Schionning DESIGNS

SOLITAIRE 1740

STUDY PLAN

SCHIONNING DESIGNS INTERNATIONAL

LEADERS IN MULTIHULL DESIGN & KIT DEVELOPMENT

DESIGN PROFILE

SOLITAIRE 1740

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DESIGN OVERVIEW

SPECIFICATIONS — SOLITAIRE 1740

PRINCIPLE DIMENSIONS	METRIC	IMPERIAL
LOA	18.20 m	60 ft
LWL	17.40 m	57 ft 08 in
BOA	8.2 m	26 ft 90 in
DRAFT	0.55 m	1 ft 80 in
DISPLACEMENT	14,350 kg	31,636.36 lb
PAYLOAD	3,500 kg	7716.18 lb
DRY WEIGHT (BASIC BOAT)	10,400 kg	22,928 lb
MAST CLEARANCE	26.30 m	86 feet 28 in
BRIDGEDECK CLEARANCE	0.95 m	37.40 in
BEAM TO LENGTH RATIO	12:1	12:1
MAST HEIGHT	23.00 m	75 feet 45 in
BOOM LENGTH	7.4 m	24 ft 27 in
FUEL CAPACITY	500 lt	109.98 gal
WATER CAPACITY	800 lt	175.97 gal
HEADROOM (HULLS)	2.05 m	6 ft 72 in
HEADROOM (BRIDGEDECK)	2.10 m	6 ft 88 in
SAIL AREA - MAIN	116 sqm	1248.61 sq ft
SAIL AREA - Self-tacker Jib	52.5 sqm	565.10 sq ft
MOTOR SHAFT DRIVES	2 x 60 hp	2 x 60 hp
MOTORING CRUISING SPEED	8 knots	8 knots
MOTORING TOP SPEED	12 knots	12 knots
SAILING TOP SPEED	25 knots	25 knots
SAILING CRUISING SPEED	12-15 knots	12-15 knots

SDI PRESENTS THE SOLITAIRE 1740

Schionning Designs presents the Solitaire 1740 cruising catamaran, a design intended to challenge the large production manufacturers in Europe with very heavy products.

The Solitaire was initially intended as a production design, but is now available as a pre-cut kit and this will ultimately mean she is lighter, stiffer and with as much room as the big production vessels.

The Solitaire 1740 will offer similar internal comfort and space to the production boat competition, finish can be as luxurious or basic as you like, as well as being far lighter, stiffer and stronger with better waterline beam values and higher power to weight ratio.

Designed primarily as an efficient fast sailing cat with high bridgedeck clearance and chamfer panels to minimize slamming. Weight is centralised to reduce pitching and build weight is around 30% lighter than most of the competition. Twin daggerboards improve windward performance.

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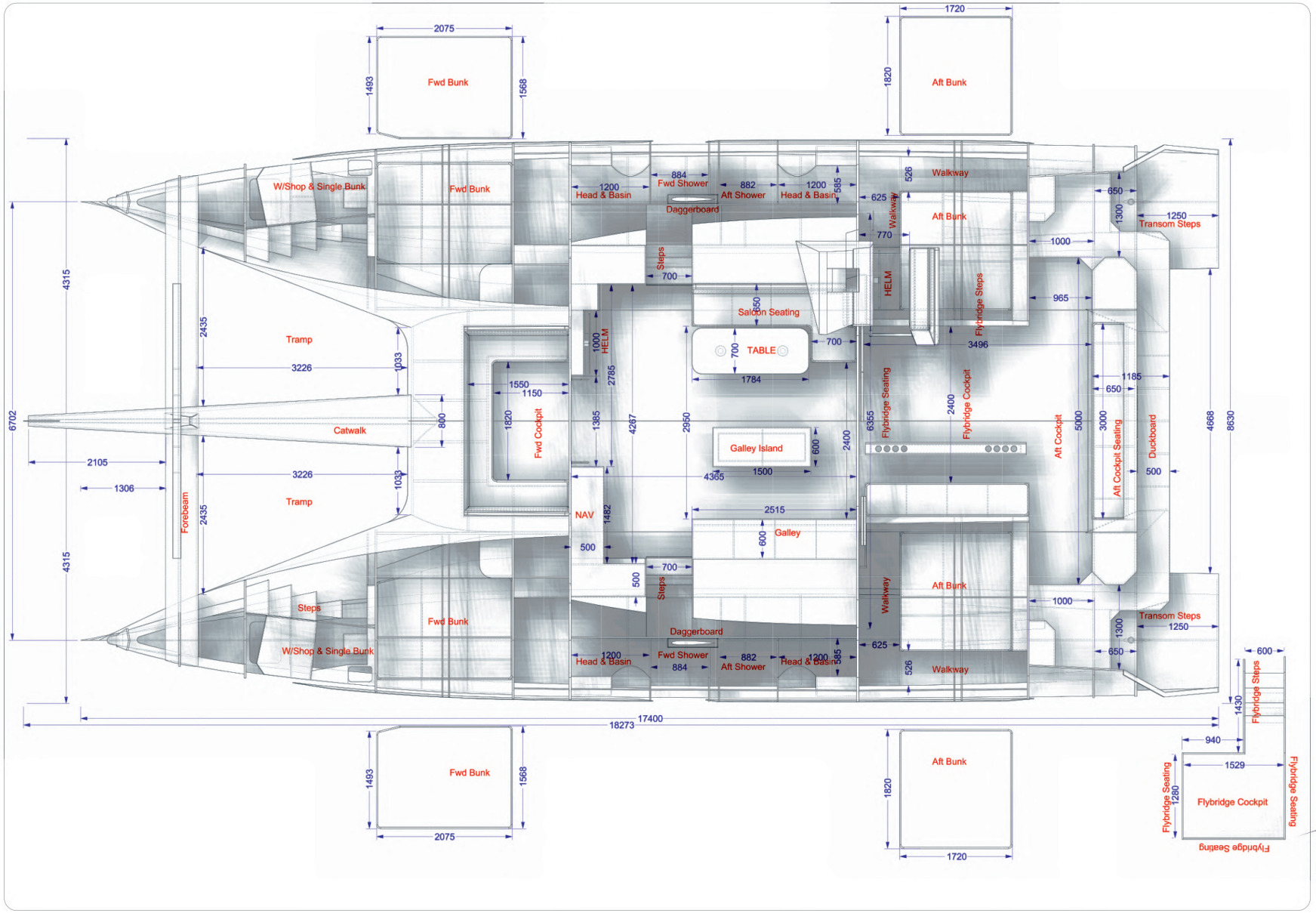
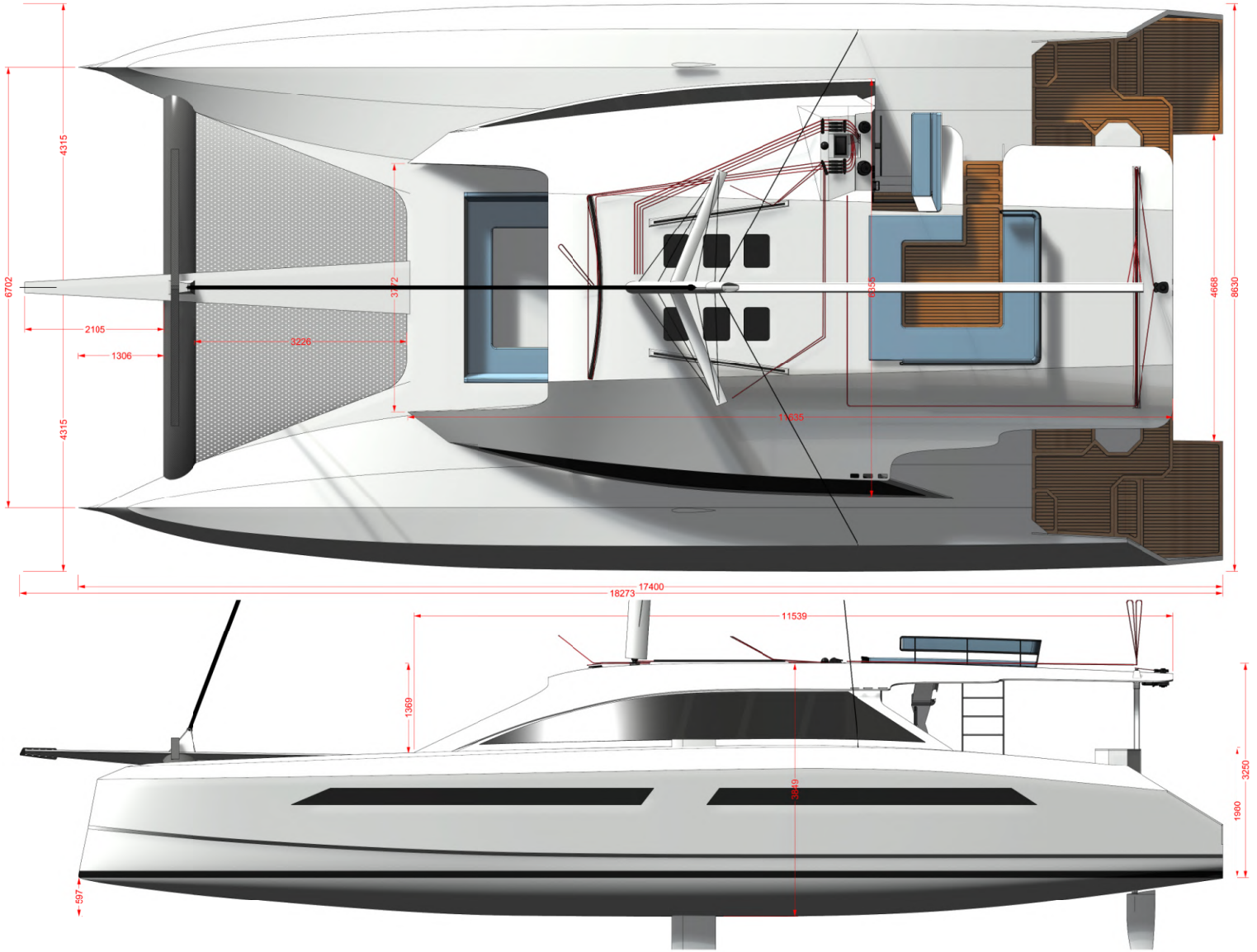
PLAN VIEW LAYOUT

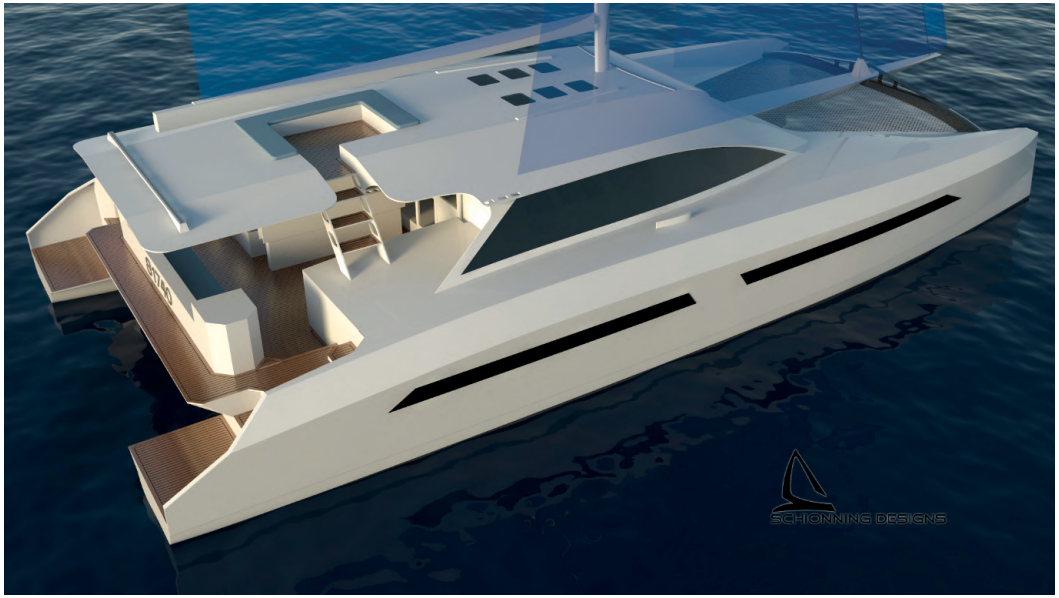


PLAN VIEW LAYOUT

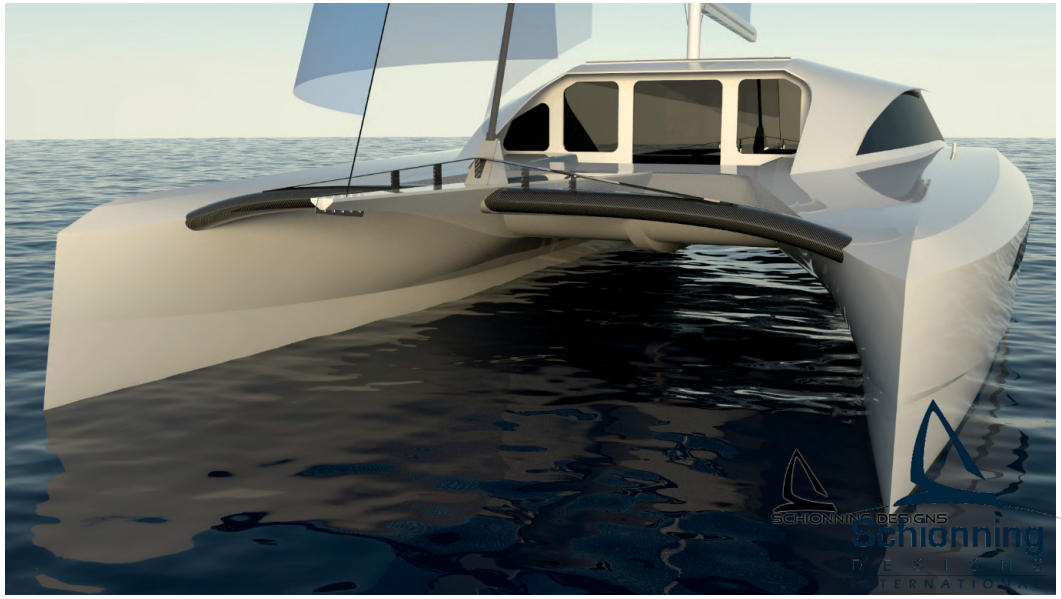
CAD RENDER - TRANSPORT DIMENSIONS



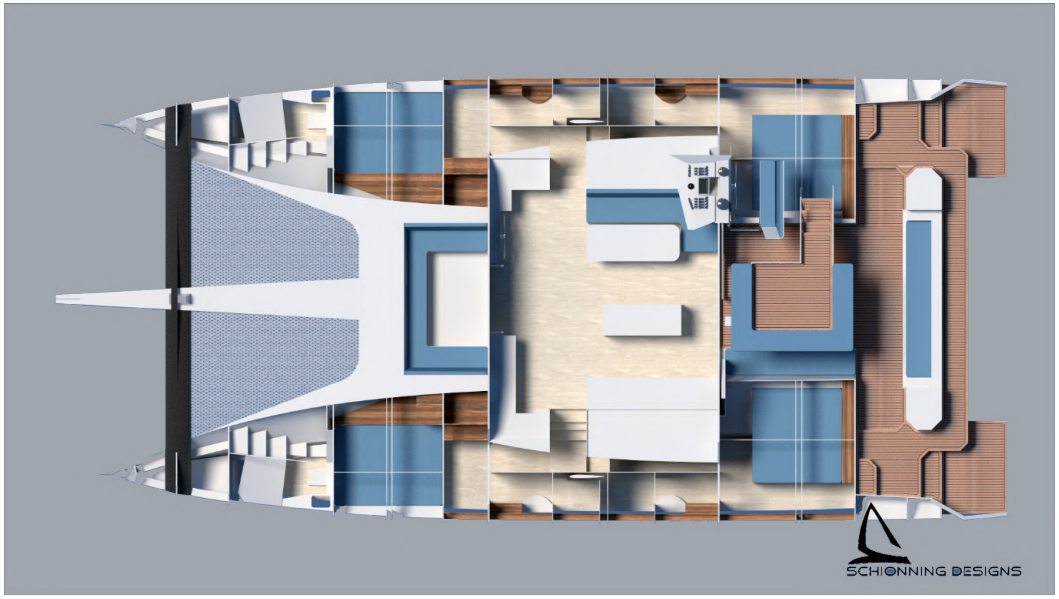
SOLITAIRE 1740
CAD RENDERS - EXTERIOR

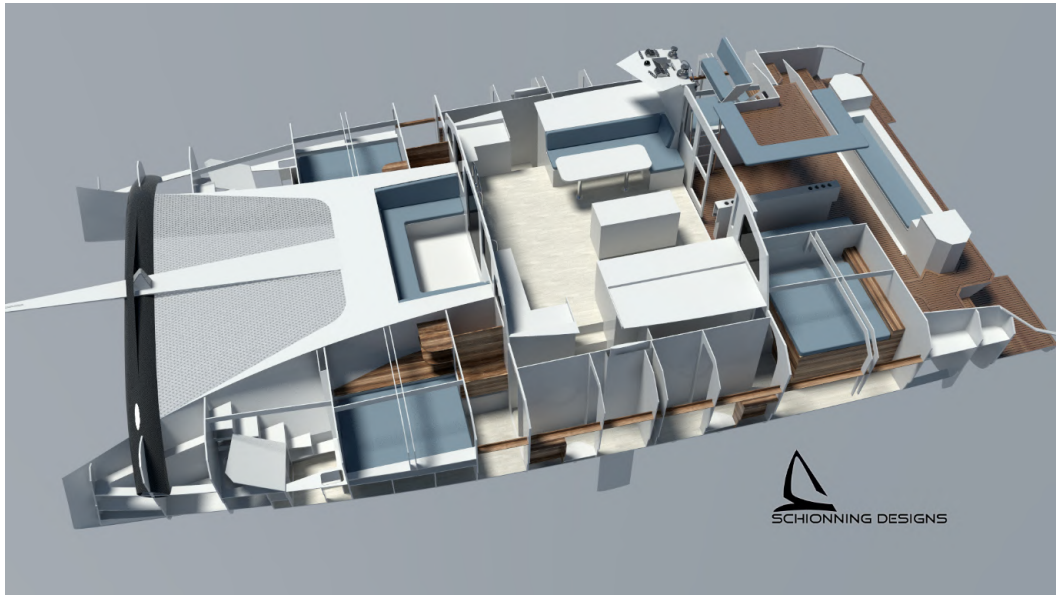


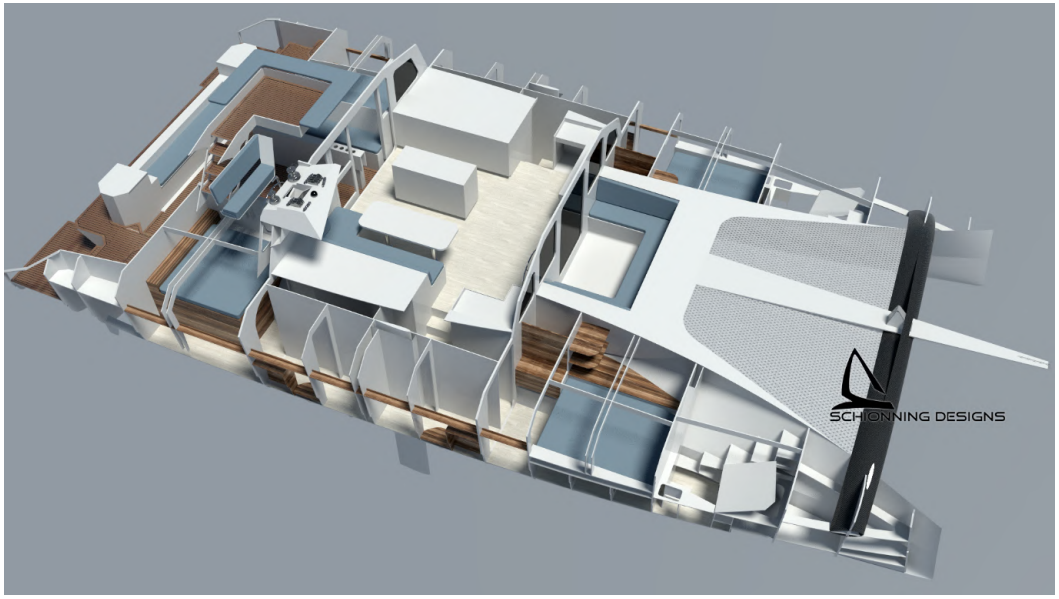
SOLITAIRE 1740
CAD RENDERS - EXTERIOR

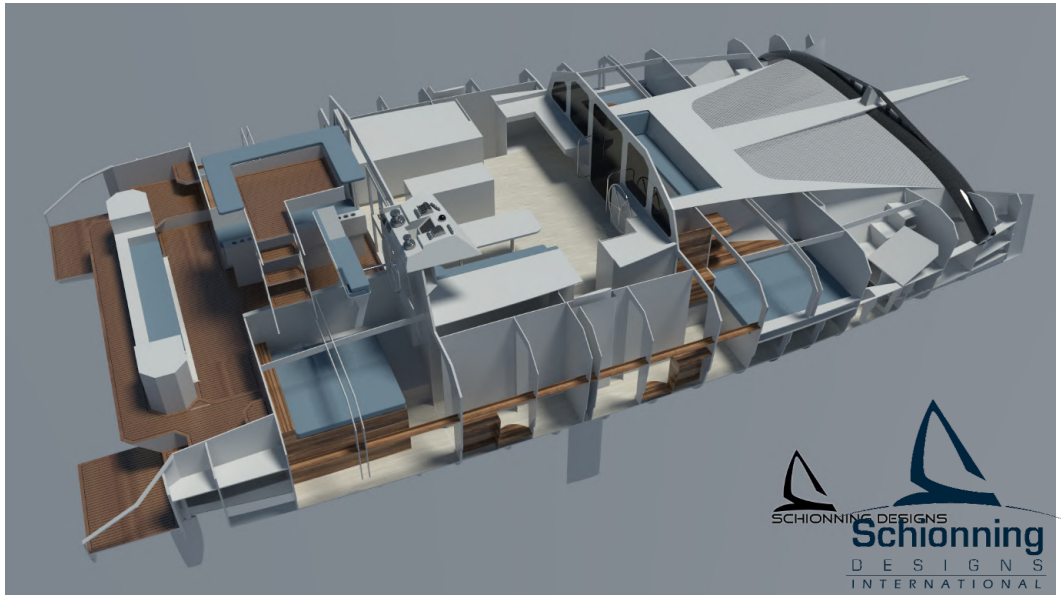


SOLITAIRE 1740
CAD RENDERS - INTERIOR





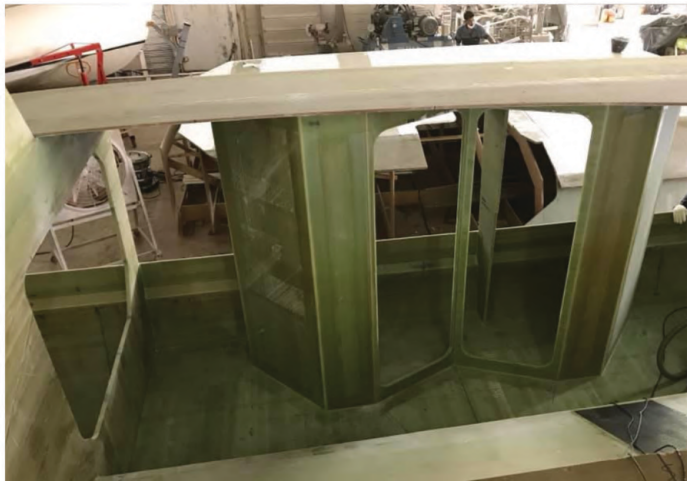




KIT CONSTRUCTION SEQUENCE





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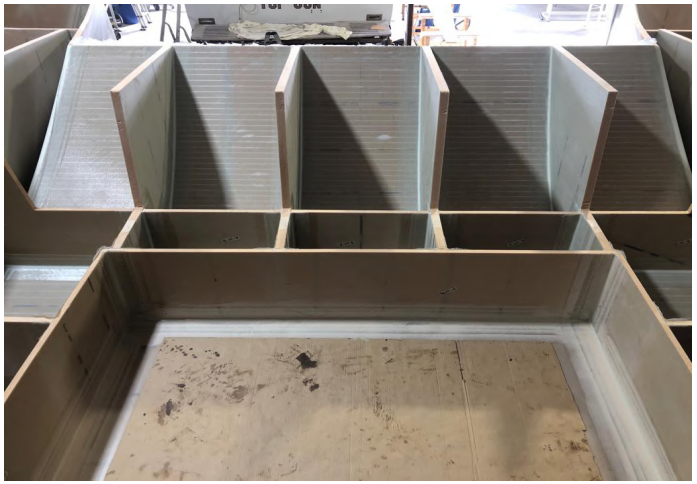
BUILD PROGRESS



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.

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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.

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PLANS & ORDERING

COST OF PLANS:

Contact Schionning Designs International - info@schionningdesign.com

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.
- Plan order form

PAYMENT:

WE ACCEPT

- Direct deposit into our bank account.
- Please email **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.

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CONTACT US

GET IN TOUCH

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

Please email 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 International.

OFFICES

Cape Town, SOUTH AFRICA

Port Stephens, AUSTRALIA

+27 (64) 536 5332 GMT+2

info@schionningdesign.com

www.schionningdesign.com

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#SchionningCats

@TheSchionningTeam

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