Sabre Sailing Association of Australia Proposed Rule Changes

Note: "Proposal" refers to the sequence number in John Dixon's suggested changes that were circulated to key people in each State early 2013.

- 1. Establish a single Fixed Datum Point for Basic Hull Measurement (proposal 60)
- 2. Changes as a consequence of amended Rule 2.2 Hull Datum Point and Transom Top Datum Point.
- 3. Chain Plates measurement from Transom Top Data Point.
- 4. Mast step height above foredeck, maximum height of mast above foredeck (proposal 30)
- 5. Mast step material (proposal 29), mast step attachment
- 6. Gunwales and overall length measurement (proposals8, 9 and 10) withdrawn 22 Oct 13
- 7. Rule 6.1(g) Mast cut-outs (Proposals 1 and 2)
- 8. Rule 7.2(b) Vang attachment point (proposal 3)
- 9. Rudder cheek thickness and construction (proposal 4)
- 10. Transom Stern Post width (proposal 5)
- 11. Transom Pintle spacers (proposal 6)
- 12. Outhaul system (proposal 11)
- 13. Redundant Clew Outhaul diagram (proposal 44)
- 14. Allow outhaul control lines inside the boom (proposal 28).
- 15. Black Bands (proposal 13)
- 16. Tiller dimensions (proposal 22)
- 17. Ply panels joining method options (proposal 24)
- 18. Floor Battens Timber construction Step 28
- 19. Change Mast Web and Webb Support definition for ply boat (proposal 23).
- 20. Remove references to proprietary products (proposal 25)
- 21. Remove references to construction materials not readily available (proposal 26)
- 22. Remove references to epoxy glue (proposal 27)
- 23. Scuppers / Transom flaps (proposal 31)
- 24. Main halyard cleating position (proposals 33 and 50)
- 25. Gunwale radius (proposal 34)
- 26. Option of Plastic Cable ties or Copper Wire in construction of timber boats
- 27. Timber dimension and types general note (proposal 39)
- 28. Hull Identification with the Sail Number (proposal 40)
- 29. Obsolete information in Section D Fitting Out (proposals 43, 53)
- 30. Remove obsolete Boom Vang layout (proposal 45)
- 31. Remove Painting and Maintenance instructions (proposal 46)
- 32. FRP Centreboard only constructed by 'authorised builders' (proposal 47)
- 33. Centreboard and Rudder measurement clarification to meet ISAF standards (proposals 35 and 37)
- 34. Remove references to the use of silicon sealant (proposal 48)

- 35. Optional position for Mainsheet Ratchet Block and attachment method (proposals 49 and 50)
- 36. Boom section (proposal 52)
- 37. Method for attaching shrouds to mast tangs and halyard material Diag. #25A (proposal 54)
- 38. Mast vang attachment point incorrectly specified in Diag. #25B (proposal 55)
- 39. Mast 'cut out' for sail luff (proposal 56)
- 40. Remove references to Imperial measurements (proposal 57)
- 41. Enhance safety warnings (proposal 57)
- 42. Change FRP mould measurement procedure (proposal 32)

1. Establish a single Fixed Datum Point for Basic Hull Measurement (proposal 60)

Good boat measurement practice bases all measurement on a fixed datum point. This is recognized in the ISAF guidelines.

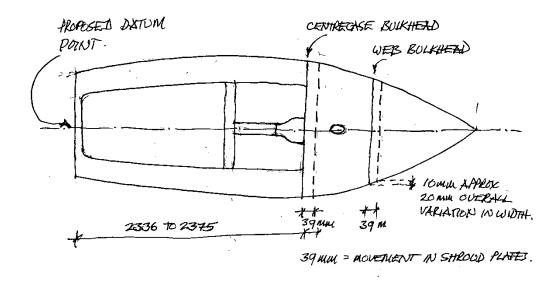
Sabre hull measurement is largely based on a fixed datum point at the transom but diverges from this around the centrecase bulkhead measurement. Mast step position, Rocker and two of the three chine to chine measurements are based on a fixed distance from the transom datum point.

The third chine to chine measurement and two of the gunwale to gunwale measurements are based on the position of the centrecase bulkhead which can vary by 39mm fore and aft. The consequence of this is that the width of the boat is variable according to the location of the centrecase bulkhead. This variation adds another 20mm to the tolerances at the web bulkhead and approximately 10mm at the centrecase bulkhead.

By inference in the construction notes the position of the shroud plates is controlled by the location of the centrecase bulkhead whereas the mast position is controlled from the transom datum point.

Having a fixed datum point will give certainty to hull builders, those fitting out boats and to measurers.

In the following proposals, existing dimensions have been retained wherever possible and the new dimensions have been derived from existing measurement rules to be as close as possible to the original intent. This will more accurately control the width dimensions of the hull and also control the offset of the shroud plates from the mast. The revised hull measurement will bring the Sabre rules close to ISAF hull measurement guidelines.



Establish a single Fixed Datum Point for Basic Hull Measurement (continued)

Moved: Harold Medd (Victorian Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 2.2 Basic Hull Measurement as shown here;

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.

Be amended as follows;

2 Basic Hull Measurement

All measurements are based on one fixed Hull Datum Point.

The 'Hull Datum Point' is – The lowest point on the aft transom where the extension of the bottom panels meet on the centreline.

For measurements at deck level this datum point is on the plane of the transom at the top of the transom at the centreline and is referred to as the '**Transom Top Datum Point**'. Note that it is the plane of the transom, not the aft side of any transom top lip.

The angle of the transom to the hull is controlled by the shape of the template for the side panel where the stern end of the side panel forms a right angle.

Measurement Sections - The Measurement Sections shall be defined by the following points measured from the Hull Datum Point along the hull centreline, chines and sheer lines at deck level.

Section 1 – 708mm from aft face of transom

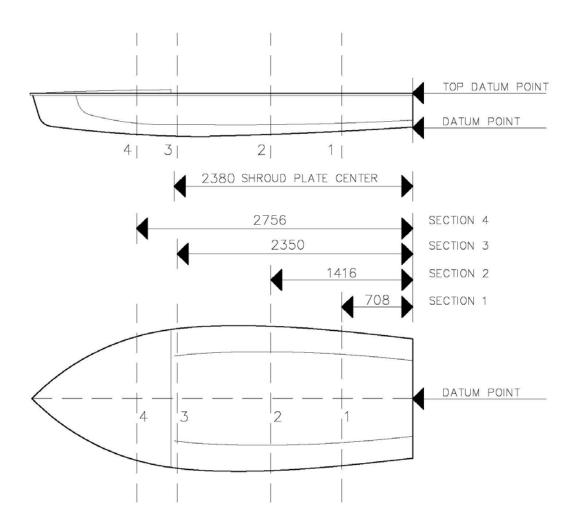
Section 2 – 1416mm from the aft face of the transom

Section 3 – 2350mm from the aft face of the transom.

Section 4 – 2756mm from the aft face of the transom

- a. **Overall length** shall be measured along the centreline of the boat from the *Transom Top Datum Point* 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 at Sections 3 and 4. 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.

Establish a single Fixed Datum Point for Basic Hull Measurement (continued)



SABRE DATUM POINT AND SECTION LOCATIONS

Establish a single Fixed Datum Point for Basic Hull Measurement (continued)

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

2. Changes as a consequence of amended Rule 2.2 - Hull Datum Point and Transom Top datum Point

Moved: Harold Medd (Victorian Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Rules and measurements shown here;

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.

2.6 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 hoat

5.3 Mast Step

Design is optional provided that it shall:

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.

Table of Measurements

3(a)	2.2(a)	Overall length - aft face of transom to stem head block at gunwale	3753	3778
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
7	2.2(c)	Chine to side tank top (sheer line) - at centrecase bulkhead	292	318
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
19	2.4(a)	Centrecase from front inner edge of slot to centrecase bulkhead	276	296
22	2.6(a)	Centrecase bulkhead to transom	2336	2375
79	5.3(d)	Mast forward edge to Transom Rear face	2638	2794

Be amended as follows;

2.4 Centrecase

- a. The distance between the forward edge of the centrecase opening & the *Hull Datum Point* 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.

2.6(a). Centrecase Bulkhead

The distance from the aft face of the centrecase bulkhead to the *Transom Top Datum Point* shall be within the limits specified when measured at approximately tank top level along the centreline of the boat.

Changes as a consequence of amended Rule 2.2 - Hull Datum Point and Transom Top datum Point (continued).

5.3(d). Mast Step

Design is optional provided that it shall:

a. Position the mast within limits specified when measured from the *Transom Top Datum Point*.

Table of Measurements

3(a)	2.2(a)	Overall length – <i>Transom Top Datum Point</i> to stem head block at gunwale	3753	3778
4	2.2(b)	Beam at Section 3	1384	1409
4(b)	2.2(b)	Beam at Section 4	1202	1234
7	2.2(c)	Chine to side tank top (sheer line) - at Section 3	292	318
8B		Chine to side tank top (sheer line) – at Section 2		345
9	2.2(c)	Chine to chine at Section 3	1153	1171
19	2.4(a)	Centrecase from front inner edge of slot to <i>Hull Datum Point</i>	2048	2068
22	2.6(a)	Transom Top Datum Point to Centrecase bulkhead	2336	2375
79	5.3(d)	Transom Top Datum Point to forward edge of mast	2638	2794

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

3. Chain Plates measurement from Transom Top Data Point

There has been confusion and attempts to stretch the rules particularly with reference to the chain plates and, to some extent hull widths, by manipulating the tolerance in the location of the centre case bulkhead. Currently the position of the chain plates is governed by Step 28 – Chain Plate Blocks. The block must be fixed hard against the centrecase bulkhead but while the block dimensions are stated, it is open as to which way round they are fixed. There is also a 39mm range for positioning the centrecase bulkhead.

Moved: Harold Medd (Victorian Measurer) **Seconded:** Barry Eastgate (Secretary)

That additional Measurement No. 5.7 be added as follows;

5.7 Chain Plates

The method for fitting the chain plates is optional. The maximum distance from the Transom Top Datum Point to the centre point of the load bearing pin is 2380mm.

Table of Measurements

90	5.7	Centre point of Chain Plate load bearing pin to Transom Top Datum Point		2380
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And that Step 28 as follows:

Step 28 - Chain Plate Blocks

Timber 48mm x 18mm cut to 150mm. The chain plate blocks must be fixed on each side of the boat, hard against the forward face of the centrecase bulkhead and flush with the top of the side panels, with glue and 16mm monel nails. A 16mm square must be cut out of the top corner to fit under the bulkhead top. These blocks will carry the strain of the shrouds. Later deck fixing must be hard on these blocks for a good watertight seal. Chain plates will be fixed to the centre of these blocks during fitting out.

Be amended as follows;

Step 28 - Chain Plate Blocks

The method of attaching chain plates is optional.

The recommended method is as follows.

Timber 48mm x 18mm cut to 150mm. The chain plate blocks are fixed on each side of the boat, hard against the forward face of the centrecase bulkhead and flush with the top of the side panels. A 16mm square must be cut out of the top corner to fit under the bulkhead top. These blocks will carry the strain of the shrouds. Subsequent deck fixing must be hard on these blocks for a good watertight seal. The distance from the centre of the load bearing pin of the chain plate to Transom Top datum Point must not exceed 2380mm.

Chain Plates measurement from Transom Top Data Point (continued)

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

4. Mast step height above foredeck, maximum height of mast above foredeck (proposal 30)

Currently there is a maximum height of the mast step above the deck of 25mm, the maximum length of the mast is 5350mm and the base of the mast must be no more than 5mm higher than the bottom of the mast step (i.e. max thickness of the mast step is 5mm). There is no actual maximum measurement stated for the maximum height of the mast from the foredeck but by default it is 5355mm.

The mast step height of 25mm should be a recommendation rather than mandatory and a maximum mast height from the foredeck of 5355mm included. This then allows for the option of attaching the mast step to a mast track as per the next proposal...#5

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 5.3(c) and measurement 78 as shown below;

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

78	5.3(c)	Mast step - height above foredeck	20	25
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Be deleted and;

that new rule 6.1 (j) and measurement 112 be added as follows;

Mast

6.1 j. The maximum height of the top of the mast from the foredeck is 5355mm.

Table of measurements

112	6.1 (j)	Maximum height of mast above foredeck		5355]
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	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

5. Mast step material (proposal 29), mast step attachment

There is no valid reason for restricting mast step material to just timber and FRP. Rule 5.3(a) imposes this restriction but it is not noted in the Table of Measurements.

The current mast step is expensive when specially manufactured. Proprietary mast steps involving mast tracks are about one third of the price and are commonly used on many similar boats. They very effectively prevent the mast from rotating and do not wear, thus eliminating the need for regular maintenance to conform to the rules. They allow some adjustment off the water, minimising the need for repositioning of the step. Adjustment of the step and mast position on the water will continued to be banned.

The current maximum height of the mast step above the deck of 25mm, should be deleted...see #4 above.

Moved: Harold Medd (Victorian Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Rule 5.3 and measurements 78, 79 and 80 shown here;

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.

Table of Measurements

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

Be amended as follows;

5.3 Mast Step

Design and construction material is optional and may be fixed to the foredeck or to a mast track that is fixed to the foredeck, provided that it shall:

- a. Position the mast so that it cannot be altered fore or aft on the water.
- b. Position the mast within limits specified when measured from the *Transom Top Datum Point*.
- c. Prevent swivelling action.
- d. Support the mast base no more than 5 mm above the bottom of the mast step.

Mast step material (proposal 29), mast step attachment (continued)

Table of Measurements

78	5.3(c)	Mast step - height above foredeck	20	25
79	5.3(b)	Transom Top Datum Point to forward edge of mast	2638	2794
80	5.3(d)	Mast base above bottom of mast step	-	5

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

6. Gunwales and overall length measurement (proposals 8,9,10)

It makes sense to tie the option of extending gunwales past the stem post to the overall length rule.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Rule 2.8 as shown here;

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

Be amended as follows;

Gunwales are to be fitted around full length of the boat and can be extended to join at the bow provided the extension does not exceed the overall length rule.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

CARRIED/LOST

This proposal was withdrawn on 22 Oct 2013.

Overall length (rule 2.2 a) provides for a maximum overall length of 3778mm measured from the top datum point to the stem head (bow) block. i.e. the forestay chainplate. Measurement 3 (b) allows the deck/gunwale/rubbing strip to be extended a max 32mm past the stem block.

If the overall length rule were to be restated as 3810mm from the top datum point to the gunwale extension at the bow, there is the possibility that the stem post position could be extended to provide a longer waterline.

7. Rule 6.1(g) Mast cut-outs (Proposals 1, 2, 56)

The need to define this cut-out so rigidly is not clear and removing the rule enables positioning of the slot to avoid the need for retaining bands to be attached to the sail.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Rule 6.1(g) and Measurements 103, 104, 105, 106, 107, shown here;

6.1(g). The mast cut-outs for bolt rope and sheave box shall be measured from the base of the mast. The length of any cut-out is measured from the furthest extremity of the cut-out to the other furthest extremity.

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

Be deleted;

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

8. Rule 7.2(b) Vang attachment point (proposal 3)

Not needed as the attachment position on the boom is constrained by the main sheet pulley position and the potential for fouling with a raised centreboard. Retain as a 'Suggested' position to be retained in Construction notes.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Rule 7.2(b) and Measurement 119 shown here;

7.2(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.

119	7.2(b)	Vang boom fitting - distance from back of mast to extreme front of	665	690

Be deleted;

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

9. Rudder cheek thickness and construction (proposal 4)

Diagrams 11 and 12 of the Construction notes refer to 12mm ply rudder cheeks and a 19mm slot. Modern rudder gudgeons have a narrower width which means that the cheeks need to be chiselled out to fit them. 9mm ply cheeks accommodate current commercial gudgeons and do not adversely affect the strength of the rudder stock. Current rules specify that rudder cheeks be made from plywood. There is no reason why the rudder box should not be a moulded FRP construction which is likely to be cost effective and possibly lead to more readily available replacements.

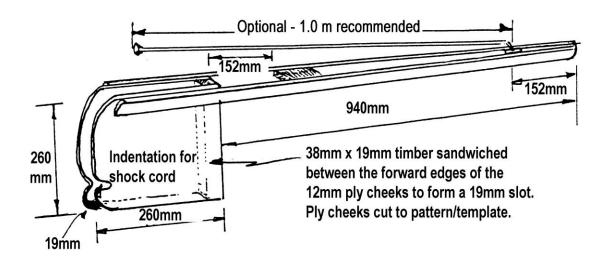
Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That additional Measurements be added as follows;

Measurement No. 70 - Rudder box may be constructed from timber or moulded FRP.

Measurement No. 71 - Rudder box cheeks to be a minimum thickness of 9mm.

And that diagrams 11 and 12 shown here be changed to reflect this;



	<u>Delegate 1</u>	<u>Delegate 2</u>
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

10. Transom Stern Post width (proposal 5)

Step 27 of the construction notes does not specify a width for the transom post, only that it be wide enough to accommodate pintle bolts. The guidance for purchasing timber (page 7 of the Construction notes suggests 300mm x 70mm x 19mm but measurement 17 has a maximum width of 50mm.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Measurement 17 shown here;

17	Transom stern post section (except designated FRP design)	48x18	50x19

Be deleted;

And that the suggested timber width of the transom post on page 7 is amended as follows;

30mm x 19mm and wide enough to accommodate the the bolt centres of the rudder pintles.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

11. Transom Pintle spacers (proposal 6)

Many boats have spacers fitted to prevent gudgeon bolts digging into the transom. This option should be formalized.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That additional Measurement No. 90 is added as follows:

Optional Transom pintles spacers with a maximum thickness of 15mm may be attached to the transom.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

12. Outhaul system (proposal 11)

The towel rail system is an expensive outhaul control method in comparison to modern and simple rope/webbing systems. The option should be available to use any system as long as the sail cannot be let in less than 1830 mm from the aft side of the mast.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Measurement 7.2 shown here:

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.

118	7.2(a)	Outhaul towel rail position, refer <i>Diag.</i> #26	1830	1842
118(a)		Towel rail fitting length of rail only, slide fitting optional refer Diag. #26	195	205

Be amended as follows;

7.2 a. An outhaul for on-water adjustment of the clew of the sail is optional.

The traditional method is shown on *Diag. #26 - Boom Layout & Detail of Outhaul Towel Rail* in the Construction & Fitting Out Notes.

Rope and / or webbing systems may optionally be used as long as the clew of the sail cannot be let in less than 1830mm to the after face of the mast when the boom is fixed onto the mast gooseneck.

If a towel rail is used, 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 and its location must conform to **measurement 118**. The length of the towel rail is optional.

Slots in the boom for an internal track system are not allowed.

118	7.2(a)	Inner Outhaul position, refer <i>Diag.</i> #26	1830	1842
118(a)		Deleted		

<u>And that the following sentence is deleted from Section D – Fitting Out on page 41:</u>

 A 'towel rail' is the only permitted means of providing on-water adjustment of the clew outhaul position.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

13. Redundant Clew Outhaul diagram (proposal 44)

The location of blocks, saddles and clew attachment methods to the clew of the sail vary widely, none of which are deemed performance enhancing. Diagram #27 is obsolete and is redundant if the option of rope/webbing outhaul systems to the towel rail is carried.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Building and Construction Notes be amended as follows;

Remove Diag. #27 Clew outhaul layout and renumber Diagrams accordingly.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

14. Allow outhaul control lines inside the boom (proposal 28).

The boom is not sealed so there is no need for this rule to stop water entry. Allowing an internal control removes the possibility of the outhaul control line fouling on clothing or other items of the boat.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Rule 7.1 (c) as shown below;

Rule 7.1 (c) - Control lines or halyards are not allowed within the boom section.

Be deleted

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

15. Black Bands (proposal 13)

The need for black bands goes back to the days of cotton sails which stretched significantly. Luff, foot and leech measurement restrictions and the stretch characteristics of modern sailcloth make the need for black bands redundant.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Rule 6.1(c) - measurements 98, 99, 100 and Rule 7.1(d) - measurements 117 and 120 shown below;

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.

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	-

7.1 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.

117	7.1(d)	Distance to band (inner edge) from back of mast	-	1981
				_
120	7.1(d)	Width of painted band on boom	13	16

Be deleted

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

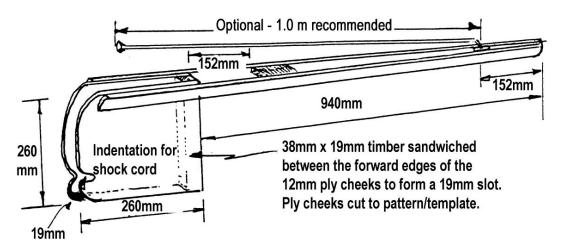
16. Tiller dimensions (proposal 22)

The table of measurements (57 to 72) do not contain minimum or maximum lengths for the tiller (timber or aluminium) but Diagrams 11 and 12 on page 26 of the Construction and Fitting Out Notes specify an exact tiller length of 940mm. The length of the tiller, like the tiller extension should be a recommendation only. Physical attributes of the sailor may influence tiller and tiller extension lengths.

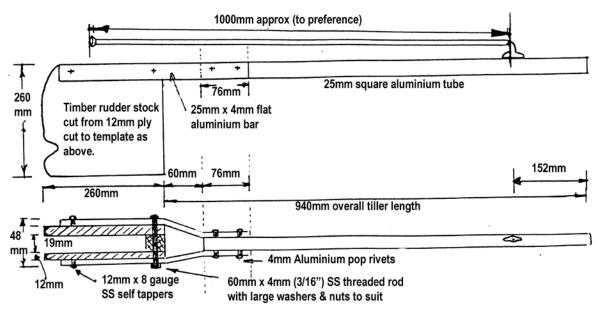
Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That Diag.#11 and Diag.#12 shown below;

<u>Diag.#11 - Rudder Stock with Timber Tiller</u>



Diag.#12 - Rudder Stock with Aluminium Tiller



Tiller dimensions (proposal 22)...continued

Be amended as follows;

Change the tiller length specification from 940mm to "940mm – recommended"

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

17. Ply panels joining method options (proposal 24)

Step 2 of the Construction and Fitting Out Notes only refers to the Butt Strap method of joining ply panels. Scarf joints are more difficult but the accomplished amateur builder should not be prevented from its use.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Step 2 of the Construction Notes as shown below;

Step 2 - Joining Bottom Panels 1 & 1A & Side Panels 2 & 2A (Diags. #2A, 2B & 2C) THIS IS A VITAL STEP

Cut the 60mm wide 5mm ply butt straps to length 50mm short of where the bottom panels butt together. Scarfing or finger jointing of the ply panels is permissible, however butt straps must still be fitted in the correct position. Similarly cut the butt straps to length for the side panel joins, but run these straps to the edge that will later be the top gunwale edge of the side panels.

The gaps between the end of the butt straps and the edges of the ply are to allow for fibreglass tape to be run along the keel and chine ply joints after the boat is wired up. Refer to **Diags. #2A & 2B** to be sure the ply panels to be joined are laid the correct way. Glue each butt strap, with the strap exactly over the centre of the meeting of the ply panels, on the INSIDE face of the ply, i.e. facing up into the boat.

Temporarily nail the strap on with 4 nails (to be removed later), turn the whole unit over and at 50mm centres on each side of the join in a zigzag pattern, fix with 19mm copper flathead nails, punch slightly, turn over again, bend the protruding nails flat onto the strap giving a strong join to the two panels. Care must be taken that the edges joined are hard up together and that the outside edges form a continuous line. Ample glue must be used.

Induce a 25mm bend as shown in the **Diag. #2C** before the glue sets to avoid "hard" spots, otherwise the proper bottom shape will be very difficult to induce after the glue has set.

Complete the four joins making up the two bottom *panels 1 and 1A*, and the two side *panels 2 and 2A*. Wipe off excess glue and leave 24 hours for glue to cure.

<u>NOTE</u>: At the top of the gunwale edges of the side panels, **panels 2 and 2A**, the butt strap goes to the edge of the ply or over if you wish. See **Diag. #2B**.

Alternative Butt Strap Method

Use 8mm screws in lieu of copper nails; countersink and screw from inside the hull, then later file off protruding screw threads before fibreglassing the exterior of the butt joint. If you are fibreglassing the exterior of the bottom panels to bring them up to thickness, the taping of the butt joints can be done at that time.

Be amended as follows;

Amend the second sentence to read "Scarfing or finger jointing of the ply panels is permissible."

Ply panels joining method...continued.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

18. Floor Battens – Timber construction Step 28 (proposal 21)

The minimum number of battens in a timber boat is 4 with a maximum of 6. The mandatory battens must pass through the centrecase bulkhead to a maximum 25mm. While it would add weight, battens should be allowed to extend from the transom to the bow for extra stiffness. The existing number of battens, dimensions and positioning should be recommendations rather than mandatory

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Step 29 and measurements 26 and 27 shown below;

Step 29 - Floor Battens

Two timber battens, 40mm x 19mm, are to be fixed to the floor on each side of the keel. The inner batten must measure 2260 to 2280mm long and the outer batten between 1990 & 2010mm long **inside** the cockpit *(Meas. #27)*. These shall be located 125mm and 250mm from centreline of keel to the centre of the respective batten, and both must be inserted through pre-cut holes in the main bulkhead by no more than 25mm. **Allow for this when cutting the floor battens to length.** Each batten may have a maximum of 5 limber holes (max 5mm radius) along its length. An additional batten (max length 1000mm) may be fitted on each side between the outer batten and the side tank.

	26	Floor battens - minimum 4 only	36x18	40x19
Ī	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	2260 1990	2280 2010

Be amended as follows;

Step 29 - Floor Battens

Two timber battens, minimum 36mm x 18mm (recommended 40mm x 19mm), are to be fixed to the floor on each side of the keel inside the cockpit. The minimum length of the inner batten is 2260mm (recommended max 2280mm) and the outer batten minimum length is 1990mm (recommended max 2010mm) (*Meas. #27*). These shall be located 125mm and 250mm from centreline of keel to the centre of the respective batten, and both must be inserted through pre-cut holes in the main bulkhead (recommended 25mm through the centrecase bulkhead). Allow for this when cutting the floor battens to length. Each batten may have a maximum of 5 limber holes (max 5mm radius) along its length. An additional batten may be fitted on each side between the outer batten and the side tank.

26	Floor battens - minimum 4 only	36x18	
	Floor battons required langth in cocknit of ply hulls	Inner 2260	
27	Floor battens – required length in cockpit of ply hulls, including designated FRP designs.	Outer 1990	

Floor Battens – Timber construction Step 28 (continued)

	<u>Delegate 1</u>	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

19. Change Mast Web and Webb Support definition for ply boats (proposal 23).

The existing rules for FRP hulls allow a continuous reinforcement to take the mast load which is clearly superior to the required ply wood construction. This amendment allows the same construction method for both forms of construction.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That the definition of mast web and web support for Plywood Boats as shown below;

Step 12- Mast Web (diag. #4B)

This is to take the compression load of the mast and spread it over the two bulkheads linking them together.

Trim the ply, (Part #9), so that the web sits hard under foredeck beam and can be glued and pinned to the vertical risers of each bulkhead. This web is supplied well oversize. Glue all contact areas, pin to bulkhead risers and use 30mm monel nails through foredeck beam into timber top edge that is hard up under beam.

Be amended as follows;

Step 12- Mast Web (diag.#4B)

This is to take the compression load of the mast and spread it over the two bulkheads linking them together.

Trim the ply (Part#9), so that the web sits hard under the foredeck beam and can be glued to the vertical risers of each bulkhead and to the foredeck beam. Part #9 can be increased in size so as to eliminate the need for Part #9A and form one continuous web from the keel seam to the underside of the foredeck beam.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

20. Remove references to proprietary products (proposal 25)

The inclusion of specific products is restrictive as new alternative products and suppliers are available and we should not imply that these are the only products suitable.

The term "marine glue" and "resin suitable for use with fibreglass" is preferable.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That all references to:

Proprietary products like "West system", "Plasti bond", "Boatcoat", "Q-Cell" or "Resorcinol"

Be deleted from the Construction Notes.

	<u>Delegate 1</u>	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

21. Remove references to construction materials not readily available (proposal 26)

Brass pins are not readily available today.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary) **That all references to**;

"Glue and brass pin" under <u>BUILDING INSTRUCTIONS</u> Page 10. In the Construction Notes

Be replaced by;

with "clamp and glue".

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

22. Remove references to epoxy glue (proposal 27)

There are many other types of glue suitable for use in most applications e.g. polyurethane.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That all references in the Construction Notes to:

"epoxy glue".

Be replaced by:

"Glue".

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

23. Scuppers / Transom flaps (proposal 31)

Inquiries have been made to the National Measurer over the past few years as to the possibility of allowing transom flaps instead of having the optional aft bailer... primarily as a cost cutting measure. We were also queried by McCrae YC safety representatives a few years ago on the adequacy of our bailers in terms of YA safety requirements.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 1.11.2 as shown below;

1.11.2 Prohibitions

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

i. Transom flaps.

ii.

Be deleted and;

That rule 1.11.3 as shown below

1.11.3 Options

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

Be amended by adding;

t. Scuppers and Transom flaps (maximum of one each side of the stern post).

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

24. Main halyard cleating position (proposals 33 and 50)

There is no clear reason for these measurements and there should be an option to cleat a rope halyard to a cleat attached to the top of the centrecase bulkhead.

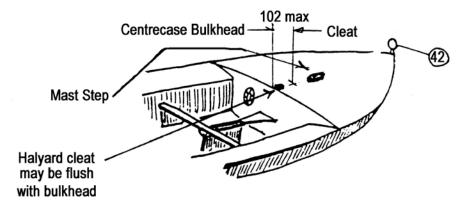
Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Measurements 86 and 87 shown below;

	Main halyard cleated aft of 102mm forward of centrecase bulkhead	102
87	Downhaul cleated aft of 102mm forward of centrecase bulkhead	102

Be deleted and that;

Diag. #22 - Halyard Cleat Position as shown below;



Halyard Cleat (Meas #86, Diag. #22, Item 68 or 68A)

This must be a quick release cam or clam cleat, through which the rope halyard is fixed. Alternatively, a halyard lock may be used with a stainless steel halyard wire. The cam or clam cleat or halyard lock must be mounted as shown above.

Be amended by;

Changing "102 max" to "102mm – recommended" in the diagram.

Last sentence to read "The cam or clam cleat or halyard lock may be mounted as shown above or on and near the top of centrecase bulkhead."

Deleting the words "(Meas #86, Diag. #22, Item 68 or 68A)"

<u>Delegate 1</u>	<u>Delegate 2</u>	
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

25. Gunwale radius (proposal 34)

The radius allowable on gunwales should be changed to optional with dimension undefined.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 1.13 as shown below;

1.13 Fairing

6. Gunwales or rubbing strips may have a radius not exceeding **7mm** on the outside edge.

Be amended to:

6. Gunwales or rubbing strips may have a radius on the outside edge.

And Step 43 of the Construction Notes as shown below;

Step 43 – Fixing Gunwale Capping Strips (Hardwood)

Trim deck ply flush with face of gunwales, glue and nail at 150mm centres the 4.3m x 25mm x 6mm capping strip. Ensure capping strip stands slightly higher than deck ply. When dry, sand down flush with deck. A radius of 7mm max. is permitted on outside edges (*Rule 1.13 – Fairing*). At bow, finish off capping strips as per *Diag. #9B*.

Be amended to;

Trim deck ply flush with face of gunwales, glue the 4.3m x 25mm x 6mm capping strip. Ensure capping strip stands slightly higher than deck ply. When dry, sand down flush with deck. A radius is permitted on outside edges (*Rule 1.13 – Fairing*). At bow, finish off capping strips as per *Diag. #9B*.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

26. Option of Plastic Cable ties or Copper Wire in construction of timber boats

The cheaper option of using plastic cables should be available for holding the hull together prior to glassing seams of a plywood boat.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Section A "FIXINGS List" (Guide only) as shown below;

12.2m of 1.22mm (18 SWG)Copper wire

Be amended as follows;

12.2m of 1.22mm (18 SWG)Copper wire or plastic cable ties

And that Step 7 - Wiring Up the Hull (Diag. #24) as shown below;

Cut the 12m length of copper wire into 60mm lengths. The two bottom panels (*Parts #1 & 1A*), now firmly butt joined together, are wired up together along the edges that have the cut-out section for the centreboard slot.

Be prefaced by the words;

References to "copper wire", "wires", "wiring", "wired" in this step may also mean the optional use of plastic cable ties.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

27. Timber dimension and types general note (proposal 39)

Section A – Plywood Construction contains comment on timber sizes that the National Measurer believes should be recommendations only with the objective of achieving a long lasting, light and stiff hull.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

<u>That Section A – Plywood Sabre Construction on page 7 as shown below:</u>

Timber Sizes

Maximum timber sizes specified must not be exceeded, nor may sizes be less than the minimum permitted for the part. Remember that you are trying to build a light boat. The design gives more than adequate strength. All timber used should be as light as possible. The materials list suggested below is for all new materials.

Be replaced by the words;

Timber parts dimensions and timber types (except where a specific rule applies) are recommended only to achieve a light and stiff and long lasting boat.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

28. Hull Identification with the Sail Number (proposal 40)

Remove the requirement that the sail number be burnt or embossed into the aft keel of timber boats and align with FRP requirements.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 1.7.6 – measurement 89 as shown below;

- **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.

89	1.7.6	Hull identification:		
		- Plywood hull- on aft keel	40	
		- FRP hull- on aft face of web bulkhead	40	

Be amended as follows;

1.7.6 Each hull shall be marked permanently on the hull inside the Centre Bulkhead or on the rear face of the web bulkhead with the sail number issued for that hull, in letters not less than **40mm** high and be visible looking through one of the Centre Bulkhead hatches.

1.7.6.1 - Delete

1.7.6.2 - Delete

Ī	89	1.7.6	Hull identification:		
			Permanently marked on hull inside the centre bulkhead or on rear face of the web bulkhead and visible through centre bulkhead hatch.	40	

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

29. Obsolete information in Section D – Fitting Out (proposals 43, 53)

A number of articles for guidance are obsolete and because they are included in the Construction, Rules and Fit Out Guide, theoretically must be used. There have even been complaints from amateur builders that fittings cannot be sourced. Most of Section D relates to 1970's thinking and fittings and should be removed to avoid confusion. More modern fit out guidance is available (e.g. PDF produced by Chris Dance that is on the website).

The introduction to the Construction and Fitting Out Notes contains the following:

WARNING: No variations outside the Construction & Fitting Out Notes or the Measurement Rules are permitted unless approved in writing by the Sabre Sailing Association of Australia Inc. Only items specified in or permitted by the Measurement Rules or these building notes may be included in construction or fitting out of a Sabre.

Section E – Rules of Measurement and Construction

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.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Section D be amended as follows;

- Page 42 **Delete** fit out guide schematic.
- Pages 43-44 Delete Fittings purchase list.
- Page 45 Change "Cordage Summary" to "Cordage Guide", delete section "Fixings List"
- Pages 47-48 **Delete** "Theory of Slack Rope Hawse" section.
- Pages 55-56 **Delete** Rigging and Tuning article.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

30. Remove obsolete Boom Vang layout (proposal 45)

The fittings and method of use are no longer current or relevant.

More modern fit out guidance is available (e.g. PDF produced by Chris Dance that is on the website).

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Building and Construction Notes be amended as follows:

Remove Diag. #30 Boom Vang Layout and renumber Diagrams accordingly.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

31. Remove Painting and Maintenance instructions (proposal 46)

Section "A" – Plywood Sabre Construction, pages 31-32 contains instructions on painting and maintenance. These processes are best left to the choice of the builder and depend mainly upon the availability and suitability of current products.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Building and Construction Notes be amended as follows:

Remove pages 31 and page 32 which specify painting and maintenance instructions.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

32. FRP Centreboard only constructed by 'authorised builders' (proposal 47)

Rule 3.1(a) which only relates to centreboards, refers to the construction alternative of FRP material with a rider that the Sabre Sailing Association of Australia must authorise the builder. Rule 4 which only relates to rudders, also allows for the FRP alternative but does not require the builder to be authorised.

Step 49 Rudder Blade <u>and</u> Centreboard however, imposes the authorised builder requirement on both foils...contradicting the above rules.

There is no justification for this requirement, is impractical and in fact, to date no builder has been officially authorised.

The essential requirement is that foils conform to measurement dimensions.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 3.1(a) as shown below;

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.

Be amended as follows;

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.

And that the following sentence in Step 49

These may only be constructed by builders authorised by the SSAA.

Be deleted.

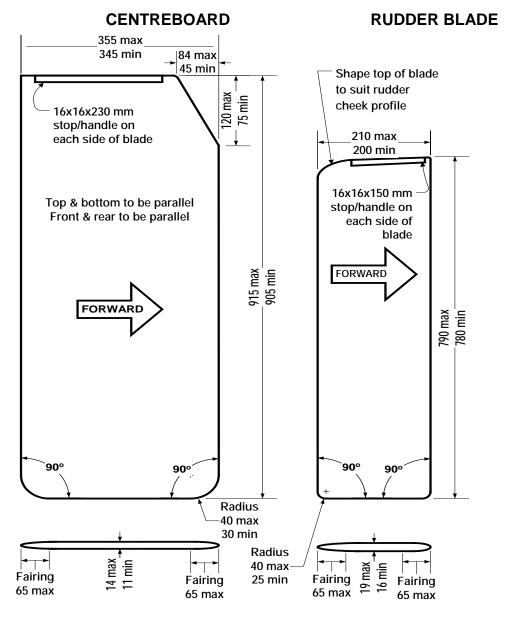
	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

33. Centreboard and Rudder measurement clarification to meet ISAF standards (proposals 35 and 37)

There has been constant difficulty with the interpretation of the fairing rule specifically the reference to constant thickness. This provides no tolerance and is almost impossible to comply with. Interpretation has differed from State to State and the builders have complained regularly about the cost to them of replacing rejected foils. The proposed new rule is based on the *Mirror class rules* which have been recently updated and meet ISAF standards. They reflect a workable engineering tolerance.

There are measurements in the table of measurements. There is a dimensioned diagram in the construction notes which is OK. Rules 3 and 4 refer to Rule 1.13 'Fairing', before you get at what you actually want.

There is a dimensioned diagram in the construction notes (Diag.#13) which is ok and is shown here for ease of reference.



Centreboard and Rudder measurement clarification (continued)

Moved: Harold Medd (Victorian Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rules 1.13, 3 and 4 as shown below;

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.

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).

Centreboard and Rudder measurement clarification (continued)

Be amended as follows;

1.13 Fairing

- a. Deleted
- b. Deleted.
- 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 on the outside edge.

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

- a. The Centreboard shall be constructed of, plywood, solid or laminated timber and may be finished with a skin of fibreglass. The Centreboard may also be constructed using FRP to the specification described in Part 1 Section B item 8 of the construction notes.
- b. The Centreboard shall conform to diagram #13 of the Construction Notes. The Centreboard shall be between 11mm and 14mm thick and the thickness shall not vary by more than 1mm to within 65mm of its edges with the exception of hollows or cavities of not more than 2mm in dimension. A tolerance of 1mm is permitted in the flat section between the 65mm wide faired edges. The leading, trailing and bottom edges of the Centreboard shall be within 5mm of a straight line and the leading and trailing edges shall be parallel within a tolerance of 5mm.

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

- a. The Rudder Blade shall be of the sliding type and shall be constructed of, plywood, solid or laminated timber and may be finished with a skin of fibreglass. The Rudder Blade may also be constructed using FRP to the specification described in Part 1 Section B item 8 of the construction notes.
- b. The Rudder Blade shall conform to diagram #13 of the Construction Notes. The Rudder Blade shall be between 16mm and 19mm thick and the thickness shall not vary by more than 1mm to within 65mm of its edges with the exception of hollows or cavities of not more than 2mm in dimension. A tolerance of 1mm is permitted in the flat section between the 65mm wide faired edges. The leading, trailing and bottom edges of the Rudder Blade shall be within 5mm of a straight line and the leading and trailing edges shall be parallel within a tolerance of 5mm.

Centreboard and Rudder measurement clarification (continued)

c. In accordance with Yachting Australia Special Regulations, Part 2 Regulation 6 a stainless steel pin shall be fitted through a pintle to prevent the rudder becoming detached.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

34. Remove references to the use of silicon sealant (proposal 48)

There are many specific products that prevent electrolysis available and silicon sealant performs very poorly in this use.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That the Building and Construction Notes be amended as follows:

Remove references to the use of silicon sealant to mast and boom fitting as electrolysis prevention measure.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

35. Optional position for Mainsheet Ratchet Block and attachment method (proposals 49 and 50)

Ratchet blocks are optional in the mainsheet system. It was traditional in the 1970's to attach a ratchet block as per Diag #20 but there is no reason why a ratchet block cannot be attached to the boom, or for that matter have one mounted off the keel and another on the boom. Diag #20 does not reflect the modern practice of attaching the last block off the floor by rope strop. Many sailors no longer adjust the rope hawse while sailing and just tie it off, so the requirement for a clam cleat should be formally made an option.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary) **That the Building and Construction Notes as shown below;**

Mainsheet (Rule #5.2(a), Meas #75, 82, 83, 88, Diag. #20)

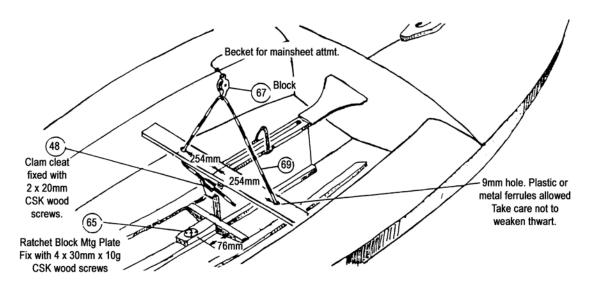
Maximum purchase permitted is 5:1. The majority of skippers find 4:1 purchase adequate. Jam cleats are optional but NOT recommended.

The only traveller allowed is a rope hawse on the thwart. Drill two 9mm holes in the thwart, each hole not more than 255mm nor less than 250mm from the centreline of the hull. Maximum centres hole-to-hole 510mm; minimum centres hole-to-hole 500mm.

Fix a knot in one end of the hawse; pass through the first hole in the thwart; through the ferruled end of the mainsheet block *(Item 67)*; through the second hole in the thwart, thence to clam cleat (Item 48) fixed to the strengthening block under thwart.

Fit ratchet block and mounting plate to the keel cover block as shown in diagram (Item 66).

Diag. #20 - Mainsheet System



Optional position for Mainsheet Ratchet Block and attachment method (continued)

Be amended as follows;

Remove references to fitting 'Item numbers'

Change the 3rd sentence to read "Fix a knot in one end of the hawse; pass through the first hole in the thwart; through the ferruled end of the mainsheet block *(Item 67)*; through the second hole in the thwart, thence optionally to clam cleat fixed to the thwart or tied off to a saddle on the keel.

Delete the sentence "Fit ratchet block and mounting plate to the keel cover block as shown in diagram *(Item 66)*."

Delete Diag. #20

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

36. Boom section (proposal 52)

The boom section specifications should be less prescriptive.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Building and Construction Notes as shown below;

That Rule 7.1(a) as shown below;

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.

Be amended as follows;

7.1 a. The boom shall be made from constant section round aluminium alloy tube between **50 & 55 mm** outside diameter and 1.6mm minimum wall thickness. Section dimensions shall be measured over the outside diameter.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

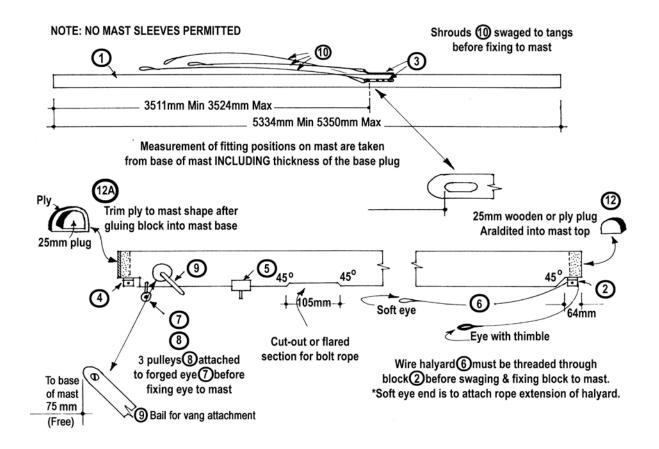
37. Method for attaching shrouds to mast tangs and halyard material – Diag #25A (proposal 54)

The method specified for attaching shrouds to mast tangs in Diag #25A is by permanent swage but common practice is to use cleavis pins or small shackles. The diagram refers to a 'wire halyard' but rope is the most common material these days. The vang attachment point drawing is obsolete.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That the Building and Construction Notes as shown below;

Diag. #25A - Mast Layout



Be amended as follows;

Insert these words before Diag #25.

The following diagram refers to "shrouds swaged to tangs" and "wire halyard". Shrouds may optionally be attached to tangs by using swages, cleavis pins or shackles. The halyard material is optional. The block hanger for attaching the vang shown in Diag #25A is optional.

Method for attaching shrouds to mast tangs and halyard material (continued).

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

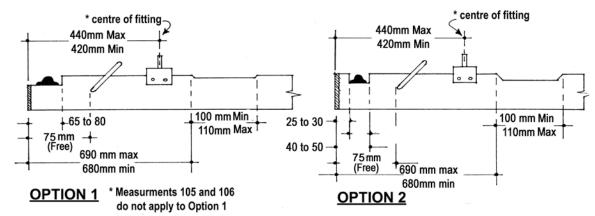
38. Mast vang attachment point incorrectly specified in Diag #25B (proposal 55)

There is no longer a specification for the position on the mast where the vang is attached (rule 6.1 h. was deleted Nov 2006) but Diag #25B still shows measurement points. The diagram should indicate that the vang attachment measurements shown are a guide only.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Building and Construction Notes as shown below;

<u>Diag. #25B – Mast Base Measurements</u>



Measurement of fitting positions on mast are taken from the base of the mast, including the thickness of the base plug

Be amended as follows;

Insert these words before Diag #2B.

The method of attaching the vang to the mast is optional and the positions shown in Diag #25B (showing use of a block hanger) are a guide only.

	<u>Delegate 1</u>	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

39. Mast 'cut out' for sail luff (proposal 56)

It is safer to bend the mast track rather than literally 'cut-out' for the feed of the sail luff bolt rope. There are measurement points that refer to the mast 'cut-out' which should be changed to allow for the option of 'outward forming' of the track.

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That Rule 6.1(g) and measurement 103 and 104 as shown below;

e. The mast cut-outs for bolt rope and sheave box shall be measured from the base of the mast. The length of any cut-out is measured from the furthest extremity of the cutout to the other furthest extremity.

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

Be amended as follows;

g. The mast track cut-out or outward forming (bending) of the track for the sail bolt rope and the cut-out for the halyard sheave box shall be measured from the base of the mast. The length of any cut-out or track bend is measured from the furthest extremity of the cut-out or bending to the other furthest extremity.

103	6.1(g)	Mast 'cut-out' or 'outward bending' for bolt rope	100	110
104	6.1(g)	Mast 'cut-out' or 'outward bending' (lower edge) from base of mast	680	690

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

40. Remove references to Imperial measurements (proposal 57)

There are some reference to drills sizes and bolt sizes with imperial dimensions. These materials are often not available anymore and not accurate translations to the available metric sizes.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

That the Building and Construction Notes be amended as follows;

Remove all descriptions of materials in Imperial Measurements where feasible.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

41. Enhance safety warnings (proposal 57)

Moved: John Dixon (National Measurer) **Seconded:** Barry Eastgate (Secretary)

That the Building and Construction Notes safety warnings shown below;

IMPORTANT WARNING

The catalyst or hardener added to polyester resin, methyl-ethyl-ketone peroxide (MEKP) is an EXTREME HAZARD TO EYES. A drop of MEKP in an eye will DESTROY eye tissue, resulting in blindness. Once damage has started there is NO WAY OF STOPPING OR REPAIRING THE DAMAGE.

When mixing resin using MEKP catalyst:

- ALWAYS WEAR protective glasses or goggles
- ALWAYS HAVE a container of clean water close handy
- ALWAYS WASH hands thoroughly before eating, smoking or drinking, or touching face or eyes
- IF CATALYST IS SPLASHED IN EYES, IMMEDIATELY IRRIGATE EYES WITH COPIOUS AMOUNTS OF WATER, AND SEEK MEDICAL ASSISTANCE.

IMPORTANT WARNING

Sanding fibreglass can be harmful to your health. It is most important that adequate and proper protective clothing is worn. This should include:

Coverall or boiler suit buttoned at the neck and wrists

Non-absorbent gloves

Dust protective facemask & eye goggles.

Use a vacuum cleaner to clean up after sanding.

DO NOT sweep FRP sandings around as the fine glass particles can be readily inhaled.

WASH hands and face thoroughly BEFORE eating, drinking or smoking after sanding FRP materials.

Be amended as follows;

IMPORTANT WARNING

The catalyst or hardener added to polyester resin, methyl-ethyl-ketone peroxide (MEKP) is an EXTREME HAZARD TO EYES. A drop of MEKP in an eye will DESTROY eye tissue, resulting in blindness. Once damage has started there is NO WAY OF STOPPING OR REPAIRING THE DAMAGE.

Exposure to epoxy products can result in permanent sensitisation, causing forms of asthma, eye and skin irritation to varying degrees of severity.

When mixing resin using MEKP catalyst:

- ALWAYS WEAR protective glasses or goggles
- ALWAYS WEAR gloves and appropriate dust mask
- AVOID contact with the skin
- ALWAYS HAVE a container of clean water close handy
- ALWAYS WASH hands thoroughly before eating, smoking or drinking, or touching face or eyes
- IF CATALYST IS SPLASHED IN ÉYES, IMMEDIATELY IRRIGATE ÉYES WITH COPIOUS AMOUNTS OF WATER, AND SEEK MEDICAL ASSISTANCE.

Enhance safety warnings (continued)

IMPORTANT WARNING

Sanding fibreglass can be harmful to your health.

Exposure to epoxy products, especially cured epoxy resin is extremely hazardous.

It is most important that adequate and proper protective clothing is worn.

This should include:

Coverall or boiler suit buttoned at the neck and wrists

Non-absorbent gloves

Dust protective facemask & eye goggles.

Use a vacuum cleaner to clean up after sanding.

DO NOT sweep FRP sandings around as the fine glass particles can be readily inhaled.

WASH hands and face thoroughly BEFORE eating, drinking or smoking after sanding FRP materials.

	<u>Delegate 1</u>	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No

42. Change FRP mould measurement procedure (proposal 32)

Section B – FRP Sabre Construction Specifications has a number of references to moulds being approved by the National Measurer or specifications to be approved by him before a boat is produced. It might be prudent for an FRP builder (professional or amateur) to have a measurer check the mould but it is irrelevant. The important issue is whether or not the output (the boat) measures. There is also a section "Limitations on Builders" that currently requires referal to the National Measurer. The inference is that FRP builders are in some way 'licenced' by S.A.A.A. In fact there are no records, contracts or licences in existence between any FRP builder and the S.S.A.A.

Moved: John Dixon (National Measurer) Seconded: Barry Eastgate (Secretary)

<u>That Section E – FRP Sabre Construction as shown below;</u>

CONSTRUCTION SPECIFICATIONS

4. Moulds (Hull and Deck)

The moulds must originate either directly or indirectly from master moulds approved by the SSAA.

5. Hull

The hull moulding shall be of sandwich construction, a specification for which must be submitted to the SSAA in writing by each builder. Before any boats are constructed, the SSAA National Measurer must approve such specification, and any variations from the approved specification must be similarly submitted for approval.

Total hull thickness must not exceed 10mm other than at stiffening ribs.

6. Decks

The deck and all other moulding shall be of FRP laminate or sandwich construction, the specification for which must be submitted to the SSAA in writing by each builder. Before any boats are constructed, the SSAA National Measurer must approve such specification, and any variations from the approved specification must be similarly submitted for approval.

Total deck thickness must not exceed 8mm other than at stiffening ribs

7. Stiffening Ribs (Not flanges)

Stiffening ribs may be used to reinforce any moulding. Such ribs must be additional to the construction described in (5) and (6) above and must be constructed of 'E' glass reinforcement laid over a core material. Stiffening ribs are not to occupy more than 50 per cent of the area of any 225mm x 225mm section of the craft, unless prior written approval from the SSAA National Measurer has been obtained for a particular application.

Change FRP mould measurement procedure (continued)

10. Hull

- a. Gunwales may be inverted 'U' shape mouldings. The thwart may be wider, may be moulded into centrecase, and may be hollow.
- b. Internal Bulkheads and Baffles. The use, location and manner of fitting of internal bulkheads, baffles and mast web support may be varied by the builder. The builder must satisfy the SSAA as to the soundness of his design. The type and number used are left to the discretion of the builder. The SSAA may request the builder to verify the soundness of his design.
- c. Strengthening pads, preferably waterproof plywood, must be incorporated where rigging components such as chain plates, blocks and cleats, etc. are to be fixed.

LIMITATIONS ON BUILDERS

16. Deck Mould, Stiffeners and/or Keel

Once a builder has decided to construct the craft in a particular format, it must be detailed on paper and sent to the SSAA for approval by the National Measurer.

To vary the approved format, the builder must seek approval in writing from the SSAA.

17. Thwart and Centrecase

Individual builders may vary their design, subject to that design being the only current design approved by the National Measurer for that builder.

Variations in design cannot be incorporated in a boat until details of the variation have been submitted to and approved in writing by the National Measurer.

Be amended as follows;

DELETE - 4. Moulds (Hull and Deck)

The moulds must originate either directly or indirectly from master moulds approved by the SSAA.

5. Hull

The hull moulding shall be of sandwich construction. It is recommended that a specification be confirmed by the SSAA National Measurer before any boats are constructed.

Total hull thickness must not exceed 10mm other than at stiffening ribs.

6. Decks

The deck and all other moulding shall be of FRP laminate or sandwich construction. It is recommended that a specification be confirmed by the SSAA National Measurer before any boats are constructed.

Total deck thickness must not exceed 8mm other than at stiffening ribs

Change FRP mould measurement procedure (continued)

7. Stiffening Ribs (Not flanges)

Stiffening ribs may be used to reinforce any moulding. Such ribs must be additional to the construction described in (5) and (6) above and must be constructed of 'E' glass reinforcement laid over a core material. Stiffening ribs are not to occupy more than 50 per cent of the area of any 225mm x 225mm section of the craft.

10. Hull

- a. Gunwales may be inverted 'U' shape mouldings. The thwart may be wider, may be moulded into centrecase, and may be hollow.
- b. Internal Bulkheads and Baffles. The use, location and manner of fitting of internal bulkheads, baffles and mast web support may be varied by the builder. It is recommended that the builder confirm the soundness of the design with the SSAA National Measurer. The SSAA may request the builder to verify the soundness of his design. The type and number used are left to the discretion of the builder.
- c. Strengthening pads, preferably waterproof plywood, must be incorporated where rigging components such as chain plates, blocks and cleats, etc. are to be fixed.

LIMITATIONS ON BUILDERS

DELETE - 16. Deck Mould, Stiffeners and/or Keel

Once a builder has decided to construct the craft in a particular format, it must be detailed on paper and sent to the SSAA for approval by the National Measurer.

To vary the approved format, the builder must seek approval in writing from the SSAA.

17. Thwart and Centrecase

Individual builders may vary their design but it is recommended that a specification be confirmed by the SSAA National Measurer before any boats are constructed. It is recommended that any subsequent design change also be confirmed by the SSAA National Measurer.

	Delegate 1	Delegate 2
New South Wales	Yes / No	Yes / No
Queensland	Yes / No	Yes / No
South Australia	Yes / No	Yes / No
Tasmania	Yes / No	Yes / No
Victoria	Yes / No	Yes / No
Western Australia	Yes / No	Yes / No