

## Mad Sails Flying Scot Tuning Guide + Tips...

### **MAINSAIL -- pre-race sail adjustments:**

**Mast Rake** – 28' 6"

**Halyard** – better too loose than too tight! (raise until luff is smooth and then ease back until small wrinkles appear)

**Outhaul** – better too tight than too loose! (very hard crease in heavy air; tight crease in medium conditions; loose crease in light air and in sloppy waves) [note: opinions vary... but I don't believe you need to ease the outhaul when going downwind (reason: more outhaul = more projected sail area...)]

**Cunningham** – nothing unless you are overpowered in heavy air. In heavy air raise your main all the way up until the luff is smooth (but don't overtighten and break your halyard shive!) and then crank on the cunningham hard to pull the draft forward as much as possible.

### **JIB – pre-race sail adjustments**

**Rig tension** – loose rig = no tension & approx 1" of "slop"; snug = 80-120bs; tight = 120-180bs

**Halyard** – slight "scallops" at hanks. (you must sail close-hauled to accurately check this)

**Fairlead:** move it aft in heavy air when overpowered; otherwise -- all the way forward.

### **SPINNAKER – pre-race adjustments**

**Halyard** – tie knot 6 inches from head

**Guy** -- under hook

**Sheet** – NOT under hook

**Topping lift** – at perpendicular height (marked line = easy reference)

### **MAINSAIL -- during-race adjustments**

**Mainsheet:** 1st gear = main batten out slightly; sailing "fat" w/slight heel to leeward

2<sup>nd</sup> gear = main batten parallel to boom; sailing flat

3<sup>rd</sup> gear = main batten SLIGHTLY hooked (can't stay like this too long usually); jib luff is breaking (ie. pinching slightly)

**Vang:** none if light air;

keep the head "powered up" in moderate air and puffy conditions by snugging the vang so the boom doesn't rise when you sheet out.

lots of vang in heavy air to depower the mainsail by bending mast

**Outhaul:** Very tight with hard crease in heavy air

Creased snugly in medium and light air

Ease out shelf foot to "bag out" sail downwind in light air or very lumpy seas and medium air... but you should never ease so much that you see vertical pucker creases

Ease out shelf foot in "lumpy and light" conditions for power.

### **JIB – during-race sail adjustments (note: marking sheets helps reference positions!)**

**Leeward sheet:** 1<sup>st</sup> gear = top batten slightly out from centerline (note: this is also fast in heavy air)

2<sup>nd</sup> gear = top batten parallel to centerline of boat

3<sup>rd</sup> gear = top batten parallel (ie. NEVER, EVER hook jib top batten)

**Windward sheet:** 1<sup>st</sup> gear = none

2<sup>nd</sup> gear = 1/2 way

3<sup>rd</sup> gear = clew pulled inboard to center of seat

## **SPINNAKER -- during-race sail adjustments**

**Leeward sheet:** constantly ease it to get a slight curl in leading edge of chute

**Winward sheet (“guy”):** make sure it is perpendicular to wind. Too far forward is SLOW.

**Topping lift:** try to keep clews parallel. When reaching, make sure it is high enough to keep the leading edge open (ie. not “knuckled”) -- so you can point.

## **WEIGHT POSITIONING IS CRITICAL!**

- . **Using weight to help steer the boat is fast because it means less tiller!** The skipper has the helm and thus should make small weight adjustments all the time. Crew uses weight for gross adjustments (ie. wind velocity changes, roll-tacking, etc...)
- . **Neutral helm is fast upwind and down!** Flatten boat to reduce weather helm. Heel to leeward in light air to keep main full and reduce “wetted surface”.
- . **Upwind: weight forward/middle and TOGETHER is fast!** -- unless bow is burying in waves... then move back to get bow up. Weight in middle of boat minimizes “hobby horsing” in waves and keeps the ends of the boat light!
- . **Downwind:** weight forward is fast (because the fat transom lifts out of the water); *unless* bow is burying in waves (ie. catching up to them in heavy air) – in which case you need to move aft.
  - heel to windward to neutralize helm
- . **Roll Tacking** – try to use weight and sails to minimize rudder usage:
  - Heel slightly to leeward as you are about to begin your turn
  - Oversheet main tightly as you approach head to wind
  - Back the jib for a SPLIT-SECOND to help push the bow across wind
  - **Everybody together** -- move simultaneously to new low side as boat passes head to wind and stay there until it is excessively heeled (ie. “roll tack”)
  - Move enough weight to new windward side to flatten
  - Ease the main out generously to 1<sup>st</sup> gear (also helps reattach air-flow to leeward side of sail) and sail “fat” (top battens out a bit and slightly heeled to leeward) for a few seconds before going to 2<sup>nd</sup> gear (main top batten parallel and boat FLAT).

## **GO FAST TIPS:**

### **Centerboard (a tight board is very important):**

- . shim it tight!
- . rolled slightly aft seems to be fast upwind
- . “skeg position” centerboard only down a couple inches -- is fast when running deep downwind
- . Don’t forget to put a reference mark on jib sheets, topping lift, vang, mainsheet.
- . adjust board to neutralize helm on a reach (up = leeward helm; down = weather helm)
- . if you pull board all the way up and then drop it to desired position the gasket will be fair.

**Top quality running lines are worth the cost** (they run through blocks better and are easier on the hands; also, lower stretch = more energy transferred to the boat); I use Conception line for all my sheets.

### **Be nice to your crew!**

Calm, reassuring and nice = fast. Frenzied, critical and mean = slow

**Communicate all the time!** (especially important before starts and mark roundings)

**Have a game plan before the race.** (ie. “lets start toward committee boat and get to right side ASAP!”); game plans – even if completely wrong – give you something to learn from.

**Set regatta goals and targets** (ie. “lets try to finish in the top 10 in every race)

**Take notes after regatta about what worked and what didn’t.** (notes on local conditions can be a great thing for future reference as well)

**Practice makes perfect: you must sail to improve!** Seems obvious, but we forget sometimes. Time on the water is king. Practice maneuvers, roundings and timed starts... (and if you don’t have extra time... try to go out early before racing and throw in a bunch of tacks and gybes).