
JIBING THE MAIN

The best technique to use when jibing varies with wind and sea state as well as the structural capabilities and layout of your rig.

The more robust your boom and gooseneck hardware, the more force you can tolerate when the boom comes across.

The force on the boom is a function of the mass (weight) of the boom and sail, and how fast this is moving as it swings across the deck.

In lighter airs most boats will tolerate an uncontrolled boom during the jibe. In other words, you put the helm down and when the main is by the lee sufficiently, across it comes. Since the breeze is light, the forces are not that great as the boom fetches up on the new side.

But at some point the shock loading of an uncontrolled jib begins to pose structural risks to the boom and gooseneck (and perhaps the mainsail itself).

Reducing Jibing Loads

There are several things you can do to reduce jibing loads. The first is to jibe at the point when the boat is accelerating down a wave. This reduces apparent wind, and since the force on the rig is a function of the square of the apparent wind velocity, small changes in apparent wind strength make for big changes in loading.

When using this approach take care that you don't complete the jibe just as you are slowing down at the bottom of the wave. At this point apparent wind builds quickly and will be at maximum force before you know it.

If your vessel doesn't readily surf, wait for a lull to jibe.

There are a couple of tricks to the jibing process. We like to start by heading up just a hair from a dead run. This makes it less likely that the boom will jibe across prematurely (the main will become unstable as you crank it close to the centerline—heading up 10- or 15-degrees makes sure it will stay to leeward).

The boom is then cranked in as fast as possible. The tricky part of this is the period when the boom is in the reaching to beating position as it may start to oscillate back and forth.

Once you've got the boom close to the centerline you can then put the helm down and jibe across.

Unless the boom is really strapped in it is going to go across with a bang. The more slack, the more shock load there will be.

What we like to do is to allow the sheet to slip on the winch as the boom comes across. The sheet is fed through the winch at a very fast clip so that there is no hard spot for the boom to fetch up against.

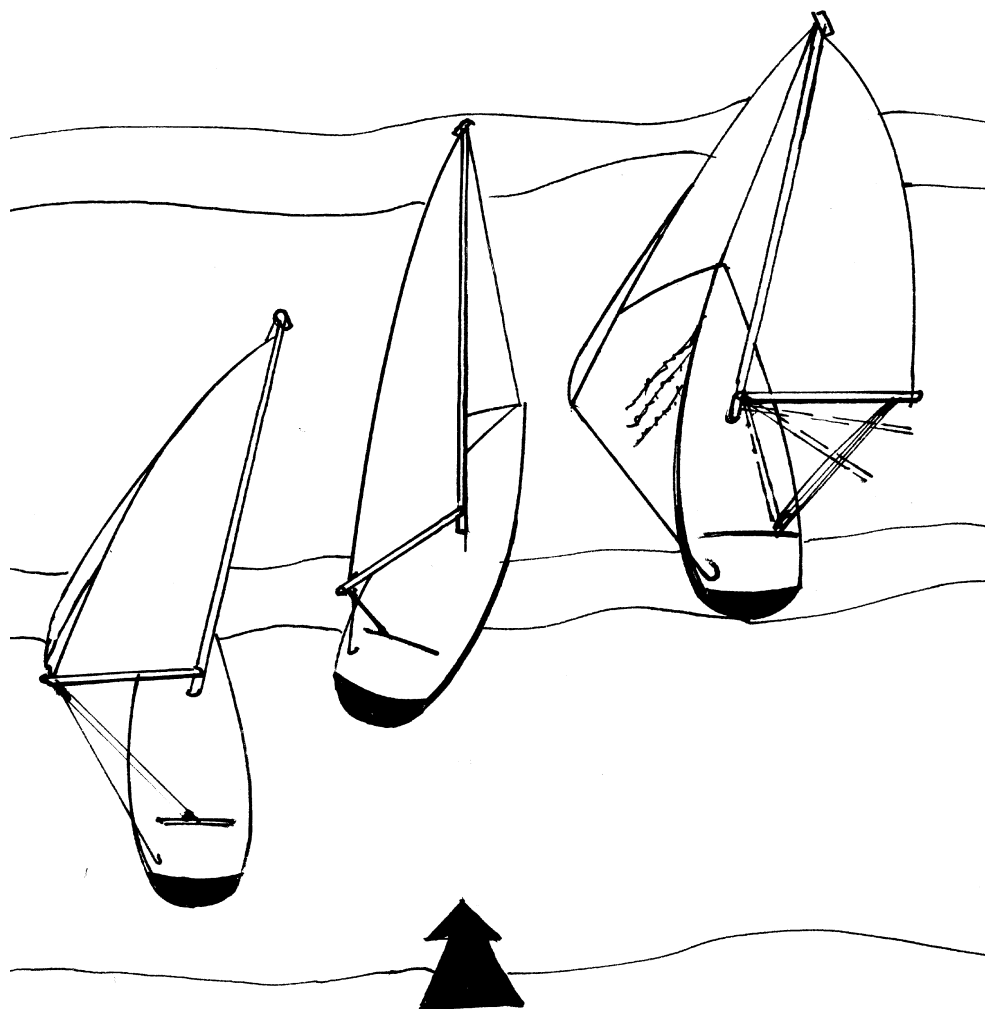
There is a technique in doing this which involves the correct amount of wraps on the winch and then a certain level of hand pressure. The right combination will vary with the wind, your boat, the type of sheet, and how rough a surface there is on the winch drum.

Jibing check list:

- Running backstays cleared out of the way.
- Get headsail off pole and sheeted to leeward.
- Ease boom preventer.
- Oversheet headsail to prevent headstay wraps.
- Head up from course 10- to 15-degrees to reduce chance of accidental jibe.
- Bring main to center.
- Keep main vang tight to prevent top of sail from wrapping around upper spreaders.
- Head down across wind to new jibe.
- Ease mainsail rapidly, using hand as brake on winch.
- Get the sail all the way out to reduce chance of jibing.
- Head up from course to stabilize boat until main is all the way out and preventer is set.
- Reset headsail to windward.

If it is blowing really hard, or the sea state is making you nervous the headsail can be rolled (or the spinnaker snuffed) before jibing. Or, you can "chicken jibe" which means tacking the boat rather than jibing.

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From left to right, start by bringing the headsail off the pole and bringing in the sheet a bit. Next, center the main boom, or at least bring it in to where the boom is over the outer edge of the traveler. Come up 10- to 15-degrees on course (into the wind) to stabilize the boat and reduce the chance of an accidental jibe. Then head back down and across the wind to the new course. Quickly ease out the sheet on the new course and set the preventer. Remember to head up from the downwind course until the main is well out and prevented. The last step is to bring the jib through.

For example, on *Sundeer*, in 25-knots of true wind, we would normally have three wraps of the main sheet on the drum, and then use very light hand pressure to control the rate at which the sheet eased.

The best way to find what is right for you is to practice in light to moderate conditions first, and then work up your jibes in some real breeze after you get a feel for the system.