



Ullman\Skelley's J-105 Tip Sheet--2005

Ullman\Skelley's impact on the J-105 Class has been a sailmaking success story. Five years of outstanding results in major regattas across the United States has established U\S as the #1 winning sailmaker of the class. We attribute our success not only to excellent sail development but also to the fact that we totally understand the effect of rig tuning in respect to our sails and that we have been able to communicate that information to our J-105 customers.

In addition to our comprehensive tuning guide we have gathered valuable bits of information from our experiences and those of our customers. There should be something here that will benefit both the beginner as well as the experienced. We will try to update this tip sheet with new info and pictures as they become available.

Good Sailing
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Class Jib

Jib lead position- Hook a tape measure on the inside of the toggle that attaches the stay to the stem head fitting under drum at bow and measure back 16' 1 1/2" to mark your jib track. You will have a good reference point for jib lead position. This mark, lined up with the center of the jib block should be your primary jib car position. This measurement can vary up to 1" forward or aft because the mast lengths and "J" measurements vary from boat to boat.



Trim tip-

When the jib lead position is correct. Sailing upwind, the top inside windward telltale should lift, (break) before the lower two. Have the helmsman slowly luff the jib by sailing from a close-hauled course to slightly higher and make sure this is the case. This twist in the upper jib improves the flow behind twisted mainsail shape and decreases the stall incidence of the jib. The foot of the sail should appear somewhat flat when the jib lead is in the correct position. The leads rarely need to be moved from the 16' 1 1/2" position. The J-105 jib has a very small chord length in the upper area, requiring very little lead adjustments. Small changes in Jib sheet

tension is usually all that is needed to change jib shape for continually changing conditions. In very light choppy conditions, many class veterans have been successful moving the lead aft, keeping the top of the jib very twisted and barber hauling the clew in 1" to 3". This powers up the lower portion of the sail. This technique is easier to use with the full keel model, but has been used with success in shoal draft models as well.

A) In very heavy air (20+ knots) the J-105 can become challenging to steer. Easing the jib sheet is one way to settle down the boat to a more or less constant heel. When having to ease the jib to a position where pointing is affected, it is time to move the lead aft, one or two factory holes. Determine exact lead position by feel of helm and angle of heel Remember; if the mainsail is trimmed properly, and the boat is still continually being knocked over by puffs, the lead is probably too far forward or jib sheet is too tight. Ease jib until pointing is affected and then drops the lead back until the boat tracks upwind with a more constant angle of heel."

Jib Sheet Tension. Jib sheet tension should be trimmed according to the upper two leech telltales near top vertical batten. Under 12 knots the Jib should be trimmed so that the two leech telltales are flying approx. 80% of the time. When sailing in very smooth water, good helmsmen can get away with telltales flying 70% of the time. In sloppy shifty conditions, keep tell tales stalled to a very minimum. "When in doubt, let it out".

Trim Tips/ 0-12 knots

A) The wind strength is always changing therefore your jib sheet tension should always be changing. The J-105 is underpowered up to 12 knots. The jib sheet should never be cleated in this condition! Crew weight is not needed on the windward rail so keep the trimmer at the winch with jib sheet in hand. Trim in 1/2" increments with winch handle at all times. As the breeze increases in 1/2 knot increments, the jib sheet can be tightened, always keeping the 2 leech tell tales on the verge of stalling. As the velocity decreases, be quick to ease the sheet or the top leech telltales will stall quickly. The jib trimmer should always be trying to keep the leech tell tales just on the verge of stalling to maximize pointing ability.

Over 12 Knots-

A); Once the breeze increases over 12 knots, less jib trimming is required, although easing the jib 2 to 3" for big sets of waves can very effective. At 12 knots all crew should be fully hiked. There should be no one to leeward to trim the jib. This is where windward sheeting is very effective.

Tip: windward sheeting allows the jib trimmer to ease the jib for large sets of waves and for ducking other boats without giving up the crucial weight on the windward side. Unless your jib trimmer is very light in

weight (140 lbs or under), it is not worth losing the weight on the rail to make small jib sheet adjustments.

Halyard Tension—Your triradial/pentex jib is designed using 3-dimensional shaped horizontal and radial panels. When new, this sail does not require hard halyard tension to shape it. Be very careful never to over tension the jib halyard or the competitive life of the jib can be sharply decreased. Generally we like to start sailing with hand tight halyard tension, slowly tightening with a winch handle until just a hint of wrinkles are showing for 0-12 and wrinkles just disappearing for 12+ knots.

The jib halyard tension controls entry smoothness and to some extent, leech tension. (If you adjust halyard tension without easing sheet tension, then you have tightened the leech.)

Tip

A). New Jibs can be sailed first several races with more wrinkles in luff in under 10 knots of air.

Mainsail

Mainsail Trim. “upwind 0-11 knots”

A: Traveler position- controls the amount of twist for a given amount of mainsheet tension. We have found that from 0-11 knots, the leeward side of the traveler car should be even with the inside edge of the windward seat. With the correct amount of mainsheet tension, the boom will be positioned between the centerline of the boat and 6” below, depending on wind and wave conditions.

Note! To check boom centerline position, have the mainsheet trimmer face aft and line the end of the boom up with backstay.

Mainsheet 0-11 knots

1-Keep top leech tell tale flying approx. 65% of the time.

2-Keep aft 50% of top batten parallel to boom.

3-Keep boom close to center line, never any lower than 6”.

If these rules are followed under 11 knots, the mainsail will never be far out of trim.

Once the Mainsheet is trimmed in this general manner, small 2” to 5” incremental charges can often add tenths to the knot meter. While these 3 rules will keep you close,

don't be afraid to tinker. The Mainsheet should be eased 3" to 5" when tacking, accelerating after hitting large sets of waves or when making small helm adjustments while ducking other boats.

Tip. "Tacking".

A) When tacking, ease Mainsheet 3 to 5" as soon as sail starts to luff. Never before! As the boat travels through the wind quickly move traveler to new high side. The trick is to get the traveler to the new side before the sails fill on the new tack. Once the sail fills the boom should be approx 6" below centerline. As the speed begins to build, slowly bring the boom back toward centerline by tightening the mainsheet 3 to 5".

Mainsail Trim- Upwind 10-15 knots

Once the wind velocity builds to the 10-15 knot range and the boat becomes slightly over-powered, and in the puffs, the traveler should be played between the light air windward seat position and 10" below that point. Play the traveler in conjunction with the mainsheet to keep the boat from heeling in the puffs.

Use mainsheet adjustment for acceleration and traveler adjustment to control heel and balance.

With the wind velocity in the 10 to 15 knot range, more aggressive mainsheet adjustments are needed to keep the boat up to speed. Where you were making 3" to 5" increment adjustments, you will now be making 6" to 18" in the fine tune sheet tension. Note: In this 10-15 medium range condition, keeping the traveler in the 10" quadrant (car even with seat to 10" below) allows you to ease the mainsheet, twisting the upper leech for speed and acceleration, while keeping the lower portion of the mainsail close to centerline for maximum pointing.

Mainsail Trim- Upwind over 15 knots

Once the wind velocity is a steady 15 and over, the traveler can be near the middle. In the heavier wind condition, trim the main to boatspeed and pointing relative to other boats. Again, as the J-105 becomes over-powered much more aggressive mainsail adjustments are required to keep the boat up to speed. As the boat pounds a large set of waves or the helmsman over-steers a tack or duck, the speed can drop more than a knot. This is when an aggressive 2' or 3' ease on the fine tune will get the boat back up to

speed quickly. The mainsail trimmer should be totally focused on the knot meter and the relative heel of the boat.

Halyard/Cunningham tension

Luff tension should be controlled by halyard tension whenever possible. Adjust halyard tension so there is just a hint of wrinkles up and down the luff. Unfortunately, the class rules do not allow double clutches so there is a slippage problem to contend with.

Tip.

Both main halyard and jib halyard will slip in over 12 knots. To eliminate slippage, keep both halyards around self-tailing winches on cabin top. Main and jib halyards can be adjusted during tacks.

Note: Boats come from factory with both halyards on port side. You should move jib halyard to starboard. There is an extra halyard exit on one side that will enable you to switch halyards.

Halyard slippage in heavier air on mainsail and jib is detrimental to boat-speed. Keeping the mainsail near max hoist (black band) keeps more sail area up high, increasing performance in light air as well.

As the wind increases to 16 knots and the backstay is being used to depower and balance the boat, excessive lower mast bend wrinkles can occur in lower third of mainsail.

Because of the friction of the mast slugs, these wrinkles may have to be reduced by Cunningham. ***Always tension halyard first to eliminate large wrinkles on luff and then use the Cunningham to smooth lower 1/3 of luff to just a hint of wrinkles.***

In heavy air the halyard should be eased downwind; just enough to let the draft move back in the mainsail. Since the halyard winches will be loaded with spinnaker sheets while sailing downwind, you may not get a chance to tighten main halyard until after rounding leeward mark. If this is the case, use Cunningham to smooth luff until tacking and then get halyard tension during tacks.

Tip

Mark your halyards with a magic marker at the box when at full hoist, so you will know when sail is at fully hoisted without looking up.

Vang

When sailing upwind in a J-105, the vang should only be used to control leech tension when it is so windy that you actually have to release the mainsheet in puffs to control boat. Generally, easing traveler is all that is needed to depower mainsail. The mainsheet attaches to the end of the boom, allowing good control of leech tension with mainsheet alone.

We recommend sailing upwind with the vang adjusted just so the slack is taken out. This is just enough tension to keep the boom from lifting in the tacks, which would cause the upper leech to dump power prematurely.

In very windy conditions, (18 knots +) there have some excellent 105 sailors who have been successfully vang sheeting upwind by keeping traveler near center and playing the fine tune sheet in the puffs. Your vang must be very firm to use this technique. (approx. 5" over snug.) This is a technique learned from dingy sailing and takes some practice to become effective.

Tip

Downwind. The vang should be adjusted so aft 50 percent of top batten is parallel with the boom. The leech telltale should fly about 90 % of the time. If the vang is adjusted correctly in chop, you should see the upper leech open slightly when the boat hits a wave. The vang will have to be adjusted downwind as wind increases and decreases. Most boats do not pay enough attention to vang tension when sailing downwind.

Spinnaker

Halyard– Use full hoist always.

Tack line– Should be eased to the point that the line is vertical or slightly cocked to windward. If the angle of the tack line (picture) ever starts to go toward the leeward side, you should tighten until the tack line goes to a vertical position. Note; to determine tack height the boat must be sailing correct sailing angle. The maximum height is about 3'.

1 1/2' to 2 1/2' are average heights.

Spinnaker Sheet Tension– The spinnaker sheet should be trimmed as loosely as possible, without the sail collapsing. The sheet should be continually eased and trimmed, keeping a constant curl popping in and out of the sail.

In lighter breeze (under 7 knots), you can actually have the sail collapse and sail over it. When small puffs arrive, your apparent wind can go forward quickly causing the spinnaker to curl toward a collapse. The trimmer must trim very aggressively in these conditions, pulling in 1' to 7' of sheet quickly until the sail fills and then immediately easing the sheet until the curl reappears.

The spinnaker trimmer should stand near the windward shrouds, forward enough to see clew of sail. The clew of the spinnaker is a good indicator of whether you are sailing the correct angle. The Trimmer, using feedback from the clew and pressure on the sheet should communicate with the helmsman about course.

The clew should always be lifting. If the clew shows any signs of hanging or falling, the trimmer should immediately coax the helmsman into coming up a few degrees until the clew starts to lift. Good trimmers keep an eye on the clew helping them keep the helmsman steering as low as possible and pushing that edge.

Crew Weight Position– In 8 knots of air and up the J-105 should be sailed with windward heel. Position the crew just aft of shrouds, closely bunched on windward side. This windward heel helps rotate the spinnaker to windward as well as lifting the mainsail higher into more pressure. * As the wind increases over 14 knots start to move the crew back, just forward of the forward cockpit. Use the deck winches as a center point for crew weight. Again, keep crew bunched to windward. * In 20 plus knots, the spinnaker trimmer should also move back. The Mainsail Trimmer should never leave the cockpit.