

Wilderness 1120X

WILDERNESS 1120X

STUDY PLANS



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Hello and thank you for showing interest in our Design.

Schionning Marine is a family based Australian business, we are very passionate about our designs and continually strive to offer the best options to get you out there and make your dream a reality.

Choosing the right design can be a real challenge, there are so many options and variations and purposes a boat needs to meet. We will help you to determine which design will best suit your lifestyle and purpose, also your budget. We have plenty of options!

These Study plans contain a lot of information directed at the “OWNER BUILDER”, the aim being to show you how simple and achievable it really is and to help you determine whether you will be able to do it yourself. Be assured, hundreds of absolute novices have and are doing it so if you really want to build a boat, go for it, we will help you all the way.

If you are NOT an owner builder and would like to buy one of our designs, we work closely with several excellent boat building yards in Australia and overseas. Using one of these builders to build a custom boat for you, rather than buying a molded production boat is very rewarding, you can get exactly what you want and you'll be surprised just how well priced this can be too. Later re-sale value is high and the quality of a hand build composite boat, built by a recommended builder far out strips any production process in terms of strength, quality and lightness (therefore performance).

We look forward to hearing from you once you've studied the following pages. We have not included kit pricing due to the many variations and options so please email or call us and we'll furnish these on request.

Good luck with your research and project.

*Jeff, Lorraine, Brett and Ben Schionning
& Rob Shenn.*

DESIGN OVERVIEW

The Wilderness 1120X is one of our most popular designs, well suited to coastal cruising, live aboard, weekend trips with family or friends or short ocean passages. Longer ocean passage need careful planning so you don't overload her but with a watermaker and sensible loading, she can sail anywhere. This size cat is very easy to handle so you don't need loads of crew and being light and nimble, she is lots of fun to sail.

The generous waterline length with centralized weight and long fore and aft overhangs, loads of buoyancy including reserves high up forward in the hulls, a moderate rig and easily driven hulls, she has every desirable feature, making her extremely safe and an excellent design choice.

The very strong, easy to build KIT construction system makes her a possibility even for those who never thought they could afford to buy a completed cat, or if you are going to have a boat built for you, builders will love the speed and ease of this pre-cut panel system.

The boat is fully pre-cut from light composite flat panels with either foam or balsa cores. The curved areas (deck to hull joins forward beam and cabin roof) are strip planked. The design is also available with plan sheets to pre-glass, mark and cut your own panels in foam. These can be made yourself or pre-cut from foam sheets and once joined on a flat table, glassed yourself to make your own kit.

She uses all our latest technical improvements including our new striker-less forward beam, composite chain plates, and carbon rudder shaft options, these improve strength, save money and look good too.

THE INTERIOR

The Wilderness 1120X has a well thought out interior that is designed to cater for practicality and comfort creating livable and useable space

| | |
|----------------------|---------------------------|
| LOA | 11.20 Metres |
| BOA | 6.50 Metres |
| Draft | 0.450 Metres |
| Headroom/ Bridgedeck | 1.88 metres |
| Headroom/ Hulls | 1.94 metres |
| Mast Height | 15 Metres |
| Sail Area | 76 Square Metres |
| Displacement | 4770 Kilograms |
| Payload | 1600 Kilograms |
| Motor Option | 2x 21hp Saildrive diesels |
| Sailing Speed—Cruise | 10+ Knots |
| Sailing Speed—Top | 20+ Knots |
| Fuel Capacity | 40 –100 Litres |
| Water Capacity | 400 Litres |

aboard. We understand that the interior of your boat is a very personal thing; our layouts are flexible and are able to be customized to suit your own life-style and taste. The layout plan shows two double cabins forward, with a third aft in the starboard hull. A usable head and shower is aft portside, with a navigation station and galley amidships port and starboard respectively. The pre-cut interior furniture is valuable in speeding up the overall construction time.

Access up and down from hulls to bridgedeck is very easy. The saloon and dinette are spacious and well integrated with the cockpit. Door options allow for either one central door between the saloon and cockpit or two doors with a central window. Our special drop down window system in the doors and bulkheads open fully and can be closed to any opening size. When closed these are very secure and tamper proof. They also create great ventilation and airflow, this is especially important in tropical climates.

THE COCKPIT

The cockpit is pretty standard on all our designs, with a radial track set on the seatback providing superb security and safety. Walk through transoms provide easy access to the cockpit and a duckboard flows across behind the back beam. Davits cater for dinghy storage. All controls run aft to the cockpit where the central winch station controls the main halyards and single reefing line making it simple to control when short-handed sailing.

THE RIG

Standard plans have a fixed aluminium rig design with twin spreaders, intermediate shrouds and optional inner forestay being removable. A simple 3 stay rig is available as well as self tacking headsail. Furler Genny and Reacher controls are also led aft to the cockpit reducing the need to go on deck to an absolute minimum. Should you choose a self tacking jib, this too has all controls led aft.

STEERING

Steering remains the owner's choice with either a single wheel set to either port or starboard for those that like to push the autopilot button and relax, or a twin wheel option suits the more performance oriented cruisers and offers better vision of the sails while steering. A single central

steering station is also an option.

Our plans include a composite wheel and a system with spectra line for a very reliable and economical steering system you can make yourself or you can purchase a push/pull cable or standard hydraulic steering system.

BRIDGEDECK CLEARANCE & BUOYANCY

Bridge-deck clearance is good at 650 mm so you won't have any wave slam underneath. Chamfer panels (at inside hull to bridge-deck joins) improve the damping effect and give added lift. She has a clear flat run aft for easy planing and the asymmetric inside flares forward in the hulls provide additional high buoyancy reserves and help reduce spray for more comfortable sailing. Decks are rounded at the edges for low windage, high strength and quick shedding of green water with flat, safe and secure walking areas. Tramps are forward each side of the catwalk. Attachments are again all high strength, simple composite systems we've refined over hundreds of boats built.

MOTORS

Motor options on this cat are inboard 21hp sail drive diesel engines, props are protected by a skeg. Sail drive engines are installed under the transom steps and accessed via a hatch in the steps.

Below: "Plum Loco" Courtesy of Bruce Gilchrist



Below: Wilderness built by Ken Baker



DAGGERBOARDS

Daggerboards in cases set on the outboard side of the hulls are essential for decent upwind performance and dinghy-like tacking. They are easily raised and lowered with a simple rope and sheave pulley system. Inside you won't even notice they are there as they make a great area for either a deep broom cupboard (good also for fishing rods) or you can build in some storage shelves.

EASY BEACHING

The Wilderness 1120X has a very strong, stiff, reinforced hull bottom and can easily be beached anywhere. Supported by the skeg and the rudders, the props will be protected. The skegs help her track well on Ocean passages and also protect the props and rudders from Ocean debris or when grounding. For those cruising with big tidal ranges a shallow beaching keel can be coupled with daggers for the best of both worlds.

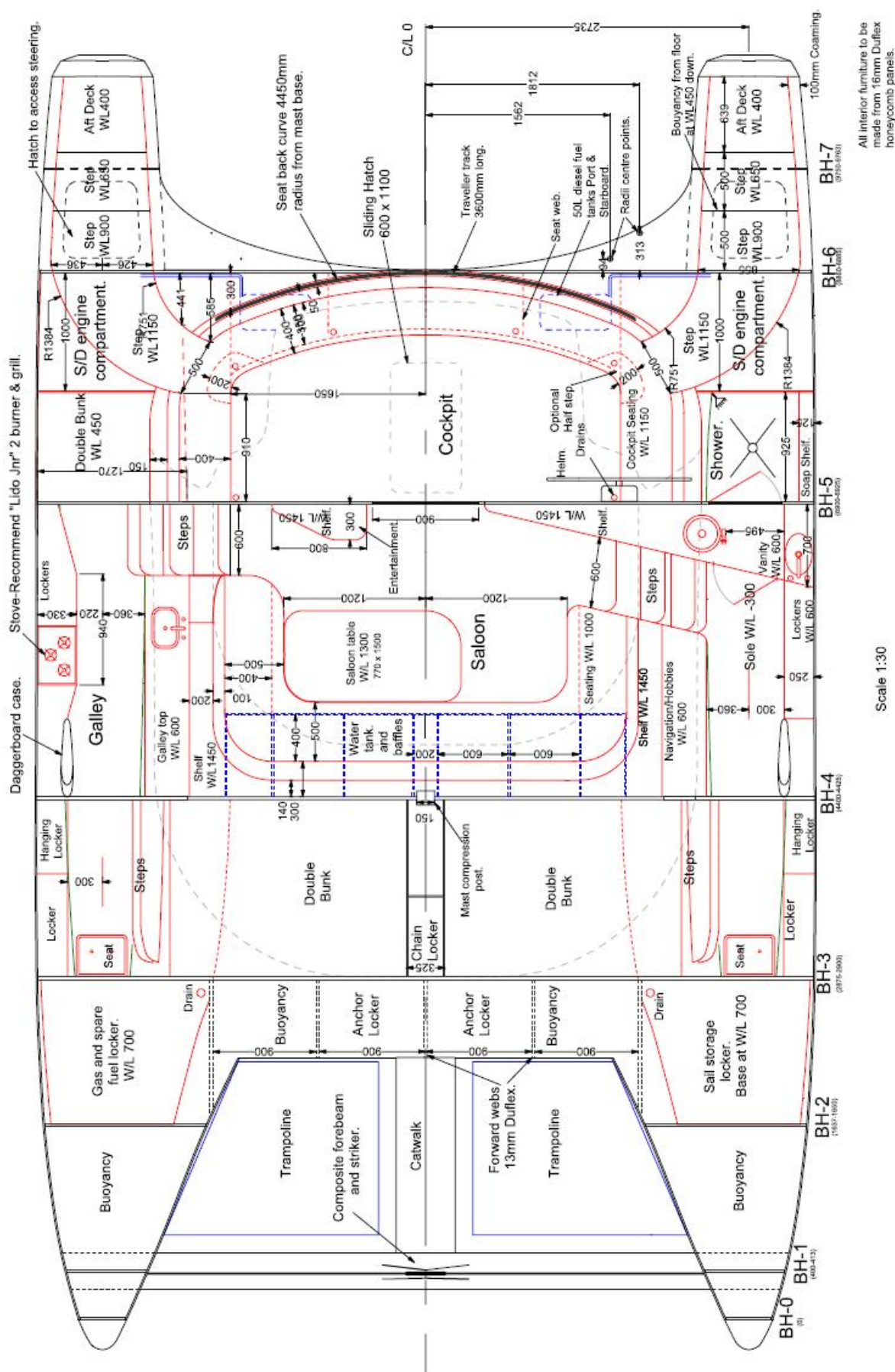
Not too big and not too small, the Wilderness 1120X is just right! She has very comfortable accommodation with privacy for all, yet she is very easy to handle.



NOTE: The Wilderness 1120X now has walk-through transoms to the cockpit—see layout drawing.

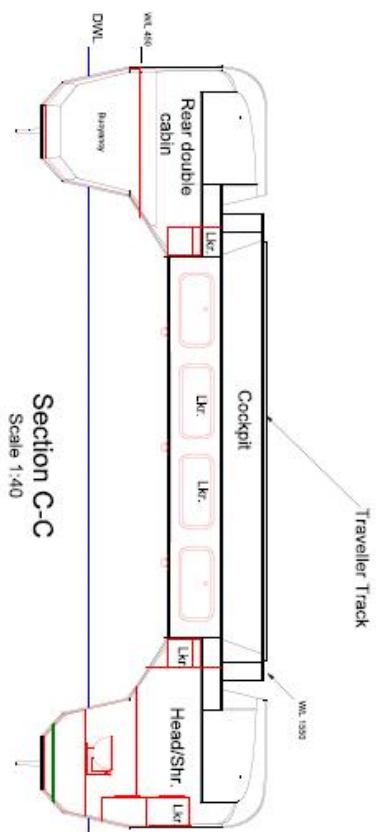
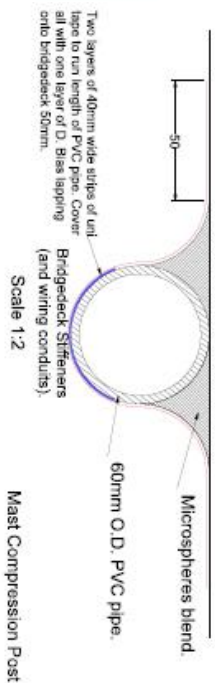


LAYOUT



All interior furniture to be made from 16mm Duflex honeycomb panels.

Technical drawing of a boat hull section A-A at scale 1:40. The drawing shows a symmetrical hull cross-section with a central cabin area labeled "Fwd. Double Cabin" on both sides. Key dimensions include a total width of 1000mm at the cabin base, a hull width of 60mm O.D. PVC pipe at the bottom, and a 50mm gap between the hull and the base. The drawing is labeled "Section A-A" and "Scale 1:40".



CONSTRUCTION OVERVIEW

THE KIT

The Wilderness “kit” consists of 2400 x 1200 mm sheets of balsa or foam DuFlex™ which are supplied with factory cut scarf joints which create a full strength flush joint, no taping required. Once joined (in sheet form) and set, the holding tags keeping the cutout pieces in sheet form are cut to release full length panels and bulkheads.

THE CONSTRUCTION PROCESS

The hull shoe parts of the DuFlex™ and temporary bulkheads are stood on the strong-back and the full length shoe panels are fitted over these bulkheads and glued in position. With this method a hull shoe can be created in a matter of days. The shoe is then sheathed with full width fiberglass cloth which eliminates the need for tapes on the joints and gives smooth unbroken surfaces easily faired with sanding machines. Copper epoxy type anti-fouling is applied at this convenient stage and the shoe being small and light is turned by hand. Once the two shoes are complete they are leveled diagonally and fore-aft then the top parts of the individual and full width Bulkheads are attached followed by the rest of the precut hull panels. The bridge deck floor follows this step. It is precut and has its underside stiffeners and all associated fairing and sanding completed right way up before being flipped, slid under the bulkheads and glued in place. Unlike a lot of “multi-chine” designs, the Wilderness have a small section of strip planking on the hull/deck curve, this roll over gives great advantages in stiffening, softening the appearance, seriously reducing windage and quickly shedding green water. Strip planking has received some very biased and inaccurate press recently, most of our amateur builders report it being an enjoyable and unexpectedly simple process. The strip planked decks are done on the boat using the bulkheads and a couple of added temporary moulds. Taping of the internal panel and

bulkhead joints would commence at this open shell stage, taping time and effort can be greatly reduced with the use of a ‘Wombat Jnr’ wet out machine, (an option available with the kit) the time saved more than pays for the machine. At the same time, away from the shell you could be making your strip planked cabin roof, forward beam, dagger-boards and cases, rudders and targa bar (if applicable). Once taping of the internal structural joints is finished and the shell is still open the precut furniture and cockpit components can be assembled and installed. If desired the large outer hull panels can be left off which makes easier access to engine rooms, locker areas and easier access from the shed into the boat. The rest of the decks are installed, followed by the cabin roof, then the precut cabin front and side panels. The Cabin roof moulds are supplied pre-cut in some of the Kits (or full size paper plots in plans) and this and the forward beam are the only other strip planked parts of the boat.

Easy to follow sheets on composite fittings are supplied in the plans; these save money and give the finished product a very classy, modern look. Composite chainplates are extremely strong, look good (integrated & painted) easy D.I.Y. and no leaks which are inevitable with bolt-ons!

FURNITURE

The furniture fit-out is made easy with the stiff, light and easy to work with Phenolic paper honeycomb panels. Tips are included in the plans on how to form complex attractive curves quite easily. Precut furniture gives significant time savings in labour and planning to both amateur and professionals alike, far outweighing the cutting costs which are passed on directly from the manufacturer without mark-up. Most of the furniture can be pre-assembled on the workshop floor and then installed in the boat – an easy way to work!

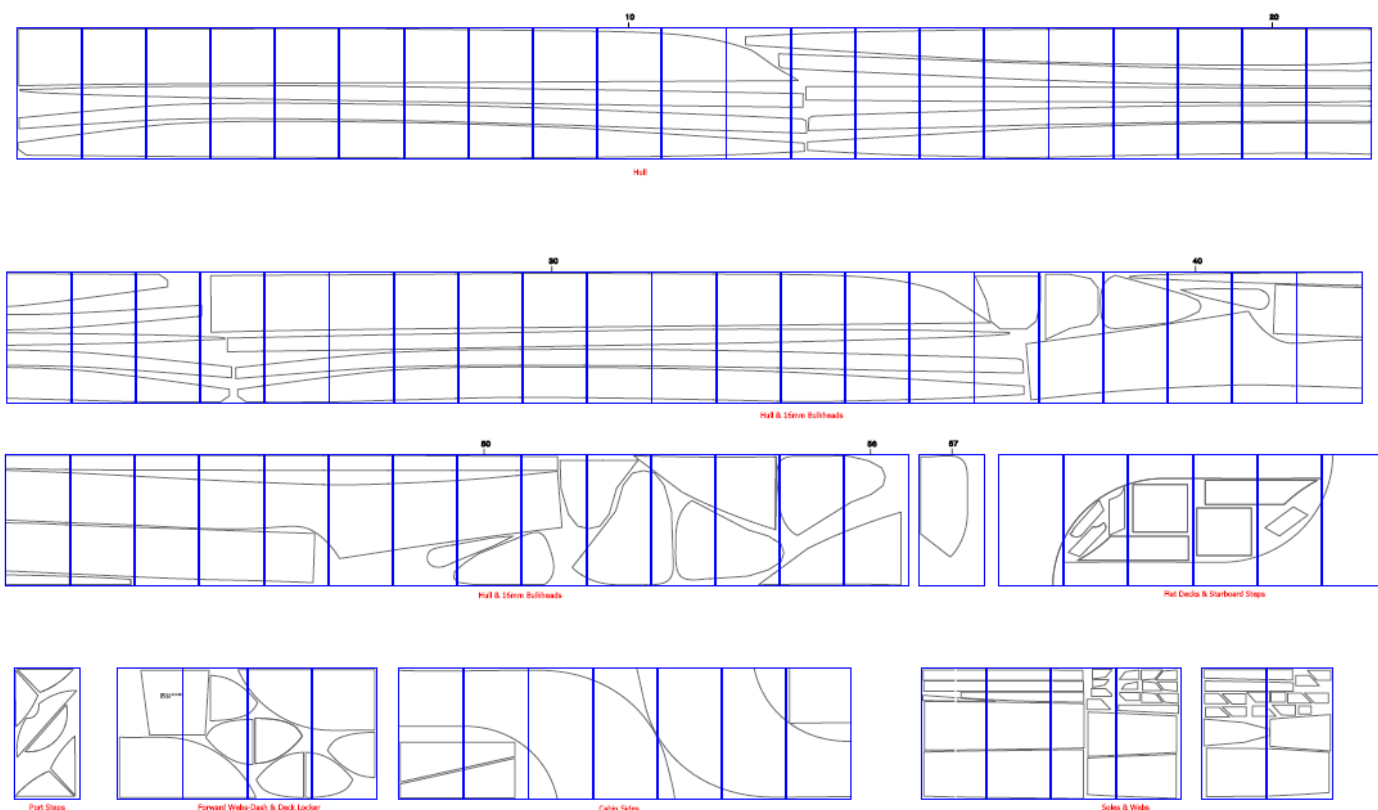
SHED SPACE REQUIRED

If space is an issue the Wilderness construction process allows a large proportion of the project time to be spent in a smaller work space than the finished size of the boat. This allows you to build at many of the parts and components in the carport or shed at home then assemble and finish near the water, saving money on rent and time travelling. The “ideal” shed size needs to be 2-3 metres wider than the boat, 4 metres longer and ideally, the height should be total boat height plus 1.5 - 2.5 metres. The boat height can be quickly estimated by adding “Draft” to “bridgedeck clearance”, then headroom (normally 1.8-2 metres) plus any cockpit bimini’s etc you might be adding. In reality, many boats are built in temporary structures or in tight spaces so do the best you can!

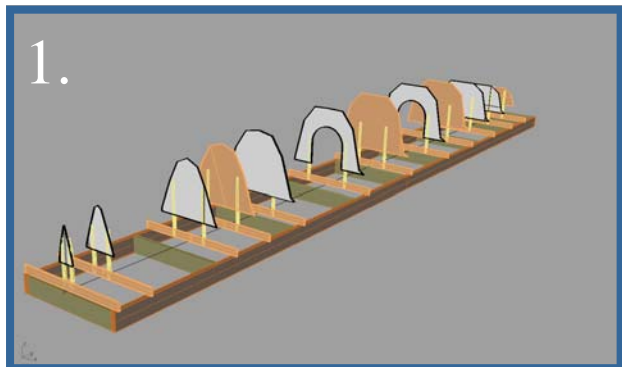


Wilderness pre-cut kit panels are joined to generate full size hull panels. Pic courtesy Paul Tyler Wilderness 1250

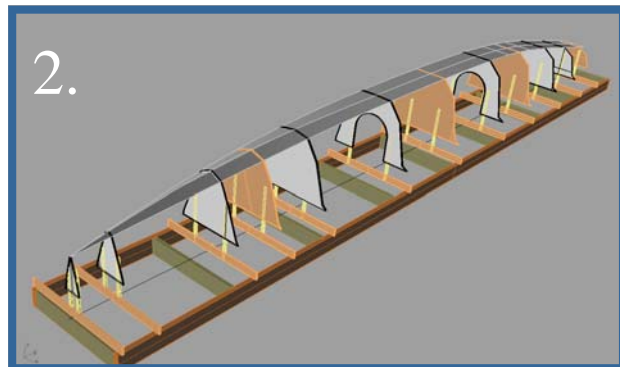
BELOW: Wilderness 1120X Kit Panel Layout
Each rectangle represents a DuFlex panel.



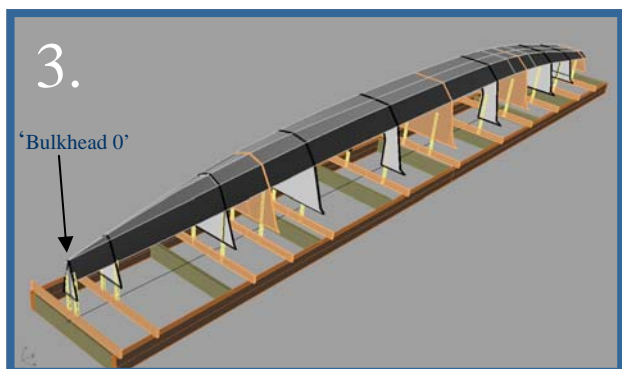
Wilderness X Series Construction Sequence



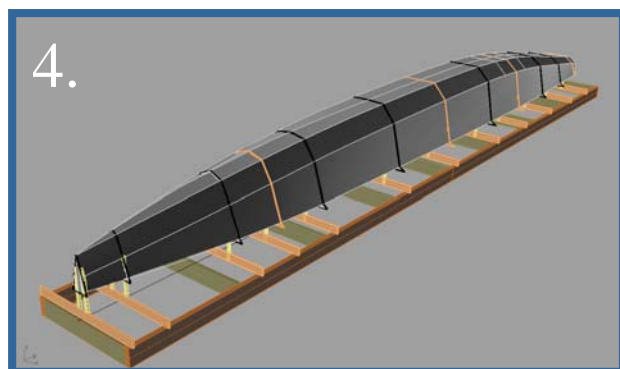
Permanent and MDF bulkheads are stood on a typical strongback. All bulkheads are split at waterline plus 400mm for ease of setup and connection to bulkhead upper parts later.



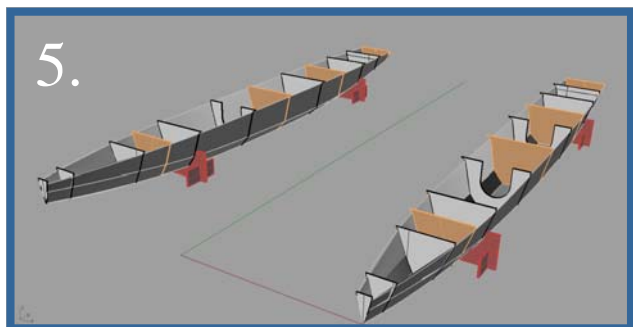
Large flat pre-cut hull panels mean a very quick and simple shoe takes shape. Expensive pre-moulded shoes are not required for a fast build, and being flat panels the core is not riddled with air voids which are well known in compounding-type core products.



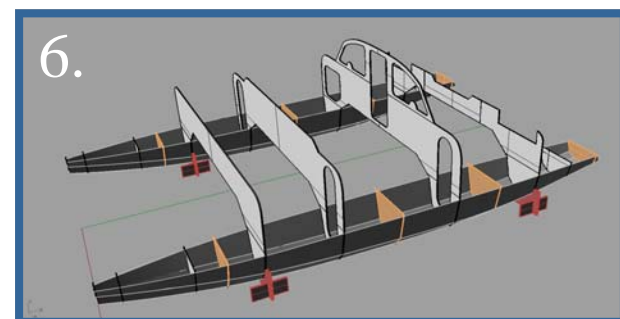
The flat surfaces on the pre-cut bulkheads guide and locate the panels. Finishing flush with 'Bulkhead 0' means the panels are located for length as well. The bulkheads can be set up higher or lower to suit the builder's preference.



The six panels in place, two full layers of fiberglass are applied at this point for extra reinforcing, no further taping is required. Panels are flat and smooth without the bumps of extra tapes, making for easy machine fairing, no torture boarding required. Work level is mid chest height at highest for comfort and safety during glassing and

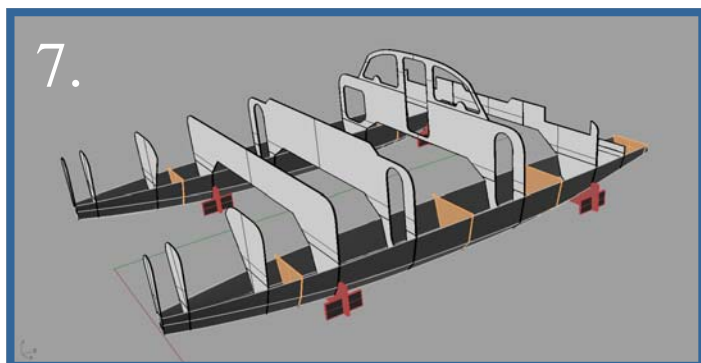


Shoes are light and easy to handle, the permanent bulkheads being glued in means they are very tough and stable. Pre-cut cradles are now available. At this stage they are either coated with copper epoxy bottom paint or sanded ready for anti-foul paint. Shoes are leveled and aligned diagonally ready for bulkhead tops.

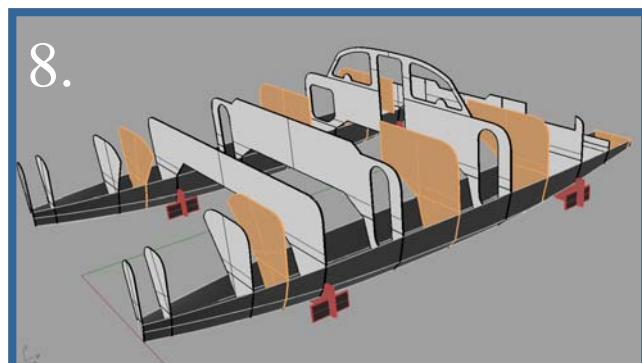


The cross bulkheads are assembled on a flat surface then lifted on for a simple butt join and tape. Hull internal is easily accessed for taping of hull joins and bulkhead joins.

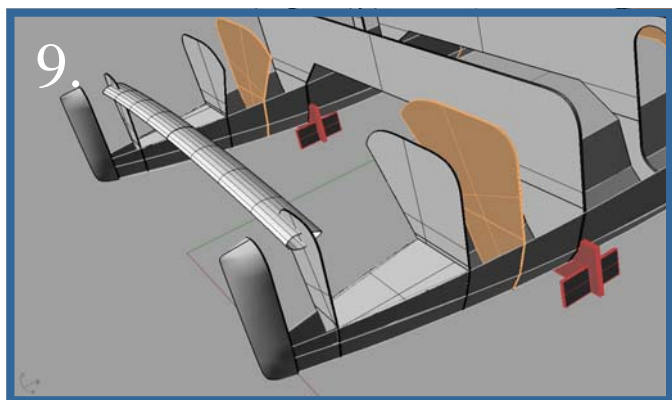
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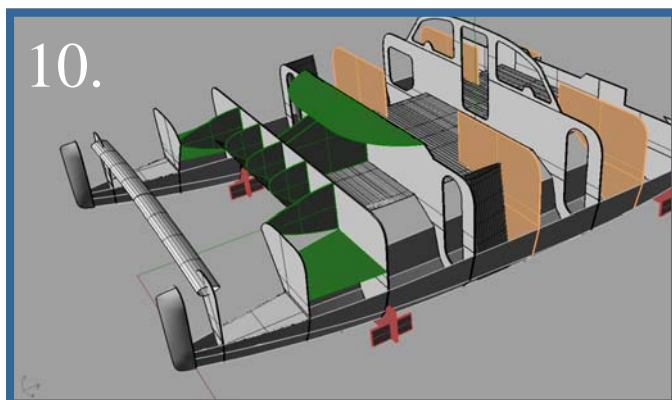
Top parts of the individual bulkheads are butt joined and taped.



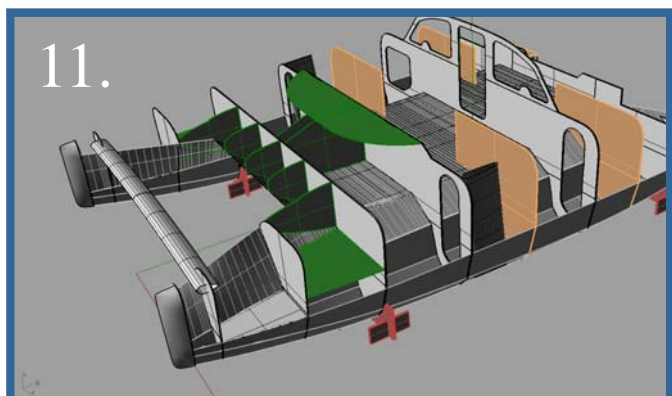
Top parts of the MDF bulkheads are attached in preparation for the chamfer panel installation.



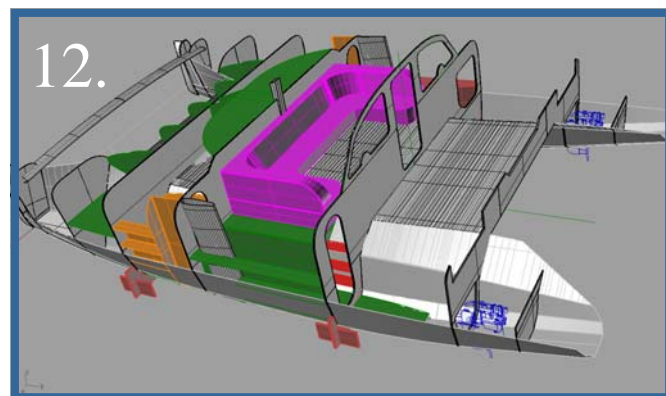
The composite forebeam is installed to provide stability to the bows, horizontal collision webs provide extra safety if the bows are holed.



Forward webs are required to support the bridgedeck panel, shown installed here and the sail locker floors stabilize bulkheads 1 and 2 for chamfer panel installation.

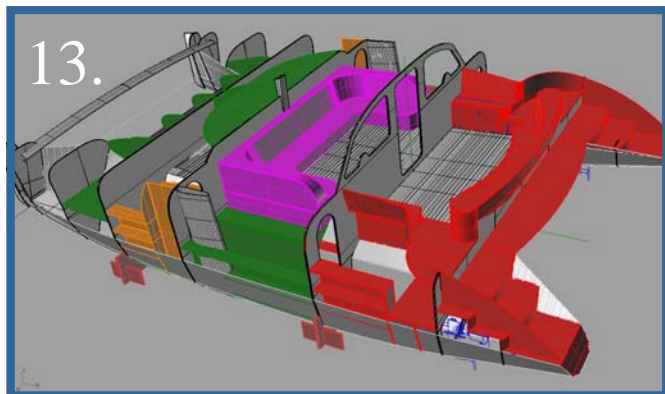


Chamfer panels installed, many of the internal structures can now follow.

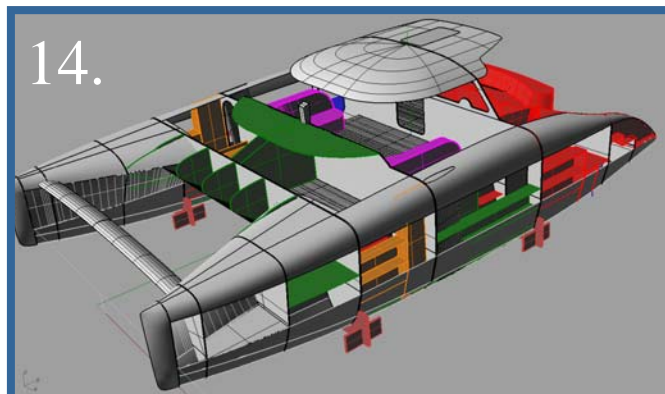


Hull floors and webs create a multi-chambered buoyancy area isolated for the accommodation. 29 hp to 40 hp sail drives are easily installed with open side and top. Install pre-cut furniture with plenty of light and air.

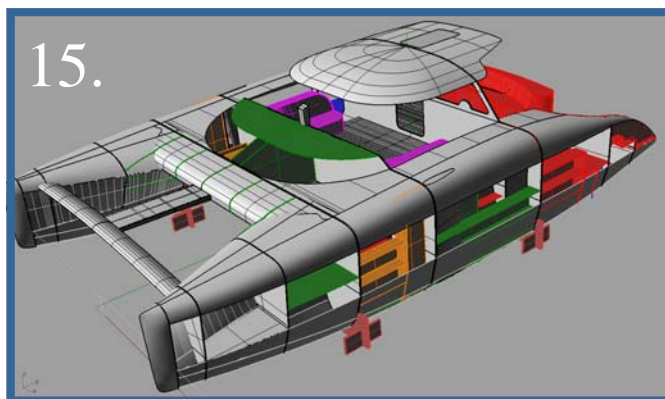
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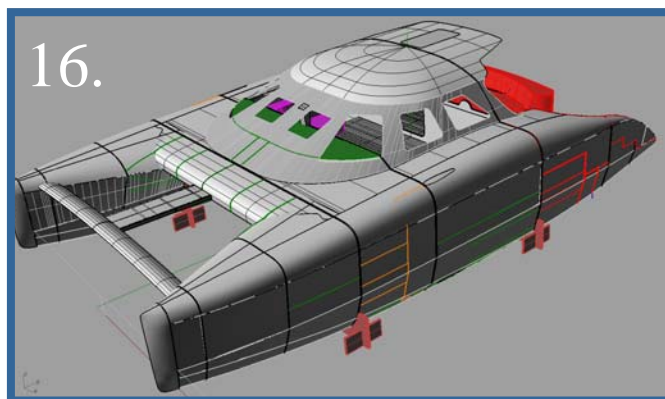
13. Furniture almost finished, dagger cases are easily accessible from either side.



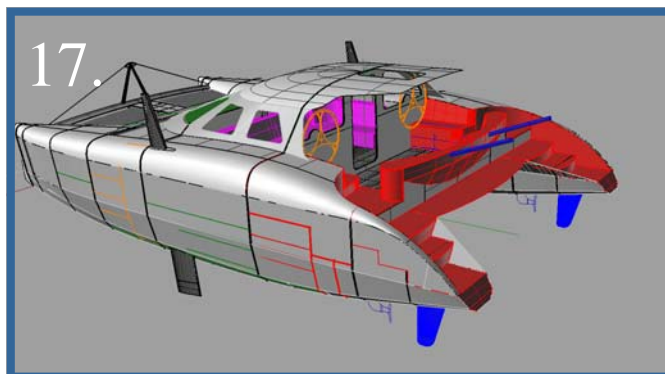
14. The only strip planked parts in place. Saloon top can be planked with 300mm wide panels. Round side decks give low wind resistance, shed green water quickly and look great too. For those daunted by the claimed 'difficulty' of strip planking we can supply these parts pre-made by a Schionning Pro Builder.



15. Precut flat decks and catwalk in place.



16. The pre-cut saloon sides and front installed. The large hull side panel is put in place once all lockers are finished internally and any taping completed.



17. Steering, striker and stop, davits and final placement of deck equipment takes place, followed by final finishing and painting.





Pre-cut, pre-glassed Duflex balsa panels joined form boat pieces



Durakore planks form cabin roof—pic courtesy Ray Ulyates, NZ



Wilderness 1480 hulls formed. NOTE this photo shows OLD build sequence we now built the hull shoe separately as shown in build sequence CAD images.



Western Red Cedar strip planked half forward beam.



The Wilderness hull bottoms are very stiff and strong with loads of sealed buoyancy making them extremely safe.



This strip planked deck shell is removed for inside glassing. These components can be supplied in your kit (optional).

CONSTRUCTION

Construction photo's are from various Wilderness Designs.



KIT & MATERIALS

WHAT'S IN THE KIT ?

KIT OPTION 1:

Your Wilderness kit (option 1) will include all the materials to build the shell, including your daggerboards and cases forward beam and catwalk, rudders, (exc s/s) and targa bar if the design has one. This includes, pre-cut Duflex panels, durakore planking for strip planked sections, fiberglass cloth and tapes, epoxy glues and filler, foam, timber and plywood. This stage can be split into 3 smaller stages making it more affordable.

KIT OPTION 2:

Your Wilderness kit (option 2) will be supplied as above PLUS the interior furniture kit. All Wilderness designs have at least one pre-cut interior kit option. You may prefer to buy option 1 and custom fit the interior yourself.

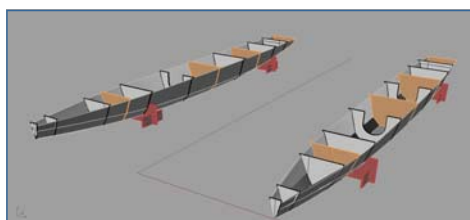
OPTIONAL COMPONENTS: (contact us for current price)

If you want to short cut the construction process, we can supply many components pre-made, faired and with high build undercoat with your kit making this option one of the most comprehensive KIT options available on the market.

Components available are:

- Hull shoes so you start construction right way up
- All the strip planked components, deck sides, cabin roof, forward beam.
- Daggerboards with cases
- Rudders
- Using these components will reduce the overall construction time by around 1500 hours.

CONSTRUCTION PLANS ARE NOT INCLUDED IN THE KIT AS THE PRICE VARIES DEPENDING ON THE OPTIONS. SEE PRICE AND PLAN INFORMATION ON PAGE 25.



Some of the optional components you can have included in your Wilderness KIT

WILDERNESS—THE ORIGINAL AND STILL THE BEST KIT!

KIT & MATERIALS CONTINUED...

PRICE!

Choose a plan to suit your budget, stage your kit purchase to suit your budget. Option 1, Option 2 OR the full component package. Various other options are available for part kits as well.

FLEXIBILITY!

Choose from a range of designs, interior layout options and kit options.

STRUCTURAL INTEGRITY!

Well proven structural engineering, no suspect joining systems, one piece composite integrated design. 20 year history with no failures.

SUPPORT!

The best support you'll get anywhere, we are builders, designers and sailors. Our service extends to product and equipment recommendation and supply. We're with you until the end.

RESALE VALUE!

Our strong family business will continue to look after your investment into the future. 20 year history of great design has established the highly sought after Schionning brand. Resulting high re-sale value is very desirable.

JOIN HUNDREDS OF OTHER SCHIONNING BUILDERS!



Kit arrives in Townsville
pic courtesy George and Cory Brink



Picture Courtesy Ray Ulyates



"Plum Loco"

MATERIAL LIST—Wilderness 1120X

| | |
|-------|---|
| | <u>Durakore Planks - 2400 x 300mm</u> |
| 48 | 13mm |
| 19 | 16mm |
| | <u>Duflex Balsa - 1 x 600gm Biax each side 2400x1200mm</u> |
| 60 | 13mm |
| | 13mm includes 1 non routed |
| 19 | 16mm |
| | 16mm includes 0 non routed |
| 15 | 25mm |
| | 25mm includes 0 non routed |
| 24 | Featherlite Interior H/Comb 1 x 600gm 16 mm 2400x1200mm |
| | 16mm includes 1 non routed |
| | <u>West R105/206 Resin & Hardener</u> |
| 2 | 200 litre West System Resin |
| 4 | 20 litre West System Hardener fast or slow |
| 4 | 20 litre West System Resin |
| 4 | 4 litre West System Hardener fast or slow |
| | <u>Kinetix Laminating Resin & Hardener</u> |
| 3 | 18kg 246TX Laminating Resin |
| 3 | 4.5kg H160 Laminating Hardener Medium |
| | <u>Powder Modifiers</u> |
| 10 | 20lt Microspheres (411) |
| 8 | 20lt Microfibres (403) |
| 1 | 170lt Microlight (410) |
| 4 | 20lt Microlight (410) |
| | <u>Fibreglass Cloth (Colan Products)</u> |
| 141 | 450 g Double Bias (47 kg roll) kg |
| 45 | 450g Uni directional (45 kg roll) kg |
| 50 | 195 g Plain Weave 50 lm x 1000 mm |
| | <u>Fibreglass Cut Strips (Colan Products)</u> |
| 48 | 450 g D/bias 105 mm (4.00 kg tape) kg |
| 138 | 450 g D/bias 155 mm (6.00 kg tape) kg |
| 80 | 450 g D/bias 210 mm (8.00 kg tape) kg |
| 2 | 200mm x 75 mm Clear Oregon (per L/M) |
| | <u>WRC</u> |
| 15 | 50mm x 150mm R.S. (lm) |
| 133 | 10mm x 40mm F.S. (lm) |
| | <u>Plywood - Gaboon 2440 x 1220mm</u> |
| 1 | 4mm |
| 4 | 6mm |
| 3 | 9mm |
| 1 | 12mm |
| | <u>Klegecell Foam 80 kg 2175 x 1220mm 2.65m2 / sheet</u> |
| 13.25 | 40mm sheet - per m2 pricing |
| 1 | Precutting and scarfing of furn-1100 wild |
| 1 | Precutting and scarfing of kit - 1100 walk thru not furn. |

NOTES FROM THE DESIGNER....

The success of our designs I feel, stems from the practical commonsense approach of a boat builder, coupled with many years of live aboard experience and 50 - 60,000 sea miles in some of the worst conditions in the world. This experience makes one aware of the power of the sea and the need for a boat to be able to survive these conditions, protect her crew physically and psychologically as well as being a fast comfortable vehicle for all the good times. I am sure you will find our designs reflect our sailing and live-aboard experience and will give you the offshore confidence to sail safely anywhere in the world. Multihulls are 'beautiful, safe, cruising boats'. We hope you find them as exciting as we do.

CHOOSING A DESIGN...

Choosing a design can be difficult so we hope that this introduction helps clear the way a little. We've taken particular care with the balance of construction methods in our designs, making them light and strong yet easy to build in small sections, most of which are manageable by a group of friends when they need turning over and moving. The blend of strip planking and light flat panels kept in single plane form, makes building easy and quick and produces a finished catamaran of classic good looks which will not date quickly, giving you very good investment security. One of the first steps in changing this dream into reality is figuring out whether you can afford the boat (or more likely, how much money you 'don't' have!). Two realities here are, firstly, two similar sized boats with similar displacement, built of similar materials will cost the same to build overall. Designers' estimates of materials are often inaccurate and sometimes minimized to lead one to believe their boat will be cheaper.

This is definitely not the case, **similar boat, similar price!** Your choice should therefore be towards the boat that suits you best and offers you good backup and is a good investment. Secondly, we know a lot of people who could not afford their boat at the onset so don't be discouraged. Once you start building it is surprising how you focus your interest, spare time and money into your new project. With our new owner-builders we suggest they start with the



smaller items which can be built in the garage, carport, (lounge?) etc. These initial items use very little material and money but use a lot of time, so at the early stages you can get a lot done while you wait for your old boat or car or house etc. to sell. These items are; dagger-boards and cases, motor pod, forward beam and catwalk, cabin roof, rudders, dinghy etc. The experience and confidence gained building these bits speeds up the second stage of larger items and gets the whole project finished much sooner.

WHAT MAKES A GOOD MULTIHULL?

Cat design is not just a matter of two hulls floating a cabin above the water. Only in fairly recent years have the basic elements of design and an understanding of their effect on the use and performance of the finished boat been understood. The basic principles of good design should all be present in the boat you're considering building or buying. These will blend together to produce an excellent Multihull.

THE BASICS ELEMENTS OF A GOOD DESIGN:

- GOOD ENGINEERING is obviously essential.
- FLAT DECKS. The flatter deck lines have a number of advantages. Secure footing while reefing, anchoring etc. in rough conditions, life lines are at a sensible protective height instead of set down a level. A flat deck is great for socializing, sunbathing or as a kids playground.
- BUOYANCY. Buoyancy distribution is the placement of buoyancy in the hulls. Our designs have between 50 and 60 separate buoyancy tanks built into every shell so they

“Sailing ability is important. We feel that good performance in a sailing cat is a real safety feature.”

are almost unsinkable. Most old designs hobbyhorse a lot making them uncomfortable and inefficient. Modern designs have the buoyancy pushed towards the hull ends damping down the hobby-horsing tendencies and giving a lot more safety downwind where the buoyant hulls stop nose-diving. Coupled with a lot of reserve buoyancy high up and forward in the hulls, this adds an enormous amount of safety and gives you confidence off the wind.

- A soft ‘V’d entry, quickly picking up reserve buoyancy with lots of reserve higher up is and ideal combination.

- BRIDGEDECK CLEARANCE. High Bridgedeck Clearance is essential. A short cabin length with long hull overhangs is a good safety feature. Good clearance on a cruising cat is 600mm – 800mm, a Performance cat 700mm – 900mm and a Racing cat 800mm – 1000mm. Chamfer panels add high reserve buoyancy and need less clearance than a similar cat without them.
- SAILING ABILITY AND PERFORMANCE. Power to weight ratios show how well a cat will sail in light conditions. As wind strength increases, one reefs the power to stay at safe acceptable speeds (this is different for different people). The Bruce Number is a commonly used value and very useful in comparing cats, displacement is not always reliable and will vary with load. A Bruce Number = 1 is very slow, 1.3 – 1.4 is a good cruising value, 1.5 – 1.9 reflects a very fast cat. Boats like the French 60’ Tri’s and “Club Med” are running to extremes like 2.3. A light and efficient cat can often sail out of trouble and outrun severe weather patterns, shorten passage times and avoid bad weather by getting there in the existing weather window. Most good designs will tack through 90 degrees at a speed of 8 - 10 knots while reaching at 10 - 13 knots comfortably with Main and No. 1 in 15 knots of wind. Daggerboards are efficient and allow very shallow draft for beaching. With a strong reinforced bottom as per our designs, it’s easy to run the cats up on any old beach. Should you want shallow keels to protect inboard motors, then a combination of shallow keels and fixed rudders are a good option, daggerboards would still be fitted as usual, giving the best of both worlds.

- **LOW DRAG.** This is a good characteristic. Slim hulls reduce drag and are efficient.

A good cruising cat would have a Waterline beam to length ratio of 11.5 to 12.5:1. A performance cruising cat 12.5 to 14:1 and a racing cat 14 to 20:1. It is important to note that **ALL** these elements must be present in a design to make any of them valid. For example, a design can be really good looking, have high bridge-deck clearance, a powerful rig and sail plan and be built reasonably light and show a fair displacement, but then have an 8:1 Beam to Length ratio. She'll be a good looking, powerful boat but it will be impossible to go forward, except slowly!

There is no reason why a good modern design does not have all of these features. If you find some of these lacking it is usually for the wrong reasons. A lot of cats have very little bridge-deck clearance because the designer is concentrating on a low profile cat which looks good or being dictated by interior accommodation and ignoring the fact that the boat will pound badly at sea. This is not only noisy and uncomfortable but can well be the cause of structural problems.

Our designs have been developed around these practical elements of good design then we accommodate personal comforts and lifestyle choices.

Good luck with your research and project, don't hesitate to contact us should you need further information or a chat about our designs. **Jeff**



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CONSTRUCTION PLANS

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Full Size Plot Sheets

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WHAT YOU GET WITH PLAN PURCHASE:

The Wilderness 1120X has a comprehensive set of CAD drawn plans showing construction detail. Brett Schionning has produced a CD-ROM that shows the assembly and building techniques as well as loads of tips on the easiest way to do things with plenty of photographs for reference. It includes basic information such as what tools you require and product information and use. Plans are suitable for Amateur construction.

PLANS INCLUDE:

- Full size, colour coded plots for bulkheads
- A3 Booklet of plans (see index this page)
- CD-Rom building manual
- Backup support throughout your project

COST OF PLANS:

Wilderness 1120X plans cost AUD \$9,900.00.

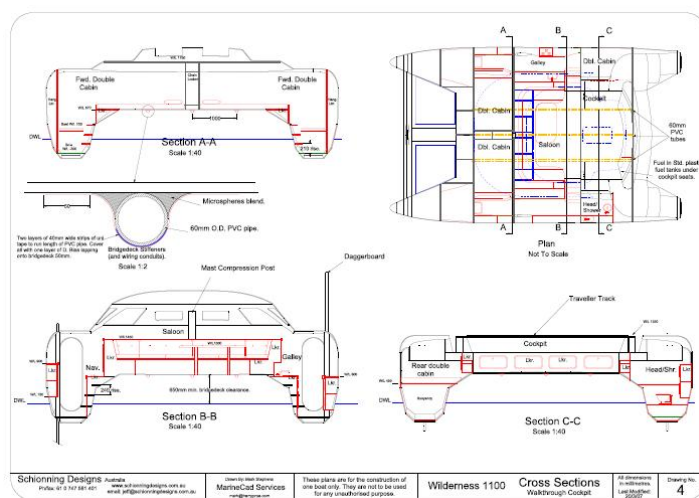
Price valid until 31st Oct 2008.

Includes GST in Australia

Includes shipping to any destination.

UNLIMITED BACK UP SERVICE:

Our back-up service is unlimited, our professional boat builder (Brett Schionning) will be here to guide you through any problems throughout your entire project. Email and phone support is available during business hours Monday to Friday.



AN EXAMPLE SHEET FROM WILDERNESS 1120X CONSTRUCTION PLANS

HOW TO ORDER

HOW TO ORDER PLANS:

We require a signed and faxed or mailed PLAN ORDER FORM with every plan purchase. The Plan Purchase Order form explains our terms and conditions and plans will not be mailed until a signed order form is received.
(See form included in study plans)

PAYMENT:

WE ACCEPT: Bank cheques or direct deposit into our bank account. Our account details are on the order form. Credit cards are not accepted for plan purchases.

SHIPPING:

Plans are sent by express mail within Australia and by courier to other countries at no extra charge to you.

HOW TO ORDER PLANS:

- Complete the attached PLAN PURCHASE ORDER form and mail or fax it back to us on (02) 4982 4722.
- Deposit payment to Schionning Design's Account, (details on order form).
- When payment and your order are received your construction plans will be assembled, checked and mailed within 7—10 days to your nominated address.

KIT ORDERS:

Construction plans must be ordered before (or at the same time) as your kit.

- Contact Schionning Marine for a KIT quote when you are ready to order your kit.
- We will invoice you for the kit, 50% of this invoice value is required upon order, deposit to the account as shown on the invoice.
- You will also be asked to complete a second order form for the kit and on this form you will nominate whether you would like us to

insure the kit during transit (cost is 0.75% of the invoice value) and you'll need to provide us the delivery address.

- We will notify you of the lead time (date) once the order is logged into the manufacturing schedule and we will contact you again about two weeks before your kit is ready for dispatch.
- You will then need to deposit the balance of the kit value, including freight and insurance if you nominated to use our services, into our account. Once this is received, the kit will be shipped to you.

ANY PROBLEMS, CONTACT US:

+61 (02) 4982 4858

Building a boat is definitely a challenge but with good plans, our helpful friendly support and the modern materials available, it's never been easier. The investment of time and money is very worthwhile, offering a rich life experience, fun reward when you launch her and financially you can certainly stand to gain substantially. We look forward to hearing from you again and wish you the very best with your project.



Milski family on launch day.

Purchase Agreement Order Form

WILDERNESS 1120X PLANS

PLAN # (Office use) _____

DATE: _____

NAME: _____

NAME TO PRINT ON PLANS: _____

BUSINESS NAME: (IF APPLICABLE): _____

ABN: _____

ADDRESS: _____

STATE: _____ POST CODE: _____ COUNTRY _____

MAILING ADDRESS: (If different to above) _____

STATE: _____ POST CODE: _____ COUNTRY _____

BUILDING SITE: _____

STATE: _____ POST CODE: _____ COUNTRY _____

PHONE HOME: _____ WORK: _____

MOBILE: _____ FAX: _____

EMAIL: _____

THESE PLANS ARE FOR THE CONSTRUCTION OF ONE BOAT ONLY.

If you wish to build more than one boat you will need to sign a license agreement, please contact us to discuss this.

IF YOU WILL USE A PROFESSIONAL BUILDER PLEASE PROVIDE THEIR DETAILS & CONTACT INFORMATION:

NAME: _____

ADDRESS: _____

TELEPHONE NO'S: _____

EMAIL: _____

IMPORTANT: Construction plans may NOT be returned for a refund due to possible breach of copyright so please consider carefully before ordering.

WILDERNESS 1120X CONSTRUCTION PLANS KIT:

CONSTRUCTION PLANS: **OPTION 1** ☐ \$7,700.00 AUD **OPTION 2** ☐ \$9,900.00 AUD

Note: The above prices are subject to change without notice so please confirm when you are ready to order

This agreement is entered into in accordance with the terms and conditions set out below. By signing below you acknowledge that you have read and you accept these terms and conditions.

NAME: _____

SIGNATURE: _____

DATE: _____

Terms of Sale

- 1) **Sale and Purchase.** In consideration of payment of the Price set forth in the attached Order Form, Schionning Designs Pty Ltd ("the Seller") sells to the Buyer the goods or plans (as the case may be) (hereafter called "the goods") described in the attached Order Form upon these terms of sale.
- 2) **Passing of Title.** Title to the goods shall pass to the Buyer upon payment in full.
- 3) **Delivery of Orders.** The seller must make the goods sold available for collection by or delivery to the Buyer at a date and time agreed by the Parties and specified in the Order Form.
- 4) **Risk.** The risk in the goods remains the Sellers until delivery of the goods to the Buyer.
- 5) **Copyright/Design Rights.** The copyright, design rights and all other intellectual property rights in the plans or boats or other goods sold pursuant to this agreement shall at all times remain the property of the Seller.
- 6) **No Reproduction.** None of the plans sold may be copied in full or in part by the Buyer unless specifically permitted in writing by the Seller to do so.
- 7) **Licence.** In the case of a purchase of plans, the Buyer may use the plans purchased for the sole purpose of constructing one boat only.
- 8) **Further Payment.** If the Buyer wishes to use the plans for constructing more than one boat then the Buyer must seek the Seller's written consent and further fees shall apply.
- 9) **Liability.**
 - (a) The plans or goods sold pursuant to this agreement are sold in good faith, having regard of the technical knowledge and information available to the Seller at the time of sale.
 - (b) So far as may be permitted by law, the Seller excludes any representations or warranties, whether expressed or implied, with respect to the plans or goods sold, including but not limited to any warranty of merchantability, fitness for the purpose or otherwise and will not, to the maximum extent permitted by law accept any loss, damage, or personal or other injury or liability, howsoever arising out of the sale or supply of the plans or goods sold pursuant to this agreement.
 - (c) The buyer agrees to build the boat according to the construction plans and will not deviate from these plans without the written consent from the Seller.
 - (d) The Seller reserves the right to deem a boat built by or on behalf of the Buyer to be unworthy of being advertised, branded or otherwise promoted as a Schionning Design boat, if the design has, in the opinion of the Seller, been sufficiently altered or the plans have been deviated from to such an extent that the Seller considers such alterations to be less than satisfactory.
- 10) **Third Party Builder.**
 - (a) If the Buyer purchases plans and engages a builder to build and or construct one or more boats pursuant to this agreement, the Buyer shall procure from the builder a covenant in favour of the Seller that it will not copy, sell or otherwise use the plans and specifications except as expressly permitted by the terms of this agreement and shall otherwise be bound by the provisions of this agreement in so far as this agreement applies to protect the intellectual property rights of the Seller.
 - (b) The Seller may refuse to deliver the plans until after the Buyer has procured from the builder and provided to the Seller the covenant required by sub-clause 1 of this clause.
- 11) **Restrictions on Assignment.** The Buyer must not without the prior written consent of the Seller, which may be granted or refused absolutely or granted subject to conditions, transfer or assign his interest in the plans or goods sold pursuant to this agreement.

Bank details: Westpac, Nelson Bay **Account name:** Schionning Designs Pty Ltd
Swift Code: WPACAU2S (required for International deposits)
BSB Number (Branch): 032533 - Design Acc # 134673

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