



CASCAIS FUN

# RIGGING MANUAL



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## IMPORTANT INFORMATION

THIS GUIDE CONTAINS INSTRUCTIONS FOR RIGGING YOUR CASCAIS. DUE TO PRODUCTION SUPPLIES CERTAIN PARTS MAY BE DIFFERENT FROM THOSE SHOWN IN DESCRIPTION, COLOR AND SPECIFICATION. LASERPERFORMANCE RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT PRIOR NOTIFICATION.

BEFORE RIGGING YOUR BOAT READ AND FAMILIARIZE YOURSELF WITH THE RIGGING MANUAL. FAILURE TO ADHERE TO THESE GUIDELINES COULD INVALIDATE YOUR WARRANTY

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# GLOSSARY



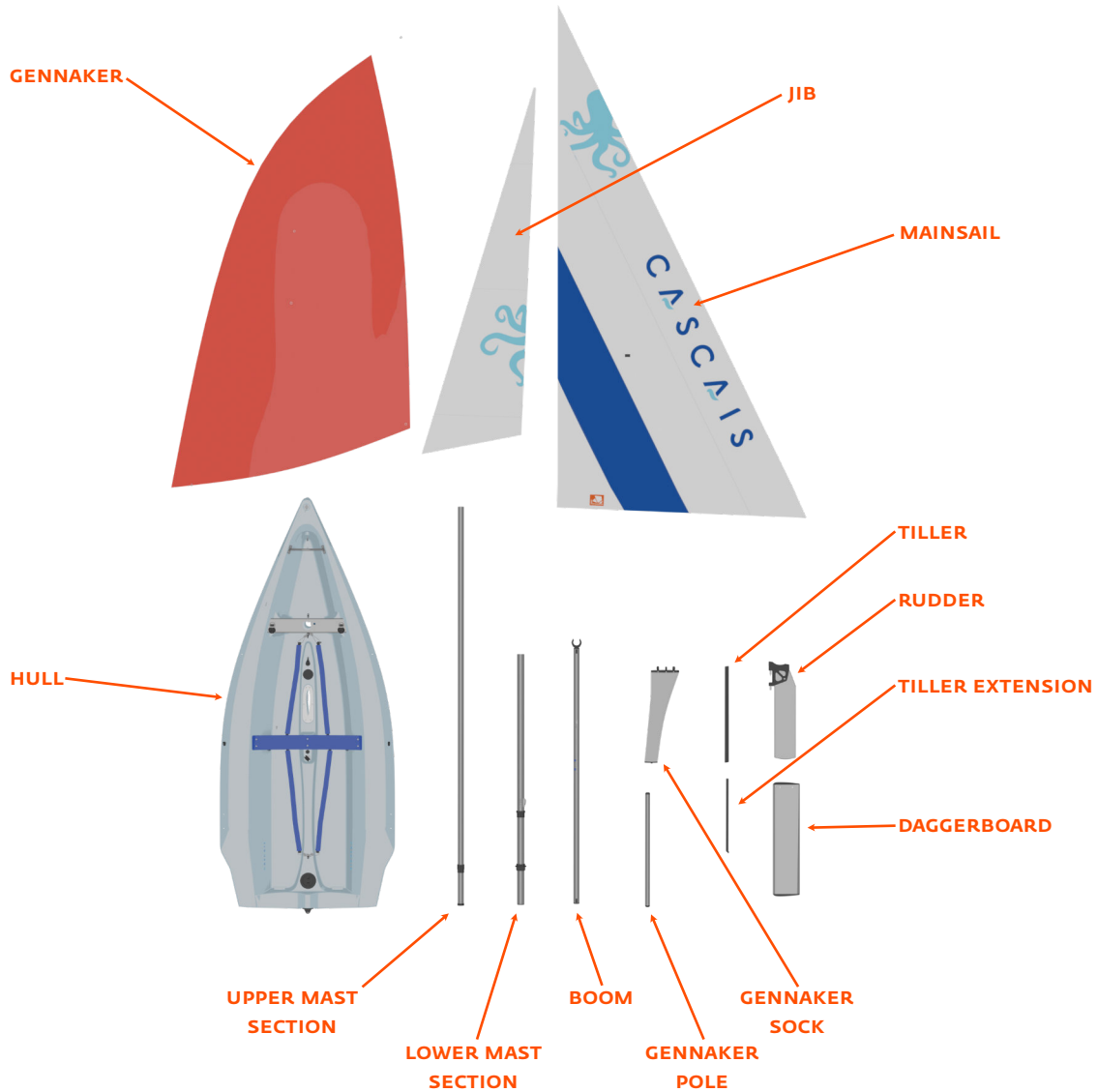
<b>AFT</b>	--	Rearward
<b>BATTEN</b>	--	A thin stiffening strip in the sail to support the leach
<b>BLOCK</b>	--	Pulleys used in sailing to control lines
<b>BOOM</b>	--	Spar at the bottom of the mainsail
<b>BOW</b>	--	Front of the boat
<b>BURGEE</b>	--	Wind direction indicator (usually a small flag)
<b>CLEAT</b>	--	A fitting used for holding/securing line
<b>CLEW</b>	--	Back lower corner of the sail
<b>CUNNINGHAM</b>	--	Purchase system for tightening the forward edge/luff of the sail
<b>DAGGERBOARD</b>	--	Is a retractable centerboard, located mid-ship that slides in a casing.
<b>FOOT</b>	--	Bottom edge of the sail
<b>FORE</b>	--	Forward
<b>FORESTAY</b>	--	The wire supporting the mast at the bow of the boat
<b>GENNAKER</b>	--	Isometric sail hoisted when sailing downwind
<b>GENNAKER POLE</b>	--	The pole that extends from the bow to fly the gennaker sail
<b>GUDGEON</b>	--	Fitting on the transom and rudder used to hold the rudder
<b>GUNWALE</b>	--	The outermost edge of the boat
<b>HALYARD</b>	--	A rope or wire used to lower or hoist sails
<b>HEAD</b>	--	Top corner of sail
<b>JIB</b>	--	Front sail
<b>LEACH</b>	--	Rear edge of the sail
<b>LUFF</b>	--	Forward edge of the sail
<b>MAST</b>	--	Main vertical spar supporting the rig/sails
<b>MAST HEEL</b>	--	Fitting on the bottom edge/foot of the mast
<b>MAST STEP</b>	--	Fitting on the boat where the mast heel/foot of the mast is located
<b>OUTHHAUL</b>	--	Purchase system for tightening the bottom edge/foot of the sail
<b>RUDDER</b>	--	Blade and attachment used for steering the boat
<b>SHROUDS</b>	--	The wires which hold the mast up from side to side connecting at the top of the mast
<b>SPREADERS</b>	--	Metal struts placed in pairs to support the mast sideways and control the bend in the mast
<b>STERN</b>	--	Back of the boat
<b>STEM FITTING</b>	--	Stainless fitting at the bow to which the forestay attaches
<b>TACK</b>	--	Forward lower corner of the sail
<b>TRANSOM</b>	--	The flat face on the stern of the boat usually where the rudder attaches
<b>VANG</b>	--	Otherwise known as the Kicking strap, Gnav.

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# UNPACK YOUR CASCAIS



## ROPE PACK CONTAINS

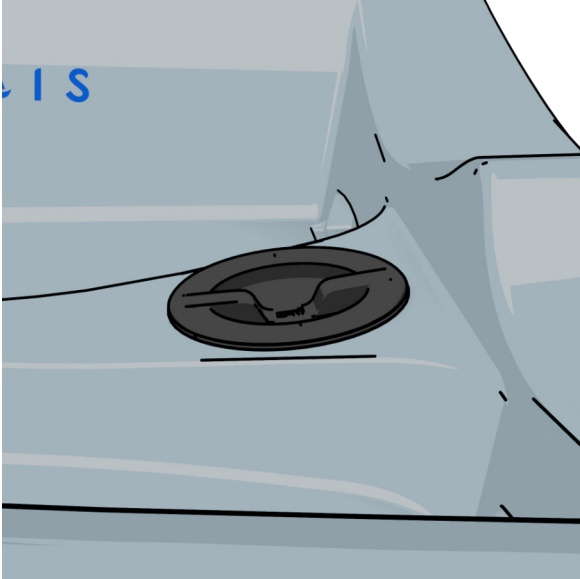
- Centerboard and clew outhaul shockcord
- Vang/Kicking strap rope
- Clew tie down
- Traveler
- Jib halyard
- Clew outhaul
- Cunningham
- Jib Sheet
- Mainsheet

## BLOCKS AND FITTINGS PACK CONTAINS

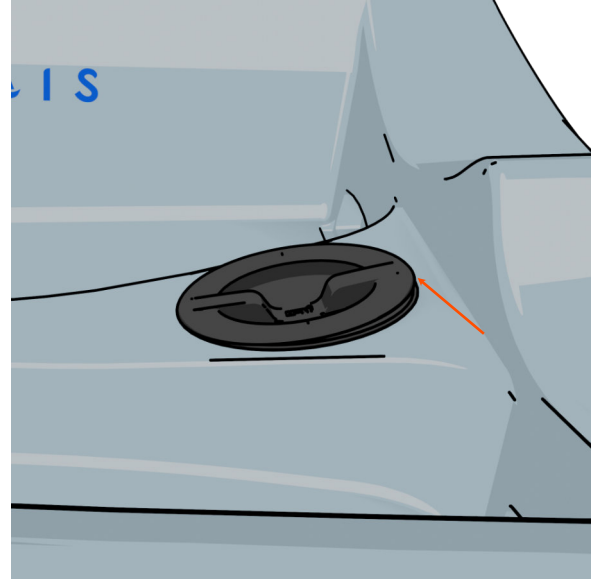
- Kicking strap lower block inc. hook
- Upper kicking strap block
- Single mainsheet block inc. clip
- Traveler block inc. clip
- Twisted hook for clew outhaul
- Sister clips
- Rigging link
- Hook for jib tack

**IMPORTANT INFORMATION BEFORE YOU LAUNCH**

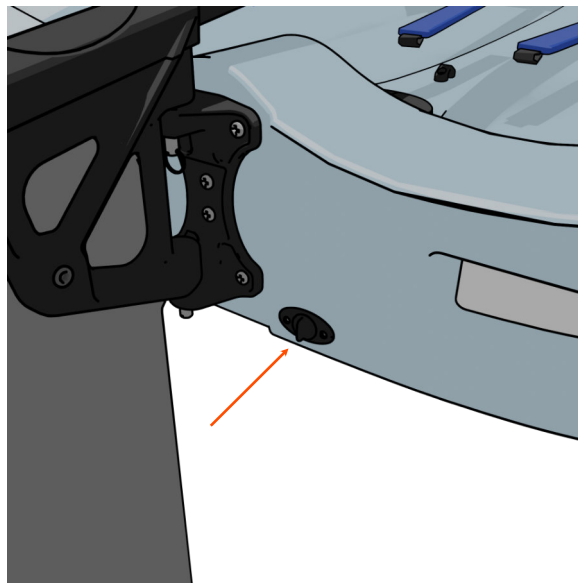
THERE IS ONE HATCH AND ONE TRANSOM DRAIN BUNG ON THE CASCAIS. ALL HATCHES AND THE DRAIN BUNG SHOULD BE CHECKED EVERY TIME YOU SAIL TO ENSURE THEY TIGHT AND FIT CORRECTLY.



**CORRECT HATCH FITMENT**

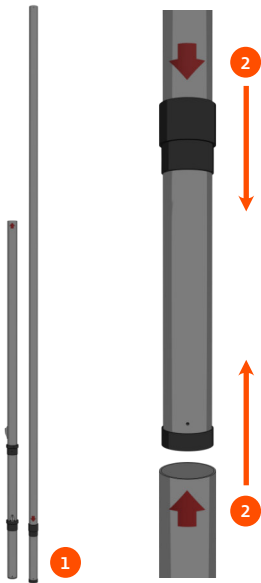


**INCORRECT HATCH FITMENT**



**CORRECT DRAIN BUNG FITMENT**

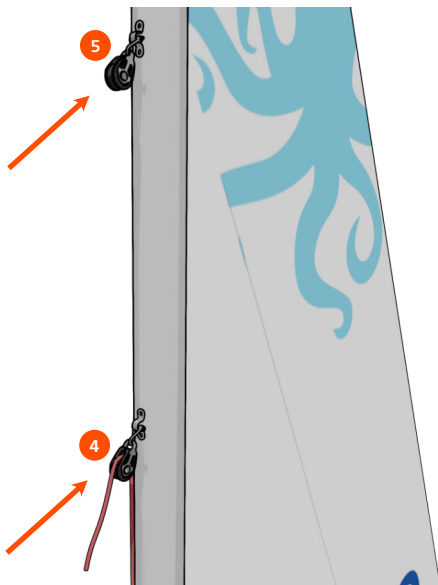
# FITTING THE MAST AND MAIN SAIL



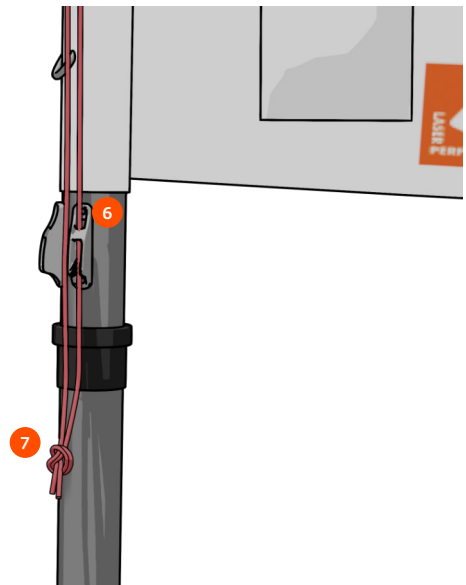
Unwrap the mast sections ① and insert the upper mast into the lower mast, making sure that the red arrows align ②.



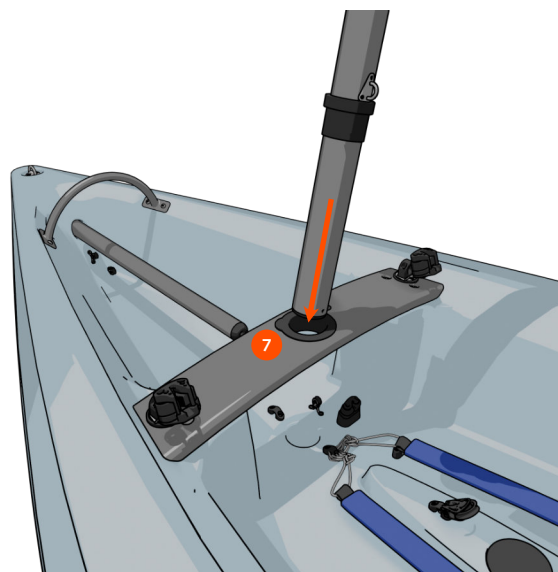
Unfold the mainsail ③ (try to keep it clean and dry) and sleeve it over the top of the mast, making sure that the mast stays together. Pull the sail all the way over the mast, with the cunningham D-ring on the sail sleeve facing forward, in line with the cleat at the center bottom of the mast.



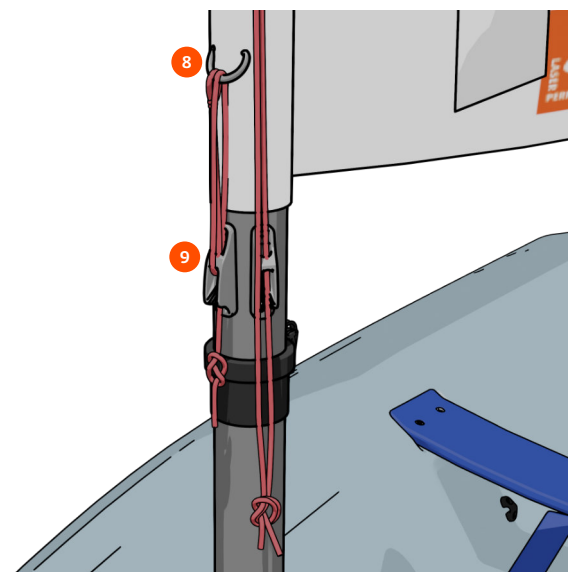
Attach the halyard blocks with shackles to the upper mast eye plates and thread the jib halyard through the lower block ④. You can skip the upper block ⑤ if you aren't planning on using the genaker.



Take one end of the halyard and pass it through the halyard cleat ⑥ on the port side of the lower mast section and tie the two loose ends together ⑦.



Find the wind direction and point your Cascais into it. Hold the mast and point the base to the thwart **7**. Slowly raise it up until it steps down into the mast cup. If the wind is strong you can raise it up with the sail furlled around the mast. It is advisable to ask for help and do this with 2 people.



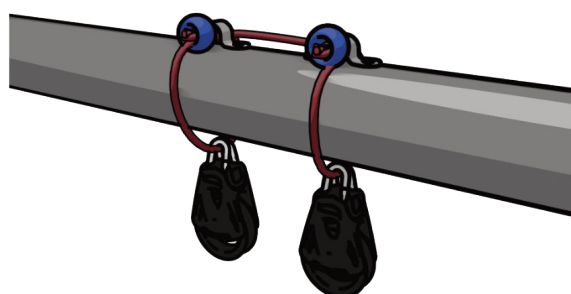
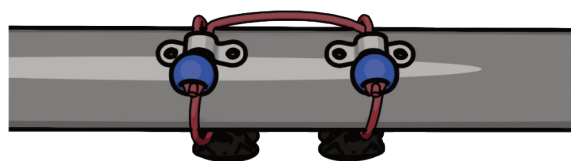
From your rope kit, find the rope marked Cunningham. Tie a loop onto the sail D-ring **8**, thread it around the cleat bridge **9**, back up to the D-ring **8** and lock it down in the cleat **9**. Tie a knot in the end of the rope and add a small amount of tension.

## FITTING THE MAIN SHEET BLOCKS

Take the 2 blue tie balls, and the small red rope. Tie a figure 8 knot, thread it through a tie ball and then through one of the eye straps.

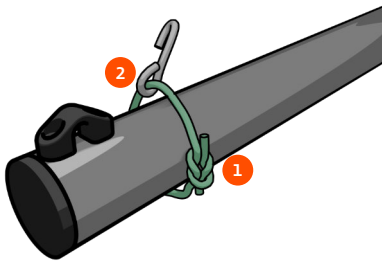
Go around the boom and through the loop of one of the blocks, then back through the same eyestay in the same direction.

Thread the rope through the other eyestay and run the same loop in the opposite direction, around the boom, through the other block loop, through the eyestay and finally through the other blue tie ball with a figure 8 knot in the end.

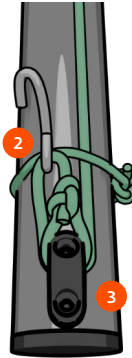




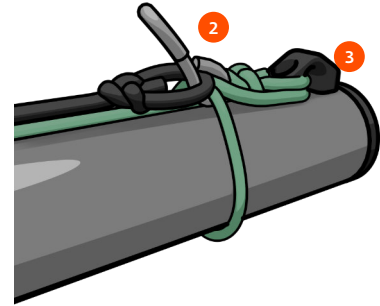
# RIGGING THE MAIN SAIL



At the outboard end of the boom, use a reef knot ① to tie down the clew hook ② to the boom with the clew tie down rope.

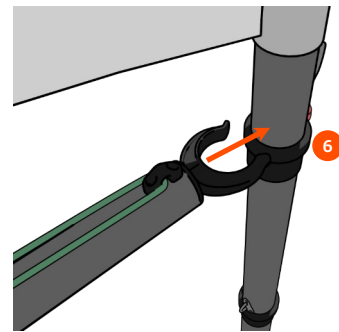
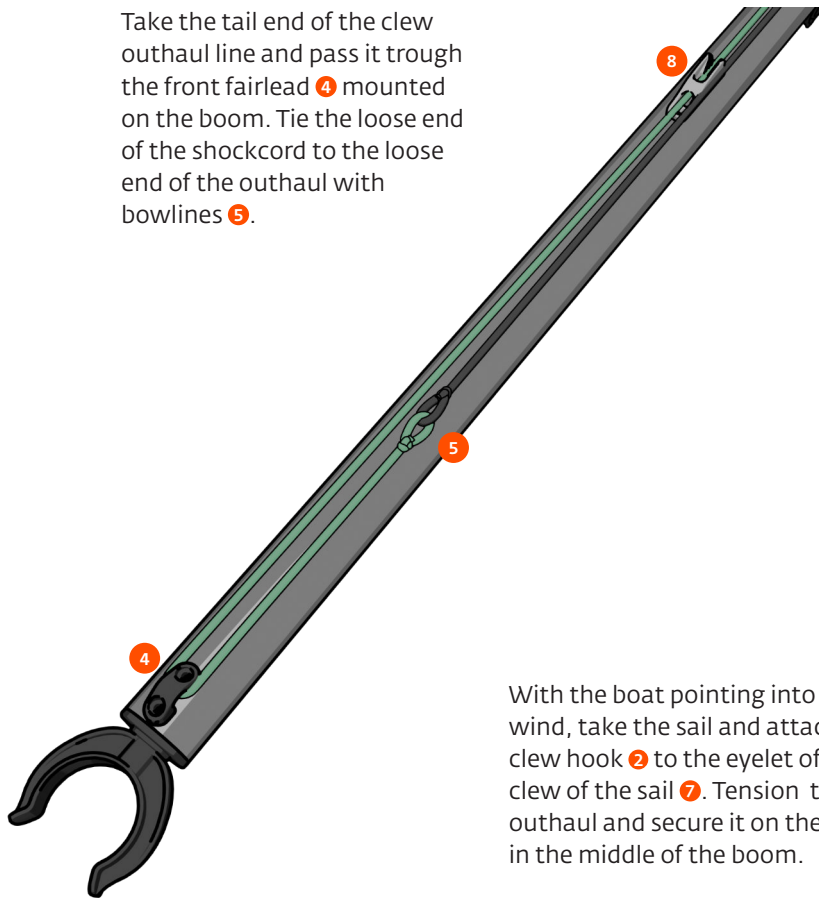


Tie the clew outhaul line to the small fairlead ③ on the outboard end of the boom with a bowline loop. Run through the eye of the clew hook ②, back round the fairlead ③ and up the cleat on the boom.



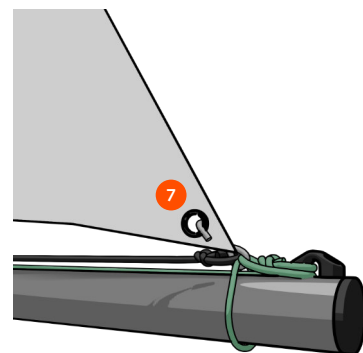
Take the long piece of shockcord, pass it through the eye of the hook ② and tie a large knot or bowline.

Take the tail end of the clew outhaul line and pass it through the front fairlead ④ mounted on the boom. Tie the loose end of the shockcord to the loose end of the outhaul with bowlines ⑤.

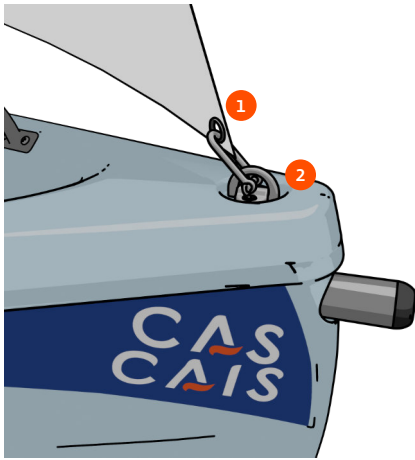


Clip the boom onto the mast above the black collar ⑥. This will require a firm push.

With the boat pointing into the wind, take the sail and attach the clew hook ② to the eyelet of the clew of the sail ⑦. Tension the clew outhaul and secure it on the cleat ⑧ in the middle of the boom.



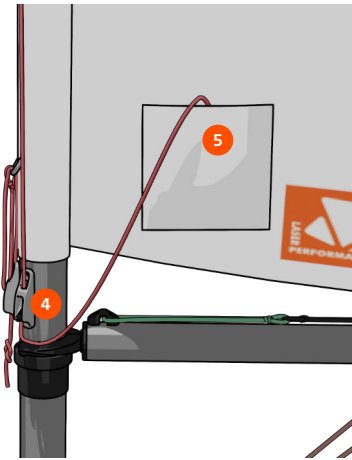
# FITTING THE JIB



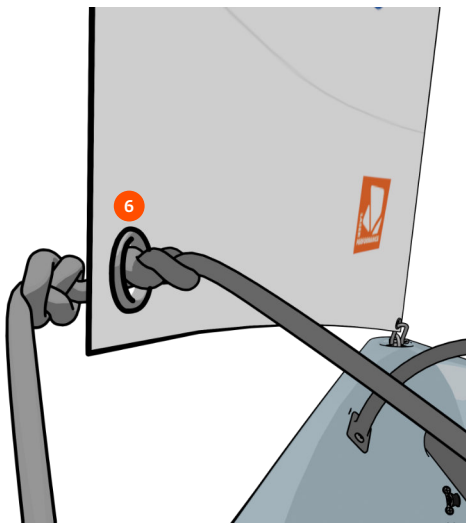
Unwrap the sail and attach the tack of the jib **1** to the folding pad eye **2** on the deck using a shackle.



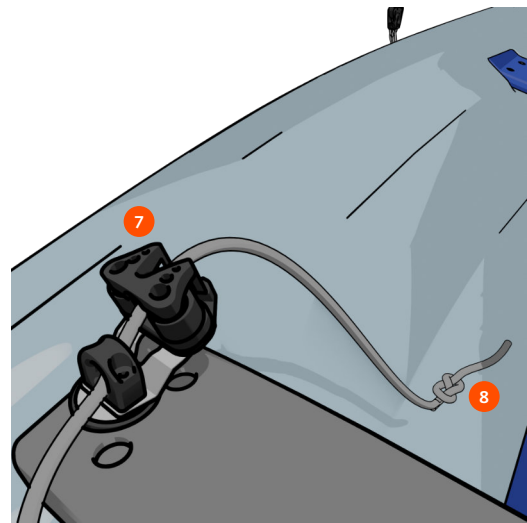
Tie the jib halyard to the head of the jib **3** with a bowline.



Hoist the jib, cleat the halyard securely on the port side cleat **4** and stow the line in the main sail pocket **5**.



Thread the jib sheet through the jib clew **6** and tie a figure 8 knot on each side. Ensure that the two ropes are the same length.

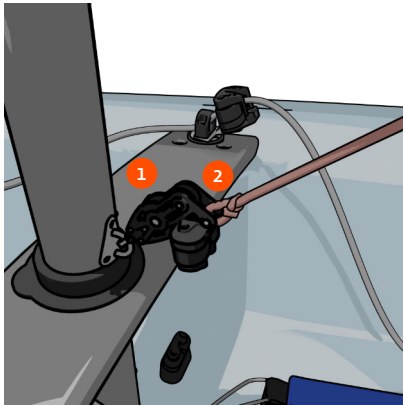


Run the ends of the jib sheets through the swivel sheet jammers **7** and tie a figure 8 knot **8** in each end.

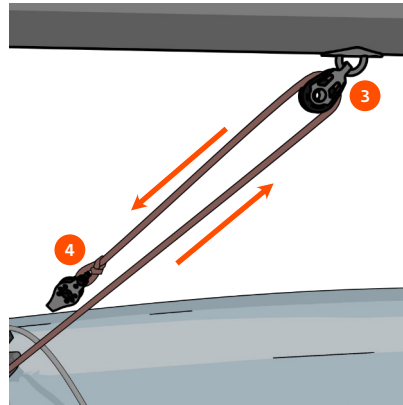
## ATTENTION:

**EVEN IF YOU ARE NOT USING THE JIB, THE HALYARD SHOULD ALWAYS BE ATTACHED TO THE FOLDING PAD EYE ON THE DECK. THIS IS A SAFETY FEATURE TO PREVENT THE MAST FROM SLIPPING AWAY FROM ITS POSITION WHEN THE BOAT IS CAPSIZED.**

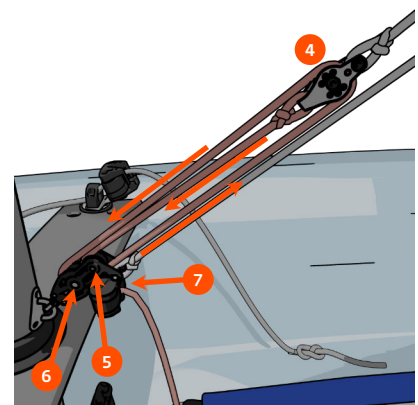
## RIGGING THE VANG



Take the large vang block **1** and clip it to the eye plate on the mast. Take the short vang line and tie a bowline to the block pin **2**.

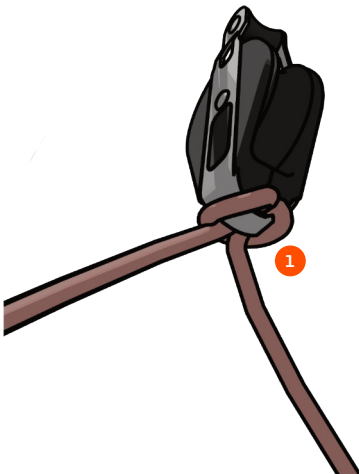


Clip the smaller block **3** to the boom eye plate and run the line through it. Tie the end of the line to the third block becket **4** with a bowline.

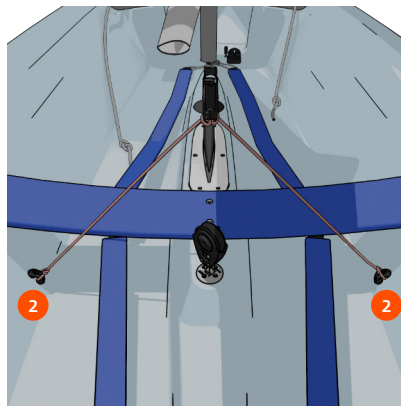


Take the longer vang line and tie a bowline to the third block **4**. Thread it through the small sheave **5** on the large block, then through the the middle block **4** and back to the large block through the large sheave **6** and the cleat **7**. Finish with a figure 8 knot.

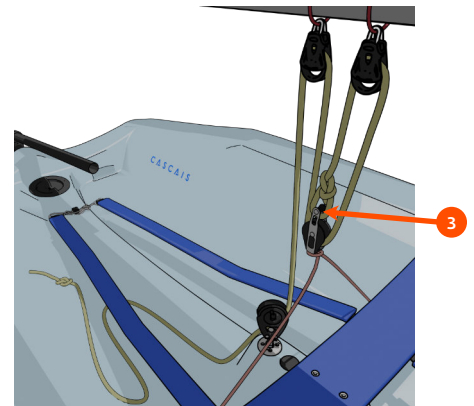
## FITTING THE MAIN SHEET



Take the main sheet bridal rope, find its center and tie it to the block with a girth hitch knot **1**.



Tie both ends to the pad eyes **2** on each side of the cockpit with bowlines.



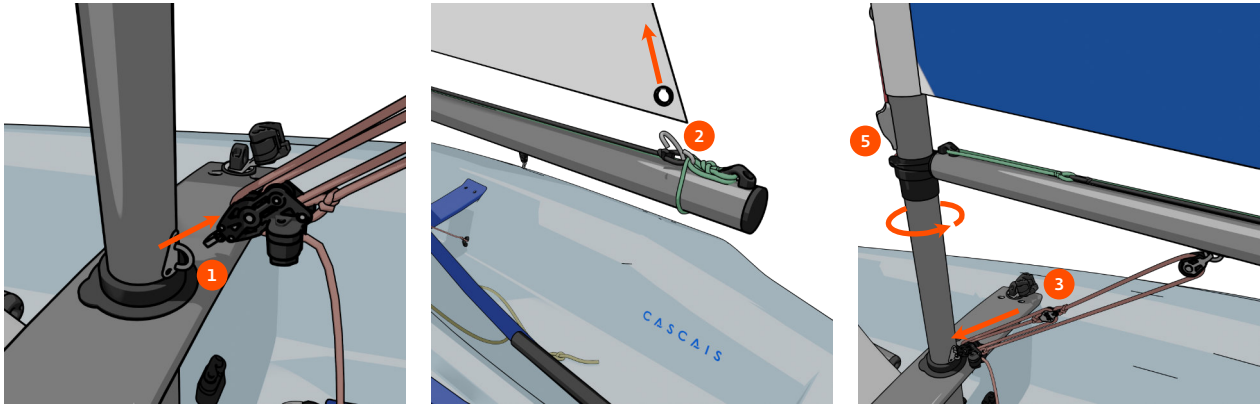
Tie a bowline to the block becket **3** and thread it through the other blocks as seen in the picture. Tie a figure 8 knot in the end.



# REEFING THE MAIN SAIL



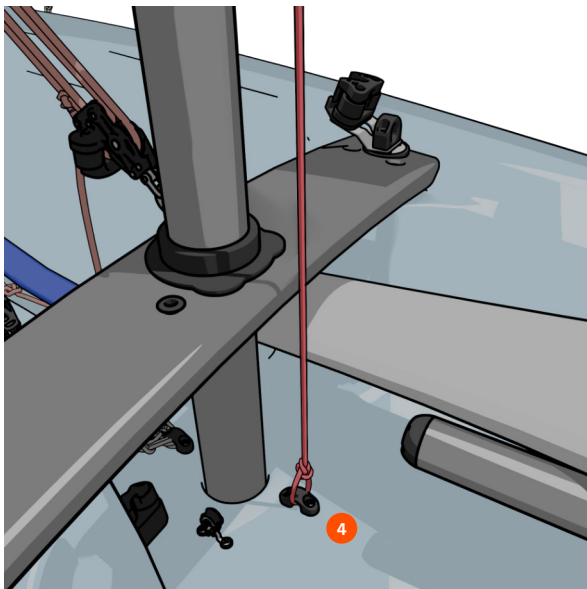
IN STRONG WINDS, OR IF YOU ARE UNSURE WHETHER YOU CAN COPE WITH THE CONDITIONS, IT IS ALWAYS BEST TO REEF THE SAIL DOWN TO REDUCE SAIL AREA. THIS WILL RESULT IN A MORE STABLE AND BETTER CONTROLLED BOAT.



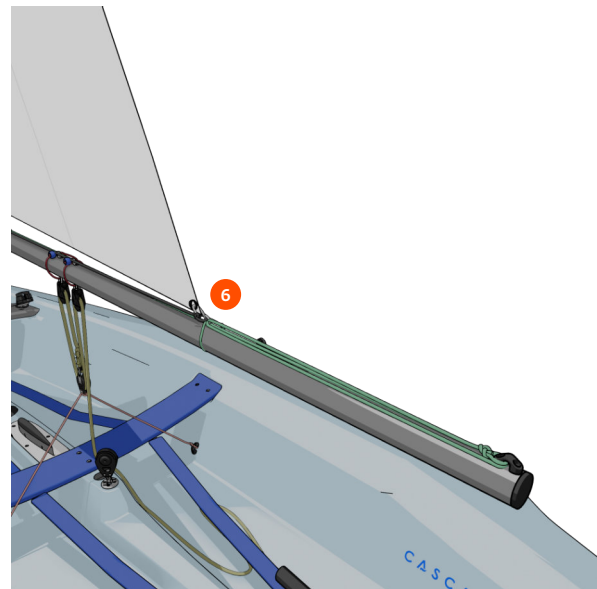
Drop the jib if fitted. Your Cascais cannot be sailed with jib if the main sail is reefed. Slacken the vang and unclip ❶ the vang block from the mast.

Unclip the sail from the clew hook ❷.

Rotate the mast in either direction by turning the mast below the gooseneck. This will roll the sail around the mast, reducing the sail area. Then reattach the vang ❸, but leave it loose.

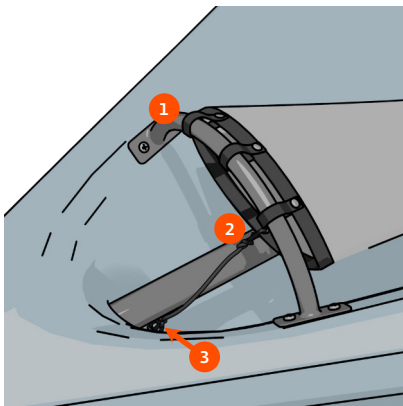


Reattach the jib halyard to the eyestay ❹ located on the lower deck close to the mast and tighten the other end in the cleat ❺ to secure the mast.



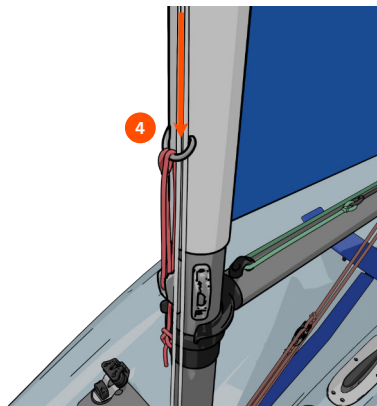
Reattach the clew outhaul ❻ and pull it tight. Retighten the vang.

# RIGGING THE GENNAKER

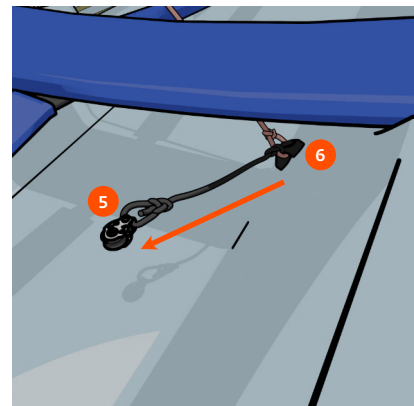


If you are using the gennaker, thread the halyard through the upper mast block just like you did on chapter 6 for the jib, before you step the mast.

Fit the gennaker sock with the straps around the gennaker hoop (1) and the small line to the sock eyelet (2) and the eyestay (3) that holds the block under the pole.

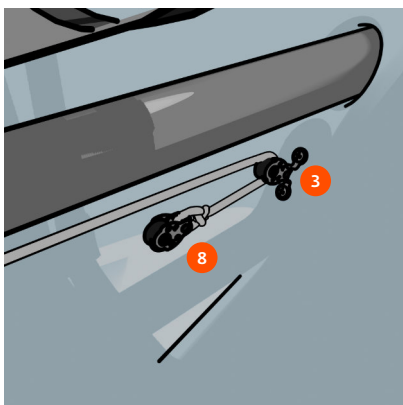


Temporarily thread the gennaker halyard through the Cunningham loop (4).

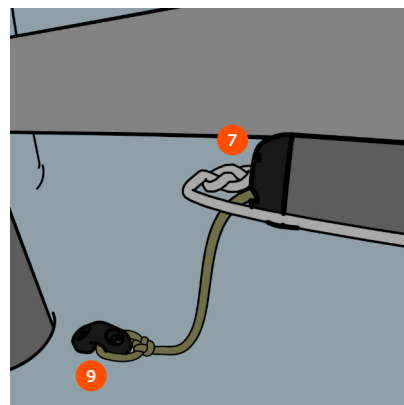


Find the small gennaker auxiliary block and tie it to the short line with a bowline (5). Then tie the other end to the eyestay (6).

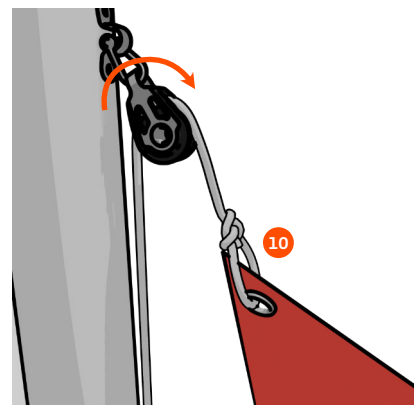
Make sure the line is longer than 25 centimeters (10 inches). A short line will cause the gennaker sheet to rub against the blue middle seat and wear it out.



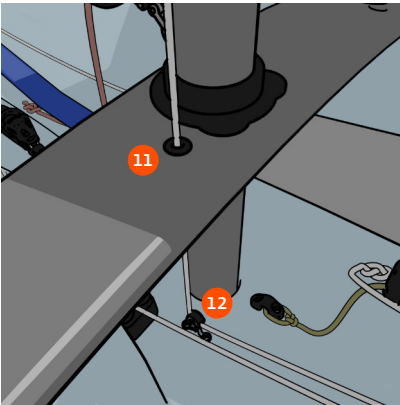
Take the gennaker tack line (7) that comes out of the aft end of the pole, thread it through the block (8) attached to the eye strap and then to the small block (10) with a bowline.



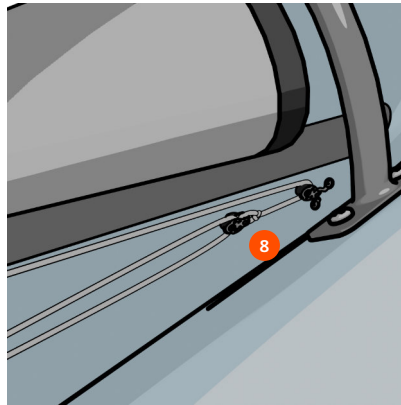
Tie the small yellow line that comes out of the aft end of the pole and tie it to the eyestay (9) near the mast.



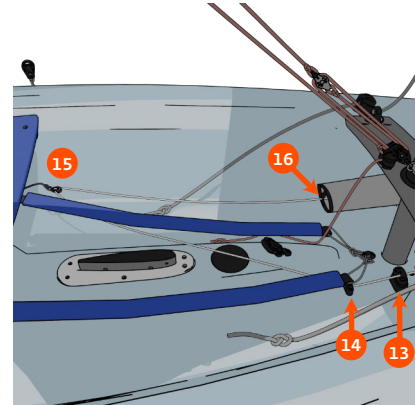
Take the gennaker halyard end that comes out of the fore side of the halyard block and tie it to the head of the gennaker with a bowline (10), so that it looks like the picture after hoisted.



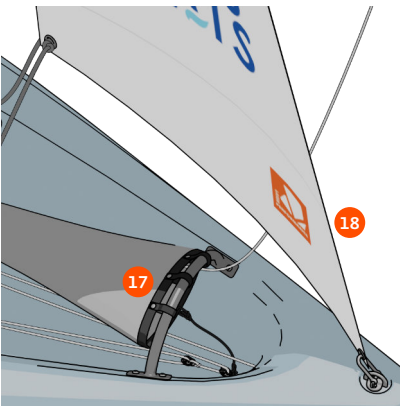
Take the other end of the halyard and feed it across the thwart **11** and through the small block **12** just beneath.



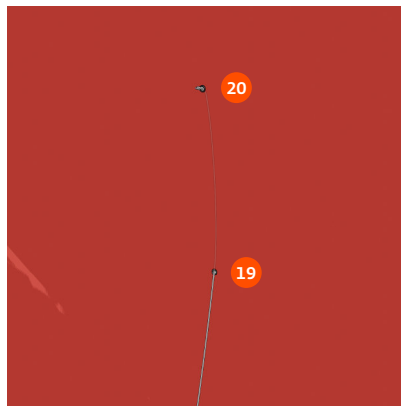
Feed it through the small block **8** that you rigged before.



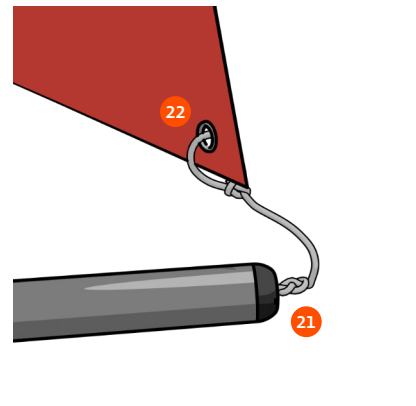
Then back to the cleat near the mast **13**, through the eyestay **14**, through the small block **15** near the middle seat and finally through the gennaker sock eyelet **16**.



Pull it from the other side of the sock **17** and make sure it doesn't cross the head **18** of the jib.

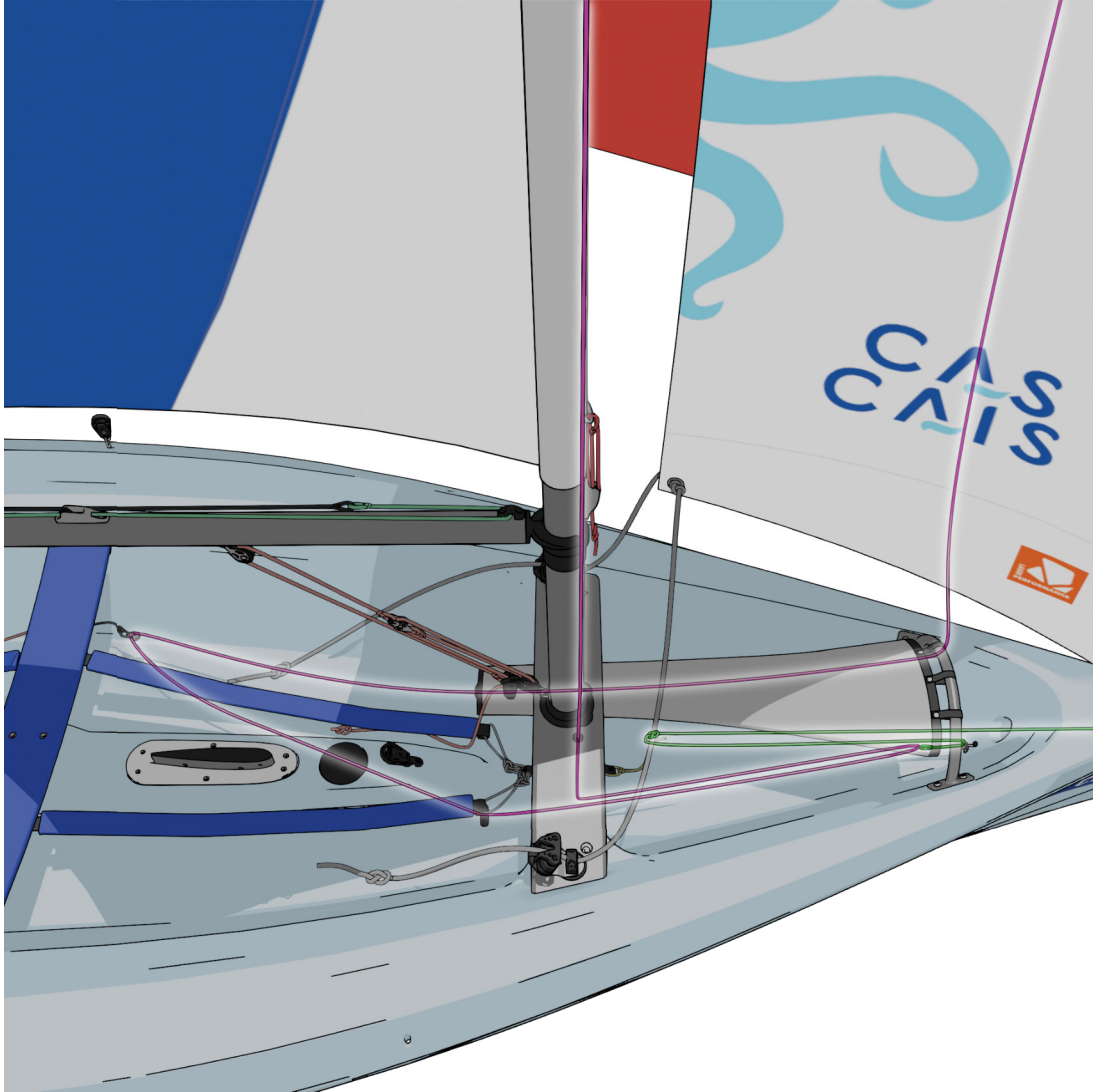


Finally thread it through the lower eyelet **19** of the gennaker, from starboard to port, then through the upper eyelet **20** from port to starboard, with a figure 8 knot in the end. This will be your downhaul.



Take the tack line that comes out of the gennaker pole and make sure it has a figure 8 knot **21** like in the picture. Tie the line to the tack of the gennaker **22** with a bowline.

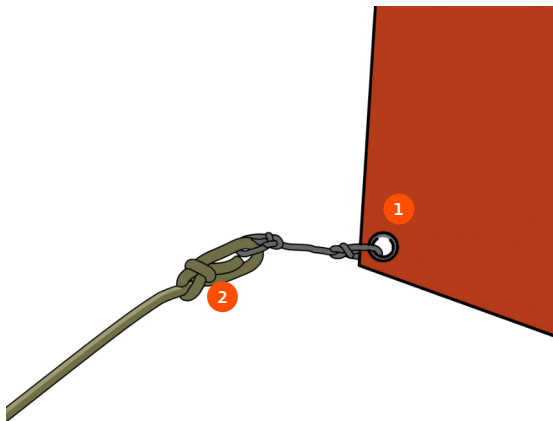




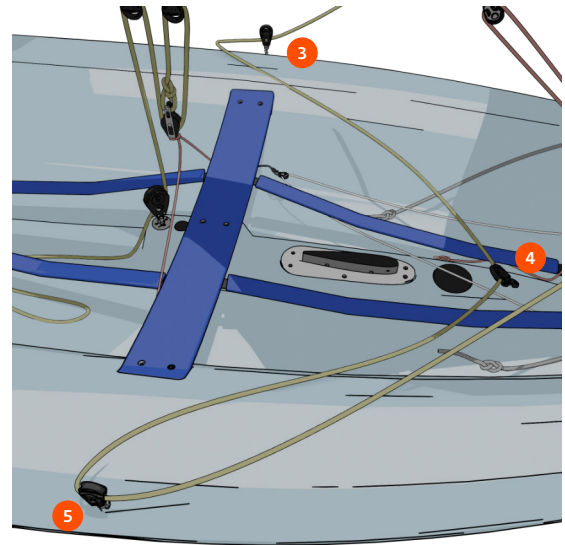
The final setup should look like this



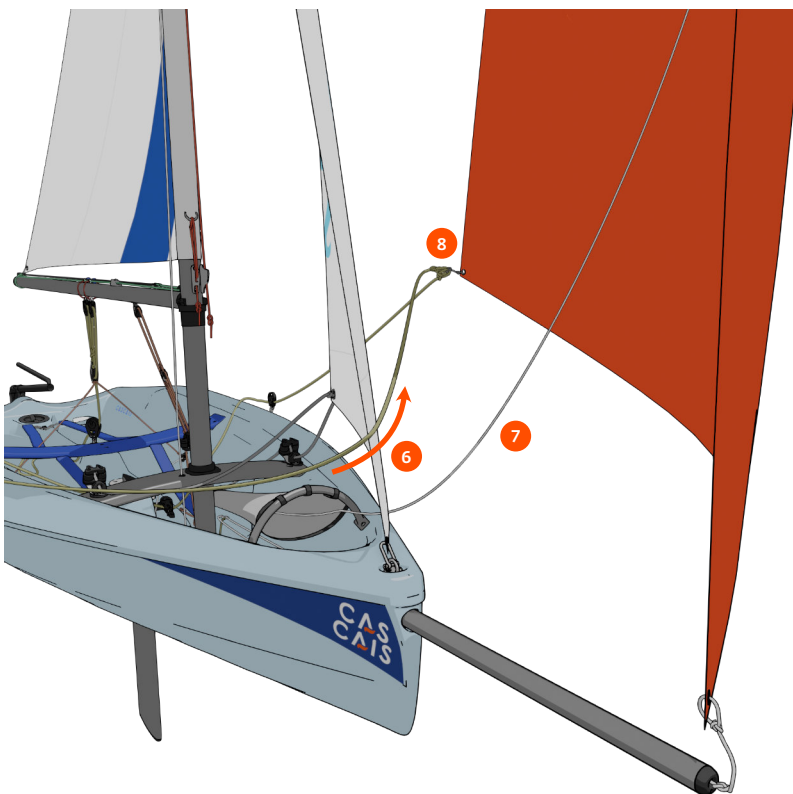
# FITTING THE GENNAKER SHEET



Tie the short line to the clew of the the gennaker **1** with a bowline and leave another bowline in the other end. Take the gennaker sheet and tie a bowline **2** to the short line's bowline.



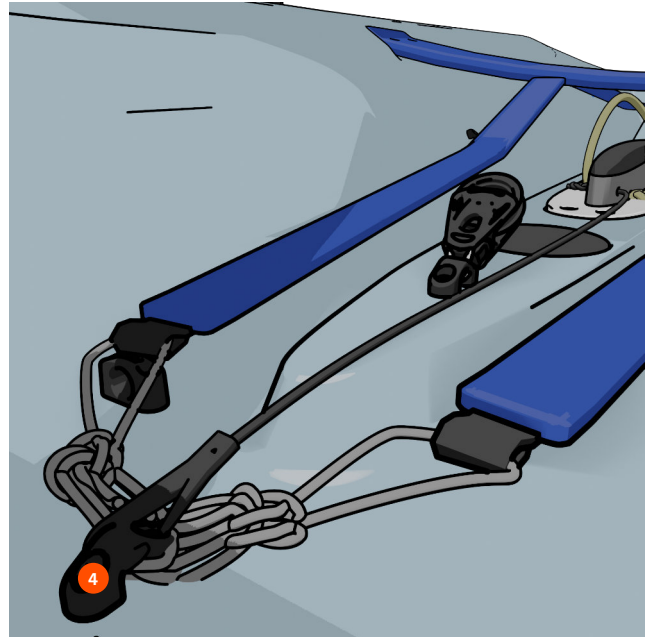
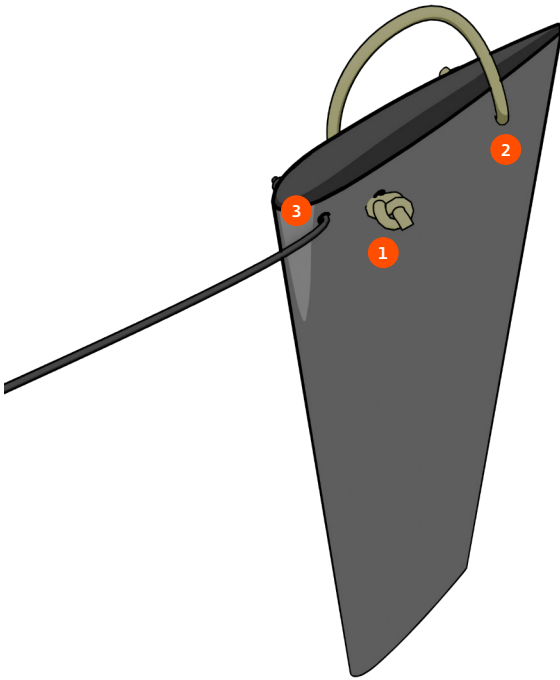
Thread the gennaker sheet through the block on one side of the boat **3**, then through the block near the daggerboard **4** and finally through the block on the other side **5** of the boat.



Make sure it crosses the head of the jib **6**, but not the downhaul line **7**, and tie it to the small line on the clew of the gennaker **8**.



# FITTING THE DAGGERBOARD



Find the short yellow rope, feed it through one of the daggerboard larger holes ❶ and tie a figure 8 knot. Take the other end and feed it through the other hole ❷ in the opposite direction. This will be your handle.

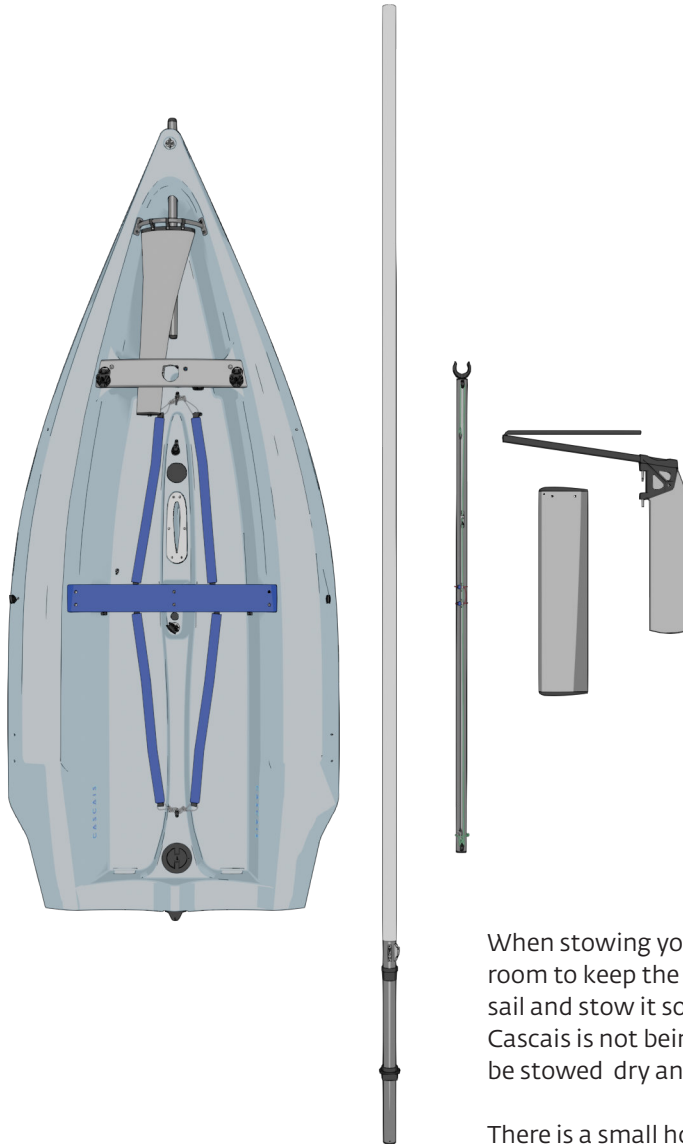
Take the black shockcord, feed it through the smaller hole ❸ of the daggerboard and tie a figure 8 knot.

Take the hook on the other end of the shockcord and clip it to the eyestay ❹ just behind the mast where the hiking straps are tied.

## ATTENTION:

**MAKE SURE THE SHOCKCORD HOOK IS ALWAYS ATTACHED WHEN YOU GO OUT SAILING. IT WILL KEEP THE DAGGERBOARD FROM SLIDING OFF THE HULL IN CASE OF A CAPSIZE.**

# STOWING YOUR CASCAIS



When stowing your Cascais, if you have room to keep the mast assembled, furl the sail and stow it somewhere dry. If your Cascais is not being used, the sails should be stowed dry and clean in their bags.

There is a small hook and a strap near the clew of the main sail to help keep it wrapped.

# LAUNCHING AND BASIC SAFETY ON THE WATER



## BEFORE YOU GO SAILING

- Check you are wearing suitable clothing and safety equipment for the conditions and time of year.
- Always wear a buoyancy aid or life jacket.
- Make sure a third party knows where you are sailing and how many of you are sailing.
- Check the weather forecast.
- Check the time of high and low tides if applicable.
- Seek advice on local conditions if sailing in a new area.
- Always check the condition of your craft before setting off.
- Check for overhead cables when rigging, launching and recovering.

## LAUNCHING

- Raise the rig with the boat facing into the wind.
- Launch the boat using the appropriate launching trolley/dolly
- Take the boat into the water with the bow facing into the wind
- Ensure that there is enough water to float the boat of the trolley/dolly
- When there is enough water below you, lower the daggerboard and rudder fully
- Cleat the rudder downhaul in the cleat on the tiler
- The rudder and the daggerboard should be raised before coming ashore

## ON THE WATER

- Conform to the sailing rules of the road.
- Look out for changing weather conditions
- Never sail beyond your ability or that of your crew
- Understand and be competent in sailing skills and righting techniques



# CARE MAINTENANCE AND SERVICE OF YOUR LASERPERFORMANCE PRODUCT

**BEFORE RIGGING YOUR BOAT READ AND FAMILIARIZE YOURSELF WITH THE RIGGING MANUAL. FAILURE TO ADHERE TO THESE GUIDELINES COULD INVALIDATE YOUR WARRANTY**

## MAINTENANCE

- Keep the equipment clean by frequently flushing with fresh water. In corrosive atmospheres, stainless parts may show discoloration/brown staining around screw holes and rivets. This is not serious and can be removed with a fine abrasive.
- Excess water should be removed from the hull.
- Ropes, rigging and fittings should be checked at regular intervals for wear and tear, including winch gear.
- All moving parts should be lightly lubricated to avoid jamming, I.E. Mc.Lube, dry Teflon or a dry silicone-based spray. **DO NOT USE OIL**
- Inspect shackles, pins and clevis rings and tape up to stop snagging sail, ropes and clothing and to prevent them from coming undone.
- When refastening screws do not over tighten as this may strip the thread and do not reuse Nyloc nuts more than 3 times.
- Damaged or worn parts should be replaced.
- Sails should be thoroughly washed with fresh water, dried and stored in a dry place.

## TRAILERS AND TROLLEYS/DOLLIES

- It is highly recommended that a trolley/dolly is used to launch and recover your boat. Dragging your hull up onto a beach or slip way will wear away the gel coat or polyethylene and damage the boat. Also, the hull should not be left on a pebble beach as the hull skin could be dented.
- Trailers should be rinsed with fresh water and checked at regular intervals. It is recommended that trailers be serviced annually. The trailer and road base should never be immersed in water.
- Trailers and trolleys supplied by LaserPerformance are designed to transport the hull in the best possible manner to avoid damaging the hull. For instance, LaserPerformance does not recommend supporting hulls on rollers except on the keel line and only where there is a reinforced keelson. We also recommend gunwale hung trolleys for our smaller products. Hulls supported by a trolley bunk or wide strap must have the ability to drain water away from the hull. Trolley bunks padded with carpet or foam can cause blistering in the gel coat and changes to the hull color. Please do not transport your LaserPerformance product on a trailer or trolley that has not been specifically designed for the product. Hulls damaged through using an incorrectly designed or wrongly set up trailer or trolley are not covered under warranty.
- When securing your boat to a trailer for transport be very careful that ratchet straps and ropes are not over tightened and that there is sufficient padding under the strap or rope to prevent the hull/deck from being damaged through abrasion or pressure.
- Top covers must not be allowed to "flap" when driving at speed. This can abrade the surface of the hull and damage it. It is

recommended if you are towing and plan to use your top cover that an under cover is fitted first to prevent cover flap damage to the top sides of the hull.

- Repairs to the polyethylene or GRP hulls should be undertaken by persons with the relevant equipment and skills. Contact LaserPerformance for advice.

## STORAGE

- Your boat should always be tied down securely to the ground when not in use.
- UV light will cause fading to some components and fittings. A cover is recommended to reduce the UV degradation.
- Do not leave the rig under tension when not sailing or during storage.
- Care must be taken to support the hull adequately if storing on racking or similar. Any sustained point loading could permanently dent or distort the hull.
- Under covers for LaserPerformance products should be produced from a breathable or semi breathable fabric to allow moisture to evaporate away from the hull. This is essential to prevent damage to the hull skin. Also, the hull should never be left in the under cover wet or damp. A combination of moisture and heat over an extended period can also damage the hull. The under cover is designed to protect the hull when being transported and should be removed when the hull is being stored. Typical damage includes small bubbles or blisters, excessive print through of glass reinforcement, foam or wood and color change.
- Rudders and centerboards must never be stored wet in carry/ combo bags. This can cause blistering, print through and warpage.
- All our GRP products are designed to be dry sailed. In other words, stored on dry land. If you intend to leave your boat on a mooring for any length of time it is essential that you apply an osmosis barrier coat. LaserPerformance can recommend a suitable product.

## ON WATER

- When wearing a trapeze harness, take particular care when climbing on to the centerboard and back into the boat after a capsie. The trapeze harness hook could easily damage the hull or deck.

## ON WATER TOWING

- Towing your LaserPerformance product at high speed (10 – 20 knots) behind a rib or power boat can seriously damage the hull. Boats damaged in this manner are not covered by the warranty. LaserPerformance recommends a maximum towing speed of 6 knots.

# OWNER INFORMATION



OWNER

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**OWNER'S NAME**

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**ADDRESS**

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**ZIP/POSTAL CODE**

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**CITY/STATE/COUNTRY**

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**PHONE NUMBER**

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BOAT

---

**HULL IDENTIFICATION NUMBER**

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**HULL COLOR**

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**PURCHASED FROM**

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**DATE OF PURCHASE**

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ROAD TRAILER

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**REGISTRATION INFORMATION**

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**TRAILER VIN NUMBER**

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**LICENSE PLATE NUMBER**

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**REGISTRATION NUMBER**

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**STATE/COUNTRY REGISTERED IN**

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**INSURANCE INFORMATION**

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MAINTENANCE RECORD

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**NOTES**

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