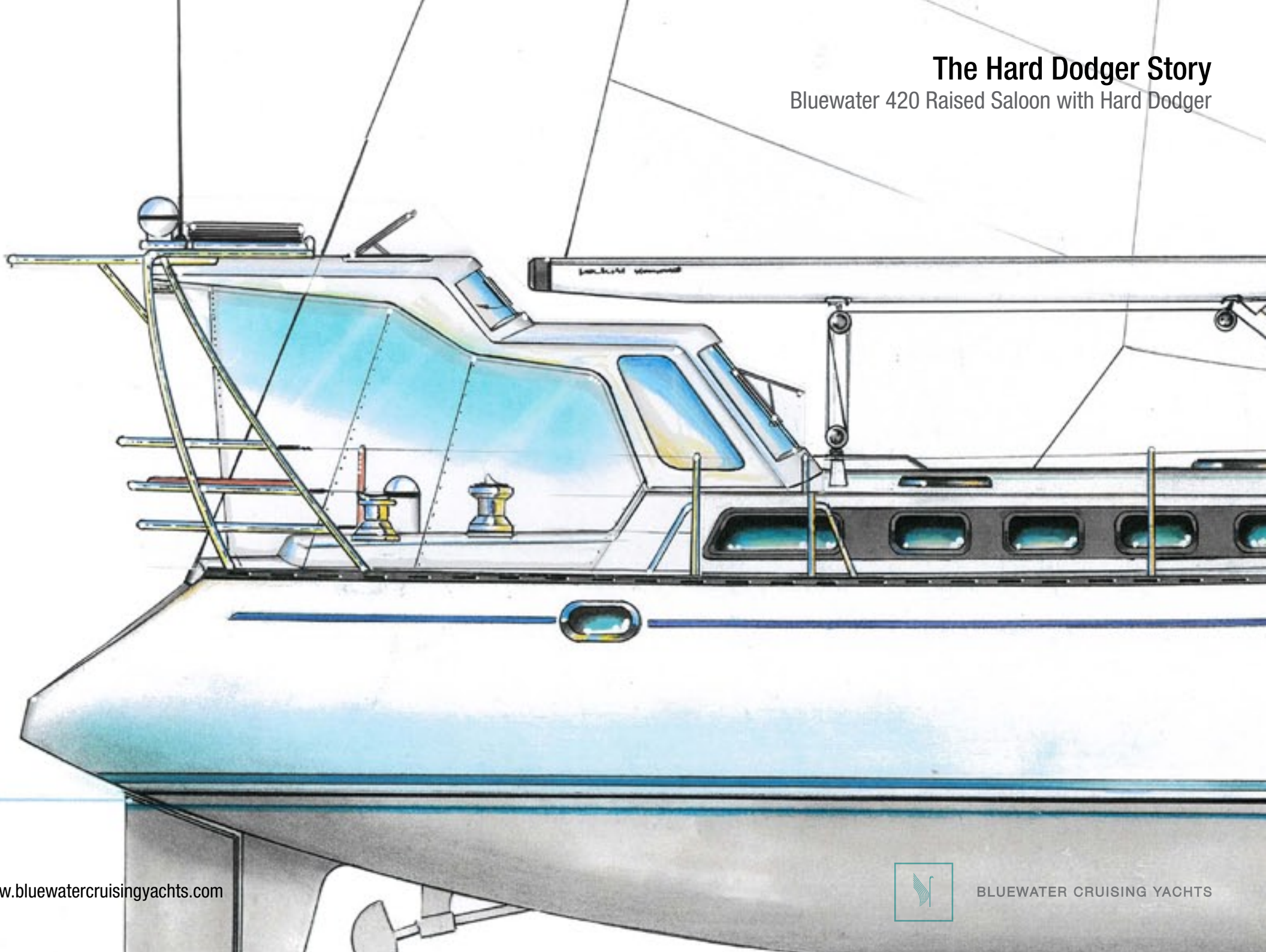
For those that are interested in how the new hard dodger was developed.

The development of any new and innovative product takes a long time from first thought through to manufacture and installation. The Bluewater Hard Dodger is no exception and has taken almost 12 months to complete. This was due to the complexities and issues involved which we have documented here.



The Hard Dodger Story

Bluewater 420 Raised Saloon with Hard Dodger



Key Issues

After many months of discussion with various clients and boating enthusiasts and particularly the owners of the Bluewater 420 “Renaissance” an initial design was undertaken by Arnott Industrial Design. This was to see how it would look and to ensure that the important features of the current soft dodger/bimini could be maintained whilst creating the improved benefits of a Hard Dodger.

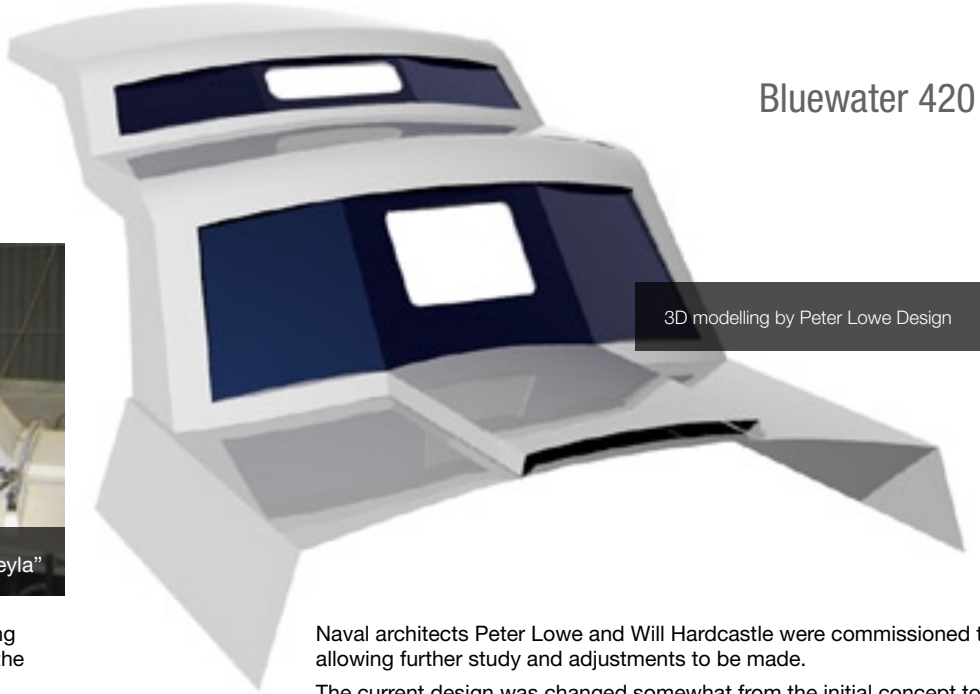
The key issues were:

1. The height of the bimini must be maintained which allowed headroom when standing on the seats to get around the wheel as well sufficient headroom above the aft lazarette deck when sitting on the transom seats and operating the davits.
2. It must be able to be retrofitted to existing rear arch designs.
3. Headroom was increased to 6’1” under the dodger section to solve the problem of visibility for short and tall people as well being able to enter the yacht without having to duck.
4. Visibility through vinyl dodger clears is limited and from experience helmsman rarely trust the blurred vision especially after a season or two old. Glass is the only product that gives 100% clarity over many years and this new design must incorporate this.



The Hard Dodger Story

Bluewater 420 Raised Saloon with Hard Dodger



3D modelling by Peter Lowe Design

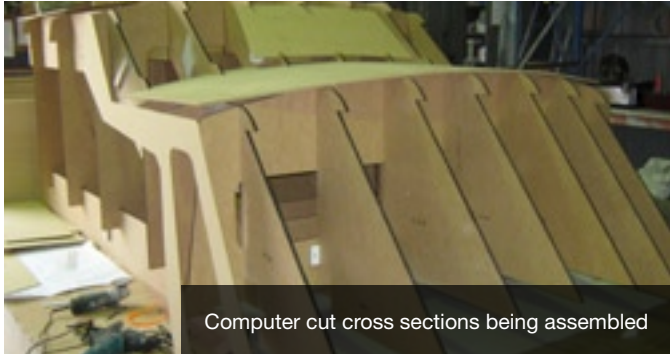


Initial mock up on "Leyla"

After the initial design a prototype was mocked up on an existing boat, photographed and then adjusted upon consultation with the Bluewater team, the designers and the customer.

Naval architects Peter Lowe and Will Hardcastle were commissioned to take this initial design to a computer model allowing further study and adjustments to be made.

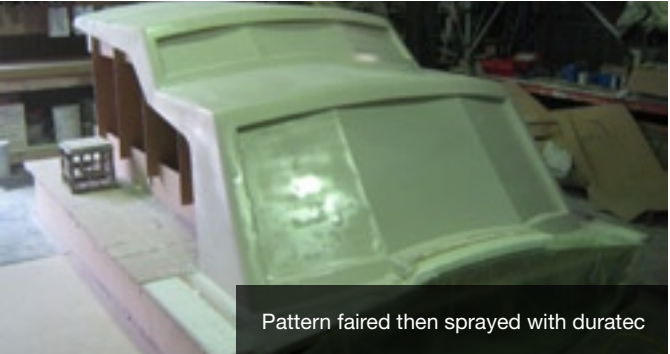
The current design was changed somewhat from the initial concept to keep within the existing styling of the Bluewater.



Computer cut cross sections being assembled



Pattern in process of being faired



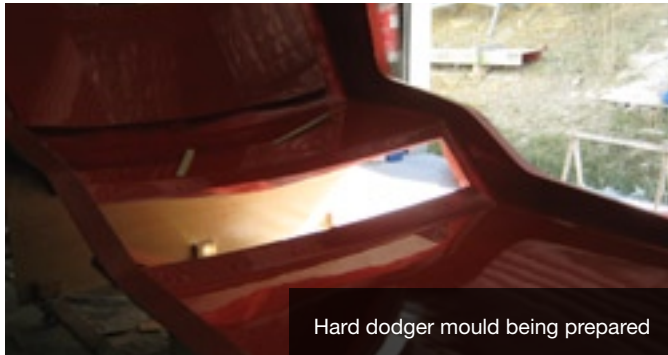
Pattern faired then sprayed with duratec

Once everyone was happy, computer files were used to laser cut the shape after which it was clad then faired and painted to a high gloss finish.

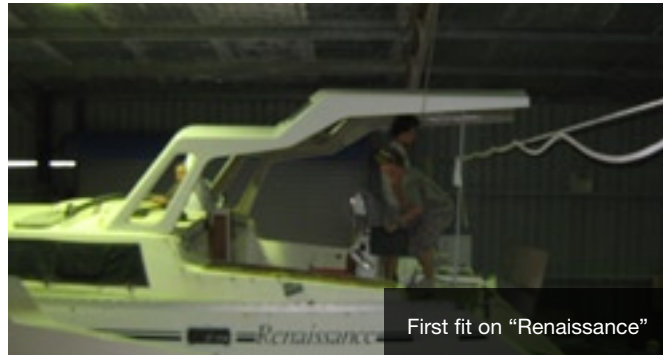


The Hard Dodger Story

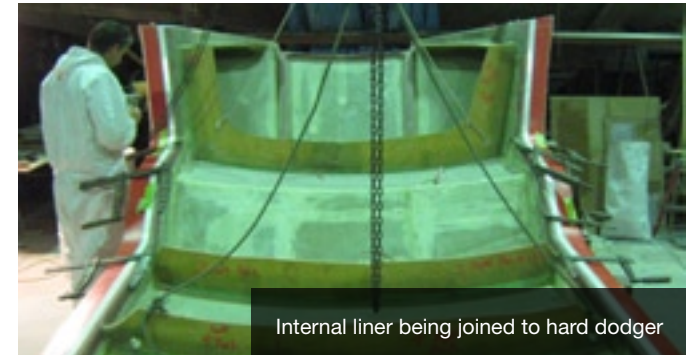
Bluewater 420 Raised Saloon with Hard Dodger



A somewhat complicated split mould was then taken from the mock up and the first prototype was laid up.



This was then dry fitted to "Renaissance" and further adjustments were made.



The job was then placed back in the mould whereby internal lining was fitted and a further mould taken from that.



Both the outer and inner mouldings were joined and detailed before it was finally fitted on "Renaissance" in the water.



Construction is a gelcoat layer first sprayed then 600 CSM tie layer applied, 1 layer 600 double bias cloth either side of 15mm PVC foam core.



The sides have 2 layers 600 double bias either side of 5mm core. The internal liner is gelcoat, 300 CSM followed by 1 layer 600 double bias.

The Hard Dodger Story

Bluewater 420 Raised Saloon with Hard Dodger



It is strong and stiff enough to walk on which was another problem it overcame compared to the original soft covers making it easy to clean, long lasting and leakproof.



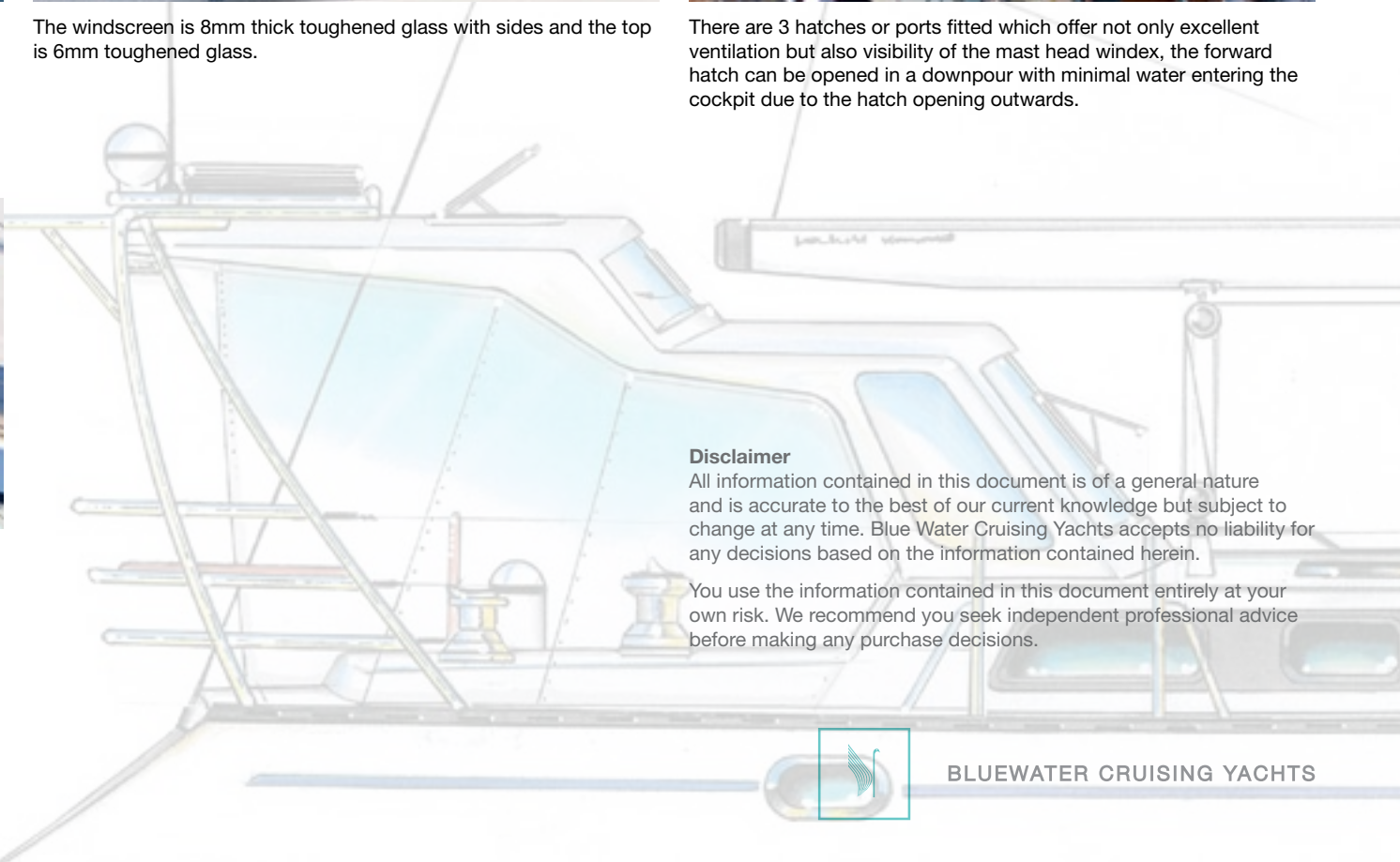
The windscreen is 8mm thick toughened glass with sides and the top is 6mm toughened glass.



There are 3 hatches or ports fitted which offer not only excellent ventilation but also visibility of the mast head windex, the forward hatch can be opened in a downpour with minimal water entering the cockpit due to the hatch opening outwards.



Six stainless steel handrails are fitted which can be grabbed from inside and out. Three night lights are fitted for reading and dining. Nine vinyl clears are fitted to stow to the underside of hard dodger. Cockpit speakers are fitted into sides.



Disclaimer

All information contained in this document is of a general nature and is accurate to the best of our current knowledge but subject to change at any time. Blue Water Cruising Yachts accepts no liability for any decisions based on the information contained herein.

You use the information contained in this document entirely at your own risk. We recommend you seek independent professional advice before making any purchase decisions.

