

## Checking New Sails for Fit

**A**t first it may seem way too obvious to mention that a sail needs to fit, but there's more in play than just the lengths of the major legs of the triangle. As far as the latter is concerned, it's much better to be a little shy of the maximum marks, rather than finding that the luff or foot is a couple of inches too long.

Even high-modulus sail cloth stretches a bit during its life span. Although racing-sail makers are always interested in not giving up any allowable sail size, a cruiser is usually better off with sails a couple of inches shy of max length on the hoist and outhaul. The same thing goes for roach size. It's a tricky part of sail that can be overdone resulting in a frustrating *pas de deux* with the backstay.

Fit also refers to the offsets or setbacks built into a sail to compensate for the gooseneck tack hardware and the clew attached approach. Placing these rings in inappropriate locations can place excess load on luff slides and even instigate an odd crease radiating from the tack. In order for a mainsail to set the way the designer planned, each of the three corner points needs to be where the software algorithm assumed they would be. A good sailmaker is like the proverbial carpenter who measures twice and cuts once.



*John Jenkins, the head of the Naval Academy's Sail Loft, checks how slides stack and the tack and clew fit the hardware—key areas where problems can arise.*

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Another important feature to check on every new mainsail is how each reef sets, and whether or not it aligns with the reefing hardware. Older boats tended to have much lower mainsail foot heights, especially in comparison with modern higher freeboard sailboats. Therefore, it's important to make sure that reefing the main also elevates the outboard end of the boom so that in heavy weather, the boom will not drag in the water while reaching in a rolling sea.