

# **GENOA TRIM GUIDE**

On most modern boats, masthead rigs in particular, the genoa provides the most driving power, acting as the motor while the mainsail serves as rudder. You want to set the genoa trim first, then work on the main.

We designed and engineered your new Super genoa to be easy to set and trim, and have outlined fundamental principles of genoa trim in this guide. Written for racers and cruisers alike, we hope it will help you get more out of your boat and your sails, and help you enjoy both more. For more detailed information, contact your Super sail consultant.

# HALYARD (LUFF) TENSION

Hoist the sail initially with minimum (hand tight) halyard tension. Next, sheet in the proper amount for your chosen point of sail. Look for any horizontal wrinkles emanating from the luff, and tension the halyard just enough to remove them. This may be easier by unloading the genoa by easing it back out and/or heading up until it luffs slightly, Halyard tension pulls sail material, hence the camber, forward in the sail, making the entry rounder, the steering "groove" wider and more forgiving. Less luff tension will create a flatter entry, enabling the boat to point higher, though it will be more difficult to keep in the "groove, " (i.e.: keep telltales flying), because the entry will be less round and powerful.

Overtensioning the halyard, particularly on laminated Kevlar sails, will make the entry too round, inhibit flow, and permanently distort the sail. To aid in setting the initial tension, and to facilitate repeating that tension in the future, mark all halyards or use numbering strips as a visual reference.

### **LEAD POSITION**

Most Super genoas are equipped with a "trim line" at the clew, to be used as an aid and starting point for lead position. Simply lining up the genoa sheet with the trim line will get you very close to the ideal lead position. The magic of the trim line is that it will remain accurate as the sheet is eased, or as turns are taken on the roller furling. Fore and aft lead position controls leech twist and foot depth. Moving the lead forward increases leech tension, thereby reducing twist, and adding depth to the foot. With

twist properly set, the sail will luff almost simultaneously at every height along the luff, when you head up slowly past close hauled, which you should do to fine-tune the lead. The telltales should break pretty evenly form top to bottom, with the top breaking a little early. Move lead forward if top breaks too soon, aft if the bottom luffs first.

It is better to have the lead too far aft, rather than forward. To depower the sail at the upper end of its wind range, (any time the traveler is dropped, or there is too much backwind in the mainsail), move the lead aft 4-8 inches from its normal setting. To power up, move lead forward from median position 2-5 inches, in conjunction with easing the sheet.

If you have the ability to adjust the lateral movement of the sheet lead, sheeting inboard can assist in pointing. Sheet as far inboard as possible in ideal conditions: smooth water, medium air, experienced helmsperson, and when pointing is the objective. Sheet further outboard if the wind is very strong or very light, when using a genoa at the top of its range, with an inexperienced helmsperson, or you need to foot and not point.

When reaching the sheet lead should ideally move forward and outboard, following the clew. A barberhauler, set up with a short sheet and snatch block on the toe rail, will do the job nicely with minimal hardware addition.

## Backstay Tension (Headstay Sag)

Tension on the backstay (masthead rigs) or runners (fractional rig), tightens the headstay. Headstay sag controls overall depth in the genoa, and in particular, makes the entry rounder and more powerful. Sagging the headstay is analogous to stepping on the gas pedal. Use sag for power-hungry conditions like light air, choppy water, off the starting line, out of tacks, or when you need to foot. Use a tight headstay whenever you are going fast, and are looking to point. Reducing headstay sag creates a fine, high pointing entry. For a rounder, more forgiving entry, sag the headstay.

When performance is your goal, set up a system for marking the "throw" or range of your backstay. Ink marks on the control line or a numbered batten taped to the hydraulic cylinder works well on boats so equipped. For split backstays, use the squeezer position relative to the stern pulpit. Keeping in mind the basic concept of increasing sag for power and acceleration, use the following table as a guideline for upwind trim:

Apparent Wind	0-5	5-12	12-16	16+
Backstay Tension	10-	20-	60-	90-
	20%	60%	90%	100%

(as a % of maximum)

#### SHEET TENSION

Sheet tension affects every characteristic of the sail proportionately. Trimming the sheet reduces twit, reduces depth, and narrows the sheeting angle. These changes combine to produce better pointing. Easing the sheet has the opposite effects – more speed, but less pointing ability. More than any other control, you will need to change

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sheet tension substantially as the wind velocity and sea state change, to achieve optimum performance.

The primary responsibility of the genoa trimmer is to keep the sail's leech the same median distance off the spreader, trimming in the puffs, easing in the lulls. Secondarily, he or she should work with the helmsman, easing for waves, lulls, or whenever the boat is slow; trimming harder when the boat is up to speed and pointing is desirable. To achieve top performance, the trimmer and helmsperson must communicate continuously.

Use the distance of the genoa leech off the spreader as a guide upwind. Without knowing the specific characteristics of you boat, it is impossible to prescribe an exact distance off the spreaders. The following table will serve as a guide for your largest genoas.

I	0-5 app.	6-12 app.	13-17 app.	17+
	8-12"	4-8"	2-4"	4-12"

#### JIB REACHING

Make sure the sheet is eased as far as possible (until the telltales flow). You should ease in every puff. Do not overtrim. Move the lead outboard to the rail and forward, so that the tell tales luff as evenly as possible.

#### **SAILING REEFED**

In windy conditions roller-reefing your sail can improve your control and performance. A few turns of the furler can help the boat stand more upright, balance the helm, and help it track through the water better. As the sail moves forward, move the lead forward as well for optimum trim angle.

### **GENOA CARE**

- Spreaders are a genoa's worst enemy. NEVER BACK A GENOA AGAINST THE SPREADER! 90% of all structural and shape repairs are related to spreader abuse. Tape and pad spreader ends and any cotter pins carefully.
- Do not overtension the halyard. A tight luff creates a gutter, or trough along the leading edge of the sail. This is slow and will permanently distort the sail's shape. Remember to ease halyard when apparent wind velocity drops.
- In furling genoas, when returning to the dock after having rolled the sail, release the halyard tension briefly to relax the luff of the sail. This eliminates the long-term stress on the sail while not under load and extends its life.
- Flake your genoa before turtling or bagging, do not simply stuff it. Store it dry whenever possible, and do not store wet for extended periods.
- Rinse with fresh water periodically, or roll it out on windless rainy days, to remove salt and heavy dirt. Do not leave it in the sun unnecessarily.