

## INTRODUCTION

The rules covering the size of sails are included in Article XVII of the specifications and should be read carefully by the sail measuring committee. The purpose of this article is to clarify misunderstandings as to the correct method of measuring sails and to provide a procedure which can be uniformly followed by all Measurement Committees. This procedure is approved by the ILCA Measurement Committee. If questions arise, refer to the Specifications and/or Measurement Committee Rulings.

The Plans and Specifications of the Lightning Class are its most valuable assets and strict adherence to them are its life blood.

## GENERAL INSTRUCTIONS

Mainsail and spinnaker must carry the number of the yacht. All sails must carry the I.L.C.A. Royalty Label. As set forth in Rules Article VI par. 2 only five sails shall be approved for use, consisting of one main, two jibs, and two spinnakers. A maximum of two mains, three jibs, and three spinnakers may be measured, but the first main, first and second jibs, and first and second spinnakers that measure in shall be the ones used and no others measured\* thereafter. All sails being measured shall be dry\*\* and at room temperature. Sails which do not measure may be returned to the owner for correction, if such correction can be made within a reasonable time before the sail measurement committee terminates its measurement of contestants' sails. When said sails

are remeasured (See Specifications Article XVII Paragraph 6 for spinnaker measurement) the committee may or may not, at its option, recheck all measurement points.

If at all possible, sail measuring should be done on a wooden floor. It will be found that ice picks, small awls, or nails driven into the floor will be a big help in holding the sails in the proper position, under pressure, while being measured.

A steel tape is the only satisfactory gauge for laying out measurements. Where floor space is limited and it is necessary to superimpose mainsail, jib and spinnaker measurements on each other, it will be found desirable to use marks of different colors for each sail.

Note: All measurements except as otherwise specified are taken at the point of intersection of the extended lines of the extreme edges of the sail, including bolt ropes or tapes but not including hoisting pendants, external cringles, etc. All sail measurements are taken in a straight line, not around any curves.

All sails shall be dry and cool when measured. With particular emphasis to spinnakers, no sails shall be measured while they are still hot.\*\*

Observations should be made to make certain that all sails carry the proper insignia and in the case of the World Championships, letters signifying the nationality of the contestant. All spinnakers used in sanctioned regattas shall have numbers in accordance with the specifications.

The dimensions shown on the accompanying sketches are for maximums and minimums of sail dimensions. There can be no tolerance on maximums of either of these dimensions. They are the limits. Any sail that is beyond the limit is subject to rejection or correction. There is no such thing as being a little bit over the maximum.

The tack and clew of the jib were redefined March, 1973. Be sure to use these new definitions.

It is recommended that jigs be made which subtend the appropriate angles, 30.7°, 90°, and 130°, with sides about 16" long so that one can easily define the head, tack and clew of the jib precisely. The jigs are constructed out of 1/4" plywood for the bottom piece (broadly spaced shading) and 3/8" to 1/2" thick strips for the side pieces (narrow shading). The sail is pulled over the bottom piece and against the side pieces. This allows tension to be put on the sail corner while the measurement is being made.

Considerable care should be taken in constructing the perpendiculars used in the mainsail measurement. A 1° change in the perpendicular angle will make a 3/8" difference in the upper roach measurement, and a 7/8" difference at the lower roach measurement. For this reason the perpendiculars should be constructed using the arc method shown in the figure below.

All sails must carry the official Lightning Class royalty labels.

\*\* (Specs. Art. XVII Par. 6 "... If a spinnaker does not measure in initially it may be dried or otherwise suitably altered and remeasured once. If, upon remeasurement, the spinnaker is still found to be out of specification, the required alteration shall be indicated by the regatta measurement committee and upon proof of such actual reworking shall be accepted for that regatta without further remeasurement.")

\*If a mainsail or spinnaker is damaged beyond repair during the championship, the sail may be replaced with a measured sail (if the skipper does not have a measured sail to replace it with the Measurement Committee is requested to measure a replacement for him) upon approval from either a member of the Measurement Committee or the Race Committee Chairman.

## JIGS FOR LOCATING THE HEAD, TACK AND CLEW OF THE JIB

