



Johnson 18 Tuning Tips

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TUNING TIPS BY GREG FISHER

Few One Design Classes are fortunate enough to draw the number of sailors and the caliber of competition as the Johnson 18 did at its first National Championship. For sure, the racing was close and the competition tough. Perhaps most importantly, the regatta was just plain a lot of fun! The folks at White Bear Lake Yacht Club put on a great regatta with not only some excellent race committee work, but also provided a great time for everybody to get a chance to have a beer together. Certainly the regatta reflected the attitude of the Johnson Boat Works "family"...There is no doubt that everyone felt welcome.

I truly believe that the Johnson 18 will fit a nice niche in One-Design racing. NO doubt the boat has to be one of the jazziest looking on the market, but interestingly enough, it is also a relatively easy boat to sail. While we were not blessed with a great deal of wind at this year's nationals, (that may be an understatement!) we did have some breeze on the practice day before the event started. We were impressed with how fast the boat sailed (especially with the spinnaker up) and how easy it was to steer upwind and keep in the groove. I have never sailed with an asymmetrical spinnaker before and we were impressed with how easy it made handling the chute. Gybing suddenly was a snap and for sure this would be an easy maneuver for newer sailors as well. Personally I feel the Johnson 18 will hold special appeal for newer sailors and will do a great job drawing them into the sport.

As far as setting the boat up, we've found that because the luff wire and the jib is a fixed length and therefore dictates the rake of the mast, tuning becomes relatively simple. We used a Loos tension gauge to set our shroud tensions for light and heavy winds. We found that in lighter winds we set our upper shrouds close to 15 on the gauge, at 22 in medium winds, and near 28 for heavy winds. In lighter winds the looser rig allows the jib to sag, thereby increasing power. The looser rig also allows the mast to bend easier which helps the boat "shift gears" as the wind velocity changes. On the other hand, it really didn't seem critical if we were off a bit in our tension one way or the other. The numbers listed above seemed to be ideal for our sails and crew weight. The lower shrouds were set very loose all the way up to hiking conditions. In fact, they were so loose that they would never register on the gauge until it was blowing about 12 miles an hour at which point they would register 0-5. In winds below 12, we would set the lower shrouds so that there was approximately a half an inch of sag to leeward in the mast at the spreaders. This was sighted by facing forward looking up the back of the mast up the luff tunnel. If there was more sag, we would tighten the windward lower. A perfectly straight mast would mean the lower would be loosened a bit. We found that this slight sag

to leeward was important because that indicated the lowers were loose enough to allow the mast to bend easier in the lower wind ranges. The lower shrouds actually angle aft somewhat and therefore restrict the mast fore and aft bend.

We are always conscious of not over trimming the jib. Basically we figured that if there was an imaginary batton in the middle of the leech, the sheet tension should set it so that it was set straight back, parallel to the center line of the boat. This trim would allow the top to twist open slightly. Of course, when trying to accelerate (i.e.: out of a tack or after hitting waves), we eased the jib out a couple inches more. We did find that it was important to be on top of the jib sheet trim and ease quickly when the boat needed extra punch. We basically set the jib leads so that the luff of the jib broke evenly as we luffed the boat into the wind. Since our jib is built out of mylar, we found that constantly adjusting the luff tension is unimportant. In fact, we never changed it once we put the jib up before the race started! In the beginning, we made sure that we had slight wrinkles along the luff when sailing upwind in all conditions.

Similarly, with the main we rarely pulled much cunningham on. In winds below 10 miles an hour, we always had slight wrinkles along the luff all the way from the head to the tack. Our main is fairly powerful and with this eased cunningham tension the draft positioned itself well at 45%. Rest assured, we never tried to figure where the draft was once we were racing...we always used the wrinkles as a guide. The outhaul we also found to be a simple adjustment. We kept our outhaul eased to the point where there was a five inch gap between the sides of the boom and our sail at mid boom in nearly all conditions. Actually we never adjusted it even when sailing downwind. Only when the breeze came up did we pull it tight enough so there was only a 2 to 3 inch gap between the sail and boom. One more variable eliminated! The boom vang we rarely used upwind except when the breeze was up high enough that both of us were hiking very hard. The vang was used to help bend the mast more and flatten the lower section of the main. It also allowed us to play the main sheet much more quickly thereby being able to maintain a neutral helm balance in the puffs by quickly easing the main sheet and then retrimming in the lulls.

The main sheet, on the other hand, was adjusted a great deal. In the lulls the sheet was quickly eased to open up the top of the main and allow the boat to accelerate. In "ideal" boat speed conditions, I found myself trimming the main very hard which would bend the mast and flatten the sail even more. This allowed the boat to "shift" into another gear sailing higher and faster. Of course, when we hit waves or would sail into a big wind shift that required accelerations, the sheet would be quickly eased to allow the boat to repower up. The actual guide for "perfect" was to set the last foot of the top batten parallel to the boom except when trying to accelerate. When the sheet was eased the top batten would be angled upward nearly 10 to 15 degrees from parallel to the boom. This upper batten to the boom guide is viewed by looking up from the boom to the top batten in a lateral plane. Setting the traveler was fairly simple as well. We pulled it to windward only enough to position the boom very close to center line when the main sheet was trimmed properly. The farthest the traveler ever got to windward of centerline was only a foot.

We found it was helpful when flying the spinnaker to ease both the halyard and the tack line off about a foot when there was enough breeze to fill the chute easily and when we were trying to sail as low as possible. By easing the tack and the head the luff was allowed to float out to windward slightly which again would allow the boat to sail much lower. It was important to be sure that the boat was up to maximum speed before we tried to turn down with the puff. Of course when the boat would start to loose speed, we would quickly head up to rebuild speed. In light winds, we found it helpful to pull the halyard and the tack line as tight as possible to help to stretch out the luff, which would allow the spinnaker to fill much easier. We always try to ease the spinnaker sheet in order to carry 6 to 12

inches of curl in the luff at all times.

The nationals were most definitely a challenging regatta tactically. I was fortunate to have a good friend of mine, who had just finished second in another class national championship as a skipper, sailing with me who had a real feel for sailing in lighter winds on an inland lake. Bryce Dryden really did a great job keeping us in line for the puffs and out of the corners. It did get a bit gamey at times which even frazzled good old Bryce, I might add!

Bryce and I together weighed about 345 pounds which probably put us near the top of the crew weights sailing at the regatta. We were surprised that it didn't seem to hurt us too much in light winds, but it was also interesting that the lighter crews didn't seem to hurt us too much in light winds, but it was also interesting that the lighter crews didn't seem to be struggling much when there was a breeze. The Johnson 18 really doesn't seem to be all that sensitive to crew weight which I feel is a great characteristic. Next year I look forward to coming back and hopefully sailing with my wife.

Because this boat can truly claim the title of "right for everyone", we're sure it's going to continue to grow in the years ahead. Also, because the group at Johnson and White Bear Lake worked so hard to make the regatta a lot of fun, the nationals too, will continue to grow. Don't miss it! You're sure to have a great time!

For tuning help contact the North Johnson 18 experts.

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