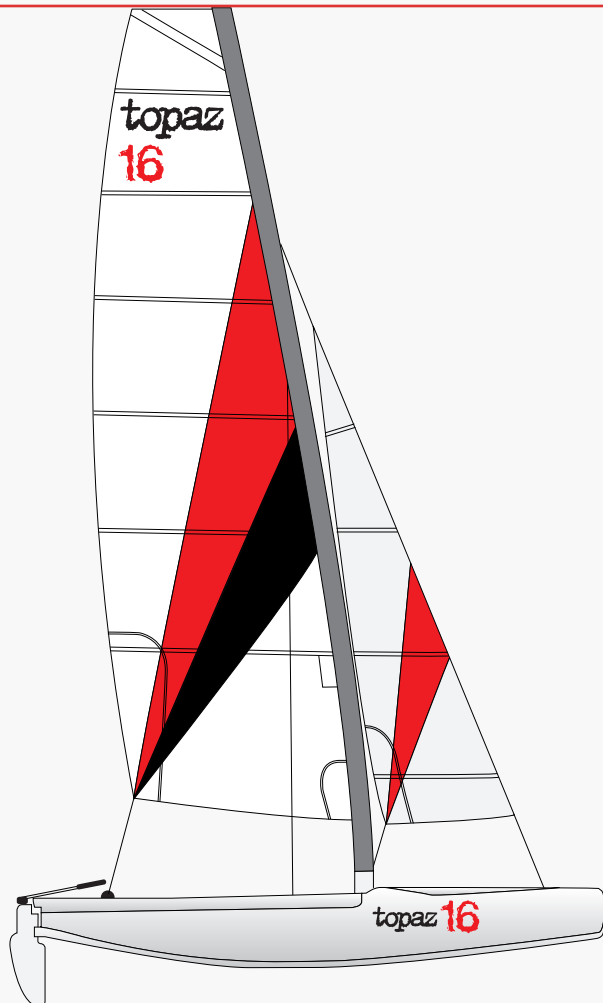




# *topaz 16*

## » Rigging Instructions



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## introduction

These RIGGING INSTRUCTIONS have been compiled to help you to rig your Topaz 16C/CX Catamaran. Please also ensure that you refer to your TOPAZ OWNERS MANUAL.

The OWNERS MANUAL has been compiled to help you to operate your craft with safety and enjoyment. It contains details of the craft, the equipment supplied or fitted, it's systems and information on its operation and maintenance. Please read it carefully and familiarise yourself with the craft before using it.

If this is your first craft, or you are changing to a type of craft you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before assuming command of the craft. Your dealer or national sailing federation or yacht club will be pleased to advise you of local sea schools, or competent instructors.

**PLEASE KEEP THE RIGGING INSTRUCTIONS AND THE OWNERS MANUAL IN A SECURE PLACE AND HAND THEM OVER TO THE NEW OWNER WHEN YOU SELL THE CRAFT.**

**For further information, spares and accessories, please contact the manufacturer:**

TOPPER INTERNATIONAL LTD,  
Kingsnorth Technology Park,  
Wotton Road, Ashford, Kent TN23 6LN  
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The Topaz 16 is designed to require very little maintenance, but there are some simple ways to keep your boat in the best condition.

## **Rudder**

Never launch your boat without checking that the retaining clip has clicked into place beneath the upper transom fitting, as this will prevent the rudder from falling off.

## **Sails**

After you have finished sailing, roll the mainsail loosely, this will extend its life better than folding. Never let the sails flap unduly, this can be done by furling the jib as soon as possible after hoisting. Although the battens protect the mainsail to a certain extent, do not leave the mainsail hoisted for extended periods of time.

Raise and drop the spinnaker as smoothly as possible, as this will extend the life of the sail. Avoid trawling the spinnaker through the water, this can damage the sail and get the spinnaker stuck around the bow of the boat.

Remove the spinnaker from the chute after sailing; if the sail is left it can attract mice that damage the sail.

Always dry the sail before folding and packing it away.  
Always rinse the sails and the boat after sailing in salt water.

**ALWAYS RELEASE JIB TENSION WHEN NOT SAILING**

## **Foils**

Any nicks or deep scratches in the rudder can be repaired using gelcoat filler, as the smallest damage will affect the performance of the boat. Make sure that the rudder blade remains tight between the stock when down. Any movement between the blade and the stock, or the stock and the hull may cause steering problems.

## **Hull and fittings**

Small dents can be repaired by gently warming the hull with a hot air blower (take care not to melt the hull). For any more substantial repairs refer to Topper Sailboats.

Check the attachment of all fittings regularly. This is particularly important for the fittings that are screwed onto fixings that are set in the hull. Keep all blocks, cleats and ropes clean and rinse them after salt water exposure.

Always remove the bung to empty any water after sailing, and when not sailing leave the bung out to prevent the buildup of pressure within the hull as the temperature fluctuates.

## **Ropes**

Always replace any ropes that are showing any signs of wear immediately.

# **glossary / useful terminology**

## **hull**

<b>Nose:</b>	Front of the hull
<b>Painter:</b>	Rope from the nose of the hull used for towing or tying the board to a jetty, buoy or trolley
<b>Transom:</b>	Back of the hull
<b>Fore:</b>	Forward
<b>Aft:</b>	Rearward
<b>Mast Step:</b>	Integral tube where the mast heel/foot of the mast locates
<b>Rail:</b>	Upper/outermost edge of a hull
<b>Port:</b>	Left side of the hull when looking forward
<b>Starboard:</b>	Right side of the hull when looking forward
<b>Leeward:</b>	Direction away from the wind
<b>Windward:</b>	Direction from which the wind is coming
<b>Gudgeon:</b>	Fitting on the transom used to hang the rudder

## **spars**

<b>Mast:</b>	Main vertical spar supporting the rig/sail
<b>Mast Heel:</b>	Lower edge/foot of the mast
<b>Boom:</b>	Spar at the bottom of the mainsail
<b>Outhaul:</b>	Purchase system on the boom for tightening the lower edge/foot of the sail
<b>Vang:</b>	Purchase system for tightening the rear/aft edge (leech) of the sail
<b>Cunningham:</b>	Purchase system for tightening the forward edge/luff of the sail
<b>Sheet:</b>	Rope for controlling the inward/outward position of the mainsail

## **foils**

<b>Daggerboard</b>	Blade found in the middle of the hull used to counteract leeward slippage
<b>Rudder:</b>	Blade found at the transom used for steering
<b>Pintle:</b>	The male part (pin) of the rudder hanging system

## ■ sails

---

<b>Mainsail:</b>	Sail aft/rearward of the mast (Larger of the two)
<b>Jib:</b>	Sail forward of the mast (Smaller of the two)
<b>Tack:</b>	Forward lower corner of a sail
<b>Clew:</b>	Rear lower corner of a sail
<b>Head:</b>	Upper corner of sail
<b>Leach:</b>	Rear edge of the sail
<b>Luff:</b>	Forward edge of the sail
<b>Foot:</b>	Bottom edge of the sail
<b>Batten:</b>	A thin stiffening strip in the sail to support the leach

# rigging instructions

## beams



Lay the two hulls into the launching trolley cups bow first. This will hold the hulls in the correct position to connect to the main and rear beam.

8 x lock nuts, washers and 8mm x 15mm s/s bolts are supplied.

You will require assistance to bolt the beams into the hulls. The main beam has a ball deck step and is shaped to fit snugly into the front socket of the hulls. The rear beam is smaller with a traveller attached and a row of small plastic wheels along its length. Again this is shaped to fit perfectly into the rear beam sockets with the white plastic wheels facing aft.

Feed the bolts into the holes in the hulls going through the washer and then attach lock nut and tighten.

Attach the main beam first followed by the rear beam.

## trampoline

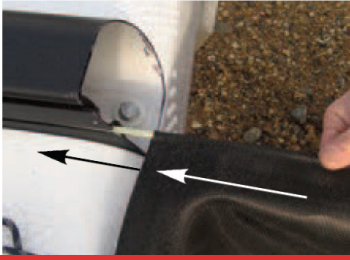


Remove the beam end cap from the main beam.



Remove slugs from front beam.

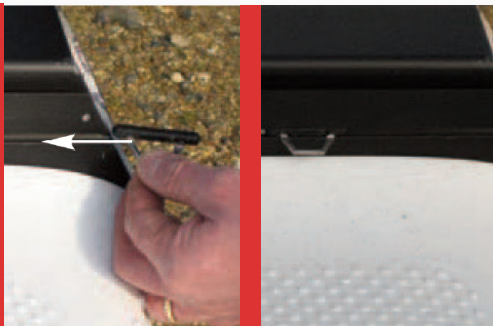
## ■ trampoline (...)



Ensure that the 5mm glass tube is inserted into the sleeve that runs along the front of the trampoline.

3

Insert 5mm glass tube and trampoline into the main beam. Then slide across the length of the beam until the trampoline is positioned centrally.



Re-insert slugs to the right and left of the trampoline to hold it in position.

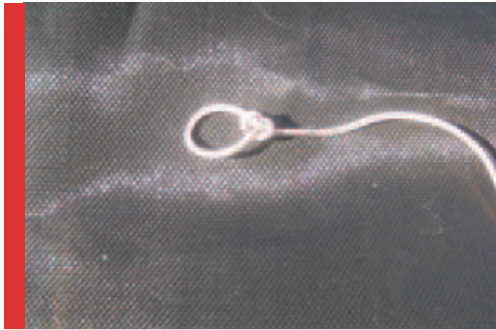
4

Re-affix beam end caps to secure trampoline in position.





## lacing the trampoline



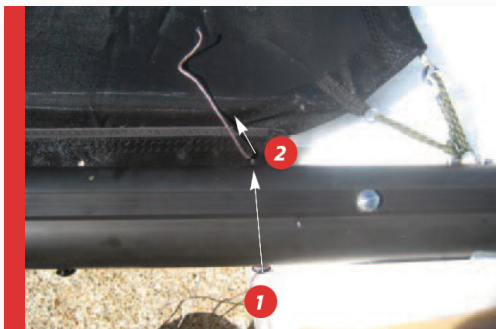
Tie loop on end of trampoline lacing line using a bowline knot.

1



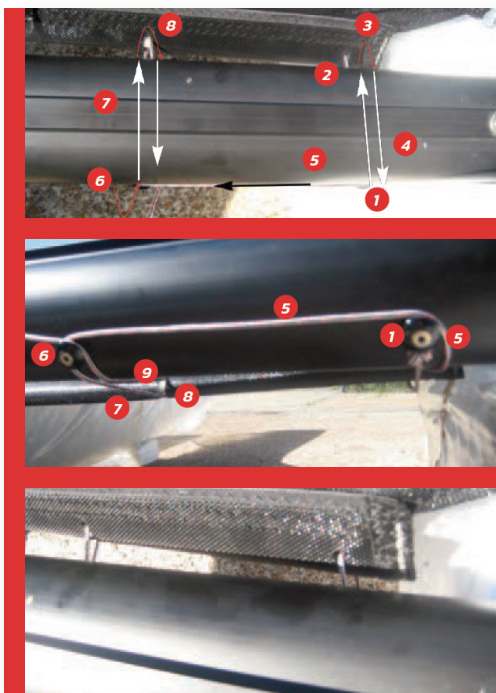
Then slide the loop on the lacing line over the last (far right) nylon wheel on the rear of the rear beam (1). You can then begin to lace the trampoline onto the rear beam.

2



Feed the line under rear beam, up through far right hole in trampoline (2).

3



Then, over and around the glass rod (3), then under the beam and back to the nylon wheel (4).

Over the top of the 1st nylon wheel (5), on to next wheel, over the top of 2nd wheel (6), then forward under the beam (7), and up through the eye in the rear of the trampoline around the 10mm rod (8), then back under beam (9)...

4

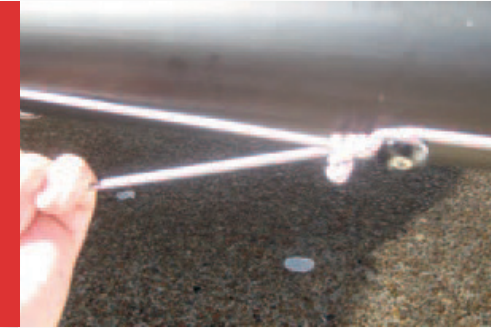


## ■ lacing the trampoline (...)



Then repeat along the entire rear beam, so, over the top of the 2nd wheel and on to 3rd wheel. Then continue lacing process until you reach the final nylon wheel on the end of the rear beam.

1



Once at the end of the beam. Go back to first loop and tighten the section between the first wheel and the second. Then tighten the loop between the second and third and so on. G. With the tail of the rope, feed line under rear beam, up through last hole in trampoline, over and around the glass rod then back to last nylon wheel. Pull tight and tie stopper knot round last nylon wheel. Then tie off loose end onto any of the nylon wheel.

2

*Note; the trampoline lacing will need to be re-Tightened from time to time to ensure that the Trampoline remains taut.*

## ■ attach trampoline to front beam



Tie the front end of trampoline onto slug on front beam.

1

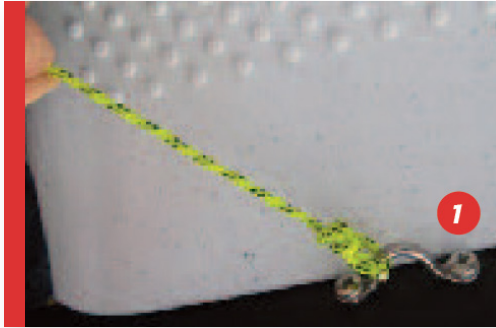


Pull tight, so end pulley wheel is tight in the back end of the trampoline.

2

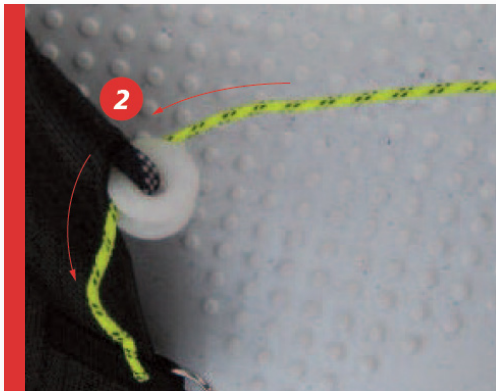
Tie off to slug using a half hitch with a knot against it to stop it slipping.

## ■ **attach trampoline to rear beam**



(1) Attach trampoline tensioning lines to the deck eye on rear beam.

1



(2) Feed forward & through pulley wheel at the rear of the trampoline.

2



(3) Back through deck eye. Tension as tight as possible. Then repeat process, this time through the stainless steel ring fixed to the back of the trampoline (4-5).

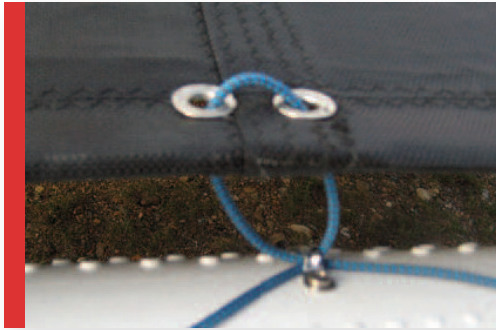
3

(6) Back through deck eye. Again, tension as tight as possible. Tie off with a round turn and two half hitches.

Then repeat on opposite side. Ensure trampoline is as taut as possible to ensure a firm platform.



## ■ **tighten centre of trampoline**



Tighten centre of trampoline by (1) feeding rope through deck eye left-to-right, then (2) up to and through right trampoline eyelet, (3) through left eyelet and back down (4) through deck eye (left to right).

1



(5-6) Then feed right hand tail up through right trampoline eyelet and left hand tail up through left trampoline eyelet, tighten and tie off with a reef knot.

2



Tidy tail ends by tucking back down through eyelets.

3

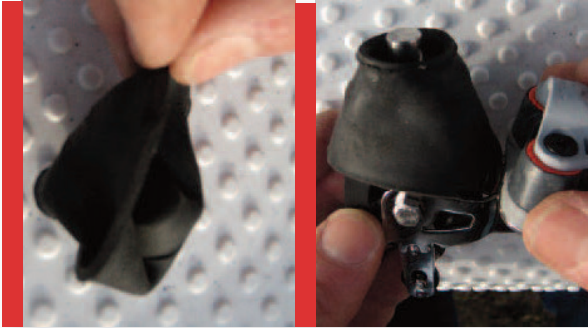
## ■ **jib blocks**



The jib block set includes (1) 2x rubber boots, (2) 2x jib blocks and (3) a shackle.

1

## ■ jib blocks (...)



To attach the two jib blocks to main beam, firstly, turn rubber boot inside out.

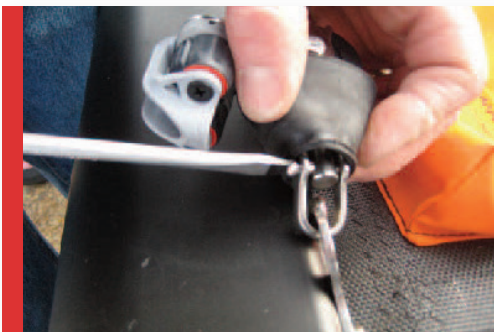
Then, Place over bottom of jib block.

2



Attach shackle to left eye (4) on the front beam.

3



Tighten shackle.

4

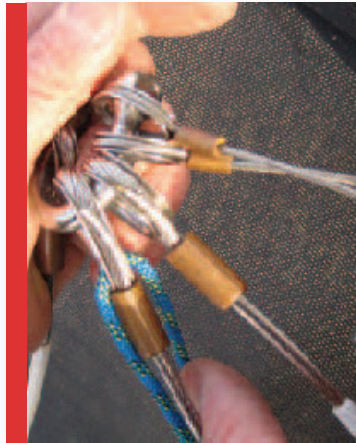


Fold rubber boot back over the eye.

Repeat, to attach second jib block to the right eye on the front beam.

5





Lay mast section along centre of boat with the top of the mast pointing towards the back of the boat.

Attach the rigging to the mast using the large bow shackle(1).

The rigging includes;  
1x set of shrouds (coated in white plastic)  
2x trapeze wires  
1x forestay (metal ring and pulley).

1



Attach bow shackle including rigging to crane fitting (2) located on the front of the mast section. It is important to tighten this shackle.

Then you need to tidy the rigging lines in readiness for erecting the mast.

2



Attach the shroud wires (coated in white plastic) onto the chain plates on either side of the boat (3) Use the third hole from the bottom of the chain plates. (4) Then secure chain plates to the hull as shown.

3



Lay trapeze wires to either side of the mast, so that they are roughly in the correct position ready to be attached once the mast is upright.

Next is the jib halyard, this comes in two parts (5). Ensure one section is fed through ring (6) and small pulley (7) on forestay.

4

## ■ mast (...)



Then feed end of spinnaker halyard through the small pulley at the top of the mast (8).

5



Take spinnaker halyard to foot of mast tying ends together to create a loop.

Position mast so that the foot of the mast is on the ball joint on the front beam and secure in place with pin.

6



Attach striker bar (g) (front cross bar) between the hulls at the front of boat.

7



**ENSURE THAT THE STERN OF THE BOAT IS FACING INTO THE WIND. ENSURE THAT THE MAST IS CLEAR OF ANY OVERHEAD CABLES OR OBSTRUCTIONS!**

Re-tidy all of the rigging.

You are now ready to raise the mast. This is a two person job.

8



## ■ mast (...)



Person One (1) should be positioned towards the front of the boat holding the trapeze wires.

9

Person Two (2) should support the top of the mast behind the boat and then walk mast forward until it is upright.



Once mast is vertical, person 2 can remove the pin from the ball joint allowing the mast to rotate freely.

10

Person 2 should then securely but loosely attach forestay to striker bar shackle. You can then remove the mast lock pin.



Now tighten forestay and re-attach to striker bar shackle.

11



## **trapeze**



Attach shock cord and rope with adjustment stop to trapeze handle.

1

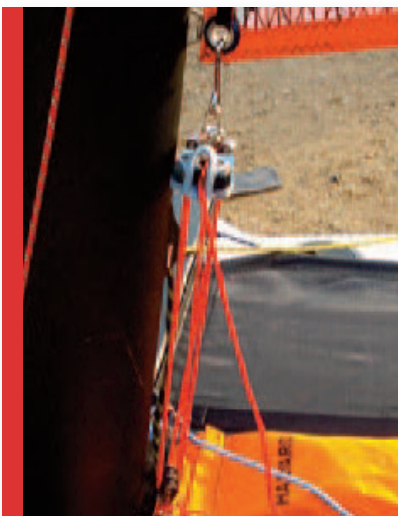


And feed through trapeze wire eye (1).

Then take other end of cord. Feed line under trampoline to other side of the boat then up and through trapeze wire eyelet and handle as before.

2

## **downhaul/kicker system**



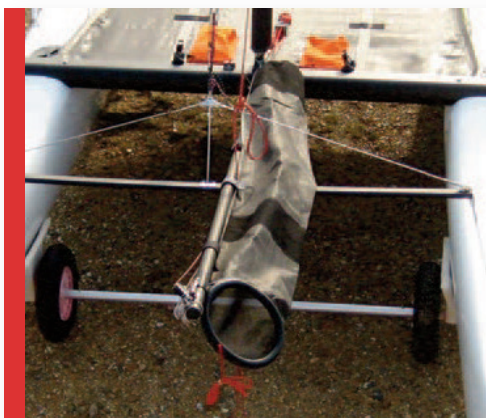
You can now attach the downhaul system to the foot of the mast.

## ■ spinnaker kit



Feed (2) spinnaker sock into (3) chute mouth groove. Feed around ring. Note, this is a snug fit.

1



You are now ready to attach the spinnaker sock and pole to the boat.

Ensure sock is fed over the striker bar.

2

## ■ spinnaker kit (...)



Attach velcro straps around spinnaker pole.

3



Then attach back of spinnaker sock around either side of the base of the mast.

4

(4) One line attaches to the mast foot. (5) The second line attaches through loop on front of trampoline (next to the capsize line pocket.)



Tie loop (6) in spinnaker pole bridle rope, (7) feed through eye on front hull by main bridle. (8) Take rope back through loop and then (9) tie off on eye.

5

Repeat on other side and pull tight till there is a slight bend in the spinnaker pole.

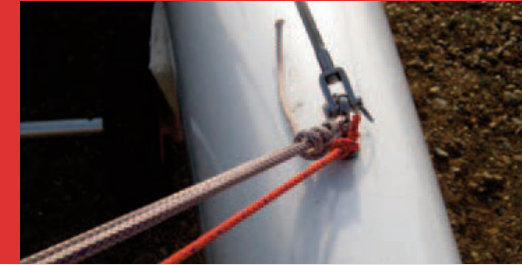


## ■ spinnaker kit (...)



1) Take line from the chute mouth and (2) tie off on to the eye on the front of the hull.

6



## ■ spinnaker halyard



To secure one end of the spinnaker halyard, tie to bridle for time being.

Take other end of spinnaker halyard down mast and through pulley on back of spinnaker pole running from back of boat forwards.

Remove the rope that is securing the double block to the spinnaker pole (this is for shipping purposes only).

1



(1) Feed spinnaker halyard forward and (2) through double block and then (3) back to double cleat on front crossbeam aside mast foot.



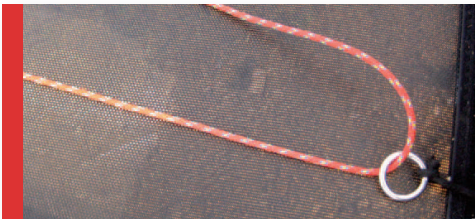
2

## ■ spinnaker halyard (...)



Attach ring on shockcord through back/ centre of trampoline and tie off on eyelet on back of rear crossbeam/ centre.

1



Feed spinnaker halyard (4) back along trampoline, through steel ring.

2



Then forward (5) to the guide pulley (6) on trampoline front (by capsizing line pocket).

3



Then forward (5) to the guide pulley (6) on trampoline front (by capsizing line pocket).

4



(8) Feed end of spinnaker halyard through the spinnaker chute until the tail comes out the front of the chute.

5

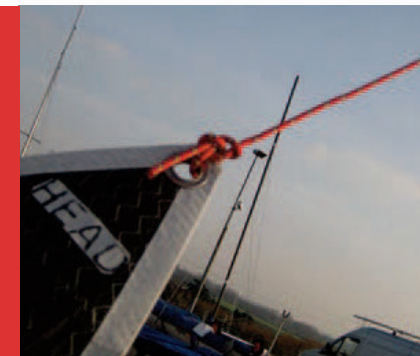
*TIP: it is easier to do this by fishing the spinnaker halyard out of the chute with a tiller arm or similar long object.*

## ■ spinnaker sail



To attach spinnaker, tie (T) tack line (attached to spinnaker pole block) to 'Tack' of spinnaker sail with a bowline.

1



If you feed the front of the sail through your hands till you come to the 'Head' (1) of the spinnaker sail.

Attach Head of sail to spinnaker halyard (2) coming from the top of the mast.

2



The spinnaker has two patches in the centre of the sail, pass the spinnaker halyard (end from the chute mouth) through the lower patch (3) (one with steel ring) then tie off onto other patch (4) (one that is cross taped) through the cross tapes with a bowline.

3



You can put sail back into the chute by pulling the spinnaker halyard from the guide block (5) on the trampoline.

4



## ■ spinnaker sail (...)



Ensure that the 'Clew' of the sail does not disappear down the chute. It should remain poking out of the front of the chute.

*TIP: it is helpful if a second person holds the Clew of the spinnaker sail at the front of the chute whilst the first person pulls the rest of the sail back into the chute.*

5

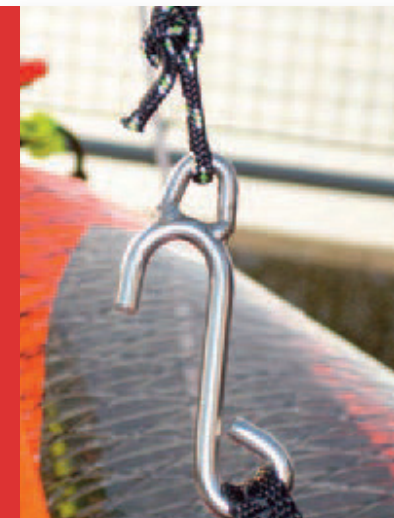


Attach spinnaker blocks to eyelets on side of hulls. Ensure rotation arrows on the block are facing in towards the centre of the boat.

Feed spinnaker sheets through ratchet blocks and attach to the Clew of the spinnaker sail.

6

## ■ jib



Tie jib halyard (H) to top of jib sail onto S hook.

7



Attach plastic hanks to forestay. Pull jib halyard to raise jib attaching hanks as you go.

2



## ■ jib (...)



When sail is fully raised ensure that the S hook is locked into the s/s ring at the top of the rigging.

3

C. (1) Tie jib tack line to eye in tack of jib then feed down through main bridle.

Then (2) back up to tack of jib through eye.

Then (3) back down to main bridle and tie off through with a round turn and two half hitches.

## ■ jib sheets



(1) Tie jib sheet onto jib block (located on front beam) using a bowline knot.

1



(2) Take jib sheet up to & through the lower eye in the jib sail, (3) down and...

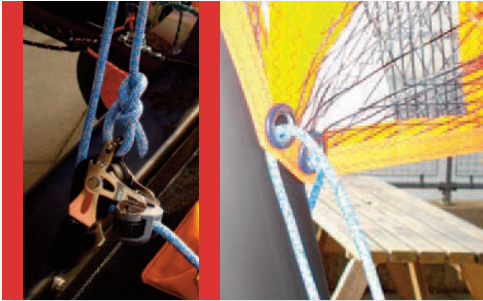
2



... (4) Through pulley cleat, (5) round back of the mast (to the other side of the mast)...

3

## ■ jib sheets (...)



... (6) through the other pulley cleat (on the other side of the mast).

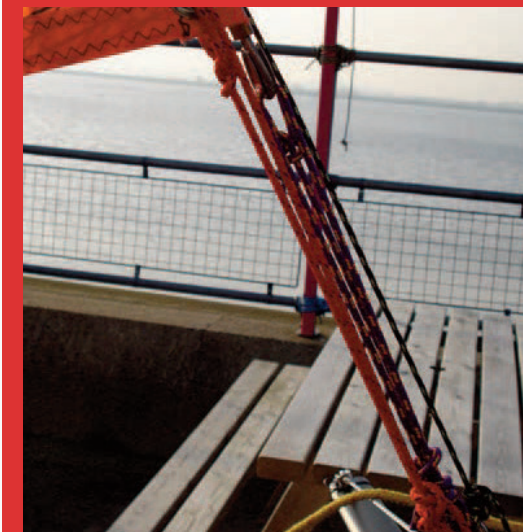
Then (7) up to and (8) through top eyelet in jib sail and then down to tie off on jib block with a bowline (9).

4



Untie tail end of jib halyard and tie one end off loosely onto the bridle eye (F).

5



Store the remaining tail end in the halyard pocket (located on the trampoline).

6

## ■ mainsail



turn through eye at head of sail and pull stopper knot tight to head of sail.

Hoist mainsail, feed sail into groove in mast and then raise mainsail by pulling main halyard.



## ■ mainsheet



Attach mainsheet rope/ block to traveller block on rear beam with the shackle.

1



Feed tail end through cleat on carriage and then through double pulley block.

2

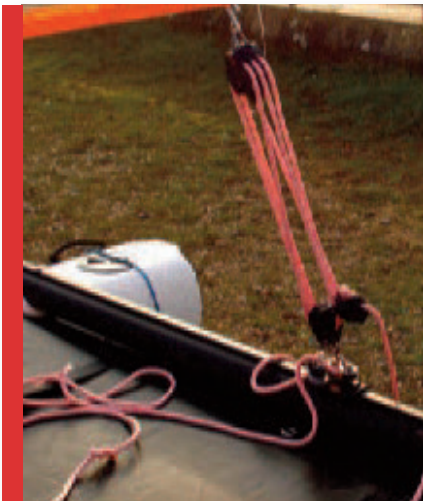


## ■ mainsheet (...)



Then feed through eyelet on back/centre of rear beam. Tie off with a figure of eight knot.

3



Then attach mainsheet system to mainsail with S hook (S).

*TIP: Tie two figure of eight knots (8) in the mainsheet approximately 1.5 metres from the block to prevent the traveller car sliding into each side of the rear beam track when sailing.*

4



Tie round mast foot with a bowline, and store in Capsize Line Pocket. You may wish to tie figure of eight knots along the line at evenly spaced intervals. These will help as gripping points.

5

# *topaz 14*



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