Laser SB3 Mast Rigging Top Tips

Kit you need:

Knife
Tape measure
Permanent marker
Screwdrivers flat and Phillips various sizes
Star driver set
Duralac
2m x 5mm elastic
1 x stainless steel ring (15mm approx diameter)
1 x reel amalgamating tape
1 x reel electricians tape
1 x loctite
Vaseline

Please read the owners manual first…..I won't take responsible for you doing something they don't recommend, if in doubt, if there is a conflict in information use the Laser guide, I don't mind taking the flack and the law suits if I do it, but I do not want the responsibility for you doing it!

Remove the packaging carefully without slashing the mast wall or halyards with your knife. All the t-terminal plugs and shroud pins normally come in a plastic bag zip tied to the gooseneck and the spreaders are taped to the mast, carefully remove and don't lose the bits. Lay it in a clear flat space and undo all the halyards (knot the ends!) Often the kite halyard is not threaded through the elastic return at the top of the mast so worth doing now….very hard when the rig is up! Also worth swapping the plastic lead with a stainless ring while you are at it. I would now go over the rig ensuring all the blocks are secured and all the sheaves are tight, I have come across some with the backing plates on back to front (should be spiky points pulling into the luff slot wall) which will eventually drop out…worth putting loctite on them if you have the time and inclination but as a minimum crank them all up a bit with your star drivers. With the bare tube sorted you are ready to go on the standing rigging.

From the top……

1.Backstay flicker……the best source of income for Rigging Gurus, people break them all the time! (worth leaving until last if you need to turn the rig around)

Careful how you tighten the machine screws, stripping those means re tapping the holes and that entails a lot of grief if you don't have the kit! Also worth putting some Duralac on the threads as stainless screws may not come out later after a bit of electrolytic action has taken place.

To prevent these breaking so often you can leave a long tail on the block at the end of the flicker so you don't load it so much when you crank on the backstay, the downside of that is that it does not give as much clearance on the leach which is the point of the flicker in the first place. I would go for a block as close to the end as possible and think about placing a small piece of progrip between the mast crane end and the flicker which should reduce the point loading on the batten. Otherwise keep breaking them anyway, it's good for business! Tape up all loose ends etc as you would be surprised where the kite ends up!

2. Stick the windex of your choice on at this moment. Not that easy as the angle of the crane normally means that you have to bend the vane on the windex to get it vertical. Just leave the mounting on at the moment and as with the flicker put it on just before sticking the mast up. Again use duralac… If not they don't come off later when you need to swap it over.

3. Main Halyard. Check the knot on the end, you need to pull this through a few inches every time you lower the rig so the halyard does not wear out.

4. Kite halyard block….change to a higher spec for the boy racers amongst you but crank up the shackle and tape up either way. I use a Harken carbo block.

5. Upper shrouds. Unwind the shrouds and take the split pins out of the bottlescrews. It is really key to get these the same length (4440mm on the bearing surfaces). These dictate how much pre bend you will have in the top of the rig. What I do is measure 4440 from the lower edge of the upper t terminal hole to a point on the mast track and mark off the distance. You then put the shrouds in the t-terminals and run them down the mast to the mark. Adjust the shrouds so the upper surface of the pins touch the measurement mark, thus leaving the shrouds exactly the same length.. The 4440 measurement is a good base to start from which you can start fine tuning. When the rig (and more importantly the main) is new you can carry a bit more pre bend up top and I would be tempted to shorten from this measurement by two full turns during the initial set up. Finally re-insert the split pins.

6. Put the upper spreaders in the bracket, each spreader is marked with a p or s for the obvious reasons, put a washer under each of the outer pins and tape. On the outer ends undo the screw retaining the end cap and prise out with a flat headed screwdriver (note these can be very tight! Careful not to mess up the fiting) If really tight stick a long object up the spreader to knock it out) Stick the shroud through and replace and tape the ends.

7. Put the main shrouds in the terminals, un pin the bottle screws and unscrew all the way to max length, ensure the shrouds are set to the same length using a similar method to the upper shrouds. Also worth checking that the ferrules are placed in the same place…if not the mast wont set up straight!

8. Put the lower spreaders in the bracket, again these are labelled p and s. Washers again on the outside pin. Tighten the end fittings as I have come across some loose ones. Run the shrouds thru the end of the spreaders with the wheel below the spreader and one brass ferrule above which will fit into the cavity of the spreader end. Insert the end pin through the end of the bottlescrew on the upper shroud (discard the original pin in the upper shroud). **IT is really important you stick a load of duralac on this pin. The pin and the spreader casting like to join together permanently if you don't and this causes problems if you have to replace a spreader at a later date!** Tape the ends and bracket as well as the bottlescrews on the uppers.

9. Insert the intermediates, again equalise the length and at max extension.

10. Insert the forestay (don't worry about the lowers till the rig is up but make sure they are wound off to equal lengths)

11. Insert the rubber grommets in the t terminals add a bit of Vaseline and ease in with the help of a screwdriver.

12. Elasticate the rig to prevent kite snags. We use 3 bits…..1 around 20cm below the forestay t terminal triangulating the shrouds and forestay (make sure the kite halyard is outside of this triangle, use clove hitches on each shroud and tape up securely. 2. Just above the bottle screws on the uppers where they attach to the lower spreaders, again clove hitch and tape, this stops the kite falling in the V on the drop. And 3. between the lower shrouds when the rig is in position. TOP TIP is also to tape the end of the boom to boom casting no matter how well the joint has been riveted, if you do not tape it…a nasty lesson on your first hoist.

13. Tape a line around the lower spreaders 55cm in from the outboard end…just gives a rough visual for jib trim (visible thru the main window) until you start fine tuning to your own requirements.

14. Now lift the rig onto the boat, attach backstay flicker and windex and put the bolt through the mast step….. Check all halyards are clear and not through spreaders etc and hoist as instructed in the manual

15. Forestay pin will drop in easily as shrouds at full extension….tighten equally on the shrouds and intermediates, go for about 36 on the shrouds, 34 on the intermediates for a first shot, they will settle so keep checking as you use…obviously if all the lengths were equal and you have wound the tension on equally the rig should be straight…check visually up the track though! Finally put on the lowers, hand tight and I get rid of the black bottlescrew locks and tie all 3 bottlescrews in together with a small piece of spectre, tape up the shroud pins! Enjoy tuning…….very good article by Jerry Hill on the website!