

## Rigging a Laser

During the sailing season, club Lasers are stored with the sail, boom vang, and Cunningham on the assembled mast; the outhauls are already on the booms. Instructions for rigging the mast and boom are at the end of this document.

Drain the Laser by removing the cockpit and transom plugs and lifting the bow; replace the plugs afterward. Position the boat so that the bow points into the wind.

Carefully remove any dirt or debris from the mast base and the mast step. This is very important because mast rotation during sailing will grind any dirt into the fiberglass, damaging the Laser. With your hands wide apart, raise the mast to a vertical position and carefully lower it to the bottom of the mast step. The gooseneck should face directly downwind.

Place the boom on the gooseneck and hold it at a right angle to the mast. Lead the outhaul through the clew cringle, back through the fairlead and forward through the jam cleat; finish it with a figure-eight knot. Tie the clew tie-down around the boom, with one end passing through the clew cringle, with a sheet bend. The clew tie-down can be omitted if you are not serious about performance.

Slip the vang block key at the top end of the vang into the slot in the bottom of the boom and trim out the slack.

The middle of the Cunningham is tied to the boom vang tang. Lead one end up through the tack cringle in the sail and finish it with a bowline. Lead the other end up through the bowline and down through the fairlead and jam cleat; finish this end with another bowline that will serve as a grab handle and stop knot. Always keep the Cunningham cleated while sailing; this insures that the mast will stay seated during a capsize.

A racing boom differs from a regular boom.



To rig a racing boom, start by holding the end of the boom on your shoulder. Place the metal pin shown in picture A through the cringle at the clew of the sail and push the pin to the position shown in picture B. Add a tie down line through the cringle and secure it with a sheet bend so that the clew of the sail is close to the boom.

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**Picture A**



**Picture B**

Place the dingleberries on the mast above the gooseneck, if your mast does not have them as shown in picture C

Thread the black line through the dingleberry, continue the line through the block at the base of the mast and then forward to the cleat as shown in picture D. Tie a figure eight knot.



**Picture C**



**Picture D**

The downhaul/Cunningham line attached to the mast is passed through the cringle at the luff of the sail, down to the block on the deck near the mast, then back to the deck cleat and finished with a bowline.



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Tie the mainsheet to the bracket of the aft boom block with a figure-eight knot passing from bow to stern. Lead the mainsheet down and through the large traveler block, back up and forward through the becket block, eye-strap and forward boom block, and then down through the ratchet block in the cockpit. Finish with a figure-eight knot.

Secure the rudder and daggerboard safety lines to the traveler and Cunningham fairleads, respectively, and place the blades in the cockpit along with the tiller. Slide the boat into the water, wade out, and moor it to a buoy where the water is about two feet deep.

When you are ready to sail, slide the rudder pintles into the gudgeons until the rudder stop snaps over. Pass the tiller under the traveler line, insert it into the rudder head with the tiller extension on top, and secure it with the retaining pin. Make sure that the rudder blade is fully down, then wrap the rudder halyard around the tiller cleat.

Lower the daggerboard partway into the trunk and tension the shock cord by leading it forward along both sides of the mast to the bow and securing it through the bow deck handle.

Double-check the hiking strap, it should be securely tied, but loose enough to allow you to hike with your legs straight. It can be held off the bottom of the cockpit with a short piece of shock cord.

Cast off the buoy and tie the painter to the mast. Stand even with the daggerboard and bear the boat off the wind. As you pull in the sheet and tiller, sit on the gunwale, swing your legs in and under the hiking strap, and you're off!

To rig the mast at the beginning of the season, or after a sail repair, insert the upper mast section into the lower mast section, making sure that the collar is firmly seated. Since the mast will be used in heavy winds, make sure that the collar rivets are offset ninety degrees from the gooseneck. Slide the sleeve of the sail onto the assembled mast. Keep the sail luff straight and aligned with the gooseneck. Insert the

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battens into their pockets and make sure that they are held in place by the elastic bands in each pocket. Attach the lower end of the boom vang to the vang tang on the mast with a clevis pin and ring. Tie the middle of the Cunningham to the boom vang tang. Tie one end of the outhaul to the fairlead at the end of the boom with a bowline.