SECTION E - RULES OF MEASUREMENT & CONSTRUCTION

APPENDIX 'A' of the Constitution of the Sabre Sailing Association of Australia Inc.

1. GENERAL

1.1 Objectives

The overarching objective of these Rules is to maintain the Sabre as a one-design class such that all boats are reasonably similar in construction and performance potential.

1.2 Application

These Rules are strictly applicable to all boats except as provided in ***Rule 1.3 - Dispensations***. Boats constructed prior to the adoption of these Rules where, in the opinion of the National Measurer it is unreasonable or impracticable to alter so as to comply with these Rules, may be granted a Certificate of Measurement provided that, in the opinion of the Measurer:

(a) The boat complies with the Rules in force at the time of its construction; and

(b) The variation from these Rules does not provide any significant competitive advantage.

1.3 Dispensations

A boat which fails to comply with these Rules in any respect and which, in the opinion of the National Measurer, it is unreasonable or impracticable to alter, may be granted an endorsed 'A' Class Certificate of Measurement provided that:

(a) In the opinion of the National Measurer the variation from these Rules does not provide a significant competitive advantage; and

(b) The boat accepts such penalty by way of additional timber and/or weights as the National Measurer may direct.

1.4 Construction & Fitting Out Notes

The Construction & Fitting Out Notes, as supplied by the Association for the construction of Sabre class dinghies, shall be read in conjunction with, and form part of these Rules.

1.5 Precedence

These Rules shall take precedence in the event of a contradiction appearing in any other document.

1.6 Units of Measurement

The official units of measurement are Metric.

1.7 Measuring

Boats shall be measured by official Measurers appointed by the Sabre Sailing Association of Australia or its state member associations from time to time.

1.7.1 A newly constructed boat or a boat not previously measured by a State Measurer shall be measured in accordance with the **current** rules by the relevant State Measurer.

1.7.2 A boat which has undergone modification to the hull after measurement may be required to be re-measured where, in the opinion of the State or National Measurer, such modification may have altered conditions under which previous certification was issued.

1.7.3 When ownership of a boat changes, a boat previously measured (other than self-measured) shall not be required to be re-measured provided that:

1.7.3.1 the previous owner (vendor) or new owner (purchaser), within 60 days of sale/purchase, forwards to the State Measurer the Certificate of Measurement (where provided) or appropriate advice of change of ownership, and

1.7.3.2 the State or National Measurer is satisfied no significant change has occurred to the conditions under which the certificate was previously issued, and the National Measurer shall, on appropriate advice from a State Measurer and provided the new owner is a member of a State Association, issue a new Certificate of Measurement to the new owner in accordance with ***Rule 1.8 - Measurement Certificates***.

1.7.4 Where mast, boom, rudder or centreboard are replaced after measurement, the measurement certificate is considered void until the items are measured by a State Measurer and endorsed as complying with **current** rules.

1.7.5 Deleted *(SGM August 2011)*

1.7.6 Each hull shall be permanently identified with the sail number issued for that hull, in letters not less than **40mm** high, as follows:

1.7.6.1 Ply hulls; carved, burnt or embossed into the aft keel or on the aft face of the web bulkhead, visible through an inspection hatch.

1.7.6.2 FRP hulls; indelibly marked on the web bulkhead, visible through an inspection hatch.

1.8 Measurement Certificates

The record of measurement performed under ***Rule 1.7 - Measuring*** shall be passed to the National Measurer with such comments as the Measurer may consider relevant. The National Measurer shall determine if a Measurement Certificate will be issued. Certificates of Measurement shall be issued to all boats that comply with these Rules in such form and manner and for such duration and fee as the Sabre Sailing Association of Australia (Inc.) may from time to time determine.

The National Measurer may refuse to issue a Measurement Certificate if, in his/her opinion, any attempt has been made to circumvent the rules laid down to gain an advantage either in construction, rigging or fittings outside the concept of the simple, one-design dinghy.

1.9 Final Arbiter

The Sabre Sailing Association of Australia Inc., in Committee or in General Meeting, shall be the final arbiter in all questions relating to the Rules of Measurement.

1.10 Options, Alterations & Repairs

Unless a system, method, type or style of construction or control is indicated as permissible or acceptable in these Rules and/or the Construction & Fitting Out Notes, then that system, method, type or style of construction, fitting or control is prohibited unless approved in writing by the National Measurer, (or by a State or Assistant State Measurer when the National Measurer is unavailable to act) such as permitting use of additional fittings or fixtures to repair or to prevent a structural failure in the hull, spars or rigging.

1.11 Requirements Prohibitions & Options

1.11.1 Requirements

To qualify as a Sabre a boat must have:

a. a halyard from the peak of the sail, down the mast to a fairlead or block near the base of the mast, thence to a quick-release cam, clam cleat or halyard lock mounted no more than **102mm** forward of the aft face of the centrecase bulkhead. ***(Meas. #86)*** It must be possible to lower the sail whilst on the water from a normal cockpit position. ***(Meas. #97)***
b. a retaining pin on one rudder pintle (Yachting Australia mandatory requirement)
c. a rubber shock cord keeper to loop over top of the centreplate.
d. (tiller extension length limitation deleted.)
e. at least one adequate self-bailer set in cockpit floor.
f. screw-type, waterproof inspection hatches.
g. been built in accordance with ***Part 1*** of the Construction & Fitting Out Notes; have three independent buoyancy tanks, (or foam buoyancy as specified in ***Section B***), and conform to these Rules.
h. spars and sail plan as set out in the Construction & Fitting Out Notes and these Rules.

1.11.2 Prohibitions

Without affecting the generality of ***Clause 1.10 - Options, Alterations & Repairs*** above, the following are **prohibited**:

a. On-water adjustable mast rake.
b. Highfield (over-centre) type levers of any description.
c. Any type of solid or wire mainsheet track.
d. Mainsheet blocks of sheave diameter greater than 64mm.
e. Boom vang advantage greater than ***8:1***.
f. Mainsheet advantage greater than ***5:1***.
g. Rotating mast.
h. 'Gybing' or 'tacking' centreboard.
i. Transom flaps.
j. Cutouts to bulkheads, baffles, etc. except as indicated as permissible in the Construction & Fitting Out Notes and/or these Rules.
k. Props or struts from centrecase or thwart to the floor.
l. Herringbone pattern floor battens.
m. Cutouts in centreboard, rudder blade or rudder cheeks.
n. Saw cuts or 'etching' in mast to promote bending.
o. Sleeves in mast or boom.
p. Holes or other openings in boom to reduce weight.
q. Non-specified plywood, timber or metal gussets or stiffening plates.
r. Masthead halyard locks.
s. Absence of any timber part called for in the Construction & Fitting Out Notes (plywood & composite hulls).

t. Substitution of one hull for another under one sail number.

1.11.3 Options

Without affecting the generality of ***Clause 1.10 - Options, Alterations & Repairs*** above, the following options are permissible:

a. Compass (not more than one).
b. Wind direction-indicating devices on masthead, shrouds, or foredeck.
c. Toe strap position and method of adjustment.
d. Metal vernier-plate shroud adjusters.
e. Tiller extension clip to retain the extension when not being used.
f. Shock cord assisted return on outhaul from the clew to the aft block hanger on the boom.
g. A system to retain the boom to gooseneck.
h. Sail track stop at the upper black band.
i. A second self-bailer, recommended location in the after third of cockpit floor.
j. Carrying handles to centrecase bulkhead.
k. Lifting handles to centreboard and rudder.
l. Plywood backup plates to underside of deck or side tanks for attachment of fittings.
m. Fittings with rolling elements to reduce friction losses in sail control systems.
n. Alternative types of control systems (provided maximum purchase limits are not exceeded and other requirements are met, e.g. mainsheet shall lead through a block on the keel stiffening timber to the hand).
o. Replacement of any solid timber called for in the Construction & Fitting Out Notes with laminated timber of the same size.
p. Rudder blade in solid timber, laminated timber or plywood.
q. Chines and transom built up to square edges.
r. Drain plugs in transom; max 2 located either side of keel & not opened while sailing.
s. GPS units may be carried on board for purpose of storing tracks, however information may not be accessed, nor be visually accessible, whilst racing.

1.12 No longer used

1.13 Fairing

a. The cross-sectional shape of the centreboard and the rudder blade may be faired to a maximum of **65mm** from leading, trailing and bottom edges.
b. The thickness of the unfaired portion shall be constant within the limits specified.
c. All timber and ply edges and corners may have a chamfer or radius not exceeding 10mm unless otherwise indicated.
d. Transom post, floor battens and keel may be rounded to a segment of circle the width and height being not more than the thickness of the timber called for in the Construction & Fitting Out Notes and/or these Rules.
e. Gunwales or rubbing strips may have a radius not exceeding **7mm** on the outside edge.

2. HULL

2.1 Basic Construction

a. The hull shall be constructed of marine or waterproof type plywood marked out from the outline of patterns supplied by the SSAA or a State member association. A minor amount of trimming is permitted to allow for variations inherent in amateur construction, however, the completed hull must be within the dimensions specified in the Measurement Rules.
b. When using fibreglass-reinforced plastic (FRP), refer ***Part 1, Section B*** of the Construction & Fitting Out Notes.
c. The hull may be constructed of fibreglass-reinforced plastic in combination with marine or waterproof plywood in accordance with ***Part 1, Section B*** of the Construction & Fitting Out Notes.

2.2 Basic Hull Measurement

a. **Overall length** shall be measured along the centreline of the boat from the upper aft face of the transom to the forward extremity of the stem head (bow) block.
b. **Beam** shall be measured over the outer edges of the gunwales/rubbing strips.
c. **Side and bottom panels** shall be measured at the transom and main bulkhead positions. The side panels are measured from the chine to the side tank top, and the bottom panels are measured from chine to chine around the outside of the vee bottom. The measuring point at the

chines is to be taken from the intersection of the outside projections of the side and bottom panels.

d. **Bow**. When a one-metre straight edge is placed on any portion of the outer surface of the hull forward of the centrecase bulkhead, any concavity shall not exceed 5mm.

2.3 Transom

Protrusion of the bottom or side panels past the aft face of the transom is not allowed.

2.4 Centrecase

a. The distance between the forward edge of the centrecase opening & the aft face of the centrecase bulkhead shall be within specified limits when measured along the centrecase stiffener.

b. The length of centrecase slot shall not exceed the maximum dimension specified at any point.

2.5 Tank Tops

The minimum width of the tank tops shall be measured at the thwart on port and starboard sides, around the surface.

2.6 Centrecase Bulkhead

a. The distance from the aft face of the centrecase bulkhead to the aft face of the transom shall be within the limits specified when measured at approximately tank top level along the centreline of the boat.

b. The depth of the centrecase bulkhead shall be within the specified limits when measured from the top of the keel to the top of the foredeck.

2.7 A hole or air vent is permitted in each side tank baffle in any position, but it must be within tolerances specified.

2.8 Gunwales

Gunwales are to be fitted around the full length of the boat and can be extended to join at the bow provided extension past the stem block does not exceed **32mm**.

2.9 Keel

The cross section of the keel shall be uniform and not less than the minimum specified and be fitted between the centrecase and the transom.

2.10 Weight

a. The weight of the hull shall be measured in dry condition with all **FIXED** fittings in place, but excluding the rudder assembly, bailing bucket/s, paddle/s, and centreboard.

b. If necessary to bring weight of boat to its minimum tolerance, extra ballast must be positioned on transom sternpost section **OR** under the thwart adjacent to the centreboard case, and be visible by inspection. The weight of the extra ballast must be within the tolerance specified. (**3.0 kilograms maximum**). *(Amended by SGM 24/9/2010)*

2.11 Rocker

With the hull inverted, rocker shall measure:

- between **35mm & 50mm** at a point **3048mm** forward of the transom along the datum line;
- between **5mm & 10mm** at a point **1416 mm** forward of the transom along the datum line;
- between **40mm & 48mm** at a point **708mm** forward of the transom along the datum line;

all measured below a datum line along the centreline of the hull from a point **102mm** above the centre of the transom and resting on the highest point of the keel line of the hull.

3. CENTREBOARD *Refer to Diagram #13 in the Construction & Fitting Out Notes.*

3.1 a. The centreboard shall be constructed to the profile illustrated in ***Diagram #13*** in the Construction & Fitting Out Notes, of plywood, solid or laminated timber, and may be finished with a skin of fibreglass, such skin being included in the thickness dimension, or may be constructed of FRP material by approved builders as specified in ***Section B*** of the Construction & Fitting Out Notes.

b. This measurement (from front of c/board slot to transom around curve of keel) deleted.

c. The centreboard shall conform to the plan dimensions within the tolerances specified. The centreboard cross-sectional shape may be faired as permitted by ***Rule 1.13 - Fairing***.

4. RUDDER ASSEMBLY *Refer to Diagram #13 in the Construction & Fitting Out Notes.*

4.1 a. The rudder blade shall be of the sliding type to the profile illustrated in ***Diagram #13*** in the Construction & Fitting Out Notes, and made of solid or laminated timber, plywood, or FRP

material as specified in ***Section B*** of the Construction & Fitting Out Notes. The rudder blade may be finished with a skin of fibreglass, such skin being included in the thickness dimension.

b. The rudder blade cross-sectional shape may be faired as permitted by ***Rule 1.13 - Fairing***.

c. In accordance with Yachting Australia Special Regulations, Part 2, Regulation R6, a stainless steel retaining pin shall be fitted through a pintle to prevent the rudder becoming detached.

4.2 Edges of rudder cheeks may be rounded to a maximum 10mm radius ***(see Rule 1.13 - Fairing)***.

5. HULL FITTINGS & EQUIPMENT

5.1 Inspection Hatches & Drain Plugs

a. One inspection hatch must be fitted in each buoyancy tank.

b. Side inspection hatches to be fitted midway between the centrecase bulkhead & the thwart.

c. Watertight drain plugs may be fitted to any cockpit panel, including the transom, provided all buoyancy tanks remain sealed and drain plugs in place whilst sailing.

d. Two hatches may be fitted to the forward tank to aid construction.

5.2 Mainsheet System

Maximum **5:1** purchase - jamming cleats and/or ratchet block optional. Method optional but must run between slack-rope hawse on thwart to the boom then via a floor-attached block to the skipper.

Holes through the thwart for the rope hawse must be within tolerances measured from hole centre to hole centre.

5.3 Mast Step

Design is optional provided that it shall:

a. not be capable of being adjusted whilst sailing and be made from timber or FRP as specified in the Construction & Fitting Out Notes.

b. prevent swivelling action.

c. be no higher than 25mm above the foredeck.

d. position the mast within limits specified when measured from the aft face of the transom. The mast step shall be such that the positioning of the mast cannot be altered in the step.

e. support the mast base no more than 5 mm above deck level.

5.4 Self Bailers

Maximum of two (2) allowed in the bottom panels. Location is optional. Flaps or funnel-type devices in the transom are **NOT** permitted.

5.5 Centrecase Rubbers

Strips of rubber or plastic designed to close of the centrecase slot underwater are **NOT** permitted.

5.6 Toe straps

May be fitted, location optional.

6. MAST

6.1 Mast - General

a. The mast shall be made from constant section oval aluminium alloy (Alcan K4621, Comalco E11466, or equivalent). Tapering is NOT allowed. Saw cuts through sail track section to induce bending are NOT allowed. The sail track section may only be cut away as per plan to accommodate mast fittings. The mast shall not be permanently bent.

b. The overall length of the mast shall be between **5334 & 5350 mm**, including end fittings. Section dimensions shall be measured over the outside major and minor axis.

c. An upper and lower visible band between **13 & 16 mm** wide shall be painted around the mast with the inner edges positioned as specified when measured from the lower end of the mast section, including any end plug fitted. No portion of the sail or headboard shall be set above the lower edge of the upper band nor below the upper edge of the lower band, i.e. the sail must be set between the bands.

d. Base and masthead plugs may be constructed of any material provided they meet the requirements of Rule 6.1e. *(Added SGM 24/92010)*

e. The mast fittings shall be sealed against entry of water, and withstand an immersion test for 5 minutes in approximately 1 metre depth of water.

f. Control lines or halyards are not allowed within the fully enclosed mast section.

g. The mast cutouts for bolt rope and sheave box shall be measured from the base of the mast. The length of any cutout is measured from the furthest extremity of the cutout to the other furthest extremity.

*h. Control on location of vang attachment to mast **deleted Nov 2006**: position now free.*

i. The ends of the mast shall not be tapered.

6.2 Mast Rigging

a. The material and gauge of all wire rigging is optional, but must be adequate.

b. The mast shall be supported by one forestay wire and two shroud wires (side stays).

c. Devices capable of adjusting shroud or forestay tension whilst sailing are not allowed.

7. BOOM

7.1 a. The boom shall be made from constant section round aluminium alloy tube between **50 & 55 mm** outside diameter x **1.6, 2.0 or 3.0mm** gauge. Section dimensions shall be measured over the outside diameter.

b. The length of the boom shall be between **2120 & 2130mm** measured over the ends of the constant section excluding end fittings.

c. Control lines or halyards are not allowed within the boom section.

d. A visible band between **13 & 16 mm** wide shall be painted around the boom with the inner edge positioned no more than **1821mm** from the aft edge line of the full mast section. The clew of the sail may not be pulled past the inner edge of the visible band.

7.2 a. An outhaul towel rail for on-water adjustment of the clew of the sail is required as shown on ***Diag. #26 - Boom Layout & Detail of Outhaul Towel Rail*** in the Construction & Fitting Out Notes. Its location is measured from the innermost edge of the traveller to the after face of the mast when the boom is fixed onto the mast gooseneck.

b. The forward extremity of the vang boom fitting must be between **665 & 690 mm** measured from the innermost point of the fitting to the after face of the mast with the boom fitted to the mast gooseneck, the sail rigged and the vang tensioned.

c. The outhaul purchase is optional, but must only use block and cleats. Fittings such as levers, muscle boxes and drum winches are **NOT** permitted.

8. SAIL

8.1 General

a. The sail shall be made from woven polyester sailcloth material with a minimum weight of **130 grams per square metre** and constructed in accordance with these rules. The sail shall be generally white with a red panel at the top as detailed in ***Rule 8.2(a)***.

b. The class insignia shall be red and conform to the design approved by the SSAA. It shall be positioned back to back on both sides of the sail, below the colour panel, and in the middle of the area bounded by the luff, leech and both full-length battens. *(Amended by SGM August 2011)*

c. Sail numbers shall be red, comply with ISAF Rules, (*i.e. sans serif upright Arabic font, minimum size 300mm high x 200mm wide (except for the figure 1) x 40mm thick*) and be fixed on both sides of the sail and vertically offset so that the upper numbers are on the starboard side. Numbers that have identical reverse images may be fixed back to back. Numbers shall be positioned below the insignia, in the area bounded by the luff, leech and lower full batten and upper short batten. *(Amended by SGM August 2011)*

d. Measurements shall be taken with the sail in a dry state, spread on a flat surface and under sufficient tension to remove wrinkles along the lines being measured. Sails must not exceed the maximum dimensions whether new or used.

e. Bolt ropes may be elasticised and shall be included in dimensions [other than at the sail peak - see ***Rule 8.2(d)***] or measurement lines and, where corner points have been trimmed, measurements shall be taken from the intersection of the continuation of the two edges.

f. The measurer shall identify with waterproof ink each sail that conforms to the rules.

8.2 Details

a. The colour panel shall fill all of the area above the top of the upper batten and the foot of the colour panel shall be parallel to the top batten.

b. The sail shall have four batten pockets equally spaced (subject to the tolerance specified) along the line of leech measurement. The upper two batten pockets shall extend to the luff and the lower two shall be for leech battens not more than **610mm** long.

c. Deleted – Replaced by Rule 8.2 (h)

d. The upper edge of the headboard shall be finished perpendicular to the luff and of length no greater than **102mm** measured at right angles to the mast from aft edge of boltrope to the furthermost point of hard material.

e. The leech measurement shall be taken in a straight line from the peak corner (at the luff) to the clew corner.

f. The half height point on the leech shall be determined by folding the peak corner (at the luff) to the clew corner then smoothing the fold thus formed. The three-quarter height point on the leech shall be determined by further folding the peak corner to the half-height point and smoothing out the fold thus formed. Girth measurements shall be taken at the half and three-quarter heights by striking an arc from the leech measurement point determined as above, to the nearest point of the luff (over the bolt rope).

g. A window of **774 square centimetres** maximum area may be fitted to the sail. Additional telltale windows may be fitted. Window positions are optional but no window may be located closer than **150mm** to any edge of the sail.

h. Deleted *(SGM August 2011)*

8.3 Sail Measurements

Reference: ISAF/YA Rule Book for definitions

Luff: between black bands (on mast)..... 4673 mm max.

Foot: black band from aft edge of full mast section ..... 1981 mm max.

Leech: straight line from head to clew..... 5029 mm max.

Head to centre of foot of sail ..... 4927 mm max.

Three quarter girth incl. bolt rope..... 815 mm. Max.

Half girth incl. boltrope ..... 1410 mm max.

Headboard, outstand at top of sail measured at right angles to mast ..... 102mm max.
from aft edge of bolt rope to furthermost point of hard material ***(Rule 8.2.d)***.

Sail area. ..... 6.3172 sq.m. max.

Battens, 4 off, pockets for which shall be square to the leech measurement line and divide that line into five equal parts (within **51mm** of true position) (***Rule 8.2.e***).

The top two battens shall extend from luff to leech.

The lower two battens may not exceed **610mm** in length.

Sail shall be of loose foot construction.

Sail cloth. Shall be woven polyester sailcloth having a minimum weight of **130 grams per square metre** and be white with a red coloured cloth peak as in ***Rule 8.2(a)***.

The class insignia to be of red cloth stitched or adhered onto sail as in ***Rule 8.2(b)***.

Sail numbers shall be red as in ***Rule 8.1(c)***.

Window (Optional). Maximum area **774 square centimetres** as in ***Rule 8.2(g)***.

The half height point shall be found by folding the head to the clew as in ***Rule 8.2(f)***.

The three-quarter girth point shall be found by folding the head to the half height point at the leech.

The half and three-quarter girth measurements shall be taken by swinging an arc from the relevant measurement point on the leech to the nearest point on the luff (including the bolt rope).

A Cunningham eye above the tack cringle is not allowed; the only method of tensioning the luff of the sail shall be by means of a purchase applied to the tack cringle of the sail.

Other insignia, letters or numbers on sails are not allowed except for Club requirements and/or a sail maker's mark in compliance with ISAF rules.

TABLE OF MEASUREMENTS

Meas. No.	Rule No.	Requirement	Minimum	Maximum
HULL				
1(a)	2.1(a)	Plywood parts Nos. 1, 1A, 5, 8, 9 (Thickness in mm) Where bottom panels are 4mm ply with fibreglass sheathing on one or both sides ***(See Page 6 "Plywood Requirements")*** (Overall thickness in mm)	5 4.5	-
1(b)		Plywood parts Nos. 2, 3, 4, 6, 7 (Thickness in mm)	4	
1(c)		FRP as per Section B for appearance and lay-up	-	-
2	2.1(b)	Buoyancy tanks - sealing	-	-
3(a)	2.2(a)	Overall length - aft face of transom to stem head block at gunwale	3753	3778
3(b)	2.2(b)	Deck/gunwale/rubbing strip extension past stem block		32
4	2.2(b)	Beam at centrecase bulkhead	1384	1409
4(b)	2.2(b)	Beam at web bulkhead (406mm forward of centrecase bulkhead)	1202	1234
5	2.2(b)	Beam at thwart (including rubbing strips)	1447	1490
6	2.2(b)	Beam at transom	1168	1193
7	2.2(c)	Chine to side tank top (sheer line) - at centrecase bulkhead	292	318
8	2.2(c)	Chine to side tank top (sheer line) - at transom	251	258
8A		Chine to side tank top (sheer line) Station 1 - 708 from transom		320
8B		Chine to side tank top (sheer line) Station 1 - 1416 from transom		345
9	2.2(c)	Chine to chine at centrecase bulkhead	1153	1171
9A		Chine to chine at centrecase bulkhead Station 1 - 708 from transom	1110	1122
9B		Chine to chine at centrecase bulkhead Station 2 - 1416 from transom	1180	1200
10	2.2(c)	Chine to chine at transom	962	980
11	2.3(a)	Transom - flush with end of panels	-	-
12	2.3(b)	Length of transom over straight line at top of transom	1127	1139
13		*Deleted Mar 2000*		
14	2.3(b)	Length of transom over straight line at bottom of transom	958	970
15	2.3(b)	Depth of curvature of transom over straight line on keel line	44	56
16	2.3(b)	Depth of curvature of transom over straight line at top	21	33
17		Transom stern post section (except designated FRP design)	48x18	50x19
18	3.1(b)	Centrecase height from outside hull within the tolerance at some point along the slot	280	290
19	2.4(a)	Centrecase from front inner edge of slot to centrecase bulkhead	276	296
20	2.4(b)	Centrecase slot - length Centrecase slot - width	406 14	419 16
21	2.5	Tank tops - width at thwart	254	280
22	2.6(a)	Centrecase bulkhead to transom	2336	2375
23	2.6(b)	Centrecase bulkhead depth	450	460
24		Holes cut out of web bulkhead. (Ply and composite boats only)		30% of area
25	2.7	Maximum of one hole per side tank baffle (ply and composite hulls only)		25
26		Floor battens - minimum 4 only	36x18	40x19
26(a)		Stiffeners (FRP hulls only)		50% of any 225x255
27		Floor battens – required length **in cockpit** of ply hulls, including designated FRP designs. (**NOTE:** Floor battens in ply hulls must pass 25mm through the centre case bulkhead - allow for this when cutting to length) Inner Outer	2260 1990	2280 2010
27(a)		Floor pads and stiffeners (FRP hulls only)		50% of any 225x225 area
28	2.8	Gunwales - fitted full length	-	-
29	2.8	Gunwale section - rubbing strips to be included in overall dimensions outstand measured at right angles to the topsides	19	25
30		Thwart section (ply and composite hulls)	48x18	50x19
30(a)		Thwart section (FRP hulls)	48x18	110x60
31	2.9	Keel width (ply hulls only)	48x18	50x19
31(a)		Keel width FRP hulls	48x18	50x40
32(a)	2.10(a)	Is extra ballast placed in boat	-	-
32(b)	2.10(a)	Is ballast in correct position *(on forward face of transom stern post)*	-	-

33	2.10(a)	Weight of extra ballast		3kg
34	2.10(b)	Weight of dry hull	41kg	
34(a)		Balance point - forward of thwart *(measured without ballast in place)*	80	130
35	2.2(d)	Bow shape - concavity (1 metre straight edge measurement)		5
36	2.11	Rocker at point 3048mm from transom	35	50
37	2.11	Rocker at Station 1 - 708mm from transom	40	48
38	2.11	Rocker at Station 2 - 1416mm from transom	5	10
39		*Spare number*		

SABRE SAILING DINGHY – TABLE OF MEASUREMENTS

Meas. No.	Rule No.	Requirement	Minimum	Maximum
CENTREBOARD				
40	3.1(a)	Centreboard plywood, solid or laminated timber	-	-
40(a)		FRP only - as per section B (FRP Construction)	-	-
41(a)	3.1(a)	Fibreglassed - all over	-	-
41(b)	3.1(a)	Trailing edge only	-	-
42		*Deleted Mar 2000*		
43		*Spare number*		
44	3.1(c)	Width of centreboard	345	355
45	3.1(c)	Length of centreboard	905	915
46	3.1(c)	Fairing - leading edge		65
47	3.1(c)	Fairing - trailing edge		65
48	3.1(c)	Thickness	11	14
49	3.1(c)	Cut off - upper forward edge	75	120
50	3.1(c)	Cut off - top edge	45	84
51	3.1(c)	Shaping - radius of lower edges	30	40
52	3.1(c)	Top and bottom parallel		
53		Handles prevent additional entry (16mm square x 230 mm long)	-	-
54		*Spare number*		
55		*Spare number*		
56		*Spare number*		
RUDDER & TILLER				
57	4.1(a)	Solid timber, laminated timber or plywood blade	-	-
57(a)		FRP Only - as per Section B (FRP Construction)	-	-
58	4.1(b)	Width of blade	200	210
59		Thickness of blade	16	19
60	4.1(b)	Length - overall of blade	780	790
61	4.1(b)	Length - leading edge of blade	780	790
62	4.1(b)	Fairing - leading edge of blade	0	65
63	4.1(b)	Fairing - trailing edge of blade	0	65
64	4.1(b)	Fairing of corners of blade - radius	25	40
65	4.1(c)	Rudder box - captive device complies with YA safety prescription	-	-
66	4.2	Fairing of rudder cheeks (radius)	-	10
67		*Deleted Mar 2000*		
68		*Deleted Mar 2000*		
68A		Tiller - timber - aluminium	- -	- -
69	*4.1(e)*	*Deleted*		-
70		*Spare numbers*		
71		*Spare number*		
72		*Spare number*		
HULL FITTINGS & EQUIPMENT				
73	5.1(A)	Inspection hatches - 1 or 2 in forward buoyancy tank 1 in each side tank	3	4
74		*Spare number*		
75	5.2(a)	Mainsheet track - rope hawse on thwart	-	-
76	5.3(a)	Mast step - fixed while sailing	-	-
77	5.3(b)	Mast step prevents swivelling	-	-
77a		Mast step inner faces vertical	-	-
78	5.3(c)	Mast step - height above foredeck	20	25
79	5.3(d)	Mast forward edge to Transom Rear face	2638	2794
80	5.3(e)	Mast base above deck level	-	5
81		Vang purchase (Amended from 4:1 to 8:1)	-	8:1
82	5.2(a)	Mainsheet system purchase	-	5:1
83	5.2(a)	Mainsheet block sizes	-	64
84	5.4	Self bailers	1 only	2 only
85		*Deleted Mar 2000*		
86		Main halyard cleated aft of 102mm forward of centrecase bulkhead		102
87		Downhaul cleated aft of 102mm forward of centrecase bulkhead		102
88	5.2(a)	Distance of hawse - centreline of holes on thwart	500	510
89	1.7.6	Hull identification: - Plywood hull- on aft keel - FRP hull- on aft face of web bulkhead	 40 40	
90		*Spare number*		
91		*Spare number*		
92		*Spare number*		

SABRE SAILING DINGHY – TABLE OF MEASUREMENTS

Meas. No.	Rule No.	Requirement	Minimum	Maximum
MAST				
93	6.1(b)	Length	5334	5350
94	6.1(b)	Major axis	65	67
95	6.1(b)	Minor axis	49	51
96	6.1(f)	Halyards external	-	-
97		Sail can be lowered on water	-	-
98	6.1(c)	Width of painted bands on mast	13	16
99	6.1(c)	Height of upper band (lower edge)	-	5220
100	6.1(c)	Height of lower band (upper edge)	546	-
101	6.1(e)	Mast fittings sealed	-	-
101(a)		*Deleted SGM 24/9/2010*		
102		Shroud position from base of mast, i.e.: closest point of shroud bearing point to base of mast	3511	3524
103	6.1(g)	Mast 'cut out' for bolt rope	100	110
104	6.1(g)	Mast 'cut out' for bolt rope (lower edge) from base of mast	680	690
105	6.1(g)	Mast 'cut out' for halyard sheave box at base of mast	40	50
106	6.1(g)	Mast 'cut out' for halyard sheave box (lower edge) from base of mast	25	30
107	6.1(g)	Mast 'cut out' for halyard sheave box (upper edge) from base of mast	65	80
108	*6.1(g)*	*Vang mast fitting location– Requirement removed October 2006*		
109	6.1(h)	Mast square at ends	-	3
110	6.1(h)	Centreline of Gooseneck (from base of mast)	420	440
111		Mast sleeves are not permitted		
112		*Spare number*		
113		*Spare number*		
114		*Spare number*		
BOOM				
115	7.1(b)	Diameter	50	55
116	7.1(b)	Length of tube section	2120	2130
117	7.1(d)	Distance to band (inner edge) from back of mast	-	1981
118	7.2(a)	Outhaul towel rail position, refer ***Diag. #26***	1830	1842
118(a)		Towel rail fitting length of rail only, slide fitting optional refer ***Diag. #26***	195	205
119	7.2(b)	Vang boom fitting - distance from back of mast to extreme front of fitting	665	690
120	7.1(d)	Width of painted band on boom	13	16
121		Outhaul double pulley hanger (from aft face of mast to centre of fitting)		150
122		Boom sleeves are not permitted		
123		*Spare number*		
124		*Spare number*		
SAIL				
125	8.1(a)	White with red tip. Woven polyester sailcloth. Minimum gm/sq.metre	130	
126	8.1(b)	Class insignia and location correct		
127	8.2(g)	Window size		774cm^2
128	8.1(c)	Sail number position correct		
129	8.1(c) & YA reqts	Sail number height Number style upright sans serif Arabic, min thickness 40mm	300 (x 200 x 40)	
130	8.3	Luff		4673
131	8.3	Foot		1981
132	8.3	Leech		5029
133	8.3	Head to centre foot of sail		4927
134	8.3	Three-quarter girth		815
135	8.3	Half girth		1410
136	8.2(d) 8.3	Headboard outstand from back of boltrope		102
137	8.2(b)	4 battens divide sail within 5 equal parts within 51mm. Battens parallel to each other and square to line joining clew and head of sail.		
138		Loose foot		
139	8.2(b)	Top 2 battens extend from luff to leach		
140	8.2(b)	Lower 2 battens length		610
141		*Spare number*		
142		*Spare number*		
143		*Spare number*		
144		*Spare number*		