



# GROWLER 650 VT

## STUDY PLAN



SCHIONNING DESIGNS INTERNATIONAL

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LEADERS IN MULTIHULL DESIGN & KIT DEVELOPMENT

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## DESIGN PROFILE

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Side profile CAD Render illustration of the The Growler 650 VT.

## DESIGN OVERVIEW

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The Growler 650 VT has been designed specifically for those interested in a fast, practical run-a-bout for fishing, over-nighting or sports.

The Growler 650 VT is Available in:

- Fishing Power Catamaran
- Cuddy Cabin Power Catamaran
- Sports Power Catamaran

## PLAN VIEW LAYOUT

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**FISHING:** Fast, Practical run-about for fishing.

**SPORTS:** Ultimate Leisure Power Cat.

**CUDDY:** Ultra-Efficient Registered VT (Vapour Trail) hull shape used on the 6.5m platform.

## DESIGN VERSIONS

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The Growler 650 VT is Available in the following versions:

FISHING | SPORTS | CUDDY

## KIT CONSTRUCTION SEQUENCE

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View the construction sequence for the Growler 650 VT.

## BUILD PROGRESS

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Follow the build progress of the Growler 650 VT.

## A NOTE FROM THE DESIGNERS

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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.

## PLANS AND ORDERING

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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.

## CONTACT US

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## F.A.Q. Frequently Asked Questions

We'll answer the frequently asked questions by our customers. Should have any further questions, please email us your questions on [info@schionningdesign.com](mailto:info@schionningdesign.com)

ADVICE IS READILY AVAILABLE TO HELP YOU CHOSE FROM THE VARIOUS OPTIONS AVAILABLE.



## DESIGN PROFILE



## DESIGN PROFILE

### SPECIFICATIONS

### GROWLER 650 VT

#### PRINCIPLE DIMENSIONS

#### METRIC

#### IMPERIAL

LOA	6.50 m	21.32 ft
BOA	2.50 m	8.2 ft
Draft	0.360 m	1.18 ft
Fuel Capacity	100 - 200 litres	21.99 - 43.99 gallons
Payload	50 - 75 litres	10.99 - 16.49 gallons
Build Time (Aprox)	1250 hours	
Payload	6 Passengers + gear	
Displacement	1300 kg	2866 lb
Motor Option	2 x 50 - 90hp Outboards	
Cruising Speed	15 - 25 knots	
Top Speed	30 knots	



### SDI PRESENTS THE GROWLER 650 VT



The Growler 650 VT is the latest kit boat to come from Schionning Designs International.

The pre-cut kit form provides a simple construction method, making this stylish little cruiser available to anyone with a garage and some simple tools.

The Growler 650 VT is a great investment, you'll more than likely sell the vessel for twice what you paid to build it and have a great time doing it.

The Growler 650 VT uses the same hull shape as the popular Growler 650 VT, her bigger sister - and claims the same high speeds while using much less fuel than other designs this size.

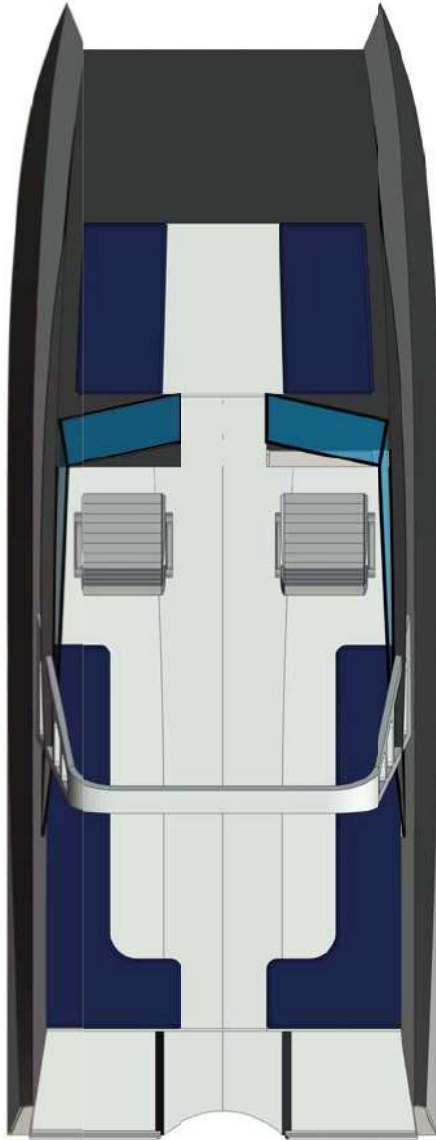
The patented hull shape increases speed while being pushed by smaller outboard engines that are becoming more and more fuel efficient as technology advances.

There are three versions of the Growler 650 VT available: The Sports, Fishing and Cuddy Cabin. Each has a slightly different layout and set-up depending on the intended uses.



# PLAN VIEW LAYOUT

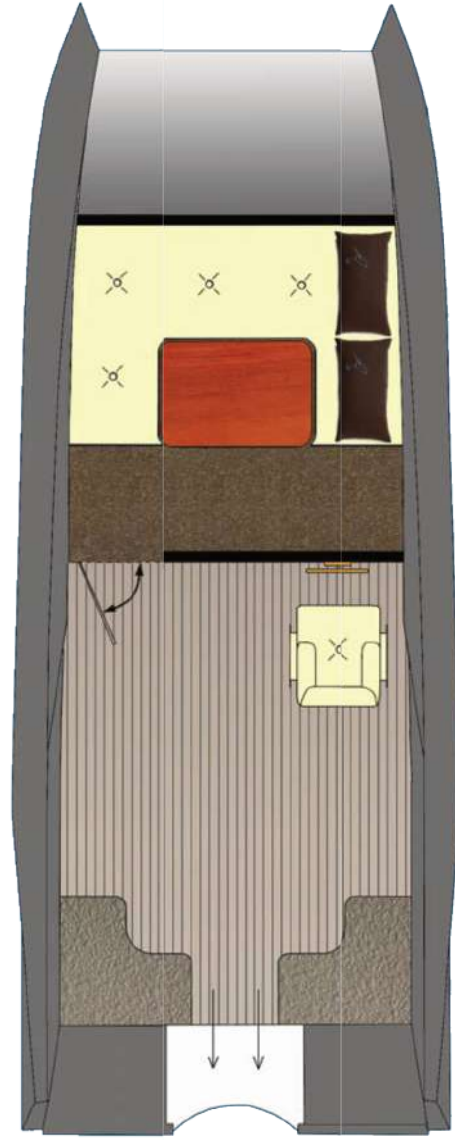
SPORT 650 VT



FISHING 650 VT



CUDDY 650 VT





## GROWLER 650 VT | DESIGN VERSIONS

### SPORTS Growler 650 VT



The Growler 650 VT **SPORTS** is the ultimate run-about for waterskiing, wakeboarding, or simply taking out friends and family for a day on the water.

With plenty of seating for 6 passengers, or more should you require – you won't have to leave anyone at home.

Perfect for loading the camping gear and taking off up rivers, creeks and inland waterways, as well as extremely seaworthy for those adventures that take you out into the ocean swells.

Easily beached, just raise the outboards or anchor and swim from the transom.

Depending on your needs, a small 12v fridge (and port-a-potty) could easily be fitted to keep the beer cold while lazing on the beach.

This is a new take on the 'bowrider' style, with good looks, extraordinary speed and fantastic fuel economy.

### FISHING Growler 650 VT



The Growler 650 VT **FISHING** has been designed specifically for those interested in a fast, practical run-a-bout for fishing.

A hard-top cover provides much needed shade when out on the water, as well as plenty of space to work while remaining extremely stable in even the largest swells.

She has excellent load carrying capabilities, and can be loaded with equipment and passengers more so than other boats of similar size. Or perhaps just to bring home all the fish!

The reduced size bi-mini reduces interference with rods and casting. A small fridge can be installed, and theres plenty of rooms for eskies.

Floor space is kept flat with one step forward to maximise the room when fighting a big catch. The Growler 650 VT Fishing is the ultimate fishing machine!

### CUDDY Growler 650 VT



The Growler 650 VT **CUDDY** is our third option for the ultra-efficient registered VT (Vapour Trail) hull shape used on the 6.5m platform.

She boasts a surprisingly roomy cabin, with a double berth from which a table extends to create a dinette if required. A small fridge, small gas cook-top and port-a-potty can also be installed if desired.

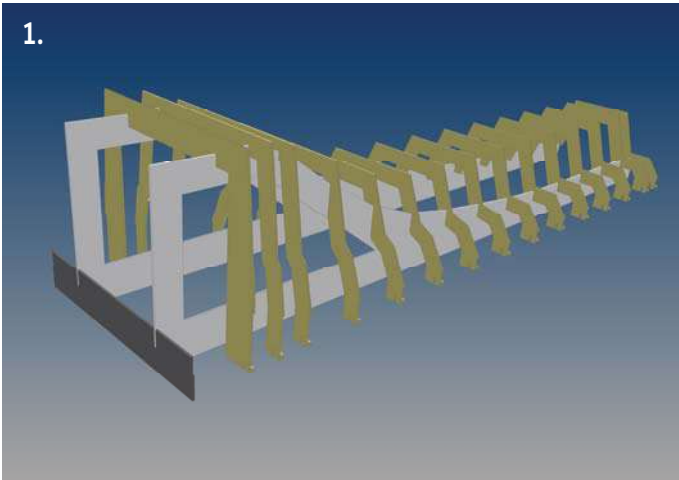
This little weekender is perfect for inland lakes or skipping out to the islands at a top speed or 45 knots (depending on engine choice). Exceptional ocean going ability is a key feature.

The Cuddy can also be trailered and stored in the driveway during the week. Built from balsa-core Duflex panels, this tough little cat is perfect for those weekend trips with friends and family or a romantic retreat with a partner.

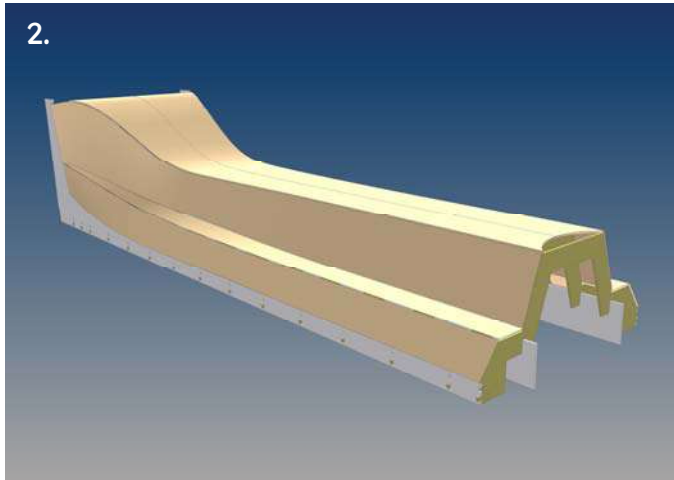


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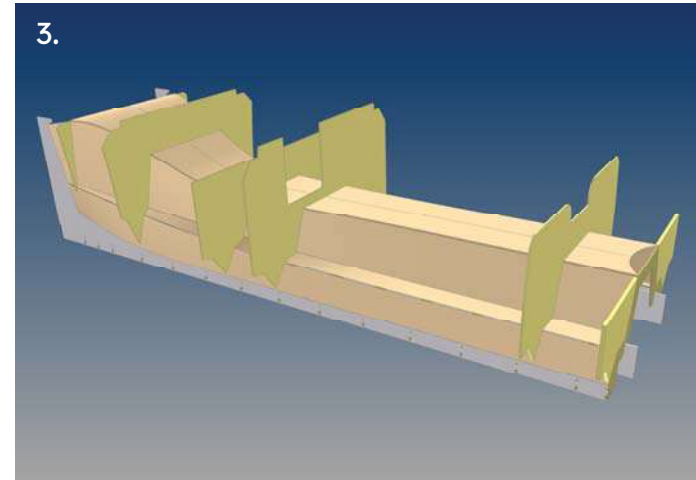
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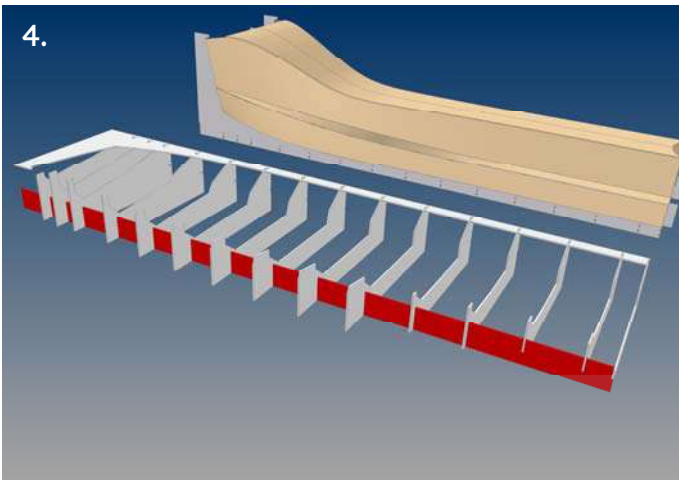
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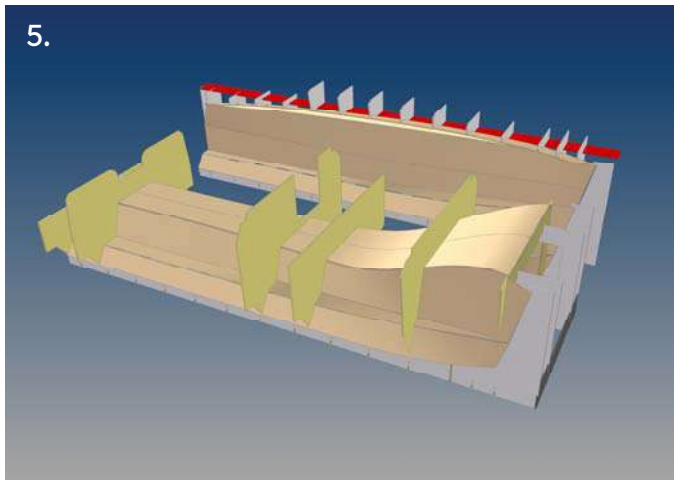
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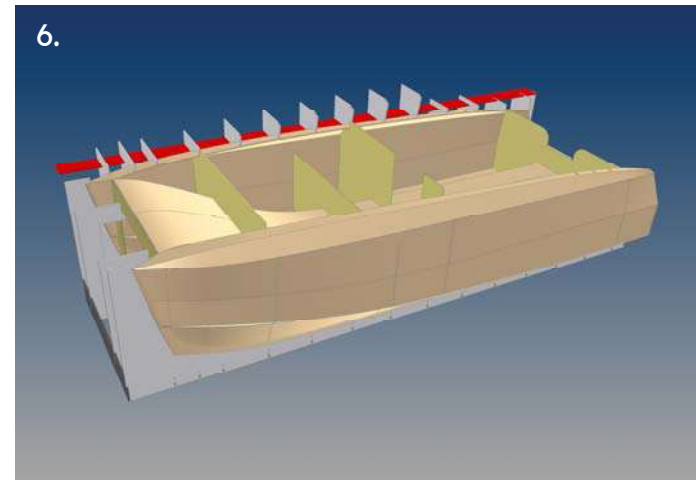
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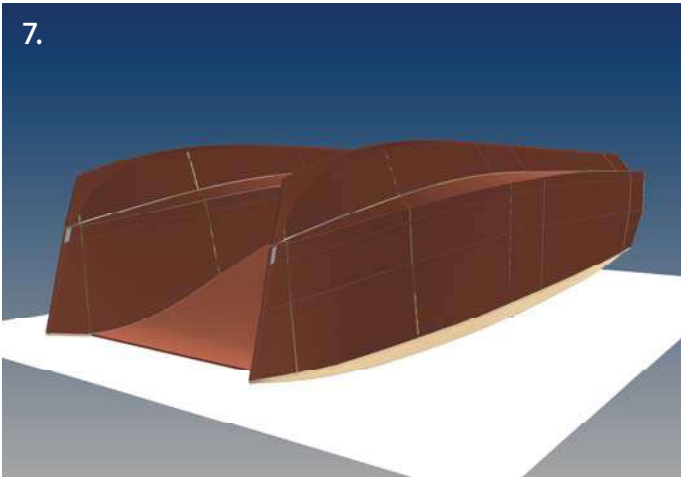


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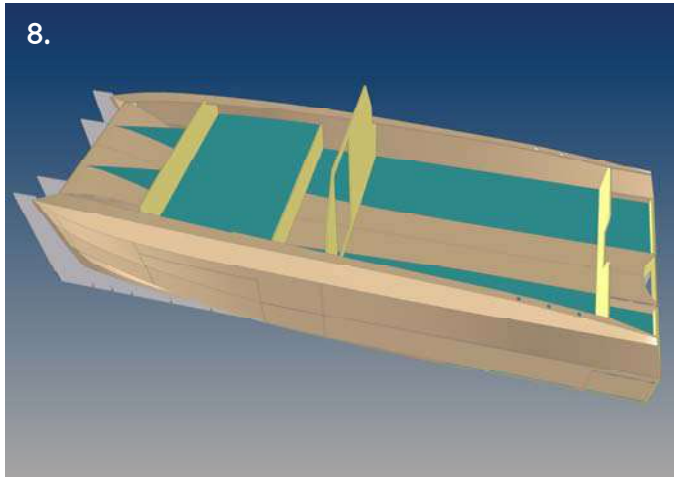


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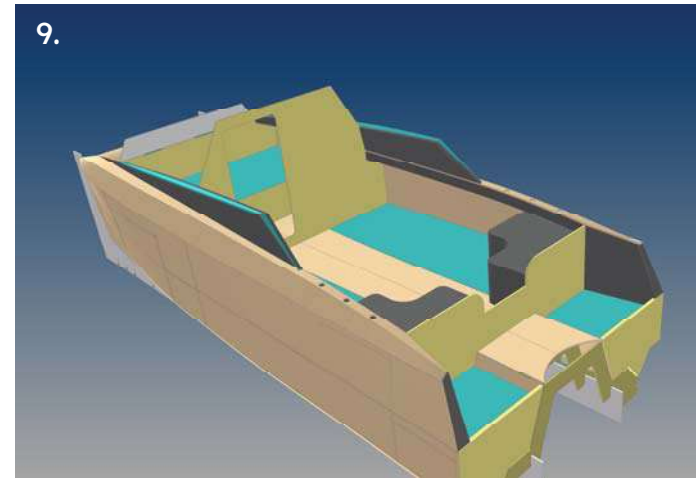
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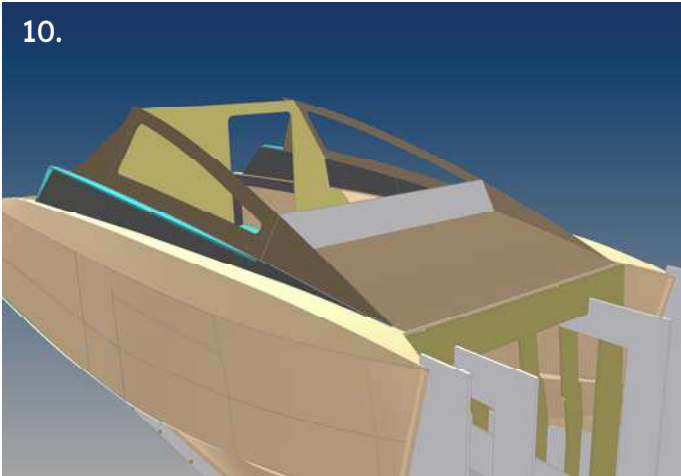
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## CONSTRUCTION



## 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 over 100,000 nautical 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.**

### WHAT MAKES A GOOD MULTIHULL?

Choosing a design can be difficult so we hope that this introduction helps clear the way a little. 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 properly 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 and safe multihull.

### THE BASIC ELEMENTS OF A GOOD DESIGN?

#### GOOD ENGINEERING

Our boats are well proven. With over 400 Schionning cats on the water, and many performing under extreme stress whilst racing, we proudly claim we have never had a structural engineering failure of any sort in our designs. We work with some of the best Aerospace engineers in the composite industries to achieve this.

#### FLAT DECKS

The flatter deck lines have a number of advantages. Secure footing while reefing, anchoring and in rough conditions. Life lines should be at a sensible protective height instead of set down a level. A flat deck is great for socializing, sunbathing or as a kid's playground too.

#### BUOYANCY

Buoyancy distribution is the placement of buoyancy in the hulls. Our designs have between 50 and 60 separate sealed buoyancy tanks built into every shell so they are almost unsinkable. Most old designs hobbyhorse (rock fore and aft), this makes 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 higher up in the forward hulls this adds an enormous amount of safety and gives you confidence when sailing off the wind.

#### A SOFT 'V' ENTRY

Our wave-piercing bows have asymmetrical walls which quickly increase the reserve buoyancy with a much wider bow higher up preventing further bow diving and tripping.

#### GOOD BRIDGEDECK CLEARANCE

High bridgedeck clearance is essential. A short cabin length with long hull overhangs is the best safety feature. Good clearance on a cruising cat is 600mm – 800mm, a performance cat is 700mm – 900mm, and a Racing cat is 800mm – 1000mm. Chamfer panels add high reserve buoyancy and need less clearance than a similar cat without them. They also reduce wave slamming and add strength.

### 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. Know the Bruce number of the designs you're interested in. Ours are good. A Bruce Number of 1 is very slow, 1.3 – 1.4 is agile for good cruising, 1.5 – 1.9 indicates a very fast catamaran.



## NOTES FROM THE DESIGNER

### 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 and with kick up rudders, it's easy to beach our cats. 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.

### LOW DRAG

Low Drag 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 15:1 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 and then we accommodate personal comforts and lifestyle choices.

### WHICH DESIGN

We have many different design ranges. All incorporate the elements of good design discussed above so choosing a style, size and layout comes next. Layouts and some things like steering position can often easily be changed so don't be put off if you really like a particular design but find a few small elements you don't like, talk to us and we'll see if we can incorporate your choices. 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..

### CAN I AFFORD TO BUILD?

One of the first steps in changing your 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 much the same to build. Designers' estimates of materials are often inaccurate and sometimes minimized to lead one to believe their design will be cheaper to build.

This is definitely not the case, similar boat, similar price! Your choice should therefore be towards the boat that suits you best 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..

GOOD LUCK WITH YOUR RESEARCH AND PROJECT, DON'T HESITATE TO CONTACT US SHOULD YOU NEED FURTHER INFORMATION OR A CHAT ABOUT OUR DESIGNS.

SCHIONNING DESIGNS INTERNATIONAL



## PLANS & ORDERING

### COST OF PLANS:

The Growler 650 VT Plans are AUD\$8,250.00

### UNLIMITED BACK UP SERVICE:

Our support service during your build is unlimited within the scope of the relevant design, Email and phone support is available during business hours Monday to Friday.

### HOW TO ORDER PLANS:

- We require a signed and emailed PLAN ORDER FORM with every plan order.
- This form explains the terms and conditions.
- We cannot deliver the plans until a signed order form is received.

### PAYMENT:

#### WE ACCEPT

- Direct deposit into our bank account.
- Please email [info@schionningdesign.com](mailto:info@schionningdesign.com) for our account details.
- Regrettably Credit cards are not accepted for plan purchases.

### PLAN DELIVERY:

Plans are delivered electronically via a download link.. The plans consist of A1 and A3 PDF plan sheets and the A4 boat building manual also in PDF format. We also provide a 3D PDF model for your own measuring purposes.

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.





## CONTACT US

### GET IN TOUCH

Thank you for your interest in a Schionning Designs International or kit solution.

Please email [info@schionningdesign.com](mailto:info@schionningdesign.com) for direct email contact with the Schionning Team.

There are Schionning Design International representatives located in both Australia and South Africa.

Phone contact is available using +27 (64) 536 5332 GMT+2 - however be advised that the team are often out on the water, visiting builds or meeting with clients - so we encourage you to leave a voicemail should we be unavailable.

We do prefer email contact as it is more reliable, and we thank you for your understanding.

Thank you for your interest in Schionning Designs.

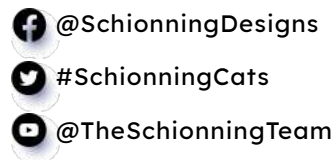
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## - SDI GROWLER 650 VT -

*Living the Dream*

