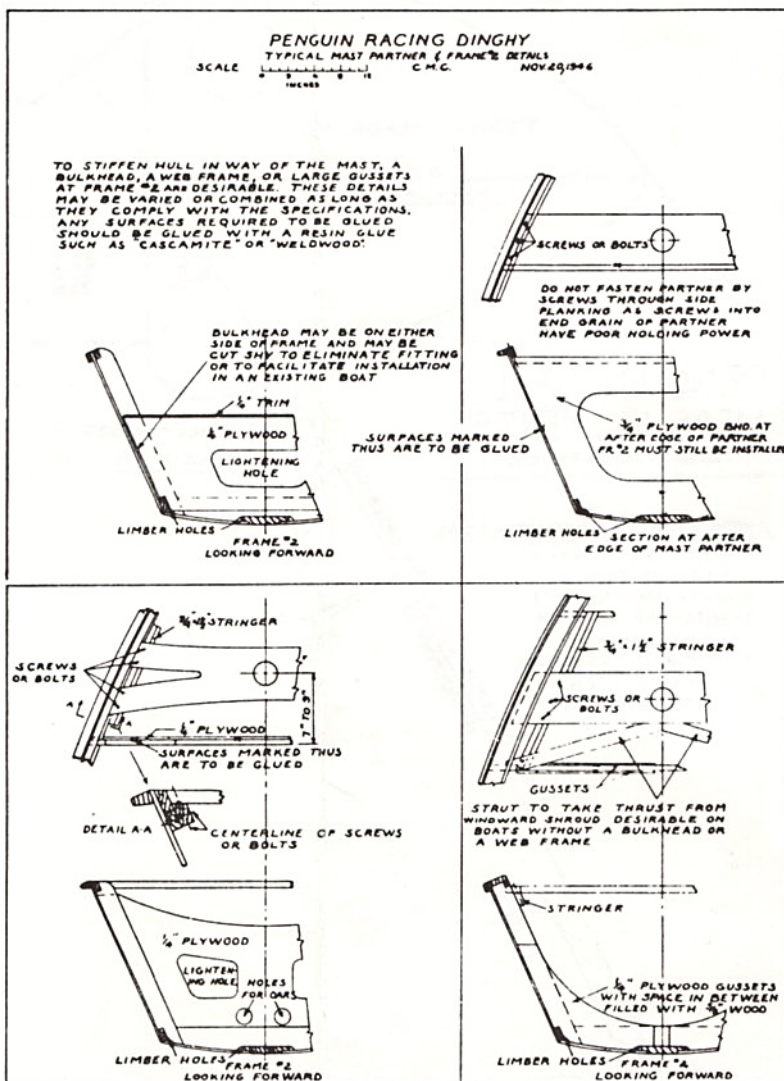


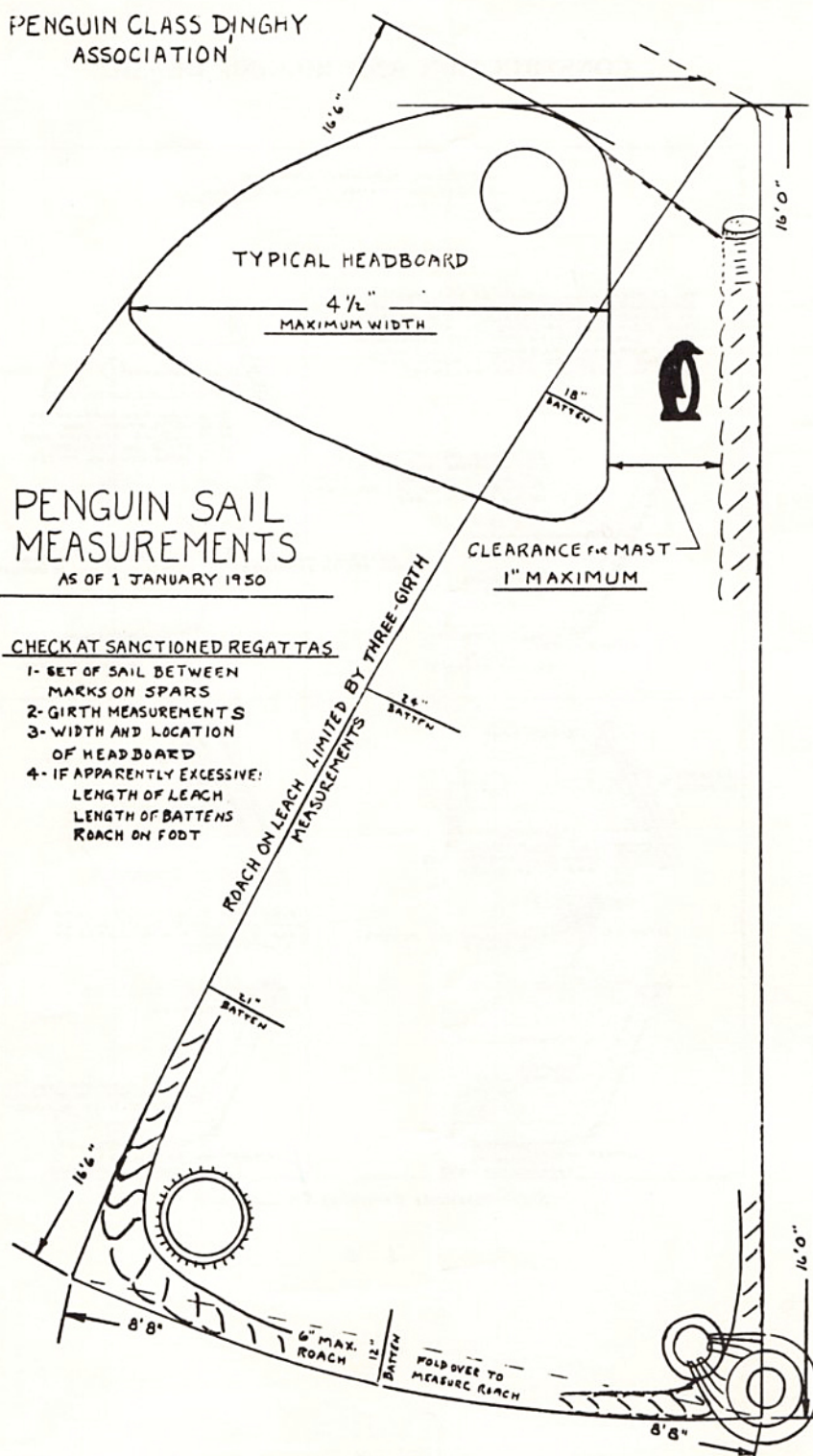
# CONSTRUCTION AND RIGGING DETAILS



Note: Substitute Cascophen for Cascamite



PENGUIN CLASS DINGHY  
ASSOCIATION



PENGUIN SAIL  
MEASUREMENTS

AS OF 1 JANUARY 1950

CHECK AT SANCTIONED REGATTAS

- 1- SET OF SAIL BETWEEN MARKS ON SPARS
- 2- GIRTH MEASUREMENTS
- 3- WIDTH AND LOCATION OF HEADBOARD
- 4- IF APPARENTLY EXCESSIVE:  
LENGTH OF LEACH  
LENGTH OF BATTENS  
ROACH ON FOOT



23.4 *Dimensions*—The maximum dimensions of the sails are: Luff 16'0", foot 8'8", leach 16'6", roach on foot 6", upper quarter girth (A1-A2) 38", midgirth (B1-B2) 66", and lower quarter girth (C1-C2) 88". Girth measurements are to include the boltrope or other device used to run in the mast tunnel.

23.5 *Measuring the Sail*—

23.5.1 *Midgirth*—Fold head to clew and mark the leach midpoint; fold head to tack and mark the luff midpoint; measure midgirth between these two midpoints, boltrope included.

23.5.2 *Upper Quarter Girth*—Fold head to leach midpoint, and mark the upper quarter point of the leach; fold head to luff midpoint and mark the upper quarter point of the luff; measure the upper quarter girth between these two upper quarter points, boltrope included.

23.5.3 *Lower Quarter Girth*—Fold clew to leach midpoint and mark the lower quarter point on the leach; fold tack to luff midpoint and mark the lower quarter point on the luff; measure the lower quarter girth between these two lower quarter points, boltrope included.

23.5.4 *Rounded Clews*—Where a sailmaker has rounded the clew so as to make it difficult to establish leach midpoint and lower quarter point by normal means the owner of the sail may be directed by the measurer to provide a template, attached to the sail for the measurer's convenience, which continues the curve of the leach and that of the foot to their point of intersection on the template.

23.5.5 *Conditions of Measurement*—The foot measurement and leach measurement shall be measured hand taut, which in cases of doubt means  $2\frac{1}{2}$  lbs of tension. Puckering strings, if any, shall be fully eased during measurement. Girth measurements are to be made with the sail laid out flat and the sail, between the two reference points, shall be smoothed out against the floor to eliminate the wrinkles." Sails shall not be preheated or cooled before measurement.

23.6 *Battens*—The sail shall be provided with 3 battens spaced evenly along the leach, and one batten in the foot. Maximum length of the battens shall be as follows: upper 18", center 24", lower 21", and foot 12". Maximum width of battens shall be  $1\frac{1}{2}$ ". No part of the outboard end of any leach batten shall lie more than  $2\frac{3}{4}$ " above its reference point on the leach; or  $2\frac{3}{4}$ " below; these reference points are the leach upper quarter point, leach midpoint, and leach lower quarter point described in 23.5 above. The foot batten shall be within 6" of the midpoint of the foot.

23.7 *Stiffening Material*—

23.7.1 The Class holds that stiffening material should contribute to the life of the sail, contribute to the set of the sail or reduce the gradual development of stress wrinkles at tack and clew or at batten tips. Stiffening material may be so used, and should not be employed in such a way that unmeasured or unmeasurable sail area is added to the sail.

23.7.2 An abrupt change or artificial "jump" in the line of the leach near clew or headboard or in the line of the foot near tack or clew will be considered illegal.

23.7.3 Cringles, rings or grommets in tack or clew shall not exceed  $1\frac{3}{4}$ " outside diameter.

23.8.1 *Headboard*—The sail may be fitted with a triangular headboard not over  $4\frac{1}{2}$ " wide measured perpendicular to the luff and not over  $5\frac{1}{2}$ " in height measured parallel to the luff. Any or all of its corners may be rounded. The measurement from the after edge of the luff rope to the aftermost point of the headboard shall not exceed  $5\frac{1}{2}$ ".

23.8.2 The headboard shall not be gaff-headed, i.e., its upper edge shall not be at an angle higher than at right angles to the luff. The upper edge is defined as that edge of the headboard which lies aft of the point of attachment of the halyard.

23.9 *Boltrope or Tape*—The luff may be taped, roped, or held in its tunnel by rod-like slides. The luff of the sail shall, however, be attached to the boltrope (or tape) or encase it for its entire length. Devices substituting for boltrope are to be measured when a measurement is to include the boltrope.

23.10 *Foot Tension*—Adjustment for foot tension shall be made from the clew only.

23.11 *Windows*—Mylar or other plastic windows are permitted provided that the area of such windows shall not exceed 216 square inches (1.5 sq. ft.). The windows shall not be closer than 4 inches to any edge of the sail.

23.12 *Venturi Tubes, Etc.*—Venturi tubes, vents or other openings in the sail are not permitted.

23.13 *Sail Material*—Sails shall be of white material with black insignia and black numbers; these shall be as indicated on the sail plan. Sail material shall be limited to cotton, nylon, orlon (acrylic fiber), dacron (polyester fiber) with the latter two recommended.

23.14 *Date of Purchase*—The sailmakers are required to mark indelibly the date of purchase on each sail, preferably at the tack. Any sail not dated shall be in violation of this article and subject to protest.

23.15 *Sailmaker's Patch*—(There is an I.Y.R.U. rule under consideration which will limit the placing of the patch to the general vicinity of the tack of the sail. The Penguin Class intends to adopt that wording when published.)

24. *The Official Plans* shall form a part of these specifications. Alterations of these plans may be made by the Executive Committee, as provided in Article XIII of these By-Laws.

25. All boats, the framing of which was begun on or after 1 January 1956, must comply with all specifications as published herein. Boats, the framing of which was begun before 1 January 1956 may comply with these specifications or the specifications of record on 1 January 1956, provided they also comply by 1 January 1960 with the limits as set forth in sections 2, 9, 11, 12, and 22, as published herein.