



## J/105 Sailing Guide

### Boat Preparation

#### Jib Tack

We recommend removing the bottom shackle from the furler and attaching the jib tack directly to the furler. Also, remove the shackle from between the jib halyard and the furler. Use a small spectra line to lace the halyard to the furler. This will help reduce the spinnaker halyard from snagging.

#### Jib Sheet Inhaulers

We recommend having inhaulers for the jib sheets. These are simple to rig and can gain a degree or two of point in flat water and medium breeze. By running the furler line to the starboard side, you will have one cam cleat on each side that the inhaulers can be threaded through. The forward end of the inhaulers should lead forward under the handrail, around the front of the mast, under the opposite handrail, around the jib sheet, and tie off to the upright of the handrail.

#### Jib Sheets

We also recommend running the sheets directly to the winches from the lead blocks rather than using the turning blocks on the rail. This requires a small piece of bungee cord tied to the dodger pad eye and a knot on the other end, edged under the hinge side of the cockpit hatch to the lazeret. The jib sheet should run under the bungee. This keeps the sheet from getting an override on the winch. The benefit of doing this is the jib sheet will not get stepped on in roll tacks and is less likely to get fouled. You can also put marks on the jib sheets where it passes under the bungee for a base trim location.

### Upwind Sailing

#### Mainsail Trim

The main sail is a key ingredient in speed for the J/105. The mainsail trimmer should be the person on the boat who best understands boat speed and tactics and has a good working relationship with the driver.

When the boat is up to speed in 0-7 knots, the traveler should be above the weather seat in the cockpit with enough mainsheet on to make the top telltale stall about 50% of the time. In this breeze, the outhaul should be trimmed to allow for about 2.5" between mainsail foot and the boom.

In 7-12 knots, the traveler should be even with the weather seat in the cockpit, and the mainsail should be trimmed using the second telltale down from the top. This telltale should be stalling about 25% of the time. At this point, the crew should be hiking the boat as flat as possible with legs out. The traveler should be played in the puffs. Generally, the outhaul needs to be on tight. If temporary pointing is needed, the outhaul can be eased. This will slightly slow the boat but will allow more point without completely changing gears.

## **Backstay**

Always adjust the backstay to have 6" of forestay sag. If you have your shrouds at the correct Loos gauge setting, you will be able to control this easily with minimal backstay adjustment. Do not forget to adjust mainsheet tension every time you adjust the backstay!

## **Jib Trim**

For an Ullman jib, the starting placement for the jib lead is with the pin in the aft position on the jib car, three screws plus one hole showing on the front of the track.

When trimming the jib, use the provided leech telltales. Trim the jib until this telltale just starts to flutter but not stall. This is your max trim on the jib. At this time, the center seam of the jib should be parallel to the centerline of the boat. The top of the jib should have a few degrees of twist outboard, and the bottom of the jib should have the same amount of return (hook inboard) that the top is twisted out. Follow the simple rule that "the leech telltale is for the trimmers while the luff telltales are for the driver."

When the boat is up to full speed, pull on the inhaulers to bring the top of the sail inboard until the leech points straight at the angle bend in the top spreader. When the boat slows, the mainsail trimmer can easily reach forward and release the in hauler while the crew hikes. This is most common when going through a series of waves or when approaching a crowded weather mark.

## **Downwind Sailing**

### **AP & RUN Spinnaker Trim**

We recommend not using twings.

Make sure that the spinnaker halyard is at the top of the mast at all times. Mark your halyard so your crew knows when it is at full hoist.

Leech and luff lines of the spinnaker do not need to be adjusted for at least a half a season of racing.

When sailing downwind, keep your backstay completely loose. Hint: Always close-release the knob and pump once to add minimal pressure in the cylinder.

When sailing in choppy conditions roll the jib up tightly and cleat. Then pull the jib sheets tight and cleat. This will stop the rig from bouncing around.

### **Tack Line Adjustment**

The tack line should be trimmed from 1.5' to 4' from end of pole, depending on the amount of breeze. When the breeze is above 10 knots, ease the tack line from the 1.5' mark until the luff of the sail starts to project to windward. If you ease the tack line more than this amount, the sail will become unstable. Generally speaking, the more wind and the flatter the water surface, the more you can ease the tack line. Hint: If the tack or sail moves to leeward, pull the tack line tight to the end of the pole.

### **Crew Weight Placement**

Most J/105s tend to keep their crew weight too far forward when sailing downwind in over 12 knots. The crew should sit just forward of cockpit.

### **Light Air Spinnaker Trim (1-9 knots True Wind Speed):**

1. Put crew weight forward and to leeward near the shrouds. This will help keep the boat balanced and let it accelerate in the puffs. As a puff hits, try to keep the boat from heeling excessively by moving some crew weight to the weather rail.
2. The tack line should be kept tight at the end of the pole. Do not let the tack line loose until you try to sail deeper angles when wind speed and boat speed are higher.
3. The trimmer and helmsperson should constantly talk about pressure on the spinnaker sheet and boat speed. The trimmer should tell the helmsperson to steer down when pressure on the sheet is good and to head up slightly as the pressure drops before the speed drops.
4. The spinnaker sheet should be let out to maintain luff curl of about 1-1.5 head panels for about 50-75% of the time. If the sheet is not eased, the spinnaker will not curl and will stay overtrimmed behind the mainsail in dirty air.
5. The mainsail should be trimmed out until it luffs slightly, and then trimmed back in about one foot of sheet. Off the wind, the best rule is to play the boom vang to keep the upper middle batten parallel to the boom. If the upper middle batten is "opened" and pointing to leeward of the boom angle, tighten the vang. If the upper middle batten is "hooked" and pointing to weather of the boom angle, loosen the vang.

### **Moderate Air Spinnaker Trim (10-18 knots True Wind Speed):**

1. The crew weight needs to stay forward of the cockpit on the weather side. Weight to weather will help rotate the spinnaker around from behind the mainsail to fly in clean air.
2. The tack line should be let out 2-4 feet from the end of the pole.
3. The trimmer and helmsperson should constantly talk about pressure on the spinnaker sheet, boat speed and steering down in the puffs. The true wind angle can be 140-150 degrees depending on sea conditions.
4. If the spinnaker becomes unstable, steer up about 5-10 degrees and do not sheet the spinnaker tight. Trimming the spinnaker tight or steering off will cause the spinnaker to collapse behind the main and will take a drastic turn up to fill again.
5. The spinnaker sheet should be let out to keep the luff curl at about 1-2 head panels for 75% of the time. If the sheet is not eased, the spinnaker will not curl and will stay overtrimmed behind the mainsail in dirty air.
6. The main should be eased out until the luff begins to backwind slightly, or the pressure on the helm eases up. Off the wind, the best rule is to play the boom vang to keep the upper middle batten parallel to the boom. If the upper middle batten is "opened" and pointing to leeward of the boom angle, tighten the vang. If the upper middle batten is "hooked" and pointing to weather of the boom angle, loosen the vang.

### **Heavy Air Trim (18+ knots True Wind Speed):**

1. The crew weight needs to stay on the weather side and move aft slightly to keep the bow from dipping. The weight to weather will help rotate the spinnaker from behind the mainsail and fly in clean air.
2. The crew should help call puffs on the water while the trimmer and helmsperson constantly talk about boat speed and wind angle. The true wind angle can be 150-165 degrees if sea conditions allow it.
3. If the spinnaker becomes unstable, steer up about 10-15 degrees and do not sheet the spinnaker tighter to stabilize it. Trimming the spinnaker too tight or heading off will cause the spinnaker to collapse behind the mainsail and take a drastic turn up to fill again.
4. The spinnaker sheet should be let out to let the luff curl about 1.5 – 2 head panels for 75% of the time. If the sheet is not eased, the spinnaker will not curl and will stay overtrimmed behind the mainsail in dirty air.
5. The main should be eased out all the way until the sail is against the shrouds or until it begins to luff. Off the wind, the best rule is to play the boom vang to keep the upper middle batten parallel to the boom. If the upper middle batten is “opened” and pointing to leeward of the boom angle, tighten the vang. If the upper middle batten is “hooked” and pointing to weather of the boom angle, loosen the vang.

## **Special Techniques**

### **Spinnaker Sets**

1. Hook up the tack line (tack), the sheet (clew), and the halyard (head) to the correct corners of spinnaker.
  - For “inside” Gybes: Hook up the spinnaker halyard outside the spinnaker sheet.
  - For “outside” Gybes: Hook up the spinnaker halyard inside the spinnaker sheet.
2. Prepare both spinnaker sheets and setup on cabin top secondary winches. Make sure the weather sheet is released when hoisting and setting the spinnaker. If the sheet is in tight, the sail cannot be trimmed. And if the sheets are setup for outside gybes, the weather sheet can tear and split the luff of the spinnaker.
3. Pull the tack line out to a pre-marked position for hoisting (mark the tack line at the tack line cleat/jammer). The tack of the spinnaker will deploy to the end of the pole when the pole is set at the mark rounding.
4. The skipper will call for “hoist” and the mast person should jump the halyard.  
\*Hint: Put a ¼” bungee cord around the base of the mast, snugging the spinnaker halyard to the mast to keep the spinnaker halyard from jamming at the mast base turning block!\*  
The pit person should tail the halyard. The cockpit crew is responsible for pulling the pole out to a pre-set mark. The skipper should steer down 10+ degrees to help fill the spinnaker – the spinnaker trimmer will usually trim the sail hard to help fill it and immediately let the sheet out aggressively so as not to choke the chute!
5. Furl the headsail. In more wind, it is less critical to furl the jib after hoisting. In high winds, get the boat in control first!

6. Check to make sure the spinnaker halyard is fully hoisted; and the tack line and pole are at their proper settings.
7. Release backstay tension to get the mast straight. Pull on the jib sheets tight to take out the bounce and steady the rig. In PHRF racing, you can also put up a staysail to help pull the rig tight.
8. Ease the cunningham completely while letting the outhaul enough to get the mainsail foot to drop next to the boom.

## Inside Gybes

Typically this technique is used in low to moderate wind strength. Remember that inside gybes usually take large angles to fill the sail and build speed on the new gybe angle.

Always remember to gybe the spinnaker first and then turn the boat! If you turn the boat before the sail is trimmed to the new leeward side, the spinnaker will fill through the fore-triangle and slow you down immediately. And to correct this, you normally have to gybe back to the original gybe.

Always keep the tack line tight through the gybe, loosening it after the spinnaker fills (if desired).

### Light Air

1. Clear the new spinnaker sheet from the headstay and furling gear at the bow. If the sheet is not clear forward, the spinnaker sheet will never clear around the headstay.
2. In light air, the trimmer must let the sheet go (about 10-15 feet) very quickly to let the clew and leech blow away from the rig before the helmsperson bears away into the gybe. If the helm is turned before the sail is cleared away from the rig, the spinnaker will get caught on the leeward upper spreader and stop the boat. If the sail is stuck, first try lowering the halyard a little to clear it. If it will not come off, then gybe back to the original gybe.
3. Turn the helm down about 15-20 degrees and then straighten out until the clew of the spinnaker is trimmed past the headstay to the new leeward shroud. With more practice, this maneuver will become very smooth without much loss in speed.
4. Pull the new sheet as quickly as possible (after the sail is let out 10-15 feet on the leeward side) to trim it to the new side. A forward crew can help grab the sail around the headstay and run it aft to make this gybe transition much faster and smoother for the trimmers.
5. Once the sail is trimmed to the new side, the helmsperson turns sharply up to the new wind angle and course. The trimmer and helmsperson should be actively discussing if the angle is "too hot" or "too cold" when finishing the gybe.
6. If the sail is trimmed too tightly and the luff will not fly correctly (collapsed), pull down sharply on the clew to "snap" the luff open to fly and trim properly. The crew that helps the sail around the headstay and runs the clew back is typically the best person for this adjustment.

7. The main can be trimmed in and held momentarily centerline (until the spinnaker fills) and then trimmed out.

### **Moderate Air**

1. Clear the new spinnaker sheet from the headstay and furling gear at the bow. If the sheet is not clear forward, the spinnaker sheet will never clear around the headstay.

2. In moderate air, the trimmer must let the sheet go quickly to the headstay, but must not allow the clew to go forward of the headstay until the new sheet is trimmed tight to pull the clew around. If the old sheet is let out with the clew forward of the headstay, the spinnaker will usually twist and wrap on itself – big problem!

3. Turn the helm down about 20-25 degrees and then straighten out the boat until the clew of the spinnaker is trimmed past the headstay and to the new leeward shroud. With more practice, this maneuver will become very smooth without much loss in speed.

4. Pull the new sheet in as quickly as possible (remembering not to let the clew get forward of the headstay) and trim it to the new side. A forward crew can help grab the sail around the headstay and run it aft, making the gybe transition much faster and smoother for the trimmers.

5. Once the sail is trimmed to the new side, the helmsperson turns smoothly up to the new wind angle and course. Again, the trimmer and helmsperson should be actively discussing if the angle is “too hot” or “too cold” when finishing the gybe for good VMG.

6. The trimmer should immediately ease the spinnaker out after the gybe. The boat should balance itself out flat and accelerate fast out of the maneuver. When inside gybing, the spinnaker trimmer tends to oversheet the sail to gybe the sail quickly and make it fill on the new side.

7. The main can be trimmed in and held momentarily centerline (until the spinnaker fills) and then trimmed out.

### **Outside Gybes**

This technique is typically used in moderate to high wind strength. The biggest benefit here is no crewmembers need to leave the cockpit for this maneuver. Plus, outside gybes usually require smaller turning angles to fill the sail and build speed on the new gybe angle.

It is important to remember to turn the boat first and then gybe the spinnaker after! To work properly, the clew has to blow past the headstay and spinnaker luff. It should be trimmed once the boat is heading slightly by the lee.

Always keep the tack line tight through the gybe, loosening it after the spinnaker fills (if desired).

### **Moderate/Heavy Air:**

1. Make sure the new spinnaker sheet is on top of the pole/bowstick. If the sheet is not on top, the spinnaker sheet will never clear from under the pole and the sail will usually twist and wrap.

2. In moderate/heavy air, the trimmer must ease the sheet out as far as possible without the sail collapsing. As the boat turns to gybe, blow the spinnaker sheet as the boat

passes through dead downwind. If the old sheet is not let out with the clew forward of the spinnaker luff, the spinnaker will usually twist and wrap on itself – big problem!

3. Turn the helm down to sail slightly by the lee (170-175 TWA on the new gybe) and straighten out until the clew of the spinnaker is eased past the spinnaker luff and trimmed to the new side (momentarily wing-on-wing). With more practice, this maneuver will become very smooth without much loss in speed.

4. Opposite of an inside gybe, the trimmer should only have to trim the spinnaker in slightly as the boat accelerates out of the gybe. Remember that no crew should have to leave the cockpit for this maneuver – it is very safe for this reason.

5. Once the sail is trimmed to the new side, the helmsperson should turn smoothly up to the new wind angle and course. As mentioned above, the trimmer and helmsperson should be actively discussing whether the angle is “too hot” or “too cold” when finishing the gybe for good VMG.

6. Do not gybe mainsail until the spinnaker is completely in front of the boat, and is being trimmed on the new side (this is the preferred technique in high winds in order to keep the boat under control). Because the boat and wind angle is slightly by the lee when gybing, the boom will come across very fast.

## **Crew Hints Downwind**

### **Bow**

If you will be gybing “inside”: Be sure to hook up the spinnaker halyard with the spinnaker sheet on the inside. If gybing “outside,” hook up the spinnaker halyard with the spinnaker sheet on the outside.

Hoist the spinnakers from the forward hatch with a hatch bag for easy hoisting.

### **Helm**

If the spinnaker collapses in light air, steer off 5-15 degrees and pull the spinnaker sheet to help fill the spinnaker again. Then, steer back up for speed and pressure after the spinnaker fills.

If the spinnaker collapses in moderate to heavy air, steer up 10-15 degrees and slightly pull the spinnaker sheet to fill the spinnaker again; then steer down to normal wind angle and sheet pressure.

*Please feel free to give us a call or e-mail at Ullman Sails to discuss J/105 sailing, ask questions, or order a new sail. We are here to help you achieve your sailing goals.*