

How To Rig A Laser Sailboat in 5 Easy Steps

Step 1 - Sail And Mast Assembly



Lay the sail out flat then, put the upper mast and lower mast together (the upper mast and boom are the same for Std, Radial and 4.7 rigs) it is a good idea to wrap a piece of rigging tape around the top of the upper mast as shown. This ensures a tight fit and keeps the luff of the sail in the proper position. (Visually inspect the spars for damage and defects)



Slide the sail sleeve over the mast keeping the sail lined up with the goosneck (part where the boom attaches) Attach the boom to the goosneck and clip in the boom vang. It's important to put a piece of rigging tape around the boom to keep the vang key from slipping out downwind. The boom can come off if the vang detaches while sailing. *Continued...*

Step 2 - Rigging the Laser Outhaul, Inhaul and Clew



Attach the clew strap, pull it all the way thru the clew as shown, then pull the end through the ring and fasten in to place around the inhaul elastic. Do this closer to the boom cleat so there is a low amount of tension on the inhaul elastic. Its easier to rig the boom on the ground especially in breezy conditions. You can also leave the sail on the ground until you're ready to go sailing, this reduces unecessary wear.



Using a clew hook makes it easy to clip on the outhaul, the outhaul should be clipped on after the inhaul and clew strap are fastened. The knots used are bowlines tied as small as possible. You can also get splice the ends to create less friction on the lines. The best blocks are ball bearing with a reinforced plastic shell. The plastic reduces friction when the blocks are tensioned off angle. The plastic can eventually get worn down so inspect them periodically.



Tie the end of the non-cleated line to the boom fairlead. Its important to use a strong and thin line for this to reduce friction. Tie a false knot to keep the outhaul intact while stepping the mast. To do this create a loop, then instead of pulling the end of the line through, create another loop and pull the second loop tight, if you've tied it succesfully when you pull on the end of the line the knot will come undone simply by pulling. *Continued...*

Step 3 - Stepping the Laser Mast



To step the mast, point the hull into the wind, move the mast next to the hull and lay it out as if the boat had tipped to that side. Check the bottom of the lower mast to make sure that you haven't picked up sand or debris which, can damage the mast step. Tip the mast up and use the wind to your advantage to help hold the mast up. Keep your feet shoulder width or more apart and make sure you have good posture in your back before lifting it off the ground. (Never lift by bending your back) Lift the mast up with your arms keeping the sail steady in the wind. Slight and steady movements are best. When you place it in the step, make sure that the mast is perpendicular to the deck.

Step 4 - Rigging the Cunningham, Tiller, Rudder Downhaul



Its a good idea to install a larger bolt in your rudder and create a purchase system to keep the rudder down at all times as well as keeping the tiller snug inside the rudder stock. This requires placing the rudder on in the water and you won't be able to crash land your boat into land, but it will save you from fighting with the rudder while you're racing. If the rudder pops up even a small amount you'll find its incredibly hard to steer the boat. You should also dry fit the rudder on the dolly to make sure that the metal clip secures the rudder to the hull and can't come off while sailing. For the Cunningham, you can rig the cunningham to one side so that the tack can be pulled down alongside the boom on an old sail in heavy breeze. This setup allows you to get plenty of purchase while significantly reducing the amount of line in the cockpit vs using a double block system. We also believe that fixing the block on the mast in front of the mast helps pull the draft forward and keeps the block near the tack from getting caught in the goosneck. We've found that the using attachment for the cunningham built into the vang allows the block by the tack to get caught up on the goosneck. (Bowlines are used on the cunningham)

Step 5 - Rigging the Laser Mainsheet and Launching



Thread the mainsheet through the blocks and finish with an 8 knot. Tie an 8 knot in the control end at the point where the boom is just past 90 degrees or slightly less in heavy breeze. This way if you loose grip on the mainsheet the sail can't go all the way out possibly and the mainsheet won't come undone. Check this knot periodically while you're sailing to make sure that it hasn't come undone. Before launching, double check that you've installed the hull drain plug and flip down the gunwale supports on your dolly. You should store your dolly on the gunwale supports and use the strap for launching and retrieving. To get on your way push the boat out into slightly deeper water, place the centerboard in the trunk and attach the downhaul bungee, then attach the rudder. Tie the tail of the boom vang to the centerboard downhaul bungee. This keeps the excess line out of the cockpit, as well as from interfering with the main block. That's it enjoy your sail!