STAYSAIL TRIM GUIDE

The fundamental principals of staysail trim are outlined in this guide. For more detailed information, contact a Quantum Sails Consultant.

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As part of the overall sail power of your boat, the staysail is most useful in the middle range of reaching angles, from a close reach to the point where the wind is slightly aft of the beam, approximately 50-130 degrees apparent wind angle. When the boat sails at broader angles, the mainsail eases out blanketing the staysail thus limiting its effectiveness. Eventually, the staysail is hidden behind the mainsail.

At closer angles when sailing to windward, the staysail can augment horsepower, but one needs to be careful. As the headsail, staysail, and mainsail are trimmed in, the gap between them narrows, and they begin to affect each other. In lighter conditions under 10-12 knots apparent, the staysail may well inhibit, not help, performance upwind. In the middle ranges, the staysail may help, depending on factors such as sail shape and sheeting angle, which vary from boat to boat. Experiment and see what works. In windy conditions, as the mainsail has to be eased, lower the staysail to allow the mainsail to breathe and reduce back-winding, helping keep the boat on its feet.

In short, the optimum conditions for the staysail when adding horsepower is at apparent wind angles of 50-130 with a minimum apparent wind velocity of 10-12 knots.

When it gets windy, the staysail is the perfect sail. Either in combination with a partially furled genoa or working jib and a reefed mainsail, the staysail provides plenty of power. Various combinations of reefs and headsail size allow the boat to be balanced in every condition. Many owners find the staysail or a staysail and a reefed mainsail to be a good combination when motor sailing upwind. It provides drive without creating too much heel and helps steady the boat's motion. Never motor straight upwind with flogging sails!

THE STAYSAIL PLAYS THREE IMPORTANT ROLES

1 | STAYSAILS AUGMENT SAIL POWER.

2 | STAYSAILS HELP BREAK TOTAL SAIL AREA DOWN INTO SMALLER WORKING COMPONENTS FOR EASE OF HANDLING.

3 | THESE SMALLER SAILS ALLOW FOR DIFFERENT COMBINATIONS, GIVING THE SAILOR A VARIETY OF OPTIONS FOR VARYING CONDITIONS.

Trim of the staysail is really no different than any other headsail. When reaching, keep in mind the first rule of sail trim: "When in doubt, let it out." Most sailors tend to over-trim. Make sure the sail is eased to the point of luffing, then trim to just barely remove luff. If your boat is not equipped with a Hoyt™ club boom, the sheet lead should be moved to the outboard rail as the sail is eased out. The lead position should follow the clew, moving slightly forward and outboard. If your boat is equipped with a Hoyt boom, the staysail's tendency to "twist," with leech opening up and causing the top of the sail to luff before the bottom, is controlled by the boom. The clew can't rise up as the sail is eased. The Hoyt boom also makes the staysail more useful at broader wind angles, since sail shape is maintained and the sail is extended straight away from the boat as it is eased. There is less interference with the mainsail as a result.

Sailing upwind, trim in tight but be careful. When looking up at the sails from the aft quarter, the slot between the three sails should be roughly parallel. Genoa should be trimmed in almost to the spreader; the staysail should be trimmed to match this profile. If your boat has a conventional jib track, make sure the lead is not too far forward. If the lead is too far forward, the foot of the sail will be round and full. This will create back winding in the mainsail. Drop the lead aft until the foot of the staysail is flat. With a Hoyt club boom, make sure the outhaul is pulled tight to achieve flat foot sections.

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