

## V. CANOE SPECIFICATIONS AND METHOD OF MEASUREMENT

**A. Competition Cruiser (4X32 Spec):** These specifications qualify a boat for competition in all C1 events and all C2 events. *Note 1:* C-2 Competition Cruisers may race in the C2 Standard or C2 Pro Boat events.

1. Maximum length is 18 feet 6 inches (18'6"). Minimum width shall be  $14 \frac{3}{8}\%$  of the length (.14375 times the length) at the 4 inch water line, measured within 12 inches fore and aft of the center of the canoe.

**\*\* Method of Measurement (MOM)** The length shall be measured between the plumb of the bow and the plumb of the stern and shall include bang plates. The length measurement shall not include seats extending beyond the stern end of the canoe.

**Canoe Stem:** The overall length of the boat is taken from a projected perpendicular, imaginary line. This method accommodates unusual stems. The stem or stern may come back toward the bow  $\frac{1}{2}$  the height of the stern. Example: Shock wave layout for old Sawyer Champion.

**\* MOM -** The width shall be measured horizontally on the exterior of the hull. It shall also be measured perpendicularly thwartship on the exterior of the hull. No sponson, keel, bilge keel, fin, end cap or other attachment shall be included in any measurement whether built in or added to the hull.

2. The exterior surface of the transverse cross section below the 7-inch water line shall be convex, not concave, except at transitions to built-in keels.

3. The minimum height at the bow shall be  $15 \frac{1}{2}$  inches. The minimum depth for the rest of the canoe shall be  $11 \frac{1}{2}$  inches.

**\*\* MOM -** The bow height will be measured from the bottom of the canoe and shall not include any projection of any stem or gunwale beyond the hull. The minimum depth shall be measured from the bottom of the canoe.

7

4. The sheer of the gunwale shall have a minimum radius of 30 inches and shall be an integral part of the boat with a continuous curve.

5. Decks and Float Tanks (shoe, cowl, and enclosed dam) may not be more than  $1 \frac{1}{2}$  inches above the gunwale at any point. The maximum length of decks or float tanks shall be 36 inches. (Full decking is not permitted unless specifically stated in the written rules for a given race or as stated below.)

**\*\* MOM -** Deck height shall be measured from any point on the deck thwartship to the gunwale.

Seats will not be restricted in placement above the gunwale line. Deck length shall be measured from the plumb of the stem at its furthestmost fore or stern at its furthestmost aft point along the longitudinal axis of the boat.

a. C1 - In addition to the maximum 36" decking allowance at bow and stern, an additional maximum of 18" combined thwart plus lunch counter depth (measured along the keel) is allowed. A maximum radius of 3" is allowed to tie in any thwart/lunch counter to the gunwales.

b. C2 - Identical to C1, but increase the maximum combined allowable thwart/lunch counter from 18" to 29" to accommodate an additional thwart/lunch counter.

c. Allow full decking on all C2 canoes in all adult cruiser classes (men, women, mixed) starting with the 2003 Nationals and only at Nationals.

6. Outwales: Any additions to outwales must be made on the gunwales and cannot extend more than  $1 \frac{1}{2}$  inches outward and downward from the hull.

**\*\* MOM -** Seats shall not be included in measurements of outwales.

7. Flotation: Canoes must have securely fastened or permanently built in flotation to provide 25 pounds of buoyancy when filled with water. Float or air bags can be used in kayaks only.

**Securely Fastened:** When a canoe is turned upside down or submerged, the flotation stays in place.

**\*\* MOM -** 25 pounds of solid metal weight will be placed in the boat amidships. The boat will be filled with water. The boat must float horizontally in this condition.

8. Water Removal: Any type of person-powered (or passive) bailer, pump or siphon may be used in any USCA boat. (Canoe or kayak)

9. Rudders: There shall be no mechanical steering devices in any USCA canoe classes. Rudders will be allowed in all kayak classes except the K1 Downriver class. This does not include fixed keel or skegs as deemed allowable under present keel and concavity rules.

10. Materials: Canoes may be made of any material or combination of materials.

11. Reverse Rocker Specification: The limit of negative rocker (hog) at the 4 inch water line jig point shall be limited to  $\frac{1}{8}$  inch at the center of a six (6) foot straight line along the longitudinal center of the canoe.

**\*\* MOM -** A six foot straight edge shall be placed on the hull longitudinally in the midline with a  $\frac{1}{8}$  inch projection at its center. The projection shall be placed at the intersection of the 4 inch water line jig point. If the projection touches the canoe, the canoe will pass inspection.

12. Beginning at the 2006 Marathon Nationals, C2 Competition Cruisers (4X32 specs) may compete in the C2 Standard events as long as they meet the 50 pound minimum weight limit. In 2009, all weight

minimums were eliminated.

**B. Standard:** (C2Std M, C2Std MMa, C2 Std W, C2 Std WMa, C2Std Mx)

All rules for the Competition Cruiser class will apply except for the below:

1. The minimum depth amidships shall be 12 inches.
- 8
2. The minimum bow and stern height shall be 16 1/2".
3. The minimum width at the 4 inch water line shall be 15% of the length (length x 0.15).
4. Standard canoes may be made of any material or combination of materials with no weight minimum.
5. Competition Cruisers (4X32 specs) may compete in the Standard class events.
6. "Super" Aluminum canoes: (formerly a separate class)
  - a. All rules and specifications listed under Competition Cruiser shall apply to all Aluminum canoes (with the exception of materials of construction).
  - b. Aluminum canoes shall be the product of a regular manufacturer who has produced at least 50 canoes of the model in question. The canoe may be either standard or light-weight. Canoes shall not be modified except as follows: The canoe may be painted but no fiberglass, body putty, or material other than paint may be used on the outside except for the repair of holes. Seats may be moved and seats of other materials may be substituted. Foot braces and stiffening may be installed. Decks may be modified and bulkheads removed. Keels may be modified. Canoes must have sufficient permanently installed flotation. See Section V. A. 7.
  - c. Only Aluminum canoes built before 1/1/90, will be permitted to compete in the standard class.

**C. Stock Aluminum:** (C2SkAl M, C2SkAl MMa, C2SkAl W, C2SkAl WMa, C2SkAlMJr, C2SkAlWJr), C2 SkAl Mixed.

1. Standard type aluminum canoes only. Up to and including the 2001 Aluminum Nationals, maximum length is 18 feet 6 inches. After the 2001 Aluminum Nationals, maximum length is 17 feet 4 inches.
2. The intention of the stock aluminum class is to have a National Championship class for *stock* factory aluminum canoes.

The specifications of a stock canoe have been purposely left off and the canoes will be judged "stock" by the Competition Chairman and the Technical Director of Inspection. Most common manufacturers of aluminum boats will meet this requirement. Approval may be obtained for a specific model at the Nationals jiggling.

3. No modifications can be made to the canoe except seat type, placement changes and interior modifications to interior bulkheads and end caps. To facilitate a change of seat type and placement, original factory seats may be removed. Adequate flotation must be permanently attached to the canoe.

**D. Stock Canoe:** (C1S M, C1S W, C2S M\*, C2S W\*) \* Did not meet Championship requirements.

All rules for the Competition Cruiser class apply except for the below: (Refer to applicable boat specifications at [www.nymcra.org/boat\\_specifications/2008](http://www.nymcra.org/boat_specifications/2008))

1. C-1 & C-2 Bow height will be at least 17" high. The Stern must be at least 16"
2. C-1 & C-2 must be built symmetrically. No hard line transitions in the hull of the boat. Curve of chine must be equal to at least the radius of a softball.
3. C-1 & C-2 width must be at least 15% of the length at the 4" waterline. Minimum at the 4" waterline and 18" fore and aft of the widest point of the boat is 14% of the length
4. C-1 & C-2 minimum depth amidships shall be 12.5".
5. Maximum allowable tumblehome for the C-2 is 1", for the C-1 it is 3.5"
6. Maximum length of the Stock C-1 is 18'6". The Max length of the Stock C-1 is 17'0"
7. Only boats in the current C-2 or C-1 Stock list are allowed in the appropriate class.

**H. Pro Boat (3x27):**

1. Maximum length of the hull shall be 18'6" (18 ft 6 in.)
2. Minimum heights, measured from the 0" waterline:
  - \* 15" Bow
  - \* 10" Center
  - \* 10" Stern

The minimum-height gunwale line shall form a continuous, smooth arch-curve.

3. Minimum Width:

- \* 33" on the top, at the gunwale line
  - \* 27" wide at the 3" waterline or 3" of draft
4. The points at which the 33" minimum top-width measurement and the 27" minimum waterline-width measurement are taken may be divided up to 14" maximum.
  5. The 33" minimum top-width and the 27" minimum waterline-width, may be measured a maximum of 14" fore or aft of the center of the canoe.

6. The cross-section(s) of the hull at the location(s) of the 33" minimum top-width and the 27" minimum waterline-width shall have no more than 1/4" (one-quarter inch) concavity between the 3" waterline and the gunwale line of the hull.
7. No concave curve(s) are allowed under the 3" waterline. The imperfections from repairs will be tolerated but will have to be *very* minimal to conform to the regulations.
8. All of the measurements will be verified on the exterior of the hull. Gunwales, sponsons and keels shall not be included in the measurement whether added to the hull or built into the hull.