

Thank you for choosing *DIEBALL SAILING* as your *INTERLAKE* sailmaker. Much time has been spent in developing a durable sail program that is capable of making a wide range of gear changes easily. This will allow you to be fast in a wide variety of conditions. The following is a guide to use in sail set-up, boat set-up and preparation. Use these ideas and numbers in developing your program.

You will find many more helpful documents at [www.dieballsailing.com](http://www.dieballsailing.com) Also lots of blog & twitter conversations...Good stuff for your sailing lifestyle! If you have any questions please email SKIP DIEBALL at [skip@dieballsailing.com](mailto:skip@dieballsailing.com) or call 419-729-4777. We want to help you sail *fast, smart* and have *fun!*

**1 PAGE QUICK TUNING GUIDE:** *{Find the basics here and the details for all of these items and much more in the rest of the tuning guide.}*

**-MAST STEP:** Max legal forward: 76" from stem (intersection of hull bow and deck) to front of mast.

**-MAST RAKE:** 25'3" as measured from full hoist to centerline of transom with rig under tension. *{Add 3" if you have a masthead crane}*

**-RIG TENSION:** 300 lbs. Increase up to 360+ in heavy air.

**-JIB CLOTH TENSION:** Tension the jib Cunningham until luff is completely smooth and then ease it gradually until the sailcloth immediately aft of the luff tape just begins to soften. *{If you see noticeable wrinkles you have gone too far.}*

**-JIB LEAD POSITION:** Start with 95" as measured from the luff wire tack to the turning point of the jib car block when under load. Adjust from this base measurement to dial in for changes in rake (if mast is raked forward from 25'3" then leads must move aft and vice versa), wind and waves.

**-VANG:** Off under 10 kts. Aggressively played in 10-15. Extremely tight in 15+.

**-MAIN CUNNINGHAM:** No tension in fewer than 12 knots. Progressively more as wind builds. Max tension when overpowered to open Main leach.

**- OUTHAUL:** On firm in most conditions. Ease when waves are bigger than wind. I.e. The "leftover & sloppy" condition.

**-CENTERBOARD ANGLE:** Straight down to 10 degrees angled back (which is 6-8" pull on the c.b. line from straight down) as needed to balance helm.

**-CREW WEIGHT:** Skipper and crew 375-475lbs. 425 is real sweet.

**Waves – Wind – Settings – by SKIP DIEBALL, DIEBALL SAILING  
FLAT WATER (No Waves)**

**MEDIUM CHOP (Larger Inland Lakes)**

<i>Control</i>	<i>Wind 0-5</i>	<i>Wind 5-10</i>	<i>Wind 10-15</i>	<i>Wind 15+</i>
Main Sheet	In/Out for Power	In/Out for Power/Balance	Out for Power/Balance	Out for Balance
Outhaul	Tight	Slight ease for power	Tight	Extremely Tight
Cunningham	Off	Off	Off	On to open Main leech
Boom Vang	Off	Off	Aggressively played	Extremely Tight
Traveler Position	Centered	Centered	Centered	Centered
Jib Sheet	Eased (Open Leech)	Slightly eased	Mid-Batten Centered	Twisted
Halyard Tension	Loose	Medium	Tight	Very Tight
Cloth Tension	Eased	Slight wrinkles @ luff	Slight wrinkles @ luff	Tight
Lead Position	Centered to aft 1 hole	Centered	Centered to forward 1	Centered to aft 1 hole
Centerboard	Vertical	Up to balance helm	Up to balance helm	Up to balance helm < 1'

**HEAVY CHOP (Lake Erie)**

<i>Control</i>	<i>Wind 0-5</i>	<i>Wind 5-10</i>	<i>Wind 10-15</i>	<i>Wind 15+</i>
Main Sheet	Very Loose (Cat-like)	Aggressively played	In/Out Puffs/Lulls	Aggressively played
Outhaul	Eased a little	Eased a little	Tight	Extremely Tight
Cunningham	Off	Off	Slight tension	On to open Main leech
Boom Vang	Off	Aggressively played	Aggressively played	Extremely Tight
Traveler Position	Centered	Centered	Centered	Centered
Jib Sheet	Eased (Open Leech)	Aggressively Played	Mid-Batten straight	Twisted slightly
Halyard Tension	Medium	Medium	Tight	Very Tight
Cloth Tension	Eased	Slight wrinkles @ luff	Slight wrinkles @ luff	Tight
Lead Position	Centered	Centered	Centered	Centered to aft 2 holes
Centerboard	Vertical	Up to balance helm	Up to balance helm	Up to balance helm < 1'

<i>Control</i>	<i>Wind 0-5</i>	<i>Wind 5-10</i>	<i>Wind 10-15</i>	<i>Wind 15+</i>
Main Sheet	Very Loose (Cat-like)	Two-blocked	In/Out Puffs/Lulls	Aggressively played
Outhaul	Tight	Tight	Tight	Extremely Tight
Cunningham	Off	Off	Slight tension	On to open Main leech
Boom Vang	Off	Off	Aggressively played	Extremely Tight
Traveler Position	Centered	Centered	Centered	Eased for Control/Feel
Jib Sheet	Eased (Open Leech)	Mid-Batten Straight	Slight ease in Puffs	Twisted
Halyard Tension	Medium	Medium	Tight	Very Tight
Cloth Tension	Eased	Slight wrinkles @ luff	Medium	Tight
Lead Position	Centered to aft 1 hole	Centered	Centered	Centered to aft 2 holes
Centerboard	Vertical	Vertical	Up to balance helm	Up to balance helm < 1'

## **OKAY, HERE IS ALL THAT STUFF & MORE IN DETAIL**

### **BOAT SETUP**

**Mast step placement:** 76” from stem (intersection of hull and deck at bow not including the rubrail) to front of mast. This is the maximum forward position allowed by the class and reduces weather helm.

**Mast Rake:** Rake measurement is made by hoisting a tape measure as high as possible on the main halyard and measuring the distance from the masthead to the middle of the back edge of the transom. We find that with the DIEBALL SAIL designs most boats perform best raked to 25’3,” To find your sweet spot, set up as recommended and then rake the mast forward for greater acceleration (i.e. to handle chop or tacking duels) or back to point higher. While dialing in, make small adjustments (plus or minus 1/2”-1”) and remember to keep rig tension constant while adjusting the jib leads as necessary. [Older boats that have a dual sheave mast head crane will need to add approximately 3” to this measurement.]

Adjusting the rake to the conditions will help fine-tune your boat even further. In 15+ knot winds, raking forward an inch or more from the all around measurement will help reduce weather helm. This usually happens automatically if you have sufficient purchase on your jib halyard (wire) tensioner (recommend at least 8:1). Then as you increase luff wire tension the mast will be pulled forward slightly.

**Rig Tension:** Rig tension is an important gear-shifting tool. The Interlake performs best when set up tight. The best all around shroud tension (not forestay) should be approximately 300lbs as measured on the trailer without the sails up. More experienced sailors who have a strong and adjustable wire tension system (at least 6:1 purchase, see below) may want to set up for a wider gear range by decreasing this tension to approximately 280lbs. Easing off the tension in light winds is also recommended, especially if there is chop. This will permit more headstay sag. Sag powers up the rig. When the wind is strong increase tension to 360+ lbs. This will reduce headstay sag thus keeping the jib flatter, de-powered, slot open and pointing higher. A tool such as the “Loose tension gauge” is required to measure shroud tension. They are available at most marine outfitters. Remember to measure tension on the shrouds, not the forestay and without sails

up. Note: If your method of rig tensioning is at the forestay, then tightening the rig will automatically rake the mast forward some and vice versa.

Wire (halyard) tension. The wire is the cable that runs through the luff of the jib. It is connected to the jib halyard and tack. Adjustment is by tensioning that halyard. As the wind builds, increase wire tension (we recommend a minimum wire purchase of 6:1. 8:1 or more is better). Set the standing rig tension in an appropriate range for the expected wind & wave conditions before the race. Fine tune forestay sag to changing conditions during the race with wire tension. The greater the travel and power of your wire adjustment the greater your gear range. (See “jib trim” for details on rig tension.) Be sure to use non-stretching and non-creeping line for this system such as “technora.”

DIEBALL SAILING

**Hull Preparation:** Make sure that the hull and foils are smooth and fair. The Interlake's lines are classic and pure. This design really enjoys a fair hull. A happy boat is a fast boat. To fair, fill in low spots and sand down high spots. Use a long board, 9" minimum (12-16" is even better). Once the peaks and valleys are evened out its time to paint. Two-part epoxy primer is recommended for its durability and ability to finish smooth. There is no need to paint over this primer. It will permit the best finish. Racers don't bother with anti-fouling. It is too soft for a primo finish. Use of the 9" block while sanding will continue the fairing process. Work up to 600 grit. Remember to sand in fore/aft strokes. Now that you have a fast bottom, KEEP IT CLEAN! (One good product line with a good set do-it yourself manuals is the WEST SYSTEM of epoxies and filler additives.)

**Centerboard angle:** The centerboard angle is critical due to its large size. The CB should never go farther forward than perpendicular (straight down). Mark this position on the CB line with a knot. Few top sailors sail with the board all the way down. When beating, angle the board back 7-10 degrees (approx. 7" of line trimmed). If it is blowing hard try bringing the board back to 12-15 degrees, which is about 1 foot of c.b. line pulled, in order to reduce weather helm and heeling force. When reaching, raise the board enough to neutralize the helm. Raise the board half up or more on a run. Extra board down will give control in big wind and seas. It will also help prevent the dreaded death roll to windward. Remember: raising the board reduces weather helm and wetted surface thus reducing drag and increasing speed but if raised to far will hurt pointing and tracking. Note: When beating, don't pull more than 1' of c.b. pendant up.

**Helm:** Interlakes perform best with minimal helm. Neutral helm when the boat is flat is best. If you really desire some helm use the minimal amount you can. The reason for this is two fold. First, the Interlake centerboard is a thin "foil" which stalls easily. This is not a shape that is capable of creating lift, only drag. The goal is to minimize drag thereby increasing speed. Stalling reduces flow and speed. Speed reduction further decreases flow. Secondly, lots of helm means that you are always using the rudder. Turning the rudder creates lots of drag. Minimizing helm also minimizes rudder drag. This is the second way reducing helm reduces drag and increases speed. Increased speed reduces leeway.

Lots of helm may help you "point high." But you probably will not be tracking or holding a high lane. If you check your actual course made good, and especially your velocity made good, you will find that a neutral helm results in the fastest time around the course.

Another advantage of a neutral helm is that it will permit the tiller to communicate an incredible amount of information to the skipper. Feedback from the helm is an important part of the feel of an Interlake. This feel indicates proper/improper sail trim, weight trim, heel and more. Proper set up and "Tiller Time" will develop this vital feel.

The four main determinates to helm are: 1) Mast rake. 2) Centerboard angle. 3) Sail Trim. 4) Heel. Mast rake aft increases (weather) helm/forward reduces. Centerboard angled aft reduces helm. Main trimmed harder increases helm. Leeward heel increases helm.

**Boat Weight:** Class minimum is 650 lbs. This includes rudder, tiller, spars, sheets & lines. While the Interlake design is not touchy with respect to weight and performance, extra weight is never good. Especially be sensitive to weight in the ends. Get those empty cans out of there. Got full cans of beer? Give me a call!

**Munchies/clothing:** Yes munchies. It is not fun to be starving, thirsty, or cold. Performance also drops quickly. Keep warm and dry. Water or juice is best during competition. Try to have something fun for the sail in. It is good for the team's Karma.

## **SAIL CONTROLS**

**Mark all controls/sheets/etc:** These marks are points of reference. They permit repeatability and aide in training. Hey, if Olympic sailors, coaches and America's Cup teams do it.... When you are fast, make note of your settings, the conditions, crew weight, etc. Taking the time to mark your controls will make you faster. Sailing faster is devastating to the competition and just plan more fun!!

**Attaching controls to jib:** Your DIEBALL jib has been designed to accommodate the wide range of control line configurations found on Interlakes. This variety has developed due to many older boats being refurbished and modern control rigging added. The biggest variable is whether or not you have roller furling. The procedures are simple.

*Roller Furling:* An Interlake with the roller furling system has the cloth adjustment at the head. The cloth control line then follows the halyard up to a double block at the mast and then down through the deck. In this setup connect the cloth control line to the grommet at the head. Remove the lashing between the grommet and the wire/halyard loop so that they work independently. Depending on your exact system, you will either want to lash the forward most grommet at the tack to the wire loop or attach the loop to the center of the drum and hook the forward grommet to the rotating part of the drum.

*Non-furling:* Most non-furling systems have the cloth adjustment through the deck at the tack. This system requires lashing the head grommet to the halyard loop. Adjust the length of the lashing so that when fully hoisted the foot of the jib just touches the deck. If the jib is too high there will be air leakage under the jib. This will increase induced drag. Attach the cloth control line to which ever of the two grommets gives the smoothest foot.

**Jib Lead Placement & Trim:** With your mast rake set at 25'3"; adjust the leads so that the distance from luff wire tack to jib car turning block is approx 95-6" when under load.

We believe that the common advice of lead placement that permits "all of the jib luff telltales to break at the same time" is misleading. Most often this placement is too far forward. Once this even breaking position is found, move the leads back a couple of inches. Allowing the top windward to lift slightly earlier widens the groove plus it is fast and high! This position requires hard sheeting to bring the top batten in.

*Trim hints:* If the top telltales break too early then move the lead forward. If the leech is hooked excessively or the bottom telltales break first move the leads back. To depower, move the leads back one or two inches. This twisted shape also works well in extremely light air (less than 3 knots). To power up in choppy conditions, move them forward an inch from the standard position. (See "jib trim" for details)

**Jib Cloth Tension:** Tension the jib cunningham so that the sail immediately aft of the luff tape just begins to soften. To achieve this first tighten the cloth tension until very firm and smooth. Then ease the cloth tension until the sailcloth immediately aft of the luff tape begins to soften as far back as 3-4" which is usually just before the telltales. If you see noticeable wrinkles you have gone too far. In shifty winds or choppy seas, use more tension to round out the entry and pull the draft forward thus providing a wider steering groove and better acceleration. Also in heavy air pull the cunningham tight to keep the draft in its proper place and the leach open. 2:1 to 4:1 purchase for this system.

**Jib Wire/Halyard Tension:** With the sail fully hanked on and following the advice as found for “head stay sag” as described in the “Rig Tension” section here is what to do: In light air or choppy water, use just enough wire tension to keep fully hoisted and fully powered. In flat water or heavy air, put on maximum tension in order to de-power the jib and increase pointing. IMPORTANT: This only works if the jib cloth is separate and allows independent adjustment of wire & cloth systems.

**Traveler & Bridle:** The traveler is used primarily to depower the main by easing the boom sideways. There are many traveler systems available. Be sure that your system eases directly to leeward and that the bridle does not rise or lower when eased. Make sure your bridle height is set low enough that you can sheet in hard and not run out of travel between the bridle and mainsheet block. This is called being block to block or two blocked. If you become two blocked you will not point. This is because the Interlake gets much of its pointing ability from the leech of the main. In fact, control of the Interlake’s leech is the primary determinate of pointing vs. power modes. (See “main trim” for details.) WARNING: But too low will drop the boom off of centerline and also hurt pointing so be careful with the bridle height setting.

**Battens:** Your DIEBALL Sails are supplied with a set of tapered battens to help adjust the sail to a wide variety of wind & wave conditions and crew weight. The softer battens help to power up for light winds, chop, or heavier crew. The softest batten goes in the top pocket. As the winds build into the 13+ knot range (white-caps) you can replace with stiffer battens. First replace the upper batten with a stiffer one and work your way down as the conditions warrant further de-powering. Stiffening the top batten first helps to keep the upper leach open. Important: Always insert tapered battens thin end first!

**Outhaul:** When beating in moderate conditions, pull the outhaul tight enough for a smooth shape. In flat water or strong winds, pull the outhaul on tight so that a hard crease forms on the bottom of the main. This will de-power the sail, make a better upwind shape, and open the slot between main and jib. When in light air, chop, or reaching, ease the outhaul to increase depth and power. (See “Wind-Waves-Settings” for more.)

**Cunningham:** The cunningham adjusts the draft in the lower 1/3 of the main. Seldom is any cunningham tension needed until the wind is 12+ knots. Small wrinkles along the luff are OK. In fact, if there are no wrinkles along the length of the luff there is usually too much luff tension. Check the cunningham & main halyard tension if this happens.

**Boom Vang:** When beating in light to moderate air, adjust the vang so that when the main is eased the boom raise a couple inches allowing the upper batten falls off up to 8 degrees to leeward and then the boom eases laterally. This setting permits quick gear shifting between pointing and footing. Heavier winds require more vang tension to help bend the mast, flatten the main, and help with forestay tension. 12:1 purchase led to a place where you can also get good bio-mechanical leverage, such as to a 360 swivel on the centerboard trunk, is recommended (See “main sail trim” & “Wind-Waves-Settings” for details on vang trim.) Hint: In heavier winds Interlake vang settings usually rang between “super,” “mega,” & “ultra-max” settings.

## **SAIL TRIM:**

**Jib Trim:** (See “set up,” “cloth” & “wire” sections for additional details.) Your Interlake jib is trimmed properly when the middle batten points straight back—parallel to the centerline of the boat. With the proper lead position the lower batten will angle in a few degrees while the upper batten will angle out slightly. Keep the upper leech telltale always streaming. Another key thing to watch is the slot. The leech of the jib should parallel the luff of the main. When steering upwind use the telltales on the luff of the jib. Always keep the leeward telltale streaming. The windward telltale should also be streaming when powering up, and it should be lifting just slightly every 5-6 seconds when in max point mode. Mark your jib sheets with a permanent marker or whipping for the upwind setting. When beating, the middle telltales are the best indicators because they indicate the average trim of the sail.

*Interlakes love to breath. Hate pinching.*

Proper upwind jib lead position will require hard sheeting to bring the head of the sail in. This hard sheeting helps to flatten the sail and gains pointing. When eased, the jib becomes fuller thus increasing power and acceleration.

When close reaching, keep windward, leeward and leech telltales streaming. When deep, keep the bottom half drawing (the top will twist off) with the bottom and middle outer telltales streaming.

**Mainsail Trim:** Constant adjustment of the Interlake main is needed for top performance due to its large size, full roach, effect on forestay tension/sag and effect on helm. Top helmsman keep the mainsheet uncleated and in hand at all times. The mainsheet also provides lots of information and feel.

*Beating:* Boom on centerline, upper batten parallel to the boom. Upper telltale will stall 50-70% of the time. When footing, in a puff, or light air ease the main slightly allowing the upper batten to fall off as much as 10 degrees and keep the upper telltale streaming full time. When pinching, sheet hard and hook the upper batten by as much as 10 degrees for a short period (a couple of seconds...until speed drops). Hooking may completely stall the upper batten. Leech tension is key to pointing and is controlled by mainsheet and vang tension.

*Reaching:* Keep all telltales flowing. It is often fast to add extra twist and slightly over-trim the foot of the main when close reaching with the spinnaker. Setting up this way keeps the slot between the main and the spinnaker open.

*Running:* Boom all the way out. When running very deep, twist the top by easing the vang so as to keep the upper batten perpendicular to the wind thus increasing projected area. But *beware* easing vang too much will spill power slowing you down and cause rocking. If you start rocking snug up the vang and lower the centerboard.

**Spinnaker trim:** Start with the spinnaker pole perpendicular to the wind. On a reach, pull the pole back an additional 3-4” if you can maintain proper trim (or slightly forward if you want a wider groove). When running, keep the pole perpendicular to the wind. Adjust the pole height so that the clews are equal height. In all but extreme conditions, ease the halyard by 6-8” to help get the sail in clearer air and open the slot. Twing lines are highly recommended in air greater than 5 knots. If you have twings make sure the leeward one is fully eased especially when reaching. When sailing very deep, heel your Interlake to windward thus reducing wetted area, lifting the main up into greater wind, letting the spinnaker rotate out from behind the mast increasing projected area and permitting the skipper to use the chine to steer the boat downwind with neutral helm. Important: Use non-stretching spinnaker sheets.

**STEERING:** Use of sail and weight trim to steer is definitely fast. Trimming the main helps turn to windward. Easing the main helps turn to leeward. Easing and trimming the jib helps in steering to windward/leeward. Steering with sail trim is more critical as the wind increases. Leeward heel turns to weather. Windward heel turns to leeward. Try to steer without using the rudder. Excessive use of the rudder really kills boat speed. Just allow the tiller to follow the motion of the boat. When tacking, start and complete the turn smoothly. Steer approximately 5 degrees wide. Build speed...then after the bus is rolling sheet in the last couple of inches and point.

**CREW WEIGHT:** Fortunately the Interlake has a large “weight groove,” and your *DIEBALL* sails are design to maximize the competitive weight range. A combined weight of 385-485lbs. works well (naked weight). Three persons, totaling 425lbs would be ideal (a junior sailor is often helpful to achieve this). Many crews compete weighing as little as 325 but if the wind comes up they are seriously handicapped, especially on a reach or beating into chop. Crews over 500lbs who are smart can be found in the front of fleets. Keep weight forward, shoulder-to-shoulder, roll the boat strong, and hike hard.... really hard. A flat Interlake is a fast Interlake (except in light air). Two crew and skipper is a good combination: Crew can hike harder than skippers, extra hands permit quick spinnaker maneuvers and extra eyes/brains are always a plus! Design fact: The Interlake’s fore/aft center is just behind the shrouds. In order to keep weight centered in hull you need to be forward in cockpit. If you are comfortable, you are probably too far aft!

### **BOAT TRIM:**

Light air: Weight forward and to leeward to induce heel and raise the flat stern out of the water thus reducing wetted area while allowing gravity to shape the sails.

Moderate air: Keep boat flat and on its lines.

Planning: Slide slightly aft to encourage bow to lift and boat to ride on flatter aft sections.

*WARNING:* Never slide weight so far aft that the wash off of the stern is churning. Wash should always be smooth...regardless of speed. Keep your Interlake on its lines...even when planning.

### **CARE OF YOUR DIEBALL SAILS:**

Roll your sails whenever possible. Leave the battens in. (Except when putting away for winter. Then be kind to the elastic in the batten pockets by removing the battens.) Fold the jib/main in half loosely by pairing the head and the clew. Starting at the fold (do not crease the fabric) and roll, keeping parallel to the seams. Keep your sails dry. Beware of mice in the winter. Put the spinnaker away loosely. Pack with as few wrinkles as possible to keep it as big as possible.

## MISC. TIPS & TRICKS:

- Remove slop/play from tiller and rudder. This system is vital in developing feel and quick response. Old gudgeons become enlarged. The joining of the tiller and rudder at the head gets loose. Mechanical universals at the tiller extension are sloppy. Replace and tighten as necessary. Use a rubber universal on the tiller extension. (Replace rubber universal every couple years or at the first sign of wear.)
- Use as long a tiller as possible. This will provide more feel. It also moves the skipper forward.
- Thinner, lighter sheets provide more performance and feel at a lower cost! Drawback: hand fatigue.
- Write your tuning numbers for various conditions on a "Hello my name is" sticker and stick it on your loose tension gauge. That way they will always be handy.
- The deck core immediately under the mast step often gets crushed on older boats (*prior to 1990.*) Why? Because years of rig tension have driven the mast down smashing the balsa core. If this happens the rig will not hold tension. When quickly inspected these decks usually look fine since the fiberglass springs back when the tension is released. This condition can only be found with the rig under tension for a period of time. Once this problem is spotted the fix is easy. Replace the area under the mast step with a block of mahogany making a snug fit. Be sure to seal the new edge of the deck core with epoxy. (*Note: Starting in 1990 Customflex addressed this issue by using marine grade plywood in this area in construction. In 2005 this region has upgraded further to solid fiberglass.*)
- Crew/skipper communication is key at all times. Anticipate. Keep your eyes out of the boat. Talk about what you see. What you are looking for. What you are going to do. Good communication reduces stress and mistakes while improving teamwork, performance and fun. Plus it is safe.
- The connecting bolt holes for the deck and hull become elongated over the years. Remove the rub-rail and tighten these screws (usually self tapping). Once the screws start slipping etc. its time to replace them with the next size larger and change to a through bolt with nut. This is most important in the forward half of the boat where the most flexing and wave impact occur. The benefit is a stiffer and more responsive boat.
- Go Sailing. Even if it is not for practice. Sail. Practice is even better. Sail in all conditions. Take a friend. Sail. Sail some more. Just sail...a lot. SMILE. YOU ARE SAILING!
- The mainsheet system can be quickly converted from 2:1 to 1:1 by untying the main sheet from the end of the boom and tying a stopper knot at its end. This knot will stop at the block on the bridle. This configuration is great in very light air.

**(MISC. TIPS & TRICKS continued):**

-- Use a 2:1 jib sheet system. Ninety percent of the Interlake Champions from the nineties until now have used this system. A 2:1 system is easier and safer in a breeze. It is also more manageable for ladies and juniors, plus it permits finer adjustments. To build this system you need: two small blocks, a short piece of line, and another jib sheet. Attach the two blocks to the clew of the jib with the short piece of line. Attach one end of the jib sheet to the base of the block on the jib car. Lead from the base of the block on the car through a block on the jib and back through the block on car. Make sure your sheets are long enough to permit “wing on wing” on either jibe. 1/4” thick line works great. In light air change to 1:1 by simply untying the sheet from the base of the jib block, and place a stopper knot in the end.

-- **WARNING:** Hiking straps break when needed most. This is one of the most common reasons for capsizing. Check them regularly. Other popular ways to become a submarine commander: cleated sheets (especially main) and not looking out for the next puff!

## **RECOGNIZE & RESPECT YOUR CREW**

It is important to have good crew. Lack of good and dependable crew are the number one reason many skippers give for why they don't do so well or sail more often. It's not really all that hard to find crew. Just remember they want to have fun too. *So make it fun.* Sure buying them stuff is nice but truly treating them with *respect* at all times (including during a race—which means *don't yell at them*) will make it fun for them and then they will beg to come back. Don't put them in situations on the racecourse they haven't practiced for and don't take them out in conditions they aren't ready for. This includes drifters if they are not yet mentally tough enough. Build up to the extremes.

Consider purchasing a “*CREW Membership*” for your crew in the Interlake Sailing Class Association. Membership will make them feel a part of the gang plus it will get them the newsletter sent to them. The combination will reel them in by giving them access to valuable tips and pumping them up. All of this for the price of a good burger and a couple of beers. It works, really.

**To download tons of free information** including the booklet “*The Basics of Winning*” visit the DIEBALL SAILING website. To get there: [www.dieballsailing.com](http://www.dieballsailing.com) There are volumes of Interlake specific information here as well as blogs and twitters from sailors who share your passion for this lifestyle.

Updated 6-29-2009 by Bob Sagan.

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## POINTING VS. SPEED CHECKLIST

Remember: Speed = Height

You must first move fast before you can track and point high.

***INTERLAKES HATE PINCHING!***

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### **Problem: Pointing low.**

Get the boat moving up to speed.

Check jib leads. Often needs to be moved aft. Is top telltale breaking first? It should be, slightly.

Check Cloth tension so that the luff is relaxed and just ready to “wrinkle.”

Ex: firm up cloth tension until luff is smooth and then ease just until it begins to relax as far back as 3-4” from the luff tape.

Make sure centerboard is near full down. (It’s often left up after leeward rounding.)

Trim main in hard. Upper batten parallel to boom, or even slightly hooked. Boom on centerline.

Make sure vang is on hard enough.

Make sure there is enough rig or wire tension.

Can you increase outhaul tension?

Seaweed on centerboard or rudder? (yum)

### **Problem: Slow.**

Remember: *When in doubt, let it out.*

Pinching? Interlakes HATE pinching. Let it breath.

Put the bow down (wind) a couple of degrees to fill the sails.

POWER UP:

Ease the main a couple inches. Don’t hook the leech.

Ease the Outhaul.

Check vang tension. Too much in a lull is slow. Not enough in a blow is slow.

Check jib lead position. To far back looses power. To far forward is also slow.

Ease the jib. Don’t hook the leech. Let it breath.

Ease the wire.

Reduce weather helm.

Check centerboard position. Can it come back without inducing leeway (side slipping)?

Crew placement. Weight should be centered or even forward.

Seaweed on centerboard or rudder? (yum yum)

The Interlake Sailing Class Association has a fantastic training video. World Class roll tacks and crew work are displayed here. Proper trim, heel, and more are demonstrated and talked through. This tuning guide is slightly different from what is discussed on the video but the principals are the same. *Highly recommended.* Contact the ISCA [www.Interlakesailing.org](http://www.Interlakesailing.org)

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Have fun..see ya out there!

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