

## JIB TOPPING LIFT

In light winds the self-tacking jib pulls the leach straight, closing the slot with the mainsail. That is slow. The causes are:

- The jib boom tack attaches to the boom aft of where the headstay attaches. This pulls down the aft end of the boom.
- The weight of the boom also pulls down on the leach.

A jib boom topping lift to hold up the aft end of the boom takes tension off the leach.

### But nothing is ever simple!

Steve Lang, Evergreen, CO, wrote because all three local boats that tried jib topping lifts had to remove them. They had the standard problem. In fresh winds the lift gets caught behind the end of a spreader. The jib can't be tacked. That takes a boat out of the race.

Buttons Padin and I responded to Steve's query.

### ONE METHOD

Use two pieces of thread as "preventers" to limit the amount the topping lift can move aft. The threads are attached to the jib leach *at the same height* as the upper and lower spreaders. Tie and CA the ends to the topping lift. Set the length so the lift can not get behind the spreader ends.

This is minimum weight and low windage. Also, the thin, light thread will not distort the leach of the jib.

### POTENTIAL PROBLEM AREAS

**1. Mast Twist** - One requisite is that the mast must not twist. If the mast twists, the spreader ends move closer to the jib leach. If you have made the thread preventers as long as possible with the mast square, the lift will catch on the spreader.

A screw through the mast step into the mast prevents the mast from twisting. Or fashion a key on the mast and a keyway in the mast step.

**2. Removable Lift?** - Fouling the preventers on the spreaders is more likely when the winds are strong when a lift may not be required. It is a good idea to design the lift so it is easily removed and reinstalled.

As describe above, it is difficult to remove and replace because the preventers are CA'd to the lift. Consider using loops of the thread from the leach around the lift. The lift can be slipped out of the loops.

Another way would be to devise a mini-connector to attach the two preventers to the jib leach. The lift and keepers could then be removed as a unit.

### 3. Preventer Attachment

Using a dot of white vinyl electrical tape to attach the preventers to the leach is simple but usually comes off in a strong wind. A better way might be to install reinforced holes in the jib leach such as in the luff of the main.

Buttons used a piece of tubing left over from jib luff construction and a small strip of "ripstop" tape to keep the lift within 1/2" of the leach.. It was located at the level of the top spreader. He didn't consider fouling the lower spreader a problem.

**4. Lift Attachment** - Some owners attach the upper end of the lift to the hole in the head of the jib. Others connect to the jumper strut mount at the mast. The latter may interfere with freedom of the jib boom to go out on a reach and go wing-and-wing on a run.

**5. Bowsie Location** - Buttons likes it near the boom. Some put it near the top. A bowsie at the bottom might be more likely to loosen as the jib is flogs in strong winds. But there is no data.

### 6. Reliability

The important ingredient is reliability. Most owners have problems with the lift. Witness three-out-of-three at Evergreen. So think out the details carefully. Even then there may be a period of design development before it works perfectly.