

TUNNING GUIDE FOR HØJ JENSEN H-BOAT SAILS

This guide is the outcome of 5 years intensive work with rigtrim and sail shapes. Combined with racing on every level possible.

The reason for making this guide is to give you the advantages of getting maximum speed out of your Høj Jensen Sails. In the guide we will tell you which setup you have to use to get top speed in every situation.

Before setting the mast.

1. Clean and oil all moveable items. Make sure that you tape the ends of the spreaders so they don't damage the mainsail.
2. The measure from the forestay attachment to the front of the mastfoot must be 2.41m - 2.42 m.
3. To decide the correct way of sheeting the jib we have to put 2 marks on each spreader. The first mark must be 40 cm from the mast and going to the end of the spreader (Light - medium). The next mark must be 45,5 cm from the mast (heavy)

Spreader angel:

First you assemble the spreaders on the mast. Connect the shrouds with a thin elastic, and measure the distance from the back of the mast and to the elastic. Using short spreaders (75 cm) the distance must be 14-15 cm. Using long spreaders (83 cm) the distance must be 16-18 cm.

Setup the mast. First we measure when the mast is straight in the boat. Use the mainsail halyard when measuring the distance from the black mark on the top of the mast and to the deck. (the same mark and both sides of the boat)

Now adjust upper- and lower shrouds until the mast is straight (note the difference between the upper shrouds).

Now try to set up the boat using the following figures:

	Upper shrouds	Lower shrouds Short spreaders	Lower shrouds Long spreaders
Light wind 0-4 m/s.	39 (PT-1 34.0)	33 (PT-1 29)	35 34
Medium wind 3-8 m/s.	44 (PT-1 36)	39 (PT-1 32)	41 34
Heavy wind 7-17 m/s.	50 (PT-1 38.5)	42 (PT-1 35)	44 37

Mast setup.

Measure the distance from the halyard when it's in the hook and down to the stem of the boat.

The distance must be as following:

Light wind:	10,34 - 10,36 m
Medium wind:	10,30-32 m
Heavy wind:	10,30 m

To setup the mast correctly you have to find the tension that sets the mast straight in the boat. When you give tension to your upper shrouds the forestay will not fall to leeward. If the boat feels "dead" on the upwind in waves then try to ease a bit on the lower shrouds to get a deeper entrance in the main. This will give the boat more power to get over the waves.

Trimming the jib:

To get the right distance from the attachment to the forestay you have to use a shackle approximately 4,5 cm or 6,5 cm. You also have to use another shackle to hold the jib close to the forestay. You do this to avoid that the jib moves away from the forestay and ruins the design.

Sheeting the jib.

The average sheeting point must be 287 cm measured from the forestay to the wagon. That is if the jib is in the correct height from the jib attachment.

Sailtrim:

Trim of the mainsail:

Sheet the mainsail to the point where the top batten becomes parallel with the boom.

When the mainsail is sheeted this way the boat will accelerate, when you have picked up the speed then sheet in a little harder to catch a bit of height. But this is very difficult, because if you sheet too hard the boat will be slowed down.

An overall rule is that if you have wind and small waves the sails must be powerful and closed. If you have light wind the sails have to be open and powerful. In almost every kind of weather the traveller has to be a bit to windward.

The technique on the upwind in light wind is to sheet the boom in the centre of the boat. If the wind increases then take the traveller a bit to the leeward, but don't trim on the traveller. Trim on the backstay instead, or on the mainsheet.

Athel on the boom:

The outhaul adjust the lower 1/3 of the mainsail. To get power ease a bit and if you are overpowered then pull a bit.

Wind Knots	0-3	3-6	6-10	10-15	over 15
Ease from the measurement mark	4,5 cm	3,5 cm	2 cm	1 cm	0 cm

Cunningham:

The Cunningham moves the depth of the sail back or forth. The max depth shall not be more than 50 % from the luff. On our mainsail it's very rare that we use the Cunningham. If you decide to use it, then use it only to get the wrinkles in the luff to disappear.

Important:

If you have used the leech-line when sailing, then remember to ease it when packing the sails. This is important if you want your sails to last.

Trimming the jib:

When trimming the jib, you have to pay attention to the luff of the jib. The sheeting-point has to be where the top of the jib moves a bit before the bottom. When moving the sheeting-point forward you close the leech and therefore will the jib not twist. (good in wind and waves). When moving the sheeting-point back, you make the jib flat in the bottom and open in the top.

When sheeting the jib you have to make the batten in the middle parallel to the boat's centerline. In light and medium wind the leech of the jib has to be at the mark close to the mast. In heavy conditions and when the boat needs to accelerate the jib has to be at the next mark (45 cm). If you want to go for speed and not height then sheet back 1 cm or 2 cm. If you need a bit of height then sheet a bit forward 1 cm or 2 cm.

Magic box on the jib:

The jib is very sensitive on the luff. Only set the magic box so that the wrinkles disappear. Don't use too much tension.

Tips when going downwind:

-When trimming the main on downwind, the top batten has to be parallel to the boom.

-If Cunningham, athel and backstay has been used on upwind ease these off.

-The technic on downwind is to go deep when the wind comes and if the wind is light then go a bit higher to keep pressure in the spinnaker. It's very important to have a good teamwork with the spinnaker trimmer.

- In wind over 7 m/s both barberhaul must be in. Luvart barberhaul has to be in at all times.

Heavy weather technic:

You will realize that when the wind is blowing more than 12 m/s, the boat will at all times be overpowered, it doesn't matter how much you trim backstay, outhaul or rig. The tip is to set the traveller in the middle and to pull as hard as you can in the mainsheet. When the main is pulled in then pull the vang hard and ease of the mainsheet to upwind trim. The vang helps to bend the mast and flatten the lower section of the mainsail. If you don't use the vang the mainsail will open up and you will not get any height.

Sheeting the jib:

Even though you use the mainsheet and backstay to balance the boat you will realize that it's not enough. When puff hits the boat it's a good idea to ease of the jib a little bit. This will open up the slot and prevent the boat to be pushed to leeward. When the puff is over pull in the jib to normal upwind trim.

Placing the crew:

The crews placement in the boat are very important. The helmsman has to sit behind the traveller and the crew as close to him as possible-and at the same time hike a lot.