SKATE SAILING ASSOCIATION OF AUSTRALIA

HULL AND RIG MEASURING FORM

This measuring form is to be used in conjunction with the Hull and Rig measuring guide

Name of Boat _____ Reg no _____

Owner _____ Phone. _____

Address _____

No	Measurement	Minimum	Actual	Maximum
1.1	Length overall	4255		4279
1.2	Height of stem	317		343
1.3	**Spring**			
1.3.1.1	Overall spring	121		133
1.3.1.2	Point of contact	1677		1981
1.3.2.1	Forward Spring	42		54
1.3.2.2	Point of contact	991		1143
1.3.3.1	Aft Spring	19		31
1.3.3.2	Point of contact	3124		3276
1.4	**Depth of Vee**			
1.4.1	305mm aft of stem	51		77
1.4.2	1067mm aft of stem	83		95
1.4.3	2134mm aft of stem	73		85
1.4.4	3200mm aft of stem	61		73
1.4.5	Transom	45		57
1.5	**Width of Chines**			
1.5.1	1067mm aft if stem	756		768
1.5.2	2134mm aft of stem	1035		1047
1.5.3	3200mm aft of stem	972		984
1.5.4	Transom	756		768
1.6	**Centre-board case opening**			
1.6.1	Front of opening to stem	1854		
1.6.2	Rear of opening to stem			2362
1.6.3	Length of opening			406
1.7	**Weight of Hull**			
1.7.1	Overall hull weight	54.5kg		kg
1.7.2	Total weight of correction if fitted			kg
1.8	**Depth of Hull**			
1.8.1.1	Transom	261		273
1.8.1.2	2134mm aft of stem	371		397
1.8.2	Overall Maximum			600
1.9	**Width of stem and deck**			
1.9.1	Width of stem			51
1.9.2.1	1067mm aft of stem	959		971
1.9.2.2	2134mm aft of stem	1264		1276
1.9.2.3	3200 aft of stem	1188		1200
1.9.2.4	Transom	896		908

1.10	**Width of Gunwale**			40
1.11.1	Cockpit Length	864		
1.11.2	Cockpit Depth	51		203
1.12	Mast Step Position	1372		1524
1.13.1	Rounds			6
1.13.2	Radii			3
1.14	Hull Thickness	4		
2.1.1	Centreboard thickness			70
2.1.2	Rudder frame maximum distance			152
2.2	**Spars**			
2.2.1	Cross Section			102
2.2.2.1	Mast length			7153
2.2.2.2	Forestay height	1833		
2.2.3	Boom Length			3048
2.2.4	Spinnaker pole asymmetric			1800
2.3	**Hull additions for asymmetric pole support**			
2.3.1	Stem from keel to deck clear of support web	35		
2.3.2	Height of pole casing above Stem			70
2.3.3	Support web from bow along side gunwale			350
2.3.4	Length of Bee Sting from bow			350
2.4.2	Protruding Fittings		Yes/No	152
3.1	**Leaning Planks**			
3.1.1	Length of long Plank			3048
3.1.2	Length of Short Plank			2438
3.2	**Frames or Wings**			
3.2.1	No Trapeze and one in			3048
3.2.2	No Trapeze and both out			2710
3.2.3	One Trapeze and one in			2133
3.2.4	Two Trapezes and Both out			1755
4	**Notes:**			

5. **Declarations**

I declare that the measurements and information that I have shown on this form are true and correct at the time of measuring

Measurer: _____ Date: _____

I understand that it is my responsibility to see that this boat, spars, sails and equipment comply with the class rules at all times and that alterations, replacements or repairs to the boat, spars, sails do not invalidate this form.

Owner: _____ Date: _____

SKATE SAILING ASSOCIATION OF AUSTRALIA

HULL AND RIG MEASURING GUIDE

General Instructions

1. Any boat that wishes to be recognized as a Skate must be measured by a Measurer approved by the association

2. This Measuring Guide is to be used in conjunction with the Measurement Form and the relevant sections of the Skate Constitution

3. All lines (including sheer, gunwale, keel and chine) shall be fair and continuous in both plan and elevation

4. Boat shall be presented for measuring in a completed condition acceptable to the Measurer and shall be dry both inside and out with all fixed fittings properly attached in a manner acceptable to the Measurer

5. Fixed fittings shall:
   (a) be defined as any removable fitting that requires tools other than a shackle key for its' removal
   (b) include no wires, ropes or control lines unless an integral part of the fitting e.g. magic box

6. All Measurements taken along the length of the hull for vees, widths etc. shall be taken from the Stem Perpendicular described below.

1. Measuring the hull

The hull shall be placed upside down (keel uppermost) on solid, level, floor. The hull shall be set up to the floor with the point where the keel meets the transom, and a point on the keel 102mm aft of the stem, equidistant above the floor, as shown in Figure 1. A line shall be projected from the forward most point of the hull (not including fittings) perpendicular to the floor as shown. This line shall be known as the Stem Perpendicular.

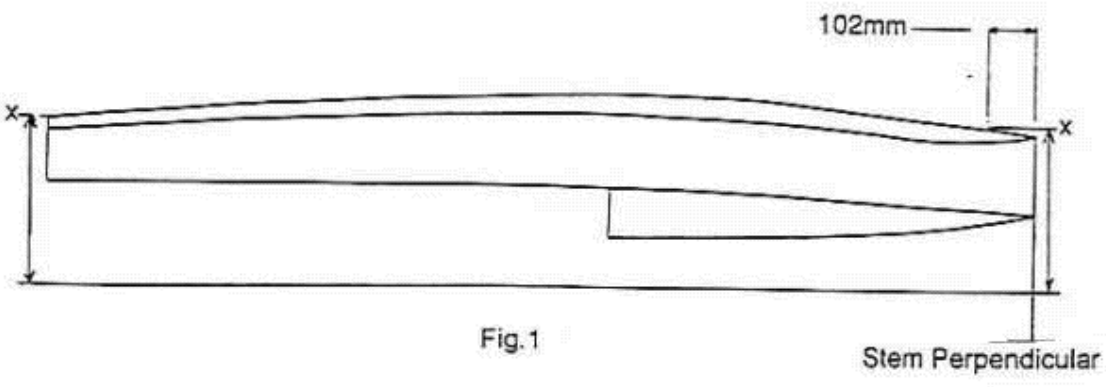

Fig.1

1.1 Length overall

This shall be measured between the Stem Perpendicular and a similar projected line from the aft most point of the hull (not including fittings, Spinnaker pole or rudder supporting structure) perpendicular to the floor.

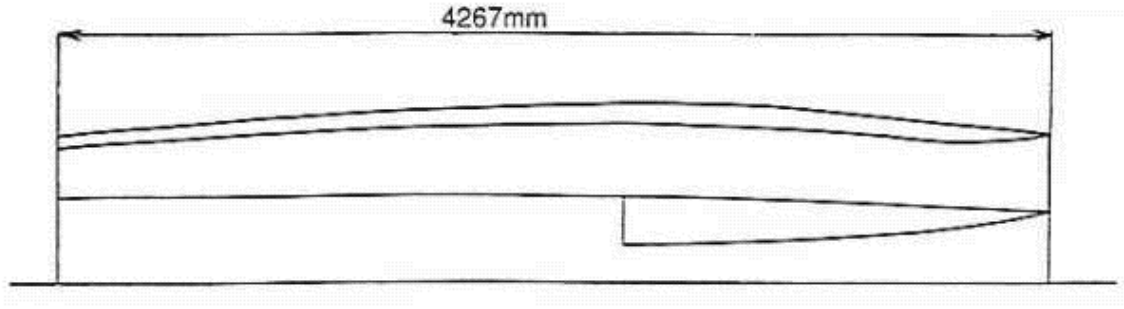

Fig.2

1.2 Height of Stem

This shall be measured between the points of intersection of the Stem with the Deck and the Keel along Stem Perpendicular. (330 +/ - 13)

1.3 Spring Measurement

1.3.1 Overall Spring,

This shall be measured by stretching a string line between a point 127 +/ = 6mm above the centerline of the keel at the transom and a point 127 +/ - 6mm above the centerline of the keel at a point 102mm aft of the Stem Perpendicular. Measure the distance from the Stem Perpendicular to the point where the string line touches the keel. (Point of max chest)

(127 = / -6)

(1829 + / - 152)

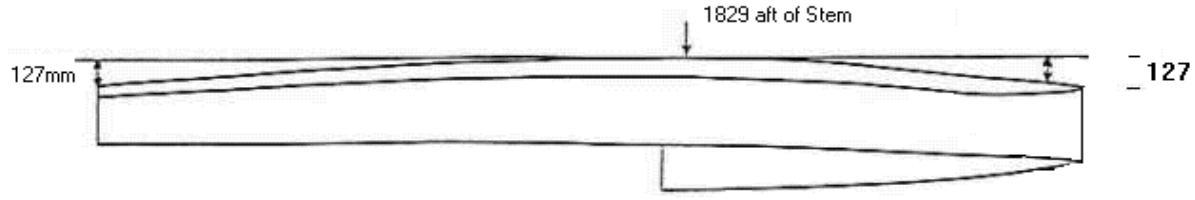

Fig 3

1.3.2 Forward Spring

This shall be measured by stretching a string line between a point 48 + / - 6mm above the stem and a point 48 + / 6mm above the centerline of the keel at a point 2134mm aft of the Stem Perpendicular. Measure the distance from the stem to the point where the string line touches the keel. (48 + / - 6)
(1067 + / - 76)

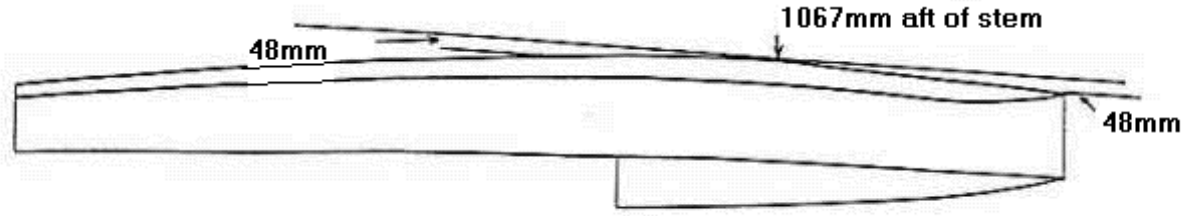

Fig.4

1.3.3 Aft Spring

This shall be measured by stretching a string line between a point 25 + / - 6mm above the centerline of the keel at the transom and a point 25 + / - 6mm above the centreline of the keel at a point 2134mm aft of the Stem Perpendicular. Measure the distance from the stem to the point where the string line touches the keel. (25 + / -6)
(3200 + / - 76)

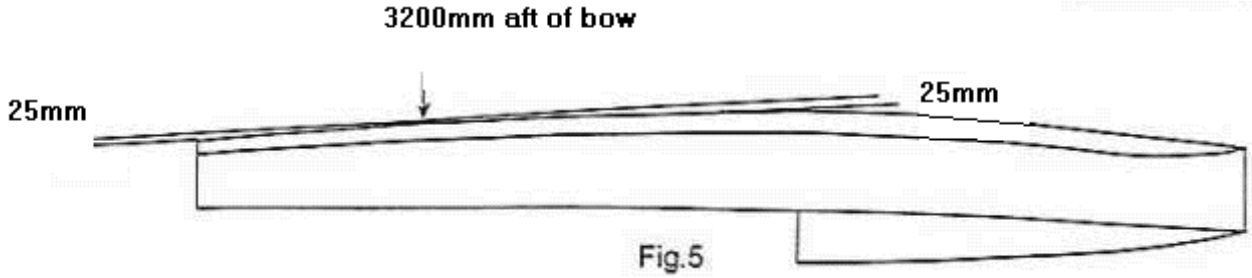

Fig.5

1.4 Depth of Vee

This is measured by placing a straight edge on the keel perpendicular to the centerline of the hull at each point noted below. The straight edge is then placed so that it is equal distance above both chines. The distance is then measured perpendicularly between the straight edge and the chine. The points so found at the chine are then marked. (for later use)

1.4.1 305mm aft of Stem Perpendicular (64 + / -13)

1.4.2 1067mm aft of Stem Perpendicular (89 + / - 6)

1.4.3 2134mm aft of Stem Perpendicular (79 + / -6)

1.4.4 3200mm aft of Stem Perpendicular (67 + / - 6)

1.4.5 Transom (51 + / - 6)

1.5 Width between Chines

This is measured by placing calipers on the points Port and Starboard that were marked on the chine in 1.4 above and the distance between caliper points measured.

1.5.1 1067mm aft of Stem Perpendicular (762 + / - 6)

1.5.2 2134mm aft of Stem Perpendicular (1041 + / - 6)

1.5.3 3200mm aft of Stem Perpendicular (978 + / - 6)

1.5.4 Transom (762 + / - 6)

1.6 Centre-board Case Opening

The following Case measurements are all taken parallel to the centerline

1.6.1 Distance between front of bottom Case Opening and Stem Perpendicular (1854mm min)

1.6.2 Distance between rear of bottom Case Opening and Stem Perpendicular (2362mm max)

1.6.3 Length of Case Opening (406mm max)

<u>THE HULL IS NOW TURNED OVER (i.e. DECK UPPERMOST)</u>

1.7 Weight of Hull

1.7.1 The hull shall be weighed with all fixed fittings attached in accordance with the measurer's instructions. If additional weight is required to enable the hull to reach the minimum weight it shall be equally divided and permanently fixed to the hull within **<u>ONE</u>** metre of the ends. (54.5kg min)

1.7.2 The weight of correctors, if fitted, shall be noted.

1.8 Depth of Hull

1.8.1 This is the distance between the keel and a line between Port and Starboard sheerlines perpendicular to the centerline of the hull measured at the following points.

1.8.1.1 Transom (267 + / - 6)

1.8.1.2 2134mm aft of Stem Perpendicular (384 + / - 13)

1.8.2 This is the overall maximum depth of the boat measured perpendicular from any point on the keel to the upper most part of the boat at that point. (Probably at the mast step or front of plank rails) (600 max)

1.9 Width of Stem and Deck

1.9.1 Width of Stem
This shall be measured at the widest section of the stem (51 max)
(In the case of a boat with a modified bow for the purpose of the spinnaker pole attachment, this measurement shall be taken from a point of intersection of the keel and the stem up 160mm)

1.9.2 Width of Deck
This shall be measured between the Port and Starboard sheerlines perpendicular to the centerline of the hull at the following points.

1.9.2.1 1067mm aft of Stem Perpendicular (965 + / - 6)

1.9.2.2 2134mm aft of Stem Perpendicular (1270 + / - 6)

1.9.2.3 3200mm aft of Stem Perpendicular (1194 + / - 6)

1.9.2.4 Transom (902 + / - 6)

1.10 Width of Gunwale

This shall be measured between the intersection of the side and the underside of the Gunwale, and the outer extremity of the gunwale, perpendicular to the centerline of the hull. (40 max.)

1.11 Cockpit

1.11.1 Length of cockpit shall be measured from the aft end of the cockpit to the forward end of the cockpit parallel to the centerline of hull. (864mm min)

1.11.2 Depth of cockpit shall be measured perpendicular to the centerline of the hull from a line between the Port and Starboard sheerlines and the bottom of the cockpit.
(203max 51min)

1.12 Position of Mast Step

This shall be measured parallel to the centerline of the hull between the Stem perpendicular (at Mast Step Height) and the Centre of the Mast Step. (1524max. 1372min)

1.13 Rounds and Radii

1.13.1 Rounds in sections, measured perpendicular to the centerline. Chine to Keel and Chine to Gunwale (6 max.)

1.13.2 Chine radius formed by rounding off the apex formed by the bottom and side of the hull.
(3 max.)

1.14 Hull Material

The material of construction of the hull is free but must be of specified thickness.
(4 min)

2. MEASUREMENT OF BLADES AND RIG

2.1 Rudder

The shape, size and material of the rudder is free.

2.1.1 Center-board

Maximum thickness of the center board shall not be more than (70mm max)
The shape is free.

2.1.2 Rudder Frame

A Frame may be used for the purpose of shifting the rudder away from the transom.
The max distance of the frame including gudgeons but excluding rudder.(152mm Max)

2.2 Spars

2.2.1 Cross – Sectional measurement of any Spa excluding fittings (102mm max)

2.2.2 Mast overall Length

2.2.2.1 Length of mast measured from max depth of hull to uppermost extremity of mast including fittings (e.g. halyard lock) in their extended positions
i.e. 600mm depth of hull + 6553 mast length = total length (7153mm max)

2.2.2.2 Forestay Height

The height of the forestay attachment point measured from the top of the fully extended halyard lock to the upper most part of the forestay attachment point (e.g. t ball or attachment band) (1833mm min)

2.2.3 Length of boom measured from the aft edge of the mast including fittings (3048mm max)

2.2.4 Spinnaker pole length

Length of spinnaker pole including fittings from the vertical extremity of the stem (1800 max)

2.3 Hull additions for asymmetric spinnaker pole supports shall meet the following requirements for both retractable and fixed poles (Fig 6)

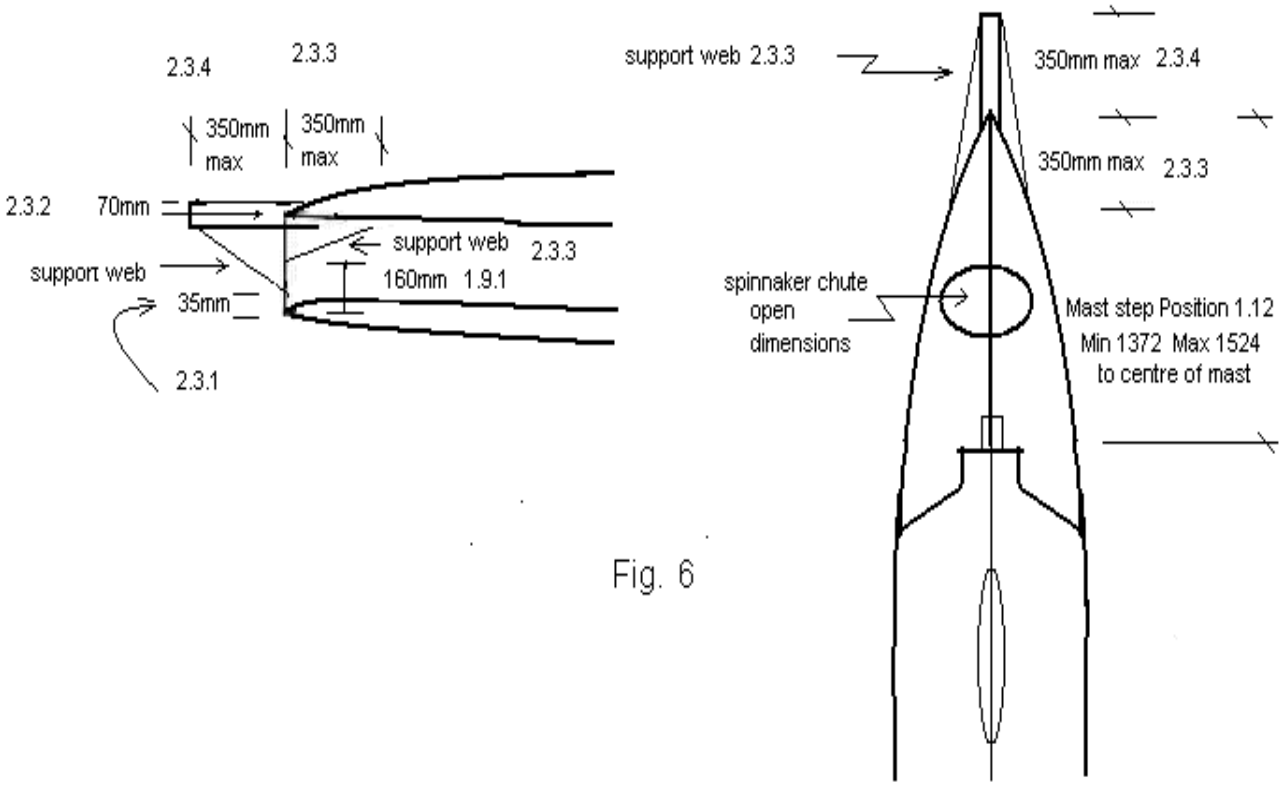

Fig. 6

2.4 Protruding Fittings

It is the intention of this rule to preclude any fixed fitting intended to displace the point of sheeting from the hull by a distance exceeding 152mm.
The point of sheeting is defined as the point at which the sheet rope first contacts the sheave of the turning block (from the sail side), when placed under normal sailing loads (in both magnitude and direction)

2.4.1 No fixed fitting shall protrude from the hull more than 152mm

2.4.2 No fixed fitting which protrudes more than 152mm shall be used for sheeting purposes.
Does any fitting contravene these requirements? (yes / no)

2.4.3 Fixed fittings may be made of composite material and fastened to the hull with composite material, but shall not protrude on the water line of the hull.

3. Leverage Devices:
It is not the intention of this section to override or supersede any references to Leverage devices and their use which are already contained in Part 6 (paragraph 6.9) of the Constitution. Any references to crew's use of leverage devices is by way a Guidance only for the measurer to assist in determining the correct measurement Applicable.

3.1 Sliding Planks
Shall be measured from the end of the fully extended plank to the outside of the opposite gunwale.

3.1.1 Length of Long Plank: (3048 max.)

3.1.2 Length of Short Plank (2438 max)

3.2 Frames or Wings
Shall be measured from the widest extremity of the frame in its' normal position, when in use, to the outside of the opposite gunwale, and the outer edge of the frame shall stay parallel to the centreline of the boat.

3.2.1 Frame to be used with no trapeze and one crewmember in contact with the hull at all times. (3048 max.)

3.2.2 Frame to be used with no trapeze and a minimum of no crewmembers in contact with the hull at all times. (2710 max.)

3.2.3 Frame used with a maximum of one crew member only on trapeze at any time and a minimum of one crew member in contact with the hull at all times. (2133 max.)

3.2.4 Frame used with a maximum of two crew members on trapeze at any time and a minimum of no crew members in contact with the hull at all times. (1755 max.)