

# **J/24** **TUNING AND** **HOW-TO GUIDE**





**WHILE THE SAIL SHAPES HAVE NOT CHANGED ALL THAT MUCH, J/24 SAILING HAS UNDERGONE DRAMATIC EVOLUTION IN THE PAST TWENTY-FIVE YEARS. THIS EBOOK PROVIDES INFORMATION ON PREPARATION, QUANTUM'S SAIL TUNING AND TECHNIQUE, AND OTHER HELPFUL TIPS TO MAKE SURE YOU'RE READY TO MEET YOUR CHALLENGE IN TODAY'S COMPETITIVE J/24 FLEETS. IT REPRESENTS TWO DECADES OF ACCUMULATED KNOWLEDGE AS PASSED DOWN TO AND REFINED BY THIS GENERATION'S BEST J/24 SAILORS.**

**THERE IS NO MAGIC ELIXIR FOR PERFORMANCE. IT'S THE SUM OF INCREMENTAL GAINS. IN A GAME OF INCHES, AN EXTRA 1% HERE AND 2% THERE WILL ADD UP, PROVIDING YOU WITH THE DIFFERENCE CRITICAL TO SUCCESS. IN THE END, THOSE SMALL PERCENTAGES WILL GIVE YOU THE EDGE NEEDED TO SUCCEED.**

**AS YOU READ THIS GUIDE, KEEP THIS IN MIND: A 1% INCREASE IN SPEED (FROM 5 TO 5.05 KNOTS) OVER A 10-MILE COURSE IS EQUIVALENT TO SEVEN SECONDS PER MILE, OR 1.2 MINUTES OVER THE COURSE.**



***TO THE  
NEXT  
CHALLENGE.***

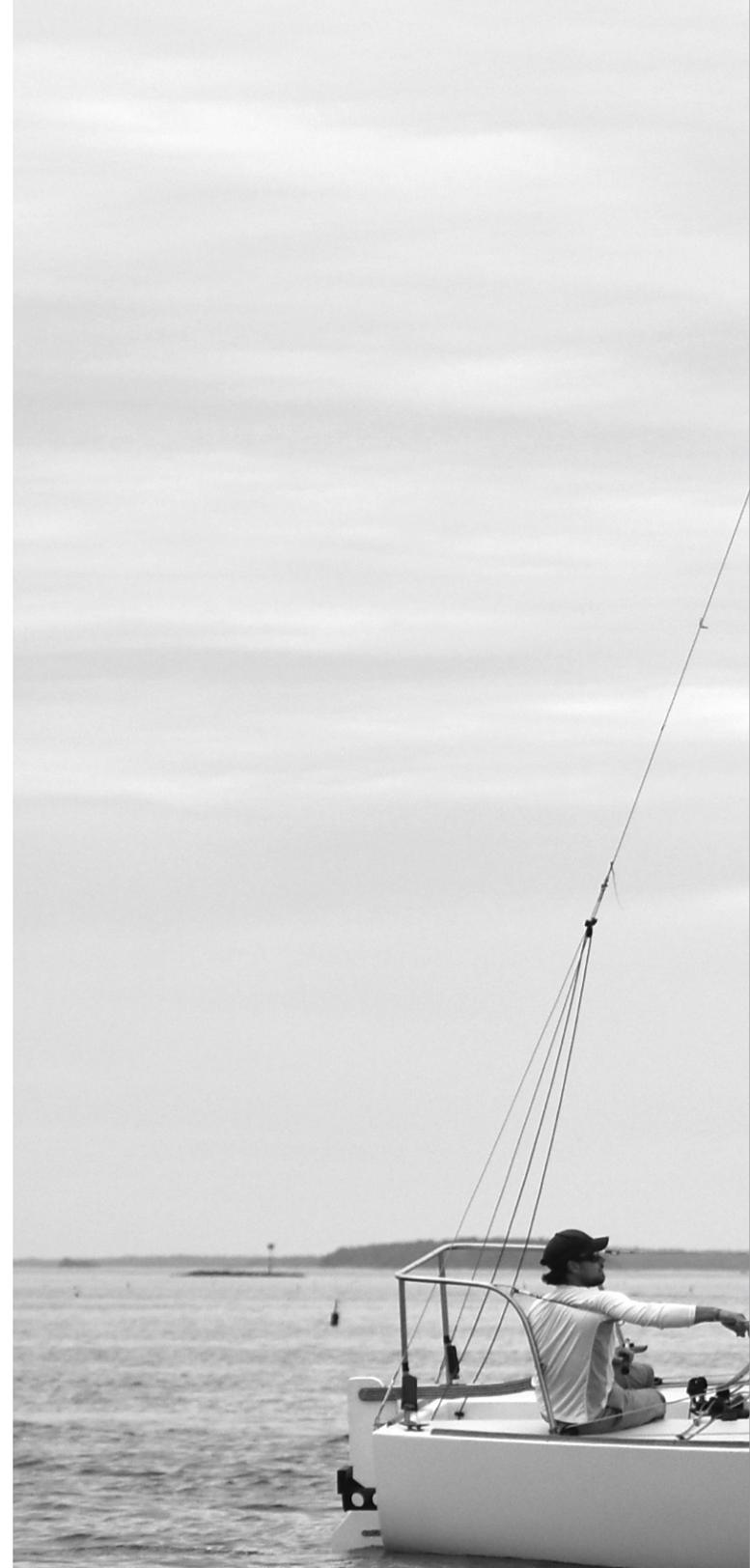
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## ***BOAT PREPARATION***

This is well-trodden, but critical ground. The great thing about being prepared is you don't have to be a four-time intercollegiate all-American to seize the advantage. The primary goal of preparation is to create weather helm in light-to-moderate conditions to improve the boat's upwind performance. The secondary goal is to reduce drag, which helps on every leg of the course.

Preparing the boat can be broken down into four sections: bottom, keel, rudder, and mast. If you race your J/24 without optimizing each of the four parts of the boat, it'll be as advantageous as racing a car with three wheels. If you race your J/24 in less than 10 knots of breeze without paying attention to these four areas, you will get that mushy, sick, feeling of leeward helm.

## **BOTTOM**

The operative words here are smooth and fair. Class rules specifically say that you can remove factory imperfections, but you cannot modify hull shapes. In other words, you can fill to fix voids and hollows, but you can't grind gel coat. Use battens to check fairness, and sand with long boards.

One area that will need special attention is the center seam, particularly from behind the keel to the transom. This seam is typically uneven and not very smooth. Wet or dry sailed, a hard finish paint must be used so wet sanding is possible. We've known boats to be dry-sailed with a VC Underwater Epoxy wet sanded up to 600 grit sandpaper. For boats kept in the water, Interprotect 2000 barrier coat has proven to be a good alternative. Either way, wet sand to 600 grit.

Regardless of what you cover the bottom with, you need a hard, sandable finish. A great bottom (including keel and rudder) can easily have two hundred hours of labor in it.

## **KEEL**

There have been several changes in opinion about what the best keel shape is. Instead of guessing, we had the keel shape reviewed by Nelson/Marek. His recommendations affirm what has become widely accepted. The keel should be:

- Maximum forward at the top and at station #4
- Maximum permissible chord length and maximum depth
- Minimum thickness

Templates are required to get the keel right. While newer keels are better, the process usually involves cutting area from the trailing edge and building up the forward sections (to move the keel forward and insure maximum fore and aft length). Reshape primarily via grinding to slim down and match the keel shape to the templates.

## **RUDDER**

There are five things to check for:

1. Minimum length
2. Minimum thickness\*
3. Minimum weight (total minimum weight including hiking stick, tiller and rudder is 13.5 kilograms)
4. Trailing edge should be as thin as allowable.
5. Rudder should be parallel with the transom of the boat.

\*Be careful: if you fair too thin (particularly on boats manufactured prior to 1986), they can break. New rudders take less fairing but tend to be heavy. Once again, templates are required. The final product should be sanded to a 600-grit finish.

## **MAST**

There are three goals in this department: minimum length and mast butt forward to induce and create rake; spreader angle to control mastbend and match mainsail luff curve; light and clean. To meet these goals:

- Shorten mast to within 3 mm of class maximum\*
- Set headstay length at class maximum\*
- Set spreader deflection at 155 mm\*\*
- Remove extra jib halyard and foil system (older masts)
- Remove windex entirely, or replace with dinghy version
- Remove steaming light and all electrical wiring

\*Refer to class rules for lengths and methodology. Confirm with a class measurer if possible.

\*\*Our AP main is designed with less luff curve and requires a spreader deflection of 155-160 mm. Reducing deflection allows for a tighter headstay in a breeze because the center section of the mast is straighter, creating a mainsail that projects more sail area up high in the leech. There are two methods of controlling spreader deflection. The most commonly used is the thru-bar kit. This guarantees an accurate 155 mm setting because the bar is pre-cut at the 155 angle. The second method is spreader brackets. These can be mounted to the spreaders and adjusted at the fore and aft sweep. Regardless of bracket type, make sure that the spreaders cannot move while sailing.

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## ***STEPPING & TUNING***

***FORTUNATELY, THIS IS NOT LIKE TUNING A STRADIVARIUS. IMPORTANT ITEMS TO CHECK INCLUDE:***

- Mast butt (step) positioned so that the pre-bend measures 2.5 inches when the shroud tension measures twenty on the uppers and fifteen on the lowers<sup>1</sup>
- Headstay must be measured and set at maximum length. At the 20-15 shroud setting, the headstay should measure negative 2.5-3 fingers on the Loos Tension gauge
- Set the mast at the partners so the forward face of the mast at the bottom of the black band is at maximum J dimension (2925 mm)<sup>2</sup>
- Center the mast in the boat<sup>3</sup>
- Set rig tension for conditions



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THE QUICK TUNE CHART**

<sup>1</sup>Measure from the side of the third bolt down the stem fitting 2,740 mm aft to the I-beam. Make a permanent mark. From this point, measure 115 mm to the front of the mast (not the front of the mast step). This is a good starting point.

The ultimate goal is to get the proper pre-bend. At 20-15 on your shroud settings, you're looking for 2.5 inches of pre-bend. If you need slightly more pre-bend to get to 2.5 inches, move the mast back in by 0.125 inch increments until you get there. If you need less, move the butt forward.

Pre-bend is measured by pulling the main halyard down from the top of the mast to the black band at the goose neck. The distance from the back of the mast at the spreaders to the front edge of the main halyard is the pre-bend.

<sup>2</sup>The J measurement is taken from the sheerline/stem intersection at the bow to the front of the mast. You will probably have to modify your partner blocks to allow the mast to sit this far aft.

<sup>3</sup>To center the mast, attach a tape measure to the tack shackle at the bow and measure back an equal distance on each side to a point perpendicular to the forward face of the mast. Place mark on both the starboard and port sides at the toe rail. Measure from these points to the center seam of the mast at the deck to insure that the mast is in the middle of the boat at the partners (it may not be centered in the partners themselves). Tighten the upper shrouds to 20 on the Loos Tension gauge. Attach a tape measure to the genoa halyard. Pull the halyard up to the two-foot mark on the tape (or any even number). Check side-to-side to the two fixed points on the toe rail to confirm that the distance is the same. With the upper sections centered, use the lowers to bring the bottom in line (sight up the luff groove to check straightness).

## SHROUD TENSION

Shroud tension controls headstay tension and mast bend.

It's simple. Add rig tension with increases in velocity, loosen tension with decreases. Another way of thinking about it is this: the uppers control headstay tension and the lowers control mast bend. The balance shifts between the two with velocity. In light air, the lowers are looser than the uppers. As the breeze increases and more overall rig tension is used, the lowers gradually get tighter (relative to the uppers).

TRUE WIND	PRE-BEND	UPPERS	LOWERS	BACKSTAY
0-5*	2.5"	18	12	0
4-8	2.5"	20	15	0
8-13*	2.25"	24	21	+6
12-16	2"	27	24	+6
16-19	1.75"	29	29	+6
19+	1.5"	30	31	+2

\*Indicates four basic settings. Other ranges offer subtle changes when you get stuck in between. All turns on rigging are measured in half-turn increments.

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## **CREW TASKS**

There is only one good approach to deck layout: keep it as simple as possible and minimize the clutter on deck. By doing this, you will make the boat easier to handle, leaving you more time to race.

While each crew has their own preferences, the standard positions and tasks are described below.

### **DRIVER**

- Steer
- Backstay
- Traveler
- Mainsheet
- Fine tune genoa sheet

## **PRO TIP**

We like a custom, weather-sheeting traveler system with separate cleats for two reasons:

- ▲ When tacking in light air, it allows you to roll the boat and pull the traveler to weather at the same time. This is not possible with the Harken weather sheeting car because the car relies on being unloaded to move across the cockpit. The helmsman cannot roll-tack the boat.
- ▲ When racing in a breeze, it's nice to be able to adjust the traveler without having to reach over your legs. Having the cleat forward allows adjustment of the traveler with the front hand. There are two winch handle pockets so the driver doesn't have to carry the handle through the tack.



## GENOA TRIMMER

- Genoa trim
- Spinnaker trim\*

\*Some crews have the tactician trim downwind. This is a matter of preference and should be based on the strength and skill of the genoa trimmer.

## TACTICIAN

- Plans strategy
- Coordinates with Driver to handle the boat in traffic
- Tracks wind direction
- Calls puffs downwind
- Monitors relative boat speed
- Feeds spinnaker on sets/gathers on douses
- Keeps spinnaker packed and sheets organized
- Assists with guy in heavy air
- Communication

The best place to stand downwind is in the companionway facing aft. The tactician funnels communication between front and back of the boat.

## BALANCE

- Clears weather genoa sheet in tacks
- Twings\*
- Operates mast controls, including vang, outhaul, and Cunninghams
- Holds the guy and gathers during douses
- Calls puffs upwind

\*With the sheets and twings led outside, the balance person can get double the amount of roll on the boat. The twings are positioned just behind the shrouds with a direct lead to the cleat. As the boat is turning into the jibe, uncleat the old twing, stand up, and pull as hard as possible on the new twing. This helps roll the boat through the jibe.

## BOWMAN

- Call starting line
- Call waves
- Watch for starboard tackers upwind
- Responsible for all spinnaker pole work
- In charge of all halyards

A note on crew weight: every crewperson is responsible for boat balance. Always be conscious of your positions. Do every job with weight in the right place as much as possible and minimize unnecessary movement.

## SAIL TRIM

With the boat prepared and the crew positions defined, it's time to go sailing.

Rig tension (as detailed in the preceding table) provides the gross tune. Genoa halyard tension, main and genoa sheet tension, and backstay are your primary adjustments. Jib lead, mainsail Cunningham, and outhaul are secondary. This table provides guidelines and initial settings. However, remember that trim is dynamic. Constantly shifting to reflect changes in velocity, waves, boat performance, tactical situations, etc. make the difference.

TRUE WIND	0-5	4-8	8-13	12-15	15-19	19+
UPPER TENSION	18	20	24	27	29	31
LOWER TENSION	12	15	21	24	29	31
GENOA SCALLOPS	3/4"	1/2"	1/4"	1/4"	Smooth	Smooth
LEECH OFF SPREADER	4"	3"	2"	3.5"	4-8"	8-16"
FOOT OF SHROUDS	5"	4"	2"	2-4"	2-5"	4-6"
MAIN TOP BATTEN	Parallel to 5°	Parallel to 5°	Parallel to 3°	Parallel to 5°	Open to downpower as	Open to
TRAVELLER	11" up	7" up	2" up	0-2" up	0-2" down	0-6" down
BACKSTAY BELOW	8"	10"	12-16"	14-22"	22-32"	22-32"
OUTHHAUL	Eased 2"	Eased 2"	Eased 1"	Max	Max	Max
JIB FROM SPREADER TIP					3" inside	Tip to



[CLICK TO DOWNLOAD THE QUICK TUNE CHART](#)

# ***MAINSAIL TRIM***

## ***LIGHT AIR (0-7 KNOTS)***

In light air, the main is set with the traveler to weather to keep the boom on or just above center line. For the best combination of speed and pointing, the top batten is parallel with the boom. The outhaul is eased 2 inches from the black band to power up the bottom sections and round up the lower leech. The top telltale on the leech will be streaming 80 percent of the time. This setup is for straight line speed.

In a point mode, the boom will be pulled up some 3 inches to weather of centerline, and the mainsheet will be sheeted harder until the top batten is closed by as much as six degrees (sight up the middle of the sail using the boom as a guide for the top batten). The top telltale will be stalled about 50 percent of the time, and the boat will point higher but go slower. To build speed out of tacks, through waves, and when the boat is slow, ease the mainsheet so the top batten is parallel to the boom, and drop the traveler until the boom is on the centerline.

Ultimately, traffic, tactical considerations, and moment-to-moment assessment of boat speed relative to the competition will dictate your set-up with regard to the relationship between the traveler and sheet tension. When in doubt, err on the side of speed and keep the leech of the mainsail open.

## ***MEDIUM AIR (8-14 KNOTS)***

Medium air is serious, power-up, pointing mode, especially at the bottom end of the range. At the bottom end, the outhaul is set 1 inch from the black band. The crew is fully hiked. Look for maximum load on the keel to create lift. Sheet tension is the secret.

In 8-11 knots, sail with the top batten hooked five degrees for straight line and seven degrees for point mode. The difference in tension is two clicks on the ratchet block. At 10-14 knots, you'll begin to de-power. The outhaul is maxed to the black band, and a combination of backstay, traveler, and mainsheet is used to flatten the sail and keep the boat on its feet. The first adjustment is to ease the traveler down. The boom position will vary from centerline to leeward of center. If this is not enough, the next adjustment is backstay. As backstay comes on, the mainsail is flattened and the leech is twisted open. This will de-power the boat, but will also twist the leech. An open leech will create pointing problems. Add mainsheet whenever backstay is added. One click on the mainsheet will keep the boat pointing.

## ***HEAVY AIR (15+ KNOTS)***

Hike hard! The outhaul is maxed and the backstay is on hard. The traveler is close to being all the way down, and chances are the main is flogging. In this range, switch from traveler sheeting to vang sheeting, particularly if it is puffy. The new 8:1 purchase on the vang makes it easy to get all the vang tension that is necessary. Position the traveler three-quarters of the way down, and play the sheet for balance.

# GENOA TRIM

**THIS SAIL COVERS A WIDE RANGE (0-18 KNOTS). WHEN IN DOUBT ABOUT SAIL SELECTION, WE USUALLY CHOOSE THE GENOA. AS A RESULT, IT REQUIRES SOME CREATIVE AND RELATIVELY EXTREME CONDITIONS OF HALYARD, LEAD POSITION, AND SHEET TENSION.**

## **LIGHT AIR (0-7 KNOTS)**

Keep the halyard loose, with large three-quarter inch scallops between hanks. The lead is set one or two holes forward of the eight-knot median settings, keeping the sheet played constantly.

In this range, the helmsperson will have to steer to keep up with changes in velocity and direction if no change is made to the sheet. Steer straight and gradually make changes; keep the telltales flying by adjusting the sheet. Try to work back to the median (4-6 inches off the spreader setting) for this condition.

A constant dialogue between trimmer and driver is helpful. The trimmer tells the driver how far the leech is off, and the driver describes if he is working up or down, whether or not the sail can be sheeted harder, or if it needs to stay eased to build speed.

## **MEDIUM AIR (8-14 KNOTS)**

Gradually tighten the luff (halyard or Cunningham) so only a hint of scallops show. Move the lead position aft to median, or as much as two holes aft of median.

Sheet tension changes little in this range. The trimmer hikes and changes trim only for big sets of waves (ease sheet) or in a tactical situation (trimming harder to point or easing to foot).

## **HEAVY AIR (15+ KNOTS)**

Increase luff tension to smooth all wrinkles. Move the lead back 3-7 holes. The sheet and lead positions are set largely as a function of boat balance. Trim the genoa relative to how the mainsail is set up to keep the boat upright.

If the mainsail is flogging constantly, move the lead back. If this is not enough, ease the sheet slightly so that both sails luff evenly. In light spots, the sail can be trimmed harder, and/or the lead moved forward. In flat water, you can usually sheet harder and de-power with the lead aft. In choppy water, it is important to ease the sheet.

A note on lead position: drill genoa tracks out so there are two holes between every factory hole. Median lead position is determined in eight knots of breeze. In this condition, trim the genoa so that it touches the tip of the spreader and the chain plate at the same time. From there, maximum forward will be two holes and maximum aft will be seven holes. Moving the lead aft increases the distance of the leech off the spreaders and brings the foot in on the chain plates. (See sail trim chart for distances off of spreader and chain plate.)



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# JIB TRIM

We designed the blade to overlap the genoa. This enables lighter teams to compete with heavier teams at the upper end of the genoa's range. The blade's range is 17+ knots. Halyard/Cunningham tension is always set to keep the luff smooth. (To get maximum tension, sail the boat downwind with the backstay completely off. With two people, pull as hard as you can.) The median lead position is set by placing the plunger of the jib lead directly perpendicular to the lower shroud (this is the position that you will use about 80 percent of the time). With the lead at median, mark the jib sheet at a point just in front of the block. When the sail is trimmed to this mark, the middle batten will be parallel with the centerline of the boat and the upper leech will be about three inches inside the spreader tip.

The leech of the sail should be trimmed from a point three inches inside the spreader tip to as much as three inches outside the spreader tip as the breeze builds. In more than 24 knots, slide the lead back one inch to de-power. If you get caught in a situation where the boat is overpowered and you cannot adjust the lead (or it is already back), ease the sheet an inch or two, or whatever it takes to balance the boat. This will quickly de-power the head of the sail, and the boat will drive off the bottom of the sail.

# SPINNAKER TRIM

Standard rules of spinnaker trim apply, though because of the rule's effect on sail geometry, and because the sail design is geared more towards windward/leeward courses, reaching trim requires some exaggeration of normal technique.

## ***SOMETHING TO KEEP IN MIND:***

In 0-14 knots, sail with the pole on the lower ring. In 14+ knots, use the upper ring. In windier conditions, if you are tight reaching, the outboard end of the pole should be a foot lower than perpendicular to the mast. This will slide the draft forward in the sail and open up the leech to de-power the boat. Keep the pole 3- 6 inches off the headstay. When broad reaching and running in all conditions, the tack should be slightly lower than the clew. This, coupled with the pole being squared, will help project maximum sail area. When broad reaching and running, always work to square the pole as far back as possible. Ease the sheet to maintain a curl, but make sure the bottom of the sail is underneath the top. The luff should run straight from tack to the point of curl. If the head can be eased to weather of the straight line, the pole is under-squared.

# ***HOW TO PREPARE FOR A SIGNATURE REGATTA.***

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***A MULTI-DAY REGATTA PRESENTS DIFFERENT CHALLENGES AND A LOT MORE PRESSURE THAN YOUR AVERAGE SEASON RACE. QUANTUM'S WILL PAXTON AND TRAVIS ODENBACH HAVE A FEW TIPS FOR GETTING YOUR CREW AND YOUR J/24 READY FOR A SIGNATURE REGATTA.***





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## HOW TO PREPARE FOR A SIGNATURE REGATTA

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### **DO START PLANNING THE LOGISTICS OF THE EVENT WELL IN ADVANCE.**

No matter if the race is at the yacht club next door or across the country, it's never too early to start planning for a multi-day event. How are you going to get the boat to the host club? Where will you dock? Is there enough parking for the crew, or should you arrange a carpool? Will you order sandwiches or make them at home? Are there dock lockers for spare tools and parts?

When the pressure is on, don't let the little details get in the way of a good day of racing.

### **DO MAKE SURE EVERYTHING IS IN WORKING ORDER.**

Schedule heavy maintenance right before the big event to make sure everything is in working order, from the winches to the blocks to the sticky starter on the motor to the drawer pulls. When you need to grab a roll of tape, you don't want it locked in the drawer because of a broken pull! Ask your crew for a wish list, and make sure it all gets done. They might even come out and help.

THINGS TO CONSIDER SO YOU WON'T HAVE TO WORRY WHEN YOU GET TO THE RACE INCLUDE:

**CLEAN:** It's best to start the season with a clean cabin. Empty out any unnecessary items. Take out all of the garbage and extra tools, line, and sails. The crew will not only appreciate this when they have to hunker down below during light air, but you'll be able to operate more efficiently and stay organized.

**INSPECT THE RUNNING RIGGING:** Make sure your running rigging is still up to par. It might take a few minutes, but look at every inch of your halyards and sheets, paying close attention to splices. Keep an eye out for any tears or fraying. You don't need brand new line, but you should make sure yours has low stretch and is not at risk of breaking.

**CHECK THE SAILS:** You likely did a lot of sailing throughout the year, so a sail or two may need to be replaced or repaired. Lay out all of your sails and inspect every inch, looking for rips, tears, pin holes, and frayed stitching. The main and the blade should last the longest, especially if cared for properly. On the genoa, look closely at the lamination and be sure to check the vision windows. These sails take a beating against the rig when tacking, especially the leech. After you've ensured they're ready to go, carefully flake them and return them to their bags. If you're not comfortable inspecting them or short on time, take them to your local Quantum loft to make sure you're ready to hit the course.

## ***DON'T SHOW UP TO THE BIG EVENT WITH A BRAND NEW SYSTEM.***

Avoid showing up to the big race with a brand new, untested system. Whether it's a new halyard, winch, or a new cleat arrangement, a practice day is not the same as testing under race conditions. No matter how simple the system, always make sure it's combat-tested by the crew that's going to use it.

## ***DO MEASURE AND MARK THE BOAT.***

Even black permanent marker fades over time. Go around your boat with a yardstick and a fresh pen to make sure all your numbers are accurate and visible, from the jib car track to the halyards.

## ***DO KEEP YOUR CREW INFORMED.***

Believe it or not, your crew has a life off the water. While it's wonderful when your crew seeks out their own weather reports and prints off the sailing instructions, don't assume they will. Keep your crew informed about the race, weather, logistics, and the work you've put into boat preparation. That will help them show up with their heads in the game and ready to put as much effort into the race as you've put into the preparation.

## ***DO GET LOCAL KNOWLEDGE.***

If you're traveling for the first time, having a crew member on the boat who knows the area (on and off the water) or picking up a couple locals from the crewlist can be an invaluable asset.



# TIPS FOR BUILDING YOUR J/24 CREW

**TO HAVE A SUCCESSFUL J/24 SEASON, YOU'RE GOING TO NEED A FEW GOOD HANDS TO HELP YOU GET AROUND THE COURSE FAST. ACROSS THE COUNTRY AND AROUND THE WORLD, THERE ARE FORUMS ONLINE TO FIND CREWS, BUT JUST LIKE ONLINE DATING, THE CREW LISTS CAN SOMETIMES BE HIT OR MISS. HERE ARE A FEW OUT-OF-THE BOX WAYS TO FIND GOOD CREW FOR THOSE UPCOMING ONE DESIGN CIRCUITS AND REGATTAS.**

**OTHER BOAT OWNERS:** Boat owners are the most all-purpose sailors and usually need the least training, even if they're not seasoned one-design sailors. Great places to meet them are down on the dock or in the yacht club.

**BEER CAN RACES:** Depending on your location, evening beer can races at your local yacht club are a great way to meet new crew in a low-pressure situation. Beer can racers are usually die-hard sailing junkies who can't get enough or newbies looking for boats to crew on. Look for the guy or gal wandering around on the dock with a PFD, or let people know that you're looking for crew – somebody always knows someone looking for a team. Also, don't forget yacht club bartenders are a wealth of knowledge and usually know who's looking for a ride.

**FROST-BITE SAILORS:** If you happen to live in a more seasonal climate, chances are you're not able to get out on the water for evening beer can races during the winter. However, your local yacht club or sailing centers may offer a frostbite series throughout the winter in anything from Lasers to J/24s. If you're looking to find crew who are not fair-weather sailors, these are your people. Find a local fleet that suits you, then get out there and start recruiting those die-hard sailors.

**YOUR LOCAL JUNIOR SAILING PROGRAM:** Those skinny, 16 year olds may not know which way to put a line around a winch, but years of sailing small, responsive boats make them quick studies of sail trim, weight movement, timing, and tactics (and they're probably stronger than they look). A portion of your yacht club dues often supports the junior sailing team, so get your money's worth and put some of these upcoming rock stars on your team!

**LOCAL COLLEGE SAILORS:** Planning to travel for one design circuits? Email a local college sailing coach to recruit some young talent. You'll keep the travel costs down and gain some local knowledge from someone who spends multiple days every week sailing at the regatta venue.

**SOCIAL MEDIA:** Start a team page for your boat on Facebook. You'll build crew morale while also attracting interested sailors. You might be able to drum up an extra set of hands with a last-minute post before a regatta.

**THE CREW YOU ALREADY HAVE:** Let your crew know how much you appreciate them. Schedule team dinners and/or workouts in the off-season to keep in touch when you're not sailing every week. If your crew is having fun, they'll be your best recruiting resource to help build your team (chances are they know more than a few good sailors that will increase your sailing network).

You don't necessarily need to find the sailors with the longest resumes. It's more important to find people you enjoy spending time with and who enjoy your company too. Now get out there and go sailing!



# REGATTA ORGANIZER

## PRE-REGATTA

- **BOAT PACKED UP: GEAR ON BOARD, SAFETY GEAR, TOOL BOX, SPARE PARTS, REPAIR KIT, VHF**
- **SAILS READY: NEW SAILS MEASURED, PRACTICE SAILS OKAY, SAIL REPAIR KIT**
- **TRAILER READY: LIGHTS WORK, SPARE TIRE OKAY, BEARINGS GREASED, STRAPS OKAY, REGISTRATION**
- **TOW VEHICLE: HITCH OKAY, OIL CHANGE, GAS, TRAILER LIGHT BRIDLE OKAY**
- **ENTRY FEE PAID**
- **HOUSING: DIRECTIONS, PHONE NUMBERS**
- **WEATHER FORECAST: LOCAL RESEARCH**

## REGATTA SITE

- **RIG BOAT: WASH DECK/HULL, TEFLON HULL, BOTTOM CLEAN/SMOOTH, RUDDER AND KEEL OKAY**
- **COMPLETE REGISTRATION: BOAT/SAIL MEASUREMENT, WEIGH CREW IN**
- **BOW NUMBERS, SPONSOR STICKER, SAILING INSTRUCTIONS**
- **TUNE RIG**
- **SAILS ON BOARD**
- **SAFETY GEAR, LEGAL EQUIPMENT OKAY**

## PRACTICE DAY

- **AT LEAST TWO BOATS OUT TO TUNE**
- **UPWIND TUNING (FOUR LENGTHS APART) ON BOTH TACKS**
- **DOWNWIND TESTING: SPINNAKER UP (FOUR LENGTHS APART)**

- **MARK ROUNDINGS**
- **SPLIT TACKS TO SEE FAVORED SIDE OF COURSE AND/OR FAVORABLE CURRENT**
- **PRACTICE STARTS (OR TIMED APPROACHES TO STATIONARY MARK)**
- **BOAT HANDLING: TACKS, GIBES, 720S, 360S, SPINNAKER SETS AND DOUSES**
- **BOAT READY FOR RACE DAY**
- **ATTEND COMPETITORS MEETING**

## RACE DAY

- **ARRIVE AT THE RACE VENUE EARLY**
- **PACK LUNCHES, PLENTY OF FLUIDS, AND SUNSCREEN**
- **WEATHER/CURRENT FORECAST FOR THE DAY VHF CHARGED**
- **TUNING GUIDE/NUMBERS ON BOARD**
- **CHECK SAFETY GEAR/LIFE JACKETS**
- **GET TO RACE AREA ONE HOUR BEFORE WARNING**
- **SAIL ON COURSE TO CHECK, WIND, WAVES, AND CURRENT MOVEMENT**
- **TUNE WITH OTHER BOAT(S) UPWIND AND DOWN**
- **SET SPINNAKER AT LEAST ONCE NO MATTER WHAT THE CONDITIONS ARE**
- **GET TO LINE EARLY AND SET UP FOR STARTING SEQUENCE**
- **DETERMINE FAVORED END OF THE LINE AND GET WATCHES SET FOR SEQUENCE**
- **GET OFF THE LINE AND HAVE A GREAT RACE!**

# RACE-DAY CHECKLIST

## ON SHORE

- COURSE CHART
- PADDLE, ANCHOR, LIFE JACKET
- STOP WATCH
- PROTEST FLAG
- CHECK TIDE TABLES
- CHECK OFFICIAL NOTICE BOARD

## BEFORE 10 MINUTE SIGNAL

### SAIL UPWIND TO CHECK ADJUSTMENTS:

- MAST BEND SIDWAYS, FORE & AFT
- OUTHAUL
- DOWNHAUL (MAIN & JIB)
- JIB LEADS AND TRIM

### SAIL ONE WEATHER LEG BEFORE STARTING:

- CHECK FOR WIND SHIFTS IN WIND BENDS
- LOOK FOR FLAGS THAT MIGHT HELP IN FINDING WIND SHIFTS
- DETERMINE CURRENT IN RACING AREA

## INSIDE 10 MINUTE SEQUENCE

- FIND WINDWARD MARK
- CHECK FOR KELP OR WEEDS ON RUDDER & BOARD
- FIND FAVORED-END OF LINE
- DECIDE FAVORED TACK AT START
- CHECK ALL ADJUSTMENTS ONE MORE TIME (BETTER TO BE A LITTLE LOOSE THAN TOO TIGHT ON CUNNINGHAM AND JIB CLOTH)
- SAIL BY THE RACE COMMITTEE BOAT FOR FIVE MINUTE SIGNAL
- CHECK COURSE
- RECHECK STARTING LINE AND WIND DIRECTION
- ESTIMATE AGGRESSIVENESS OF FLEET
- CHECK RUDDER AND BOARD AGAIN FOR KELP OR WEEDS
- START FIRST AND STAY FIRST





J  
24  
J  
24

JPN  
5179

JPN  
5179

USA  
5277

USA  
3024

USA  
5476

USA  
4026

Gill

WATER SYSTEMS

Siesta

PHOTO BY CHRIS HOWELL

# ***QUANTUM CLASS EXPERTS***

Like all tuning guides, these numbers and settings are just that: guides, not gospel. They have been developed to help you find the sweet spots and get you in the right range. Superior athletes in every sport often have slightly different styles or techniques that work for them.

Always keep in mind that trim is dynamic. You can't just set it and go. Try to understand what tuning and trim controls do. That way you can react and make changes in response to your actual performance at any given moment. To paraphrase that famous west coast credo, fun is fast, so don't be afraid to experiment and let us know what works!

If you have any questions, be sure to call. Quantum's class experts are your support team, providing real-time tuning data, sail trim, sailing technique, mast set-up, and tips. We're here to help you enjoy your J/24!

# FOR MORE INFORMATION CONTACT

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