

The Standard Measuring Procedure on this form:

- When NOT within the tolerance limits allowed, mark an "X" in the margin and show actual measurement.
- Observe, do not write in the measurements of this boat except where specifically called for.
- Draw a circle around the number of each paragraph when you have verified or carried out all its details.
- When your examination is completed, every paragraph number will be "circled" (indicating conformity); or will bear an "X" in the margin (indicating something needs to be rebuilt or submitted to the International Rules Committee for decision).

PLEASE PRINT

- Measures must fill in every blank space provided on the Measurement Data Sheet. Each dimension shown must be verified by the measurer and if the dimension is not either the maximum or minimum or between the two, the measurer may recommend certificate good for local races only on home built boats. If discrepancy is MINOR and clearly shown. No discrepancies permitted on professionally built boats.
- Each boat must have been assigned a racing number by the Association. This number must be carved, burned, or molded into the corresponding trunk in an unobscured position. Minimum height of these numbers must be 13mm (1/2"). Unless this is done, a boat cannot receive a Certificate of Measurement.
- In order to be eligible to race, every boat must have an official deck for the season. Decks will be issued by the appropriate National Secretary for each year that does not pass.

Official Racing Number of boat on trunk 30779

Boat's Name

Ball name(s) and address(es) of owner(s) Alexander

Name, complete mailing address and telephone or fax number of R. D. James, 11th Ave - 87th St - Bayside

Name and charter number of the fleet in which this boat is expected to compete. Name and charter number of the fleet in which this boat is expected to compete. Joe Grande in Sull - 426

GENERAL RESTRICTIONS

- The purpose of the restrictions under which Single Rule boats are approved is to ensure that, to as great degree as possible, all boats and parts have identical racing capability. It is impossible to list every single restriction that might turn up in the future, and it is impossible to make any list of restrictions, which at some future date, someone cannot find that appears to be a legal means of obtaining some racing advantage. Any boat or sail having features which are not consistent with this purpose will not be approved and cannot race even though there is no specific restriction preventing the team in question. Improvements and changes will be made only when these changes do not obstruct other boats and sails from the standpoint of racing capability or when they can be accomplished by anyone at reasonable expense.
- Boats must be measured by officially appointed or certified Fleet Measurers or by Class Measurers approved by SCIRA. No certificate shall be acceptable unless recommended and signed by such a Measurer. (See also Certified Builder Rule on page 54)
- Boats, to be eligible to race in this Class, must be built to conform in every way to these measurement rules. A boat that does not meet all these requirements shall be ineligible to receive a Certificate of Measurement, but it remains its identifying number. Such boats cannot take part in any open or closed regatta whatsoever. The measurer must notify the Race Director of any boat that cannot pass these requirements, giving the boat number, and the name and address of both the builder and owner.
- Nothing is optional in these plans, specifications or restrictions unless definitely stated as such.

Hull

- Thickness of sides, transom, sides of centerboard trunk and bottom: Fiberglass: 3mm (1/8") minimum. Fiberglass and foam sandwich or fiberglass and honeycomb sandwich: 3mm (1/8") outer skin and 1.5mm (1/16") inner skin minimum. Wood: density of 512 kg per cubic meter (0.185 lbs. per cubic inch) or greater. 13mm (1/2") minimum. Density of less than 512 kg per cubic meter (0.185 lbs. per cubic inch), 19mm (3/4") minimum. Plywood: 10mm (3/8") minimum. Fiberglass and fiberglass: 10mm (3/8") minimum plus fiberglass. Plywood and fiberglass: 10mm (3/8") plus or minus 3mm (1/8") on flat under surface. Lead weight 102mm (4") plus or minus 3mm (1/8") on flat under surface. Stern must be a smooth curve and it must follow the curve of stem. Plans shown on drawing.
- Maximum chine radius is 19mm (3/4") at station 1, tapering to 3mm (1/8") at station 2, and 3mm (1/8") from there aft.
- Maximum lack of flatness all of station 1 in any cross section is 3mm (1/8") per each 305mm (1 foot) of distance over which the lack of flatness is being checked (i.e. distance 305 mm = 3mm, distance 456 mm = 4.5 mm, distance 610 mm = 6 mm of lack of flatness).
- Thickness: Plywood: 6mm (1/4") minimum. Exterior grade maybe used. Fiberglass: 1.5mm (1/16"), fiberglass and foam or honeycomb: 1.5mm (1/16") outer skin minimum.
- Forward deck must extend the full width of the boat to a point at least 72 (2 1/2") aft of the stem.
- Afterdeck minimum 457 mm (18") in length.
- Maximum crown of deck 127 mm (5").
- The top of the spray boards must be minimum 51 mm (2") vertically above deck for maximum of 610 mm (24") on either side of the centerline.
- Maximum projection of deck or sheer molding beyond sheer is 32 mm (1 1/4") in a horizontal plane, level with the sheer.
- The hole in the deck where the mast goes through the deck (partners) shall have a maximum size of 76mm (3") diameter by 254mm (10") fore and aft. The front side of the hole shall not be more than 149mm (5 7/8") aft of the stem.

Deck

- Maximum width: 1016 mm (40"). If the deck alongside the cockpit surface down on a radius, the maximum width shall be checked at the intersection of the deck with a plane 51 mm (2") below the sheer. Cockpit corners may be square or rounded to any desired radius.

Construction of Fiberglass Boats

13. Only professional boat builders certified by SCIRA can make fiberglass boats. (See Certified Builder Rule, page 54) Effective January 1, 1965, the construction of fiberglass hulls has been allowed under the same rules as for wood hulls. Part or all of a sheer molding may be made of wood. Each builder's method of construction of fiberglass boats must be approved by the Rules Committee. The thickness of the hull must be uniform except where reinforced locally such as at keel, the chine, the stem, the mast step, and where the stay anchorages and rudder ledgers are attached. Increased thickness due to incorporation of bonding material in either the sides or bottom of the hull is not a violation of this requirement. If desired, the floorboards may be bonded directly to the bottom of the boat, omitting supports. A fiberglass and foam sandwich floor structure may be used. Wood and plywood are acceptable local reinforcements. All professionally built boats must be measured before leaving the factory by a measurer satisfactory to the builder and the national secretary. Boats not so measured are prohibited from competition at regatta above the local level until measurement is complete. Complete measurement includes a Moment of Inertia test.

Materials: Fiberglass cloth, woven roving or mat may be used, with either polyester or epoxy resin. Glass content must be at least 30% by weight. The deck may be plywood or it may be fiberglass. In general, a fiberglass deck will require some type of double surface and core construction for adequate stiffness.

Prohibition: 1.84 cubic feet (6 1/2 cubic feet) of Styrofoam, Urethane foam, or equivalent, having a density of 40 kg cu.m. (2 1/2 kg per cubic foot) maximum must be built into the hull. Balsa wood or foam enclosed in resin-impregnated fiberglass cloth is considered equivalent. Supposedly airtight compartments are not considered adequate.

30779

14. Bottom and Sides: The weight of the plywood used must be at least 5.65 kg per square meter (18 1/2 ounces per square foot). If 10mm (3/8") material is used throughout, fiberglass or other covering material may be used to bring the hull up to a minimum weight.
 15. All boats shall comply with the following flotation requirements: when being righted, float so that the lowest point around the cockpit edge where water might enter the boat is at least 1.22mm (5") above the water where the boat is supporting 136 kg (300 lbs). This may be accomplished by means of tank, flotation bags, self-belling cockpit, increased low density flotation material, or other suitable means. Holes with maximum 645.2 sq. cm. (100 square inches) may be made in the transom to facilitate drainage. Where transom drains are used to comply with this rule they should have a minimum of 290.3 sq. cm. (45 square inches) total. For boats built before Jan. 1, 2001 meeting the requirements of this rule, the centerboard trunk may have a minimum height of 9" (229mm) above the outside of the keel if the boat, after capsize and being righted, floats high enough so that water will flow out of the trunk; otherwise, the trunk shall be 51mm (2") above the water level in the boat after capsizing and being righted.
Moment of Inertia Test
 16. All bare hulls, as defined in paragraph 38, must be subject to the moment of inertia test (for a full description of method, see Supplement to Measurement Data Sheet for Moment of Inertia Test). The moment of inertia of the hull is calculated from the following formula:
 Where:
 I = Moment of Inertia
 C = Spacing constant, ft. per ft. (sq. per m.)
 D = Distance to axis, ft. (m)
 T = Time of one complete oscillation, seconds
 = 2.1416
 For one purpose, $D = 104" - 1" + .932" = 103.281" = 8.6071 \text{ m}$, $C = 2.6233 \text{ m}$
 The spacing constant will be furnished with spacers from SCIRA.
 We can now simplify the formula to:

$$\text{Height: } I = \frac{8.6067 \text{ ft}^2 \text{ CT}^2}{4 \times 3.1416^2} = 1.8763 (\text{CT}^2) / \text{slug ft.}^2$$

$$\text{Metric: } I = \frac{2.6233 \text{ m}^2 \text{ CT}^2}{4 \times 3.1416^2} = .1743 \text{ CT}^2$$

 The minimum moment of inertia of the hull as determined from above formula shall be:
 Metric: 27.6 (slugs meters squared)
 Height: 200 (slugs foot squared)
 If the hull moment of inertia does not meet the minimum, weight shall be moved to or added to the ends to bring it up to the minimum.
 The Moment of Inertia for the boat is:
 28.54 slug m²
 Amount of weight and detailed description of location of weight added to conform to MOI requirements (location must be marked on diagram on page 3 & 4.)

Centerboard
 17. Board: Verify dimensions with drawing, no other shape permitted. Maximum radius of bottom corner 13mm (1/2"). Centerboard shall be made of any hard aluminum alloy, 6061T6 or its equivalent is recommended. The thickness of centerboard shall be 10mm (3/8"). There shall be no inserts or other means of changing the distribution of the weight. Boards must be uniform thickness except within 25mm (1") of edges, which may be tapered off. Centerboards may be cut out for lightness (see drawing). The handle of the centerboard shall be installed in such a manner that the aft edge of the centerboard is perpendicular to the base line when the centerboard is completely down, and the centerboard shall not extend more than 851mm (33 1/2") below the keel. The 851mm (33 1/2") point shall be marked at aft edge on starboard side by a center punch.
 17.1. Effective Jan. 1, 2001, centerboards complying with the measurement restrictions set out in Rule 17.1 (above) made of sheet molding compound (SMC) manufactured by Langel Plastics of Portugal may be used in any single regatta up to, but not including, national championships and major international championships. In addition however, the national set-

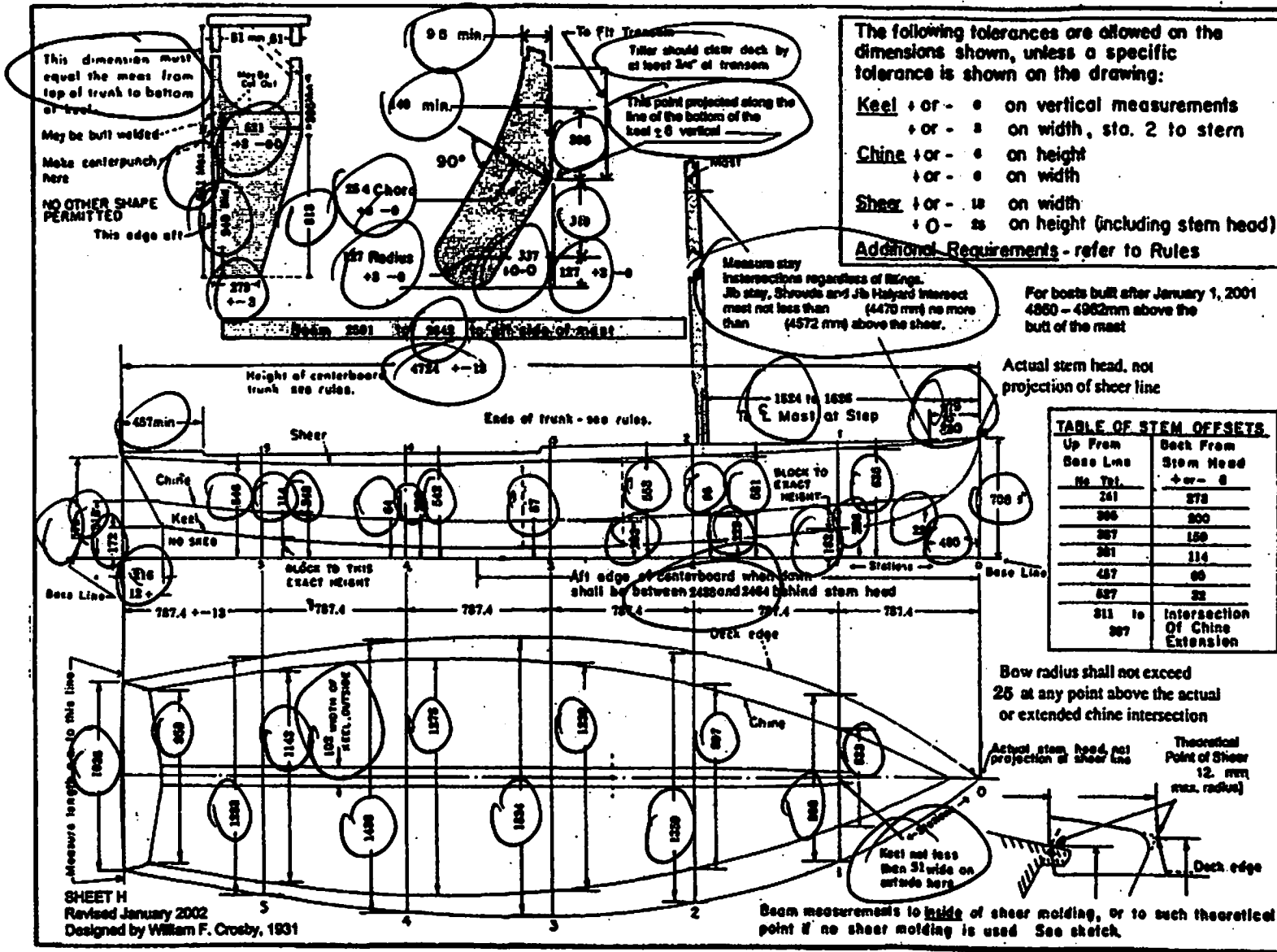
17.2. Strake: Slot in centerboard trunk maximum 546mm (21 1/2") long and no more than 13mm (1/2") in width if in fiberglass or 14mm (9/16") if in wood or plywood. The aft edge of the centerboard trunk shall be perpendicular to base line. Forward edge of centerboard trunk shall either be perpendicular or slope forward 6mm (1/4") maximum at the top of trunk. If seals are used on the centerboard trunk, they shall be used at the top of the trunk only. Any type of seals may be used.
 For all boats built after Jan. 1, 2001: the aft end of the centerboard trunk must be 310mm, -0 + 3mm (12 1/4", -0 + 1/8") from the outside of the hull to the top of the trunk. The top of centerboard trunk shall be parallel to the base line.
 17.3. The centerboard must be restricted while racing in such a manner that no point of the bottom edge extends less than 305mm (12") below the keel.
 18. The centerboard shall be painted on each side of the board. The top of the board (1") wide shall be painted on each side of the board. A safety line must be used on centerboard while racing. The safety line shall not be adjustable and shall be fastened to the boat and to the centerboard by a shackle or snap of suitable dimension. Any type of retaining system may be used, provided such system allows the crew to extend the board completely when capsize without swimming under the board. Only one centerboard may be used during a regatta unless irreparable damage has occurred.
Exception to Applicability of Prior Rules (#17 & #18)
 The new centerboard shape and thickness must be used after January 1, 1976 on all boats in the World Championships, Western Hemisphere Championships and European Championships. Those existing boats which can not use a 10mm (3/8") thick board because of trunk slot width shall use a 8mm (5/16") thick board of the new shape. The length of the trunk slot shall be 546mm (21 1/2") maximum.
Rudder
 19. The rudder shall be made of wood, wood & fiberglass, fiberglass or plywood & foam. Metal rudder blades are prohibited. Only one rudder may be used during a regatta unless irreparable damage has occurred.
 20. The rudder thickness above and below the water line shall be 19mm (3/4") minimum and 38mm (1 1/2") maximum.
 21. The width of the blade below the water line shall be 260mm (10 1/4") minimum and 254mm (10") maximum. This measurement is taken across the rudder approximately at right angles to its leading edge.
 22. The minimum weight of the rudder including pintles shall be 2.72 kgs (6 pounds). Weight of no more than 450g. (1 lb.) may be permanently attached to a rudder to reach the minimum weight.
 23. Where pivoting rudders are desirable because of purely local conditions, they may be used for local races only. They may not be used in any regatta or championships.
 24. The tiller shall be strong and attached firmly to the rudder head in such a manner it engages the boat. Tiller must be directly connected and completely above the aft deck.
 25. The rudder must at all times be mounted parallel to the transom. It must be attached to the transom and as close to the transom as conveniently possible with 38 mm (1 1/2") minimum clearance. Vertical adjustment or changes in angle are not permitted. There shall be a suitable means of preventing the rudder from falling off with the boat inverted.
 26. The rudders & pintles shall be 8mm (5/16") diameter.
 26.1. The lower rudderon shall be mounted on the transom 155mm (6 1/8") above the intersection of the transom and the keel. The upper rudderon shall be 410mm (16 1/8") above the intersection of the transom and keel.
Mast - Boom - Rigging
 27. Only one mast may be used during a regatta unless irreparable damage has occurred. The mast must be minimum 32mm (1 1/4") diameter at the top band or at any point below. The mast may be tapered above the stay intersection. Any taper in the mast above the stay intersection shall be essentially a uniform taper. Aluminum extrusions may be used and must be made of alloy 6061T6 or equivalent. Masts having an alternative dimension of 54mm (2 1/8") or less must use spreader. Spreader length and take limit shall not be adjustable while racing. Rotating masts are prohibited.
 27.1. When stepped, the centerline of the mast shall be located between 160mm (6 3/8") from the stem with the mast in vertical position.
 27.2. For all boats built after Jan. 1, 2001: The floor of the mast step must be no more than 400 mm (15 3/4") and no less than 390mm (15 3/8") below the sheer line. For older boats: The mast shall be stepped on the keel, or no higher than 51mm (2") above the flotation tank in the bottom.

17. Board: Verify dimensions with drawing, no other shape permitted. Maximum radius of bottom corner 13mm (1/2"). Centerboard shall be made of any hard aluminum alloy, 6061T6 or its equivalent is recommended. The thickness of centerboard shall be 10mm (3/8"). There shall be no inserts or other means of changing the distribution of the weight. Boards must be uniform thickness except within 25mm (1") of edges, which may be tapered off. Centerboards may be cut out for lightness (see drawing). The handle of the centerboard shall be installed in such a manner that the aft edge of the centerboard is perpendicular to the base line when the centerboard is completely down, and the centerboard shall not extend more than 851mm (33 1/2") below the keel. The 851mm (33 1/2") point shall be marked at aft edge on starboard side by a center punch.
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MEASURERS ARE CAUTIONED TO FILL OUT THIS DATA SHEET IN FULL AND AS ACCURATELY AS POSSIBLE:

Those measurements found correct should be "circled" carefully on the drawing below, preferably with colored pencil. If certain measurements are *not* within the limits shown, cover same on the drawing with an "X" and use a reference letter or line across to your marginal note, giving the actual measurement.

Briefly note exceptions here (If additional explanatory sheet is attached, check. . .)



The following tolerances are allowed on the dimensions shown, unless a specific tolerance is shown on the drawing:

Keel ± or - 0 on vertical measurements
 ± or - 3 on width, sta. 2 to stern

Chine ± or - 0 on height
 ± or - 0 on width

Sheer ± or - 10 on width
 ± 0 - 25 on height (including stem head)

Additional Requirements - refer to Rules

For boats built after January 1, 2001
 4860 - 4962mm above the butt of the mast

TABLE OF STEM OFFSETS

Up From Base Line No. Tol.	Deck From Stem Head ± or - 0
241	278
266	200
287	150
281	114
457	00
527	22
511 to 507	Intersection Of Chine Extension

Bow radius shall not exceed 25 at any point above the actual or extended chine intersection

Actual stem head, not projection of sheer line
 Theoretical Point of Sheer 12 mm max. radius

Beam measurements to inside of sheer molding, or to such theoretical point if no sheer molding is used. See sketch.

PLEASE USE INK

I hereby certify that I am the official measurer of the PRO DE JUVENIO Divisional Fleet, Charter No. 159
 I certify and affirm that I have carefully measured this boat No. 30990 to the best of my ability and that all the measurements written herein or checked by me were found to be exactly as indicated. I am ready and willing to swear to this before any accredited notary public.
 (Date) 03/03/2009 (Measurer's Signature) M. [Signature]
 Recommended for Certificate (Y) (Initial) Not Recommended _____

Note: The Fleet Measurer must under no circumstances give the Certificate of Measurement to the owner unless he is positive that the boat fully complies with these restrictions. If positive, the Measurer gives the Certificate to the owner and sends this Data Sheet to the Secretary.