

## DESCRIPTION & INVENTORY

FOR

# ALCATRAZ

A FARRIER F41 CATAMARAN

## INTRODUCTION

ALCATRAZ is a catamaran designed by Ian Farrier, a world renown performance/cruiser multihull designer, was launched in late Oct 2006 in South Australia and she has cruised extensively in local waters as well as a Tasmania circumnavigation in 2008.

This experience has demonstrated that the owner/builder objective to provide for a comfortable cruising vessel, which can be singlehanded in safety and provides modern amenities for a couple and their guests, has been achieved. The cruising to date has also illustrated that the present equipment level is satisfactory for extended coastal cruising.

During construction and since the launch a website [http://home.ozonline.com.au/f41\\_sail33/](http://home.ozonline.com.au/f41_sail33/) has described every phase of her construction and some of the more memorable journeys undertaken.

## SPECIFICATION

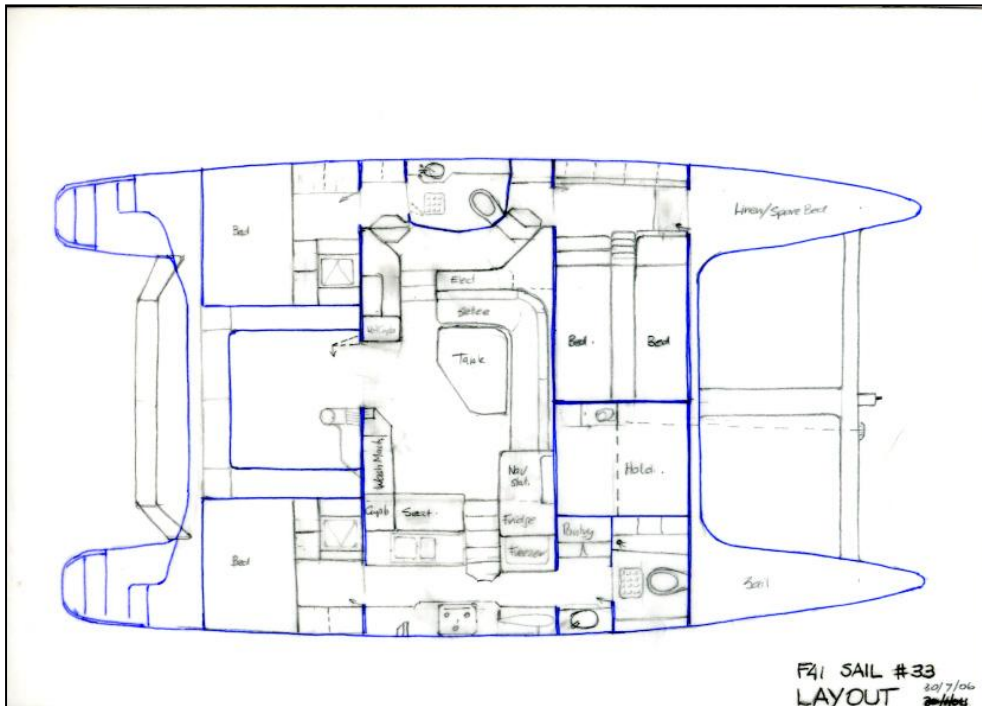
Overall Length	13.00 meters
Beam Over All width	7.04 meters
WL Length	12.00 meters
Full Load Displacement (at DWL)	7.7 tonnes
Dry weight (at launch)	6.2 tonnes
Mast height (above WL)	18.75 meters
Sail Area:	
Main	62 m <sup>2</sup>
Jib	22 m <sup>2</sup>
Asym. Spinnaker	148 m <sup>2</sup>
Draft (board up)	0.79 meters
Draft (board down)	2.24 meters
Bridgedeck Clearance	0.84 meters
Fresh water capacity	800 liters
Engines	2 # Yanmar 3GM30 with SD20 saildrives
Fuel Capacity	350 liters
Range at 5.5 knots (1# engine)	875 Nmiles
Top speed (2 engines)	9.5 knots

## DESCRIPTION

### ACCOMMODATION

The layout adopted was selected to provide superior accommodation for a couple, a cabin with double bed each, plus visitor accommodation for another couple with 2 small kids. To maximize space in the saloon the galley is located in the SB hull, whilst good social interaction is maintained by a low

level seat between the spaces. The traditional SB forward cabin has been reworked into a spacious head/shower, vanity/pantry space and an externally accessed hold with a double hatch.



The saloon provides an L shaped settee with storage under/behind, navigation table with instrumentation and chart storage, chilled drinks compartment, the seat separating the galley, utility drawers, a twin tub washing machine hidden by cabinetry, bar, wet locker/safety cupboard and storage cupboard. A 12V wide screen LCD TV on swivel bracket is located on the cabin bulkhead so that it can be watched from the saloon or the cockpit as the windows between them are removable. Coupled with a wide bi-fold door these removable windows open up the space between the saloon and the cockpit as well as better all round vision forward from the helmstations.

The SB hull has a double bed (2000\*1350) cabin with comprehensive storage cupboards / drawers, escape hatch and shelving. The galley has a 3 burner stovetop, grill/oven, microwave, domestic double SS bowl sink with H&C mixer tap, 240 V appliance socket, front door opening fridge and top opening freezer as well as 6 drawers (2 pan), 4 hampers and fold away rubbish storage. Adjoining the galley is the vanity / pantry space which effectively enlarges the galley whilst also providing a "step out" from the wet area. The head / shower has a mains pressure handheld water saving shower on an adjustable bracket and the large porcelain electric toilet, which has a flip top cover which stops it getting wet during a shower. The head further provides storage for linen and cleaning materials. The bow space is accessed externally through a flush hatch and provides ample storage for sails, emergency tiller and 2# 9kg LPG bottles in a separate locker.

The Port hull has a mirror copy aft double bed cabin, a mid section head with shower and electric toilet, front access electrical panels / controls / equipment, storage cupboard & shelves and the forward cabin which can be set up as a twin singles or queen size bed space with a further mattress in the bow. This cabin also provides the workshop area and tools / spares storage including 240 V.

The cockpit has a wide saloon roof overhang (1200 mm) and a full width bimini in 2 halves, which can be rolled up and stored on the boom access plank. There are 4 spacious lockers that hold the mooring ropes, fenders, manual bilge pump, PDF's, fishing, snorkeling and cleaning gear

## DESIGN

The hull beam to length ratio is 11:1 which provides for good performance and load bearing capacity. The maximum headroom (1.98 m) and extra width saloon, the stepped deck configuration coupled with the sloped transition between the bridge deck and hulls, make for a spacious interior with easy access into the hulls.

The targa is the load bearing version with the mainsail traveler located on top, which made it possible to provide full coverage roll up bimini over the cockpit, the structure also gives full access to the boom for sail storage.

The boarding decks give easy access to/from the dingy, which is stowed, suspended from the targa. Lifting the dingy can be accomplished using the electric halyard winch, making launching and retrieval easy.

On the front deck a double hatch gives access to a large storage hold (2m\*2m), which also houses the anchor winch, chain and bridle.

## SAFETY

Comprehensive safety equipment, incl. DSC VHF radio, 406 Epirb, 1<sup>st</sup> Aid kit, Flares, Fire extinguishers. Collision bulkheads, watertight compartments and survival capsules with emergency supplies.

Escape hatches in both hulls.

Removable Jack (safety) lines on both sides and across the cockpit.

Un sinkable construction.

2 Inflatable PDF's with safety harness & tether, 4# jacket type PDF's, 8# Foam type, all type 1.

Boatswain chair.

850 high stanchions with 3 spectra life lines

Saloon roof SS grabrails.

Emergency tiller.

Gas detectors (2#) and remote solenoid gas switch.

Easily launched tender stowed from targa and retrieved with optional use of the electric winch.

## CONSTRUCTION

The shell is constructed out of 20/25 mm Klegecell PVC foam, fiberglass and carbon reinforcing as called up by the specification and Derakane vynilester epoxy resin.

The rudder and daggerboard cores are Western Red cedar

Internal cabinetry is carried out in Tricel (ply-honeycomb lightweight sandwich) and in selected locations, marine ply, for strength.

All external fairing was carried out using vynilester resin and finished with a 2 pack polyurethane finish.

The below waterline area was epoxy sealed prior to application of the copper/epoxy antifouling. An ablative antifouling (Altex #5) was applied recently.

## MAST, SAILS & DECKHARDWARE

The 16.75 fractional fixed mast was supplied by AllYacht Spars and has 12mm fixed SS wire rigging, spectra halyards and Ronstan roller bearing batcars.

Selden single line reefing boom.

Main halyard, topping lift, 1 & 2 reefs and outhaul run back to cockpit. Jib, screacher and spinnaker halyards and 3<sup>rd</sup> reef terminate at the mast.

Twin helm stations, apart from providing better vision & sail control, the leeward helm is very sheltered in rough conditions.

Sails:

Mainsail – 62 m<sup>2</sup> – 8 batten Bainbridge carbon cruising laminate sail, by YachtSails.

Jib – 22 m<sup>2</sup> – Self tacking on a 4 m curved track with Profurl LC42 furler, Contender Max, by YachtSails.

Asymmetric Spinnaker – 148 m<sup>2</sup> – 1.5 oz Rip stop nylon in launching/retrieval sock.

Telescoping Aluminum 150 dia. bow pole, which stows within boat length.

Harken blocks, pad eyes & miscellaneous HW

Harken self tailing winches:

2 # 40 – Main Traveler, Mast Halyards

4# 48 – 2# Screacher / Spinnaker, Jib, Main

Electric 40 – Main halyard, 1<sup>st</sup> & 2<sup>nd</sup> reef, topping lift, outhaul and dingy

Spinlock clutches

Flush covered lifting eye ferrules, plus removable lifting eyes have been built in to facilitate haul out by crane without the use of special slings.

Muir 2200 Anchor winch, with flush deck switches, remote helm switch and chain wash system.

Stockless anchor PATE 24./ 50 m 10mm chain / 80 m 16 mm Nylon rope.

CQR anchor, Sand Anchor, 15 m 10 mm chain, 120 m 16 mm Silver rope, spares.

16 mm Nylon towing rope with 2 eye splices, 120 m 16 mm Silver rope

Bridle system.

Fenders (6#), boathooks (2#) and mooring ropes

## FOILS

Both hulls are fitted with 250 mm deep mini keels for propeller and rudder protection and beaching.

To provide for maximum windward performance a single daggerboard is installed.

Underslung balanced rudders.

HyDrive Hydraulic steering, with balancing and isolating valves.

## SAILING PERFORMANCE

In reaching conditions with moderate seas she will typically do 75-80% of windspeed, ie 12-15 knots in 15 -20 knot winds, with full main and jib pointing at 40 degrees. She'll point higher, as high as 30 degrees but the ride becomes rough and the VMG suffers.

Under spinnaker one can achieve better than true wind and with 15-20 knots @160 degrees we achieved 23 knots on one occasion. 12-18 knots is a more normal range with a cruising crew.

With our waters and wind conditions I tend to allow for 6 -8 knot / hr average in planning our routes.

## ENGINEERING

2 x Yanmar 3GM30 -27 Hp diesel engines (approx. 600 hrs), SD 20 saildrives fitted with Gori 2 blade folding props.

Engines use 2.2 liters / hour at 2200 revs and a single engine will give a 5.5 knot boatspeed at this rpm, subject to wind, sea and hull state.

Both Hitachi alternators were upgraded to Bosch 80 Amp, controlled by a Smart Regulator

Fuel Tanks - total capacity 350 liters:

Main tank with Deck filler	200 liters
SB day tank	70 liters





House DC board - 30 CB  
240 AC board - 6 CB  
Shore power connection with Galvanic Isolator  
Twin set navigation lights

Easy / full access to the back of the electrical cabinet to check connections, bus bars and make additions or alterations.

All lighting except navigation, is halogen, mostly 10 watt, with the switch on the fitting. The saloon circuit has a central switch to control the area.

*Optional:* - KIPTOR Digital Inverter 2.6 KW. Petrol Generator, is an alternative means of charging the batteries, power during beaching and provide the backbone of the AC power for Air Conditioning.

#### WATER & WASTE

2 # 400 liter composite watertanks, filled via common deck filler with inlet valves in hold.

Tank transfer/ drainage provided for.

Gas and/or electric Truma (Dometic) mains pressure hot water system

Reticulated fresh water, pressurized 12 l/min, hot and cold, to shower, 2 basins, sink, washing machine and external shower

Pressurized salt water system, 18 l/min, 2 deck outlets, chain spray, holding tank flush.

Shower sump, galley sink and SB basin waste can be sent to thru hull or grey tank.

2 # Holding tanks (1# 60 liters Black, 1# 50 liters, Black or Grey), these are vented and can be self drained via thru hull or pumped out via deck fitting.

The SB and Port toilets can both discharge into the tank/thru hull or operate as independent systems.

2# Large bowl electric ceramic toilets.

#### TENDER

The dinghy weighs 28 kg, is 3.1 m long, seats 4 and has a 4 Hp Yamaha 2 stroke outboard.

Construction is as per the main hull

Comes with oars, anchor and safety equipment.

High resolution photo's illustrating a lot of the features described here can be found at [http://home.ozonline.com.au/f41\\_sail33/HRPhotos](http://home.ozonline.com.au/f41_sail33/HRPhotos)