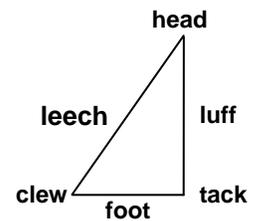


Laser XD Rigging Instructions: (IBM Laser, Sail Number 161,620)



Definition of terms: See http://www.schoonerman.com/sailingterms/terms_c.htm

The sail – see the diagram for the parts of a sail.

Cringle – fitting in a sail that allows a line to fasten to it

Cunningham – A down haul which pulls the tack of the sail down, and can be used to change the shape of the sail. (Named after its inventor, Briggs Cunningham).

Kicker – The pulley which alters the angle between mast and boom by pulling down, and can also be used to change the shape of the sail.

Rigging: Move the dinghy out of its berth, remove the cover, find the stern bung in the cockpit and insert it finger tight. Push the cockpit bung (for self bailer) closed. Now select your rig.

Full Rig: The sail has 'New Numbers 3.8' written in one corner. You need the longer lower mast section and the standard top mast section and boom.

Radial Rig: The sail has 5.7 part way up and a blue panel by the Cunningham eye (starboard side). Use the shorter lower mast section (marked **Radial**) and the standard top mast section and boom.

Leave the cover, sail and lower mast section that you are not using in the berth and wheel the Laser down to the front of the dinghy park and point head to wind.

Put the sail on the mast, and then place the mast into the boat – gently!

Sleeve the sail on the top mast section and then connect the lower mast section with the gooseneck in line with the sail and pull all the way onto the mast.

Standing upwind of the Laser, point the mast into wind and raise it slowly.

When at about 45 degrees, place the mast foot into the mast step hole on the deck then gently angle fully upright and lower carefully into position.

Ask someone to help you if in doubt or it is blowing hard.

Attach the Cunningham (Picture 1). Pass the pink rope through the sail tack cringle and pull through until you can connect the loop to the hook on the block on the yellow cunningham line. Pass the cunningham down through the right hand block at the base of the mast, along the deck through the right hand cleat and tie off with a bowline handle.

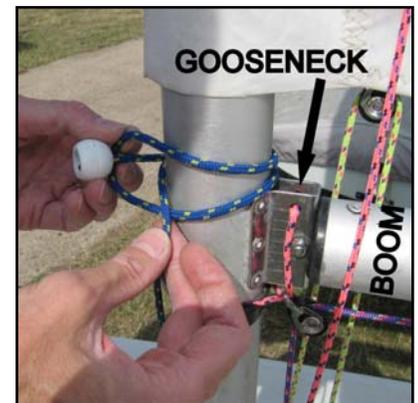
Mast Securing Line (Picture 2). Pass the **blue mast securing line** attached to the deck around the top of the gooseneck, then under and over the line and back round the mast and pass the bobble through the loop you have just made and tighten to lock. This keeps the mast in the boat. It is easy the second time you do it...

Fitting the boom in place. Connect the hook at the outer end of the boom to the sail clew cringle (it's a tight fit) – **see Picture 3.** Then raise the boom and connect it to the gooseneck making sure you do not trap the cunningham. Feed the blue outhaul line down through the block on the left side of the gooseneck, then down through the left hand block at the base of the mast, then along the deck through the left hand cleat and tie off with a bowline handle. **(Picture 4)**

Now put the clew strap (which is attached to the outhaul shock chord) through the tack cringle, around the boom and back through the ring, pulling tight to ensure enough overlap. Fold the strap slightly along its length to get it through the cringle. Use the velcro to secure.



**1 Cunningham:
Pink rope and hook**



2 Mast securing line.



3 Sail clew and strap

Dagger board: Feed the daggerboard shock chord through the bow eye and back to the dagger board and clip the two ends together. This keeps it in the boat! Leave the dagger board in the cockpit until launched.

Rudder and Tiller: Pass the tiller under the traveller, with the extension on top. Put the rudder on and insert the tiller into the rudder and loop the tie down rope over the cleat on the tiller, but do not tighten yet. Clip the split ring into the hole on the top rudder pin. This keeps the rudder in the boat!

Launching: Unclip the mainsheet blocks so the sail can move freely, if not done already. Walk the boat down to the waters edge and float the boat off the trolley. It's easier to do with one person if you walk the boat down at an angle. You will need to get wet to launch if the wind is onshore. Ask someone to retrieve the launching trolley for you. Note the trolley has some blue tape fixed to the horizontal bar to help you identify the correct trolley when returning.



4 Blue Outhaul and Vang (kicker)

Insert the dagger board in the slot. Take the tension off the shock chord with one hand to make this easier to do. Pull the rudder all the way down when in deep water and lock the rudder tie down line around the cleat and then around the tiller to make sure it stays put. When ready to go re-clip the mainsheet blocks.

Go sail and enjoy yourself!

Self Bailer: This was replaced in 2007 and now works. Just remove the cockpit bung when sailing, and water will drain providing you are moving at a couple of knots or so. Replace the bung when finished.

Returning ashore:

The procedure for returning ashore and de-rigging is the reverse. Get help if you need it with the boat on the pontoon, the trolley or unstopping the mast.

- Take the bung out, place in the cockpit and drain the hull.
- Make sure you collect all the pieces for both rigs and pack all away under the cover. The knots that are taped should not be undone. Be careful not to lose the pulleys, especially from the Cunningham
- Please do not get creative with the rigging or you will confuse others.
- Report any problems or damage.

Rigged and ready: See picture.

Here's the IBM laser rigged with the radial sail (note the 5.7).

About this document:

Instructions originally by Andrew Craig.

Updated, including adding pictures, by Brendan Blake.

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IMPORTANT: Please do not undo any taped lines and leave the Laser ready to be rigged as per these instructions. Do not change the rigging – you will waste other people's time putting it straight again.



Experienced sailors may have their own variations on the above – this is fine as long as the boat is left for the next user with nothing changed.