

Racing the Oakcliff Sailing Match 40's
July 25, 2022
Dave Perry's notes

Here are videos, with a table of contents for the videos, for Match 40 racing at Oakcliff. The video was taken at the 2017 U.S. Match Racing Championship and features the winning team, skippered by David Storrs:

<https://drive.google.com/drive/folders/1tfQo--OIwhW8tcBeWs3rWLiVHRqTVM1I?usp=sharing>

Dave's notes

There are many ways to do things. Here are some notes on how we do things on the Match 40's at Oakcliff. Most sail with 5 or 6 in the boat. Here are the names I will use for the various positions (from the back forward):

If 5: Driver, Main Trimmer, Jib/Spin Trimmer, Pit, Bow.

If 6: the 6th person is a floater, and their job depends on what their role/skill set is

The "Tactician" position...

There are several ways to set this up...and it will depend largely on (a) what the role of the tactician is on your boat, and (b) the skill set of the tactician

1) the Tactician is the Main Trimmer at all times. On the sets, the Tactician eases the main out and then the Tactician pulls the guy back. On the drops the Tactician goes forward and takes the pole down, then helps with the spinnaker drop (pulling down the aft leech). If late coming back, the Pit goes aft and begins the main trim after blowing the spinnaker halyard (bringing the spinnaker halyard tail with them to prevent snags). In that case, the Tactician stays forward and helps trim the jib (tails), and is there if there is an immediate tack (do initial trim on new tack).

The downside of this is that the Tactician is often caught not having the main perfectly trimmed (head's in the boat), or misses a shift or timing because they are trimming the main (head's out of the boat). It's tough to do both jobs well at the same time.

2) the Tactician has no boat handling responsibility after the start and until nearing the windward mark. Then they take the mainsheet and do the same job as in #1 above. The Tactician trims the main in the pre-start. The Pit trims the main after the start, going forward when it's time to put the pole up, and coming back after the spinnaker drop at the leeward mark.

This is my choice, as the Tactician and Main Trimmer (Pit) are each free to focus 100% on doing their jobs well on the beats.

Pre-race Set-up

We set our main halyard tension for our downwind sailing, then use the Cunningham to take out the big wrinkles upwind. The tradeoff is that as it gets windier, you need to pull the main up higher so the boom does not hit the wheel when max trimmed. We also ensure that the Velcro strap at the main clew is as tight as possible before we leave the mooring. Once the main is up, tie the halyard around the jammer with a couple of hitches. This prevents accidentally opening it when dropping the genoa (next clutch over).

Spinnaker halyard taped to starboard bow ear or in a Soak Clip (when genoa up) or to the starboard lower shroud (when jib is up), and hatch closed on three corners of chute. Tape balls up against shackles at end of spinnaker sheets.

If genoa up: topping lift run through a Soak Clip tied to the port genoa sheet fairlead or wherever the Bow likes to put it. If jib up, topping lift taped to port lower shroud.

We leave the pole laying on the foredeck with the sheet in the end. Do not attach the inboard end to the shrouds, or put it between the shrouds. Put it inside the shroud base. The tip of the pole should be right next to the ears on the bow to keep it from rolling overboard.

Take slack out of spinnaker sheets and put them in the aft of the two cleats right under the primary winches (do not put one wrap around the base of the starboard primary winch). Add about 3 feet of slack into the starboard sheet in heavier air.

Twings:

In light and medium air (3-9 knots), on set (starboard tack) port twing max down and starboard twing uncleated. The Pit may have to hold the leeward twing up out of the water in light air.

In heavy air (10 and up), both twings eased 10"-14" or so and cleated (low enough so boom can go all the way out without hitting sheet when spinnaker is up)

All controls set for max speed at start (backstay, outhaul, downhaul, jib halyard, jib lead). The only exception is set the vang at our downwind setting for the prestart in heavy air. Then the Pit puts it on on our final approach to start.

The Bow and others have to be careful not to fall in the hole behind the mast when jumping up on the bow. It is a good ankle twister.

Roles & Responsibilities:

Prestart

The Main trimmer calls time to enter and start (unless busy in which case The Pit calls it).

The Main trimmer calls time back to line when on port sailing away from line; and time to burn or kill when sailing on starboard back towards line (we do time to Boat if starting on right of opponent; time to Pin if starting on left of opponent). The Main trimmer also calls the laylines in the prestart (Boat, Port and Pin lays).

We turn the mainsheet ratchet off before we enter, and back on when we are on our final approach to start the race on starboard tack. It makes a huge difference to be able to let the main out quickly when trying to control or escape in the first couple of minutes in the prestart.

When head to wind or our bow is ever near the other boat's stern balls, or we are on our final approach to start, the Bow is on the bow ready for the Dial Ups, telling the Driver where the leader's stern balls are anytime we are pushing, and telling the Driver how far from the line we are on the Final Approach.

The Bow also keeps an eye up the course for wind (watching the water and any races on the beat).

When we are maneuvering in the prestart (circling, etc.), the Pit is on the starboard side genoa sheet. If either trimmer needs help, just call for help (four hands). We usually never use winch handles in the prestart until we are on our final approach on starboard tack, and the handles are loaded for final trim (port winch) and tack prep (starboard winch).

If well above the starting line in light air, and the call is possible hoist of the spinnaker, we are NOT unbeaking the pole. It is a normal tack set. Then, once the spinnaker is set and flying, we put the pole back down on the foredeck.

In the Pre-start, momentum is king. This pretty much holds true all the way around the course, but the boats take a long time to get up to speed so managing this pre-start down speed tacking, etc. is a big deal. Way more so than a boat that is small and light. We'll use our weight as best we can to turn and accelerate the boat.

In judging time and distance, add 30 seconds to your judgement, especially in lighter air. It is more common to be late than early.

Upwind

- 1) light – medium air (4-9 knots), use weight a lot to sail the boat; coordinate the rolling in all maneuvers
- 2) heavier air (10 and up, when people are hiking) – go max hike before sails load up, and before loading windward winch – trimmer can come to windward for initial speed build, then flash to leeward for final trim if needed.
- 3) Play backstay and vang a lot, as well as downhaul as needed (that control is harder to “play” when loaded up). Be sure to be depowered *before* a puff hits – boats are relatively tippy.
- 4) Set main luff tension (halyard) for run, and use downhaul to set main luff tension for upwind
- 5) The main can handle quite a bit of leech tension (trim in) in breeze (if overpowered, put more backstay on) – the Bow comes back and sits next to the Main trimmer, and they can do 4 hands trim on main if needed.
- 6) The jib lead, when using the genoa, is all the way forward in light air (1 hole showing), and 2 holes showing in medium air. With the smaller jibs in heavy air, the lead is pretty much all the way back. (pins forward on the cars)

Tacks

In medium air / flat water, you can go to final jib trim straight away; otherwise hike for 5 seconds then back down to trim up remainder.

Same with main: medium air / flat water, no ease. Otherwise (light and heavy air) main ease at head to wind (not too soon), then back on with jib trim. Discuss power situation with the Driver. No excess heel out of tack!

In medium and heavy air (8 and up), the Jib trimmer releases (remove winch handle before releasing!) and pulls slack to make sure there are no snags in sheet. The jib trimmer stays near winch in case the tack is a “fake take.” The Pit does initial trim on new leeward side and goes to windward side as soon as possible as he trims. The Jib trimmer goes to leeward and grinds if needed, then takes sheet from the Pit. The Pit hikes and then loads windward genoa sheet (3 turns) and handle on windward primary winch.

The Driver: smooth slow turn, slightly accelerated through the wind, especially in flatter water.

In breeze, the Driver watches clew of genoa / jib. Be sure genoa/jib is trimmed in 90% before landing on it (letting it fill).

Spinnaker Sets

There are two primary maneuvers (“bear away set,” when approaching the mark on port tack; and “tack set” when approaching the mark on starboard tack). We will not “gybe set” (no pole gybe set) unless it is 100% starboard tack to the leeward mark / finish. Even then, a “bear away set/immediate gybe” is usually faster than a no-pole gybe set.

For bear away sets, the Driver calls “Hoist!” as boat nears a beam reach angle (a little sooner in light air; a little later in heavy air). For tack sets, the Bow/Pit hoist the moment the pole is made after the tack.

If we have jibs up (heavy air), we often leave the jib up on the first run, and drop it on the second run (if the race is close). Be sure to ease both sheets about 2 feet (you have to keep some tension on both sheets; otherwise the jib wraps around the forestay in a gybe).

It is KEY that the genoa/jib is not let out at all when setting the spinnaker! We always tack onto the starboard primary winch with the genoa up, and only use the cabin top winch if we anticipate a tack set (no sailing close-hauled on port tack), or if it is heavy air (because it is nice to have the spinnaker sheet loaded and cleated on the primary in heavy air to free the Jib trimmer up to help SNAP the guy back with the Main trimmer (four hand square). Some always tack onto

the starboard cabin top winch to allow them to load the spinnaker sheet onto the starboard primary (which is particularly useful in heavy air). The downside is that (a) the genoa never gets trimmed in tight enough, so you suffer if on port tack for more than a length; (b) the Jib trimmer is up where the Pit is trying to do his work, and (c) there is no cleat for the cabin top winch so the Jib trimmer has to hold onto the sheet, which makes it hard for them to help SNAP the guy back.

Sometimes the jib halyards slip in heavy air. You need to keep four wraps on the winch and possibly a half hitch, in addition to closing the jammer. In that case, either you can't tack to the cabin top winch, or you have to get the jib halyard wraps off the winch on the last starboard tack so the winch is free to use in the tack set.

Bear away set:

Pole Up:

- 1) maximum slack in guy (port sheet)
- 2) The Main trimmer loads guy on primary winch with two wraps and a handle in the winch – **do not load port primary winch with guy until pole is up!** (the Bow says “Made” when pole is on mast)
- 3) The Pit hand on topping lift
- 4) The Pit hoists topping lift to mark as the Bow guides (don't lift!) the inboard end to the ring (we only use lower ring in light air). (be sure any marks on the topping lift are placed so they stop before entering the jammers; tape in the jammers causes them to not work!)

The Driver: ease backstay during rounding

The Pit: ease downhaul and vang (if cranked on tight upwind) before windward mark (we usually leave the outhaul on).

Once pole is up, sneak the guy back and the halyard up (the lighter the wind, the more the sneak). The Bow can help “feed” the tack of the spinnaker forward (don't sneak by pulling the tack aft; it crushes the genoa – just pull the slack out as the Bow feeds the tack forward).

The Main trimmer stands to windward to ease the main sheet in rounding. Do not sit to leeward and try to ease the main (the ratchet will not let the main sheet run out)! If possible, turn the mainsheet ratchet off for the rounding, then turn it right back on again so it is on for the leeward mark rounding.

The Main trimmer goes immediately to port primary, takes slack out of guy, and on “Hoist!” pulls the guy back quickly to its perfect trim angle (just off the forestay in light air, and pretty far back in heavy air).

The Jib trimmer makes sure spinnaker sheet is cleated in aft cleat just under the starboard primary, and leaves genoa sheet cleated in the forward cleat until genoa is dropping, then pops genoa sheet off starboard primary and wraps spinnaker sheet onto primary. If there is a snag in the hoist, the Jib trimmer can pop the clutch on the jib halyard as well (but be sure the spinnaker is most the way up first!). In heavy air, The Jib trimmer leaves the spinnaker sheet in the cleat (key!) and helps the Main trimmer with SNAPPING the guy back. Then the Jib trimmer unloads starboard genoa sheet and puts the spinnaker sheet on the primary (get help from the Main trimmer if windy).

The Bow hoists quickly (yell “2-1-Made” when the spinnaker is all the way up) and then gathers genoa on the foredeck (flipping the clew forward and pushing it to starboard to make space to drop the pole on the port side of the foredeck on the drop), and listens for “Gybing.”

The Pit tails the spinnaker halyard, then drops the jib halyard the moment the spinnaker halyard is up. The Pit is ready for a gybe (twings) or to adjust the guy as needed. Otherwise the Pit is feeding the spinnaker halyard down the hole behind the mast in preparation for the drop, and cleaning up the cockpit (no sheets crossing the boat on the floor).

Tack Set:

On final starboard tack approach, the Bow opens the hatch and pulls a couple feet of tack forward. The Pit loads the starboard jib sheet on the cabin top winch (if the Jib trimmer wants it there).

Approaching the mark, some dangle the pole, but this affects the leech of the genoa. And in heavy air it is a big risk if the boat heels too far and the pole hits the water. It is best for the Pit to simply raise the pole during the tack and the Bow to put the inboard end on the mast during the tack and then hoist (this means that the Jib trimmer has to release and trim the jib/genoa in the tack themselves). Sometimes in breeze we dangle a length or so before the tack.

If we are going to be sailing on port tack for more than a length or so after the tack, then we tack onto the starboard primary winch (and it is like a bear away set). If we are tacking around the mark, the Jib trimmer tacks the genoa using the starboard cabin top winch (unless it's light enough that the Trimmer does not need the spinnaker sheet on the primary winch for the set). To keep the genoa from going out after the tack, the Jib trimmer can hold the sheet in their left hand (or stand on it) and reach back for the spinnaker sheet with their right hand.

Sometimes the Jib trimmer will throw the genoa sheet into the cleat in front of the primary.

The Main trimmer (who is easing the main and then pulling the guy back) makes sure the port primary winch is clear, but does not load guy until the Bow says "Made" (when the Bow puts the pole on the mast).

In light air, the Pit can begin hoisting the spinnaker before pole is on mast, but the Main trimmer cannot pull guy back until pole is on mast (hear "Made!").

Gybes

In light air:

- 1) The Bow can usually do pole by themselves (if not, the Pit jumps up and helps). Take inboard end off mast when boat begins to turn, but leave outboard end attached as long as possible to help with the rotation
- 2) The Pit does twings – put new twing on slowly when boat begins to turn, but keep old guy twing down until the Bow releases guy to help with the rotation – then jump up after boom crosses and help the Bow with pole if needed
- 3) The Main trimmer takes spinnaker sheet from the Jib trimmer and eases spinnaker sheet for better control of rotation;
- 4) Try to rotate 100% of the spinnaker to the new leeward side before the boom crosses the boat (tack of chute at the forestay).
- 5) The Jib trimmer rotates spinnaker with old guy/new sheet
- 6) The Driver pulls boom over and then "pumps" it once hard to pop the batten. Keep boom in fairly tight until apparent wind attaches again, then ease it out.
- 7) The Driver, smooth turn and come out a little "hot" (above VMG angle) to fill chute and build speed quickly.

In medium air:

- 1) The Bow takes pole off mast when boat begins to turn, and as quickly as possible puts new guy in pole (tripping old guy in same motion), and pushes pole forward and out.
- 2) As boat begins to turn, the Pit switches twings then jumps up on foredeck and assists the Bow with pole on mast.
- 3) The Jib trimmer can sometimes rotate spinnaker on their own. If not, the Main trimmer can ease spinnaker sheet and then wrap it on winch (3 wraps) (it becomes the guy after the boom comes over).

In heavy air:

- 1) The Bow does same as medium air
- 2) The Pit – twings both stay down (10” – 14”). Hop up before boom crosses and help with pole
- 3) The Main trimmer throws boom and then goes to new guy (windward side) to help the Jib trimmer control chute.

In medium and heavy air gybes, the Main trimmer should not let the guy forward any more than needed for speed (do not “help” the Bow/Pit get the pole on the mast); let them muscle the pole onto the mast (and when appropriate, the Driver can turn down to “help” get the pole on the mast).

For “gybe hot”, the Bow gets pole off mast, puts new guy in pole and goes directly forward to new tack and holds it down as close to the deck as possible. If no time to get the guy in the pole, holding guy down is more important than getting the new guy in the outboard end of the pole. The Pit stays in the cockpit, throws the winch handle in the spinnaker sheet winch and grinds (or the Jib trimmer and the Main trimmer trim the spinnaker sheet with four hands); and also blows vang if needed (in breeze). When no longer needed to grind, the Pit hops up and helps manage pole.

Drops

Halfway down run to leeward mark...

The Pit – be sure to get downhaul/outhaul/vang back on if let off at windward mark, and run the spinnaker halyard!

The Main trimmer – be sure to get backstay back on and mainsheet system ready for the rounding!

Light air (3-5): it is best to keep the genoa down as long as possible.

On starboard tack...

The Main trimmer jumps on foredeck. One system is for the Main trimmer to put the pole away and the Bow does the “human guy” (hold the guy as far away from the boat as possible, but remember – don’t hang on shrouds; it’s a match racing rule). That way, the Bow can begin the drop by jumping down the hatch and pulling the chute down, even if pole is not put away yet.

In heavier air, we put the jib up first before taking the pole down. The Bow or the Main trimmer can jump the jib halyard. The Pit, before raising jib/genoa, checks that it is on the correct side for the rounding and not trimmed on the wrong side!

Once the jib is up, the Main trimmer takes the inboard end of the pole off the mast and pushes it to leeward. The Pit reaches up under the vang on the port side and grabs the inboard end while lowering the topping lift with their right hand, and sliding the pole into the cockpit (Jib trimmer holds the port spinnaker sheet up so pole goes under it). It is fine to leave about one foot of pole on the cabin top. The Main trimmer then grabs the guy and runs back to the shrouds and pulls down the leech.

The Main trimmer hops back in boat and either goes to main trim or, if late, stays forward and helps trim genoa in rounding (in which case the Pit will be back on main for the rounding).

In light and medium air, we put the pole down first. The Bow does “human guy” and the Main trimmer puts the pole on the port side of the foredeck and pulls about two feet of slack into the topping lift (so the pole doesn’t get lifted off the deck when the jib is pulled up). Then the Main trimmer jumps the jib halyard as the Bow goes forward and holds the guy off the headstay (so the jib can go up).

The Bow just goes down hatch with spinnaker and the Main trimmer runs back to shroud with the guy and pulls down the leech.

The Main trimmer hops back in boat and either goes to main trim or, if late, stays forward and helps trim genoa in rounding (in which case the Pit will be back on main for the rounding).

On port approach...

The Main trimmer stays in cockpit ready to trim the main around the mark. The Bow puts the pole on the foredeck. Pull slack into topping lift when pole is on deck so genoa doesn't "lift" pole off deck if the boat gybes (This is Key!). In breeze, the Bow jumps the jib halyard before putting the pole away. In light air, the Bow puts the pole away, and then the Pit hoists jib while the Bow goes forward and holds the guy off the headstay.

The Bow passes the guy from their left hand to their right hand around the forestay (reach right hand under the genoa and grab foot or guy) and then down hatch.

General thoughts...

Get the genoa up sooner than you think! Get it to its mark!

In heavy air, get rid of the pole sooner than you think! When releasing the topping lift, don't let it crash to the deck.

If we will have less than 1:00 minute of sailing after the final gybe to the leeward mark, we consider doing a "No Pole" gybe (pole down before gybing). The Bow will need to be "human guy" after the boom crosses over. The Main trimmer can jump up after the gybe and help jump the genoa halyard and assist in the spinnaker drop.

For the drop, the Pit puts one wrap of spinnaker halyard around port cabin top winch and blows 10' or so of spinnaker halyard and then holds until spinnaker is under control (clew of spinnaker is coming around the forestay), then blows the rest of the halyard. The Pit then tightens the twings and starboard spinnaker sheet (leave the port sheet slack until the Bow has it fully pulled around) so they are not dragging ("twing twing sheet sheet"), then tails the jib sheet on the rounding and loads the windward primary winch for a tack. If the Main trimmer is late coming off the foredeck, the Pit jumps back (bringing the spinnaker halyard tail with them to prevent snags) and trims main around the mark.

If the Main trimmer is late off the foredeck and the Pit is back on the main, the Main trimmer stays forward in the cockpit for the rounding to help trim the jib (tails), and is there if there is an immediate tack (do initial trim on new tack as usual).

As spinnaker is coming down, the Jib trimmer needs to keep some tension on the port sheet so it doesn't go over the bow. Then quickly clear spinnaker sheet off primary and load jib sheet on the side appropriate to the rounding (could be either side with a gate).

For drops on both tacks, after the Pit sees that the spinnaker halyard is running freely, she pulls in both twings tightly ("twing twing"). After the rounding, the Jib Trimmer pulls in both spinnaker sheets so they are not dragging ("sheet sheet").

For the first tack after the mark, the Bow has to babysit the loose halyard and topping lift as they can catch on the pole rings on the mast and snag the genoa leech. Priority in clean up goes to those two lines.

On first port tack, when boat is settled, pole can go back onto foredeck, with the Bow beaking the pole (putting guy in outboard end) before sliding it forward.

Tactical thoughts...

* The boats have “keep-off” sticks sticking about 3’ off the stern with balls on the ends. These work to prevent hull to hull contact. However, they result in much unexpected ball to boat contact resulting in many penalties. Be Aware! The Bow must give good info to the Driver about the location of the balls. The Driver cannot see them when close! Also, be careful when bearing away near the other boat. The balls extend much farther to windward than expected.

* On the beat, if leading off to the right by several lengths, it is better to come back about 4 lengths under the starboard layline to avoid the tack set. A tack set is a big loss compared to a bear away set.

* On the run in light to medium air, if S has a piece of P and forces P to gybe in the first half of the run, S should consider gybing away, sailing for a few lengths and gybing back, rather than trying to live in the windshadow of P. S just needs to be sure to gybe back before she gets within a couple lengths of the layline to the zone of the right-hand gate mark or Pin.