

#### **4. SAILS – Updated October 2018**

X.4.A. Rules pertaining to the use of sails while racing is given under Racing Rules (Art. XV).

X.4.B. Sails may be of woven Dacron type materials (X.2.G defines Dacron).

X.4.C. The official class insignia as it appears on the plans (14.25” inches in diameter) shall appear on both sides of the mainsail. Insignia should be back-to-back and located just above the top batten pocket, in the center of the sail.

X.4.D. The registration number issued by the WCA shall appear on both sides of the mainsail, using the guidelines in the Racing Rules of Sailing, Appendix G1.2 and G1.3. This prescribes numbers that are minimally 300mm (11.81” inches) high and minimally 60mm (2.36” inches) between characters and from the edge of the sail.

X.4.E. Letters to designate the nation under which the boat is registered may be worn.

X.4.F. (deleted)

X.4.G. After measuring, stamping and certification of each suit of sails, the owner is obligated to inform his fleet measurer or Chief Measurer of any changes or alterations which would materially affect the dimensions and specifications of his sails.

X.4.H. Sails are subject to re-measurement and to cancellation or approval at any time.

X.4.I. All owners and sail makers are hereby put on notice that any attempt to circumvent or take unfair advantage of the simple restrictions outlined herein shall leave them open to disqualification of any such sails. This provision is solely for the protection of the WCA and it shall be exercised stringently.

X.4.J. Spinnakers are not permitted.

X.4.K. Adjustment of the clew outhaul, tack downhaul and Cunningham of the mainsail is permitted at any time provided the maximum length of the luff (16’ 0”) and foot (9’ 5”) are not exceeded. Adjustment of the halyards is permitted at any time. All other means of artificially changing the shape or length of the foot, leech or luff of either the jib or mainsail while racing is prohibited.

X.4.L. No extra battens or other means of artificially stiffening the leech or roach of either sail shall be used.

X.4.M. The use of transparent windows of reasonable size, in the main and/or jib is permissible. Based on today's practices, a reasonable size for sail windows is something less than 4’ square feet.

X.4.M.1. The mainsail shall be equipped with head, tack and clew grommets. The distance from the center of the grommets to the edge of the sail cloth, not including the bolt rope, shall not exceed one inch. In the case of the head grommet the fore and aft location is not controlled. .

#### **X.4.N. Mainsail-Updated October 2018**

Definitions and measurement techniques per ERS20172020 are used on the mainsail. (Or latest version of the World Sailing Equipment Rules of Sailing).

X.4.N.1. There are four measurements to be made on each mainsail. They are:

- a. Top Width measurement of the width of the sail at the head.
- b. Measurement of the length of the leech
- c. Measurements of the girth taken at the mid-girth.
- d. Measurements of the girth taken at the  $\frac{3}{4}$  height girth.

X.4.N.2 The maximum Top Width is 7" inches, from the Head Point to the Aft Head Point. The headboard must fit within this head width.

X.4.N.3. The maximum leech length is 17' 10.5" inches, measured from the Luff Head Point to the Clew Point. These are the apexes of the corners, including bolt ropes. See diagrams. This dimension is to be taken with the battens in their respective pockets.

X.4.N.4. The maximum mid-girth shall not exceed 71.5" inches and the maximum  $\frac{3}{4}$  girth shall not exceed 43" inches. These girths are measured as a radius from the leech point to the closest point on the luff. The leech Mid-girth point is found by folding the head down to the clew and aligning the apexes of each corner, including bolt rope and clew slugs. Hold securely and tension the sail to the mid-point and mark with an indelible marker. The center of the batten pocket must be within 1" inch of that point. Unfold the sail and then fold the head apex down to the center leech point tension and mark the  $\frac{3}{4}$  girth point. The center of the top batten pocket must be within 1" inch of this mark. Measure each girth to the closest point on the luff, including the boltrope.

X.4.N.5. The luff of the mainsail shall under no circumstances be stretched beyond 16' feet while racing. The 16' foot dimension is the distance between the center of the grommet in the head of the sail and the center of the grommet in the tack of the sail. So that this distance will be maintained for all to see, permanent bands 1" inch wide in a contrasting color shall be placed around the mast. The centerlines of the bands shall be located as follows:

X.4.N.5.a. 46-1/2" inches maximum up from the theoretical top of keel, the centerline of the prime reference band is placed. Six inches below this, the centerline of a second band may be placed.

X.4.N.5.b. Sixteen feet (16'- 0") maximum above the centerline of the prime reference band the centerline of the upper prime reference band is placed. Six inches below this

band, the centerline of a fourth band may be placed. The secondary set of bands six inches lower than the prime bands is optional. The center of the grommet in the tack of the sail will be adjacent to or above the band which is located 16' feet below that band which is adjacent to or immediately above the center of the grommet in the head of the sail. This implies that the center of the grommet in the tack of the sail will not be positioned below the prime reference band unless the center of the grommet in the head of the sail is lowered a full 6" inches to the secondary band, at which time the tack of the sail may be lowered to the lowest secondary band.

X.4.N.6. The foot of the mainsail shall not be stretched beyond 9'- 5" inches. To permit checking, a permanent band one inch wide shall be placed around the boom in a contrasting color with the centerline of the band being 9'- 5" from the aft face of the luff groove or sail track with the boom perpendicular to the mast. The centerline of the grommet in the clew of the mainsail shall not be set aft of the centerline of the boom reference band.

X.4.N.7. [The forward 26" inches of the foot rope may be loose-footed to allow the use of a GNAV. The use of sleeve around the GNAV is prohibited.](#)

X.4.N.8. The mainsail tack must be positioned as close as possible to the mast and boom so that each boltrope continues in a nearly straight line as it leaves the sail slot. Only one mainsail tack grommet is allowed.

X.4.N.9. Battens for the mainsail shall be three in number and have the following maximum lengths. These battens are intended to approximately divide the leech into equal parts [and are also controlled in X.4.N.4.](#)

Upper - 18" inches [The top batten can also be full length provided that the leech position is within 1" of the ¾ girth point location and the inside of the stitching on the bottom side of the batten pocket at the luff must be less than 50" inches from the top of the head board.](#)

Middle - 27" inches

Bottom - 24" inches

Maximum width of battens shall be 1- ½" inches.

X.4.N.10. If a Cunningham cringle is installed in the mainsail, it shall be no more than 10" inches from the center of the tack grommet and no more than 3" inches from the luff of the mainsail. It may be no more than 1" inch in diameter. In lieu of a grommet the Cunningham device's point of attachment may be sewn directly to the sail. The bolt rope may be removed from the luff of the mainsail between the Cunningham and tack grommets.

Mainsail	Minimum	Maximum	Width Max	Tolerance +/-
Top Width		7" inches		
Leech Length		17' 10.5"		
Mid Girth		71.5" inches		
<sup>3</sup> / <sub>4</sub> Girth		43" inches		
Luff		16' feet center of head and center of tack grommet		
Foot center of tack and clew gromets		9' 5" inches		
Loose Foot		Forward 26" inches		
Cunningham Hole		10" inches		
Windmill Insignia		14.25" inches		
Sail Numbers		12" inches		
Top Batten	18" inches	Or Full	1.5" inches	
Middle Batten		27" inches	1.5" inches	
Bottom Batten		24" inches	1.5" inches	