

MELGES 15 TUNING GUIDE

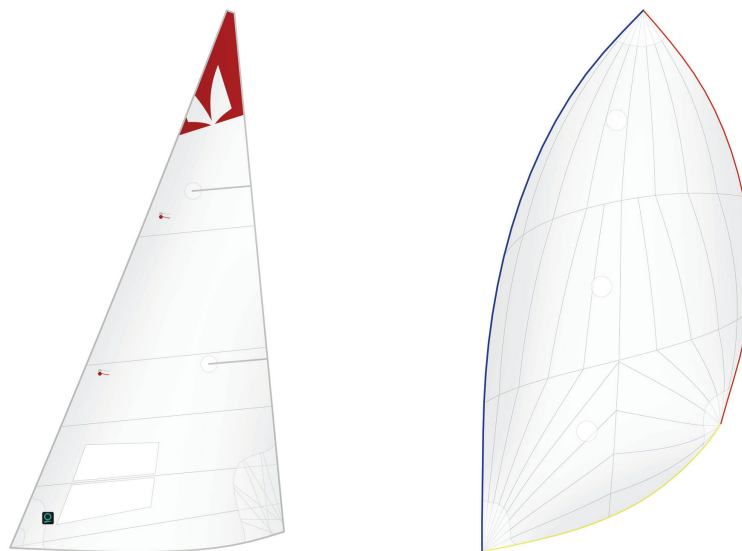


QUANTUM SAILS
TO THE NEXT CHALLENGE.



MELGES 15

The following guide will help you set up your Melges 15 for the best performance and speed. The measurements have been tested over countless hours on the water in a variety of conditions. We have simplified the tuning process to make it easy for any sailor to have a competitive boat setup in this class.



BEFORE STEPPING THE MAST

1. Clean and lubricate turnbuckles, and make sure the top and bottom threaded studs are even in the turnbuckle tube. Make sure your turnbuckles are loose with a 1/2" of thread showing on each end of the turnbuckle.
2. Position the mast so the base is next to the mast step on the deck and the top is in the boom rest or on the transom of your boat. You can step the mast alone or with another person holding the base of the mast.
3. Check all pins, wires, and fittings for wear. Plug in the sidestays and make sure they are attached to the forward chainplate pad eye.
4. If you are stepping the mast solo, attach your spinnaker halyard to the bow of the boat to help the mast stay upright when attaching the headstay.
5. Check the spreaders to make sure they are pinned and taped.
6. Make sure all halyards are running clean.
7. Once the mast is stepped, tension the rig and attach the forestay.



ALL-PURPOSE SETTINGS

HEADSTAY TENSION

The Melges 15 has a fixed headstay. We measure our overall rig tension off of the headstay. Tighten your sidestays evenly until your headstay reads 220lbs or 20 on a PT-1 Loos gauge. This is a good base setting. If you want to fine-tune the rig, measure down to the deck at the chainplates using the jib halyard and then adjust the sidestays to center the mast athwart ships.

SPREADERS

The spreaders on the Melges 15 are fully adjustable. To measure your spreader rake, place your mast on two sawhorses. Turn the spreaders upwards and make sure your sidestays are attached to your spreaders. Take a straight edge (a batten or level works well) and run a straight line from sidestay to sidestay directly adjacent to your spreader. To get your rake measurement, measure from the aft of your mast up to the bottom side of the straight edge. The spreaders are preset with 135mm of rake or 5 5/16".

It is important that your spreaders are evenly raked from side to side. To evenly rake them, place your tape measure inside of the mast track and measure to the place where the spreader ends and the black sidestay retainer cap starts. When raked evenly, this measurement should be 396mm. Double-check the measurement by measuring from the outside of the shroud at the spreader tip to the outside of the shroud at the opposite spreader tip. This should measure 755mm. This is a fast setting in all conditions.

SPREADER TIP LOCATION

We recommend setting the spreader tips all the way inboard. This is how they come preset.

SIDESTAY TENSION

For the all-purpose setting of the sidestays, make sure your turnbuckles are even side to side. It's important to put some tension on the sidestays once the breeze is over 10 knots. We recommend sailing with the headstay tension closer to 300lbs, or 24 on a Pt-1 Loos gauge once the breeze is over 15 knots.

TUNING CHART

<i>WIND</i>	<i>TENSION (PT-1 GAUGE)</i>	<i>WEIGHT</i>
0-6 KNOTS	17	175 lbs
6-10 KNOTS	19	200 lbs
10-14 KNOTS	21	240 lbs
15+ KNOTS	24	300 lbs

Note: If you have a new boat, it is important to sail a few times in heavy air to stretch out the rig before making permanent settings on the shrouds. Double-check the rig tension after sailing a new boat in good breeze.



AVOIDING MAST DAMAGE

Though rare, you want to avoid putting your boat into situations where you can experience rig failures. We recommend following these simple tips to protect your mast.

- Crew weight should not exceed 400lbs on the Melges 15. Sailing heavier than that will dramatically increase loads on the boat and rigging and amplify mistakes made with tuning and mainsail handling.
- Jibing in heavy air with the vang loose and the mainsail eased out too far is a recipe for mast damage. This is the single most important thing you need to concentrate on when sailing with the spinnaker. When you go into a jibe, move from high-speed mode directly into the jibe in order to prevent slowing down the boat. Sidestays that are too loose can, in rare instances, cause the mast to invert and break.
- Stay within the recommended rig settings. Don't overload the shroud tension as it places too much compression load on the mast and boat and can cause failure.

Once you understand the mechanics of the rig, you'll realize how much easier and fun the asymmetric spinnakers are to sail with. With the proper mechanics, boat handling, and rig tune, the rigs are durable and will stand up to a lot of wind.



DOWNWIND TECHNIQUES

SAIL CONTROLS

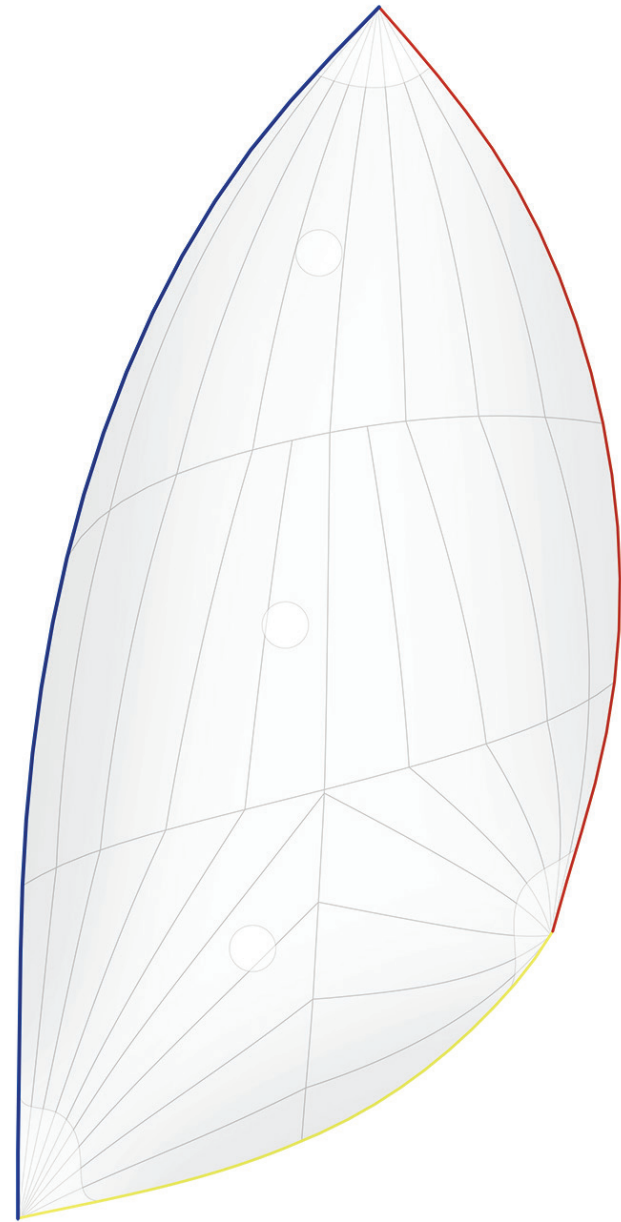
Vang: As you approach the windward mark, it's imperative to ease your vang. This will allow you to easily round the windward mark and set your spinnaker. When sailing downwind, sail with enough vang tension to match the profile of the leech of your mainsail with the leech of your spinnaker.

Cunningham: Loose

Outhaul: Loosen your outhaul 3"-5" for downwind sailing.

MAINSHEET TECHNIQUES

To achieve the best performance with an asymmetrical, it is important to sail slightly hotter or higher angles than you would with a symmetrical kite. Higher angles, along with the higher speeds you are achieving, will bring the apparent wind angle forward and require the mainsail to be trimmed at a tighter angle. More vang can be used since you are sailing at hotter angles with more load on the mainsail. Don't ease the mainsail out too far on the jibes when you're sailing at higher angles. The sheet should not be eased more than about 6' when measured from the aft corner of the boat to the boom. Keeping some vang tension on will also help maintain a positive bend in the mast.



DOWNWIND TIPS

- When sailing downwind with the asymmetrical, sail with the dagger board raised to about 6". This is especially good in moderate winds and wavy conditions. In varying conditions, you may want to experiment with pulling your board up more. Practice this technique and find out what is fastest for your team. When in doubt, leave the board all the way down.
- Heel angle will be slightly greater downwind versus upwind. Don't sail over-heelled with an asymmetrical spinnaker. A good target is 5° of heel, which allows you to sail fully on the leeward chine.
- Crew positions vary with wind velocity and angle. In light wind, the skipper should be on the low side with the crew sitting on the high side of the boat trimming the kite. As the wind builds, the crew can hike and the skipper can move to weather. Once the crew and skipper are on the high side, it's important to be fluid with your weight movement by moving your weight inboard when the wind lessens and aft when planing conditions are present. The Melges 15 comes alive in any breeze over 8kts. Move your weight aft downwind in order to initiate planing.
- Downwind sailing angles will vary. You do not have to sail hot and fast in all conditions with this setup.

Here is a brief guide to follow:

1. **0-8 knots** – Telltales on the sidestays are a must. A higher angle is required in order to generate apparent wind. Once up to speed, you can start sailing lower, but head back up again if you start to slow down or get too flat. This is a dynamic mode that requires constant adjustments and great attention and focus to keep the boat moving. As your apparent wind shifts forward, trim your mainsheet. You will be amazed how the boat reacts to a tighter mainsheet and responds to dynamic trim downwind. The key to good downwind sailing in light air is to focus on the heel angle. Concentrate on keeping the boat slightly heeled to leeward. As soon as you feel the boat flatten out or heel to windward, it's time to head up. When the boat heels to leeward a bit too much, flatten, head down, and extend in the increased pressure.
2. **9-12 knots** – You can experiment with sailing at a deeper angle in these conditions, but both skipper and crew should be on the

windward side. As the breeze hits and the boat heels to leeward, drive down and sail deeper in the pressure. Again, focusing on proper and consistent angle is key. Be dynamic with your mainsheet trim. As you sail deeper, ease the mainsheet out.

3. **13-25 knots** – This is where the M15 is really fun! You should be working constantly to maintain a plane using active weight placement and trim. The crew and skipper should hike out on the windward side. Trim in your mainsail almost all the way at times since your apparent wind is very far forward. The crew should be dynamic with jib trim, and both the skipper and crew should move their weight aft to get the bow out of the water and start planing. Once you're on plane, keep up your speed and refrain from sailing too deep. Keep your main fairly trimmed on the jibes with only a small ease. If the breeze dies and you can't maintain a plane, slide your weight forward and shift back into your medium air mode.
- Perform blow-through, or skiff jibes, in all conditions. The skipper begins the jibe by turning at an even pace while the crew trims the sheet tight and straps the foot of the kite. As the boom crosses the boat, the kite will backwind against the jib. At this point, the crew releases the old sheet and trims on the new side as the kite blows through to the other side of the jib. In the Melges 15, we recommend cleating the jib while sailing downwind, leaving it cleated while jibing, and then switching the jib over to the new side once you have completed your maneuver.
 - Keep your lines clean and drop-coiled so they run freely through maneuvers.
 - Watch your compass angles downwind and focus on staying in clean air. These boats will be going very fast; angles and wind really make the difference.



SETTING THE SPINNAKER

1. Ease the vang as you approach the weather mark and hike the boat down as you bear away. Don't move into the boat until it is flat and sailing toward the offset mark.
2. Once you've turned down and flattened, the crew will move into the boat, grab the halyard, and prepare to hoist.
3. As the crew hoists, keep the boat flat to help the spinnaker stay out of the water. Head dead downwind during the hoist and keep your main trimmed a bit to allow the kite to go all the way up easily. Your crew will thank you! Tip: Make a mark on the halyard when the spinnaker is fully hoisted so you can easily tell when it's set. Ensuring the spinnaker is fully hoisted will also guarantee the tack line is all the way out. If the tack isn't made on an M15, it is because the halyard is not all the way up.
4. Once the halyard is up, your crew should communicate that you have a full hoist. The helmsperson should head up right away so that the kite blows away from the rig and fills. The crew grabs the spin sheets and trims.



ASYMMETRICAL TAKEDOWNS

WINDWARD TAKEDOWN

1. Turn dead downwind.
2. The crew goes inboard and pulls the slack out of the douser line with their left hand and then releases the spinnaker halyard with their right hand. Once the spin halyard is free, pull the douser line as fast as you can.
3. After the halyard has been released, the helmsperson helps the crew by steering up slightly so that the sail blows onto the deck of the boat. If you are dead downwind or sailing by the lee, the kite will blow out away from the boat and go into the water.
4. The crew bags the kite and starts to trim the jib for the rounding.

MEXICAN TAKEDOWN

This takedown is effective when approaching the leeward mark on starboard tack and you need to jibe to go around the mark. As you reach the three-boat length circle at the leeward mark, prepare to go into action.

1. Enter the three-boat length circle on starboard tack and call for a Mexican takedown.
2. The helmsperson begins turning for the jibe. The crew goes inboard and pulls the slack out of the douser line.
3. As the boom comes across, the helmsperson yells for the halyard release. The crew releases the halyard and starts to pull the douser line.

4. The helmsperson heads up so that the sail is blown into the rig on the port side. Head up so the sail falls onto the deck and stays dry.
5. Once the crew has finished the douse, they move to windward and trim for the mark rounding.

The key to the Mexican takedown is to be at about to true wind as you complete your jibe and sail on port tack to the mark. When you jibe, you need room to head up on port slightly so that the spinnaker stays on deck. If you come out of the jibe dead downwind, the spinnaker will collapse into the water. Again, the helmsperson needs to make the takedown easy and effective.

LEEWARD TAKEDOWN

The Mexican and windward takedowns are the easiest options. The third option, the leeward takedown, is more difficult.

1. The helmsman steers down for an easy takedown.
2. The crew goes inboard and pulls the slack out of the douser line with their left hand, then releases the spinnaker halyard with their right hand. Once you have released the spin halyard, pull the douser line as fast as you can.



UPWIND CONSIDERATIONS

HEEL ANGLE

The angle of heel is important on the Melges 15. Upwind, go for flat to slight leeward heel. As pressure hits, hike hard and ease the main and jib together to keep the boat flat. When you sail into a lull, trim back in and adjust controls accordingly. Ease, hike, trim!

VANG

The vang is the #1 control for depowering your Melges 15. Add vang tension as the wind increases. This will flatten your sail and allow you to dump power by easing your mainsheet.

CUNNINGHAM

The cunningham should be loose in light air. As the wind builds, pull on the cunningham to flatten out the front of the sail and counteract some of the hook in the leech caused by the vang.

OUTHHAUL

In light air, you should have 3"-5" of room between the boom and sail. When the wind starts to build, pull the outhaul tight to depower the bottom of the sail.

JIB LEADS

Jib setup depends on a combination of sea state and wind speed. At your base setting, we recommend the fifth hole from the back of the car. As the wind increases, you will want to move your car back. In lighter air with chop, it may be good to move your jib car forward a few holes. Setting your car further forward will give you a deeper jib with more power, but less ability to point.

JIB TRIM

Looking at the telltale on the leech of your jib will allow you to maximize jib trim. When sailing a VMG (normal) angle upwind, make sure that your jib telltale is flowing back almost constantly.



SAIL CARE

MAINSAIL

Every time the sail is creased or wrinkled, the cloth breaks down that much faster, so take care when hoisting and lowering. The battens can be left in the sail for storage without any issues. Be sure to roll the sail down the leech to avoid twisting the battens.

JIB

When rolling the jib, keep the battens perpendicular to the leech. Pay special attention to the battens and batten pockets for wear and tear.

SPINNAKER

Be sure to repair all tears and pulled stitches. Flaking is best for storage.



CONTACT US

This tuning guide is a start to learning all there is to know about sailing your Melges 15. The team at Quantum Sails is available and happy to answer all of your questions and help with your sail needs.

Contact your local loft and Quantum will connect you with one of our Melges 15 experts!

Visit our store to view Quantum's complete line of accessories for your Melges 15, including:

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