

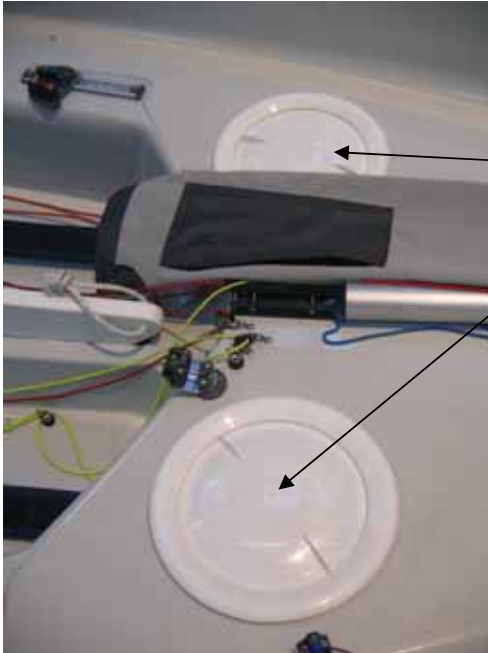
Laser 2000



RIGGING MANUAL

Important information

There are three hatches and one transom drain bung on the Laser 2000, these must all be checked to ensure they are fitted correctly and done up tight prior to every time you sail:



Hatches 1 & 2 are found at the aft edge of the foredeck. (Fitted to facilitate additional on the water storage only)



Hatch 3 can be found on the inboard surface of the stern deck.



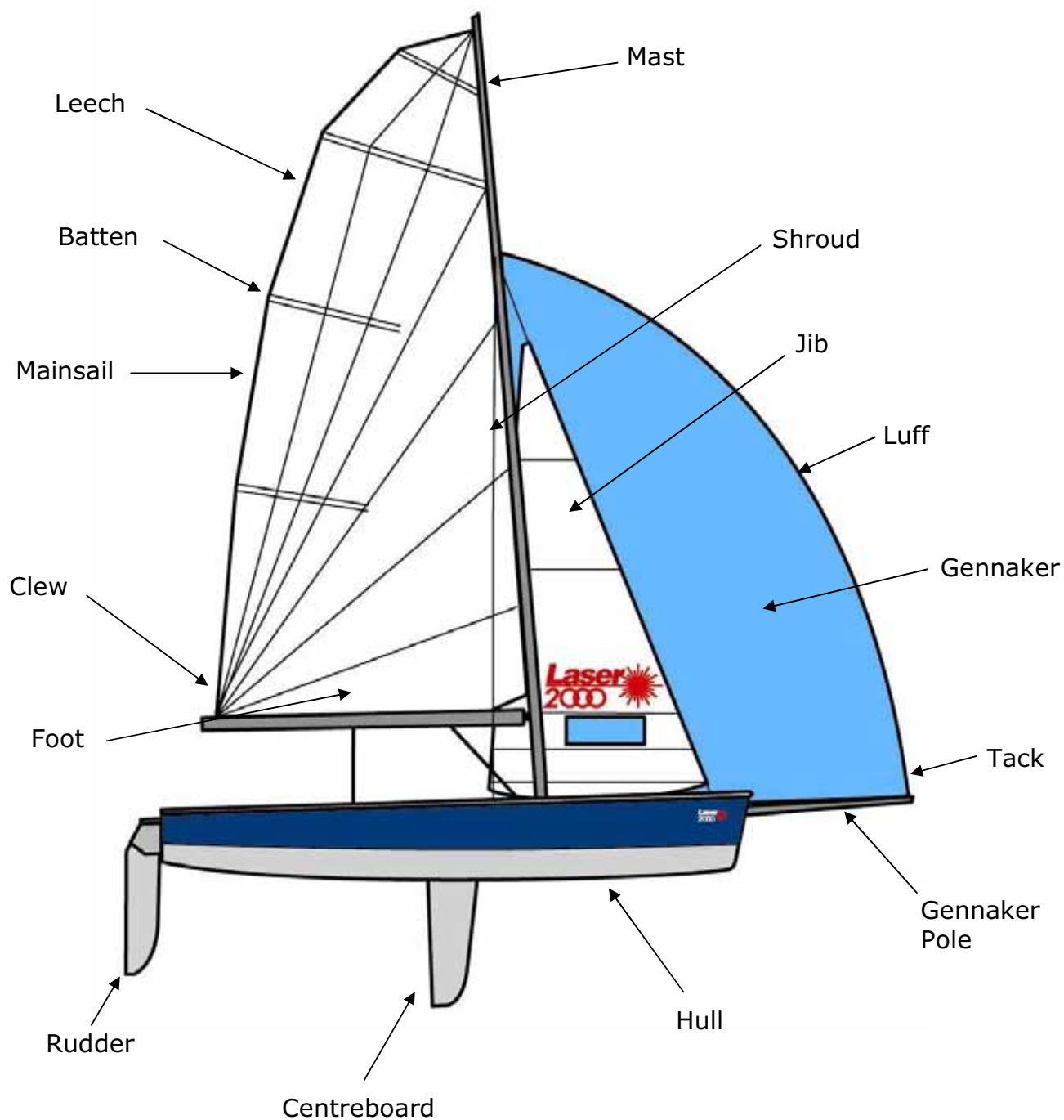
The transom drain bung can be found below the lower rudder gudgeon.

Example of INCORRECT hatch fitment:



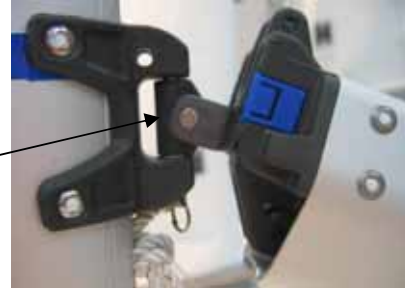
NB: Correct fitment of the transom drain bung and hatch 3, is fundamental to on the water safety and performance of the Laser 2000.

Useful Boat Terminology



Boom and Vang

1. Unpack the boom.
2. Attach the boom to the mast as shown.



3. Ensure the lower vang purchase system is shackled securely to the tang on the lower aft face of the mast.

4. Hook the vang upper purchase assembly on to the boom ensuring there are no twists or fouls in the system.

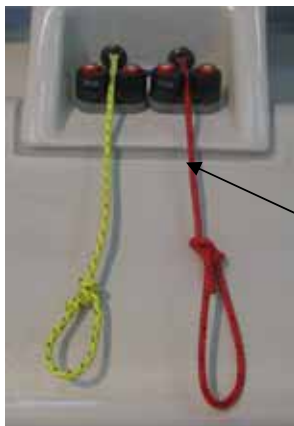


Aft Block

5. Tie the mainsheet through the block on the mainsheet bridle using a half hitch stopper knot as shown.

6. Feed the mainsheet through the blocks and to the mainsheet swivel cleat as shown.

Tip - double check the mainsheet passes through the auto ratchet in the correct direction shown by the arrow embossed on the side of the auto ratchet block.



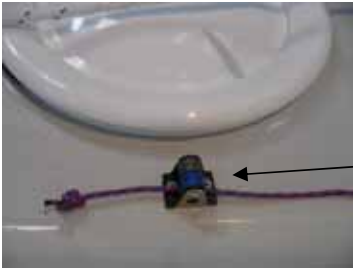
7. Vang tension is controlled using the aft rope and fairlead/cleats on top of the thwart.

Tip - Best practise is to tie the loose end of the mainsheet to one of the rear toe straps to prevent tangling and the sheet falling overboard.



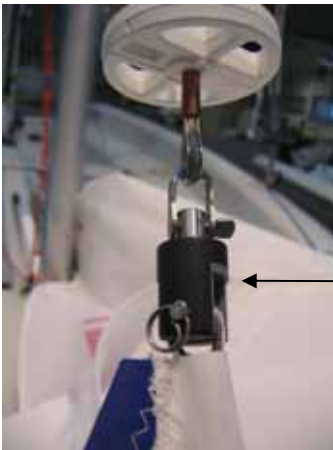
Sails

Jib



1. Ensure furling drum line is completely wound onto furling drum before you attach the jib.
2. The furling line/cleat can be found on the starboard side of the foredeck just in front of the jib sheet track/cleat)

3. Unroll the jib and attach the jib tack to the furling drum using the large shackle provided. (Tape up the shackle and pin to prevent snagging or damage to other sails and lines during sailing)



4. Fasten the head of the jib to the swivel using the clevis pin and split ring. (Tape up the shackle, pins and split ring to prevent snagging or damage to other sails and lines during sailing)

5. Hoist jib by pulling the white halyard out of aft face of the mast then hook the jib halyard purchase system onto jib Halyard wire. (Ensure hook is facing aft to prevent it engaging in mast track groove)



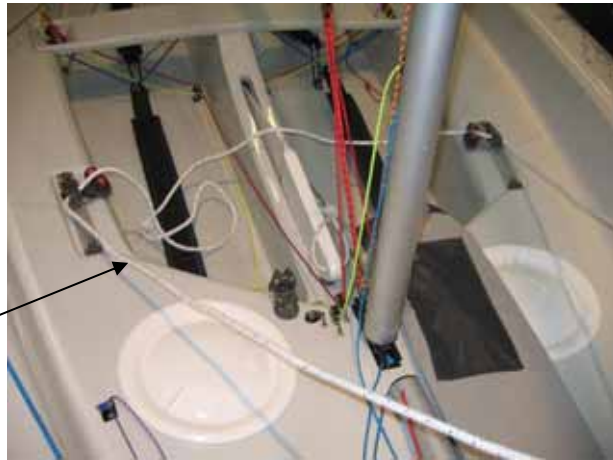
6. Tension the jib halyard purchase system until the jib luff wire is taught.
7. Cleat and tidy away both rope ends in the halyard pocket positioned on the top of the gennaker sock.

Note: If a loose gauge is used to measure the rig tension do NOT exceed 24 units or 150Kg - measured on the shroud 0.75 metres above the vernier adjuster.

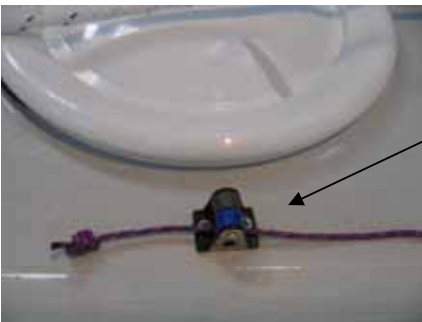
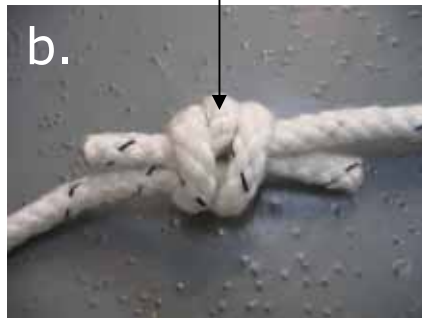
8. Find the centre of the jib sheet and pass it through the clew of the jib, then pull the two trailing ends of the sheet through the loop you have created to lock them in place as shown.



9. Pass one jib sheet either side of the mast before threading them through their respective port and starboard jib fairleads/cleats.



10. Tip – Best practise is to tie the sheet ends together in the middle of the boat to prevent tangling and inhibit sheets falling overboard.



11. Furl the jib by pulling the furling line. The furling line/cleat can be found on the starboard side of the foredeck just in front of the jib sheet track/cleat)

12. **If the trapeze option is fitted:** Now the rig tension has been applied, the lower shrouds can be tuned, they should be adjusted until both wires are equal, JUST in tension, but not pulling the mast aft, then tied off.



Gennaker

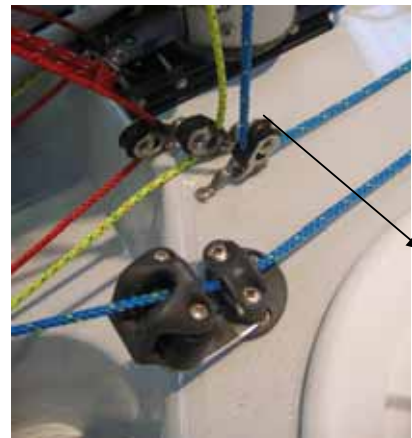


1. Ensure the end of the gennaker halyard taken from the base of the mast is free of knots and tangles.
2. Take the gennaker halyard from the base of the mast and pass forward, under the gennaker sock and round the gennaker pole outhaul block. (The gennaker pole outhaul block is attached to the rope led from the pole as shown in the picture)

3. Thread the halyard aft and through the gennaker halyard cleat/fairlead at the aft edge of the foredeck on the starboard side.



4. Pass the halyard across the boat and through the pulley block at the aft end of the gennaker sock.



5. Tie the end of the halyard to something such as a batten or tiller extension and carefully pass the end of the halyard up the sock until you can grasp it from the front end of the gennaker sock opening.



6. This is known as the downhaul end of the gennaker halyard and should be temporarily tied around the jib tack bar while the batten/extension is removed from the gennaker sock.
7. Note: The up-haul end of the gennaker halyard is tied at the base of the forestay from a previous rigging exercise.

8. Unfold the gennaker, identify the tack patch (written on the sail) and securely fasten the tack line to the tack patch using a bow-line. (The tack line comes out of the front of the gennaker pole.)

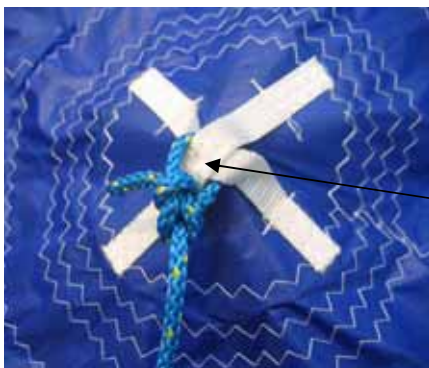
Note: Please check there is also a double half hitch stopper knot in the tack-line and gennaker halyard approximately 100mm prior to the bowline you have tied.



9. Identify the head patch, (written on the sail) untie the gennaker halyard (up-haul) from the base of the forestay and tie it to the head patch using a bowline.

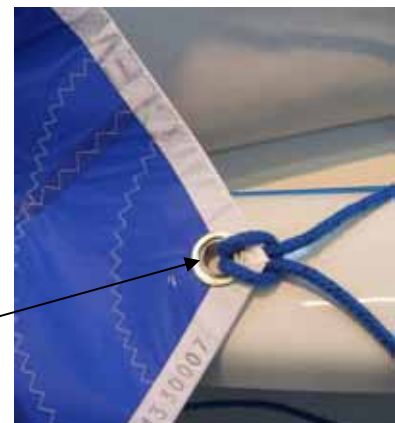
10. Untie the gennaker halyard (down-haul) from the jib tack bar:

a. Pass through the lower downhaul patch ring on the port side of the sail.



b. Secure to the upper downhaul patch using a bowline.

11. Identify the clew patch, (written on the sail) attach the centre of the gennaker sheet to the clew of the gennaker. (As per jib sheet to jib clew previously covered in section Sails - Jib)





12. Pass the free ends of the gennaker sheets aft (One sheet either side of the jib luff) and through the gennaker sheet ratchet blocks attached to the shroud anchor points. There are arrows on the ratchet block to indicate which way the rope should pass. When under load, the ratchet will engage.

(Note – The sheets must pass forward of the shrouds at all times.)

13. Tie the free ends of the gennaker sheet together.
14. Ensure the boat is pointing directly into the wind and hoist the gennaker. Take great care to ensure that the gennaker does not get snagged around the trolley; a second person should help with this to ensure it does not snag anywhere. Check the gennaker is not twisted and the Sheets are not tangled with the halyard.



15. ALWAYS TAKE GREAT CARE TO PULL UP THE GENNAKER SLOWLY AND DO NOT KEEP PULLING IF IT BECOMES TANGLED OR TIGHT.

16. Un-cleat the halyard and gently pull the gennaker into the sock by pulling the halyard through the block at the aft end of the sock. A second person should help with this and be positioned at the front of the boat to ensure the gennaker does not get snagged anywhere.

Mainsail

1. Remove the mainsail from its the bag and unroll.
2. Ensure all battens are tight in their pockets and the Velcro locking mechanisms are positively engaged.
3. Position the boat so it is head to wind (bow facing directly in to the wind).
4. Place the mainsail in the cockpit of the hull with the luff closest the bow (front) and the leach closest the stern (back).
5. Take the main halyard:
 - a. Ensure there are no twists in the halyard and it is clear of the spreaders.
 - b. Tie the halyard to the head of the sail using a bowline.
 - c. Locate the head of the mainsail into the mast track.





6. Hoist the mainsail using the main halyard block/cleat assembly on the lower port side of the mast.

7. **Note:** Hoisting the mainsail is a two person operation as assistance will be required to feed the mainsail in to the mast track while the other hoists using the halyard (This will prevent the sail pulling out of the track and jamming which could cause luff rope damage.)

8. When the mainsail is fully hoisted, cleat and tidy away the halyard rope end in the halyard pocket positioned on the top of the gennaker sock.

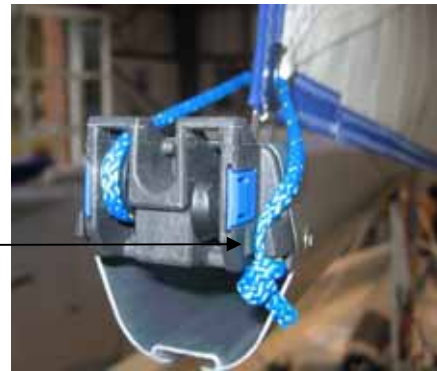


Outhaul

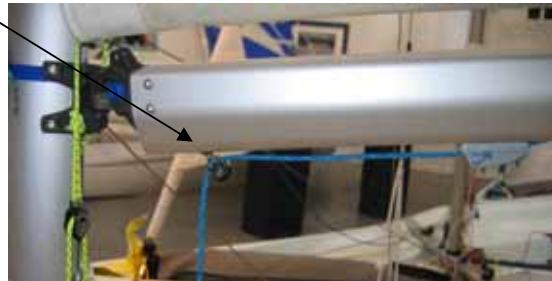


1. Feed the plastic slug slide on the clew outhaul into the cut out on the top of the boom.

2. The outhaul line is then passed through the lowest eye in the sail (From port/left to starboard/right side) and anchored on the starboard/right side with a simple knot located in the slot formed in the boom end casting.



3. Outhaul tension is controlled using the forward rope, cleat and fairlead at the forward end of the boom.

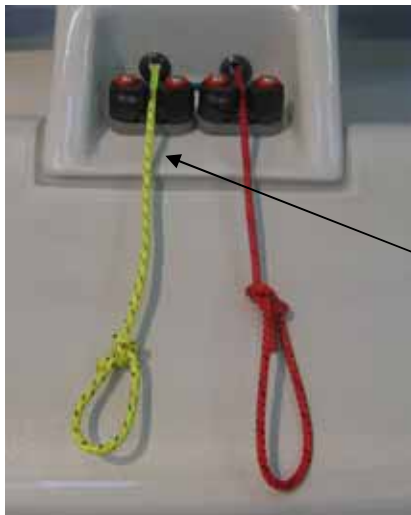


Cunningham



1. Pass the rope at the end of the Cunningham purchase system through the eye at the bottom of the mainsail luff (from port/left hand to starboard/right hand side).

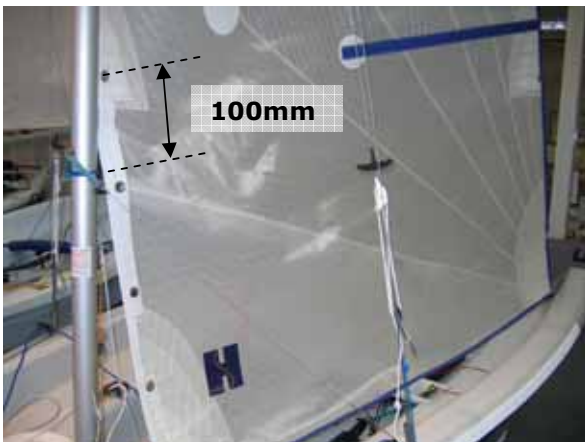
2. Anchor the end of the Cunningham purchase system by sliding a half hitch knot in to mast track just below the gooseneck.



3. Cunningham tension is controlled using the forward rope and fairlead/cleat on top of the cockpit centre console.

Reefing The Mainsail

If it is windy and you feel you will be overpowered in the Laser 2000 it is wise to reef the mainsail:



1. Remove the Cunningham from the tack eyelet.
2. Remove the outhaul from the clew eyelet.
3. Slide the clew outhaul slug slide out of the boom track.
4. Un-cleat the mainsail halyard and lower the mainsail until the upper reefing tack eyelet is around 100mm above the gooseneck and the foot of the mainsail is just beginning to touch the thwart/sub deck as shown.

5. Roll the sail as tight as possible from the foot on to the port side of the sail keeping the eyelets on the luff and the slug slides on the leech parallel and in line.
6. Feed the original, lower clew outhaul slug slide in to the boom cut out first, followed by the higher reefing slug slide second.
7. Re-attach the outhaul control line through the eye attached to the reefing slug slide as shown.

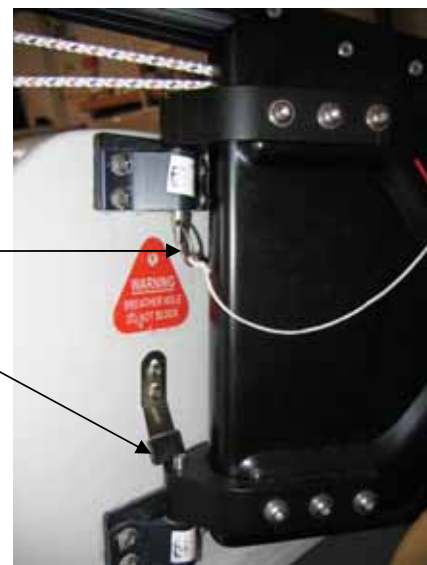


8. Thread the Cunningham line through the three eyelets in the luff of the mainsail and re-fasten in the slot under the gooseneck.
9. Re-tension the mainsail halyard if required.



Rudder

1. Attach the rudder assembly to the transom:
 - a. Fit the secondary rudder retaining split ring to the top rudder pintle.
 - b. Ensure the primary rudder-retaining clip is adjusted and has engaged correctly.



Your Laser 2000 Is Now Ready For Launching.



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 there are of you.
- Check the weather forecast
- Check the time of high and low tides if applicable.
- Seek advise of local conditions if sailing in anew area.
- Always check the condition of your craft before setting off.



CAUTION



CONTACT WITH OVERHEAD ELECTRICAL WIRES COULD BE FATAL, EXERCISE EXTREME CAUTION WHEN RAISING THE MAST, LAUNCHING & SAILING.

Launching

- Raise the mainsail with the boat facing into the wind.
- Launch the boat using the appropriate launching trolley.
- Take the boat into the water with the bow facing into the wind.
- Ensure that there is enough water to float the boat off the trolley.

- One person should hold the boat whilst the other gets in and prepares to set off.



- When there is enough water below you, lower the centreboard and rudder fully.
- Cleat the rudder downhaul in the cleat on the tiller and ensure that the wing nut on the side of the rudderstock is tight.

The Rudder And Centreboard Should Be In The Fully Down Position At All Times When Sailing And Isometric Boat Like The Laser 2000.

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 the sailing skills and righting techniques.



Enjoy Your Laser 2000 Sailing!