

ASSEMBLY MANUAL



Dernière MAJ : Mars 2004

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List of Parts



Tools necessary/outils nécessaires/ :

- ⇒ 2 wrenches - No. 17
- ⇒ 1 pair of universal pliers

It is advisable to have 2 people to assemble the Hobie FX-One .

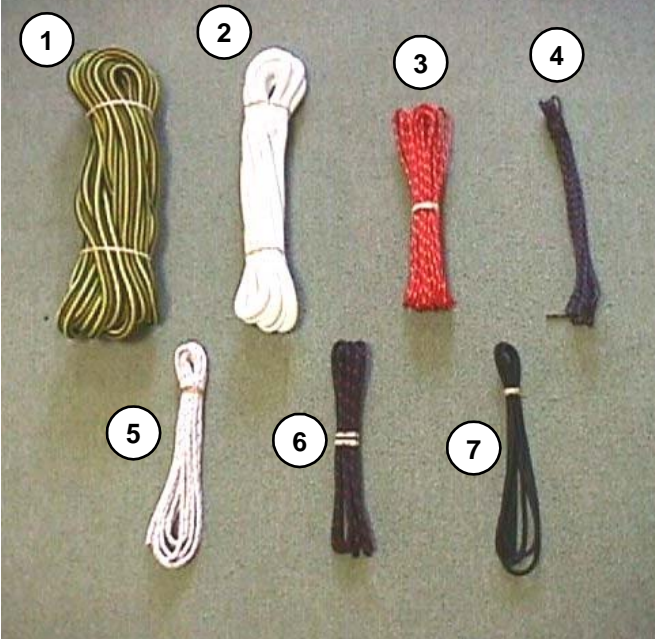


- | | | | |
|---|------------------|----|-----------------------|
| 1 | Hulls (2) | 8 | Wire bag |
| 2 | Front crossbar | 9 | Ropes bag |
| 3 | Rear crossbar | 10 | Daggerboards (2) |
| 4 | Mast | 11 | Rudder assemblies (2) |
| 5 | Boom | 12 | Tiller crossbar |
| 6 | Trampoline & rod | 13 | Tiller extension |
| 7 | Rigging bag | 14 | Mainsail |
| | | 15 | Batten set |



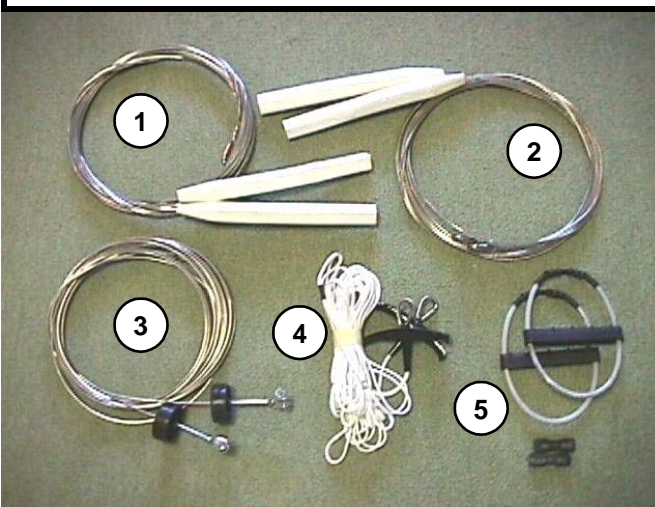
CAUTION - DANGER
ALUMINIUM MAST
STAY AWAY OF ELECTRICAL WIRES

ROPES BAG



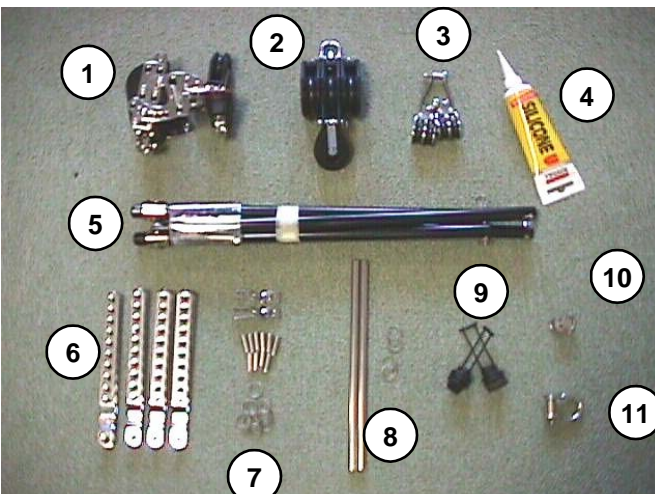
- 1 Mainsheet (black and yellow)
- 2 Righting line (white)
- 3 Cunningham line (red & yellow)
- 4 Trampoline lacing rear (black pink green)
- 5 Rotation (white & red)
- 6 Trapeze lines (black & red)
- 7 Trapeze shock cord (black)

WIRE BAG



- 1 Shroud with adjuster cover
- 2 Bridles/forestay with adjuster covers
- 3 Spreader wires
- 4 Trapeze lines
- 5 Trapeze handles and rope locks

RIGGING KIT



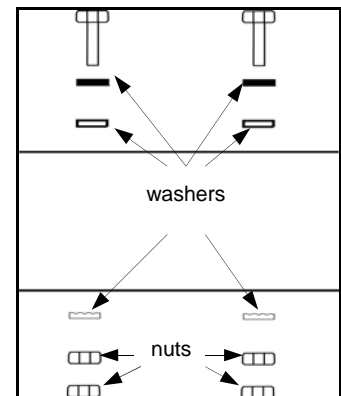
- 1 Mainsheet ratchet block
- 2 Triple boom block
- 3 Cunningham block shackle
- 4 Silicone sealant
- 5 Spreader bar assembly
- 6 Stay adjusters
- 7 Twist toggles, clevis pins, split rings
- 8 Rudder pins & split rings
- 9 Drain plugs
- 10 Gooseneck hinge vertex
- 11 Tang shackle

Hull assembly



1

Position the hulls in parallel with the inner sides facing the ground. Lift the right hull. One person straddles the hull to hold it in place. The other person applies the silicone sealant (for waterproofing) around the bolt holes.



2

Take the front crossbar (with dolphin striker). Place it in its support so that the trampoline track faces the rear of the boat. Insert the two bolts. Pass your hand through the inspection port to position the nuts and washers onto the bolts (photo). Fasten loosely. Lift the left hull, and follow the same steps as for the right hull. Do not fully tighten the screws. ***Respect same order for the washers as assembled at the delivery***



3

Apply silicone sealant around the rear beam bolt holes. Place the rear crossbar on the right side. Insert the bolts, washers and nuts as shown for the front crossbar. Do the same thing for the left side. Once the frame has been mounted, tighten all the bolts fully and then install the lock nuts.



NB : it is advisable to check the fastening of the bolts after the first trip out onto the water, and recheck these at regular intervals.



1

Unfold the trampoline. Note that the trampoline has side tension lines that are already pre-threaded. Insert the front edge of the trampoline into the track at the left, rear side of the front crossbar. Continue feeding the trampoline into the track and position it in the center. Line up the grommet in the center of the trampoline with the dolphin striker post to ensure it is centered.



2

Take one of the side tensioning lines and pass the line through the pad-eye that is fixed to the front crossbar. Then tie with a bowline knot the line onto the grommet of the trampoline near where the rope exits the trampoline. Repeat this step at the opposite side front corner.



3

Move to the rear of the trampoline. Very closely to where the side tensioning line exits the rear of the trampoline tie a loop. ensure you pull the side tensioning line firmly as to tie the loop as closely to the trampoline where the rope exits as possible. Tie a bowline or a similar loop in the line which will be used for a 4:1 purchase of the side tensioning lines. Repeat this step for the opposite side rear corner.



4

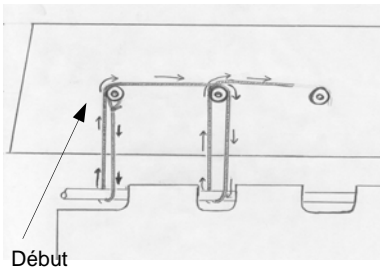
Now take the tale of the side tensioning line and pass the rope through the pad-eye mounted on the rear cross beam closest to where the line exits the trampoline. Then pass the line back through the loop tied in step 3. Again go through the pad-eye on the beam and back through the loop. This will provide a 4:1 purchase. Pull the line slightly as to take some tension for the sides but do not completely tension at this stage. Repeat this step for the opposite side rear corner. Ensure that the trampoline is still centered.





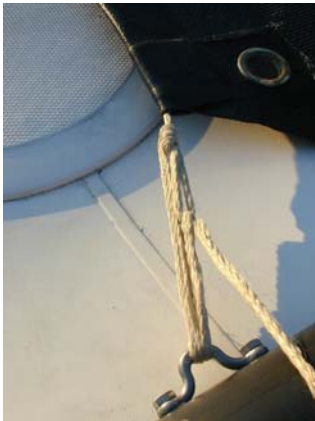
5

Find the trampoline rod and insert it into the rear of the trampoline.



6

Commence lacing the rear of the trampoline. The lacing line starts at the left, rear lacing button on the rear crossbar. Lace the rear of the trampoline as tightly as possible as per the photographs and diagrams supplied. Continue across the rear crossbar and tie off securely when finished.



7

Again, take the side tensioning line and very firmly pull the line. Once as tight as possible tie off the line with an adequate knot. Repeat this for the opposite side rear corner.



8

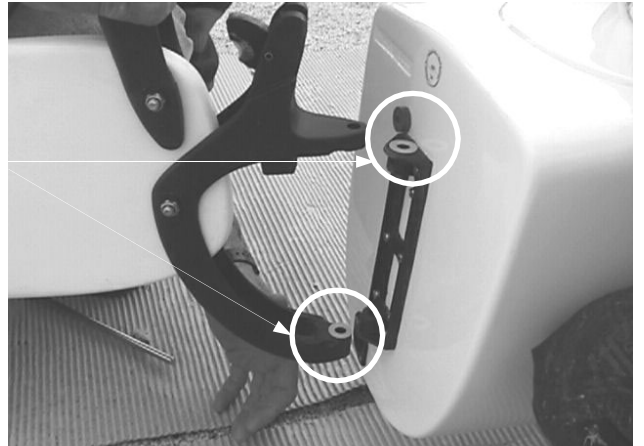
Now, once the side tension line has been tied off, using the long tail, pass it back through the grommet at the rear corner of the trampoline near where the side tensioning line exits the trampoline. Then pass the line through the pad-eye on the rear crossbar. Again pass the tail through the grommet on the trampoline and pull the line firmly. Once the sides of the trampoline have been further tightened, tie off the line and hide the tail under the trampoline. Repeat this step for the opposite side rear corner.



NB : It is important that the trampoline be strongly tightened. Check the tension on a regular basis.

1

Identify the right rudder from the left rudder (green sticker = right ; red sticker = left)
Take the left rudder, position the washer as indicated on the photograph, then align the rudder casting onto the
gud-geon .



2

Insert the rudder pin, and do not forget to put in the two split rings: one on top and one at the bottom of the rudder pin.

3

Repeat the procedure for the right rudder assembly.



4



Take the tiller crossbar and insert the right side into the right rudder arm and the left side into the left rudder arm.

5



Take the yoke connection of the tiller extension and fix it into the middle of the tiller crossbar.

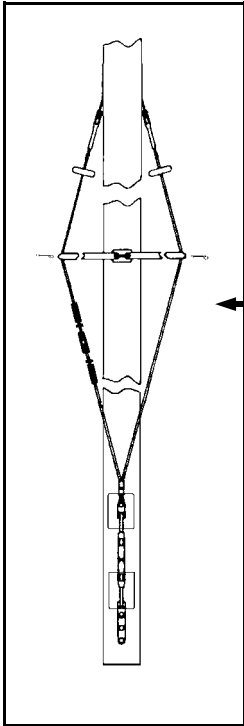
6



Then fix the tiller head into the yoke connection as shown on the photo.

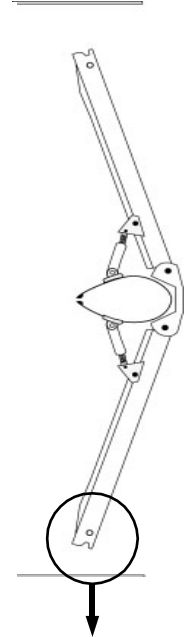
7

Spreader bar



1 Unroll the diamond wires. Attach the joint end of the diamond wires onto the turnbuckle adjuster near the base of the mast (level with the security sticker) using the pin and split ring.

Take the loose ends of the diamond wires and hold tight to adjust to the same length, using the turnbuckle adjuster which is located on the lower section of one of the wires. Once they are the same length, attach the two wires to the shield plaes situated on each side of the mast under the mast tang.



2

Assemble the spreaders on the centre of the mast. The spreader root attaches to the front of the mast section onto the one-piece stainless steel strap. The spreader rake adjuster barrel attaches on each side to the individual fittings on both sides of the mast nearer the sail track. To adjust the spreader rake, adjust the length of the barrel (by winding in or out) and measure from the wire positions at the tips of each spreader. Caution : do not try to adjust spreader rake while diamond wires are



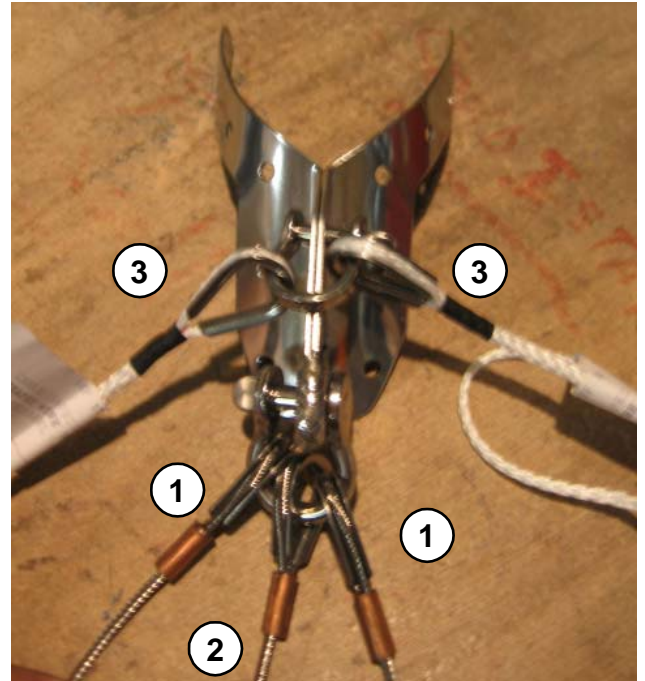
3

Slide the diamond Wires into the corresponding slots at the end of the spreaders. Ensure the black plastic roller is above the spreader arm. It may be necessary to release tension from the diamond wire turnbuckle adjuster near the base of the mast. Secure the diamond wire with the thin wire supplied. Pass the wire through the small hole near the spreader tip, bend the wire and on one side of the spreader turn the wire around the thicker diamond wires two or three times. Do the same for the other side of the spreader. Cut off the excess thin wire ensuring it is bent neatly onto the diamond wires as to prevent the wire from tearing the sails. Once secured, tape over the spreader tips to further ensure there are no sharp edges.



1 Locate the two shrouds, the forestay and the two trapeze lines. Unroll all the wires and remove any kinks. Attach the forestay and the shrouds to the mast tang with the 8 mm shackle and the trapeze wires with the 6 mm shackle as shown on the photograph.

Tighten the shackle with pliers. Re-check the tang shackle regularly !



1. Shrouds
2. Forestay
3. Trapeze

2 Attach the twist toggles and stay adjusters to the shroud anchor pins.



3 Attach the remaining two stay adjusters to the bow tangs.

4 Lay the mast on top of the boat with the sail track facing down and the mast base toward the bows. Tip : Disconnect one side of the tiller crossbar and swing it to one side. Use some padding under the mast to prevent scratching.



5 Lay the shrouds and forestay/bridles down each side of the mast on the trampoline. Attach the shrouds to the top holes in the shroud adjusters. The trapeze lines can be fastened loosely near the base of the mast if desired.



6 Rotate the mast 90° and place the mast base onto the mast step ball. Secure in place using the bolt and nut supplied.





CAUTION - DANGER - ALUMINIUM MAST
STAY AWAY OF ELECTRICAL WIRES
Before raising the mast ensure that it cannot get in contact with electrical wires



1 With one person on the trampoline and the other toward the head of the mast, start lifting the mast until the person on the trampoline can support the full weight.



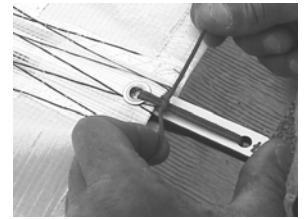
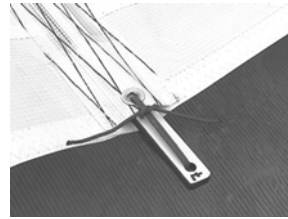
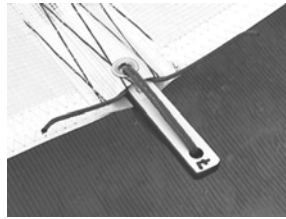
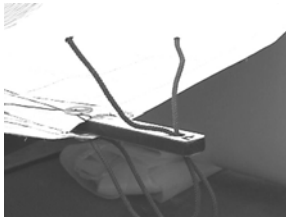
2 The person on the trampoline now pushes the mast into the fully upright position and holds it in position. **TIP :** The second person may assist in the above procedure. Once the mast is in the fully upright position one person is sufficient to hold it there.

3 The second person can now take the forestay bridles. Make sure that they are not tangled and attach them to the stay adjusters on the bow tangs.

FIXING THE TRAPEZES



4 Release the trapeze lines from the base of the mast and ensure that they are not tangled. Pass the trapeze shock cord under the trampoline and up through the grommets behind the daggerboard shock cord. Assemble the trapeze adjuster line, rope locks, and trapeze lines and attach to the shock cord. Trapezing height can be altered by adjusting the position of the rope lock on the trapeze adjuster line.



1

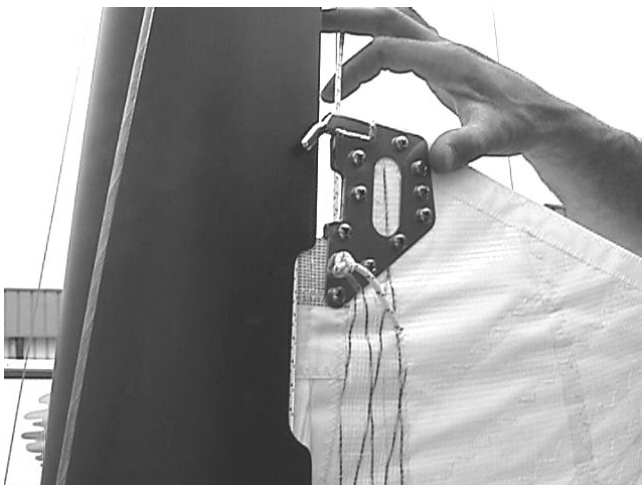


* Always point your Hobie into the wind before raising the sails. *

Unfold the mainsail on a clean surface and insert each batten into its respective pocket. The battens are numbered from 1 to 7. Number 1 goes at the top and number 7 at the bottom of the sail. Secure the battens in the pockets with the batten ties – as shown in the photographs.

2

Undo the halyard rope, which is attached to the mast. Pass the end through the hole in the headboard and tie off with a figure «8» knot.



3

Feed the luff of the mainsail into the opening of the mast track ensuring that the hook is on one side of the mast and the halyard on the other side. Ensure that the halyard inside the track stays inside the track.

Raise the sail by pulling the halyard and feeding the sail into the opening. When the sail is all the way up turn the mast slightly so that the hook will engage in the halyard lock when you pull down on the sail. Insert the bottom part of the luff into the lower section of the mast track. Roll

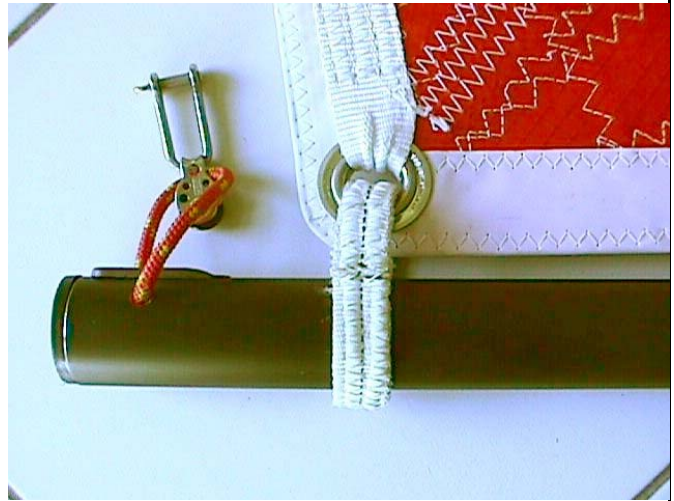
up the halyard and place it in the trampoline pocket.

Boom

HOBIE FX one

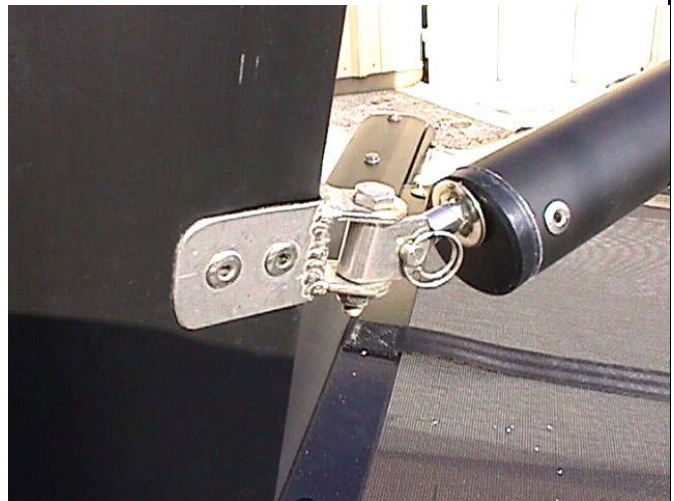
1

Slide the outboard end of the boom through the webbing loop attached to the clew of the mainsail.



2

Connect the boom to the mast using the hinge vertex, clevis pin and split ring.



3

Connect the shackle on the boom outhaul line to the grommet in the clew of the main-sail.



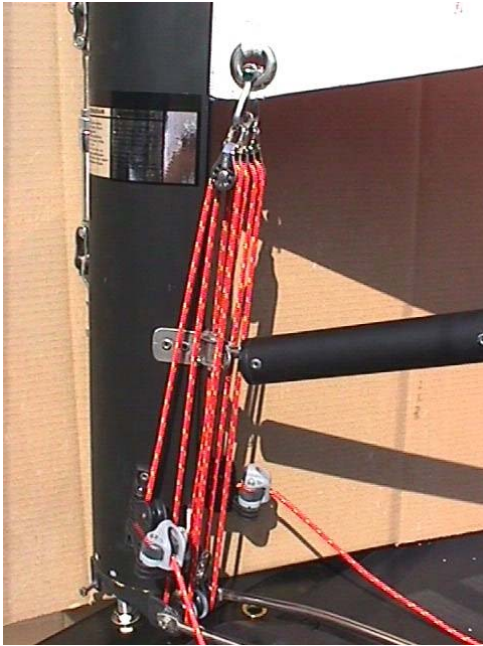
**1**

Locate the rotation line. Pass one end through the end of the rotation arm. Both ends of the line go down through the grommet located in the middle of the trampoline behind the trampoline pocket.

2

Lead one end of the rotation line under the trampoline and up through the grommet located adjacent to the deck-mounted rotation cleat. Pass the line through the cleat fairlead and tie off at the stay adjuster. Repeat procedure for other side.





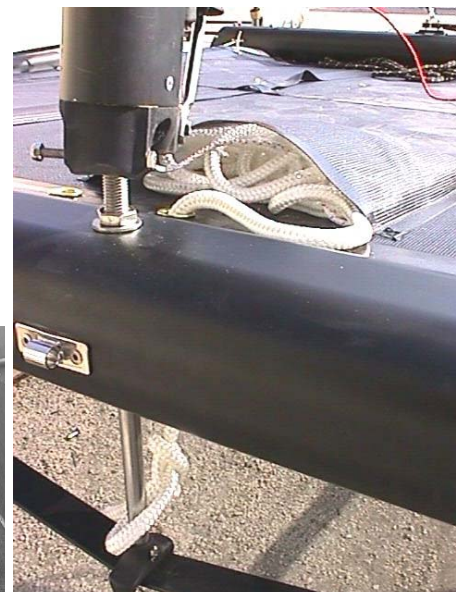
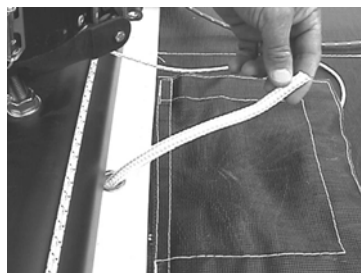
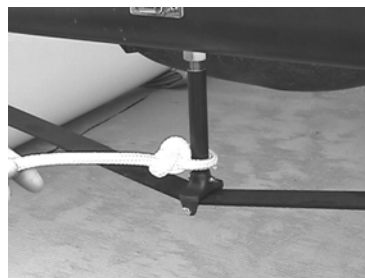
1 Shackle the cunningham blocks into the grommet of the mainsail tack. Take the cunningham line and feed as follows : (NB : the line must go through the inside of the rotation arm)

- Start from the cunningham block on the left side of the mast. Feed the rope into the cleat around the sheave
- push the cord up through the first sheave of the left block from back to front
- take the rope back down, thread it through the left sheave at the base of the mast from front to back
- take it up through the second sheave of the left block from back to front
- take it back down and through the single block,
- take it back up into the first sheave of the right hand block from front to back
- take it back down through the sheave at the right of the mast base from back to front
- take it up through the second sheave in the right block from front to back
- finally thread the line through the cunningham block and in the cleat.

Attach each end of the cunningham line to the shrouds.

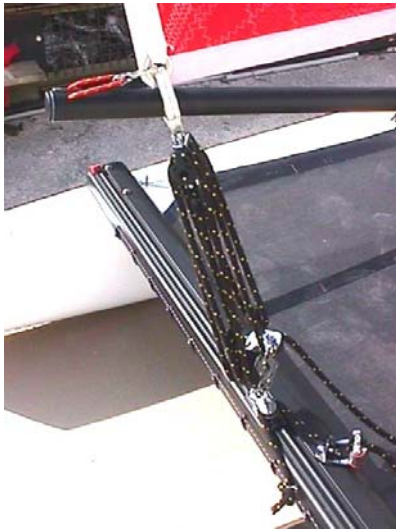
2

Take the righting line from the rope bag. Attach it to the dolphin striker post under the front crossbar (photo). Pass it under the trampoline through the grommet at the base of the mast. Fold up the end of the line and stow it in the trampoline pocket at the base of the mast.



1

Your mainsheet system has been lovingly assembled by your dealer.



2

Shackle the boom block to the webbing loop.

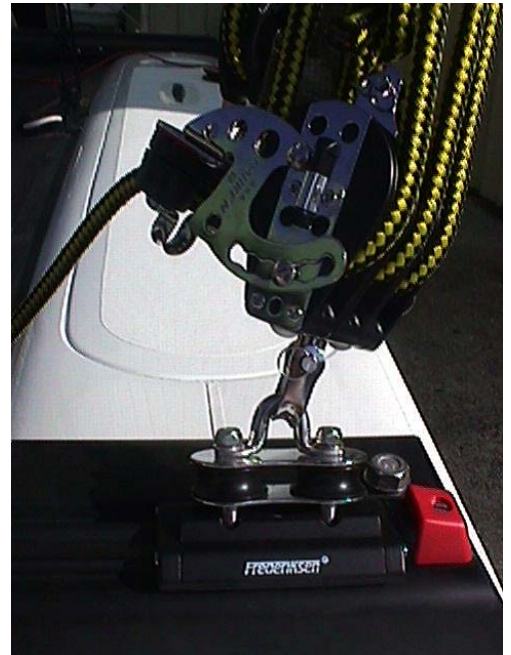
3

Shackle the mainsheet ratchet block to the top of the main traveller car.



4

Thread the tail of the main sheet through the swivel cleat assy on the rear beam, through the sheaves on the traveller car, down through the eyestraps on the rear of the beam and tie a figure «8» knot in the end.



1

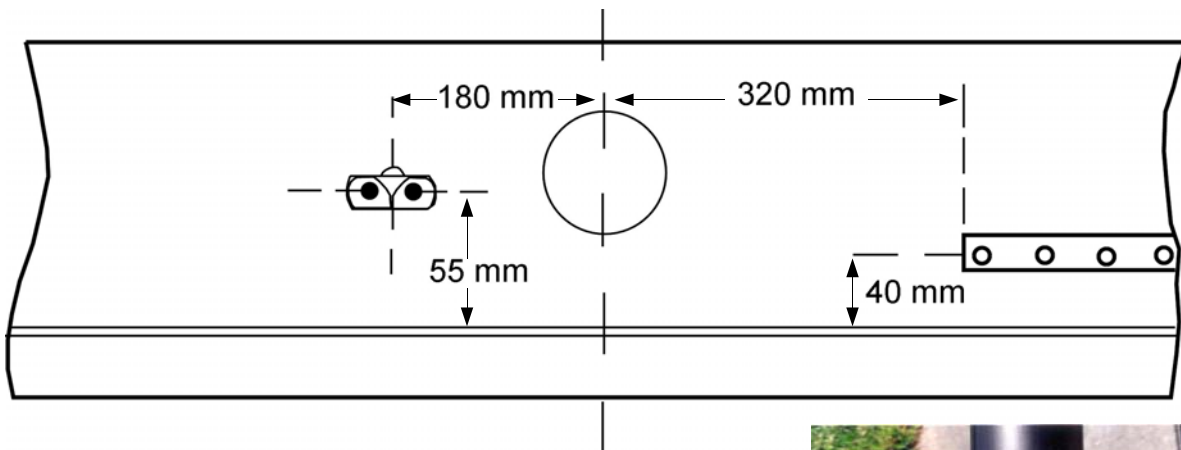
Mounting jib sheet tracks

The inboard end of the track is located 320 mm from the centre of the front cross beam and 40 mm up from the trampoline slot. Use the pop rivets supplied to install the track. Do the same thing for the second track on the opposite side. Slide the jib sheet block/car assemblies on to the tracks.

2

Mounting the furler cleat

The cleat is located 180 mm to the left side of the centre of the front cross beam and 55 mm up from the trampoline slot. Use the large wedge only and also the metal fairlead. Fasten the furler cleat to the beam using the self tapping screws supplied.



3

Attaching the pigtail, forestay and jib halyard

When using the jib kit on the FX-One, the two long forestay/bridles supplied with the cat-rigged boat are not required. Undo the 8 mm tang shackle, remove the two forestay/bridles and shackle the pigtail between the two shrouds. Fit the two extra trapeze lines to the shrouds if required.



4

Attaching the bridles and furler

Connect the bridles supplied with the jib kit to the bow tangs.

Fasten the inboard end of the bridles to the furler. Ensure that the hole in the furler housing is pointing towards the front cross beam. Now is a good time to roll some line onto the furler drum.



5

Raising the mast

Attach the jib halyard line to the small jib halyard block at the end of the jib halyard wire. Tie off the halyard wire and the line near the base of the mast.

6

Raise the mast and fasten the forestay into the furler mounted stay adjuster with the clevis pin and split ring. Attach the trapeze shock cords, lines, rope locks and handles if you have fitted the second trapeze kit.



7

Hoisting the jib

Unfold the jib and open the zipper on the luff. Use the 4 mm bow shackle to connect the jib tack to the furler mounted stay adjuster.



8

Shackle the jib head to the jib halyard. Then position the jib and the halyard line against the forestay. Close the top of the zipper ensuring that the halyard line and the forestay remain inside the zipper. As you pull down on the halyard line, close the zipper as the sail is raised.

9

Once the jib is fully raised, take the jib luff tensioner line and secure it to the bottom of the stay adjuster. Now pass the line through the small block at the end of the jib halyard, then back down through the cleat on the jib tack. Remove the jib halyard line and stow it in a secure place.

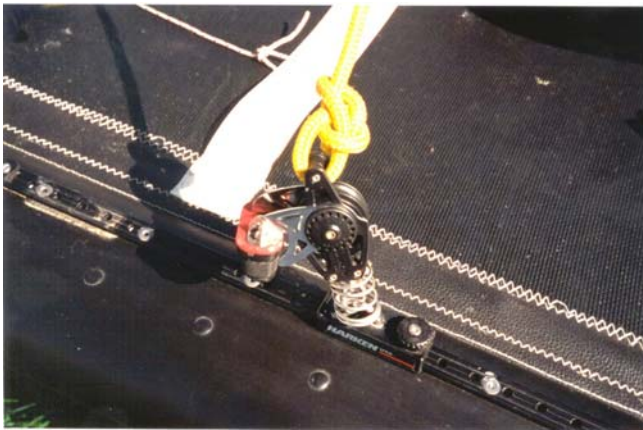
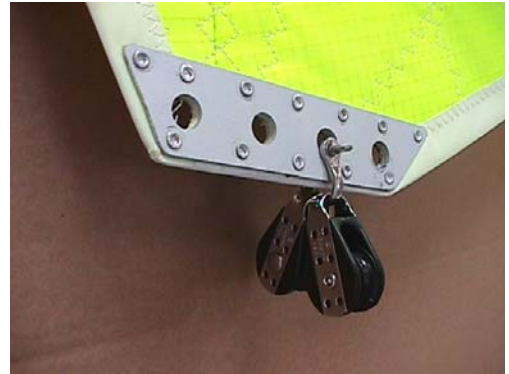


NB : Ensure that the rig is tensioned before you tension the luff on the jib. The jib halyard is designed to tension the luff of the jib - not to support the mast.



10

Shackle the two jib clew blocks to the jib clew plate using the shackle provided.



11

Jib sheet line

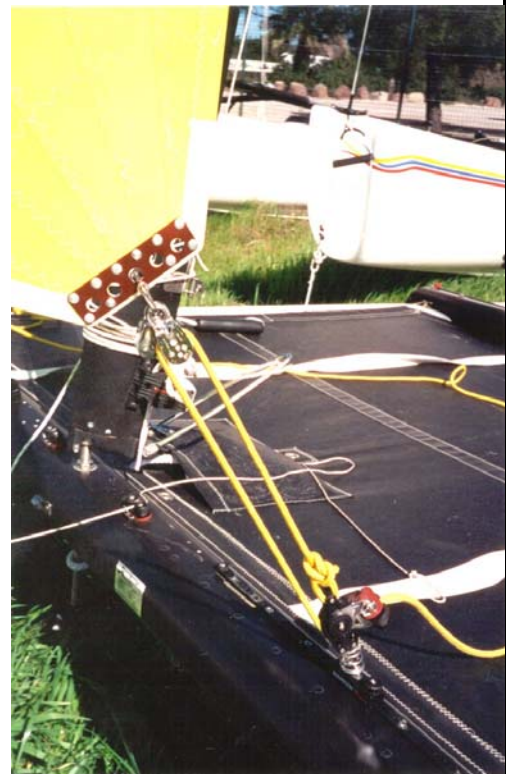
Take the jib sheet (yellow) and tie one end to the becket on one of the jib sheet blocks using a bowline knot.

12 Take the other end of the sheet and pass it through the corresponding jib clew block. Now pass the line through the sheave, then the cam cleat on the jib sheet block.

Pass the jib sheet behind the mast (but above the cunningham lines) and duplicate threading procedure on the other side of the crossbar.

Take the end of the furler line and lead it through the fairlead and cam cleat on the front crossbar. Pulling the furler line will furl the jib, provided that the jib sheet line is not cleated.

NB : it is not advisable to leave the jib furled for extended periods of time.



6 Now take the yellow thicker sheet rope and starting from one swivel cam cleat on the front crossbar pass the rope under the thinner white spectra rope through the middle size pulley (2) and back to the other side swivelling cam cleat (also on the front crossbar). Once the jib is hoisted, attach the carbo block (5) with shackle to the jib clew and use the yellow sheet rope to trim.

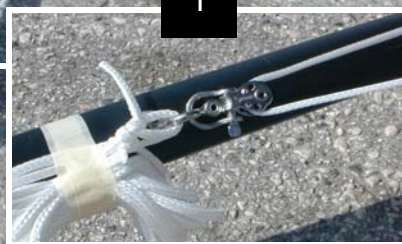


5 This spectra then passes through the other carbo block (also supplied in kit which attaches with shackle to the jib clew) and then ties off to the carbo block mounted on the traveller car. Tie a bowline knot through the hole in the middle of the pulley.

2 Take the white spectra rope and to one end tie on to the top of the middle size block.



3 Lead the other end of this rope through the smaller pulley that was shackled to the spinnaker pole in step 1.



1 Firstly, attach the smallest pulley supplied in the kit to the spinnaker pole centre pad eye (also where the centre supports attach for the spinnaker pole). Attach this pulley with one of the shackles supplied.



4 then back to the carbo pulley attached to the traveller car on the self-tacking track.

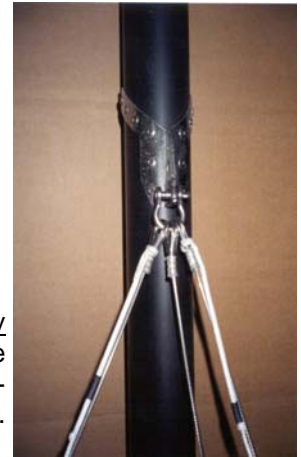
Further Suggestions

- ⇒ To furl the jib you will need to untie the knot on the traveller car for the jib and tie the sheet off to the jib clew block. Otherwise the jib will not furl completely.
- ⇒ As the track is mounted on the front section of the beam you may find that the hole you use on the jib clew board may now have to become one of the lower, more forward holes. Also it may be necessary to tack the jib at a lower position on the forestay adjuster.
- ⇒ The spinnaker halyard system still works exactly the same as the standard Hobie Tiger original system however it has moved to a more outboard position on the beam.

Standard Spinnaker kit (Option)



1 Attach the Spi halyard block
Shackle the spi halyard block through the small bow shackle attached to the thin cord at the top of your FX-One mast. Now pass the halyard through the pulley and thread as per the photograph.



2

Mounting the forestay
Replace the standard forward forestay/bridles with the one forestay at the mast tang fitting. The new forestay positions between the side shrouds.



3 Now attach the spinnaker ratchet pulleys to the shroud base together with the twist toggle (except Tiger & Pacific, on the padeyes on the hulls).
Once attaching all the stays correctly as per the rigging manual and checking that there are no over head power lines raise the mast.



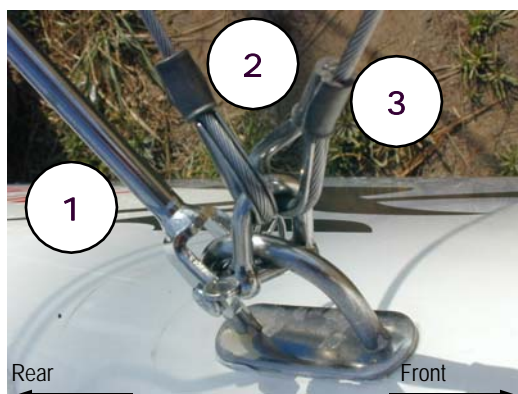
Attaching the bridles **4**

Having already removed the standard forestay/bridles, attach the new short bridles to the bow tang on the inside bow of each hull. The other ends of the bridles both attach to the 6 mm shackle which also connect to the stay adjusters.

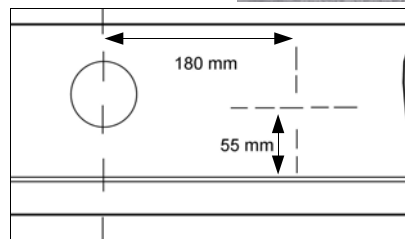


5 Mounting the spi pole
First drill and rivet to attach the spi pole mount bracket on the center front side of the front cross beam. Attach the base of the spi pole to the bracket.

6 Then attach the spi pole bridle and support wires to the bow tang using the shackles provided. Once the mast is erect and the rig tensioned, using the spi pole support line lift the pole and tension till firm. Ensure that the main bridle wires do not loosen at this stage.



Inside right hull : 1. Jib furler bridle - 2. Pole support wire - 3. Pole bridle.



7

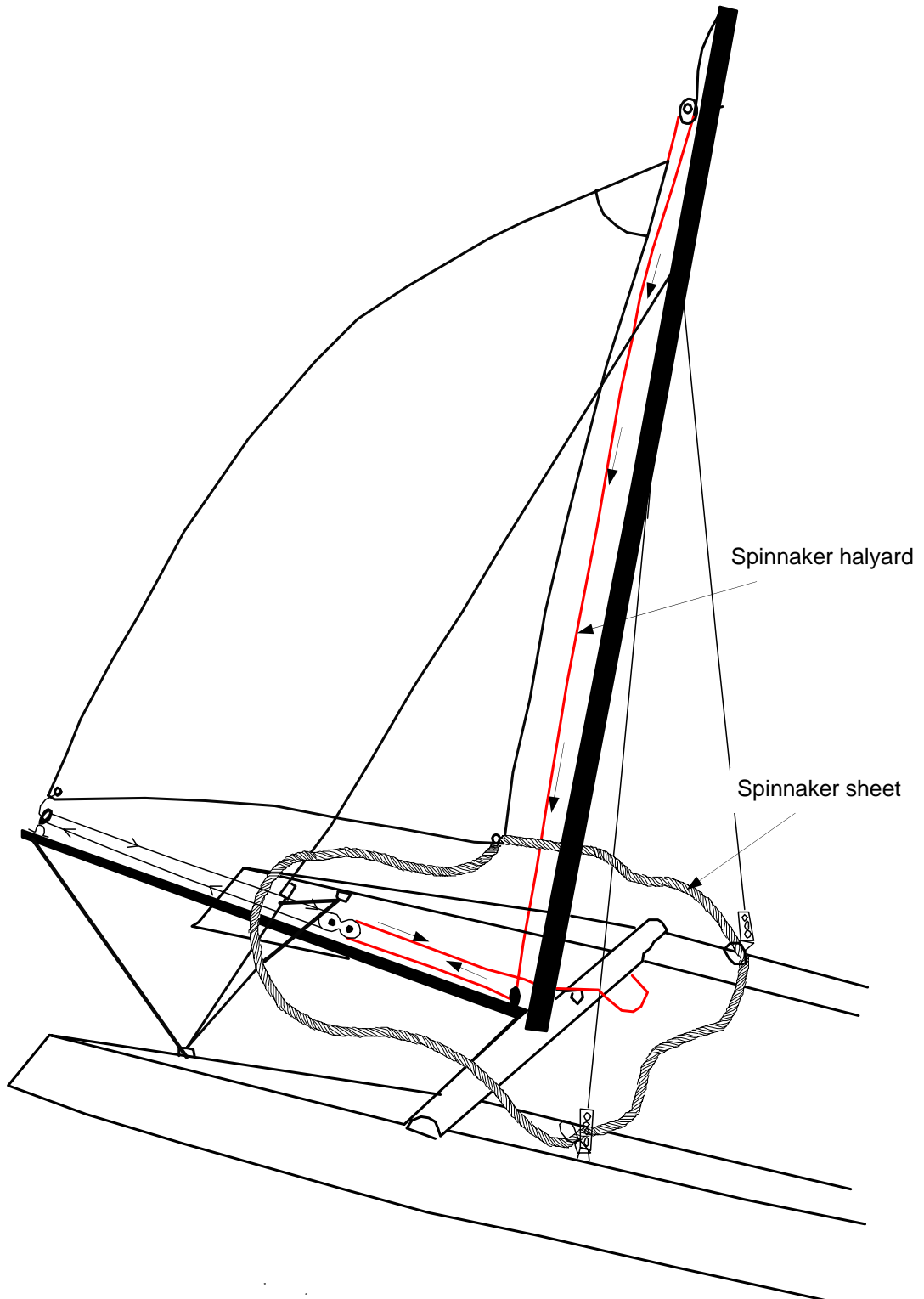
Mounting the spi halyard cleat
Drill and rivet to attach the swiveling cam cleat to the top of the front crossbar on the right side of the mast step. Location 180 mm right from the mast step (see diagram).

8

Attaching spi bag : Using the spi bag attachment lines located on the trampoline fix the bag firmly.

9

Attaching the spi : Now refer to the supplied spi diagram thread the halyard, tack line and spi sheets. The tack line will require using the sistered blocks supplied.



1

Install the drain plugs – do not overtighten, hand tight is sufficient. Overtightening may cause the drain plug flange to distort and cause leakage.



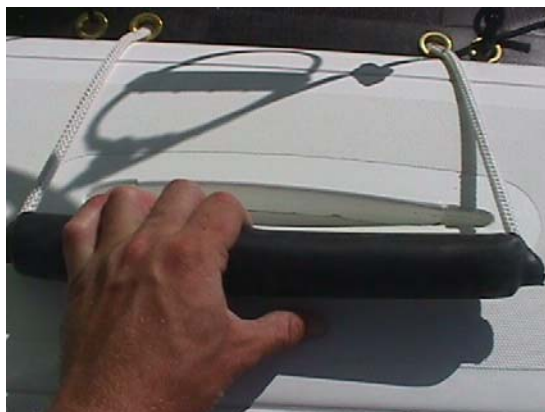
2



Tension the rig. This can be accomplished by having your assistant hang from the trapeze or you can use mainsheet tension on one side at a time so that you can adjust the shroud position in the side stay adjusters.

3

Fit the daggerboards into the daggerboards wells. The daggerboard roller shock cord should be tight enough to prevent the daggerboard from slipping down.



4



It is recommended that beach rollers be used to move your Hobie FX-One. This will save your back and the bottom of the boat.

5

Always wash traveller and blocks with fresh water after use in salty water.



Always wear your Hobie buoyancy vest, look out for overhead power lines

READ CAREFULLY BEFORE SAILING

- ◆ Whether on land or on the water, **watch for overhead power lines**. Contact with power lines can cause serious injury or death.
- ◆ **DO NOT** sail while under the influence of alcohol and/or drugs
- ◆ Only sail in conditions in which you feel comfortable and where you feel confident that you can safely sail the boat. **Never go out in conditions beyond your ability**.
- ◆ Everyone on board should **wear a life jacket at all times**.
- ◆ If you are in the water, remain in contact with the boat, even if it is capsized. A sailboat can drift away faster than a person can swim.
- ◆ Never sail without a righting line.
- ◆ **Wear appropriate clothes**. Wear a wet suit or dry suit in cold weather or cold water conditions.
- ◆ Learn the **right of way rules** and when in doubt, give way to others.
- ◆ When not sailing, always **keep the boat pointed into the wind** whether in the water or on the beach.
- ◆ Read the instruction manual carefully.
- ◆ **Make sure everyone on the boat reads and understands these safety instructions**.

ALWAYS check that the **drain plugs** are screwed in before launching your catamaran