

29454

MEASUREMENT DATA SHEET

Sheet C - Revised January 1996  
For all boats built after January 1, 1996.  
P/2001/5011

1. General Information

1.1 Name of the boat  
1.2 Name of the owner  
1.3 Name of the builder  
1.4 Date of construction  
1.5 Place of construction

2. "PLEASE PRINT"

2.1 Hull number  
2.2 Class  
2.3 Displacement  
2.4 Length overall  
2.5 Waterline length  
2.6 Beam  
2.7 Draft  
2.8 Masthead height  
2.9 Masthead to deck  
2.10 Masthead to keel  
2.11 Masthead to deck to keel  
2.12 Masthead to deck to keel to keel  
2.13 Masthead to deck to keel to keel to keel  
2.14 Masthead to deck to keel to keel to keel to keel

3. Measurement of the Masthead

3.1 Masthead to deck  
3.2 Masthead to keel  
3.3 Masthead to deck to keel  
3.4 Masthead to deck to keel to keel  
3.5 Masthead to deck to keel to keel to keel

4. Measurement of the Deck

4.1 Deck length  
4.2 Deck width  
4.3 Deck area

5. Measurement of the Keel

5.1 Keel length  
5.2 Keel width  
5.3 Keel area

6. Measurement of the Mast

6.1 Mast length  
6.2 Mast diameter  
6.3 Mast area  
6.4 Mast weight  
6.5 Mast moment of inertia  
6.6 Mast section modulus  
6.7 Mast deflection  
6.8 Mast stress  
6.9 Mast strain  
6.10 Mast displacement

3. Name of the person who measured the boat

General Restrictions

3.1 The boat must be measured in the presence of the owner or a representative of the owner.  
3.2 The boat must be measured in the presence of the builder or a representative of the builder.  
3.3 The boat must be measured in the presence of the International Snipes Association representative.  
3.4 The boat must be measured in the presence of the International Snipes Association representative.  
3.5 The boat must be measured in the presence of the International Snipes Association representative.  
3.6 The boat must be measured in the presence of the International Snipes Association representative.  
3.7 The boat must be measured in the presence of the International Snipes Association representative.  
3.8 The boat must be measured in the presence of the International Snipes Association representative.  
3.9 The boat must be measured in the presence of the International Snipes Association representative.  
3.10 The boat must be measured in the presence of the International Snipes Association representative.

Approved Countries not Covered Elsewhere

4.1 Approved Countries not Covered Elsewhere  
4.2 Approved Countries not Covered Elsewhere  
4.3 Approved Countries not Covered Elsewhere  
4.4 Approved Countries not Covered Elsewhere  
4.5 Approved Countries not Covered Elsewhere  
4.6 Approved Countries not Covered Elsewhere  
4.7 Approved Countries not Covered Elsewhere  
4.8 Approved Countries not Covered Elsewhere  
4.9 Approved Countries not Covered Elsewhere  
4.10 Approved Countries not Covered Elsewhere

7. Measurement of the Masthead to Deck

7.1 Masthead to deck  
7.2 Masthead to deck to keel  
7.3 Masthead to deck to keel to keel  
7.4 Masthead to deck to keel to keel to keel

8. Measurement of the Masthead to Keel

8.1 Masthead to keel  
8.2 Masthead to keel to keel  
8.3 Masthead to keel to keel to keel

9. Measurement of the Masthead to Deck to Keel

9.1 Masthead to deck to keel  
9.2 Masthead to deck to keel to keel  
9.3 Masthead to deck to keel to keel to keel

10. Measurement of the Masthead to Deck to Keel to Keel

10.1 Masthead to deck to keel to keel  
10.2 Masthead to deck to keel to keel to keel  
10.3 Masthead to deck to keel to keel to keel to keel

11. Measurement of the Masthead to Deck to Keel to Keel to Keel

11.1 Masthead to deck to keel to keel to keel  
11.2 Masthead to deck to keel to keel to keel to keel  
11.3 Masthead to deck to keel to keel to keel to keel to keel

12. Measurement of the Masthead to Deck to Keel to Keel to Keel to Keel

12.1 Masthead to deck to keel to keel to keel to keel  
12.2 Masthead to deck to keel to keel to keel to keel to keel  
12.3 Masthead to deck to keel to keel to keel to keel to keel to keel

13. Measurement of the Masthead to Deck to Keel to Keel to Keel to Keel to Keel

13.1 Masthead to deck to keel to keel to keel to keel to keel  
13.2 Masthead to deck to keel to keel to keel to keel to keel to keel  
13.3 Masthead to deck to keel to keel to keel to keel to keel to keel to keel

14. Measurement of the Masthead to Deck to Keel to Keel to Keel to Keel to Keel to Keel

14.1 Masthead to deck to keel to keel to keel to keel to keel to keel  
14.2 Masthead to deck to keel to keel to keel to keel to keel to keel to keel  
14.3 Masthead to deck to keel to keel to keel to keel to keel to keel to keel to keel

15. Measurement of the Masthead to Deck to Keel to Keel to Keel to Keel to Keel to Keel to Keel

15.1 Masthead to deck to keel to keel to keel to keel to keel to keel to keel  
15.2 Masthead to deck to keel to keel to keel to keel to keel to keel to keel to keel  
15.3 Masthead to deck to keel to keel to keel to keel to keel to keel to keel to keel to keel

16. Measurement of the Masthead to Deck to Keel to Keel to Keel to Keel to Keel to Keel to Keel to Keel

16.1 Masthead to deck to keel to keel to keel to keel to keel to keel to keel to keel  
16.2 Masthead to deck to keel to keel to keel to keel to keel to keel to keel to keel to keel  
16.3 Masthead to deck to keel to keel to keel to keel to keel to keel to keel to keel to keel to keel

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3. A boat must be weighed before the start of the race and the weight shall be entered on the start certificate.

4. The Measurer shall either verify the weighing of the boat or require the owner to furnish a weight certificate signed by at least two witnesses and the owner as well as the owner of the scales that the minimum weight of the boat completely complies with this paragraph. The minimum weight shall be 331 lb or 150.9 Kg. The bare hull including deck, centerboard trunk, floorboards, flotation, hull fittings, and sail lay out must not weigh 270 lbs / 125.2 Kg minimum. In addition ballast up to 33 lbs / 15 Kg may be permanently added in any location, subject to the requirements for Moment of Inertia. All ballast must be installed where it may be seen and shall be attached with needles over bits of glass cloth. The bare hull including ballast as defined above shall be subjected to the moment of inertia test as contained in the Supplement to the Measurement Data Sheet.

5. Effective January 1, 1992, measurement certificates given to owners shall include a hull diagram showing ballast weight, location, and moment of inertia.

6. Weight certificates from a third party will not be accepted.

7. All boats shall comply with the following flotation requirement. When the boat has been capsized and has remained in any position long enough to take maximum water as possible in high wave conditions it shall, upon being righted, float with a maximum water penetration of 100 mm above the waterline. The water may be allowed to enter the boat to a depth of 100 mm above the waterline when the boat is supporting 300 lbs / 136 kg. This may be accomplished by means of tanks, flotation bags, self-bailing decks, increased buoyancy flotation material, or other suitable means. Holes with maximum tolerances of 2 square inches (4.5 sq cm) may be made in the transom to facilitate drainage. Where drain strainers are used to comply with this rule they shall have a minimum of 45 square inches (290.3 sq cm) total. In boats meeting the requirements of this rule, the centerboard trunk may have a maximum height of 9" (228.6 mm) above the outside of the keel. If the boat, after capsizing, and being righted, does not drain so that water will flow out of the trunk, otherwise the trunk shall be 2" (50.8 mm) above the water level. The boat after capsizing, and after being righted.

**Miscellaneous**

8. Measurers must notify the owner of the following essential requirements: Boat must be dry, wearable tire pressure for all components at all times, and race committees may require wearing them when racing when they consider necessary. Suitable paddle or oar must be on board within 10 meters minimum length and 14" (356 mm) minimum diameter must be carried. SCRA must be in possession of an authorized national authority may require them. This applies to all boats.

9. There shall be no advertising matter, whatever, on the outside of the side of any boat or on its sails, except as allowed by the SCRA Event sponsorship Policy. Any boat violating this rule shall be subject to loss of measurement certificate. Measurers shall not issue a certificate to any boat that:

10. Name, complete mailing address, and telephone or fax number of

**SKIPPER SNIPE SWEDEN**  
**Box 2055, S-591 02 MOTALA, SWEDEN**  
**Phone +46 141 535 65 Fax +46 141 535 66**  
**Mobile +46 70 625 00 31**  
**E-mail: skipper@snipe@text-bild-motala.se**  
**Internet: www.text-bild-motala.se**

11. Sliding seats being to any impedances, and other suitable methods of supporting the skipper's seat, shall be balanced. The boat are prohibited. This does not prevent the use of fixing straps or any kind of line or cord attached to the seat within 8" (203.2 mm) of the inside of the deck. It is permissible for the crew to be attached to the side stave.

**Construction of Fiberglass hulls**

12. Only professional glass workers can make fiberglass hulls. Effective January 1, 1985, the construction of fiberglass hulls has been allowed under the same conditions as approved by IRL and the World Rowing Federation. The only resin allowed is any vinyl ester resin. Filler of all glass fiber matting may be used in the construction.

**MATERIALS** Fiberglass cloth shall be made of matting, with either polyester or epoxy resin. The weight must be at least 7.0 oz by weight.

**FLOTATION** 5-1 Deck cells shall be made of Styrofoam, Urethane foam, or equivalent having a density of 1.5 g per cubic centimeter. The maximum must be 0.125 inches (3.175 mm) thick. The cells shall be made of fiberglass cloth or other suitable material. Supported string supports are not permitted in the cells.

**TOLERANCE:** All fiberglass shall be to the same standard tolerances. The thickness of the hull shall be uniform, except where

reinforced, such as at the keel, the chine, the stern, the transom, and where the stay anchorages and rigging supports are attached. The hull thickness due to the incorporation of flotation material in the bottom of the hull is not a violation of this rule. The hull thickness forward may be reduced to meet the bottom of the boat on the supporting supports. A fiberglass and foam and water absorption must be used. Wood and plywood are acceptable local reinforcement.

**DECKS** The deck may be plywood or fiberglass. The maximum thickness of sheet shall be 1/2" (12.7 mm). In general, if fiberglass deck is used, the type of double surface and core construction to be used shall be noted. Each builder's method of construction shall be approved by the Race Committee.

**Construction of Plywood Hulls**

**"B" BOTTOM AND SIDES** The weight of the plywood shall not be less than 20 and two and one half inches (50.8 mm and 38.1 mm) square meters (10/4 sqm) 5/8" (15.9 mm) thick and the length of the ply or the width of the material may be less than the width of the boat.

**FLOTATION** Three cubic feet (85.0 liter) of foam must be used in the hull.

**Moment of Inertia Test**

13. At race hulls, as defined in paragraph 5, the moment of inertia test shall be performed. For a full description of the test see SUPPLEMENT TO THE MEASUREMENT DATA SHEET, MOMENT OF INERTIA TEST.

The moment of inertia for the hull is calculated as follows:

$$I = \frac{CDI^2}{4L}$$

where: I = Moment of Inertia  
 C = Area of deck in sq. meters  
 D = Distance from center of gravity to the center of buoyancy  
 L = Length of the boat in meters

14. The moment of inertia for the hull shall be calculated as follows:

$$I = \frac{2.0 \times 10^7 \times (0.7)^2}{4 \times 3.14 \times 6.7} = 1.87 \times 10^6 \text{ kg m}^2$$

$$I = \frac{1.87 \times 10^6 \text{ kg m}^2}{1.0 \times 10^3} = 1.87 \times 10^3 \text{ kg m}^2$$

The requirements for extra flotation as determined by this rule also shall be:

Area of extra flotation: 1.87 square meters  
 Net weight: 27.0 metric slug meters squared

15. The extra flotation must be distributed as follows: The extra flotation provided is added to the ends to bring it to the minimum value.

The Moment of Inertia for this boat is 1.87

Amount of weight under 1.1 kg per sq. meter of hull area. The boat must meet requirements for extra flotation as determined by this rule.

1.87 kg per sq. meter

**Exception to Applicability of Prior Rules**

The new centerboard shape and thickness must be used in the category "B" for all boats in the World Championship, World Cup, and Europe Championships and European Championships. The new centerboard shall be used in the category "B" for all boats in the World Championship, World Cup, and Europe Championships. The length of the centerboard shall be a minimum.

MEASUREMENT DATA SHEET (to be filled in by the measurer before the start of the race, after January 1, 1996, except as noted)

