

## **K1 Tuning guide update. December 2015**

This is in response to recent requests on the K1 forum.

As has been pointed out, the original Tuning Guide by Paul Handley can be found either by googling it or by looking for K1 Tuning in the **Titles** under **Files** on the Big Tent website

**The original K1 Tuning guide** by Paul Handley was produced in the very early days of K1 sailing when we only had the choice of Hyde sails, but still provides a good basis to start from. For any items not mentioned below, please use the original tuning guide.

I (Wiclif) have added some more information here in the light of time passing, and would point out there are also various articles to be found in the "Files" section on individuals "tweaks". **Please note that the comments below are my beliefs, and others may (and are welcome to) disagree.**

**The main differences in the boat setup now**, compared to the first boats, are the changes to the jib kicker system and to the jib sheeting. The original way of doing these is still class legal.

The original jib kicker system was similar to the mainsail setup and has largely been replaced now by the "dangly pole" system which exerts a downward force at the rear end of the jib pole. There are some K1 sailors who have stayed with the original design.

The original jib sheeting system had a jib sheet which ran through a pulley block attached to the shroud anchorage and then to a cleat, both on each side of the gunwhale. It ran freely through a pulley at the rear end of the jib pole. It worked well and is less easy to get wrong than some of the current systems.

**Toestrap.** It is now common to have an adjustable toestrap with a cleat attached at the rear of the cockpit floor. The main advantage of this is when it is loosened off significantly to not get in the way (so much!) when raising and lowering the keel.

### **Mast Setup.**

I believe that the **mast base** should be as far forward as it can go. Even then, there is still some weather helm so I personally would not contemplate moving it towards the transom.

**Hyde Sails.** Masthead (halyard attached to end measuring tape) to top of transom 6142mm. For my boat (no 37, one of the original manufacturers boats) this happened to be "13" on the shroud adjusters. I know my boat is fast with this setup.

**North Sails.** I was using 6206mm to transom, which was "11" on my shroud adjusters. The more upright setup was because the North mainsail is longer in the leech and a) I didn't want more weather helm and b) I had difficulty getting under the boom if it was raked further back. I have only done one championship with the North sails so I am not so confident that this is the best setting. Other people seem to think it can be raked further back with advantage.

**Spreaders.** Sorry, cant find my measurements for this at present. Shorter will allow a bendier mast, as will deflection aft (or less forward at the outboard end)

**Mast Bend.** For the Hyde sails I am convinced that the mast needs to be quite straight. This includes the requirement of a mast (anti) bend control – either in the form of chocks in front of the mast, or of a string and cleat to do the same job. The North sails will tolerate more mast bend, although I think you still need some form of mast bend control here too, and seem to be definitely more suitable for the lighter sailor.

**Rig Tension.** Using the Loos gauge, my preferred reading is around 20 with a maximum of 22. This is not a lot of tension – for 2 reasons. 1 is that the original hulls were not as stiff and 2 is that the Loos recommendations are that you should not use more than 25% of the wire strength. My boat was supplied with 2.5mm diameter wire shoruds, so this also indicated not too high a Loos number. I would add here that although the older hulls do not appear to be as stiff, they do seem to be every

bit as quick as the newer boats. My personal non Loos gauge setting up is just to make sure that the leeward stay does not go slack.

**Mainsail Bridle.** I have this slack for all weather conditions.

**Main Kicker Upwind.** For Hyde sails. Pull on in medium conditions until you get to the point where you have to add a lot more pressure for only a little extra movement (Scientific, isn't it!). Resist the temptation to add more as the wind increases. North sails I think are more conventional – more wind, more kicker.

**Jib sheeting.** It can be helpful to put a knot in your jib sheeting setup to stop you pulling the end of the jib pole closer than about a foot or 300mm to the centreline. This is also mentioned in the original tuning guide

**Position in boat.** For me (just over 100kg) this is about 6" to a foot (150 – 300mm) behind shrouds in most conditions. Move aft downwind if it's windy but I don't believe I have moved aft of the cockpit drain hole even in really heavy conditions.