

# *RS* aero

Rigging Manual V10



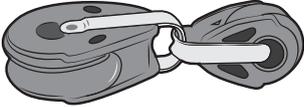
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aero

# Contents

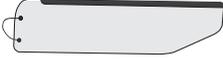
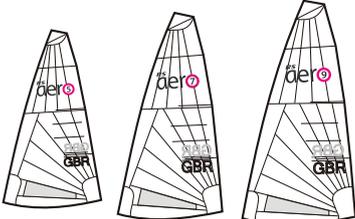
<b>1. Components List</b> .....	<b>2 - 4</b>
<b>2. Introduction</b> .....	<b>5</b>
<b>3. RS Registration System</b> .....	<b>6</b>
<b>4. Commissioning</b> .....	<b>7 - 8</b>
<b>5. Hull</b> .....	<b>9 - 20</b>
5.1 - Mainsheet Block Assembly.....	10
5.2 - Vang cleat.....	11
5.3 - Control Lines .....	11 - 19
5.3.1 - Adding the Ronstan Shocks .....	12
5.3.2 - Adding the Mainsheet Bridle.....	13
5.3.3 - Outhaul Control Line .....	14 - 15
5.3.4 - Downhaul Elastic Take Up.....	16
5.3.5 - Downhaul Control Line .....	17 - 19
5.4 - Daggerboard elastic.....	20
5.5 - Middle Toestrap .....	20
<b>6. Mast</b> .....	<b>21 - 23</b>
6.1 - Joining the Mast Sections .....	22
6.2 - Main Halyard .....	22 - 23
6.3 - Stepping the Mast .....	23
6.4 - Vang Block .....	23
<b>7. Boom</b> .....	<b>24 - 30</b>
7.1 - Adding mainsheet blocks.....	25
7.2 - Vang system.....	26 - 29
7.3 - Adding the Boom.....	30
7.4 - Mainsheet system .....	30
<b>8. Sails</b> .....	<b>31 - 33</b>
8.1 - Attaching the Outhaul .....	32
8.2 - Hoisting the Mainsail .....	32 - 33
<b>9. Foils</b> .....	<b>34 - 36</b>
9.1 - Rudder.....	35 - 36
<b>10. Preparation and care</b> .....	<b>37 - 43</b>
10.1 - Sail numbers and Letters .....	38 - 39
10.2 - Battens .....	40
10.3 - Sail Care.....	40
10.4 - Stacking boats.....	41
10.5 - Mast Bag .....	41
10.6 - Replacing a Dyneema Loop .....	42
10.7 - Top Cover .....	42
10.8 - Foil Care.....	43
10.9 - Spar Care .....	43
10.10 - Fixtures and Fittings.....	43
<b>11. Breather and drainage holes</b> .....	<b>44 - 45</b>
<b>12. Optional fittings</b> .....	<b>46 - 57</b>
12.1 - Mainsheet cleats .....	47 - 48
12.2 - Compass Bracket.....	48
12.3 - JC strap.....	49
12.4 - Wind indicator.....	50
12.5 - Righting lines.....	51 - 52
12.6 - Adding the New Mainsheet Base .....	53 - 56
12.6.2 - Adding a Swivel Base.....	56 - 57
<b>13. Examination report</b> .....	<b>58</b>
<b>14. Sailing hints</b> .....	<b>59 - 62</b>
<b>15. Warranty</b> .....	<b>62</b>
<b>16. Three essential knots</b> .....	<b>63 - 64</b>
<b>17. Glossary</b> .....	<b>65 - 73</b>

HARDWARE AND ROPE PACK

QUANTITY

	Mainsheet block	1
	Mainsheet traveller	1
	Mainsheet	1
	Downhaul tail	1
	Outhaul control line	1
	Downhaul Control line	1
	Control line takeup elastic	2
	Control line joining ties	2
	Vang purchase	1
	Vang stop	1
	Toestrap elastic	1
	Daggerboard elastic	1
	Control line takeup elastic	1
	Main halyard tail	1
	Main halyard	1
	Vang cleat	1
	16mm block	3
	40mm soft-attach Harken block	2
	16mm block with becket (vang)	1

	Ronstan Shocks (red)	2
	Ronstan Shocks (blue)	2
	Micro 22mm block	2
	Micro 22mm block - Swivel	1
	Side deck strops	2
	Block lashing	1
	Traveller rope	1
	Rope bobble	1
	30mm block	1
	Mainsheet spring	1
	18 mm soft-attach double block	1
	16mm vang double block	1
	Plastic clip (daggerboard)	1
	5mm shackle (vang)	1
	Plastic washer (mainsheet block)	1
	Zip ties	2
	Mainsheet ratchet plate	1
	Eye strap	1
	Mainsheet base key & bottle opener	1

	Rudder downhaul	1
	Rudder	1
	Rudder stock	1
	Tiller extension.	1
	Dagger board	1
	Boom	1
	Top mast	1
	Lower mast	1
	Sail	1
	Sail numbers	8
	Document case	1
	Owners' Manual	1
	Rigging Manual	1

## 2. Introduction

Congratulations on the purchase of your new RS Aero and thank you for choosing an RS product. We are confident that you will have many hours of great sailing and racing in this truly excellent design.

The RS Aero is an exciting boat to sail and offers fantastic performance. This rigging guide has been compiled to help you to gain the maximum enjoyment from your RS Aero, in a safe manner. It contains details of the craft, the equipment supplied or fitted, its systems, and information on its safe operation and maintenance. Please read this rigging guide carefully and be sure that you understand its contents before using your RS Aero.

This rigging guide will not instruct you in boating safety or seamanship. If this is your first boat, or if you are changing to a type of craft that you are not familiar with, for your own safety and comfort, please ensure that you have adequate experience before assuming command of the craft. If you are unsure, RS, your RS dealer, or your national sailing federation – for example, the Royal Yachting Association – will be able to advise you of a local sailing school, or a competent instructor.

**Please keep this rigging guide in a secure place and hand it over to the new owner if you sell the boat.**

**Please also see Owners Manual for technical summary and Capsize recovery.**

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

RS Sailing  
Premier Way  
Abbey Park  
Romsey  
Hants SO51 9DQ  
Tel.: +44(0)1794 526760  
Fax: +44(0)1794 278418  
E-mail: [www.info@rssailing.com](mailto:www.info@rssailing.com)

### 3. RS Aero Registration

We have introduced a new boat registration system for the Aero, which will be extremely important to help the Association communicate with owners, develop the Class, create strong events and take the Aero on to the next level.

#### RS Aero Boat Registration - how it works:

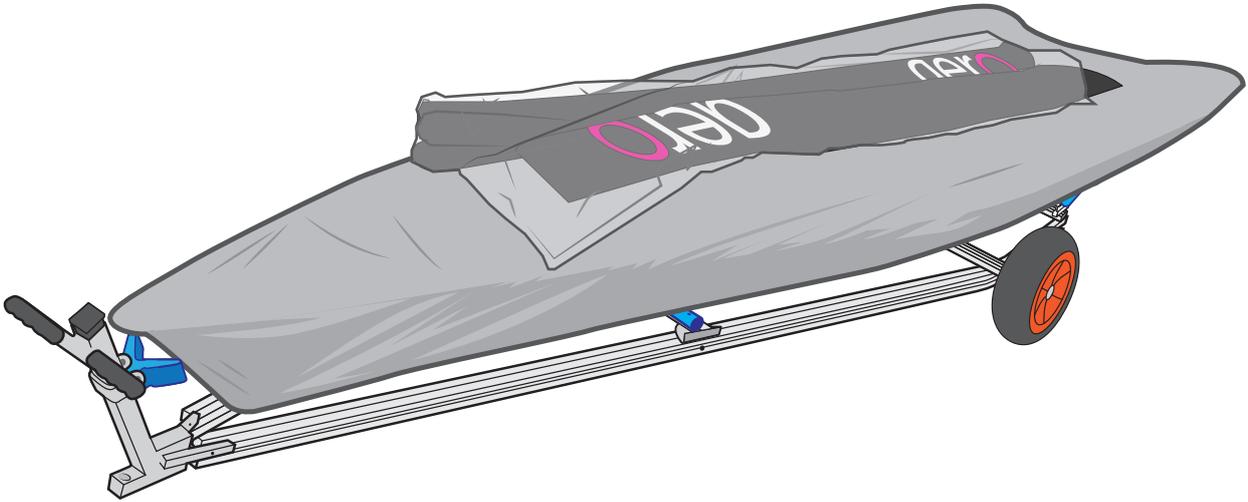
- It is free
- Owners go to the Association website, **RSaerosailing.org** – Boat Registration
- Enter your name & contact details, boat number, sailing club etc – Submit
- The Association emails back a pdf Registration Document (required for event entry or for re-sale of the boat) and a password.
- When a boat is sold, the seller logs into the Boat Registration page on the site, using the password – and enters new owner details
- The new owner is sent an updated Registration Document.

The data is held by the Aero Class Association. By doing this we will transform the future strength of the Class and speed of growth.

Please play your part and ensure that the RS Aero registration is filled out fully and be part of the RS Aero revolution.

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**aero**

## 4. Commissioning



### Preparation

Your RS Aero comes complete with all the components necessary to take the boat sailing. In order to commission it, you will need the following tools:

- Pliers or a shackle key
- Sharp knife
- Small flat head screwdriver
- PVC electrician's tape

It will take around 1 1/2 hours to prepare your Aero so make sure you allow plenty of time.

**DO NOT use a knife or other sharp object to cut through packaging containing parts – you may damage the contents!**

Whilst your RS Aero has been carefully prepared, it is important that new owners should check that shackles and knots are tight. This is especially important when the boat is new, as travelling can loosen seemingly tight fittings and knots. It is also important to check such items prior to sailing regularly.

## Unpacking

Having unpacked your RS Aero, you should check that you have all of the items listed below before throwing away any of the packing, as there may be some small items still wrapped. Please see contents page.

Unpack your Aero and place on a suitable gunwhale supported trolley. Avoid point loading the hull skins. Dispose of any packaging.

If you are trailing stacked boats we would recommend you put top covers on and insert padding between the hulls to protect the boats from damage.

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## Rigging Guide

### 5. Hull



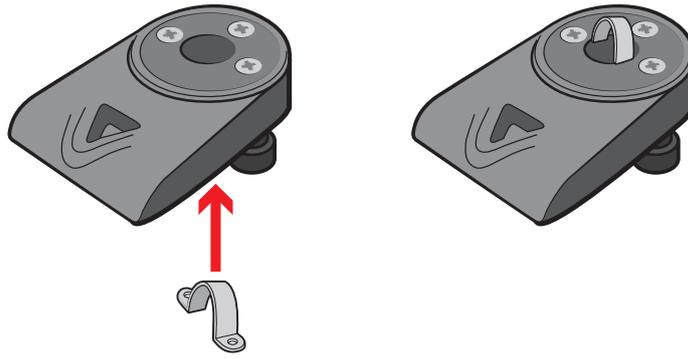
PLEASE FOLLOW ASSEMBLY GUIDE IN THE CORRECT ORDER

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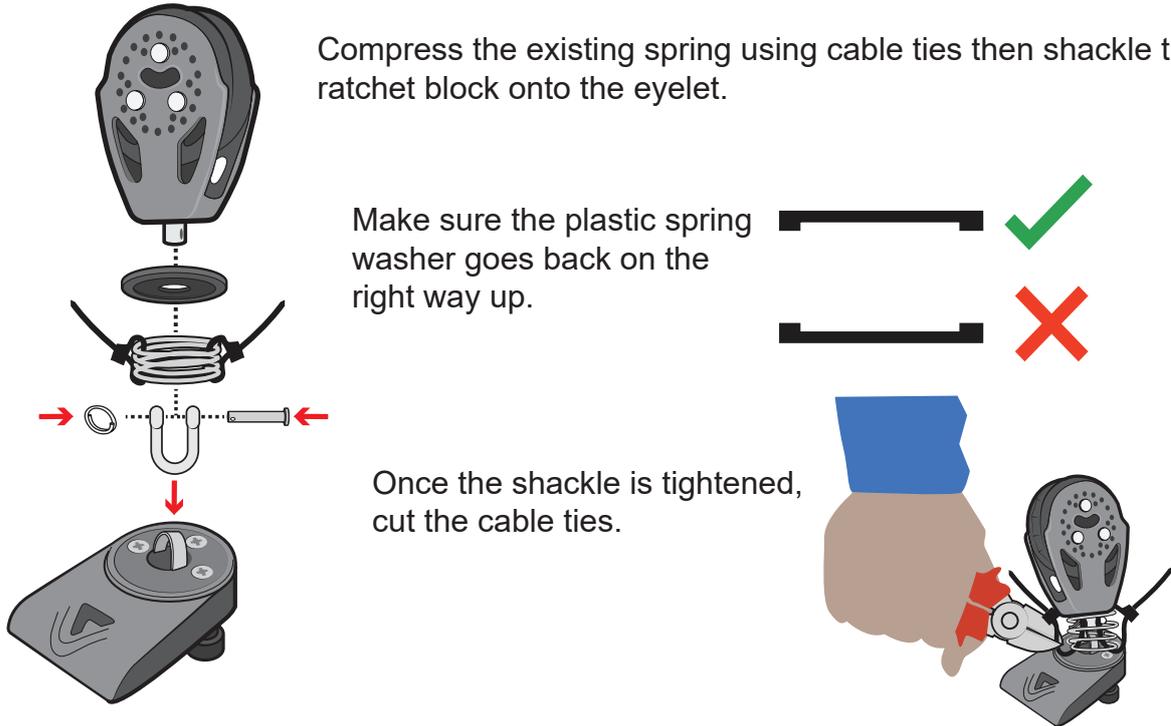
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**RS** **aero** 5.1 - Mainsheet Block Assembly

a) Add the eyelet onto the ratchet base.

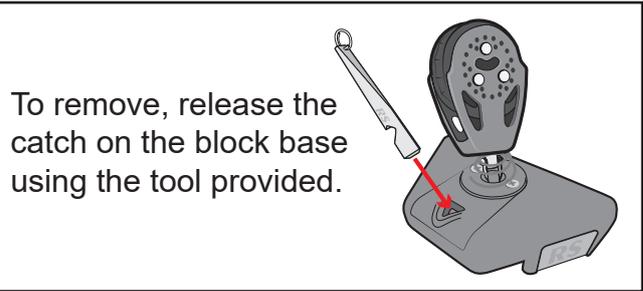
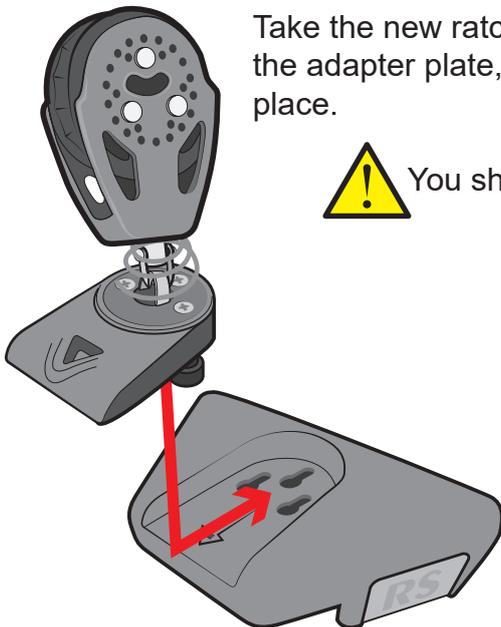


b) Compress the existing spring using cable ties then shackle the ratchet block onto the eyelet.



c) Take the new ratchet base, align the three pins with the holes in the adapter plate, then push it down then forwards to lock into place.

 You should hear a click as the catch engages.



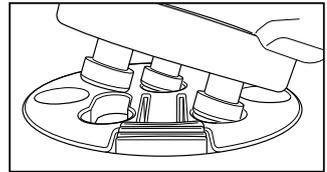
**See appendix for instructions regarding fitting a swivel jammer upgrade.**

**RS aéro** 5.2 - Vang Cleat

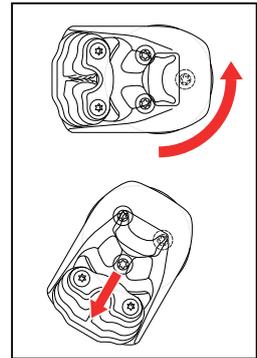
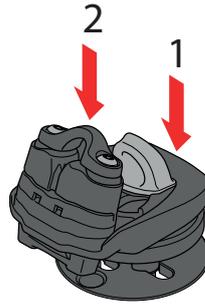
a)

Add the vang cleat.

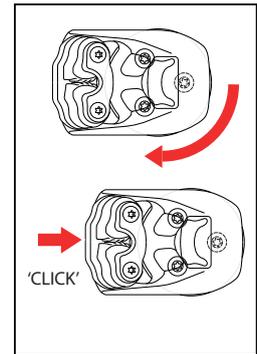
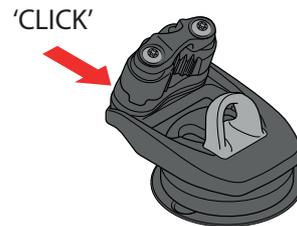
Tilt and locate 2 of the 3 lugs. Push down to locate the 2 lugs into the deck fitting.



Rotate the cleat so it lines up with the last lug. Hold the fitting in position 1 and then push down on position 2 to locate the final lug.



Rotate the fitting so the cleat is aligned fore and aft and then push/strike it forward until the fitting clicks into place.

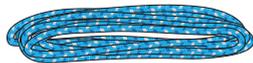


Check the fitting is located securely.

**RS aéro** 5.3 - Control Lines

To complete this section you will need the following items:

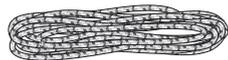
• Downhaul control line



• Traveller line



• Outhaul control line



• 2 x Side deck straps



• Downhaul takeup elastic



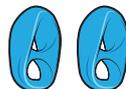
• 2 x Ronstan Shocks - (red)



• 2 x 22mm block



• 2 x Ronstan Shocks - (blue)



• 1 x 22mm block - swivel



• Block lashing

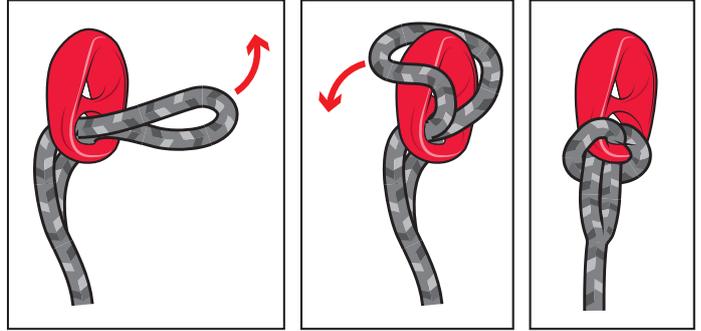


**RS** **ero** 5.3.1 - Adding the Ronstan Shocks

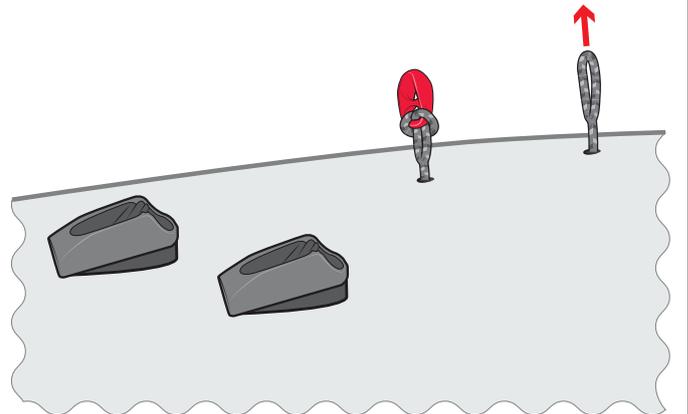
- a) Locate the two side deck strops and the four Ronstan Shocks.



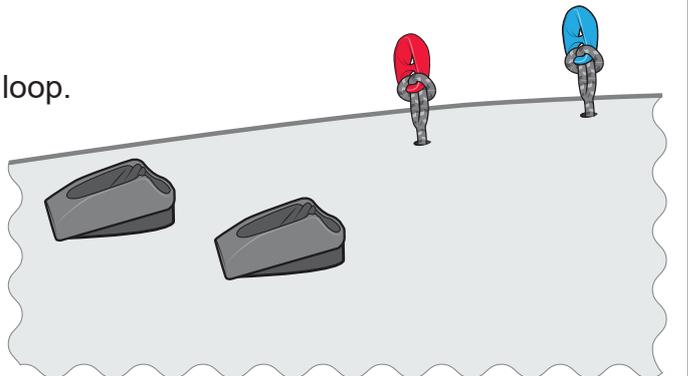
- b) Cow hitch one of the red Ronstan Shocks onto the loop at one end of the strop.



- c) Pass the loop at the other end down through the front hole in the starboard gunwhale and back up through the aft hole.



- d) Cow hitch a blue Ronstan Shock onto the aft loop.



- e) Repeat on the other side of the boat.

**RS** **æro** 5.3.2 - Adding the Mainsheet Bridle

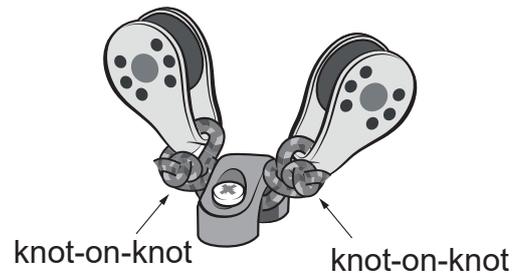
a)

Locate the traveller line, block lashing and 2 x 30mm blocks.



b)

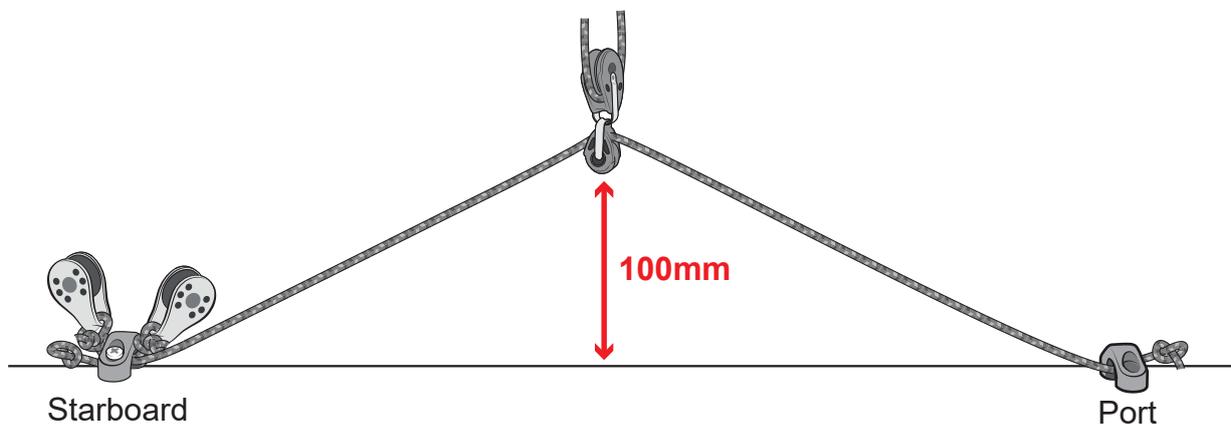
Lash the two blocks together through the starboard side traveller bulls eye (as tight to the bulls eye as possible)



c)

Tie a stopper knot in one end of the traveller line. Pass the traveller line through one bullseye, through the bottom block of the sisterblocks on the mainsheet purchase, then through the other bullseye.

Set the traveller height (100mm in the centre is recommended) and tie a stopper knot in the tail.



**RS** **aero** 5.3.3 - Outhaul Control Line

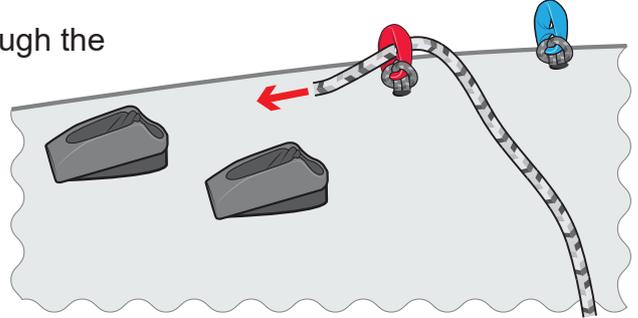
a)

Locate the outhaul control line.



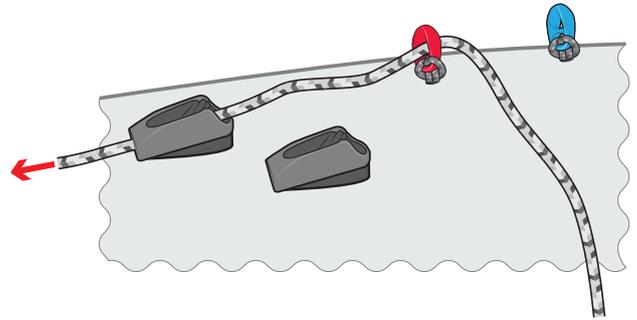
b)

Pass one end of the outhaul control line through the forward block on the starboard gunwhale.



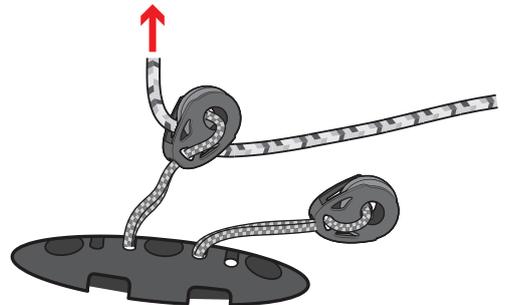
c)

Pass the end through the forward cleat on the starboard gunwhale.



d)

Pass the end through the front block on the port organiser by the mast step.



e)

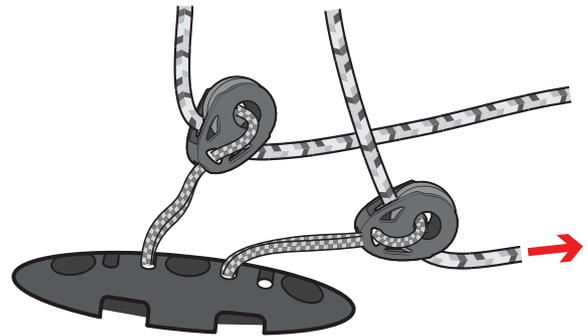
Pass the end through the outhaul block (16mm single block) at the gooseneck.



**RS** **aero** 5.3.3 - Outhaul Control Line

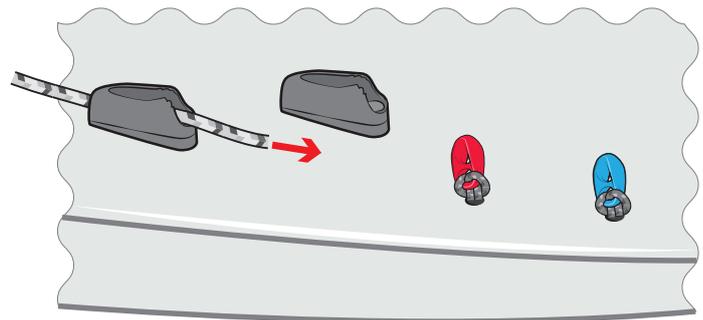
f)

Pass the end back down to the mast step and through the aft block on the port organiser.



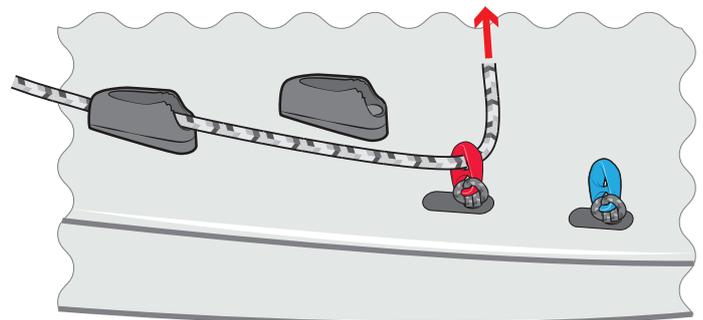
g)

Pass the tail through the front cleat on the port gunwhale.



h)

Pass the end through the grey (front) Ronstan Shock on the port gunwhale.

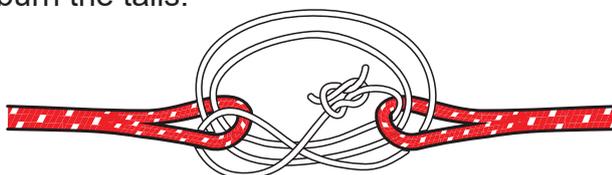
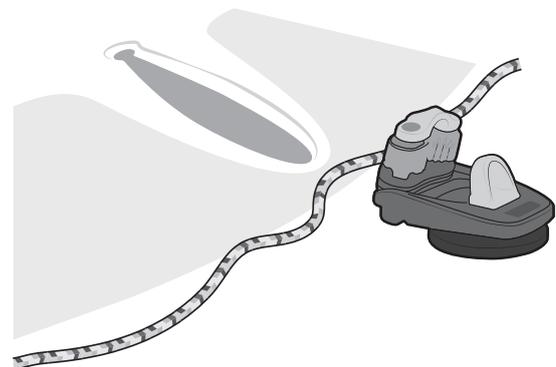


i)

This rope will now sit across the boat in front of the daggerboard and beneath the daggerboard elastic.

The two ends of the outhaul control line must now be lashed together like this.

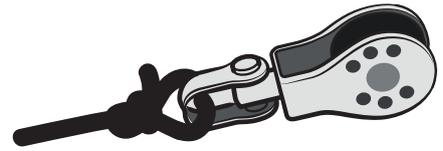
Cut and burn the tails.



**RS** **æro** 5.3.4 - Downhaul Elastic Take Up

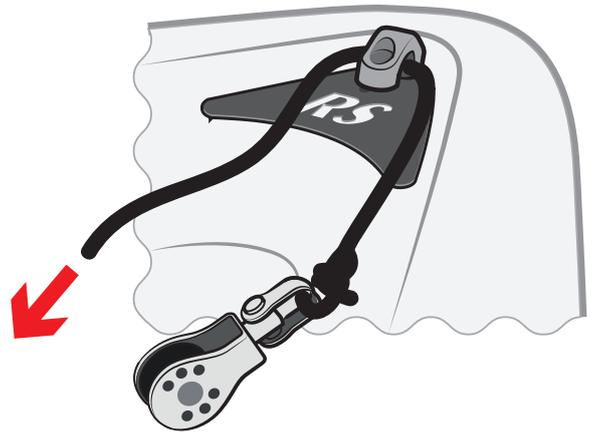
a)

Locate the downhaul takeup elastic and 30mm block in the pack and tie the block onto one end of the elastic with **knot #2**.



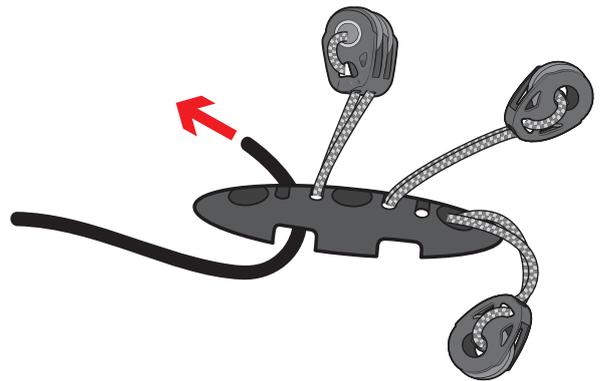
b)

Pass the other end through the bullseye at the bow (from starboard to port).



c)

Take the end aft and pass it underneath the organiser on the starboard side of the mast step.



d)

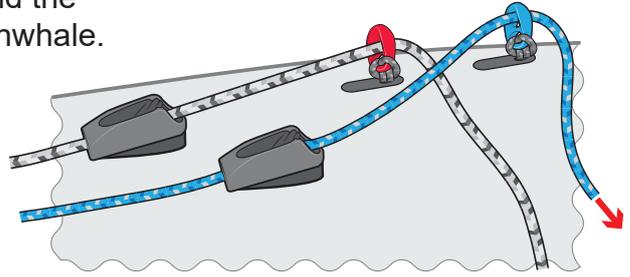
Tie it off with a stopper knot. You may want to adjust this once the downhaul control line is added.

**RS**  
**aero** 5.3.5 - Downhaul Control Line

a)

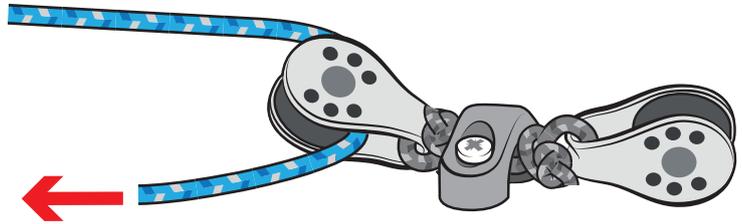
Locate the new downhaul control line in the pack.

Pass one end backwards through the cleat and the aft (blue) Ronstan Shock on the starboard gunwhale.



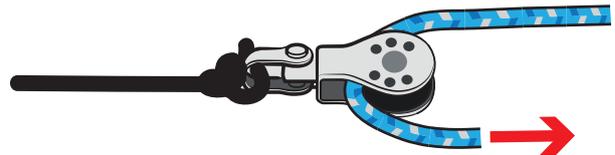
b)

Pass the end through one of the 30mm blocks on the end of the traveller line.



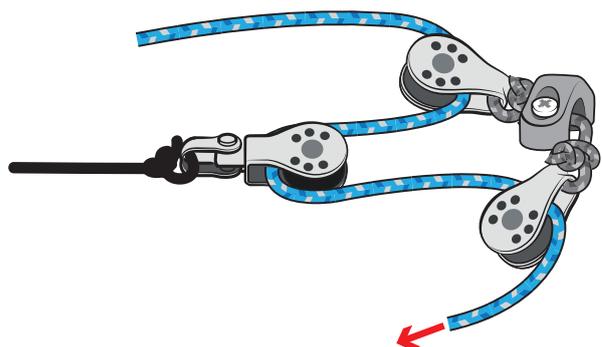
c)

Pass the tail forward through the block on the takeup elastic (added in the previous section 5.3.4).



d)

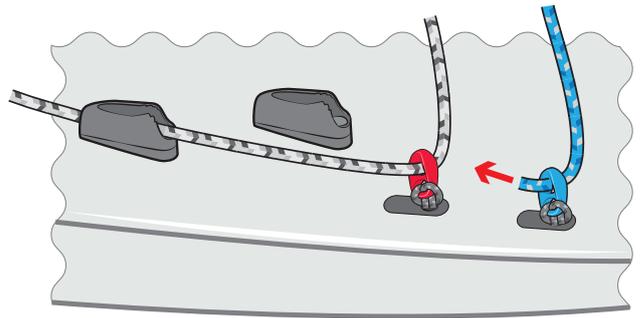
Pass the tail aft and through the other 30mm block on the end of the traveller line.



**RS** **aero** 5.3.5 - Downhaul Control Line

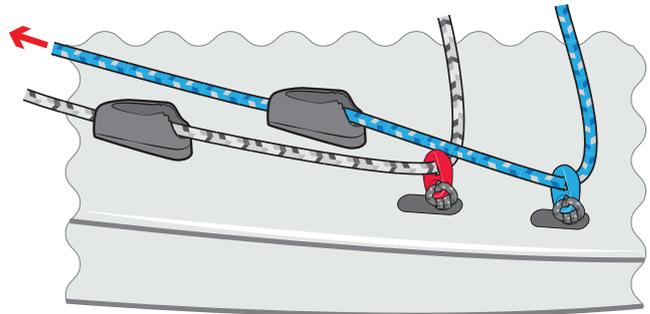
e)

Pass the end across the boat and through the aft (blue) Ronstan Shock on the port gunwhale.



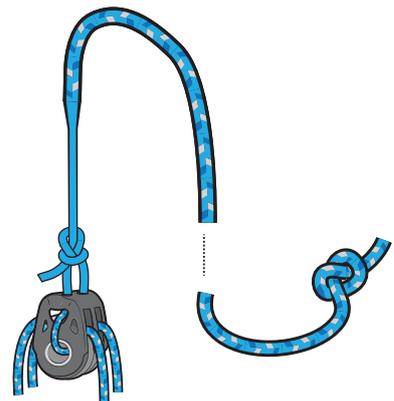
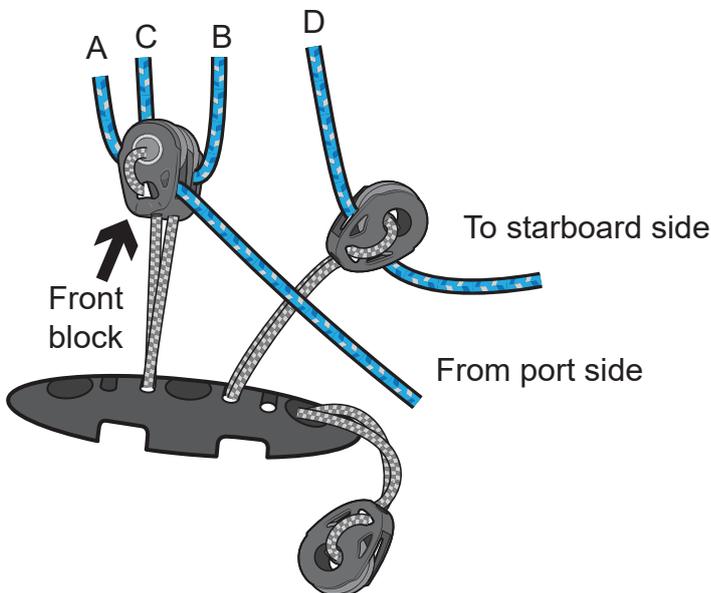
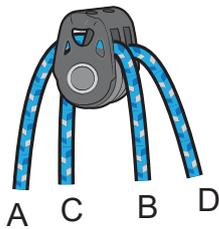
f)

Pass the end through the aft cleat on the port gunwhale.



g)

Pass the end forward to the front (double) block on the starboard organiser by the mast step and rig the downhaul purchase as shown.



Attach the tapered end of the downhaul tail onto the double block with a bowline.

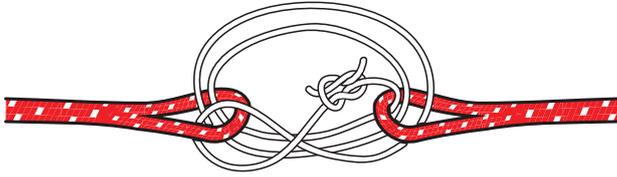
Tie an overhand knot in the other end of the rope.

**RS**  
**aero** 5.3.5 - Downhaul Control Line

h)

The two ends of the outhaul control line must now be lashed together like this.

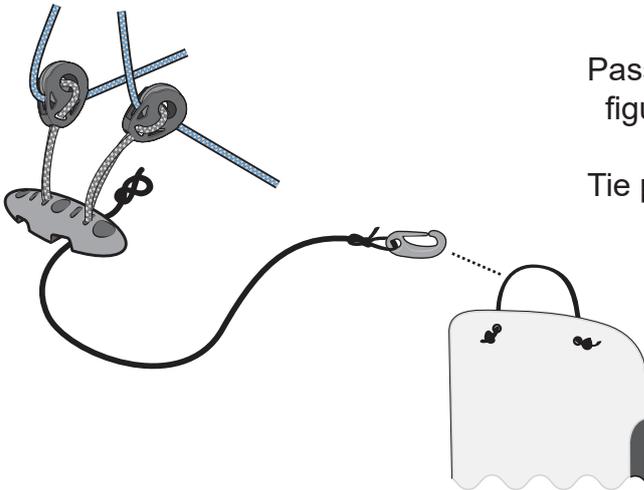
Cut and burn the tails.



i)

Adjust the amount of tension in the system if necessary by tightening or loosening the takeup elastic.

a)



Pass elastic through front recess and tie figure of eight in the end of the port organiser.

Tie plastic hook on other end with a bowline.



You may need to use a slot screwdriver to push the elastic through.

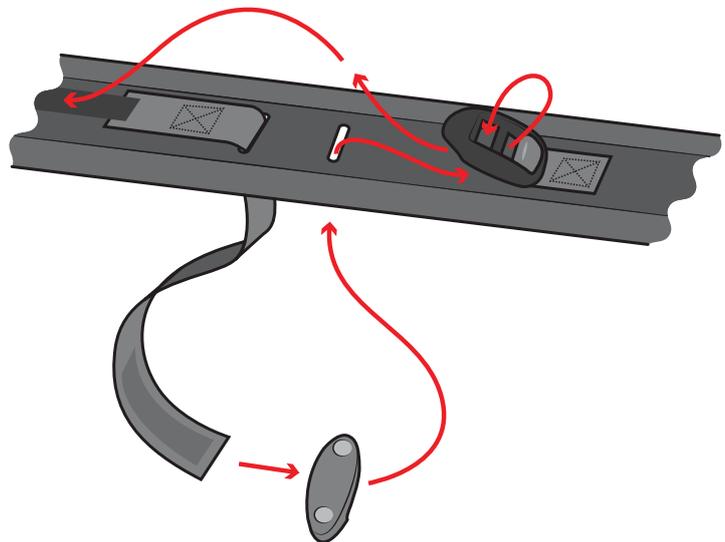
RS **ero** 5.5 - Middle Toestrap

a)

**MIDDLE TOESTRAP**

Thread webbing through buckle as shown. It may be quite tight.

After going through the buckle, the webbing velcros back on top of the toestrap.



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## Rigging Guide

### 6. Mast



PLEASE FOLLOW ASSEMBLY GUIDE IN THE CORRECT ORDER

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## <sup>RS</sup> **aero** 6.1 - Joining the Mast Sections

- Select the bottom section to suit the size of sail you wish to use.
- Ensure that the sleeve and the inside of the tube are clean and free of debris. Aero rigs are designed with a tight engineering tolerance on the sleeve.

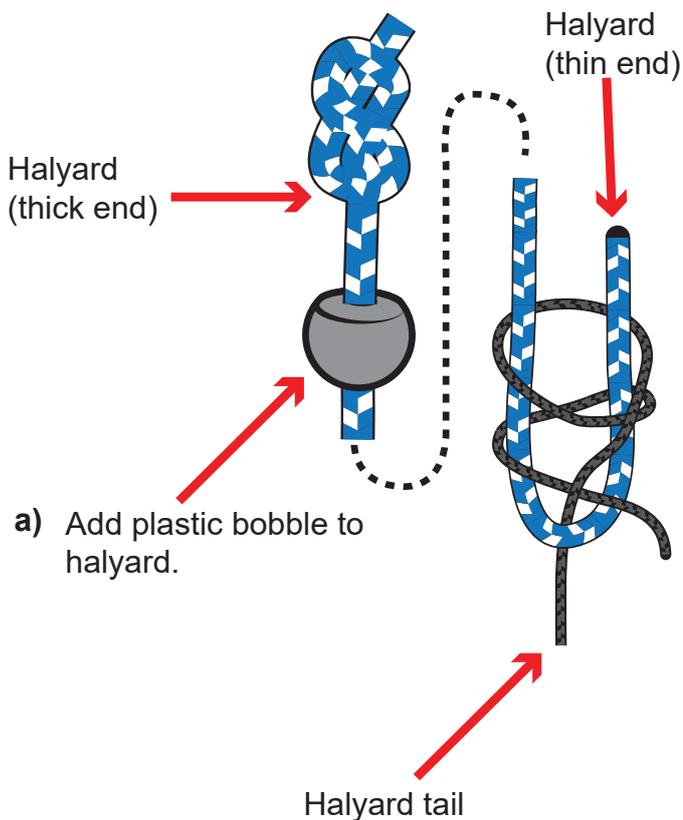


Ensure the tubes are aligned and push together. (The first part is often the hardest due to misalignment). If the tubes are hard to push together spray with maclube or a similar product.



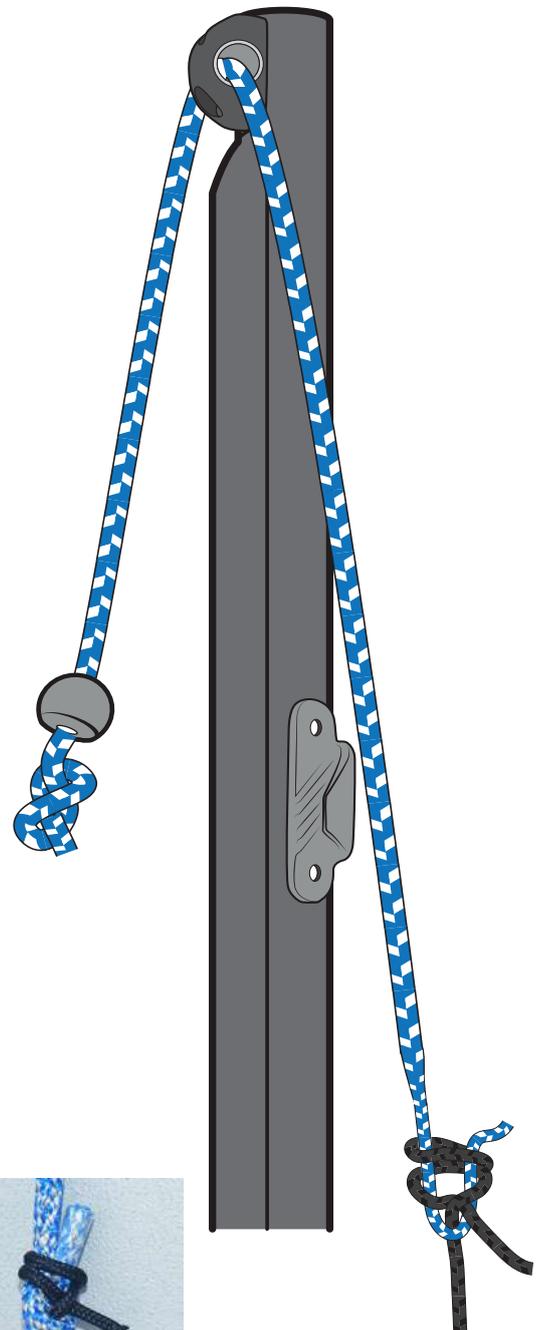
## <sup>RS</sup> **aero** 6.2 - Main Halyard

The thick section of the Main Halyard has two distinctive ends. One end has the core removed from the rope and is of reduced diameter. This is the end that attaches to the thin halyard tail. The thick end attaches to the plastic bobble

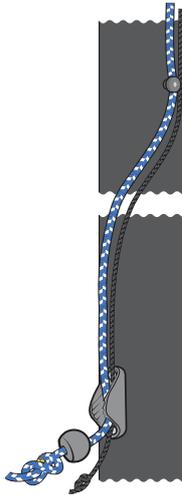


- Add plastic bobble to halyard.

- Tie the thick and thin part of the main halyard together with a double sheet bend.



c)



To keep things neat while stepping the mast you can add the main halyard and tail to the lower cleat.

RS **dero** 6.3 - Stepping the Mast

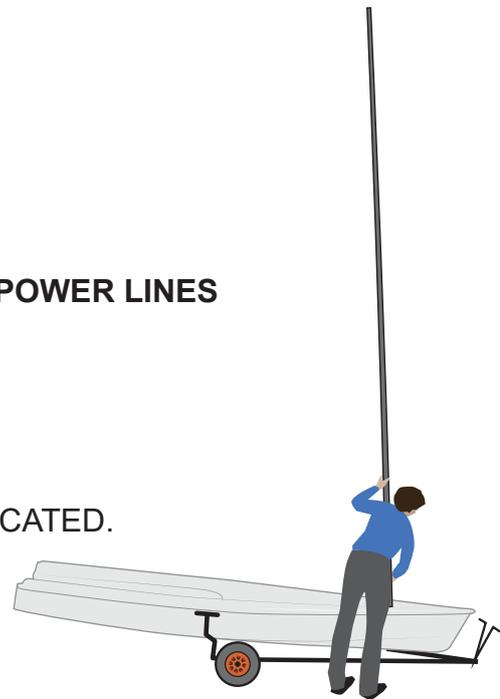


a) **MAKE SURE THERE ARE NO OVERHEAD POWER LINES**

BE CAREFUL IN STRONG WINDS.

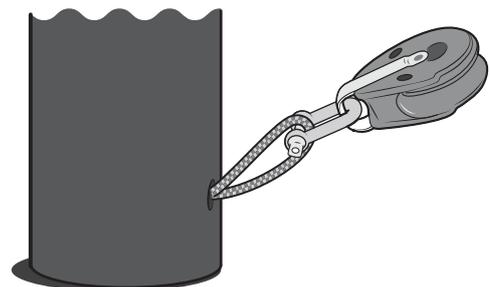
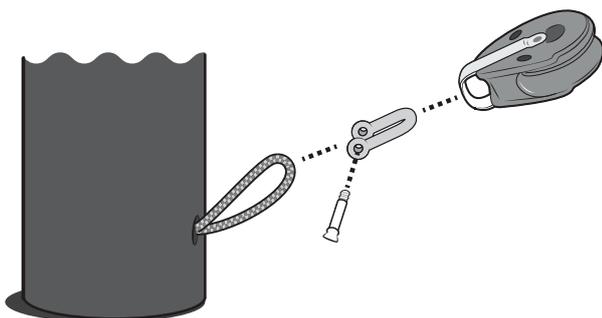
b) Then step the mast in the boat.

MAKE SURE THE MAST STEP IS FULLY LOCATED.



RS **dero** 6.4 - Vang Block

a) Add 40mm block to the dyneema loop at the base of the mast using the 5mm shackle.



**RS**  
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## Rigging Guide

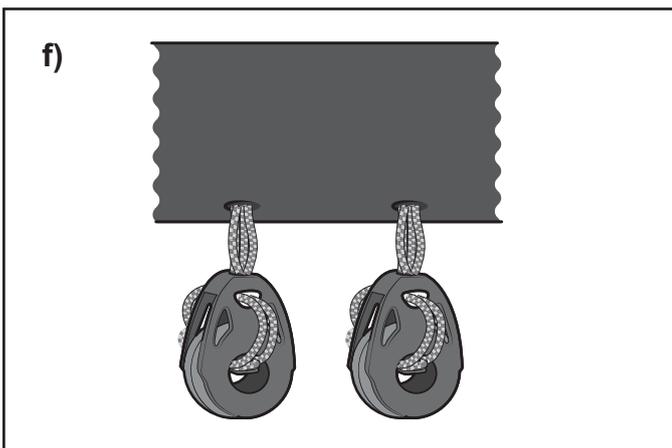
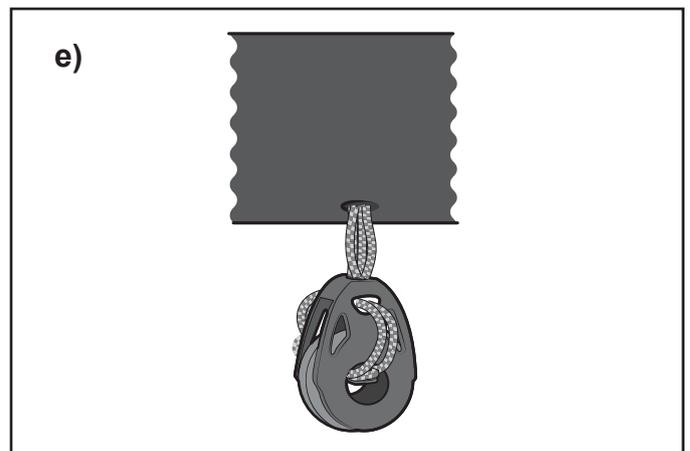
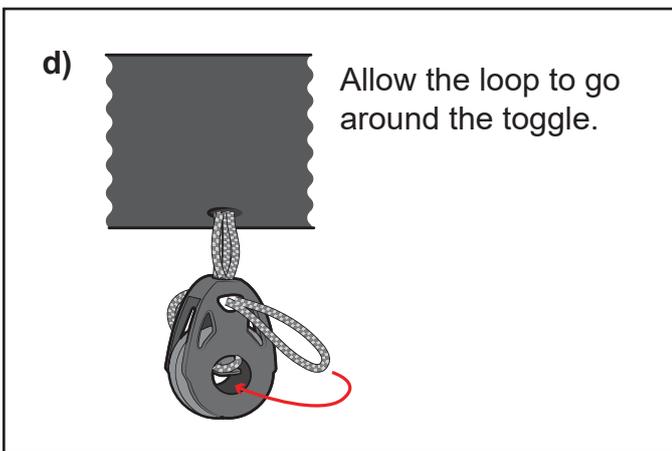
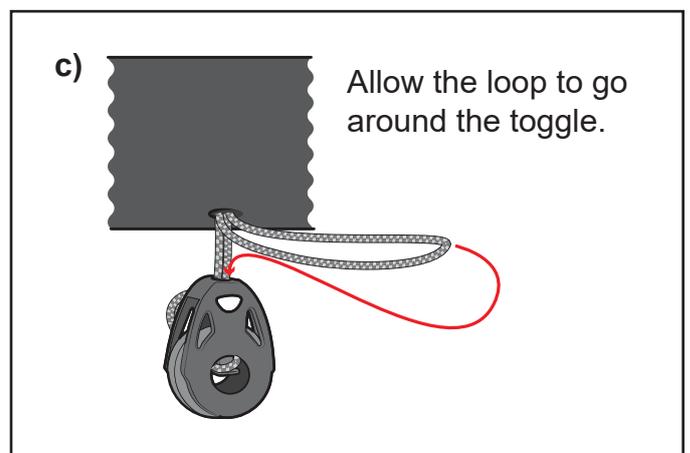
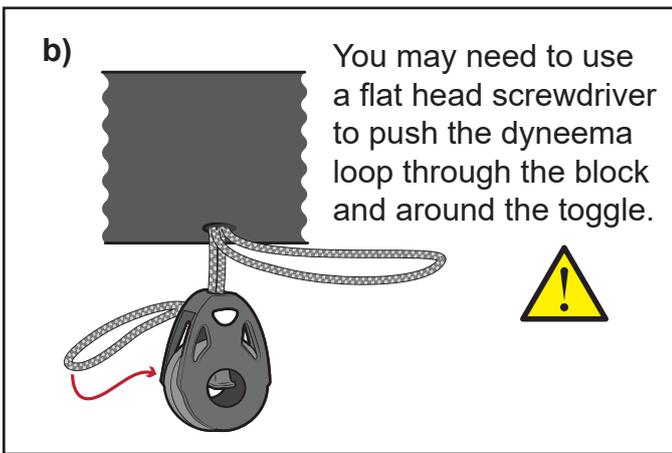
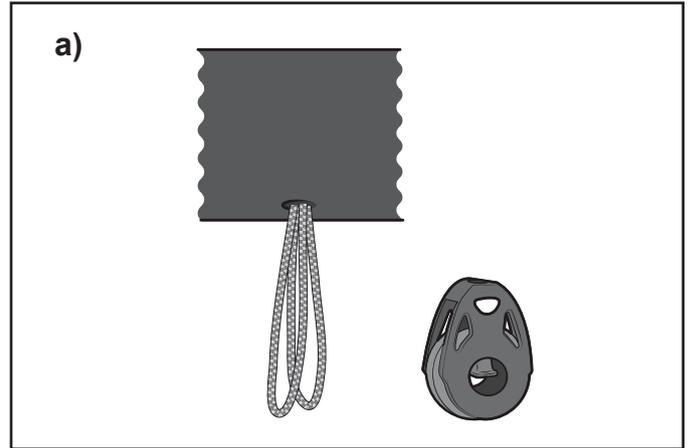
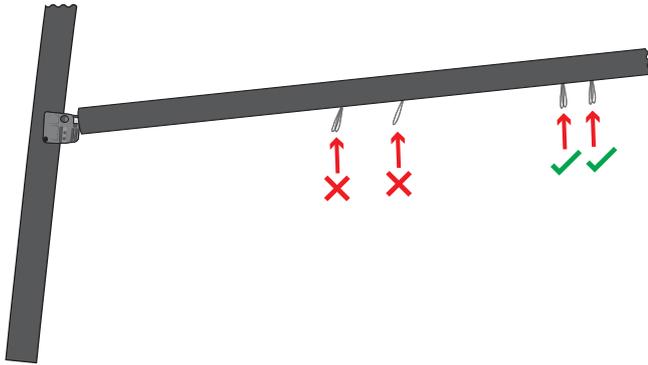
### 7. Boom



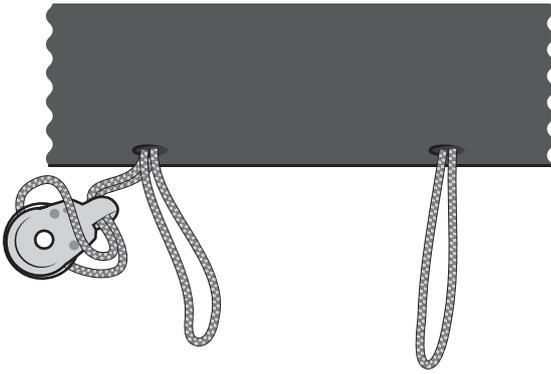
PLEASE FOLLOW ASSEMBLY GUIDE IN THE CORRECT ORDER

**RS**

**aero**

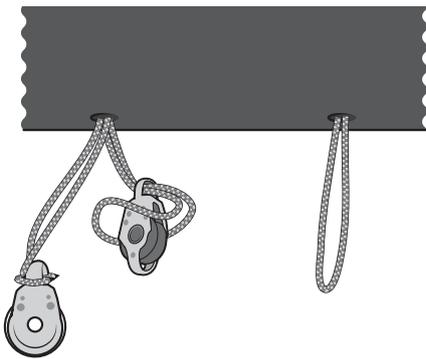


a)



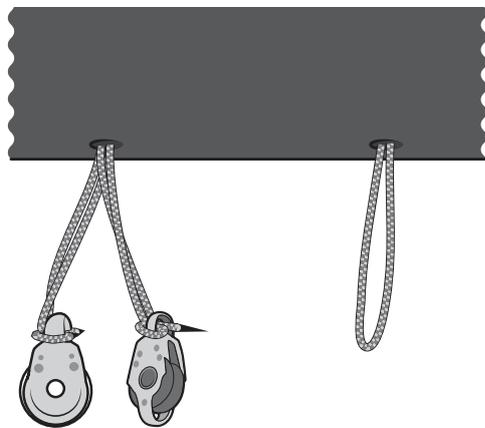
Cow hitch on single block.

b)



Cow hitch on single block with becket.

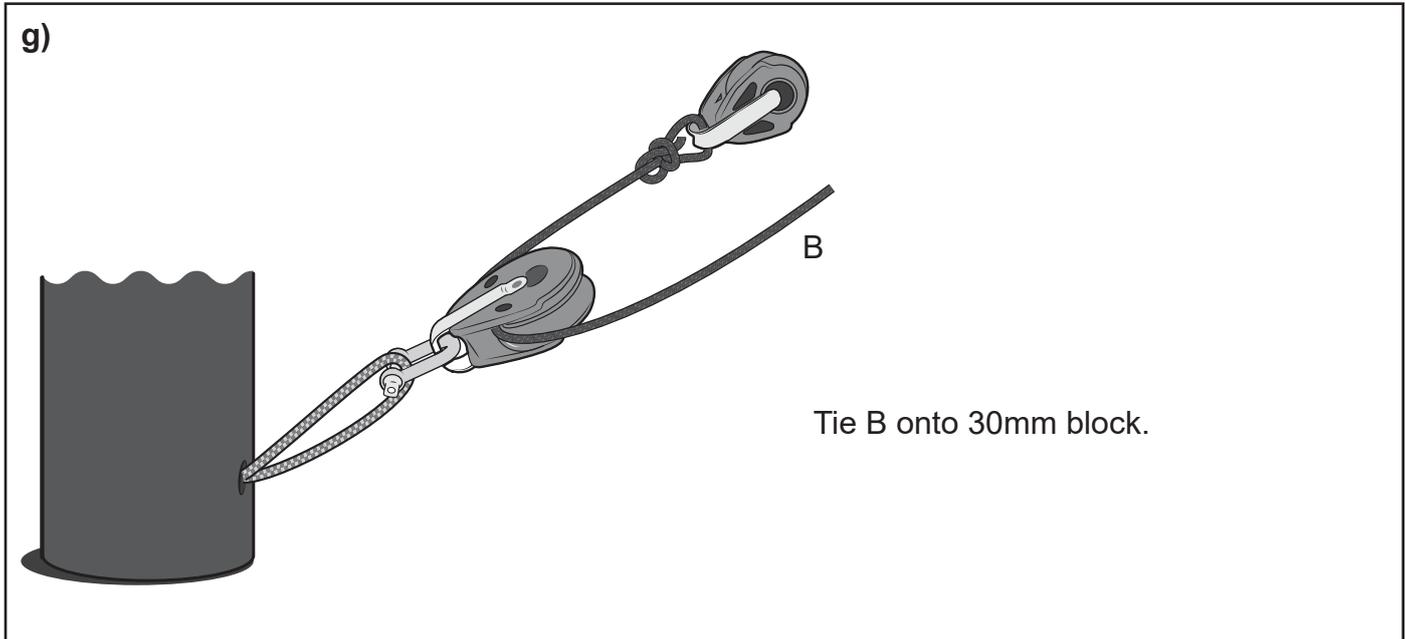
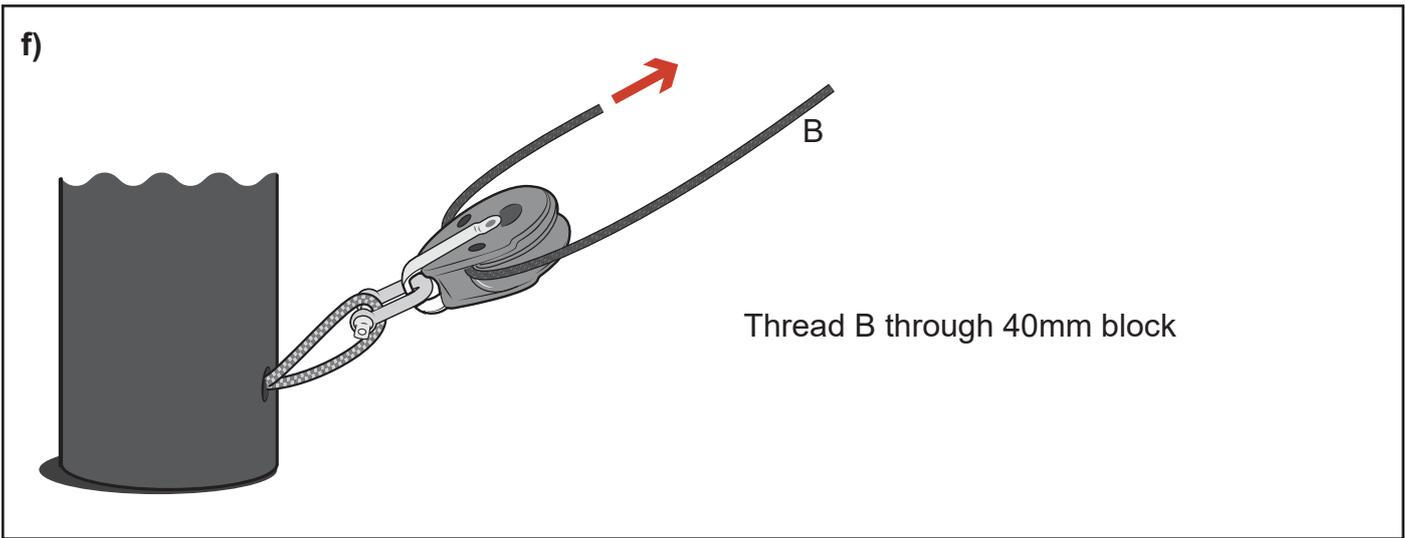
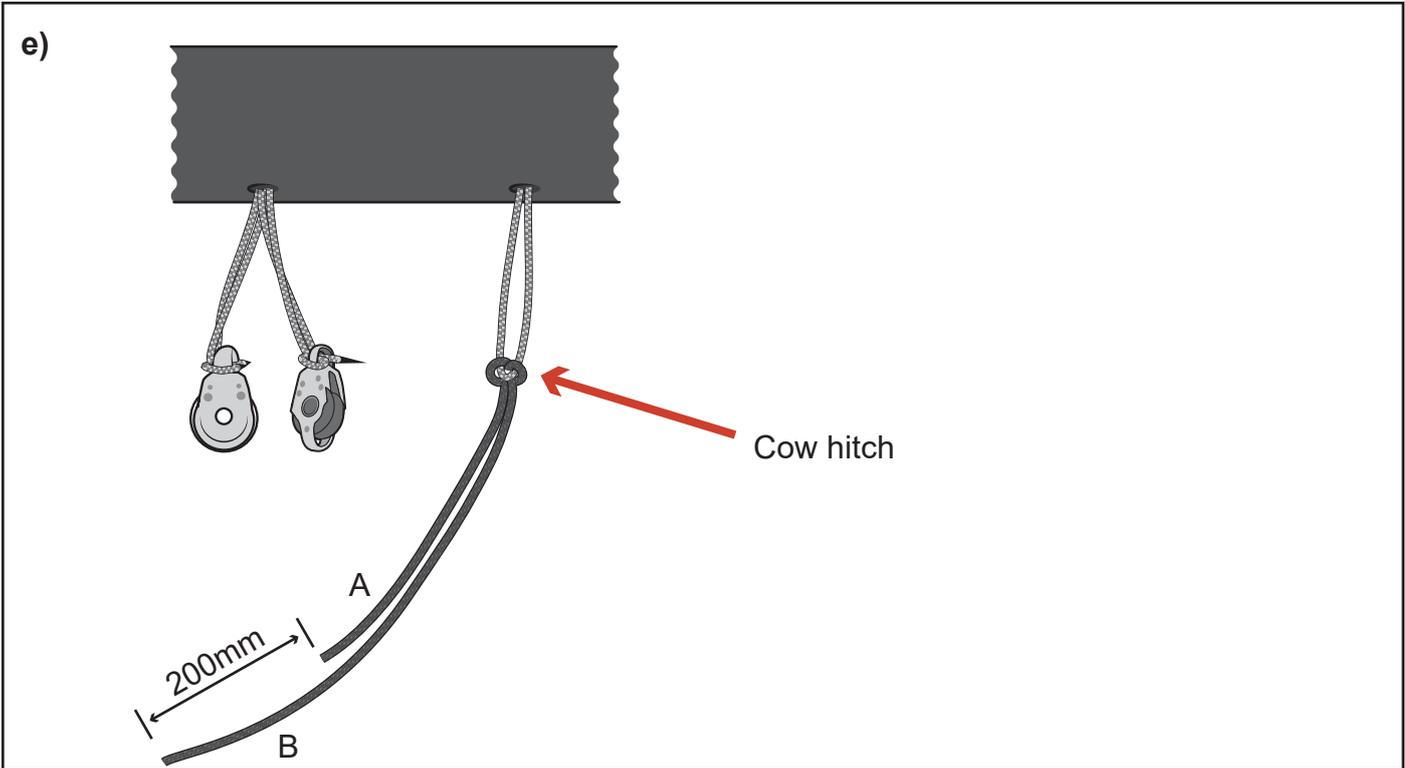
c)



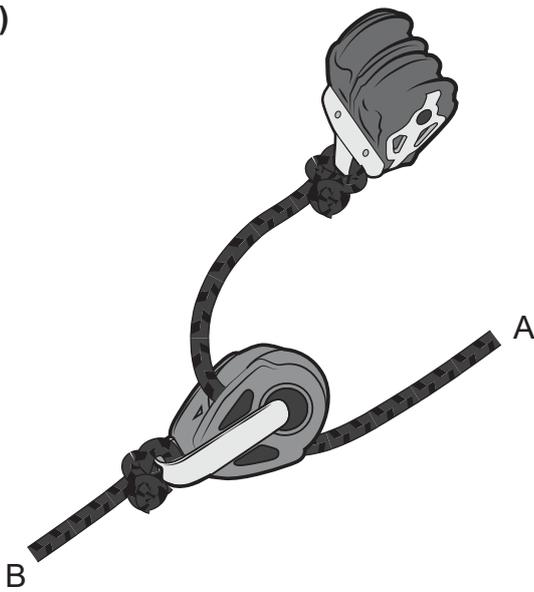
d)

Fold vang stop, leaving one half 200mm longer than the other.

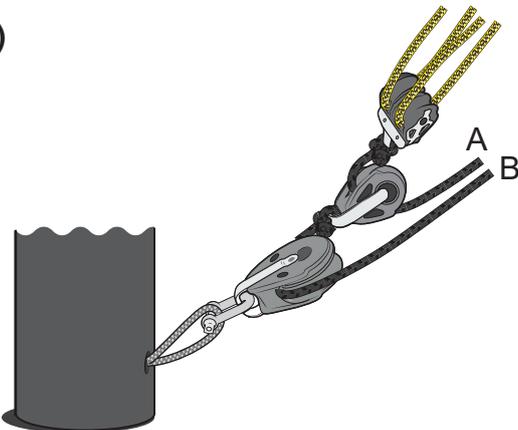




h)



i)



When pulled tight all blocks should touch or stop on step 10 needs adjusting.



Before sailing hoist the sail and make final adjustments.

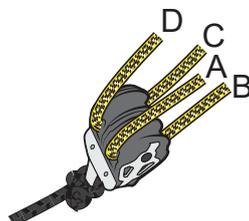
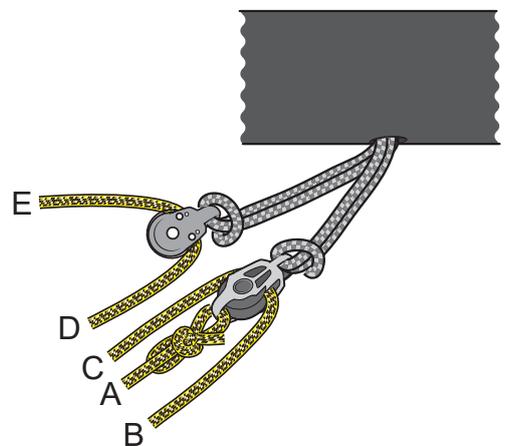


You may need to adjust it again after the rope has stretched.

j)

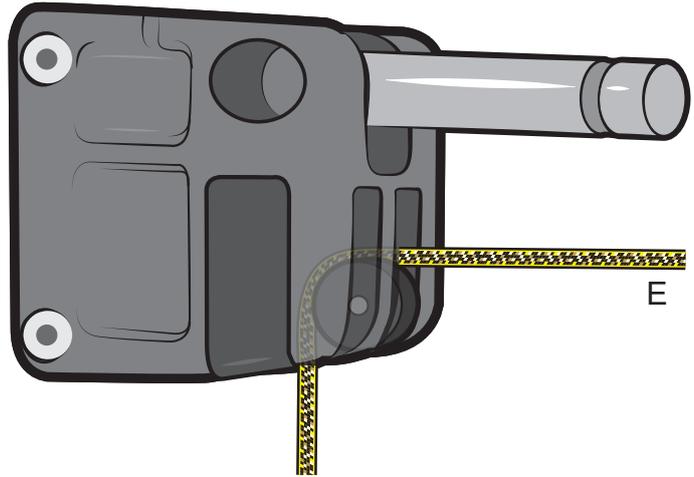
### VANG CONTROL LINE

- Tie one end of the vang control line onto the becket and thread through the blocks as shown.
- E goes through the gooseneck on item 17.

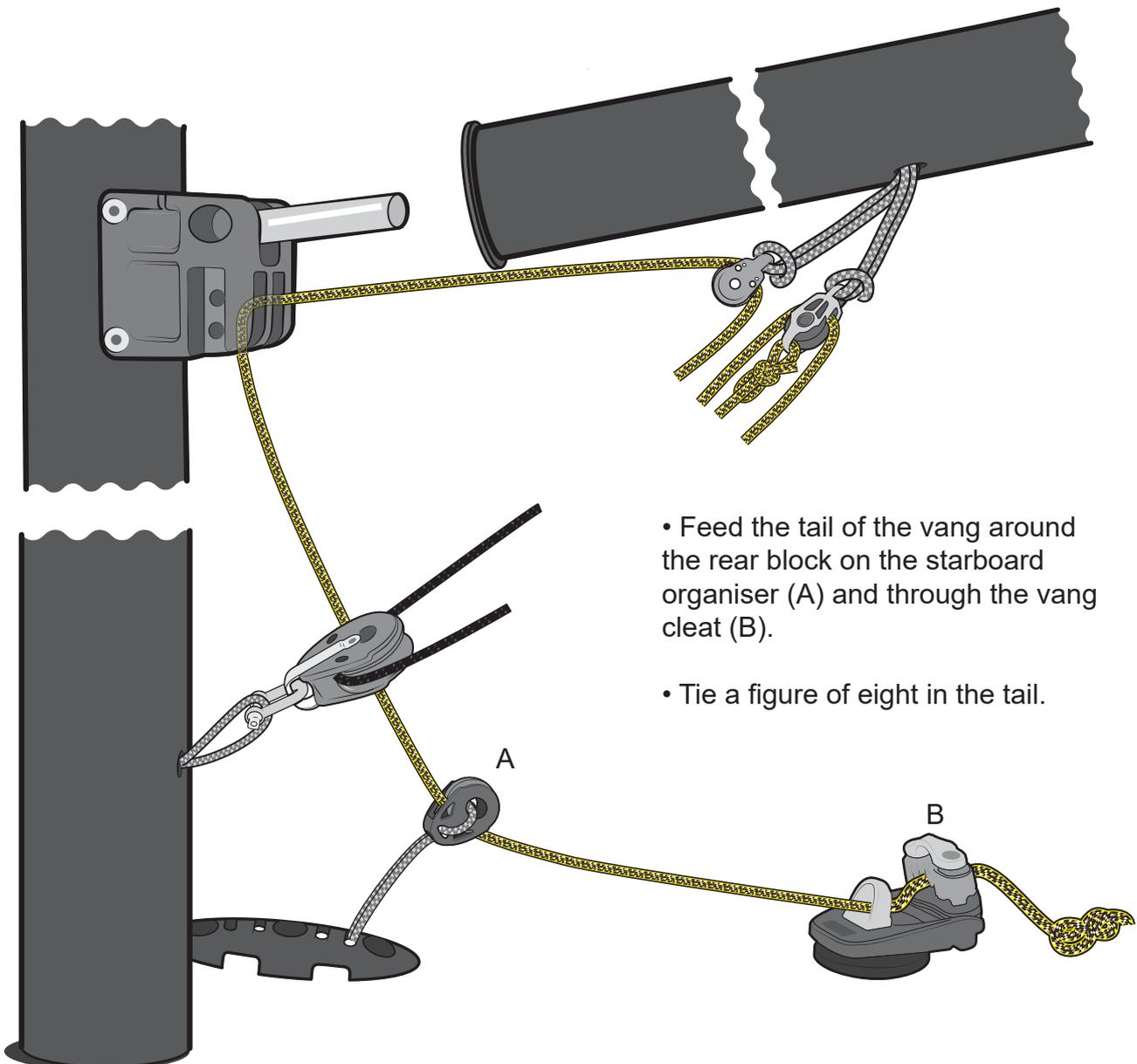


k)

Take the tail of the vang coming from the single block and feed it through the starboard slot on the gooseneck, around the turning block and down the mast.



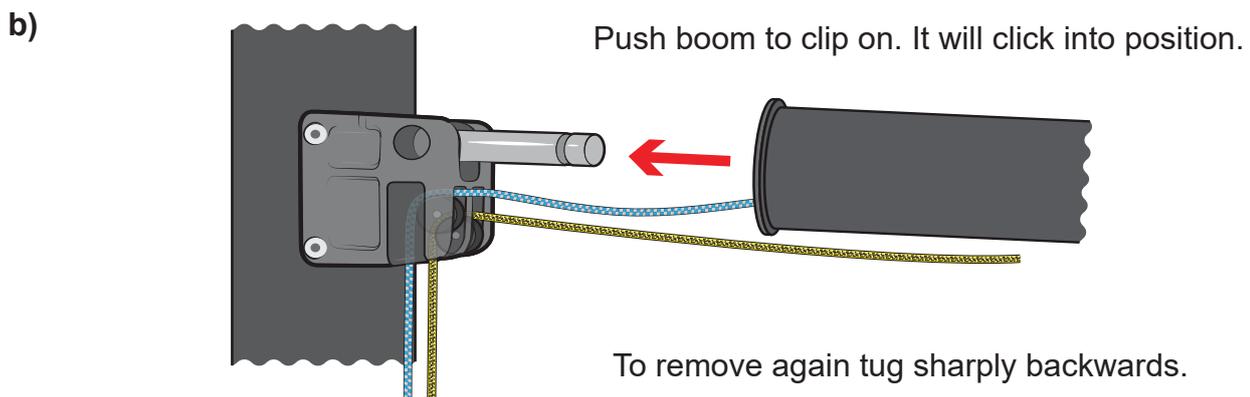
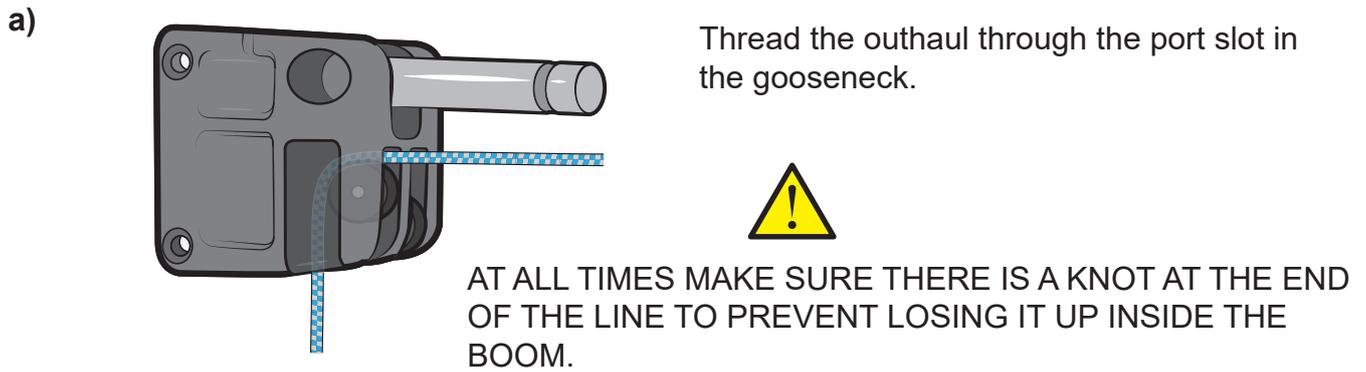
l)



- Feed the tail of the vang around the rear block on the starboard organiser (A) and through the vang cleat (B).

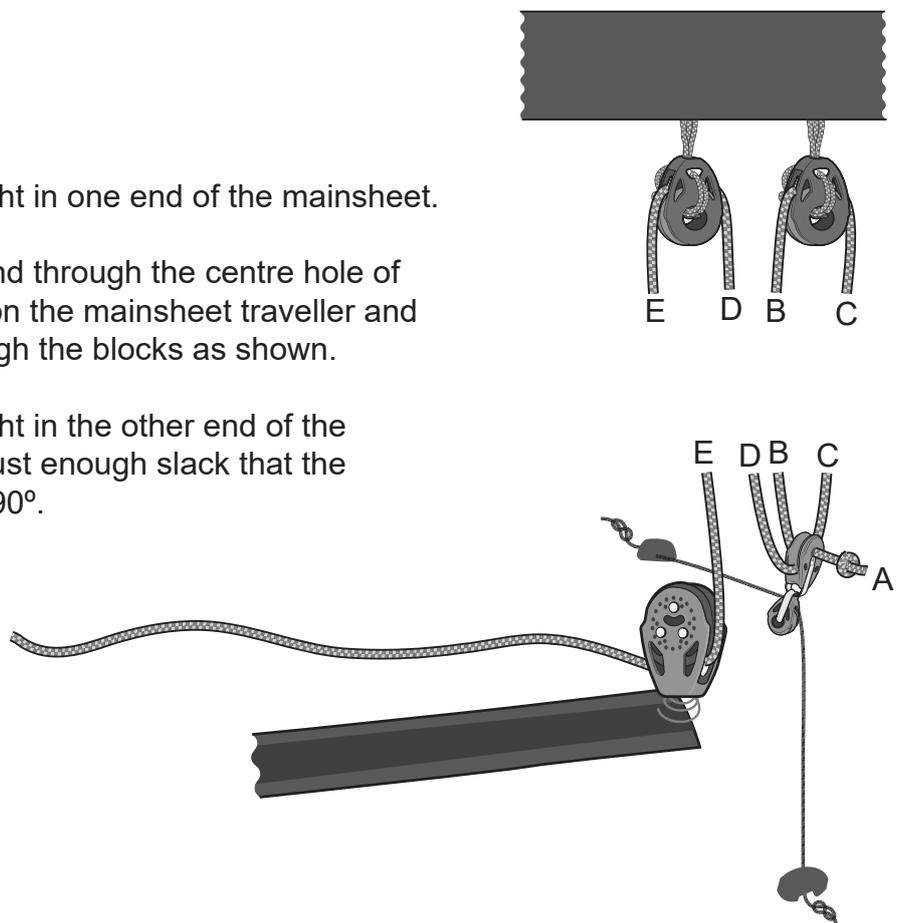
- Tie a figure of eight in the tail.

## RS **aero** 7.3 - Adding the Boom



## RS **aero** 7.4 - Mainsheet System

- Tie a figure of eight in one end of the mainsheet.
- Feed the other end through the centre hole of the 40mm block on the mainsheet traveller and then thread through the blocks as shown.
- Tie a figure of eight in the other end of the mainsheet with just enough slack that the boom can go to 90°.



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## Rigging Guide

### 8. Sails

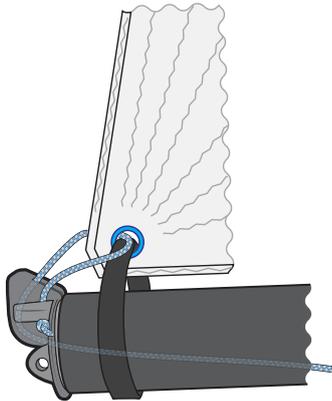


PLEASE FOLLOW ASSEMBLY GUIDE IN THE CORRECT ORDER

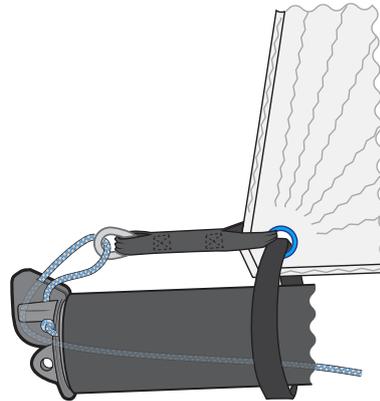
**RS**

**aero**

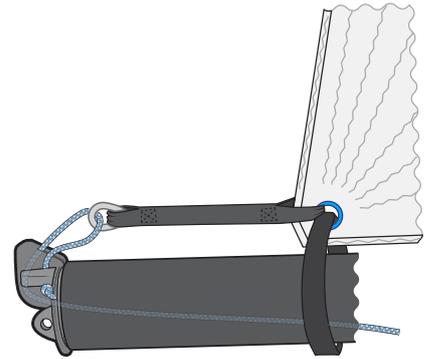
- a) Unroll sail.
- b) Add the clew boom stop over the rear end of the boom.
- c) Add outhaul rope through clew ring or stop.



RS **æro** 9



RS **æro** 7



RS **æro** 5

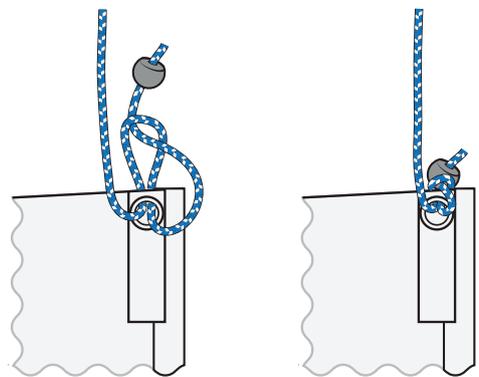
RS **æro** 8.2 - Hoisting the Mainsail

a)



Check there are no twists around the mast.

- Attach the main halyard to the sail.



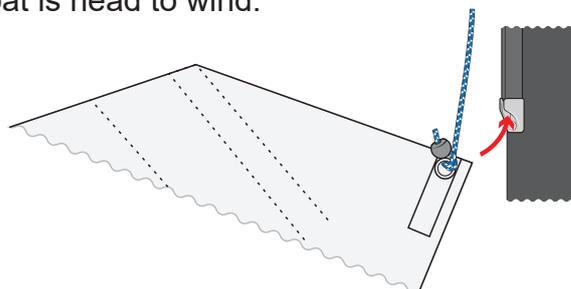
b)



Make sure battens have been tightened.



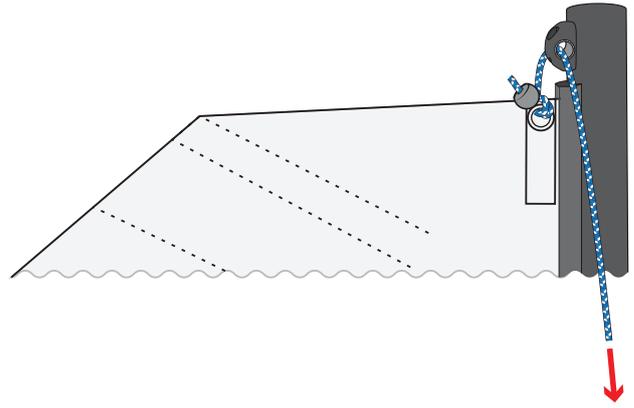
Make sure the boat is head to wind.



**RS** **aero** 8.2 - Hoisting the Mainsail

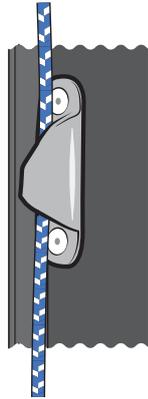
c)

- Hoist the main halyard.



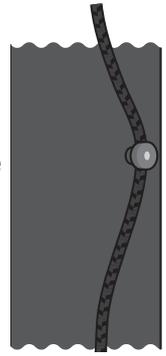
d)

- Cleat the main halyard in the cleat on the starboard side of the top mast.



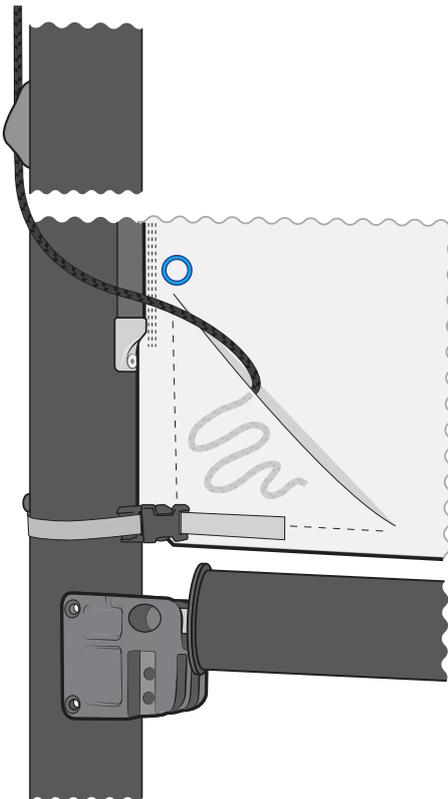
e)

- Feed the main halyard tail around the mushroom on the mast.



f)

- Cleat the halyard tail in the cleat on the front of the mast and tidy into pocket on sail.

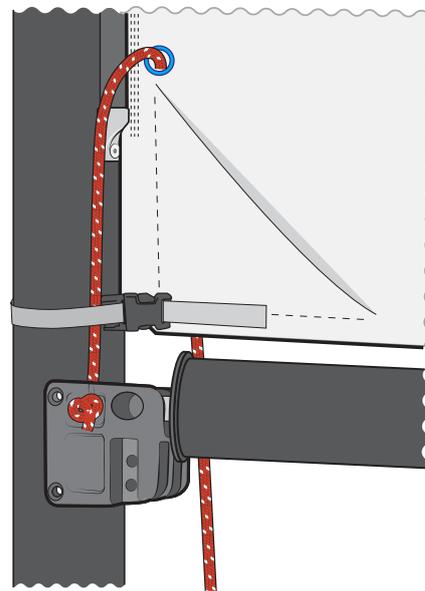


- g) Feed the downhaul through the eye on the tack of the sail from starboard to port and tie an overhand knot.

The knot jams in the slot on the port side of the gooseneck.



The downhaul must go inside the tack strap.



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## Rigging Guide

### 9. Foils

**TOOLS NEEDED:** Flat head screwdriver



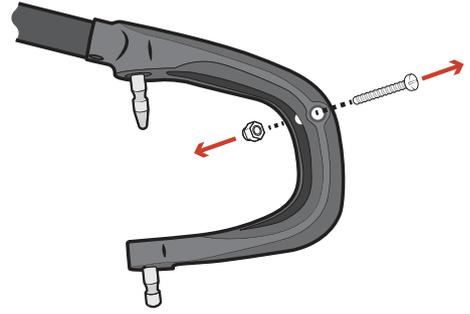
PLEASE FOLLOW ASSEMBLY GUIDE IN THE CORRECT ORDER

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a)

Using a flat head screwdriver, remove the bolt from the rudder stock.

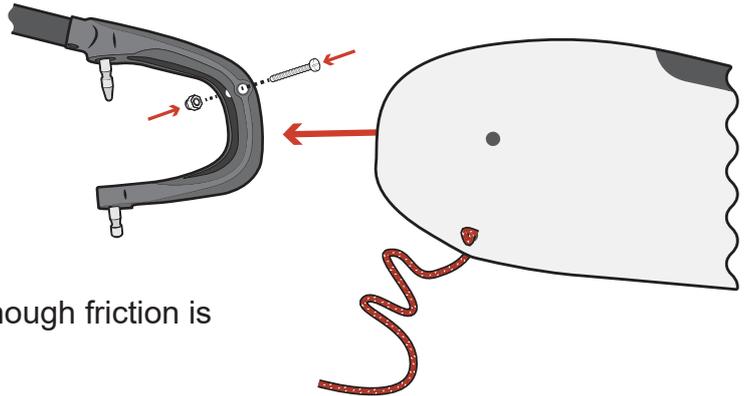


b)

Add the rudder blade to the stock and bolt in place.

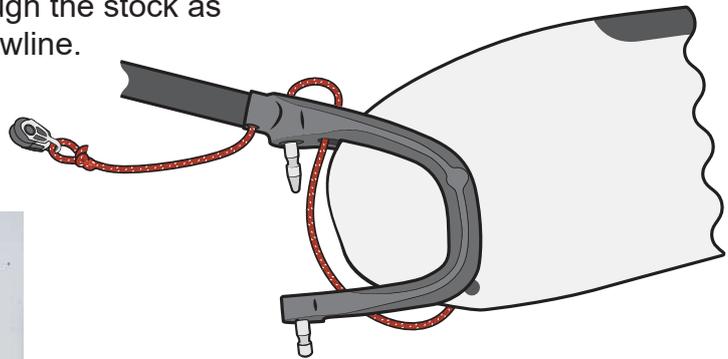


It is important to make sure enough friction is added.



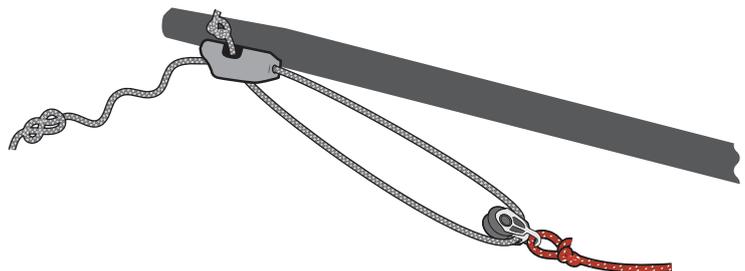
c)

Feed the rudder downhaul line through the stock as shown and add 20mm block with bowline.



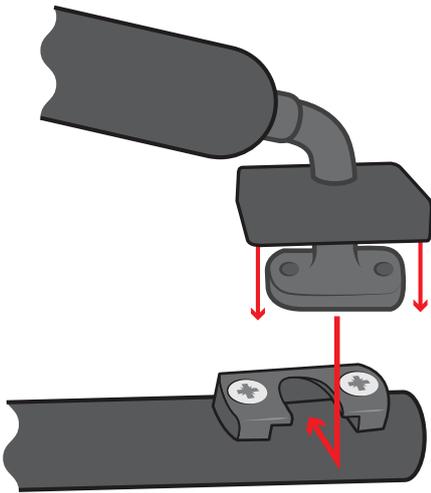
d)

Add rudder downhaul tail.



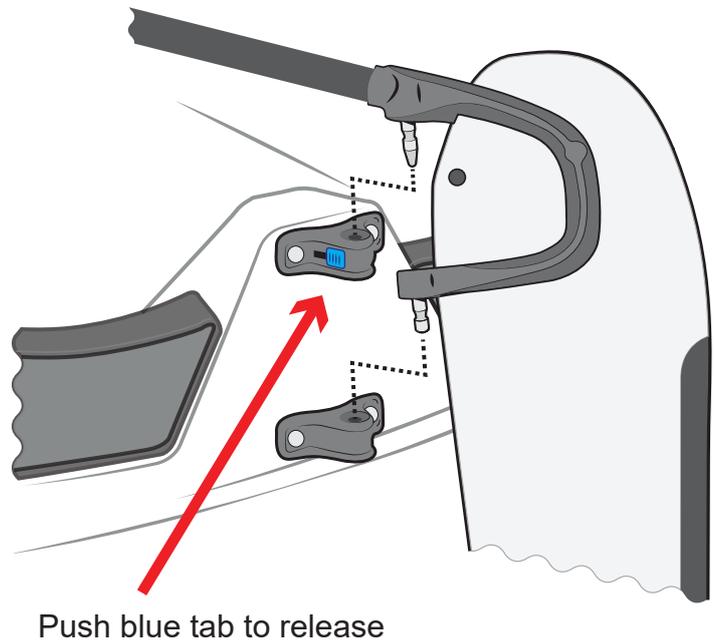
e)

Add tiller extension.

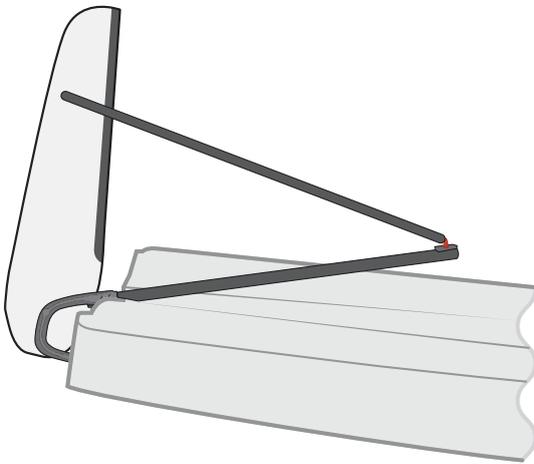


f)

Attach rudder to boat.



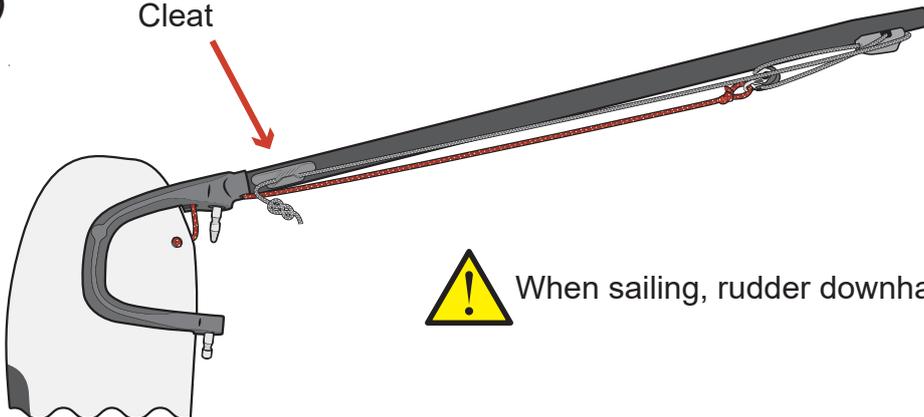
g)



Rudder blade can rotate fully.

h)

Cleat



When sailing, rudder downhaul tail goes to rear cleat.

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## Rigging Guide

### 10. Preparation and care



PLEASE FOLLOW ASSEMBLY GUIDE IN THE CORRECT ORDER

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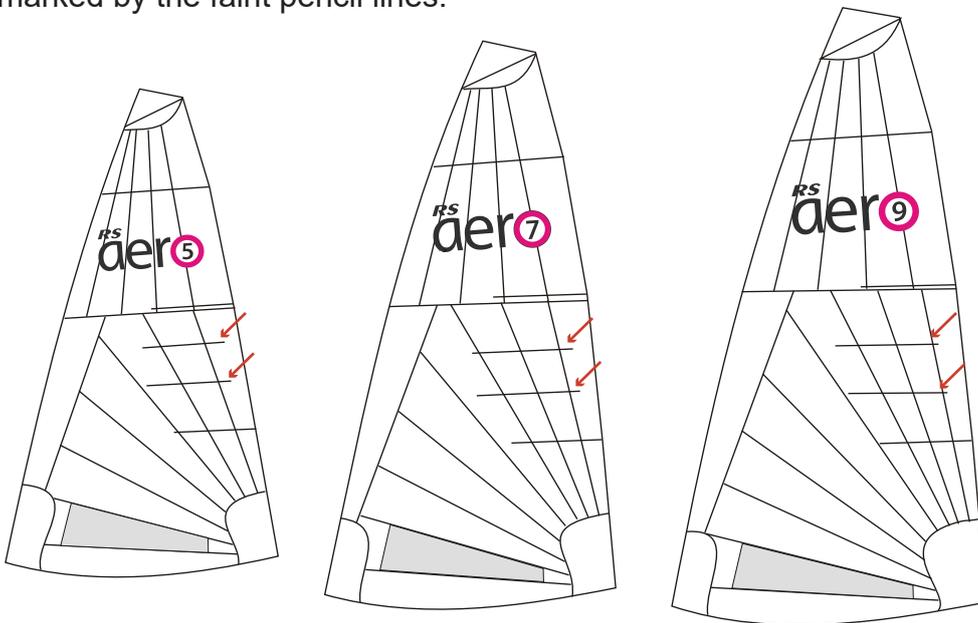
aero

- a) Sail numbers should be supplied with each sail.



Cut along dotted lines to form the correct sail numbers.

- b) The 9, 7 and 5 sails are all similar. Unroll your new sail. Stick the sail numbers on sail, higher on the starboard side of the sail than the port, in the positions marked by the faint pencil lines.



NUMBERS MUST BE PLACED HIGHER ON THE STARBOARD SIDE.

- c) Leave a gap of 60mm between numbers and/or letters on the 7 and 9 sails, and a gap of 45mm on the 5 sail.



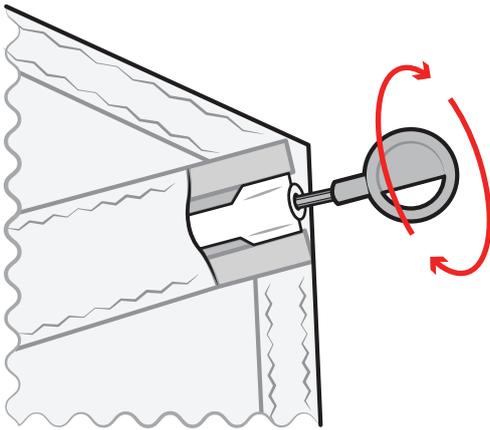
- d) There are also faint lines on the sail to show where to place the national letters (although these are optional and not supplied as standard.)



Cut along dotted lines to form the correct sail numbers.



## <sup>RS</sup> **æro** 10.2 - Battens



Batten key should be on clew of sail.

Check the inboard ends of the battens are positively located in the inboard plastic end fitting. To tension, turn the key clockwise until the cloth becomes just tight. If it is over tightened you will have trouble tacking the head of the sail in light weather. Insufficient tension and the sail will set up too flat with wrinkles running down from the head.

## <sup>RS</sup> **æro** 10.3 - Sail Care

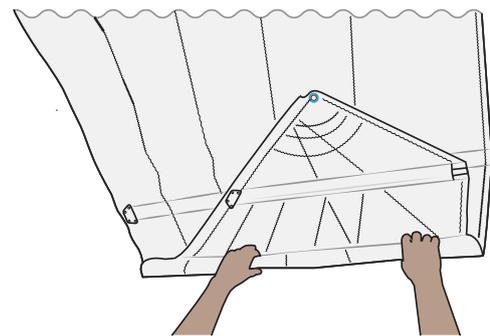
Wash salt off sails after use and dry. Roll from the head. It is easier to fold the head in (as shown) so the top of the battens coincide before starting rolling. Store sail in its bag in dry conditions away from sunlight. Although the sail is made from a quality high denier fabric it is best to slightly slacken the top 2 battens' tension for long term storage.

When using a new sail for the first time, try to avoid extreme conditions as high loads on new sailcloth can diminish the racing life of the sail.

If your sail is stained in any way, try to remove it using a light detergent and warm water. DO NOT attempt to launder the sail yourself. A sail can be temporarily repaired using a self-adhesive cloth tape, such as Dacron or Mylar. The sail should be returned to a sail maker for a professional repair. Check for wear and tear, especially around the batten pockets, on a regular basis.



Roll from 2nd Batten.

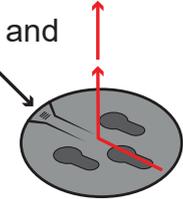


**RS** **aero** 10.4 - Stacking Boats

a) Remove the vang cleat.

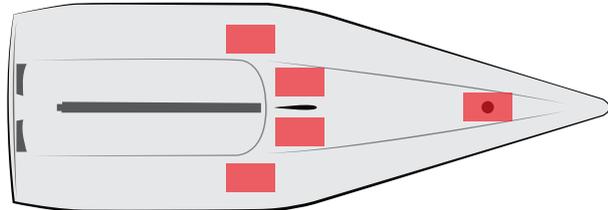


Press here and slide aft.



b) Put all rigging still attached to the boat in the mast step so it doesn't come between the boats.

c)  Either use the white production cover as this has padding, or add padding in these areas.



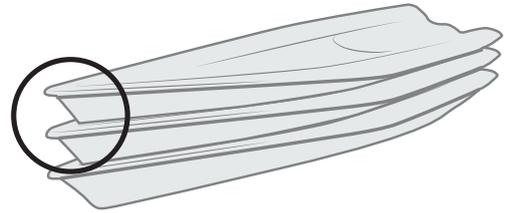
4. The RS Aero is designed to be stacked.



Make sure the bows locate.



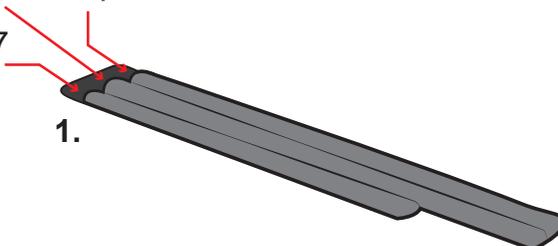
Do not stack more than 7 boats.



**RS** **aero** 10.5 - Mast Bag

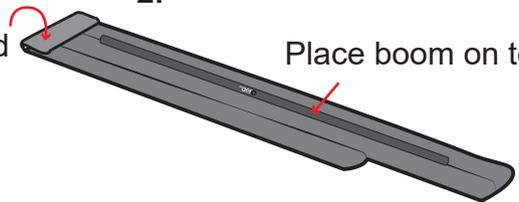
Aero 9 lower mast topmast  
Aero 5 and 7 lower mast

1.



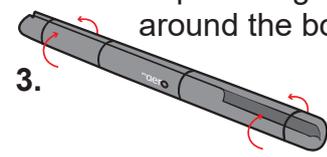
2.

Close lid Place boom on top.



3.

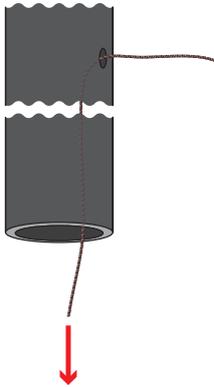
Clip the bag shut around the boom



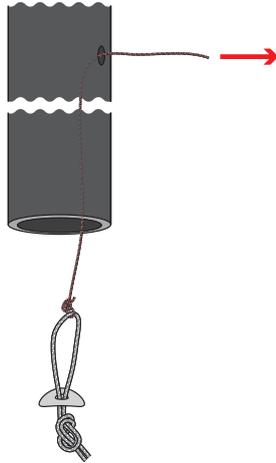
## RS **æro** 10.6 - Replacing a Dyneema Loop

How to replace a Dyneema loop in mast or boom:

a)

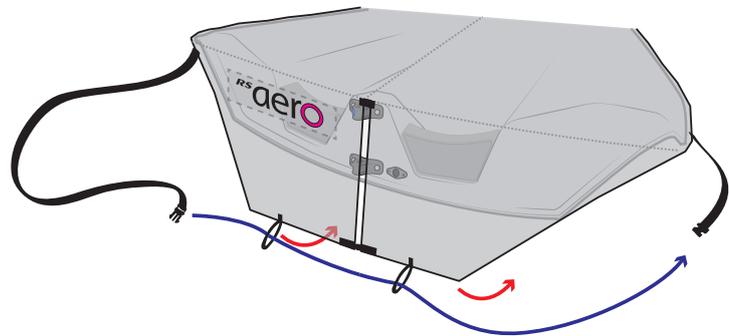
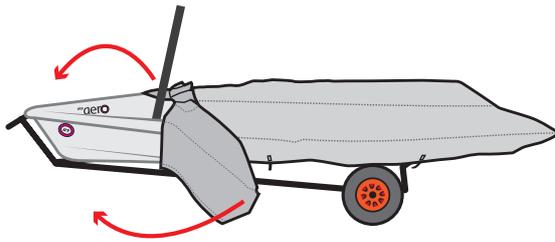


b)

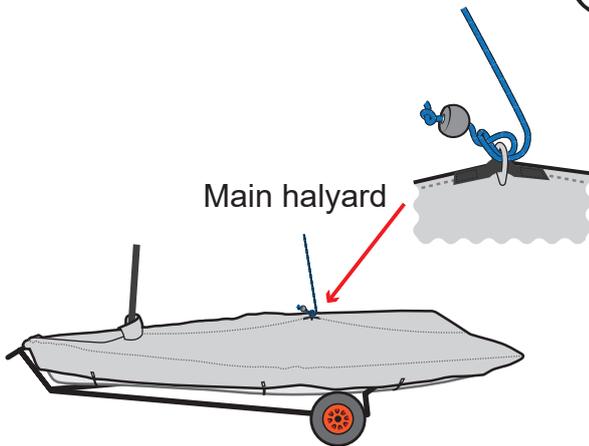


There is no need to remove the endcap from the mast or boom.

## RS **æro** 10.7 - Top Cover



Main halyard



## <sup>RS</sup> **aero** 10.8 - Foil Care

RS Aero Rudder blades are manufactured from epoxy glass and carbon fibre and contain closed cell foam to ensure buoyancy and limit potential water ingress.

Foils should be rinsed with fresh water after use.

If you are going to trail your boat frequently, you may wish to invest in an RS Sailing padded rudder bag. This will protect your RS Aero from any damage caused by the foil.

## <sup>RS</sup> **aero** 10.9 - Spar Care

The mast is made from carbon fibre. Wash with fresh water as often as possible, both inside and out. Check all of the riveted fittings on a regular basis for any signs of corrosion or wear.

## <sup>RS</sup> **aero** 10.10 - Fixtures and Fittings

All of the fixtures and fittings have been designed for a specific purpose in the boat. These items may break when placed under any unnecessary load, or when used for a different function to their intended purpose. To ensure optimum performance, wash the fixtures and fittings with fresh water regularly, checking shackles, bolts, etc. for tightness.

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## Rigging Guide

### 11. Breather and drainage holes

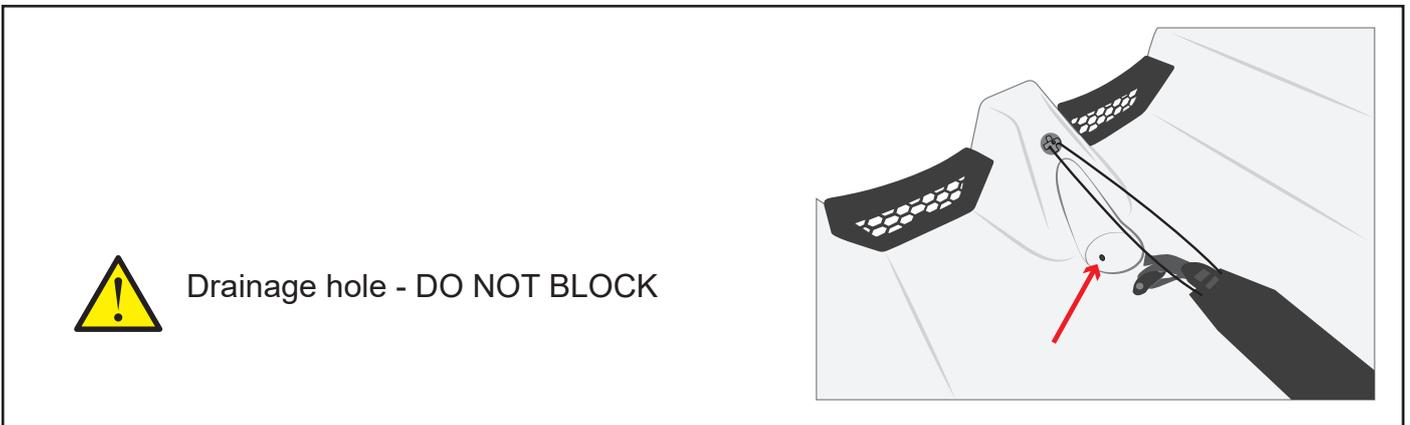
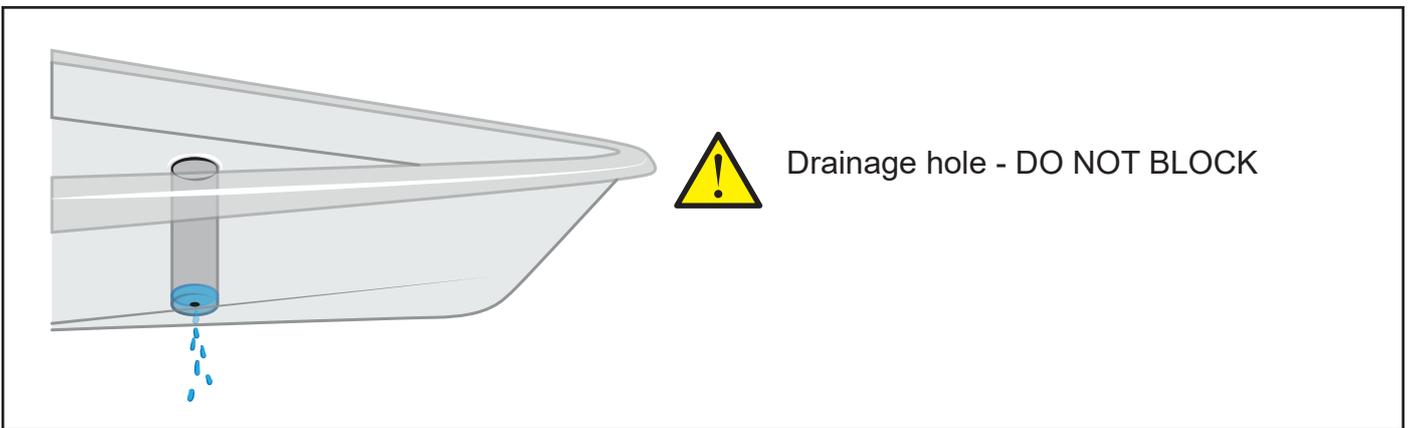
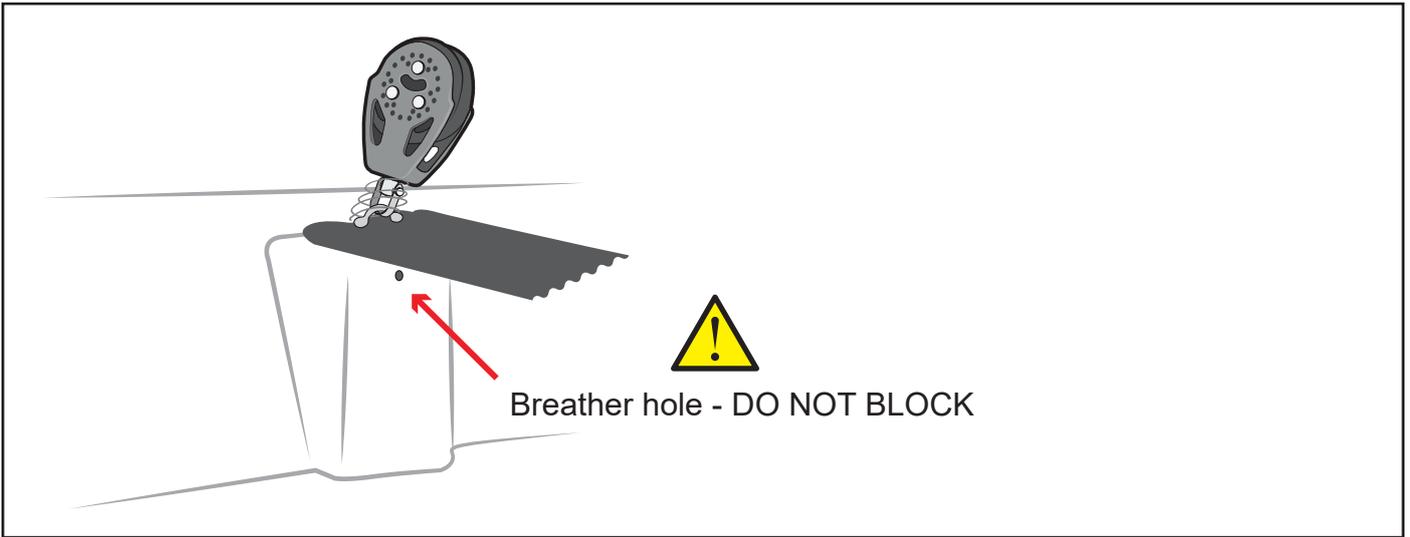


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**RS** **aero** 11.1 - Breather and Drainage Holes



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## Rigging Guide

### 12. Optional fittings



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**RS** **ero** 12.1 - Mainsheet Cleats (Optional)

**TOOLS REQUIRED:**

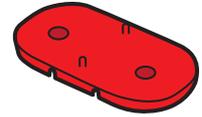
- Drill
- 2.5mm drill bit
- Countersink
- Pozidrive screwdriver

**CONTENTS:**

2 X mainsheet cleats



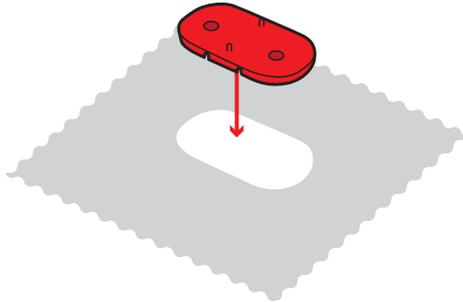
2 x thick cleat base



4 x screws



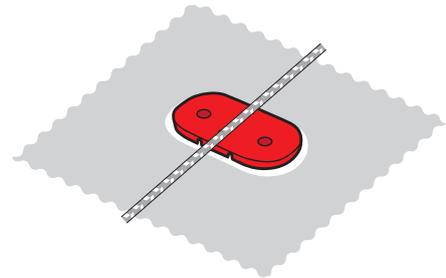
**a)**



Place the thicker base plate on the deck with its undergrooves pointing inboard. It is positioned in the gap in the non-skid. There is a wooden block underneath.

**b)**

Tie a piece of line to the mainsheet ratchet block attachment eye and hold it across the cleat position. Ensure that the base plate is at right angles to this line.

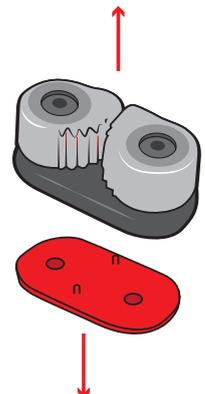


**c)**

Drill 2 holes using a 2.5mm drill bit. Use a countersunk bit to remove a small amount of gelcoat from around the 2.5mm holes.

**d)**

Replace the thin red harken cleat base plates with the slightly thicker plates provided.



## RS aéro 12.1 - Mainsheet Cleats (Optional)

e)

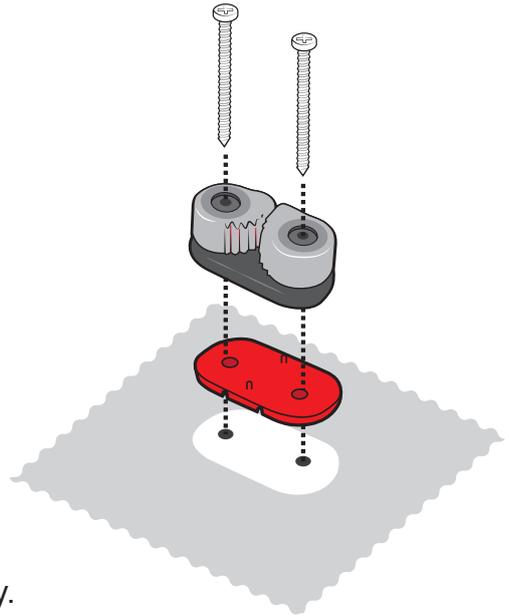
Squeeze some sealant into the holes, then screw the cleats to the deck with the 2 inch 8 gauge panhead self-tappers provided. Check the screws have not been overtightened and the cams move freely. Wipe any excess sealant off with white spirit.



Make sure cleat opens outwards.

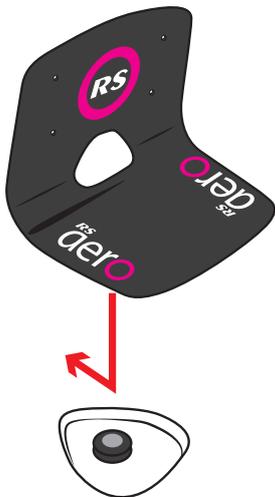


If overtightened the jaws may not close properly.



## RS aéro 12.2 - Compass Bracket (Optional)

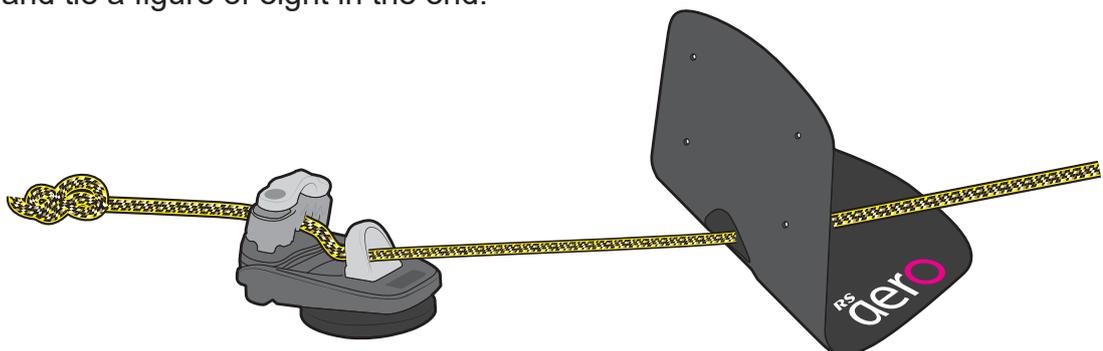
a)



Clip the compass bracket onto the button.

b)

Feed the vang tail through the compass bracket and tie a figure of eight in the end.



**RS** **dero** 12.3 - JC Strap (Optional)

Contents: 1 x string



1 x elastic



1 x 30mm block



2 x plastic clip



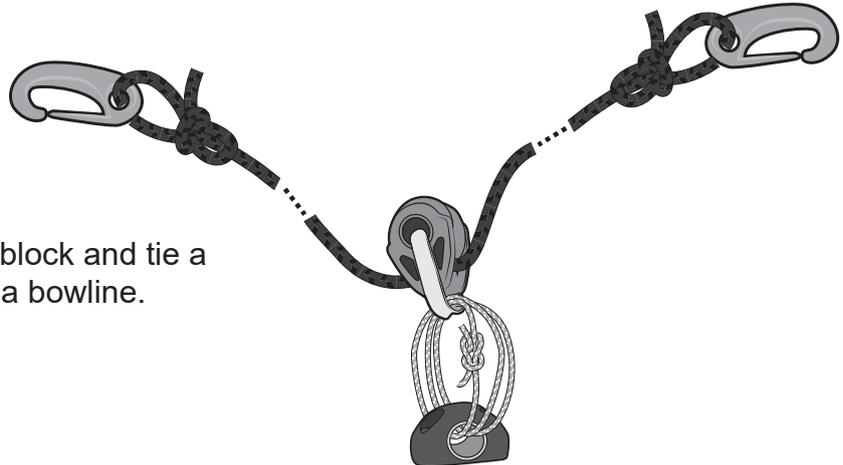
a)

Attach 30mm block to bow eye with string.



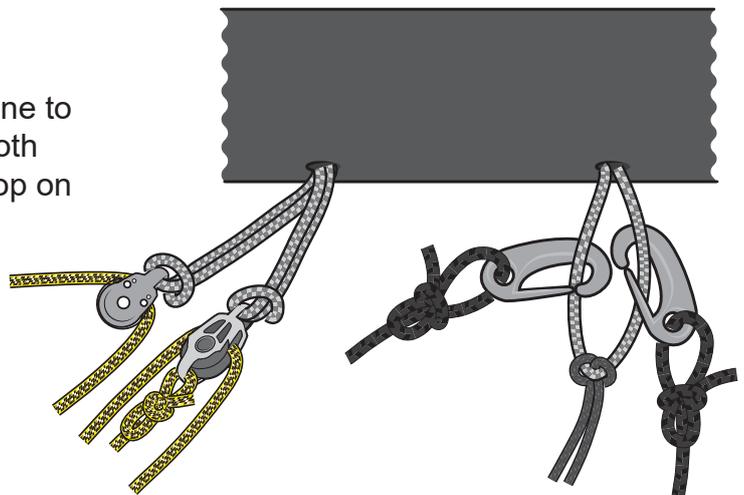
b)

Feed the elastic through the block and tie a plastic clip on each end with a bowline.



c)

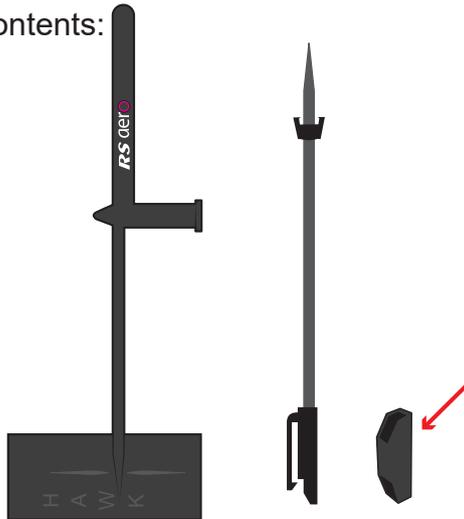
Run the two ends of the JC strap around the outside of the mast (one to port, one to starboard) and clip both ends onto the single dyneema loop on the boom.



The JC strap must pass outside of all other rigging.

**RS**  
**aero** 12.4 - Wind Indicator (Optional)

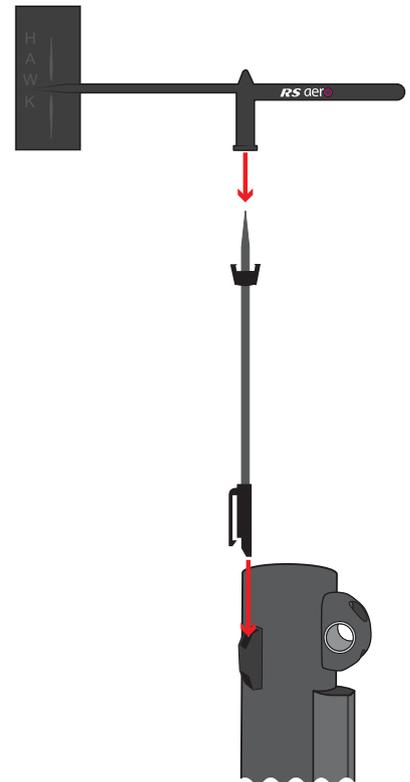
Contents:



There should already be a fitting like this attached to your topmast so this part is not required and can be discarded.

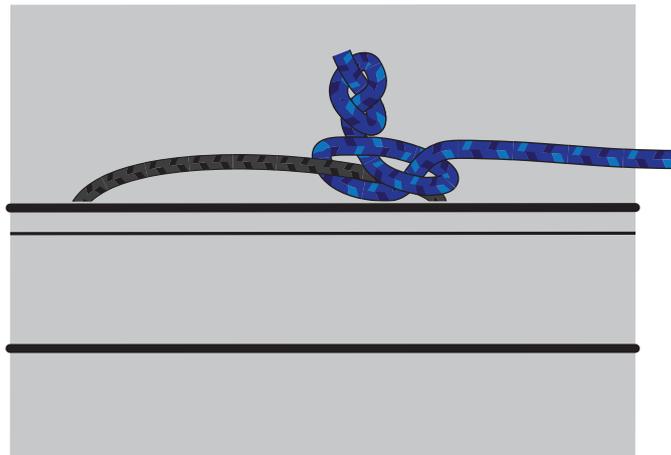
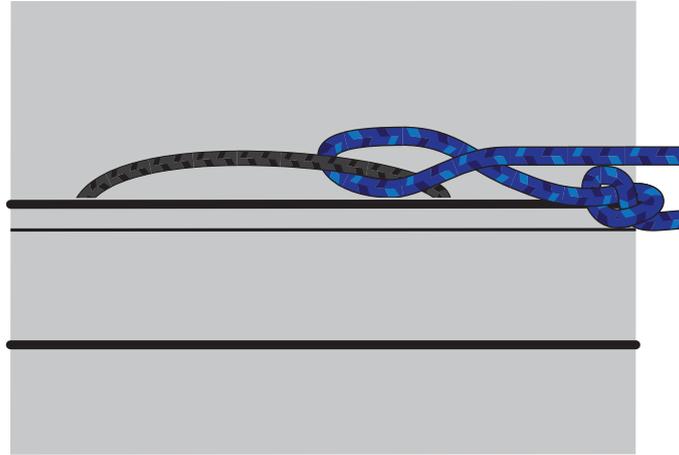
Clip the 2 parts of the wind indicator together

Clip the wind indicator into the plastic fitting on the top mast.



**RS**  
**ero** 12.5 - Righting Lines (Optional)

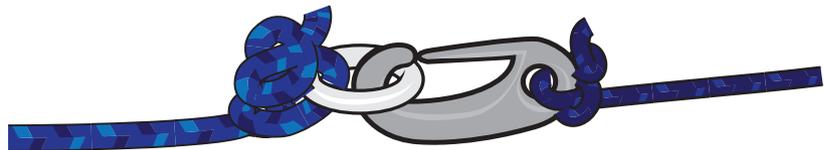
- a) Under the gunwhale tie the blue rope using the 'knot-on-kont' to the strop holding the Ronstan Shocks used for the control lines.



- b) Tie two figure of eight knots 1/3 and 2/3 of the way down the blue rope.



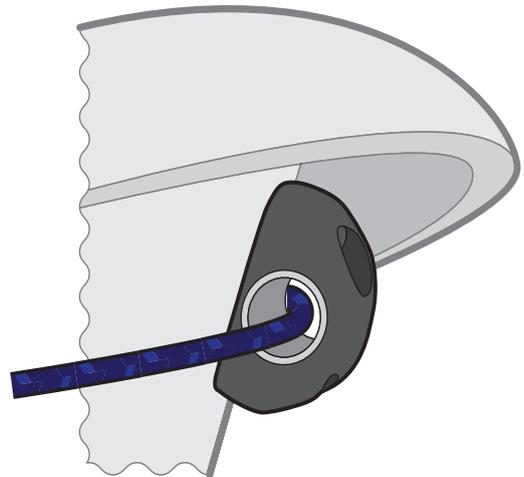
- c) Attach the blue rope to the plastic ring with a Knot on a Knot
- d) Tie the Blue Elastic onto the plastic hook with a Knot on a Knot
- e) Connect the hook onto the ring.



- f) Thread the elastic through the bow fitting
- g) Repeat the above process on the other side.
- h) As you tie the elastic onto the 2nd hook, Pull enough tension in the system to stop the lines drooping down



Make sure there is enough tension in the elastic to stop the lines from drooping down.



This retro kit allows you to remove the mainsheet ratchet and add a swivel base easily, which can still be removed to stack boats together.

**Contents:**

- 1 x mainsheet cleat base and mounting plate
- 3 x countersunk screws
- 2 x cable ties
- 1 x release tool

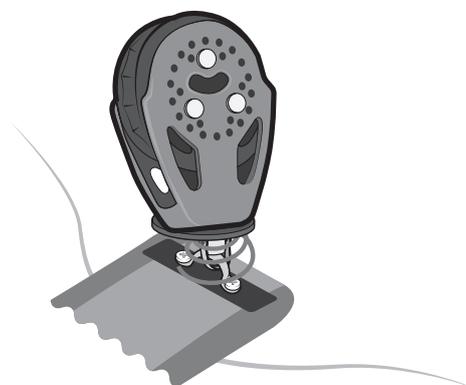
**Tools required:**

- drill and 3mm drill bit
- pozidrive screwdriver
- silicone sealant and applicator gun
- wire cutters (to remove cable ties)

If your boat looks like this, you already have the adapter plate installed. Move straight on to section 2 for how to put in the swivel base.

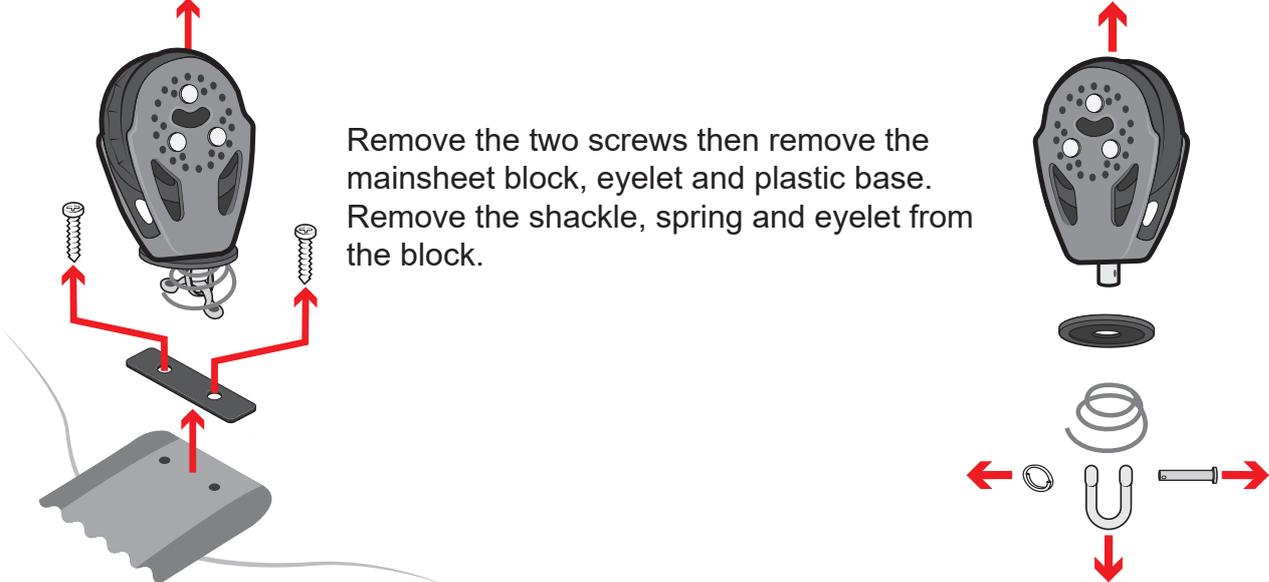


If your boat looks like this, see section 1 for how to convert it to accept the new adapter plate.



### 1. How to convert your Aero to accept the new mainsheet ratchet base

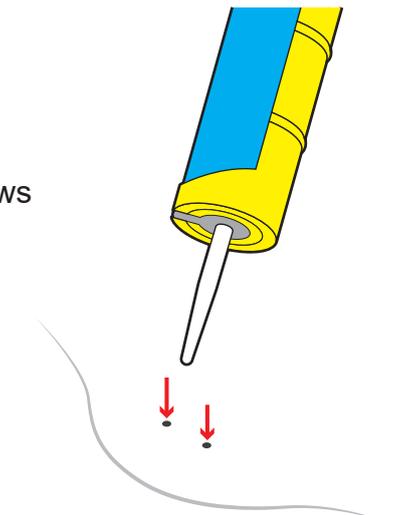
a)



Remove the two screws then remove the mainsheet block, eyelet and plastic base. Remove the shackle, spring and eyelet from the block.

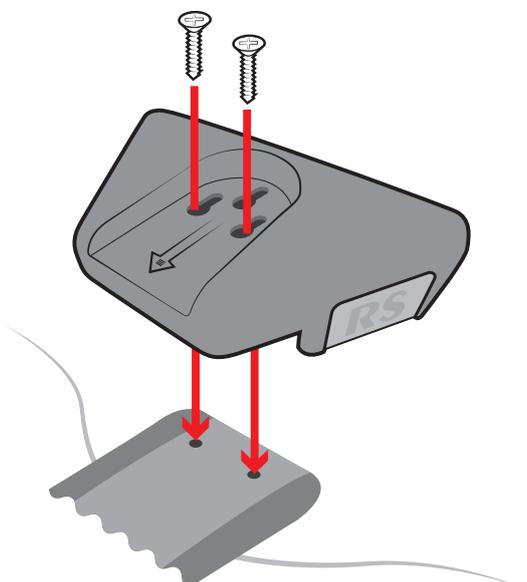
b)

Add some sealant down the two existing holes left by the screws removed in step 1.1.



c)

Line up the holes in the new mainsheet ratchet base adapter plate with the holes in the boat and screw into place using the countersunk screws provided. Make sure the third hole in the base plate is forward of the other two holes.



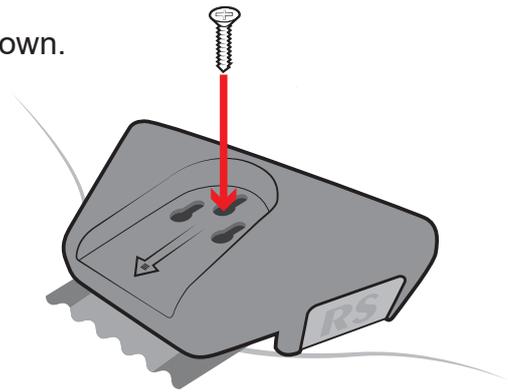
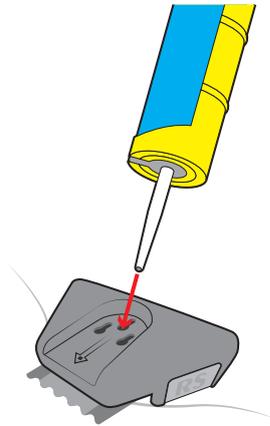
 The screws must be tight

**RS** **aero** 12.6 - Adding the New Mainsheet Base

d) Using the mounting bracket as a guide, drill the third hole using a 3mm drill bit.



Add sealant and screw down.



The screws must be tight

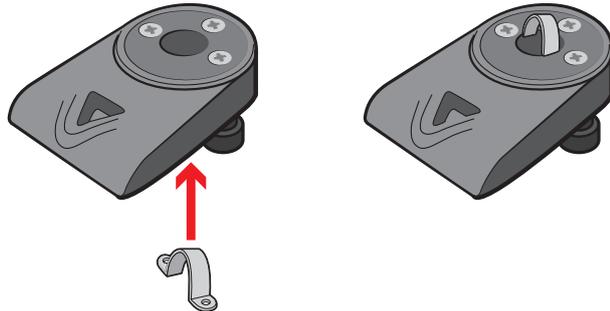


If you wish to use the new ratchet base, see steps **e** and **f** for how to add it.

If you wish to use a swivel base, move on to **section 12.6.2**.

e)

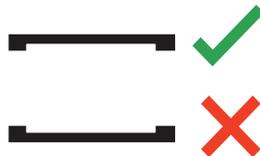
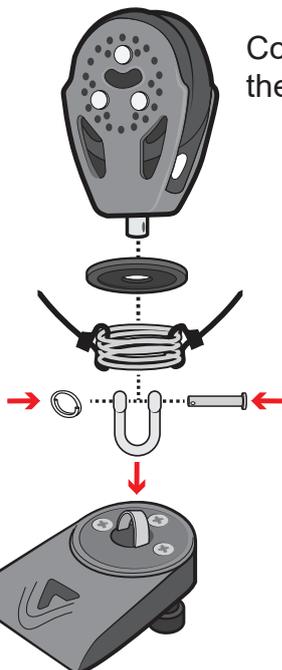
Add the eyelet onto the ratchet base.



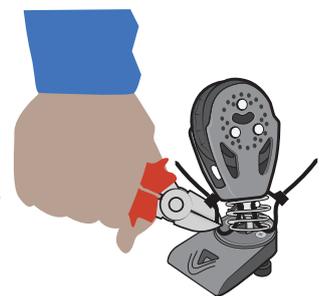
f)

Compress the existing spring (as removed in step 1.1) using cable ties then shackle the ratchet block onto the eyelet.

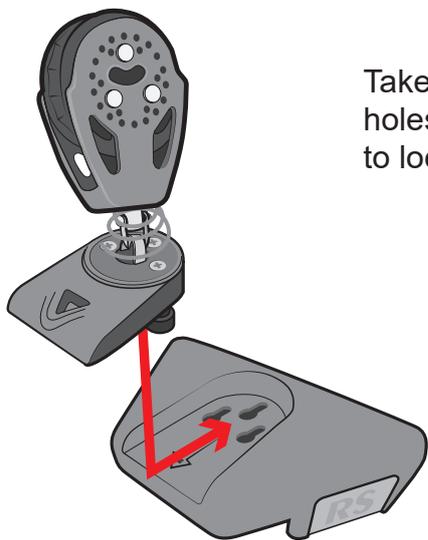
Make sure the plastic spring washer goes back on the right way up.



Once the shackle is tightened, cut the cable ties.



g)



Take the new ratchet base, align the three pins with the holes in the adapter plate, then push it down then forwards to lock into place.



You should hear a click as the catch engages.

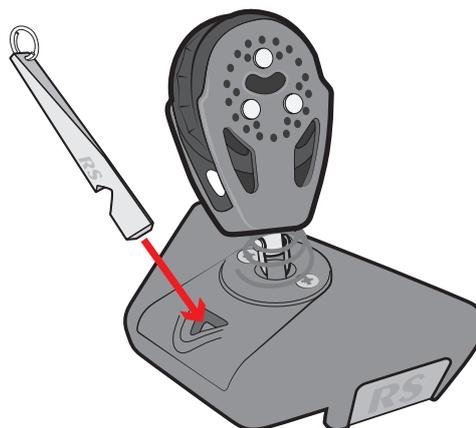
RS **dero** 12.6.2 - Adding a Swivel Base



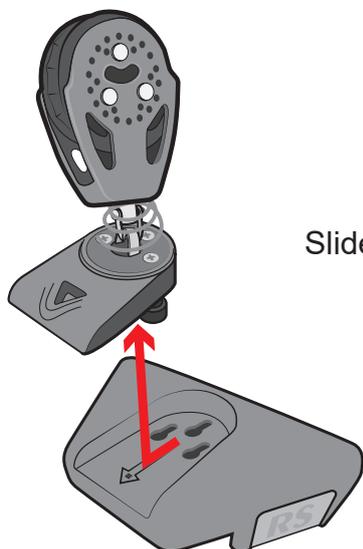
If you have just completed **12.6 steps a - d** and you wish to add a swivel base, move straight on to **12.6.2 step d**.

a)

Using the tool provided release the catch on the mainsheet block base.



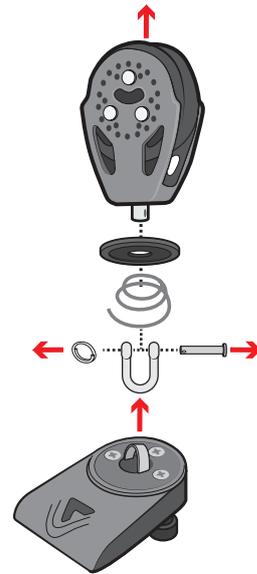
b)



Slide the mainsheet block base aft and then upwards to release.

c)

Remove the ratchet block and fittings from the base.

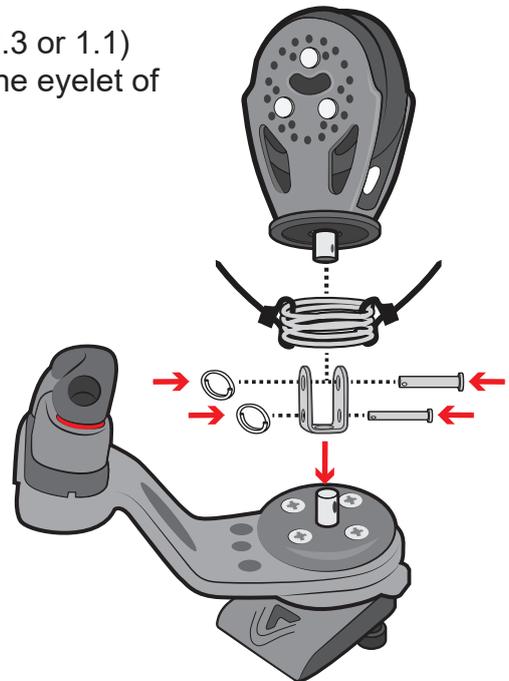


d)

Compress the existing spring (as removed in step 2.3 or 1.1) using cable ties then attach the ratchet block onto the eyelet of the new swivel base.



Make sure the plastic spring washer goes back on the right way up.



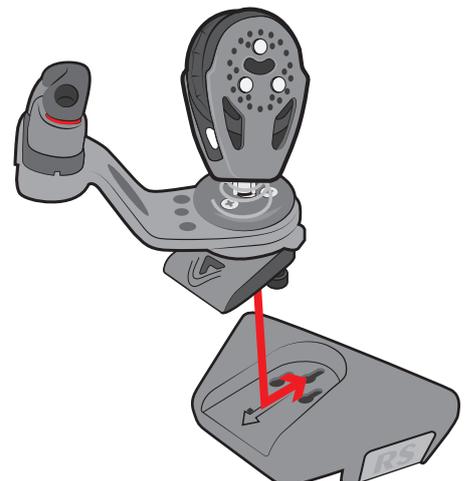
Once the shackle is tightened, cut the cable ties.

e)

Take the new base with the mainsheet jammer on it, align the three pins with the holes and push it down then forwards to lock into place.



You should hear a click as the catch engages.





**INTERNATIONAL MARINE CERTIFICATION INSTITUTE**  
International Non-Profit Association

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www.imci.org / info@imci.org

**EXAMINATION REPORT**

*We hereby certify that the product below manufactured by*

**RS Sailing**

*19 Premier Way, Abbey Park - ROMSEY SO51 9DQ - GREAT BRITAIN*

**Recreational Craft**

**RS AERO**

Scope	Design & Construction
Module type	Aa
Boat type	Sail
Boat design category	C or D
Length of hull [m]	4,00
Beam of hull (Craft) [m]	1,40
Draught, maximum [m]	0,87
Loaded displacement mass [kg]	155 or 190
Number of persons recommended	1 or 2
Maximum recommended load [kg]	125 or 160
Certificate number	BRSSA003

*meets the requirements of the Recreational Craft Directive 94/25/EC as amended by 2005/44/EC in accordance with the Essential Safety Requirements 3.2 for Stability and Freeboard and 3.3 for Buoyancy and Flotation*



*Handwritten signature*

Ulrich Heinemann (Managing Director)  
for EU - Notified Body : 0609  
2014-06-05

This certificate is valid for craft identified as  
2014 or 2015 model



References to the relevant standard(s) used are given on the Declaration of Conformity

NBN EN45011 accredited organisation - Certificate No 228-PROD

### 14.1 Introduction

The RS Aero is a very rewarding boat to sail – to fully appreciate its handling, you should be comfortable with the basic techniques of sailing small dinghy. If you lack confidence or feel that a refresher is in order, there are many approved sailing schools which use the RS Aero. See [www.rya.org.uk](http://www.rya.org.uk) for more information, or follow the link from [www.rssailing.com](http://www.rssailing.com) to find your local RS Academy.

While we offer you a few hints to aid your enjoyment of your new boat, they should not be considered as a substitute for an approved course in dinghy sailing. In order to build your confidence and familiarise yourself with your new boat, we recommend that you choose a fairly quiet day with a steady wind for your first outing.

### 14.2 Launching



#### **BEFORE LAUNCHING YOU MUST READ THE OWNERS' MANUAL.**

With the sails fully hoisted, attach the rudders to the transom. The boat should be wheeled into the water, keeping it head to wind as far as possible. If you have a crew, s/he can hold the boat head to wind whilst the trolley is stowed ashore.



#### **ENSURE THAT THE BUNG IS IN AND TIGHT!**

The daggerboard case is fitted with a soft bearing strip on each side to provide enough friction to position the board while sailing, however we strongly advise that the board is always connected to the boat using the plastic hook and elastic provided, which is attached to the deck fitting on the port side of the mast.

#### **TOP TIP**

**If the tide is coming in as you launch, make sure that you leave the trolley far enough up the beach that it will not be swept away.**

## 14.3 Leaving the Beach

The easiest way to get going is for the helm to hop aboard while the crew holds the boat. The helm should push gently on the tiller to lower some of the rudder blade and dagger board. Then, s/he may instruct the crew to push the bow off the wind and climb in.

The singlehanded sailor may choose to ask someone to help them to launch. If launching alone, stand in the water alongside the gunwhale, holding the boat head to wind. Lower part of rudder, and then push the bow off the wind while hopping in.

As soon the water is deep enough, make sure that you lower the rudder blade fully and daggerboard fully. You will know it is fully down if you feel a gentle "thud" as the front face of the blade hits the front face of the stock. Pull the sail in and you are away! Put the tail of the rudder downhaul in the cleat as per item 8.8.

For the best performance, you should ensure that you and your crew position yourselves so that the boat is sailing through the water as flat as possible.

Watch the trim (fore and aft) and the heel. The boat should always be sailed as upright as possible.

### Top Tip

As a general rule, sit further forward in lighter winds and further aft in stronger breezes.

## 14.4 Capsize

In the event of capsize the buoyant topmast will usually prevent total inversion. The Aero rights so easily that it is often not possible to climb onto the centreboard before the boat rights leaving the helm in the water on the windward side of the boat. The Aero is so light it is possible to man-handle the boat from in the water somewhat like a sailboard. Position the boat on a beam reach and climb aboard. Due to the light boat weight it is possible to capsize the boat back on top of oneself in spite of the form stability. This can be counteracted with a little mainsheet tension somewhat like water starting a sailboard. If you find it is still difficult to climb over the windward side, work your way aft holding the gunwhale and climb in over the windward side of the stern.

## 14.5 Sailing Close-Hauled and Tacking

The Downhaul should be firmly tensioned for upwind sailing. You should hold the tiller extension across your body, with a knuckles-up grip, enabling you to use one or two fingers as a temporary cleat when adjusting the mainsheet.

To tack, push the tiller extension away from you and, as the boat starts to turn, step across the boat. Once the boat has completed the turn, bring the tiller back into the centre before sitting down on the new side, with the tiller extension behind your back. When you are settled, swap the mainsheet and the tiller extension into the new hands.

If the boat slows right down and feels lifeless when close-hauled, you could be sailing too close to the wind. Ease the mainsheet and 'bear off' away from the wind for a while to get the boat going again.

## 14.6 Sailing Downwind and Gybing

When sailing downwind, you could reduce the amount of downhaul on the mainsail. To gybe, pull the tiller towards you and, as the boat starts to turn, step across the boat facing forward. Once the boat has completed the turn, pass the tiller back into the centre before sitting down on the new side, with the tiller extension behind your back. Often, the Sail will not want to come across until you have nearly completed the gybe, so it often pays to give the mainsheet a tweak to encourage the mainsail over at the moment that you want it to come! Once you are settled, swap the mainsheet and the tiller extension into the new hands.

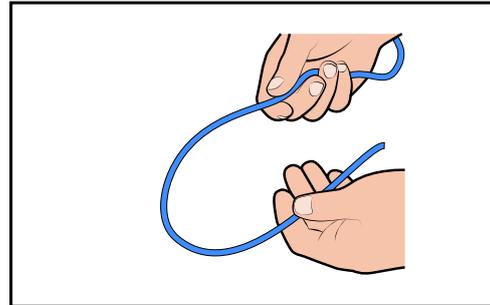
1. This warranty is given in addition to all rights given by statute or otherwise.
2. RS Sailing warrants all boats and component parts manufactured by it to be free from defects in materials and workmanship under normal use and circumstances, and the exercise of prudent seamanship, for a period of twelve (12) months from the date of commissioning by the original owner. The owner must exercise routine maintenance and care.
3. This warranty does not apply to defects in surface coatings caused by weathering or normal use and wear.
4. This warranty does not apply if the boat has been altered, modified, or repaired without prior written approval of RS Sailing. Any changes to the hull structure, deck structure, rig or foils without the written approval of RS Sailing will void this warranty.
5. Warranty claims for materials or equipment not manufactured by RS Sailing can be made directly to the relevant manufacturer. RS Sailing warrants that these parts were installed correctly and according to the instructions provided by the manufacturer.
6. Warranty claims shall be made to RS Sailing as soon as practicable and, in any event, within 28 days upon discovery of a defect. No repairs under warranty are to be undertaken without written approval of RS Sailing.
7. Upon approval of a warranty claim, RS Sailing may, at its expense, repair or replace the component. In all cases, the replacement will be equal in value to the original component.
8. Due to the continuing evolution of the marine market, RS Sailing reserves the right to change the design, material, or construction of its products without incurring any obligation to incorporate such changes in products already built or in use.



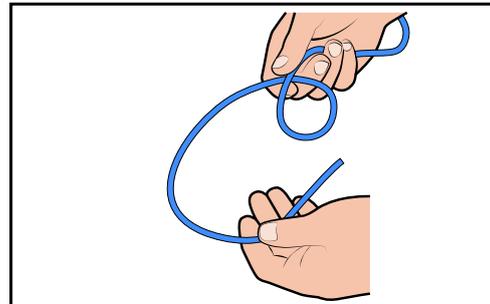
## Bowline

The bowline is a reliable knot used for tying a loop in rope. It is extremely strong when under load, and unties easily once free of load. Some people use the rhyme “the rabbit comes out of the hole, round the tree, and back down the hole” as a way of remembering how to tie a bowline.

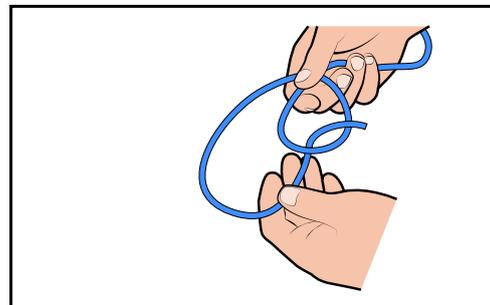
Take the end of the piece of rope and assess how big a loop you require



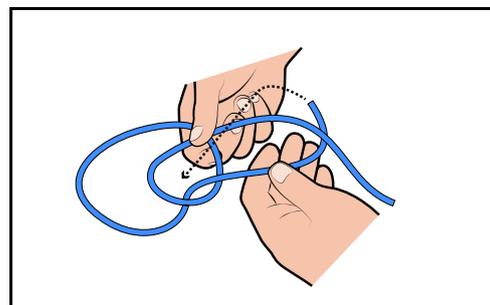
Make a small loop in the rope



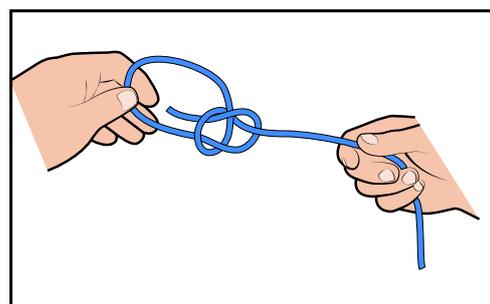
Take the tail and lead it up through the loop



Pass the tail around the standing rope



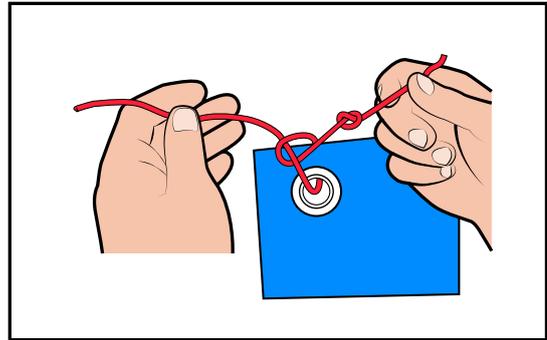
Thread the tail back through the loop, and tighten



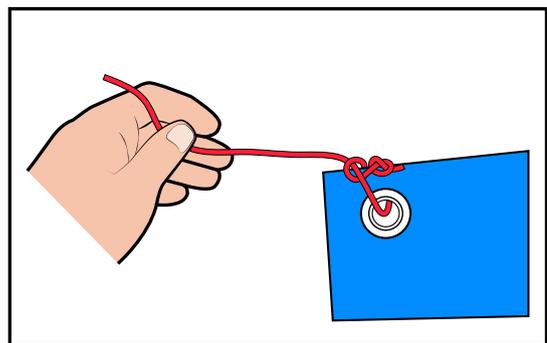
## Knot-on-knot

A 'knot-on-knot' is useful for tying the end of a rope to a sail or a fitting, and is particularly reliable due to the manner in which the rope binds upon itself.

Tie a single overhand knot in the end of the rope. Feed the rope through the sail or the fitting, and tie another overhand knot in the rope.



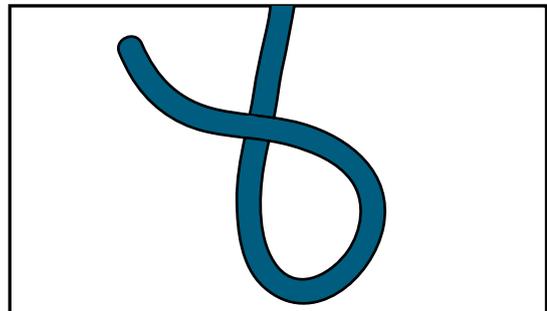
Pull the rope tight so that the rope binds on the original overhand knot.



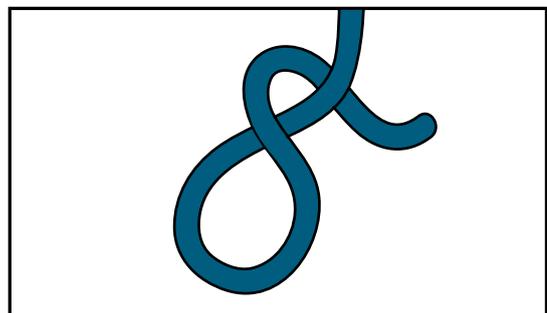
## Figure-of-Eight

The 'figure-of-eight' knot is used as a stopper knot, preventing ropes from slipping through fittings. Like the bowline, the 'figure-of-eight' knot unties easily once free of load.

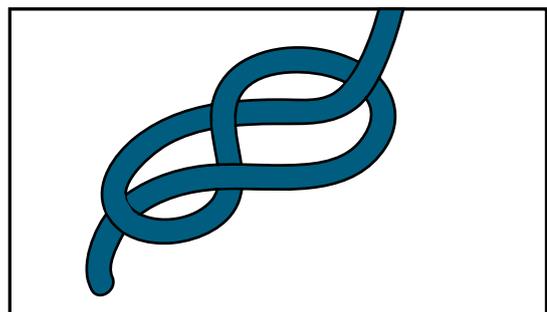
Make a loop in the end of the rope



Lead the tail underneath the standing end of the rope



Lead the tail of the rope back through the loop, and tighten



## A

Aft	At the back
Anchor Line	Rope that attaches the anchor to the boat
Astern	Behind the boat
Asymmetric	Gennaker flown from a retractable pole at the bow

## B

Back	To 'back the sail'; allowing the wind to fill the back of the sail
Bailer	A bucket or other container used for bailing water
Batten	A thin strip of wood/plastic inserted in the sail to keep it flat
Batten Key	A key used to adjust the batten
Batten Pocket	A pocket on the sail that holds the batten
Beam	Width of the boat at the widest point of the side of the boat. The phrase 'wind on the beam' means that the wind is coming from the side.
Bear away	To turn downwind
Beat	To sail a zig-zag course to make progress upwind
Beaufort Scale	A measure of wind strength, from Force 1 to Force 12
Bilge Rail	The moulded line that marks the transition from the side to the bottom of the hull
Block	A pulley used for sail control lines
Boom	The spar at the bottom edge of sail
Boom Pad	The pad that fits onto the boom
Bow	The front of the boat
Bow Lifting Handle	The handle at the front of the boat, used for lifting
Bowline	A useful and reliable knot, with a loop in it
Bow Snubber	The part of the trolley that the bow rests on
Builder's Plate	Plate that contains build information
Bung	A stopper for the drain hole

Buoy	Floating object attached to the bottom of sea – used variously for navigation, mooring, and to mark out a race course
Buoyancy Aid	Helps you to stay afloat if you fall in the water
Buoyancy Compartment	Water-tight compartment in the hull that maintains buoyancy
Burgee	Small flag at the top of the mast to show wind direction

## C

Capsize	To overturn
Capsize Recovery	To right, or recover, the boat after a capsize
Catamaran	A boat with two hulls
Centreboard	The foil that sits below the hull to counteract the sideways push of the wind, and to create forward motion
Centreboard Case	The casing in the hull in which the centreboard sits
Centreline	An imaginary line that runs through the centre of the hull, from the bow to the stern
Chart datum	Depths shown on a chart, at the lowest possible tide
Cleat	A device to grip ropes and hold them in place – some grip automatically, while others need the rope tying around them
Clew	Lower corner of the sail, closest to the stern
Close hauled	Sailing as close to the wind as you can; point of sailing to sail upwind
Cockpit	The open area in the boat providing space for the helm and the crew
Collision Regulations	The 'rules of the road' to avoid collisions
Compass Rose	The compass shown on a chart to aid navigation
Crew	Helps the helmsman to sail the boat, and usually handles the jib sheets
Cutter	A boat with two headsails or jibs

## D

Dacron	A brand of polyester sailcloth that is wrinkle-resistant and strong
Deck	A floor-like surface occupying part of the hull
Deck Moulding	A moulded deck
Downhaul	Applies downwards tension to a sail
Downwind	To sail in the direction that the wind is blowing
Drain Hole	A hole in the hull from which trapped water can be drained

Draught                      The depth of the vessel below the surface

## **E**

Ease                              To 'ease sheets' means to let the sail out gently

## **F**

Fairlead                        A pulley block used to guide a rope to avoid chafing

Foils                              The daggerboard and the rudder

Foot                                The bottom edge of a sail

Fore                                Towards the front of the boat

Forestay                        The wire line that runs from the front of the mast to the bow of the hull, holding the mast in position

Furl                                To gather a sail into a compact roll and bind it against the mast or forestay

## **G**

Gennaker                        A large sail that is hoisted when sailing downwind

Gennaker Chute                Webbing pocket in which the gennaker is stowed when not hoisted

Gennaker Pole                 The sprit that protrudes from the front of the hull, to which the tack of the gennaker is attached

Gnav Bar                         Bar that sits between the mast and the boom, performing the same function as a kicking strap

Gnav Control Line              Line that applies and releases tension to the gnav

Gooseneck                        The 'jaws' of the boom that clip onto the mast

Gunwhale                        The top edge of the hull, that you sit on when leaning out to balance the boat

Gybe                                To change tack by turning the stern of the boat through the wind.

## **H**

Halyard                            The rope used to hoist sails

Halyard Bag                      Bag attached to the hull, in which the halyards can be stowed

Head                                The top corner of a sail

'Head to Wind'	To point the bow in the direction that the wind is blowing from, causing the sails to flap
'Heave to'	To stop the boat by easing the main sheet and backing the jib
Heel	A boat 'heels' when it leans over due to the sideways force of the wind
Helm/Helmsman	The person who steers the boat, or another name for the tiller
Hoist Block	Block behind which the gennaker halyard is pulled when hoisting the gennaker
Hull	The hollow, lower-most part of the boat, floating partially submerged and supporting the rest of the boat

## I

'Into the Wind'	To point the bow in the direction that the wind is blowing from, causing the sails to flap
Inversion	A capsized where the boat turns upside down, or 'turtles'

## J

Jammer	Another word for a cleat
Jib	The small sail in front of the mast
Jib Sheet	The rope used to control the jib

## K

Kicking strap	The rope system that is attached to the base of the mast and the boom, helping to hold the boom down
Knot	A measurement of speed, based on one minute of latitude

## L

Launching	To leave the slipway
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Latitude	Imaginary lines running parallel round the globe from east to west. They help you measure position and distance on a chart.
Leech	The back edge of the sail
Leeward	The part of the boat furthest away from the direction in which the wind is blowing
Leeway	The amount of sideways drift caused by the wind
Leverage	The result of using crew weight as a 'lever' to counteract heel caused by the wind
Lie to	A way of stopping the boat temporarily by easing sheets on a close reach
Lifjacket	Unlike a buoyancy aid, a lifjacket will keep a person fully afloat with their head clear of the water
Longitude	Imaginary lines running round the globe from north to south, like segments of an orange. Used with lines of latitude to measure position and distance
Lower Furling Unit	The fitting at the bottom of the forestay that enables the jib to be furled
Luff	The front edge of the sail

## M

Mainsail	The largest sail on a boat
Mainsail Clew Slug	The fitting that sits in the track on the boom, to which the clew of the mainsail is attached
Mainsheet	The rope used to control the mainsail
Mainsheet Bridle	The rope runs across the transom of the boat, to which the mainsheet is attached
Mainsheet Centre Block	The main block, usually fixed to the cockpit floor, through which the mainsheet passes
Man Overboard Recovery	The act of recovering a 'man overboard' from the water
Mast	The spar that the sails are hoisted up
Mast Foot	The bottom of the mast
Mast Gate	Fitting which closes across the front of the mast at deck level, holding the mast in place

Mast Lower Section	The bottom section of a two-piece mast
Mast Step	The fitting on the deck that the mast fits into
Mast Top Section	The top section of a two-piece mast
Meteorology	The study of weather forecasting
Moor	To tie the boat to a fixed object
Mylar	A brand of strong, thin, polyester film used to make racing sails

## N

National Sailing Federation	Body that governs sailing in a nation. In the UK, this is the Royal Yachting Association
Navigation	To find a way from one point to the other
Neap Tide	Tides with the smallest tidal change

## O

'Off the Wind'	To sail in the direction that the wind is blowing
Outboard Bracket Kit	Bracket which enables an outboard engine to be attached to the transom
Outboard Engine	Small portable engine that attaches to the transom
Outhaul	The control line that applies tension to the foot of the sail, by pulling the sail along the boom
Outhaul Hook	The fitting on the boom that hooks the eye at the back of the sail, and to which the outhaul is attached

## P

Painter	The rope at the bow used to tie the boat to a fixed object
Pontoon	A floating jetty to moor your boat to
Port	The left-hand side of the boat, when facing forwards

## R

RS Dealer	A third-party who sells the RS range
Reach	Sailing with the wind on the side of the boat

Reef	To make the sails smaller in strong winds
Retaining Pin	On a trolley, to hold the launching trolley to the road base
Road Base	A trolley that you place your boat and launching trolley upon to trail behind a vehicle
Rowlocks	U shaped fittings that fix onto the gunwale and holds your oars in position while rowing
Rowlock Holes	The holes in the gunwhale into which the rowlocks fit
Rudder	The foil that, when attached to the stern, controls the direction of the boat
Rudder Blade	The large, rigid, thin part of the rudder
Rudder Downhaul	The control line that enables you to pull the rudder into place
Rudder Pintle	The fitting on the transom onto which the rudder stock fits
Rudder Stock	The top part of the rudder, usually including the tiller, into which the rudder blade fits, and which then attaches to the rudder pintle
Run	To 'run with the wind', or to sail in the direction that the wind is blowing

## S

Safety-Boat Cover	Support boats, usually RIBs, in case of emergency
Sail	An area of material attached to the boat that uses the wind to create forward motion
Sailmaker	A manufacturer of sails
Sail Number	The unique number allocated to a boat, displayed on the sail when racing
Sail Pressure	A sail has 'pressure' when it is working with the wind to create motion
Sailing Regatta	An event that usually comprises of a number of sailing races
Shackle	A metal fitting for attaching ropes to blocks, etc.
Shackle Key	Small key used to undo tight shackles
Sheet	A rope that controls a sail
Shroud	The wires that are attached to the mast and the hull, holding the mast up
Side Safety Line	The line that runs along the side of the hull
Single Handed	To sail a boat alone
Single-Line Reefing System	An efficient method of reefing with one line

Slider	Sliding fitting on the boom to which the gnav bar is attached
Soundings	The numbers on a chart showing depth
Spars	The poles, usually carbon or aluminium, to which the sail is attached
Spreaders	Metal fittings attached to the mast which hold the shrouds out
Spring Tide	The tides with the biggest range and strongest currents
Starboard.	The right-hand side of the boat, when facing forwards
Stern	The back of the boat
Stern Lifting Handles	The handles at the stern, used for lifting the boat
Stopper Knot	A form of knot used to prevent a rope from sliding through a fitting, such as a pulley or a cleat

## T

Tack	a) To change direction by turning the bow of the boat through the wind b) The bottom front corner of a sail
Tack Bar	The bar at the bow of the hull, to which the tack of the jib is attached
Tack Line	The rope that emerges from the front of the gennaker pole, to which the tack of the gennaker is attached
Tender	A small vessel, usually used to transport crew to a larger vessel
Tidal height	The depth of water above chart datum
Tidal range	The difference between the depth of water at low and high tide
Tidal stream	The direction in which the tide is flowing
Tiller	The stick attached to the rudder, used to steer the boat
Tiller Extension	A pole attached to the tiller to extend its reach, usually used when hiking
Toe Straps	The straps to tuck your feet under when you lean out to balance the boat.
Top Furling Unit	Fitting at the top of the forestay which enables the jib to be furled
Towing Line	A rope attached to the boat, used to connect to a towing vessel
Transit	An imaginary line between two fixed objects, used to ensure that you are staying on course
Transom	The vertical surface at the back of the boat
Trim	Keeping the boat level fore and aft
Trimaran	A boat with three hulls
Trolley	A wheeled structure, used to move the boat around on land
Trolley Supports	The part of the trolley in direct contact with the hull

**U**

'Under Weigh'                      A term derived from the act of 'weighing' anchor, meaning to be in motion

Upwind                                To sail against the direction in which the wind is blowing

**W**

Wetsuit                                Neoprene sailing suit designed to keep you warm when wet

Windward                             The part of the boat closest to the direction in which the wind is blowing