CAPRICORN F18 OWNER'S MANUAL

AHPC CAPRICORN F18 OWNER'S MANUAL

Serial # _____

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1. Introduction

Congratulations with your new Capricorn F18. We were delighted creating the Capricorn F18. It has exceeded all our expectations; and when we see people's reactions after their first sail we know, they too, are delighted with it.

Greg Goodall
Managing Director
Australian High Performance Catamarans Pty. Ltd.

1.1. About this owner's manual

This manual has been compiled to help you operate your Capricorn F18 catamaran with safety and pleasure. It contains details of the boat and equipment fitted. Please read it carefully and familiarize yourself with the boat before using it.

Please ensure that you are able to handle the catamaran in the anticipated wind and sea conditions before venturing out. This craft has been classified (in Australia) as a category C vessel, meaning a boat designed to operate in winds up to force 6 on the Beaufort scale and associated wave heights.

This owner's manual is not a course on boating safety or seamanship. If this is your first beach catamaran, or if your unfamiliar with it, please ensure you obtain handling experience before "assuming command" of the boat. Your dealer, National Sailing Federation or Yacht Club will be pleased to advice you of local sailing schools, or competent instructors.

This owner's manual is not a detailed maintenance or trouble shooting guide. In case of difficulties, always refer to APHC or its proper representative.

Always use trained and competent people for maintenance, fixing and modifications of your Capricorn F18. APHC cannot be held responsible for modifications they have not approved.

Note also that any change in the disposition of masses aboard may significantly affect the stability, trim and performance of your boat
Users of the boat are advised that:

- All crew should receive suitable training.
- The boat should not carry more than the manufacturer's recommended load.
- Stability is reduced by any weight added high up.
- Hatches must be sealed before leaving the shore
- Breaking wave are a serious stability hazard
- Buoyancy aids are recommended to wear at all times by all crew for their own safety.

In some countries, a driving licence or authorisation may be required, or specific regulations might apply. Please familiarize yourself with these.

Always maintain your boat properly and make allowance for the deterioration that will occur in time and as a result of heavy use or misuse of the boat.

Any boat, how strong it may be, can be severely damaged if not used properly. This is not compatible with safe boating.

Please keep this owner's manual in a safe place and hand it over to the new owner when you sell the boat.

1.2. General information

Manufacturer: Australian High Performance Catamarans Pty. Ltd. (AHPC)

Model: Capricorn F18

Category C: A boat designed to operate on winds up to force 6 on the Beaufort scale and associated wave heights (significant waves up to 2 metres) Such conditions may be encountered on exposed inland water, in estuaries and in coastal waters in moderate weather conditions.
A significant wave height is the mean height of the highest one third of the wave, which approximately corresponds to the wave height estimated by an experienced observer. Some waves will be double this height.

Maximum Recommended Load: 🧍 x 2
🧍 + 🧍 + luggage = 200 kg.

Specifications: Length (L_{H1}) = 5,5 metre
Width (B_{H1}) = 2,6 metre
Mast height = 9,1metre
Main sail area = 15.3 m^2
Jib area (optional) = 4,15 m^2
Mast area = 1,7 m^2
Spinnaker area = 21 m^2
Maximum draft = 1.250 mm with centre boards down
Maximum draft = 250 mm with centre boards and rudders up
Weight fully rigged = 180 kg

Identification: Hull identification number on stern of each hull.

1.3. Information connected with the risk of flooding and stability

1.3.1. Loading advice

Keep the total weight of provisions, miscellaneous equipment not supplied by the manufacturer and persons aboard below the Maximum Recommended Load and suitably distributed.

1.3.2. Openings in the hull

Hatch covers in the stern and deck must be sealed before leaving the shore. When storing the boat ashore, be sure to have the holes covered and it may be wise to leave the hatches open for ventilation purposes.

1.3.3. Stability, Capsize and Recovery

This boat is intended to be recovered after a capsize by the crew. The minimum crew weight needed is 130 kg. When using the correct technique, the wind that aides in your capsize, will also assist you in the recovery. See for the proper technique the Recovery chapter later n this Owner's Manual.

1.4. Recommendations and information for proper operation

1.4.1. Danger from overhead power lines and other obstacles

When rigging and moving your boat, please look up and inspect the overhead area. Observe the location of overhead power lines and trees. These obstacles can damage your boat are potentially dangerous to yourselves

1.4.2. Towing on the water

When towing is required, make sure that:

- The tow rope is secure around the mast foot or mast step.
- The boat is towed at a low speed.
- The tow line is fastened in such a way, that it can be released when under load
- The tow line is of sufficient length to manoeuvre safely.

2. Assembly

2.1. Glossary

Aft: Back of the boat.
Bow: Front of the boat.
Batten: Thin strip which fits into a long narrow pocket in the sail. It will give the sail its shape.
Bridle wire: One of the two wires connected to the bow and forestay.
Boom: Spar at the foot of the sail.
Centre board: A retractable plate that that reduces sideway drift. Also known as dagger board.
Cleat: Fitting used for holding / securing ropes.
Clew: Lower most after-most corner of a sail.
Crossbar: Bar that connects the rudders on each hull.
Dolphin striker: Load bearing strap under the front beam.
Downhaul: Rope to stretch the luff of the sail. Also referred to as Cunningham.
Foot: Bottom edge of the sail.
Forestay: Wire supporting the mast in the fore and aft direction.
Gunwale: Outermost edge of the hull.
Goose neck: A hinge fitting connecting the boom to the mast.
Halyard: Rope or wire used to lower or hoist sails
Head: The top corner of the sail.
Hound: Point where the stays are connected to the mast
Jib: Front sail.
Jib Sheet: Control rope for the jib.
Leeward: The side of the boat the sails are set to when sailing.
Leech: Trailing edge of the sail.
Luff: Front edge of the sail.
Main sheet: Rope controlling the position of the main sail.
Mast rake: Angle of the mast to the hull.
Mast step; Fitting on the boat where the mast is connected to the front beam.
Pintel: Fitting on the transom and rudder used to hang.
Rudder stock: Carrier of a rudder blade and has an arm to steer.
Shackle: U-shaped metal strip with a pin to secure halyards etc.
Shrouds: Wire supporting the mast in the lateral direction.
Spinnaker: Isometric sail hoisted when sailing downwind.
Spinnaker pole: the pole, which extends to fly the spinnaker.
Spreaders: Metal struts placed in pairs to support the mast control the bend in the mast.
Stamaster: Adjustable stay connector to chain plate.
Stern: Back of the boat.
Tack: Forward lower corner of the sail.
Tiller: (Telescopic) rod connected to the cross bar to steer the boat.
Traveller: Track running side to side on which the main sheet is attached.
Transom: Flat vertical plane of the end of the hull.
Trapeze: Wire to extend the body beyond the gunwale.
Windward: The side of the boat opposite to where the sails are set to when sailing.

2.2. Tools needed

Your Capricorn F18 can be assembled without an expensive tool kit, but be advised to have ready with you the following tools:

- Sharp knife

- Cross head screw driver Philips #2
- Small screwdriver
- 7 mm ring spanner
- 17 mm ring spanner or preferably a hexagonal socket
- 24 mm open spanner
- Torque wrench (optional)
- Pop rivet tool
- Shackle tool
- Tape measure
- Duralac sealant (anti corrosive paste)
- A roll of tape for split rings

2.3. Arrival of goods

A typical shipment directly from AHPC would involve in average about 3 cardboard boxes and 1 long package in which the entire catamaran can be transported:

- 2 Long card board boxes containing a hull each.
- 1 Shorter cardboard box for the beams, sail, boom, foils and rudder stocks.
- 1 Single long package for the mast, depending on the way of shipment this might also be a steel crate.

Should your boat have come through a local dealer, most of the assembly work has probably already been done for you, but still take this manual as a reference for building up and dismantling your Capricorn F18 when transporting and storing.

2.4. Capricorn F18 boat assembly

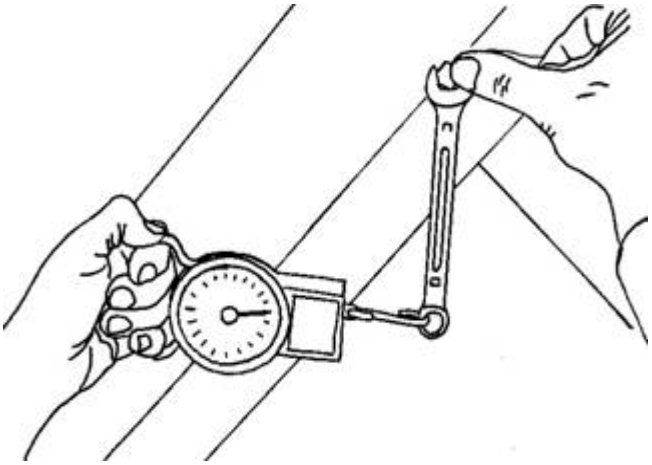
2.4.1. Hulls

Place the 2 cardboard boxes that contain the hulls parallel on a flat surface approximately 2 metres apart and cut the top part open. The sides of the boxes may be folded down to have a clean and protective working surface. The 2 cardboard frames per box should keep the hulls upright. Mind you, those dry cardboard boxes can be slippery.

2.4.2. Beams

The beams are ready to go onto the boat, all beam bolts are numbered for their position in the beams.

- Make sure that the rear and front beam are facing the correct way. On the rear beam the eyelets for the traveller cord should be facing backwards. Apply sufficient grease to the threaded part of all bolts before inserting them into the hull. Get all the bolts started before tightening the 1st bolt. Be careful not to over tighten or cross thread the bolts. If a particular bolt is being difficult to fit then fit this bolt first.
- Use a 17 mm hexagonal socket or a 17 mm spanner to tighten the bolts properly. The bolts should be set to 20Nm using a torque wrench.
- In case a torque wrench is not at hand, a weighing clock (as used in fishing for instance) connected to a 17 mm ring spanner will do the job too. If the ring spanner would have an effective length of 0, 15 m, the clock should read 13.5 kg for 20Nm.
- Do not forget to check the bolts from time to time as some setting will occur during the firsts boating. In no case exceed the recommended 20 Nm as over tightening will result in a damaged threads



- Finally, after the platform has been assembled, the dolphin striker needs to be tensioned. Use a 24 mm spanner to extent the pole between the front beam and the striker strap. The centre of the front beam should be 10 mm higher then on the ends. The front beam is then bent up and slightly pre-stressed.

2.4.3. Trampoline

Fitting the trampoline might take some effort as it new and has not yet been stretched from use.

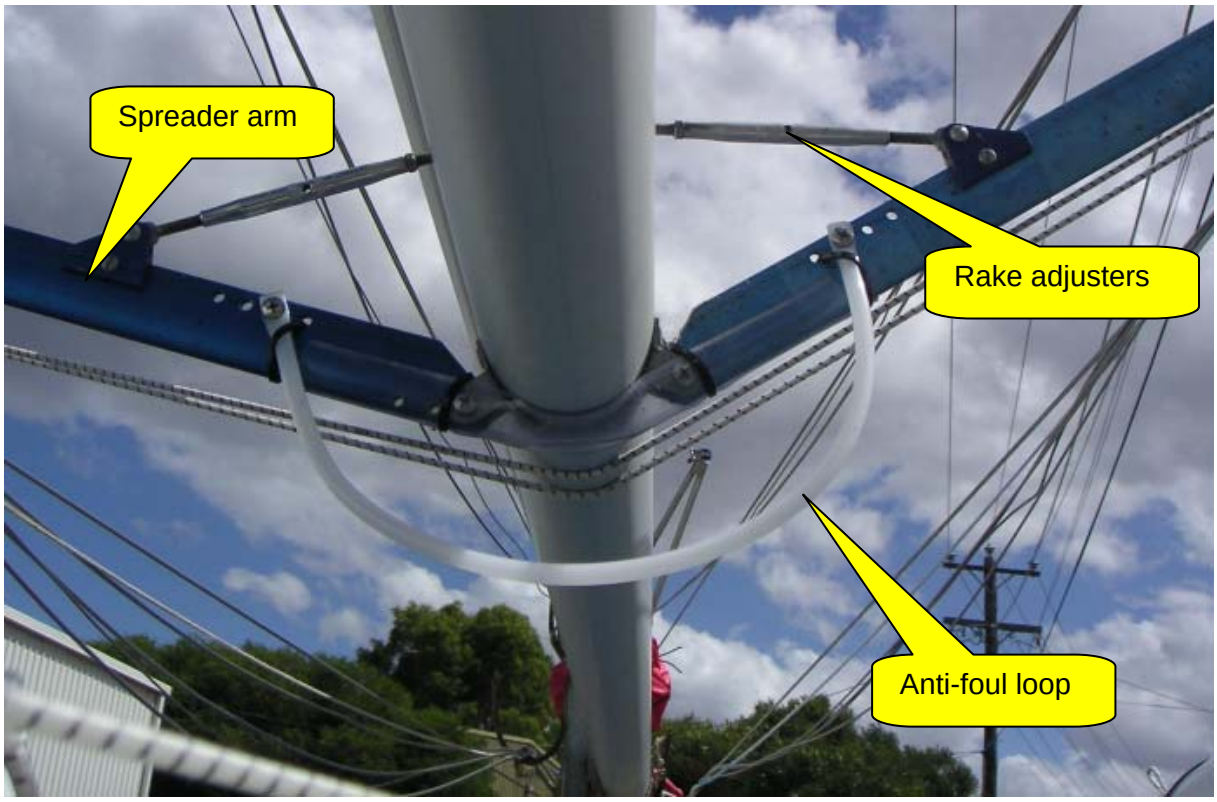
- The trampoline should already be attached to the front beam. If not slide it into the front beam groove and refit the front beam end plate.
- Fold the trampoline upwards and insert the cords on either side in the track of the hull. Adding a little Teflon or silicon base lubricant to the track and on the cord of the trampoline will ease the work considerably.
- Slide the trampoline down the track on each hull. This is best done with 1 person on either side of the platform and does require some care to pull the trampoline backwards. Keep it even on each side as it moves down the hulls. You may need to help feed the tramp into the track once it pulls tight across the boat. Finally slide the alloy tube into the pocket at the rear end.
- Use the 3mm cord to lace the tramp to the rope buttons on the rear beam. Pull very tight as you move across the boat. Use the rope buttons on the rear beam to absorb the surplus length of the cord after tensioning.
- The shock cord for the skipper's trapeze wires should pass underneath all other lines and around the striker post.
- The righting rope should be attached to the front beam by passing outwards through a saddle on either side with a stop knot and kept tight and flat in a V-shape backwards under the trampoline by a shock cord running from the front beam, through an shackle at the rear of the tramp. In this way, sufficient righting line is always available without having it on deck.

- On the trampoline, toe straps have been provided, running from the front beam to the rear beam. Fold the outer edges of the loop at its end inwards for more strength and tie the toe straps to the saddles on the rear beam using a half hitch on the strings not dissimilar to tying the battens. Secure the loose ends by adding another reef knot on the half hitch. Check the tension from time to time. Some like it to be taut; others prefer it to be slack.

2.4.4. Mast

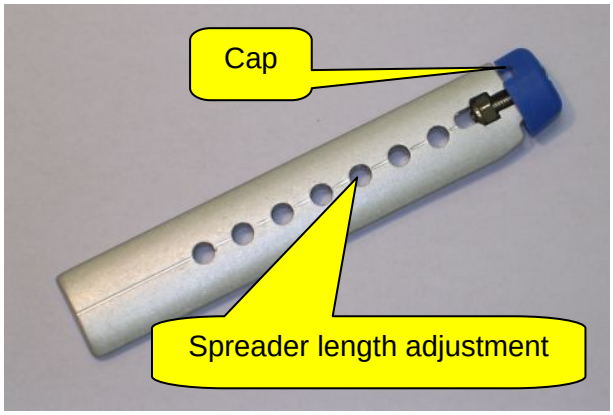
The mast supplied from your local dealer will be fully fitted out ex works. If the mast has been shipped to you some fittings may be required to be fitted to complete the mast. All holes are predrilled and all components and rivets are supplied. Please, fit all the items first and go sailing with the factory settings before attempting any adjustment. Factory settings are set out in the tuning guide. Familiarize yourself with the boat and it's characteristics before making any adjustment whatsoever.

- If not already fitted, the mast requires the mast spanners to be riveted in place. The required pop rivets should have been taped to the spanner. Apply some Duralac or anti corrosive paste on the facing surfaces and some as well on the head of the rivet before inserting. This will prevent electrolytic corrosion of the different metals due to (salt) water creeping in.
- Then get the spreaders on and when fitted correctly, they should be pointing backwards, in the direction of the sail track. Fit the spreader in their respective brackets and secure the locknuts at the front using a 7 mm spanner and secure the split rings at the back using a piece of tape. Note that the spreaders are set to standard length.



- Connect the diamond wires to the mast, if not already pre-assembled and set to a standard tension.
- Now it is time to fit the diamond wires to the spreaders. The mast should lie flat and put your feet at one side of the mast at either side of the spreader. In order not to damage the mast, it is wise to take off your shoes or cover up the mast. Pull back the diamond wire until it

notches onto the spreader. Secure the diamond wire by screwing on the cap of the spreader, but do not tighten yet.



- Go over to the other side. You will notice this takes considerably more strength as one side of the mast has been stiffened by the first diamond wire. Repeat notching over the diamond wire and screw on the cap. Make sure the spreaders are perpendicular to the face of the mast.
- Adjust the diamond tension as set out in the tuning guide.
- If necessary, fit the mast rotator arm. The holes have been predrilled on the mast and the rivets have been taped to the piece itself. Apply some Duralac or silicone kit to the facing surfaces and rivets, before tightening the rotator arm with the 4 rivets. Off course the arm should face backwards when fitted.

2.4.5. Rigging

With the mast still lying flat, sail track down, roll out the stays and trapeze wires to be fitted.

- The 2 side stays and the 1 forestay must be fitted to the bottom eye of the hound at the upper mast part. Use the large shackle to connect the lower eye. Keep the shackle centred and upright by adding washers left and right along the pin. Assure yourself that the fore stay is in the middle of the 2 side stays.

- Fit the trapeze wires to the top eye using the smaller shackle. Here too, washers may be used to keep the shackle upright.
- The side stays have Stamaster adjusters, to fit the chain plates of the hulls near the front beams. The front stay attaches to the bridle plate and via 2 bridles to the chain plates at the bows. Make sure the bridles are connected to the chain plates at the bows using the shackles, before raising the mast and in such a way, the bridle plate can be held upwards without a twist.
- Do not forget to secure all shackles with a set of pliers or appropriate shackle tool.

2.4.6. Raising the mast

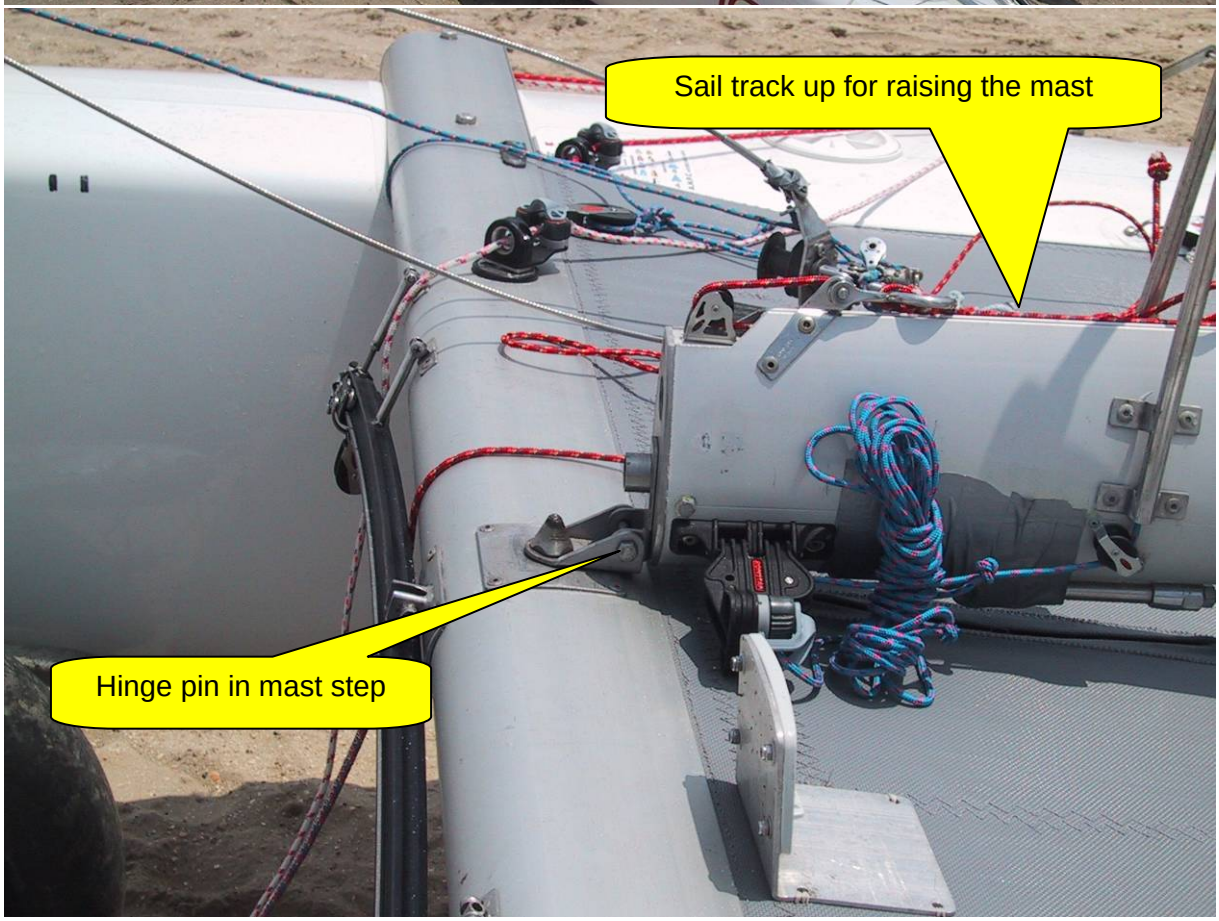
The usual procedure is to raise the mast from the back of the boat. In this case, it might be helpful to have the sterns facing windward, making raising the mast easier. Also height differences in terrain condition may be used to good advantage.

The hinged mast step allows the mast to be raised and lowered from any direction. The key to this is that the front of the mast must face the direction that it is to be raised from, or lowered to.
Raising the mast requires minimal 2 persons. The usual procedure would be:

- Put the assembled platform on a flat surface, preferably with its sterns windward.

- Raise the mast from the back of the boat.
- Position the mast on the boat, sail track down, with the base of the mast just forward of the main beam and the top of the mast out the stern.
- Connect the side stays to the corresponding chain plates, with the Stamaster adjusters at maximum length. Rigging the 1st time the Stamaster will be fitted permanently to the chain plates, so the next time the mast is raised, only the flat threaded part my be inserted to the nut.

♦ Keep the trapeze wires loose and untangled. `



- Turn the mast over, sail track up, and connect the base of the mast to the mast step using the hinge pin trough the aligned holes of both mast foot and mast step.

- Walk the mast up from the stern. At the same time the 2nd person should be pulling the mast up using one of the trapeze wires.

- When the mast is vertical allow the mast to rotate so that sail groove now faces backwards.
- Hold the mast upright with one of the trapeze wires while the forestay is connected to the forestay bridle.
- Set the front stay to the appropriate hole on the bridle tube for the required mast rake.
- Adjust the Stamasters to tighten the rig properly.
- Take out the hinge pin from the mast step.
- Connect the trapeze wires to their shock cords.

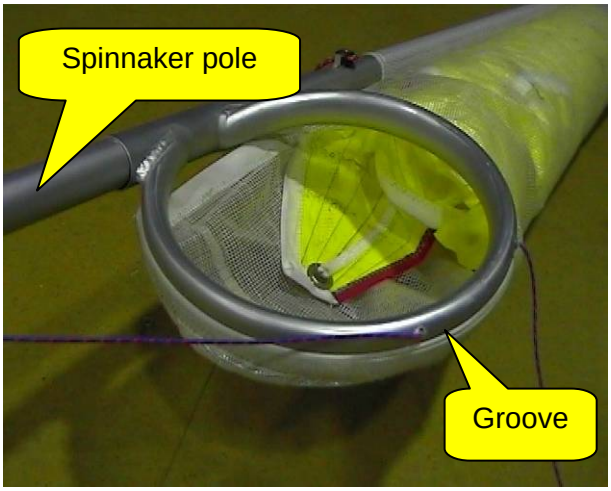
2.4.7. Lowering the mast

This is basically the reverse as raising the mast:

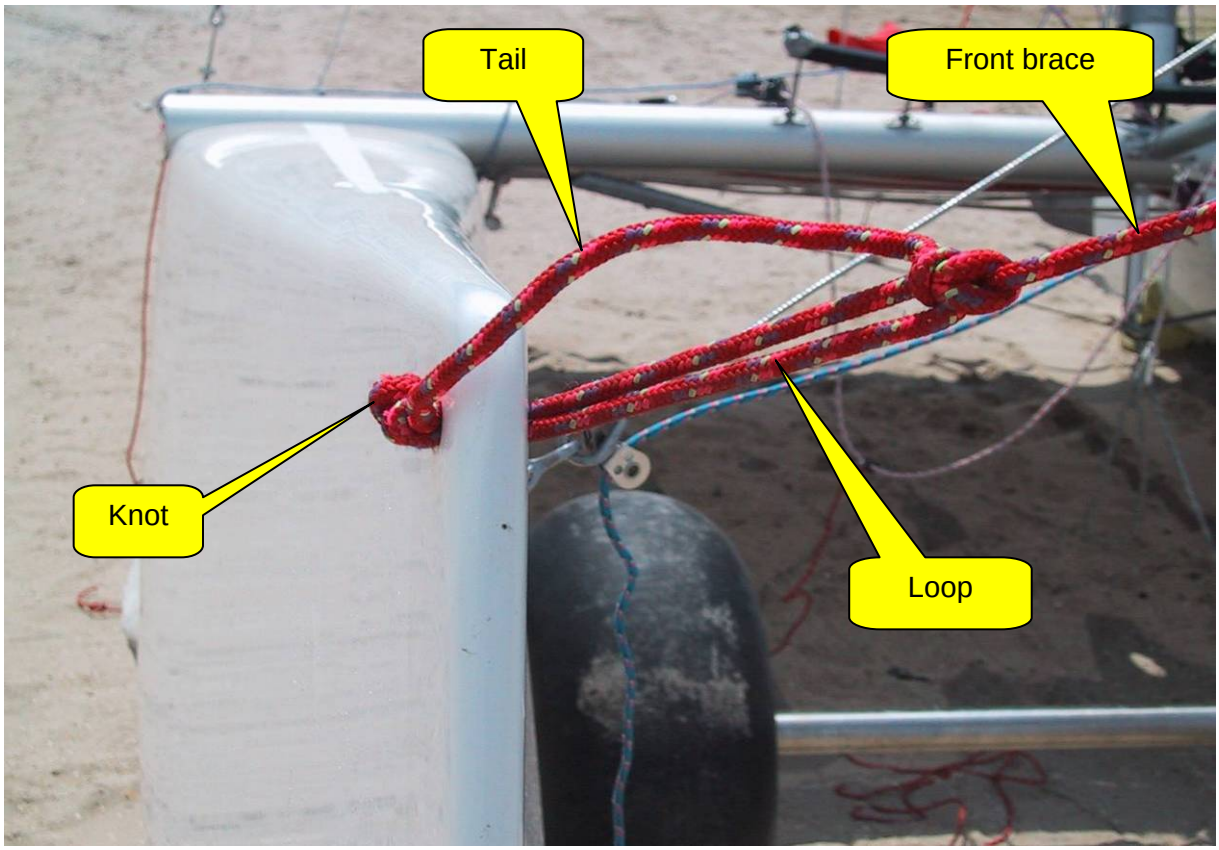
- Put the mast step hinge pin in place.
- Remove the boom and spinnaker pole first.
- Lessen the tension on the side stays.
- Undo at least on trapeze wire.
- Use that trapeze wire to pull the mast forward, releasing pressure on the pin at the bridle tube.
- Turn the mast around so that the front side is facing the direction in which the mast will be lowered.
- Gently ease the trapeze wire to slacken the side stays. Stand on the trampoline to lower the mast down, since at a certain point the mast cannot be held by the trapeze wire alone. Be careful not to drop the mast on the track of the rear beam.
- Undo the remaining trapeze wires and take the Stamasters apart.

2.4.8. Spinnaker pole

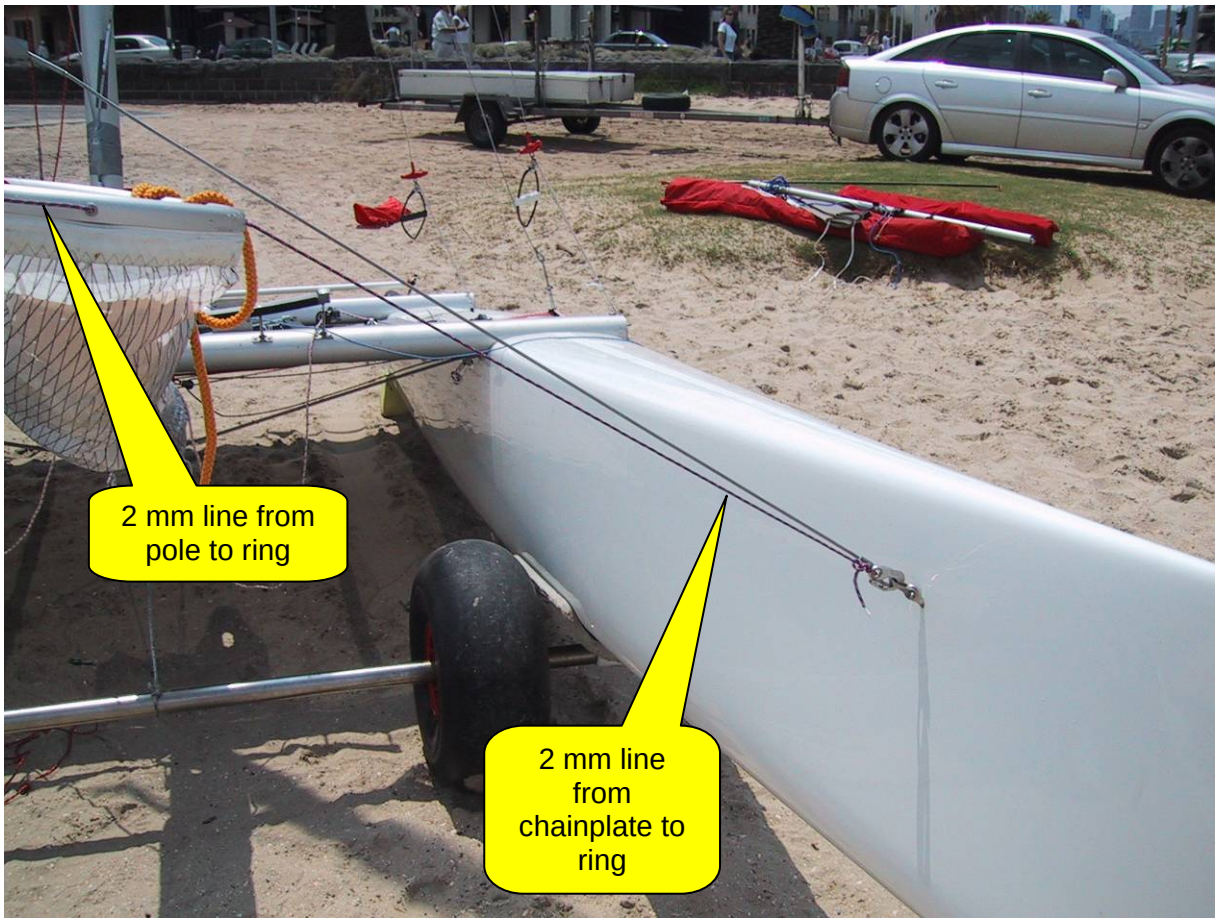
The spinnaker pole may require the snuffer ring to be riveted in place if the boat has not been supplied from your local Dealer. The pole and ring have been predrilled and the required pop rivets should have been taped to the ring.



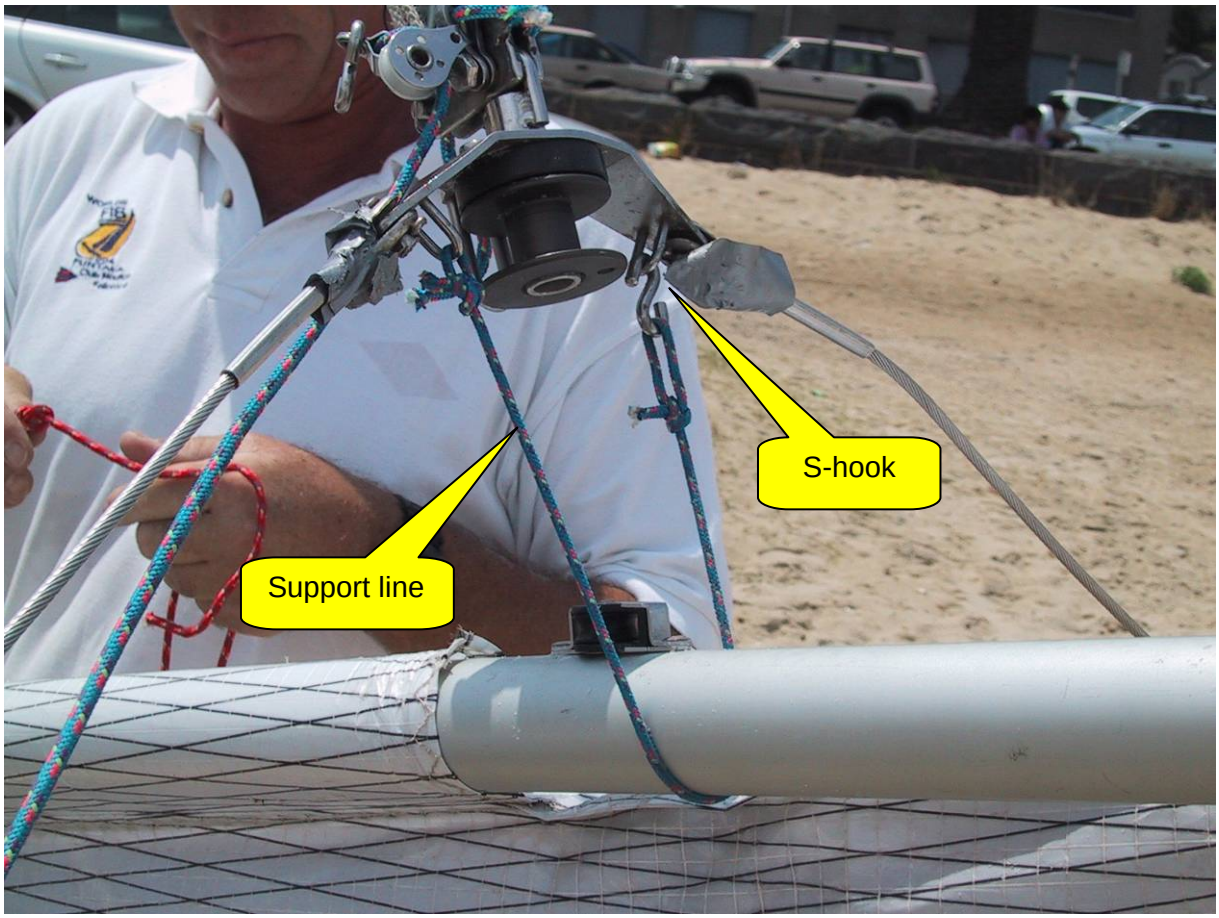
- Put the spinnaker bag over the spinnaker pole using the sewn in pockets and slide the chute into the groove of the ring if it has not been done already by the factory.
- Fit the spinnaker pole to the front beam using the pin and retainer clip. Make sure the pin also secures the halyard block at the base of the spinnaker pole. Connect the front braces to the bow at the required length, indicated by the luff length of the spinnaker itself and the preferred height of the spinnaker pole tip. Assure that both braces have the same working length and that the loop is shorter than the tail with its end knot. Under tension the loop will be tightened, not the tail over the bow tip. Pass the loop in the end of the brace through the hole in the bow and the rope tail then passes through the loop on the outside to prevent the loop coming out of the bow holes.
- Lift the centre of the spinnaker pole and run the support line from the bridle plate under the spinnaker pole, it will bend slightly upwards. Make sure the small s-hook cannot jump of the bridle plate.



♦ Connect the 2 shock cords at the end of the chute to the loops under the trampoline. This should keep the chute taught.



- Run the rear 2 mm cord from the ring to corresponding bridle chain plate and lead the other 2 mm cord forward to close the gap between the ring and the pole.

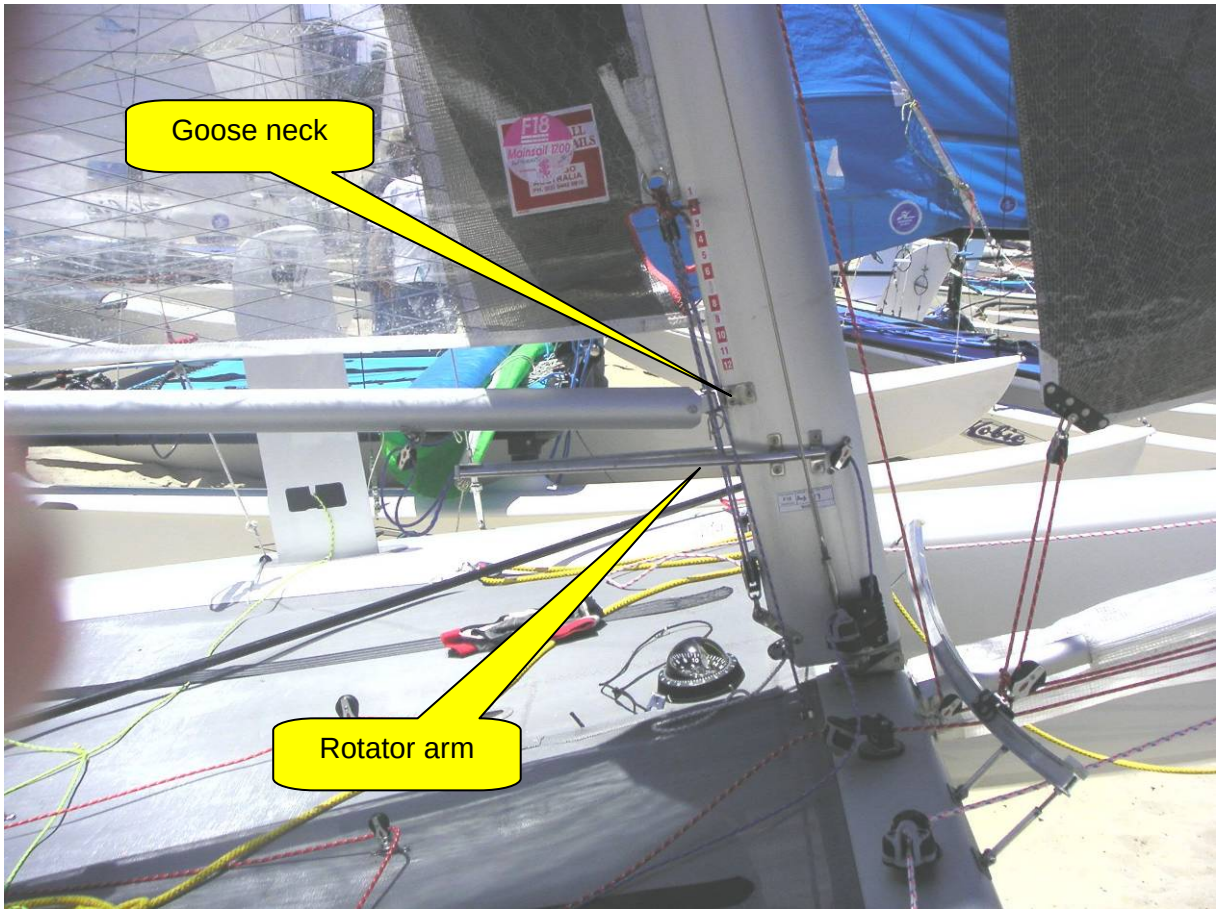


- Turn the boat onto its side to access the top block of the spinnaker halyard.
- Tie one end of the 3.0mm Dyneema halyard to the top eye of the fore stay.
- Feed on the double ended halyard block onto the halyard and then take the free end and pass it through the top spinnaker halyard block on the mast.
- Tie the halyard temporarily to the spinnaker ring.
- Take the 4mm Spectra halyard cord coming out of the block at the base of the spinnaker pole and pass it through the anti-foul loop at the diamond arms. Next pass it through the free half of the double-ended halyard block and back down through the anti-foul loop and cleat off the halyard on the halyard cleat on the side of the mast.
- Now feed the halyard end from the cleat through the pulley on the front of the tramp.
- Continue the spinnaker halyard through to a shock cord tensioned retaining ring and back through another small deck block into an oval aperture of the trampoline. This part of the halyard will be now be the retrieval line.
- Grab the retrieval line underneath the trampoline and feed it through the eyelet in the spinnaker chute where it should exit the ring on the spinnaker pole.
- Tie it of temporarily to the ring.
- Now right the boat.

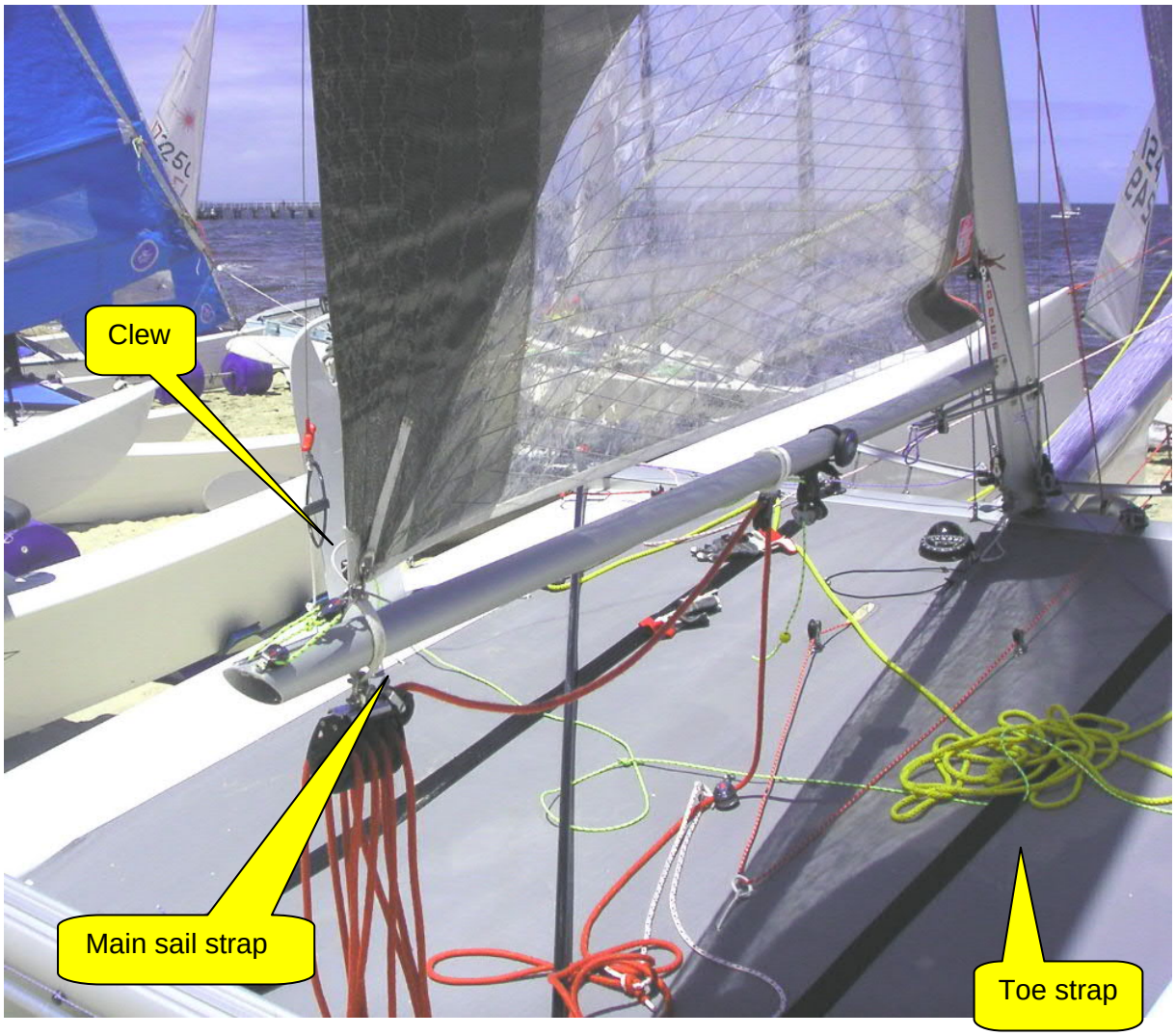
2.4.9. Boom

To be attached to the mast is the boom, holding the main outhaul and the mast rotator line.

- Insert the block onto the goose neck and put the pin through the holes, from top to bottom. Secure the pin with the retaining clip. To keep the clip from getting lost, secure it with a small line to an object on the mast.



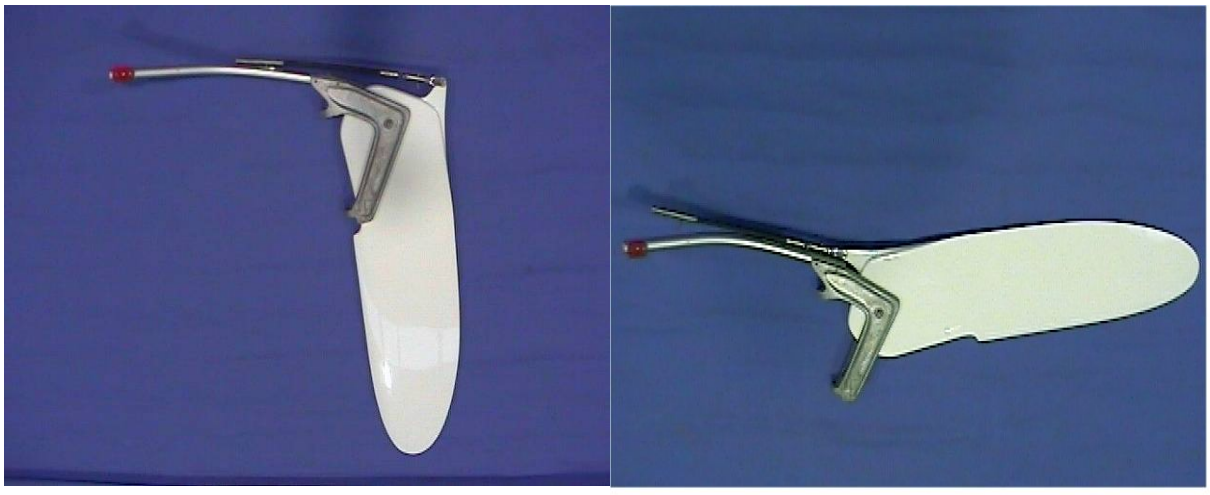
- Out of the mast rotator arm comes a line that passes through a small block. Connect that small block to the saddle on the underside of the boom. When attaching, give sufficient slack to move the boom freely. The mast rotator lines should be coming out of swivel cleats on either side of the mast.
- The strap for the main sail and main sheet is a tight fit over the outhaul.



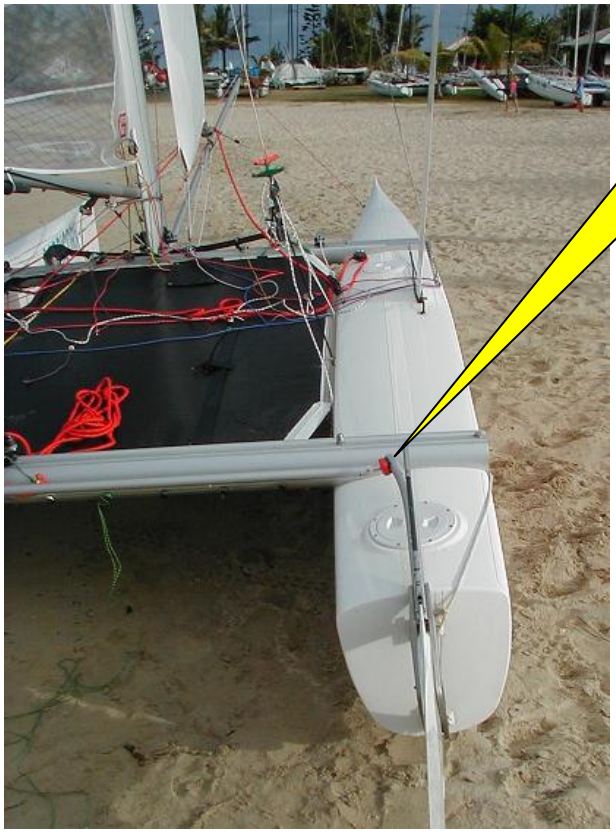
2.4.10. Rudders

Rudder stocks are uniquely starboard and port. When fitted correctly the rudder stocks should face inwards in the direction of the mast.

- Lubricate the transom pintels and bushes in the rudderstocks with silicon spray.



- Place the stocks onto the pintels at the transom. Make sure the lock plates snap over the casting and if safety requirements require it, fit the retaining clips on the bottom pins as well.
- The cross bar has easy connectors for a quick assembly. Make sure the easy connector for the tiller extension is facing upwards/frontward.
- Attach the tiller extension to the cross bar using the easy connectors.



- Make sure to keep the rudder blades in the protective covers during transportation and storage.

2.4.11. Centreboards

Both centreboards are essentially the same, but the strap fitted to them makes them starboard and port. The straps should have the retainer knot on the outside of the boat, when fitted. Always make sure that you push and lift the centre board perpendicular to the face of the hull.

- Before putting the centreboards in their casing, rinse the felt lining with water to get rid of sand and other stuff that might damage the board when pushing it down in a dry condition.
- Put the centre board in corresponding hulls and slide it downwards. The felt will retain the board in its position.
- The strap connecting the centerboards should pass under the toe straps and all other lines on the tramp deck. Pulling the strap will raise the boards from either side of the boat.
- Make sure to keep the centreboards in the protective covers during transportation and storage.

3. Sailing

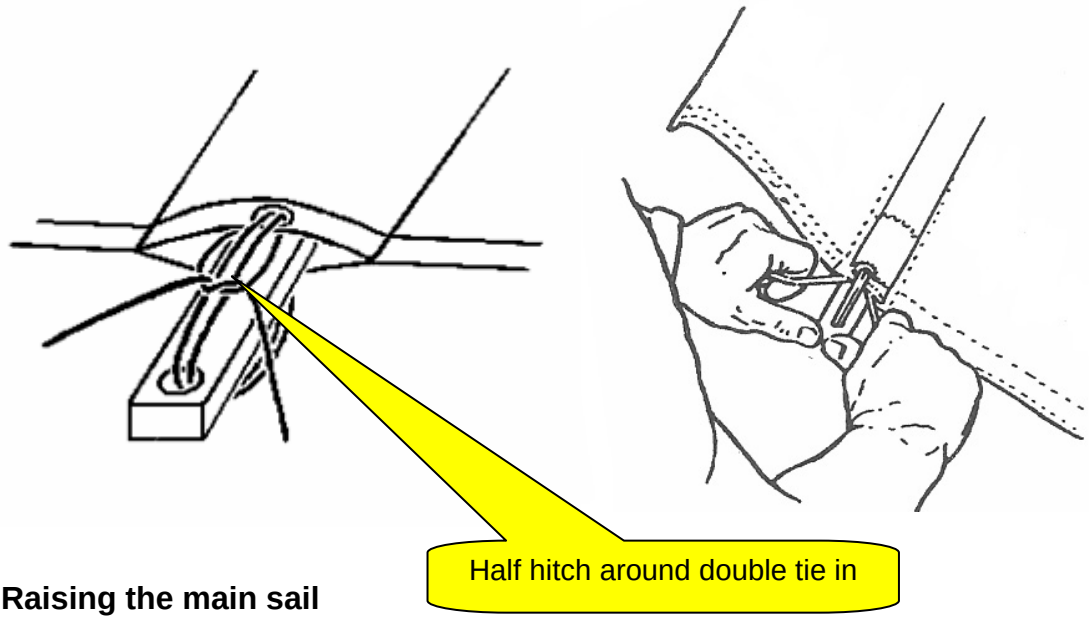
3.1. Preparing to sail

Now most of the essential equipment has been fitted properly, it is about time to set the sail and start out on the water. Before doing so, some work has to be done.

3.1.1. Battens

The main sail contains battens that assist in giving the sail its shape. Battens are numbered 1-7, top to bottom and are of different length.

- Roll the main sail out on a flat surface an slide the battens in their corresponding sleeves. Make sure the tapered end fits nicely into the plastic batten pocket ends.
- Run the 2 ends trough the hole in the batten, bottom to top and return the ends through the top eyelet, top to bottom. Move the batten to either side to make some room if the sleeve is a bit tight.
- Separate the ends on either side and apply a half hitch around the double tie in string snugly against the top eyelet, you just ran both end through.
- Push the batten inwards with both thumbs, whilst keeping an end of the tie string in either hand. The half hitch will prevent the batten from coming loose again. When sufficient pressure has been applied and the batten has the proper curve, secure the tie in string with a reef knot on top of the half hitch. Feed the remaining ends back into the pocket.
- When rolling up the main sail again, take out the batten nr.1 from the top pocket and stow it in a lower pocket.

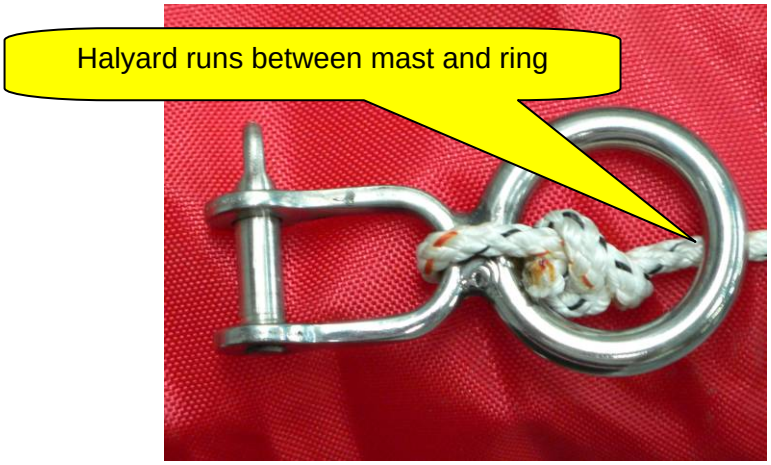


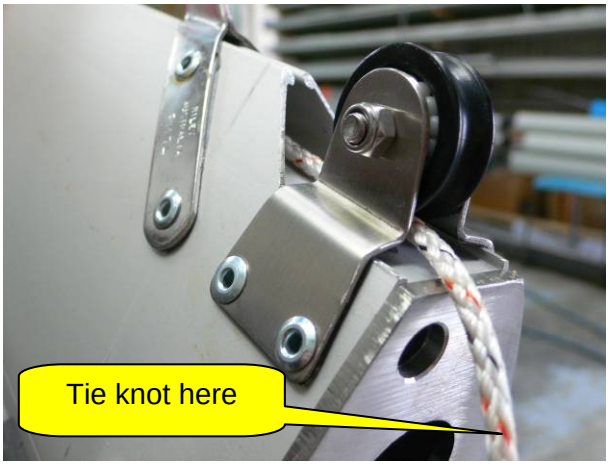
3.1.2. Raising the main sail

The main sail is raised using the main halyard that should already be fitted to the mast and to which the Aussie ring (a ring with a welded on shackle) is knotted on. Make sure the halyard has a small and tight knot to the ring and shackle part and an end knot where it exits the base halyard pulley at the bottom of the mast.

- Set the boat with its bows to the wind.

- Lay the main sail on the trampoline with the luff towards the mast track. Depending on how the main sail has been rolled, it may be required to unroll it complete for exposing the top eyelet.





- Attach the Aussie ring at the top eyelet of the main sail and ensure your self that the halyard is between the ring and mast track. If not the main sail will not engage the hook on the top of the mast.
- Just above the boom, the mast track opening is wider to allow the luff of the main sail to enter the track.
- Insert the main sail in the groove. Gently pull up the main sail using the halyard. Especially the pockets of the battens may need some assistance entering the groove.
- On top, the ring will snap over the hook and once the ring is over the hook, pull the main sail down to secure the ring in the notch of the top hook and feed the remaining luff into the mast track.
- Stow away the halyard line into the pocket of the trampoline.

3.1.3. Lowering the main

Lowering the main sail is somehow the reverse, but there are a few points to notice.

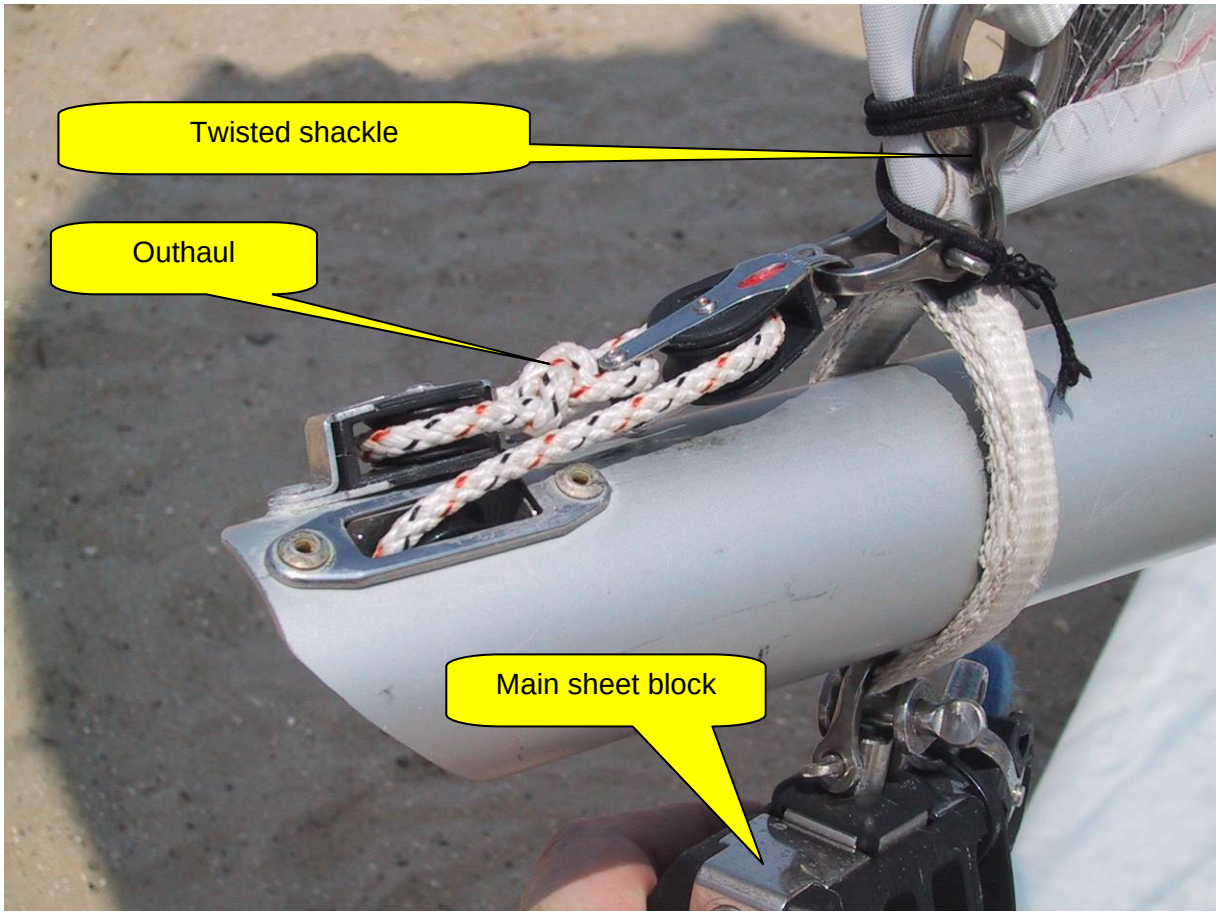
- It may be helpful to remove the boom from the clew before lowering the main sail.
- Pull the halyard, to lift the ring from the hook at the mast top and rotate the mast whilst keeping the main sail into the wind. To which side depends on where the halyard passes the hook.
- This should turn the hook out of the ring; with the mast still rotated pull the sail down from the hook. Align the mast and sail and the sail can be pulled down. Before rolling up the main sail take out the batten nr.1 from the top pocket and stow it in a lower pocket.

3.1.4. Setting the main sail

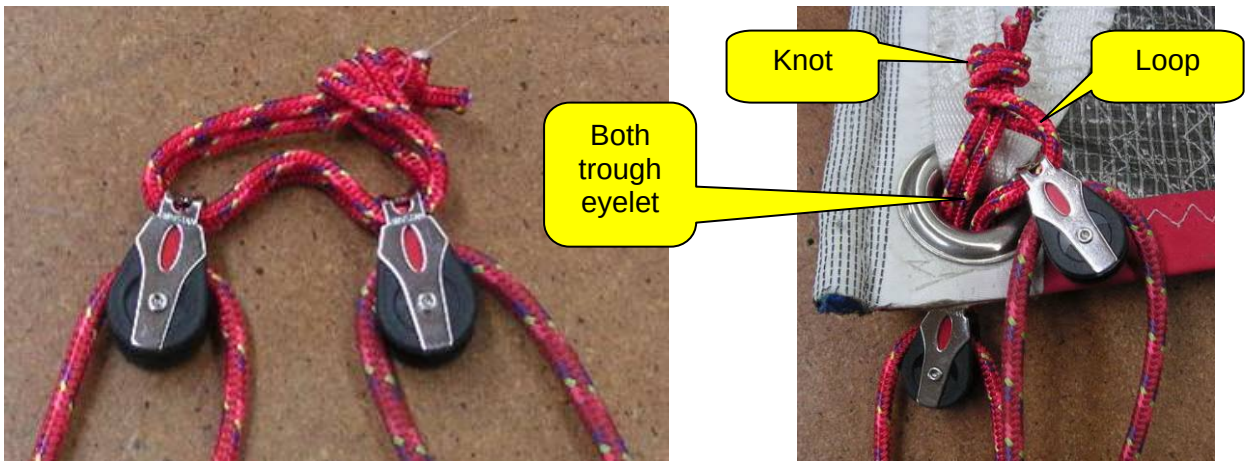
Keep the boat in the wind. The shape of the main sail is determined by 3 adjusters; Outhaul, main sheet and downhaul, also known as Cunningham. Each of them has to be set up to be able to sail properly.

- Connect the clew of the main sail to the strap over the back end of the boom. The strap has a twisted shackle sewn in on top, which the clew eyelet will fit into.
- Push the attached pin through the shackle (yes, the thread has been removed) and run the short shock cord, around the main sail and onto the pin to keep the pin locked in place. It is very easy to release the main by pulling the pin, for instance a quick action at beaching.
- Now connect the little outhaul block from the rear of the boom also to the twisted shackle.

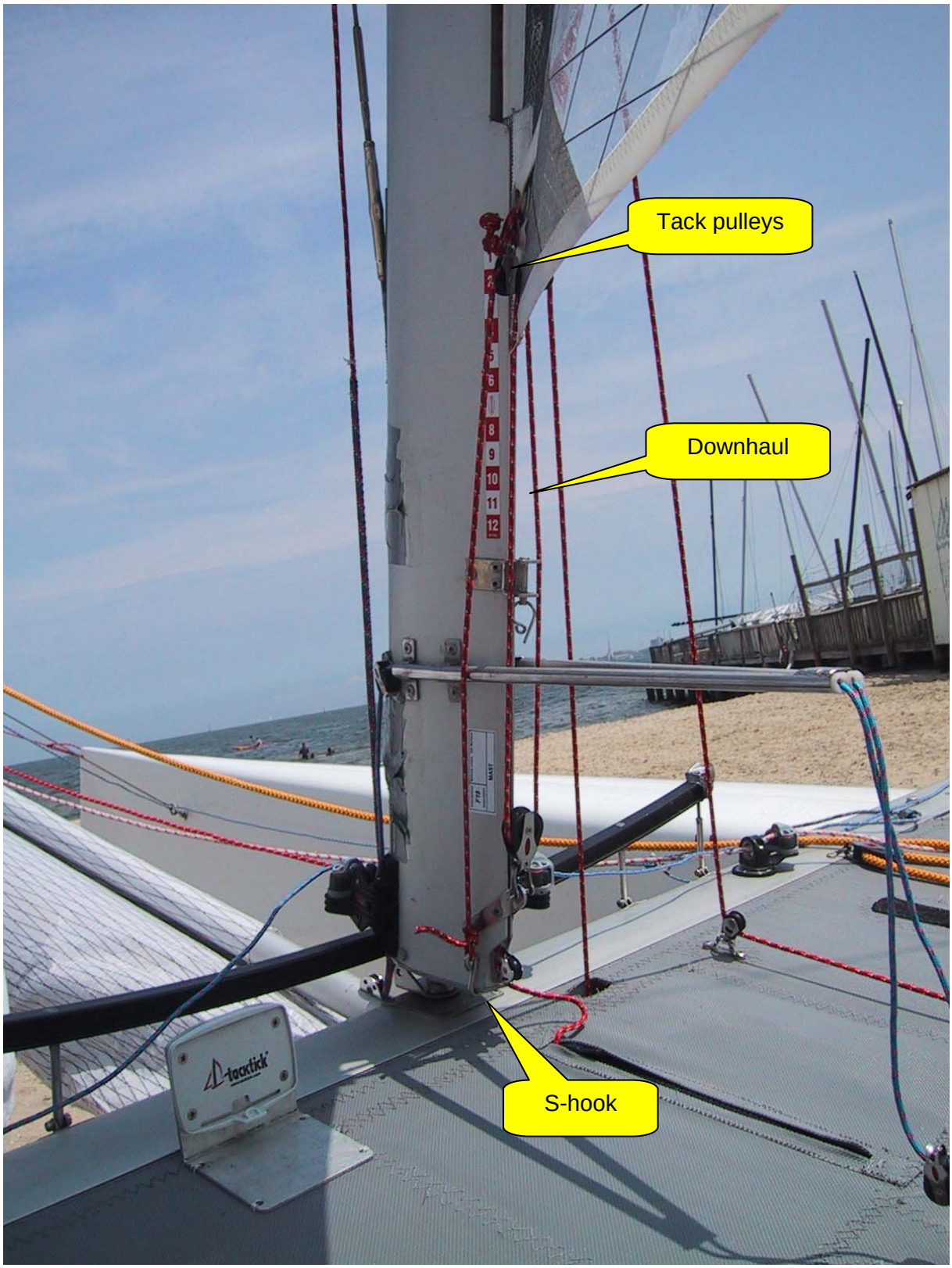
- Fit the bottom block of the main sheet system to the traveler car on the rear beam and secure the shackle.



- Locate the loose end of the main sheet and tie it to the loose end of the traveler line. Make sure the stopper on the traveler line prevents the traveler car from hitting the beam bolts at the ends of the traveler track.
- Hook on the top block of the main sheet system to the boom strap and make sure the main sheet has sufficient slack to allow the boom to swing freely for now.
- Connect the downhaul to the sail. It consists of 2 single tack pulleys that go either side of the main sail. Run the rope loop from one of the blocks through the eyelet of the main sail and tie it off to the other block by running the knotted end of the rope through the rope loop.



- The single bottom block is attached to a bracket just above the base of the mast.

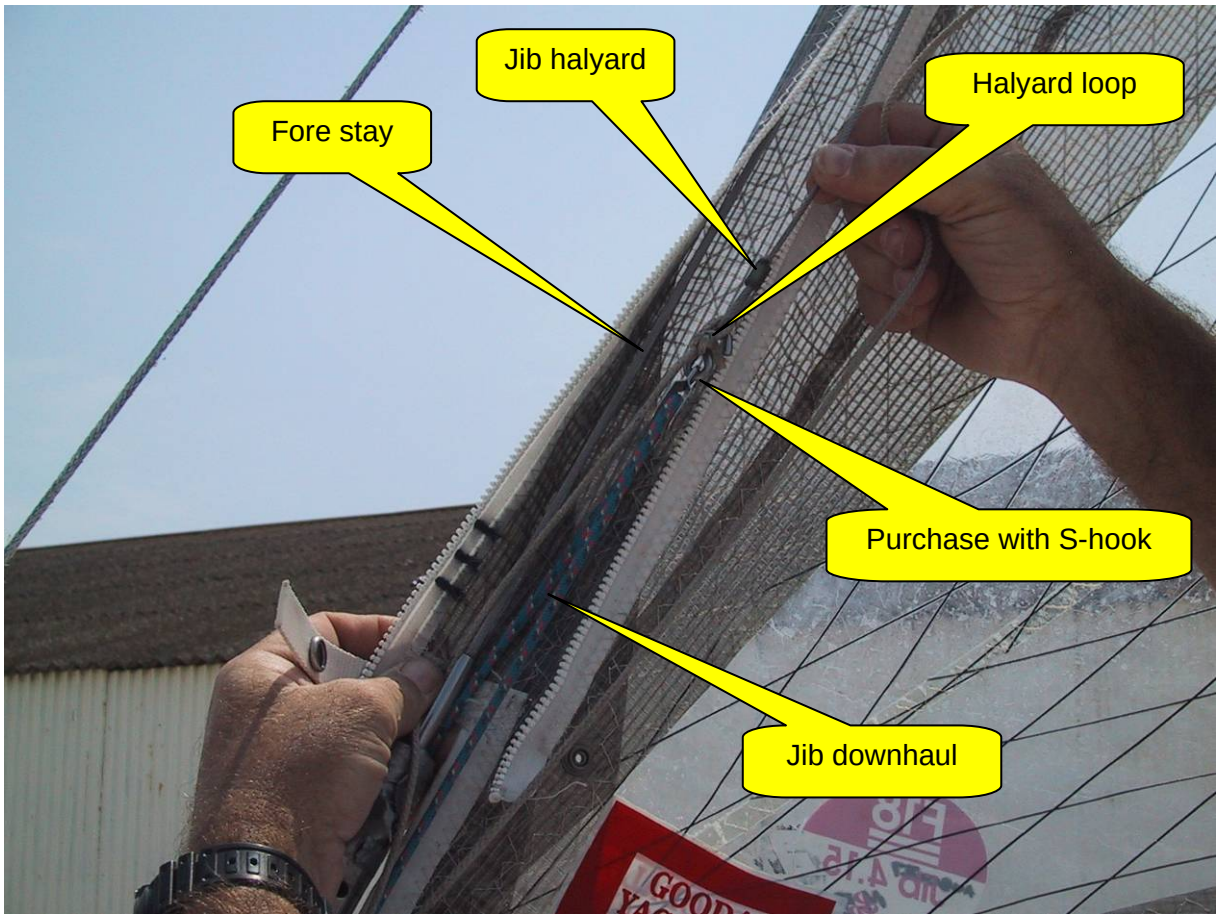


- The S-hook on the end of the downhaul rope hooks into a hole at the back of the mast base.

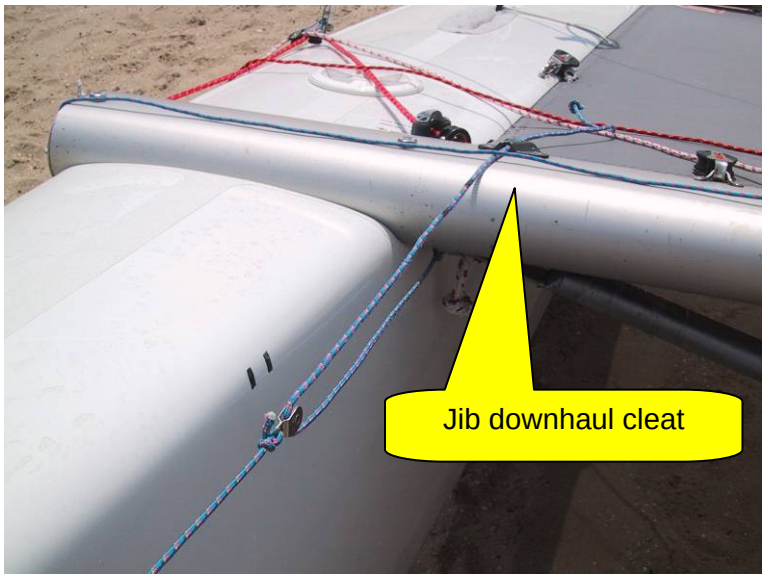
3.1.5. Raising the jib

The jib of the Capricorn F18 is self tacking.

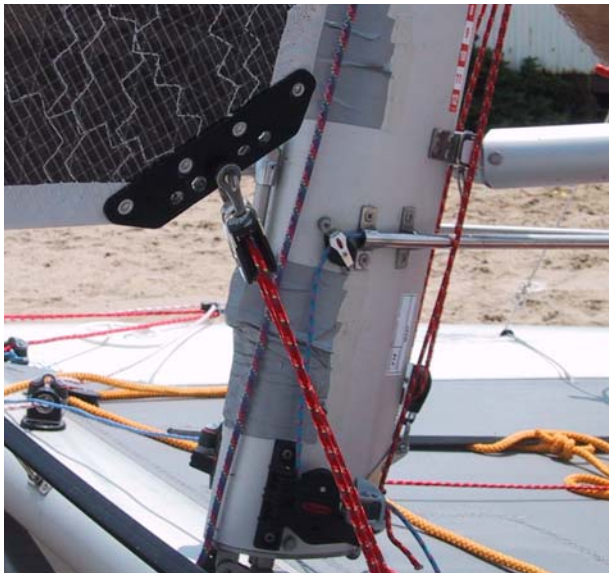
- Align the rolled up jib with the luff (that is where the zipper is) to the fore stay by standing between the bridle and the front beam.



- Attach the jib halyard to the top webbing loop of the jib and run both the fore stay and the halyard in the zip pocket.
- Pulling the halyard raises the jib. Some care must be applied when halyard loop enters the pocket from the top.
- When the jib is fully raised, fit the tack of the jib into the bracket at the bottom of the forestay adjuster.
- Attach the S-hook with the purchase of the jib downhaul to halyard eye. The jib downhaul line runs back through its pulleys on the bridle and chain plate to the cleat on front beam. The correct downhaul tension may be applied once the main sheet has been properly set. The remaining thin jib halyard might be folded into the zip pocket of the jib luff.



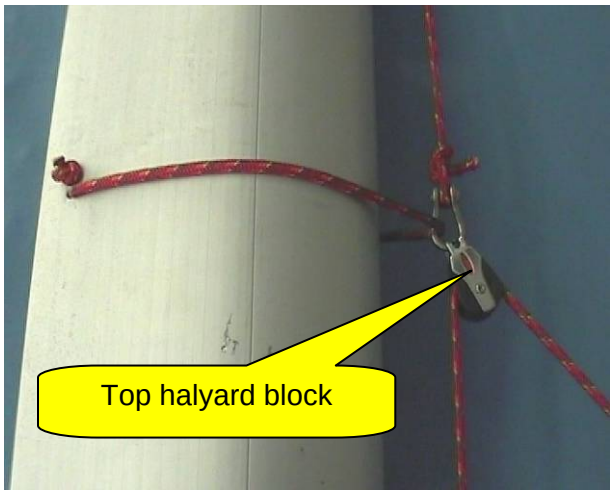
- Connect the jib sheet from the self tacker car to the clew of the jib. Selecting the appropriate hole on the clew plate will change the sheeting angle of the jib.

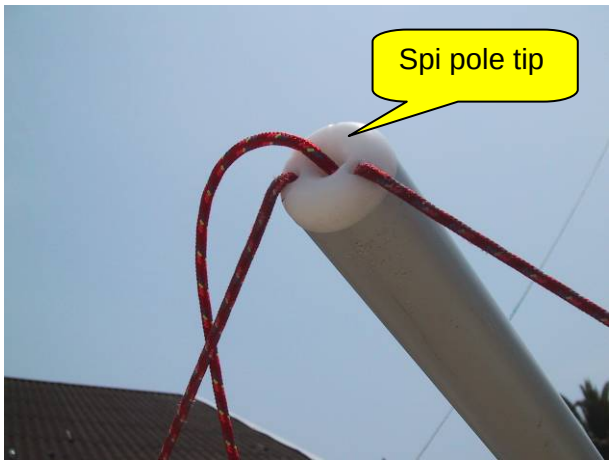


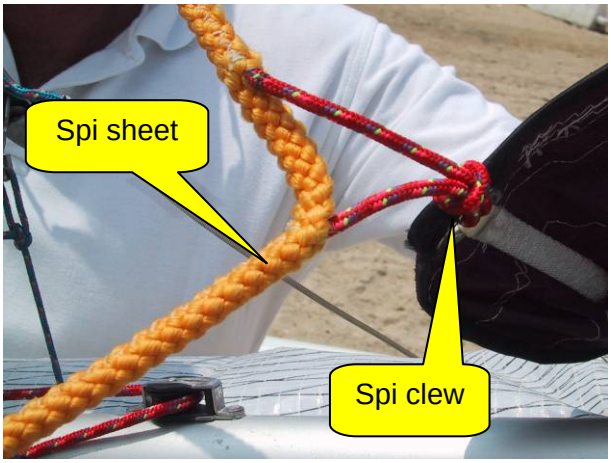
3.1.6. Raising the spinnaker

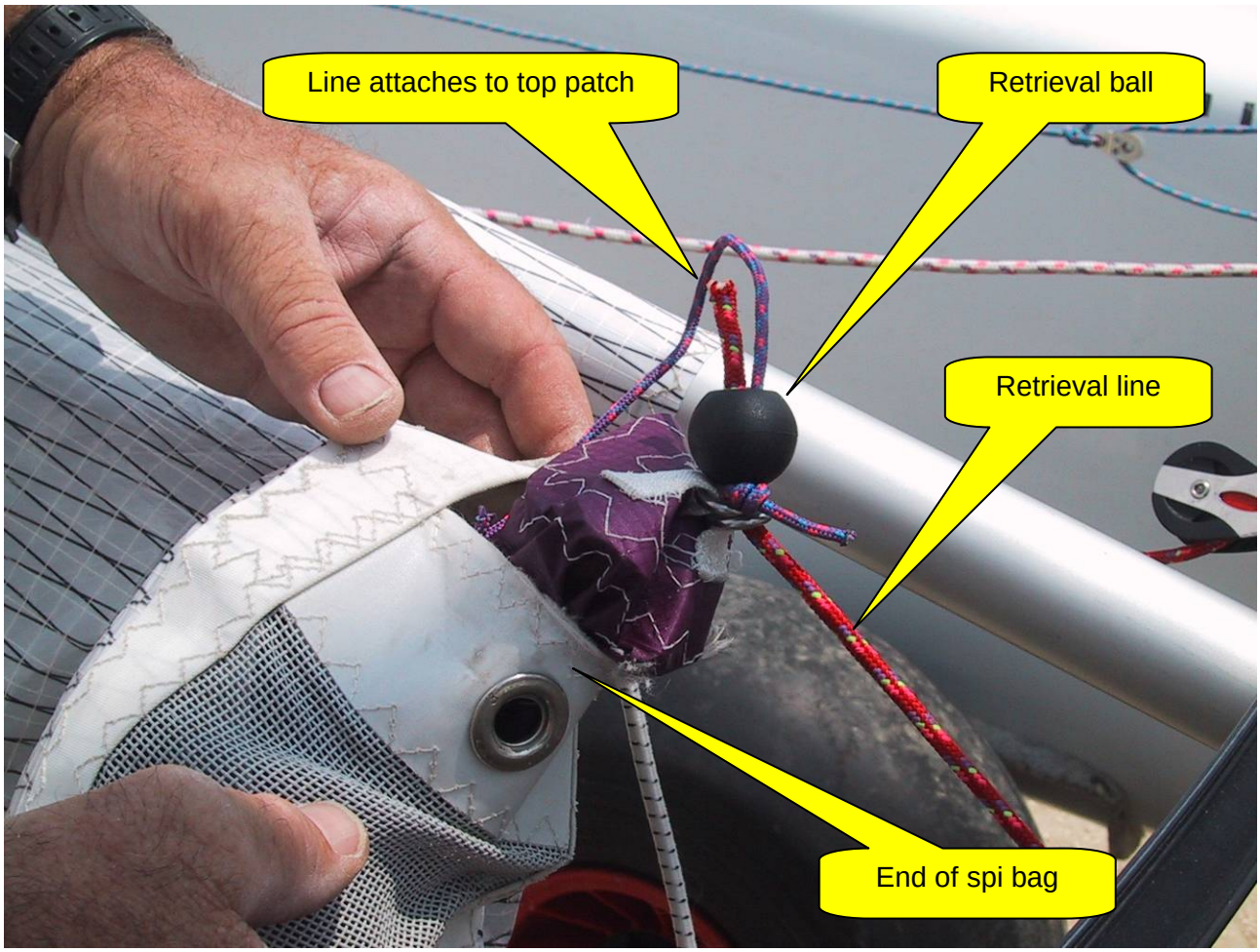
Raising the spinnaker on the water takes some preparation work ashore before setting out. This should be done in a sheltered area or only in light winds.

- Now set the boat with its stern into the wind and fold out the spinnaker from its bag.
- Attach the halyard coming from the mast top to the head eyelet and attach the line coming from the tip of the spinnaker pole to the tack eyelet.
- Run the retrieval line coming from the chute ring through the small ring of the lower patch, then through the middle patch, all the way up to the retrieval ball attached to the top patch. Tie the retrieval line to the retrieval ball.
- Now take the loop in the middle of the spinnaker sheet and put it through the clew eyelet of the spinnaker. Pass the spinnaker sheets through the protruding loop and secure the formed hitch firmly at the clew.
- Now hoist the spinnaker. Keep the spinnaker sheets a bit taut to let the spinnaker set properly. Take one of the spinnaker sheets and pass it inside the crew's trapeze wire connected to the end of the front beam. Run the end of the spinnaker sheet through the Smart Ratchet on the deck. Make sure that the sheet goes through the block in the direction as indicated by the arrow on the block. The sheet then passes from the Smart Ratchet to the turning block attached to the front beam.

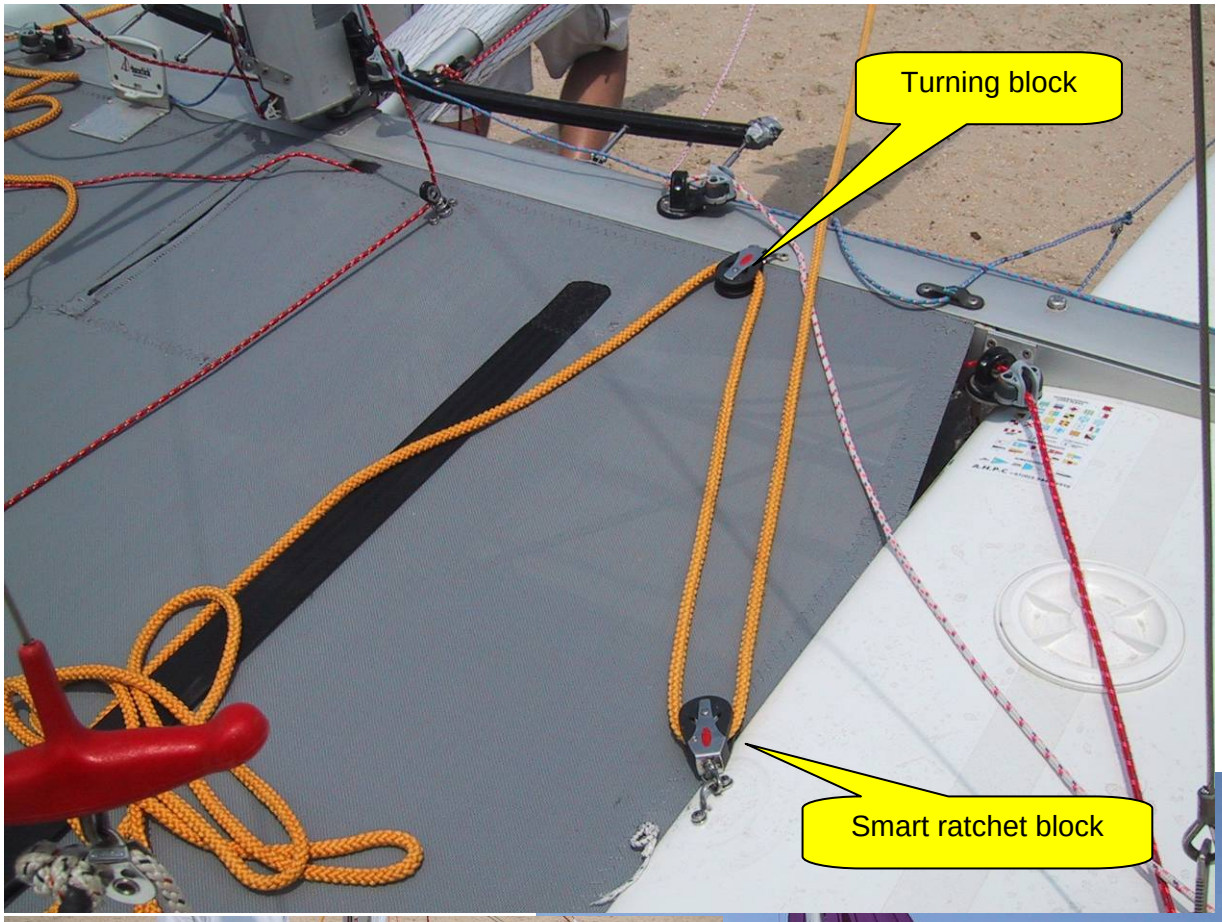








- The other end of the spin sheet passes around the forestay and is threaded through the spinnaker blocks the same as the other sheet. The tails of the spinnaker sheet are then tied together.
- When the spinnaker is set fully, unlock the cleat on the mast and pull at the retrieval line coming out of the trampoline. The spinnaker will fall and the ball will drop on the lower patch, pulling in the lower part of the spinnaker first. Keep pulling and the spinnaker will gradually enter the snuffer ring.
- The spinnaker is now ready to be hoisted after you have launched the boat.



Shock cord ring

3.1.7. Beach trolley

The best way to carry the boat to the water is using a beach trolley with appropriate shells, adapted to the shape of the hull. The shells preferably lined with felt or similar soft material to prevent damaging the hulls.
With the boat off the trailer, lift the front end (use stern supports for more comfort) and push the beach trolley under the hulls.
Set the trolley about halfway to have the boat balanced. It is a good opportunity to put all hardware on deck now for bringing the complete boat to the water line.

3.1.8. Launching

Make sure all hardware is present and set the boat on the beach trolley with its nose in the wind. Depending on the equipment fitted, perform the task according to the list below. This list is only meant as a guide for the inexperienced sailor.

- Make sure the dog bones of the trapeze wires are set at the required height.
- Check the spinnaker is correctly attached and stowed in its chute. Check that the spinnaker sheets run properly outside all other lines.
- Attach the main sheet to the traveller car and to the boom with sufficient slack.
- Raise the main sail. Connect the downhaul and attach the boom to the main sail but do not apply any sheet tension.
- Put the rudderstocks on their pins and do not forget to check they have snapped in below the locking plates. Keep the rudder blades locked in their up position for the moment.
- Connect the crossbar and the tiller extension; lay the tiller extension to the side from which launching will take place.
- Raise the jib, if not done already and lightly sheet it. This will prevent the jib from flapping in the wind.
- Check that you and your crew are wearing a proper buoyancy aid, trapeze harness, clothing and anything else that is required by local authorities.
- Roll the complete boat in the water, as soon as it floats, pull out the beach trolley from underneath and let the crew hold the boat in the wind by keeping the bow to windward.
- Set the dagger boards in their respective cases. They should be fully lifted for the moment. Alternatively the boards may be set only after launching when conditions require so.
- Climb aboard and lower the rudder blades, if sufficient depth is already present, snap them into their lower position, if not let them float freely. Steering may be done by trimming the sails in these conditions.
- Apply some tension the downhaul of the main sail to get some shape in the sail and let the crew come aboard. The crew should push the boat onto the correct tack before climbing aboard.
- Sheet in the main (helmsman) and jib (crew) and set the traveller for the proper direction, you are now on its way under sail. If depth allows lower the centre boards and rudders.
- Adjust mast rotation, downhaul and outhaul to what is needed for the given condition and course.

3.2. On the water

3.2.1. Recovery

Despite the fact that a catamaran is essentially a stable platform an involuntary capsize can happen in most conditions. Depending on the circumstances, the boat may either be on one hull with the mast tip in the water, or it can be completely upside down
The Capricorn F18 requires a minimum crew weight of 130 kg to right the boat. Besides the required righting line on the underside of the trampoline, a few tips will assist in a quick recovery from a capsized catamaran:

- As soon as you hit the water, release yourself and the crew from all lines in which you might be entangled, including the trapeze wire and do not let the boat out of your reach. Grab a hold on any piece of the boat you can; swimming with buoyancy aids will be slow and the capsized boat may drift faster away than you can swim.
- Climb up one hull as soon as possible and always release the downhaul, mainsheet, traveller, jib sheet and spinnaker sheet. This will assist in righting the boat and help prevent the boat from leaving you after righting.
- If the spinnaker was in use at the time of the capsize then it must be pulled into the spinnaker chute.
- It is essential for righting the boat to point the mast to windward. If not already the case, let the boat pivot itself by standing on the tip of the lower hull. Slowly the boat will point its mast to windward.
- Grab the righting line from under the trampoline and position yourself and crew around on the lower hull between the front beam and the centre board casing.
- Use your weight effectively by trapezing from the righting line using the trapeze hook from your harness. Lean out as much as you can. The mast will lift from the water slowly with sufficient weight on the righting rope. Be patient. It can take same time, but as soon as the mast is out of the water, the wind will assist you by blowing onto the trampoline.
- If no progress is felt; make sure all lines are freed, especially the downhaul and main sheet. Make sure the mast is pointing to windward, this is essential.
- As soon as the boat is upright, grab the dolphin striker. This will not only keep the boat from capsizing to the other side, but will also keep you and the crew connected to the boat.
- Climb aboard over the front beam and use the dolphin striker as a step. If this is too high, alternatively let yourself float (keep hold of the righting line) under the trampoline and use the rear beam to get aboard.
- Once you and your crew are aboard, check all lines and orientate yourself about your current position. Continue your initial course or head back when the damage is serious enough to prevent continuation, or if you and the crew have been injured.
- To recover from a full capsize (mast pointing down) the first priority will be to revert to a normal capsize situation. Grab the leeward centreboard, or righting line and lean out as far as you can, level with the water. Be patient as the boat will gradually lift itself, once the trampoline is out of the water, the wind will assist you.

4. Tuning

To achieve good results in regattas or just for fast sailing, it is important to set up the boat for the conditions of the day

The Capricorn is a very fast high performance F18 with impeccable handling qualities. When you first sail one you are aware that every thing happens very quickly. This can also include getting into trouble. As a result it is important that the set up of your boat is kept clean, simple and efficient. Things that tangle or are difficult to adjust should be eliminated. Almost any system can be made to work in light winds but if it doesn't work in strong winds then you would be better not having it on the boat.

The rig of the Capricorn is derived from latest A-Class developments and is quite different from traditional F18 set-ups.
This shows especially with the adjustment of the mast rotation. In contrast to basically all other F18 boats, the mast rotation on the Capricorn is reduced with increasing wind speed

The main sail has a special cut. The panels have already a built in twist. Thus the sail opens nicely even when sheeted relatively hard, which helps to maintain a flat and twisting sail in strong winds. This means also that the sail must be sheeted very hard in light to medium conditions to compensate for the built in twist and to close the upper part of the leech.

4.1. Platform

It is important to have your Capricorn F18 as stiff as possible; ensure that the beam bolts have been tightened properly with 20Nm each. The beams pads should be fully moulded around the beam profile. If necessary reseating the beams will improve the overall stiffness of the platform. Keep the tramp laced up tight as this makes it much easier to move about on the boat.

4.2. Rudder alignment

The steering and feel of the Capricorn is very light when compared to most F18 catamarans. Correctly aligning the rudders will have a marked effect on the feel and performance of the boat
The rudder alignment is checked by measuring the distance between the leading edges of the rudders and then measure the distance between the trailing edge of the rudders.
The rudders need to set up so that they have 0 - 2mm of toe-in. The leading edges of the blades are closer together than the trailing edges.
Adjust the length of the tiller crossbar if necessary.

4.3. Rig tension

The rig tension is in general high to avoid the forestay sagging. The limit is passed if the mast no longer rotates easily, in this case the tension should be slightly reduced.

- For light winds set the side stay tension at approximately 50kg
- In strong winds set the side stay tension at approximately 100kg

4.4. Mast rake

Mast rake affects the trim and balance of the boat. If the boat is sailed with too much mast rake the boat feels a bit heavy on the rudder, and the acceleration out of the gust becomes a bit slow. Insufficient mast rake on the other hand can induce a feeling of lee helm when sailing the boat and pushes the bows down when sailing downwind.
The mast rake is measured with the forward trapeze wire.

- The distance to the attachment point of the forestay (bridle) in the hull is measured. This requires the trapeze to be extended with a rope. Mark the rope where it hits the chain plate.
- Swing the front trapeze to the back of the boat as it takes the distance measured to the transom.
- The end point of the marker taken should be about 10cm below the upper edge of the transom for a normal crew weight.
- Light crews (140 kg or less) can go all the way to the lower transom gudgeon.
- Heavy crews should sail with slightly less mast rake.
- In general the mast rake on the Capricorn F18 is quite substantial compared to other F18 boats.
- The factory setting mast rake will be achieved when setting the pin of the fore stay in the forestay adjuster on the 3rd hole from the top.

4.5. Spreader rake

Spreader rake is a method of tuning the fore-aft stiffness of a mast below the hound (fixing point of stays and trapeze). The ideal amount of spreader rake is depending on the fore-aft stiffness of the mast and to a lesser extent the amount of luff curve cut into the sail:

- Stiff masts require more spreader rake to bend the mast sufficiently.
- A soft mast requires less spreader rake.
- If you have excellent height, but lack boat speed upwind and the boat does not want accelerate in a gust, more spreader rake is needed. This helps the mast to bend fore and aft, allowing the sail to flatten and the leech to open in the gusts. See also the diamond tension sections.
- If you are lacking height and "grunt" in light to medium winds, you need less spreader rake.

Settings depend on the weight of the crew but currently we recommend:

- Heavy crews may start at 25 mm.
- Light crews may end with 55 mm.
- Factory setting is 35 mm.

4.6. Diamond tension

The tension on the diamond wires primarily controls the side bends of your mast. Loose diamonds allow the middle of the mast to bend to leeward and the top of the mast to hook to windward. This tends to cause the boat to heel very easily in wind gusts. Very tight diamonds do the opposite. Downwind, tight diamonds keep the mast bent reducing camber and power.
On the Capricorn F18 the factory diamond tension is set at 30 - 34 on the Loose gauge.

4.7. Pre-bend

Pre-bend of a mast is the result of diamond tension, spreader arms rake and mast stiffness. These days we do not really measure the pre-bend; the same pre-bend can be achieved by varying the amount of spreader arm rake and the diamond wire tension on a given mast. This is even further confused when the mast stiffness varies.

4.8. Batten tension

Battens should be shaped to match the general curvature of the sail. The battens that are recommended and used for the Capricorn F18 are the Fibrefoam battens. These battens are a fibreglass foam sandwich construction that is light, strong and have excellent bend characteristics. Batten stiffness can affect the camber and twist characteristics of a sail. They are an important aid for tuning your sail and rig.

Battens should be tied firmly into the sail to remove creases along the batten pocket when sailing.

- Stiff battens hold the sail flat and help to twist the sail more easily, reducing power.
- A soft batten allows the sail to develop more camber and reduces the leach twist, increasing power.

On the table below the recommended setting per batten has been indicated. Batten stiffness and the bending apex point can be influenced by filing or sanding the batten on the top and bottom, never on the sides. Note that given settings may vary in time upon the cut of the sail and utilisation of different fabrics. In doubt always consult your local dealer or AHPC directly for the best settings on the sail supplied.

Batten number (top-bottom)	Batten length (mm)	Pressure to start bending (kg)	Bending apex From front (%)	Bending apex from front (mm)
1	1.100	2,5	44	484
2	1.220	2,0	44	537
3	1.520	1,4	44	669
4	1.785	1,2	44	785
5	2.015	1,0	44	887
6	2.160	1,0	44	950
7	2.225	1,0	44	979

Battens need to be looked after and stored so that they do not become permanently bent or twisted.

4.9. General Sailing Philosophy of Catamarans

"It doesn't matter where you are going as long as you are going there fast."

The element of truth in this statement is that boat speed is ultimately important.
Go fast. Look for pressure then angles; opposite priority compared to dinghy.

4.10. General settings

In the diagrams below, the adjustable parameters are given for a certain wind condition and course, using it as guide lines will make you get control over the boat more quickly. However applying those guide lines will not increase your knowledge of how end why, if you are not open to trail and error and relying on your own judgement. If in doubt, look around, do what top sailors do and ask why they do this. There is no magic, just experience and understanding the elements and your boat.

Upwind	Light wind 1-5 knots	Medium wind 6-15 knots	Strong wind 16-25 knots
Crew	No trapeze	Both trapeze	Both trapeze
Hull attitude	Nose down	Level	Nose up
Main traveller	Middle	Middle	Middle
Main sheet	Medium	Hard	Slightly less hard
Main tell tales	Upper flow correctly	Flowing both sides	
Main downhaul	Just no horiz. wrinkles	Light - Hard	Extremely hard
Outhaul	100 mm from boom	20-30 mm from boom	Minimum
Mast rotation	Pointing to front of dagger board	Reduce as wind increases	Up to 20 knots 25° Above 20 knots 15°
Jib sheet	Light Traveler 100mm from end.	Adjust to control leech twist	Hard
Jib downhaul	Just no horiz. wrinkles	Firm	Tight
Centre boards	Down	Down	200 - 300mm up

Downwind	Light wind 1-5 knots	Medium wind 6-15 knots	Strong wind 15-25 knots
Crew	No trapeze	Crew only trapeze	Crew only trapeze
Hull attitude	Nose down	Level	Nose up
Main traveler	Out 300 -100	Middle	Middle
Main sheet	light	Medium - Hard	Hard
Main tell tales	Flowing both sides	Flowing both sides	Top windward not flowing
Main downhaul	Just no horizontal. wrinkles	Light - Hard	Extremely hard
Outhaul	100 mm from boom	20-30 mm from boom	Minimum
Mast rotation	Pointing to front of dagger board	Pointing to front of dagger board	Pointing to front of dagger board
Jib sheet	Light	Adjust to control leech twist	Jib fully off but not flapping
Jib downhaul	Just no horiz. wrinkles	Firm	Tight
Centre boards	Down	200 - 300mm up	500mm up
Main traveller	Middle	Middle	Middle

5. Maintenance

As like all equipment, care of your boat will result in better appearance, as longer life and a smoother functioning of all components. A few tips might help you:

- After each trip on salt water, spray off with fresh water to avoid salt deposits on blocks, traveller and joints. On fresh water still traces of mud or algies can appear, rinsing off is always a good idea.
- Rinse out the blocks and lines of the main sheet and the jib, or in general all items that can came off the boat.
- Keep the centreboards and rudderstock in their covers, dry and clean, when not fitted to the boat. In this way, they are protected from scratches and dents.
- The mainsail is best rolled up top to bottom when it is dry, with the diagonal battens (usually the top one) taken out. Whilst rolling, keep the remaining battens straight and avoid any excessive twist, or a too tight rolling up as this may finally lead to delamination of the fabric.
- The jib is best rolled from top to bottom too when it is dry, but as it has no major battens, rolling up is easy.
- Store the sails best in their sail bags, with no heavy items on top. Dry, dark and without frost is always good to maintain the quality of the sails.
- When storing on the beach, make sure sufficient anchorage is provided to keep the boat aground under heavy winds. Do not forget that a wing mast alone exposes a surface of about 1, 5 m² to the elements. It is not recommended to store the hull directly on the sand or grass; osmosis and colouring can occur. It is better to use designated supports to keep the boat from the ground. For tying to the ground, use a line of sufficient strength and padding on exposed parts of the hull. Also ratchet belts can be used. Always use the strong points of the boat to tie it to the anchorage points. They are the beams, dolphin striker and side stay chain plates.
- It is recommended using a cover over the trampoline for storing out in open air. Ultra violet, that is present in sunlight, can cause the yarn used for sewing to dissolve in long terms. Also the deposit of birds on the trampoline etc. is avoided.
- Keep the tires of the beach trolley well inflated to the recommended pressure. Check the tires for the manufacturer's advice in this matter.
- Make sure to check the hulls for water after each trip. Open the inspection hatchets aft on the hulls. As there are no draining plugs, water can be removed using a sponge
- At regular intervals check the blocks for smooth running and if the need arises, spray a little amount of Teflon based lubricant into the wheels. Roll the sheaves by hand to distribute the lubricant.
- Check the rigging for loose strands. If one should be found, tape it, as they can cause nasty wounds when entering your skin by accident. In any case it is an item to be replaced. Not only for the risk of injury, but also for the reduction in strength.
- Knots and permanently attached shackles should be kept tight at all times.
- Lock rings and spring should be taped to prevent them from becoming loose and a risk of injury.

6. Transportation

The Capricorn F18 is light and narrow enough to be easily transported over roads, behind any car, using a catamaran trailer; however some precautions must be taken.
The hull are best kept on a padded shell, distributing the load evenly over the hull, when tying down the hulls for transportation Even better it would be to support and fix the front beam, leaving the hulls there without support and additional tying down.

7. Parts

7.1. Lines specification Capricorn F18

In case lines need to be replaced, please see the table below for the lines that were fitted originally. In time the specification may be altered due to new designs of components. When replacing lines with others than originally fitted, make sure the specifications are equal or better than the original.

Reference	Description	Quality	Length (m)
	Mainsail halyard	Spectra-4Red	18.5
	Rotation	Polyester-4Yellow	8,5
	Downhaul M/Sail Tack	Spectra-4Red	2,5
	Main Sail Tack	Spectra-4Red	0,7
	Downhaul Beam	Spectra-4Red	2,0
	Downhaul Beam	Polyester-5Red	8,0
	Spinnaker Halyard, part A	Dyneema-3.0Blue	12,0
	Spinnaker Halyard, part B	Spectra-4Red	19,8
	Jib Line	Spectra-4Red	3,0
	Jib Sheet	Polyester-5Orange	10,0
	Main Sheet	Matt Polyester 8mm	10,0
	Righting rope	Double Braid-08W	4,0
	Tramp lacing	Spectra-3Pur	4,0
	Toe strap lacing	Spectra-3Pur	1,0
	Jib luff Tension A	Spectra-4Pur	3,0
	Jib luff Tension B	Spectra-4Pur	2,0
	Righting rope & spinnaker tramp shock cord	SC-4Blk	3,5
	Trapeze shock cord skipper	SC-4Blk	3,7
	Trapeze shock cord crew	SC-4Blk	2,7
	Control line shock cord	SC-4Blk	4,0
	Centreboard up-hauls	12mm Webbing	3,6
	Tack	Spectra-4Red	4,3
	Pole ring brace	Spectra-3Pur	1,0
	Pole ring anti foul	Polyester-3Pur	4,5
	Pole bridle rope	Spectra-3 Pur	0,5

7.2. Parts list Capricorn F18

The parts list below is a guide for acquiring replacement parts from either your local dealer or AHPC directly. Due to our aim keeping the Capricorn F18 in the best possible configuration and the facts that our manufacturers update their product range too, this list may see changes in time. When ordering parts, please state your hull number as to identify the time of manufacturing and original specification, the parts reference, its designation (colour) and the quantity needed. In case the part required is no longer available, please do not hesitate to contact your local dealer or AHPC directly for advice on a replacement part.

Reference	Description	Usage	Quantity
	Hull		
GYS	Hull - ultra stiff glass foam sandwich construction with Vynalester resin		2
	Front beam		
GYS500	Capricorn front beam	Main beam	1
GYS505	Alloy internal beam bracket	Main beam	2
GYS508	Dolphin striker	Main beam	1
GYS509	Striker strap (stainless steel)	Main beam	1
M8	Washer	Main beam	2
M8x35	Striker strap bolt	Main beam	2
M10	Washer	Main beam	4
M10x130	Bolt	Main beam	4
GYS506	Plastic front beam end plate	Main beam	2
GYS306	Main beam pole mount	Spi pole	1
RF661	Single block, tubular rivet	Control line retrieval	2
RF662	Double block, tubular rivet	Control line retrieval	2
M5x35	PH X RMT	Control line retrieval	2
M5 Nyloc	Nut	Control line retrieval	2
RPSC-4	Shock cord 4mm x 15m	Control line retrieval	1
RF134	3/16" Saddle	Righting rope	2
RPSC-4	Shock cord 4mm x 2,8m	Trapeze	1
TLPD650	Pop rivet	Main beam	14
TLPD639	Pop rivet	Main beam	6
M5x12	PH XR m/t.	Main beam	4
	Rear beam		
GYS510	Capricorn Rear Beam	Rear beam	1
GYS515	Alloy Internal Beam Brackets	Rear beam	1
GYS517	Rope buttons & rivets	Rear beam	11
M10	Washer	Rear beam	4
M10x130	Bolt	Rear beam	4
GYS516	Plastic rear beam end plates	Rear beam	2
M5x12	PH XR m/t.	Rear beam	4
RF1058	Saddle	Traveller	2
RF134	3/16" Saddle	Toe strap	2
TLPD639	Pop rivet	Rear beam	4
	Foils & rudders		
GYS	Centreboard carbon construction incl. cover		2
GYS	Rudder blade incl. cover		2
GYS	Rudder stock with lock down system		2
GYS	Complete crossbar		1
GYS	Complete tiller extension (black comp.glass)		1
	Deck & hull fittings		
	Trampoline, 1 piece black or grey mesh, toe straps, halyard pocket.		1
12x1800	Alloy tubing	Trampoline	1
XLR-3	Rope 3mm x 4m	Trampoline	1
XLR-3	Rope 3mm	Toe strap	1
XLP-4W	Heavy webbing 12mm x 3,6 m	Centreboard uphaul	1
M5 Nyloc	Nut	Gudgeons	16
M5x20	PH XR m/t.	Gudgeons	16
3/16"	OS washer	Gudgeons	16

Reference	Description	Usage	Quantity
PNP55	Rudder stock retaining clip	Gudgeons	2
MM8-4	Viadana rudder gudgeons	Gudgeons	4
3/8"x6#	Screw for PNP55	Gudgeons	6
3/8"x6#	Screw	Hatch cover	16
RF530	Hatch cover (large size	Hatch cover	2
XLR-4Pur	Downhaul beam 4mm x 2m	Luff tension	1
XLR-4Pur	Downhaul M/Sail tack 4 mm x 2,5m	Luff tension	1
XLP-5R	Excel Pro rope (red) 5mm x 8m	Luff tension	1
XLR-4R	Downhaul M/Sail tack 4mm x 0,4m	Luff tension	1
RF50	S-Hook	Luff tension	1
RF418	Single block tubular rivet	Luff tension	1
HA2030	Single block	Luff tension	1
RF616	Shackle	Luff tension	1
HA2020	Micro block single	Luff tension	4
RF67	Swivelling cleat with deadeye	Luff tension	2
GYS520	RF 67 bracket	Luff tension	2
RF20151A	Micro cheek block	Luff tension	2
TLPD675	Pop rivet	Luff tension	2
TLPD639	Pop rivet	Luff tension	12
TLPD545	Pop rivet	Luff tension	2
DB-8	Double braid 8mm x 4m	Righting rope	1
RPSC-4	Shock cord 4mm x 4m	Righting rope	1
PNP52-C	Plastic ring	Righting rope	1
RF1806	5/32 Shackle	Righting rope	1
HA2020LZ	Stand-up block	Spinnaker halyard	1
HA2030LZ	Stand-up block	Spinnaker halyard	1
M5x35	PH XR m/t.	Spinnaker halyard	4
M5 Nyloc	Nut	Spinnaker halyard	4
PNP11	Plastic ring	Spinnaker halyard	1
RF42100	Smart ratchet	Spinnaker sheeting	2
RF2040	Single block	Spinnaker sheeting	2
RF134	3/16" Saddle	Spinnaker sheeting	4
M5 Nyloc	Nut	Spinnaker sheeting	4
M5x20	PH XR m/t.	Spinnaker sheeting	4
3/16"	OS washer	Spinnaker sheeting	4
TLPD639	Pop rivet	Spinnaker sheeting	4
RPSC-4	Shock cord 4mm x 3,2m	Trapeze	1
GYS201	DB-6 twin tail traveller rope.	Trapeze	1
RC11922	Traveller car	Trapeze	1
RF1315	Parrel bead	Trapeze	1
GYS400	Code flag stickers	Hull	2
GYS410	Hull foot loop	Hull foot loop	2
RF27	Toe strap plates	Hull foot loop	4
3/16"	OS washer	Hull foot loop	8
TLPD675	Pop rivet	Hull foot loop	8
	Mast & fittings		
GYS186	Wing mast	Mast	1
GYS78	Base Plug	Mast	1
GYS74	Hinged mast step	Mast	1
GYS4	Heavy duty external hound	Mast	1
GYS24	Gooseneck	Mast	1
GYS10B/C	Heavy duty halyard lock	Halyard	1
RF568		Halyard	1

Reference	Description	Usage	Quantity
RF264		Halyard	1
RF114		Halyard	1
XLR-4R	Excel Racing 4mm x 18,5 m	Halyard	1
GYS012	Mast base halyard sheave	Halyard	1
GYS33	Diamond upper tang	Diamonds	2
GYS142	Adjustable diamond arm	Diamonds	2
	Diamond wire 4mm wire swaged turnbuckle	Diamonds	2
RF604	Luff tension tang	Luff	1
XLP-4B	Excel Pro 4mm x 8m	Mast rotation	1
RF20151A	Micro cheek block	Mast rotation	2
GYS81	Mast spanner	Mast rotation	1
RF5	Swivel cleat	Mast rotation	2
HA2020	Micro block sheave	Mast rotation	1
RF615A	Shackle	Mast rotation	1
RF666	Single block	Jib luff tension	2
RF663	Single block	Jib luff tension	1
RF614	3/16" Narrow D-shackle	Jib luff tension	2
XLR-3Pur	Excel racing 3mm x 3m	Jib luff tension	1
XLR-3Pur	Excel racing 3mm x 1,5	Jib luff tension	1
CLM241AP	Clam cleat	Jib luff tension	1
RF5	Swivel cleat	Spinnaker	1
RF134	3/16" Saddle	Spinnaker	1
HA2030	Single block	Spinnaker	1
XLR4	Excel Racing 4mm x 1,2m	Spinnaker	1
XLR4	Excel Racing 4mm x 0,4m	Spinnaker	1
RF614	3/16 Narrow D-shackle	Spinnaker	1
XLD-3	Blue halyard 3mm x 12m	Spinnaker	1
RF20281	Double Block-inline	Spinnaker	1
GYS540	Alloy mast head cap	Mast	1
PN1706	Luff number strip	Mast	2
M5x12	Screw	Mast	2
TLPD639	Pop rivet	Mast	60
	Rigging		
GYS	Side stay with StaMaster adjuster	Stay	2
GYS	Fore stay with RF 666 pulley	Stay	1
GYS	Forestay strop	Stay	1
HA4904	Jib furler	Stay	1
RF78B	Fork & eye swivel	Stay	1
RF616	Shackle	Stay	1
GYS	Jib halyard	Stay	1
GYS135	Forestay adjuster	Bridle	1
GYS	Front bridle	Bridle	1
GYS	Trapeze wire	Trapeze	4
RF636	Hound 5/16" bow shackle	Trapeze	1
RF635	Trapeze hound shackle	Trapeze	1
RF617	1/4" Narrow D-shackle (modified)	Bridle	2
	Boom		
GYS	Boom section 50mm x 2,35m	Boom	1
PS4	Pre stretched rope 4mm x 2m	Clew outhaul	1
RF616	Shackle	Clew outhaul	1
RF20711	Sheave box	Clew outhaul	1
RF20151A	Micro cheek block	Clew outhaul	1

Reference	Description	Usage	Quantity
RF20111	Micro block with becket	Clew outhaul	1
RF5	Swivel cleat	Clew outhaul	1
LR0172	Mainsheet rope 8mm x 10m	Main sheet	1
HK2631	Carbo quad block	Main sheet	1
HK194s	Ratchet triple with becket and cleat	Main sheet	1
HK2650	Carbo single block	Main sheet	2
RF616A	Clew shackle with webbing boom loop	Main sheet	1
RF134	3/16" Saddle	Rotation	
TLPD693	3/16" Pop rivet		
TLPD545	5/32" Pop rivet		
	Self tacking jib		
RPVB-3	VB Cord 3mm x 5m	Jib furler	1
RF20151A	Micro cheek block	Spinnaker pole	1
HA2020	Micro block sheave	Jib sheeting	2
RF616	Shackle	Jib sheeting	1
RF67	Swivelling cleat with deadeye	Jib sheeting	2
XLR-4R	Jib rope – pole 4mm x 3m	Jib sheeting	1
XLP-5W	Jib sheet – beam 5mm x 10m	Jib sheeting	1
HA4491	Self tacking jib system	Jib track	1
HA2030	Single block	Jib track	1
TLPD693	3/16" Pop rivet		14
TLPD545	5/32" Pop rivet		2
	Spinnaker pole & sheeting		
	Spinnaker pole 40mm x 3,645m		1
GYS530	Pole end plug	Spinnaker pole	1
3/4" x #6	RH XR ST screw	Spinnaker pole	1
GYS303	Spinnaker ring & chute	Spinnaker pole	1
XLR-3Pur	Pole ring anti foul 3mm x 0,45m	Chute	1
SC-4	Shock cord 4mm x 0,4m	Chute	2
PNP13B	Snap hooks	Chute	2
XLR-3Pur	Pole ring brace 3mm x 1m	Chute brace	1
RF535	Snap hook	Pole brace	1
RF9	Saddle	Pole brace	1
XLR-4R	Tack brace 4mm x 4m	Pole brace	1
XLR-3Pur	Pole bridle brace 3mm x 5m	Pole brace	1
RF50	S-hook	Pole brace	1
XLR-4R	Excel Racing 4mm x 19,8	Tack halyard	1
Nautic	Spinnaker rope with centre tail 8mm x 16,5m	Spinnaker sheet	1
	Sails		
	Mainsail, Pentex-Mylar (Apen09)		1
	Battens, set tapered Fibrefoam battens		1
	Jib, Pentex (Apen06) radial cut, zipper luff		1
	Spinnaker, Silicon Nylon, standard colour		1
	Options		
Upgrade	Carbon reinforced rudder blade		2
Upgrade	Polyester silicon spinnaker ,other colour (red, blue, white, yellow, blck)		1
Upgrade	2 Colour spinnaker		1
Upgrade	3 Colour spinnaker		1
Extra	Beach trolley, stainless steel axle and Eurotrax wheels		1
Extra	Foam stern support		2

Reference	Description	Usage	Quantity
Extra	Light weight paddle		1
Extra	Silver tow rope 6mm x 15m		1
Extra	Tactic compass and mounting bracket		1
Extra	Full hull cover for trailing (Cotton Lycra)		2
Extra	Bow covers		2
Extra	Boat cover (light duty canvacon)		1
Extra	Boat cover (heavy duty acrylic canvas)		1
Upgrade	Centre sheeting		1

8. Warranty

8.1. Warranty form

AUSTRALIAN HIGH PERFORMANCE CATAMARANS PTY LTD
ACN 000 161 624
50 Craig Street, Bendigo, Victoria, 3550
("AHPC")

CUSTOMER WARRANTY FOR CAPRICORN F18 CATAMARANS

Purpose of Warranty:

To provide customers with the peace of mind that they have a boat which is soundly made, is safe and practical to sail and own, will stand up to the rigours of normal off the beach club racing, has good performance and has the potential to be further tuned up into racing conditions by the customer.
As the purchase of a new catamaran represents a considerable investment, certain conditions are required to protect all parties involved and to prevent abuse of this warranty. This warranty is genuine, and we are here to serve you, so in the unlikely event that you feel your new Capricorn has a problem, please tell us early so we can help.

✂----------

Please complete and return to AHPC via your Capricorn agent.

I have read and understand all the parts of this Warranty agreement. I also understand that

It is the responsibility of myself (name) _____ the owner of

Capricorn # (boat number) _____ to comply with this agreement.

Owner name _____

Owner signature _____

Hull and sail number _____

Date of purchase _____

Capricorn agent _____

Agent's signature _____

8.2. Warranty description

This warranty is divided into two parts:

8.2.1. The Full Warranty Period

The full warranty period is covering the first year from the customer taking possession of the boat for the first time. During the Full Warranty Period, AHPC warrants to the customer that AHPC will at its option repair, replace or adjust free of charge any part of the boat AHPC finds to be defective in factory materials or workmanship when used within the operating limitations of the boat and the provisions of this warranty.

8.2.2. The Pro-rata Warranty Period

The Pro-rata Warranty Period is covering the four years from the end of the Full Warranty Period. During the Pro-rata Warranty Period, AHPC warrants to the customer that it will, at its option, repair, replace or adjust any hull AHPC finds to be defective in factory materials or workmanship when used within the operating limitations of the boat and the provisions of this warranty, at commercial rates less the pro-rata proportion. The pro-rata proportion is 80% in the first year after the end of the Full Warranty Period less a further 20% for each year thereafter.

8.3. Warranty conditions

8.3.1. This Warranty is provided on the following conditions

1. The defect is not a consequence of the customer's failure to properly use or maintain the boat in accordance with good practice, recommendations or instructions, its capacity or operating limitations or specifications, or to take preventative action to avoid further or secondary damage occurring if a fault becomes evident
2. The boat must under normal circumstances be delivered at the customer's expense to AHPC or its nominated representative for the warranted works as soon as possible after the need for the works becomes apparent
3. This Warranty will not apply to any defect in, or which is attributable to, or which arises from the use of any modification made to the boat unless the modification has been made by or at the direction of AHPC
4. This Warranty does not cover damage or wear and tear arising as a consequence of the use of beach rollers, the use of a trailer, friction under the hulls, high speed beaching, collisions or failing to ventilate the boat
5. All works under this Warranty must be performed by AHPC or its nominated representative at their premises
6. This Warranty is non-assignable
7. Only measured sails, spars and equipment by an official class measurement officer appointed by the class association, builder and/or importer shall be used
8. The use of non 'class legal' or measured sails, spars and equipment shall void Warranty
9. This Warranty is subject to the exclusions, operating limitations and responsibilities, which follow

8.3.2. Exclusions, this Warranty does not cover

1. Damage by heat to composite laminates
2. "Print" on the hull surface
3. "Print" from internal frames on the hull skin
4. Faults resulting from collision or other damage
5. Scratching of any Gelcoat surface
6. UV damage to Gelcoat surface
7. Minor leaks
8. Masts breaking due to capsize
9. Masts breaking due to rigging failure after full warranty period has expired
10. Wear and tear on sheets and ropes and rigging
11. Damage to sails due to misuse
12. Damage to sails due to capsize
13. Damage to sails due to mast breaking
14. Stretching and general wear and tear of sails
15. Boat tuning
16. Fittings - these are not covered by this Warranty, but are covered by any warranty of the fitting manufacturer

8.3.3. Operation Limitations

This Warranty applies to boats used for recreational sailing or in organised club or championship racing on inland and coastal waters. It does not apply to defects occurring as a consequence of sailing in wind or sea conditions where a reasonable sailing club or association would not sail, or has abandoned racing due to extreme weather conditions, or to offshore sailing (lake or ocean), or long distance racing events.
Boats must be trailed on a trailer fitted with beam hanging supports or cups/cradles approved by the builder and/or importer and shaped to the hulls and padded.
Crew weight (all persons on board) on the boat must not exceed 200 kg

8.3.4. Limitations

The buyer assumes all risk and liability whatsoever resulting from the use of the catamaran and its parts. In no event shall AHPC be liable to the buyer for any indirect, special, or consequential damages or lost profits. The provisions of this warranty and limitation of liability may not be modified in any respect, except in writing, signed by a duly authorized officer or representative of AHPC. This warranty contains a complete and exclusive statement of AHPC's obligations with respect to any of its products.

8.3.5. Responsibilities

This Warranty does not apply unless the owner has kept the boat in good order at all times, performed any necessary preventative maintenance, regularly inspected rigging for signs of fatigue, and taken immediate action to prevent further damage if any fault appears.

8.3.6. Voided warranty

The builder and/or importer may void the warranty for any and all of the previous points. The class association, builder and/or importer reserve the right to publish all sail and hull numbers of vessels that have had the Warranty Voided for any or all of the above points.
Measurement certificates of vessels that had voided their warranties may also be voided. Vessels that do not posses a valid measurement certificate are not considered as 'Capricorn' catamarans. The owner shall not advertise, sell, race or refer to the vessel as a 'Capricorn'.