

NEW ZEALAND SUNBURST ASSOCIATION

Box 33 608, AUCKLAND

SUNBURST CLASS RESTRICTIONS & MEASURER'S SHEET FOR REGISTRATION (Supplementary to the plans)

as at November 2015

NOTICE TO MEASURER

1. Tick as appropriate. Record all measurements.
2. Items 3-7, 11-20, 22 & 23 are not required for fibreglass hulls which include the approved interior fibreglass moulding, and have been constructed by approved manufacturers. These moulds have already been measured and passed by the Association. You require a completed Hull Approval form.

Hull No.

3. Items 11 & 12, 15 & 16 are not required for fibreglass hull exteriors, which have been constructed by approved manufacturers.

Hull No.

4. The boat must conform to the Plans, and Class Restrictions. If any doubts exist in this regard, the detail must be referred to the Executive Committee for confirmation.

5. Please only send measurement sheets to the Registrar for boats that comply.

CERTIFICATION

I certify that the boat complies in all respects with the Class Restrictions.

Measurer's signature.....

Printed Name.....

Date.....

Plan Number.....(if purchased by owner specifically for this boat).

Registration Number.....(to be issued by the Registrar).

OWNER'S DECLARATION

I declare that my boat named.....

will during the 20..... season, comply with the Class Restrictions dated November 2015.

Fees required - \$30.00, including Royalty, unless you have purchased the plans, in which case there is no further fee.

Please print

OWNER.....

ADDRESS.....

.....

PHONE

OWNER'S SIGNATURE.....

SUNBURST CLASS RESTRICTIONS

(as at November 2015)

GENERAL

Please note that these restrictions are subject to change. Please make sure that you have the latest copy. The boat shall be built according to the official plans supplied by the New Zealand Sunburst Association and any proposed departure from the plans must be submitted in writing to the Executive Committee of the Association for approval before proceeding.

False Floor.....
Side Seat.....

1. Standard of Workmanship

A boat may be refused a certificate if in the opinion of the Measurer the standard of workmanship is below ordinary good practice, or if the fastenings, gluing or fittings are unsatisfactory. A registration certificate may be revoked if a boat is allowed to get into disrepair.

Satisfactory.....

2. Fibreglass Hulls

Only fibreglass hulls to the specification laid down by the Association, and manufactured by approved manufacturers, in moulds owned or approved by the Association will be recognised and accepted for registration.

3. Scantlings and other materials

Boats shall be built in accordance with dimensions and timber laid down in the plans.

Only fibreglass with the appropriate resins and epoxy glues are permitted for waterproofing or strengthening the hull.

Carbon Fibre may be used anywhere on/in a Sunburst except for in the following:

- a/ Hull structure
- b/ Mast & Boom
- c/ Spinnaker pole
- d/ Sails
- e/ Rudder stock
- f/ Sheets, Halyards & Stays

Satisfactory.....

4. Measuring checks

Previously checked moulds should be rechecked. Recommended checks are as follows:

- When the keelson, transom and stem are screwed but not glued they should be checked with a camber board. Maximum tolerance is 5 mm

- When the bottom and sides are faired off ready to take the ply, a check should be made of camber and station positions and size at each station.
- When the boat is finished but prior to painting or fibreglassing.

Mould checked.....
 Camber checked.....
 Checked prior to ply.....
 Checked prior to paint.....
 Camber 5 mm maximum tolerance.....

The only mandatory check is the final one when your boat is passed so that it can be registered. The others are recommended and will vary from builder to builder but they can help to eliminate disappointment at the end of the project.

5. Plywood

Marine bonded or external 6 mm 3 or 5 ply.

Minimum 5.5 mm.....

6. Overall length

3500 mm measured from the outside face of the transom at gunwale height to the fore edge of the stem, (including false stem), neglecting any projecting stemhead fitting or gunwale capping. A tolerance of ± 10 mm will be allowed.

L O A - 3490 - 3510 mm.....

7. Stem height

Stem height at 626 mm from the base line, neglecting any projecting stemhead fitting or gunwale capping. A tolerance of ± 10 mm will be allowed.

Stem height - 616 - 636 mm.....

8. Position of mast step and chainplates

Mast position shall be 2500 mm, with a tolerance of ± 5 mm measured from the outside edge of the transom at gunwale height to the centre of the mast (when vertical) at gunwale height. Holes falling outside the measurement to be filled.

Position - 2495 - 2505 mm.....

Gunwale mounted chainplates are 2190 mm from the outside edge of the transom at gunwale height ± 10 mm

Position - 2180 - 2200 mm.....

9. Height of mast step

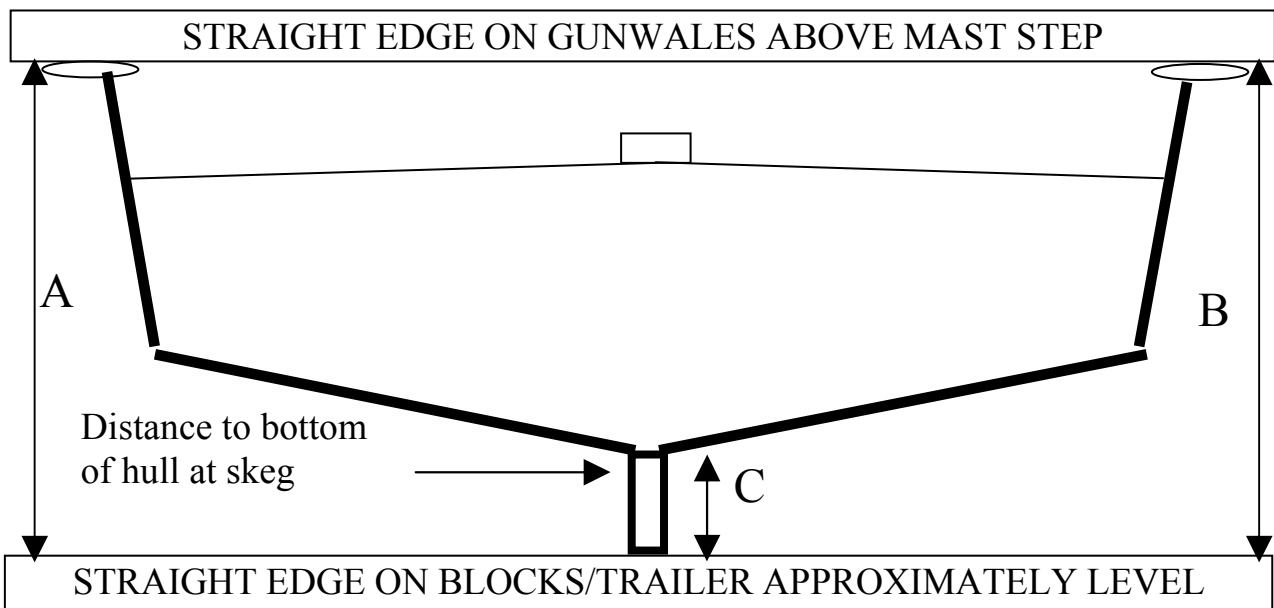
The mast step shall be a minimum of 100 mm below the "theoretical gunwale height". See 10.

100 mm minimum.....

10. Theoretical gunwale height

This is measured with the waterline horizontal. The theoretical gunwale height is taken from a straight edge laid across the gunwale above the centre of the mast step, vertically down to a level where the outside of the bottom ply meets the skeg. This measurement is 575 mm. See also 29.

Height.....



NOTE - Average A and B, measuring close to the gunwales. Deduct C to give "actual gunwale height". If not 575 mm make an adjustment when calculating mast step height (9) and mast length (29).

11. Position of kingpost (standard)

The position of the kingpost at the aft end of the centreboard slot shall be so located that the measurement from the outside of the transom at gunwale height to the inside of the slot is 1815 mm. A tolerance of ± 35 mm is allowed.

1780 - 1850 mm.....

12. Position of kingpost and kingbolt (alternative)

The positions of the kingpost (2213 mm) and kingbolt (2171 mm) shall be measured from the outside of the transom at gunwale height to the aft edge of the centreboard slot. A tolerance of ± 5 mm is allowed.

Kingpost - 2208 - 2218.....

Kingbolt - 2166 - 2176.....

13. Gunwale

The maximum width of gunwale shall be 75 mm of which no more than 50 mm may be on the outside and 25 mm maximum on the inside of the ply. The minimum depth of the gunwale at the ply shall be 35 mm. A moulded plastic or rubber fender may be used provided that it is within these measurements. A wide gunwale is recommended, but the minimum width shall be not less than 35 mm throughout. The end may be rounded to a maximum radius of 35 mm.

- Width outside 50 mm maximum.....
- Width inside - 25 mm maximum.....
- Depth - 35 mm minimum.....
- Width overall - 75 mm maximum.....
- Width overall - 35 mm minimum.....
- End radius 35 mm maximum.....

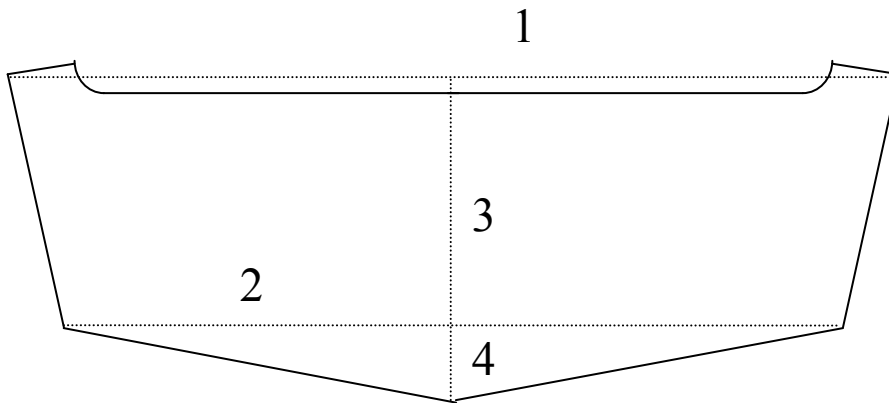
14. Beam

1450 to 1500 mm measured to the outside of the plywood at a point 1525 mm from the outside face of the transom. This is best done by measuring the total beam outside the gunwales and then subtracting two external gunwale widths.

Beam - 1450 - 1500 mm.....

15. Transom

Minimum thickness 16 mm (10 mm if plywood). Measurements 1 to 4 below are taken outside the exterior ply. The cut-out for the tiller shall be 385 mm \pm 5 mm from outside ply at transom vee and as shown on the plans.



Drain/lifting holes shall be limited to the following maximum sizes:

- False floor - Two holes, 280 mm x 35 mm at floor level
- Side seat - Two holes, 150 mm x 35 mm at seat level, plus an optional two holes either 100 mm x 50 mm or 80 mm diameter at floor level fitted with transom flaps.

A curve of 5 mm maximum depth is allowed on the bottom between keel and chine.

1 - 1185 - 1195 mm.....
2 - 1095 - 1105 mm.....
3 - 300 - 310 mm.....
4 - 95 - 105 mm.....
Bottom curve depth - 5 mm maximum.....
Cut-outs OK.....
Thickness - 16 mm minimum.....
Thickness -10 mm minimum if ply.....

16. Depth

485 mm minimum, measured through the centrecase, alongside the kingpost at the aft end of the centrecase slot, from the outside of the hull ply, to the top of the gunwale.

Depth - 485 mm minimum.....

17. Centrecase (standard)

This shall be to the dimensions shown on the plans, the sides being of timber of 16 mm minimum thickness (10 mm if plywood) and shall have a minimum depth measured inside the centrecase of 330 mm (including bottom ply). On the side seat model, centrecase knees or other adequate support shall be provided at the aft end. For position of the kingpost see 11. For the slot width to take centreboard see 24. Once the centrecase has been built to the restrictions the centrecase slot may be shaped to fit the centreboard. No flexible skirts are permitted.

Side thickness - 16 mm minimum.....
Side thickness - 10 mm minimum if ply.....
Depth - 330 mm minimum.....
Knees or other.....

18. Centrecase (alternative)

This shall be to the dimensions shown on the plans with sides of 8 mm ply, 75 mm x 15 mm stiffeners along the top edge and 50 mm x 15 mm grounds shaped to the keel at the bottom. The capping shall be 8 mm. The positions of the kingpost and kingbolt shall be measured from the outside of the transom at gunwale height to the aft edge of the kingpost. Depth measurements shall be taken inside the centrecase and shall include keel and hull ply.

Sides - 8 mm minimum.....
Depth fwd - 363 mm minimum.....
Depth mid -387 mm minimum.....
Depth aft - 307 mm minimum.....
Position kingpost - 2208 - 2218 mm.....
Position kingbolt - 2166 - 2176 mm.....
Stiffeners - 75 mm x 15 mm.....
Knees - 75 mm x 15 mm minimum.....

19. Knees

Knees shall be provided at the quarters, in the vicinity of the chainplates and on either side of the centrease in sideseat models. A breasthook must be provided in the bow. A brace to the sideseats may substitute the centrease knees and a stern knee is optional. Knees and breasthook shall be 19 mm minimum thickness.

Thickness 19 mm minimum.....
Centrease.....
Quarter.....
Breasthook.....
Chainplate/bulkhead.....

Chainplate and centrease knees may have holes to allow lines to pass through or for drainage.

Fibreglass boats built prior to the raised foredeck (Bourke) model may be reinforced using compression struts. Struts may be made of fibreglass, wood and/or metal in any configuration. They shall be additional to, and built on top of, the original structure and shall not protrude above a straight line between the gunwale and the centreline of the boat at the mast step height. They shall be clearly intended to extend the boat's useful life and shall not in any way be contrived to circumvent the spirit and intent of these Class Restrictions.

20. Seats or thwarts

Seats (other than side seats) shall be a minimum of 200 mm x 16 mm. It is not necessary to have a seat under the mast on the false floor version, but in this case the mast step should be built up or the length of the mast increased to obtain maximum allowable mast height. The mast step must extend to the keelson. See 8, 9 & 10 and 29 for mast and step height restrictions.

Seats - 200 mm x 16 mm minimum.....

21. Buoyancy

WOODEN boats without three separate sealed compartments shall carry 25 kg minimum of positive buoyancy.

FIBREGLASS boats other than David Evans or Bourke boats shall carry 30 kg minimum of positive buoyancy. David Evans and Bourke boats have sufficient built in buoyancy. One or two litre milk bottles are suitable (One litre equals one kg) (Refer Yachting New Zealand Yacht Racing Safety Regulations).

All boats measured shall have three sealed compartments, which shall be

- Side seat - each seat and bow section, separate.
- False floor - bow section plus remainder divided approximately equally.

Form.....
Filled.....

22. Skeg

The skeg shall be flush with the transom at the stern where it shall have a minimum depth of 57 mm before rounding. The rounding may have a 57 mm maximum radius. It shall have a minimum depth of 10 mm below the bottom ply and 19 mm minimum thickness throughout the 2440 mm minimum length but need not be continuous around the centrecase. A 6 mm maximum radius external and internal round is allowed. The skeg may not be concave.

Thickness - 19 mm minimum.....
Length - 2440 mm minimum.....
Depth at transom - 57 mm minimum.....
Radius at transom end - 57 mm maximum.....
Depth elsewhere - 10 mm minimum.....
Corner round radius - 6 mm maximum.....

23. Rubbing strips

A rubbing strip 25 mm x 19 mm and not less than 1525 mm long shall be fitted on each side and secured on the wide face. The rubbing strips shall be fitted parallel to and between 450 & 550 mm from the skeg and the aft end shall be between 200 & 300 mm from the transom. These are part of the external frictional resistance and must not be cut down in section or length. The external corners and internal corners (hull/rubbing strip) may have a radius of no more than 6 mm and the end taper, if any, shall extend no more than 100 mm at each end to make up the prescribed length.

Length - 1525 mm minimum.....
Width - 25 mm minimum.....
Depth - 19 mm minimum.....
Radius - 6 mm maximum.....
Taper distance - 100 mm maximum.....
Distance from skeg - 450 mm to 550 mm.....
Distance from transom 200 mm to 300 mm.....

24. Centreboard (standard)

The shape is optional but the area of the blade below the top of the centrecase must fit into a rectangle 1310 mm x 300 mm. (The handle must prevent the blade from extending more than 980 mm beyond the bottom ply.)

The Centreboard may be made of wood, fibreglass, carbon fibre, and may have a pvc foam core, or any combination of these materials. This applies to both wooden and fibreglass boats.

The board shall have a maximum thickness of 30 mm. Jibing boards are not permitted.

Thickness - 16 mm minimum.....
- 30 mm maximum.....
Size - 1310 mm x 300 mm.....
Adequate handle.....

25. Centreboard (alternative)

The centreboard may be of any shape provided that it is within the dimensions on the plans, and made from timber 16 mm minimum thick. The length of the lower edge when raised shall not exceed 1040 mm (including the 225 mm extension). The kingbolt hole, when measured with the centreplate raised, shall be centred 30 mm from the forward edge and 25 mm from the bottom edge.

Lower edge length - 900 mm maximum.....
Upper edge length - 1040 mm maximum.....
Kingbolt position - 30 mm x 25 mm.....
Width forward end - 375 mm maximum.....
Width aft end - 343 mm maximum.....

26. Rudder

The rudder shall be a tilting type. Its gudgeon pivots shall be parallel to the transom. The style and material of the tiller are optional.

The Rudder Blade may be made of wood, fibreglass, carbon fibre, and may have a pvc foam core, or any combination of these materials. This applies to both wooden and fibreglass boats.

The rudder blade shape is optional provided the blade fits into a rectangle 760 mm x 300 mm. The top radius shall be 70 mm minimum. Its thickness shall not be less than 16 mm (at the thickest point). The pivot pin shall be central to the top round. The leading edge of the rudder blade when vertical shall be 80 mm maximum from the transom at the bottom vee.

Size - 760 mm x 300 mm maximum.....
Thickness - 16 mm minimum.....
Radius at top - 70 mm minimum.....
Pivot pin central.....
Leading edge of blade - 80 mm maximum.....

27. Rudder stock

The rudder stock shall be built to the plans and shall only be made of wood or aluminium. Lightening holes are permitted but the rudder stock, including the tiller and fittings, shall not weigh less than 1.5 kg.

The dimensions shall be as follows:

Overall length - 360 mm minimum.....
Width at pivot - 140 mm minimum.....
Pivot pin from sides & bottom of cheeks - 70 mm minimum.....
Width at underside of tiller - 100 mm minimum.....
Cheek thickness - 17 mm minimum.....
Spacer thickness - 16 mm minimum.....
Overall stock thickness - 50 mm minimum.....
Corner radius - 15 mm maximum.....
No lightening.....

The standard approved alloy rudder stocks are mandatory on Bourke fibreglass boats but otherwise optional.

28. Mast section

A wooden mast shall be constructed according to the plans. No combination of wood and other material is permitted other than masthead and foot fittings not exceeding 100 mm, plus rigging fittings. The mast shall not be outside the following dimensions:

- maximum fore and aft dimension 90 mm
- minimum diameter at masthead 32 mm.

An aluminium mast shall be of uniform parallel section throughout (a cut-out for gooseneck continued down to mast foot is permitted) and not less than 48 mm diameter. Internal sleeves of round section of any length or thickness are permitted. A hollow mast shall be either completely sealed to prevent entry of water, or have drain holes not more than 500 mm from the base and of such size that they are capable of emitting all the water that could be contained in the mast within 30 seconds with the mast stood upright.

Wooden (fore & aft) - 90 mm maximum.....
Wooden (masthead) - 32 mm minimum.....
Aluminium - 48 mm diameter. minimum.....
Drainage OK.....

29. Mast length

The masthead shall be taken as the top of the main halyard sheave. If multiple sheaves are fitted the measurement is to be taken to the top of the topmost sheave. A maximum length of 5080 mm from the "theoretical gunwale height" to masthead is permitted.(See 9 & 10).

Length - 5080 mm maximum.....

30. Mast Base

A mast base may consist of anything that does not support the mast in any way be it a cup, pin, socket, stub or recess not exceeding 25 mm in length or depth.

Length or depth - 25 mm maximum.....

31. Rigging

Sidestays and forestay to be either 2.5 or 3 mm rigging wire. The point of attachment of sidestays shall be deemed to be the lowest supporting fastening (bolt, rivet, screw etc.) or in the case of internally attached sidestay, where the stays come through the mast. The "load point" of the forestay/jib halyard may be lower than the sidestay attachment point with a maximum separation of 150 mm. Sidestays shall not be capable of adjustment while sailing. The point of attachment shall be between 1500 mm and 1550 mm below the masthead. The top of the spinnaker halyard sheave shall be not less than 1220 mm below the masthead. Spinnaker cranes and rotating masts are not permitted.

Sidestays - 1500 - 1550 mm.....
Spinnaker - 1220 mm minimum.....
Separation - 150 mm maximum.....

32. Lowering or Furling of Sails

All sails shall be capable of being lowered at sea. Masthead locks will be permitted as long as they can be operated with ease at sea. Alternatively, the jib may be furled by a proper roller furling device operated from the cockpit. The use of a light forestay and halyard lock for those using the jib luff as a forestay is permitted.

Lowering.....

33. Boom

May be of wood or aluminium and not more than 2740 mm in length including fittings or to the outside of the mast if jaws are used. The maximum depth shall be 70 mm (including track), must be a constant depth for it's whole length, the minimum width shall be 40 mm and the maximum width 57 mm. Internal sleeves of any length or thickness are permitted.

For the goose neck, the distance from the centre of the pivot point to the face of the mast, excluding any external track, shall not exceed 30 mm.

The boom may have the lower stern end cut away 150mm maximum length and no more than half its depth.

Length - 2740 mm maximum.....
Depth - 70 mm maximum.....
Width - 40 - 57 mm.....
Gooseneck pivot - 30 mm maximum.....

34. Spinnaker boom

May be of wood or aluminium and shall not exceed 1830 mm measured from the face of the mast to where the guy bears on the outer end of the boom, be it jaws, parrot's beak or crook.

Length - 1830 mm maximum.....

35. Spinnaker launchers

Spinnaker launchers are permitted but shall be below gunwale level and not able to shed water overboard. (As there are no spinnaker launchers shown on the plans consult a measurer if your proposal varies from the launchers in common use).

Fitted.....

36. Sails (Measurers please refer to "Sail Measuring Procedure".)

Sails shall be constructed of woven polyester or nylon. Laminates shall not be used except for windows, and these shall not be placed in load-bearing areas to strengthen the sails. Only dacron sail cloth may be used in sails.

Windows are permitted in the jib and mainsail. The maximum areas of the windows shall be:

- Mainsail - up to two windows - total area 0.15 square metres
- Jib - one window - total area 0.08 square metres

The sails, with the exception of the spinnaker which shall be measured hand tight, are to be stretched on the measuring floor till free of wrinkles.

- Mainsail

The mainsail shall not exceed 4575 mm on the luff, 2440 mm on the foot, or 4875 mm on the leech. Measurements for the luff and foot are taken inside the boltrope. (Note that for a sail with a false luff the measurements are taken outside the inner boltrope). The length of the leech shall be taken as the straight distance between the boltrope end of the head and the clew.

The diagonal measurement from head to centre of foot shall not exceed 4650 mm. The mid measurement (inside boltrope to outside of the sail) shall not exceed 1500 mm, measured 2288 mm down the luff and 2438 mm down the leech. Lower battens shall not exceed 610 mm in length and shall be substantially in the positions shown. The top batten shall not exceed 760 mm in length and shall be 915 mm from the boltrope at the head to top of pocket on outer end and 1040 mm from head to top of pocket on inner end. All batten pockets to be parallel and at 915 mm centres. A loose footed mainsail is permitted.

Luff - 4575 mm maximum.....
Leech - 4875 mm maximum.....
Diagonal - 4650 mm maximum.....
Foot - 2440 mm maximum.....
Mid height - 1500 mm maximum.....
Top Batten-----See note
Inner - 1040 mm minimum.....
Outer - 915 mm minimum.....
Length - 760 mm maximum.....

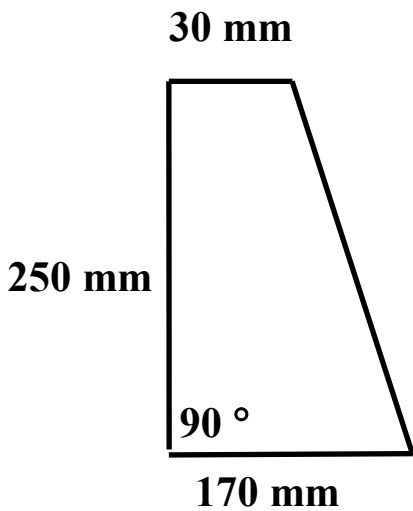
Note: These three measurements form a triangle above the top batten. The leech between the top batten and the outer edge of the headboard shall not fall outside a straight line. There shall be no hollow in the leech at mid height.

Lower Battens

Length - 610 mm maximum.....
Spacing - 915 mm centres.....
Top of head board - 100 mm maximum.....
Top of sail - 110 mm maximum.....
Straight line at leech.....
Head board to outer top batten.....
No hollow in leech at midway point.....

- Jib

The jib shall not exceed 3050 mm on the luff, 1220 mm on the foot, and 2895 mm on the leech. The diagonal measurement from the head to the centre of the foot shall not exceed 2945 mm. No battens shall be permitted in the jib. There shall be a measurement which shall not exceed 635 mm measured between points from the head 1525 mm down the luff and 1450 mm down the leech. There shall be an additional measurement which shall not exceed 170 mm measured across the jib perpendicular to the luff at a point 250 mm from the head. Up to 30 mm maximum width at the head is acceptable and luff, leech and diagonal measurements shall be taken from the luff edge of the head. Use template in "Sail Measuring Instructions" to check the three top measurements. The head shall not fall outside the template (shown) nor shall it be 5 mm smaller than the template at any point.



- Luff - 3050 mm maximum.....
- Leech - 2895 mm maximum.....
- Diagonal - 2945 mm maximum.....
- Foot - 1220 mm maximum.....
- Head - 30 mm maximum.....

Cross Measurements

- 1 - 635 mm maximum.....
- 2 - 170 mm maximum.....
- Correct with template.....

- Spinnaker

The Spinnaker shall be measured folded along its centre line with the leeches together. The length of the leeches shall not exceed 3660 mm taken as the distance from the highest point of the sail on the leech. The foot shall not exceed 3050 mm. The length of the centre fold shall not exceed 4040 mm taken as the distance between the head and the mid point of the foot. The luff, foot & diagonal measurements are taken in a straight line with the cloth pulled tight enough to remove wrinkles.

- Luff - 3660 mm maximum.....
- Foot - 3050 mm maximum.....
- Diagonal - 4040 mm maximum.....

The registration number shall be displayed both sides of the mainsail and on the leading face of the spinnaker.

Numbers displayed.....

All sails, including replacement sails must carry the official sail measured stamp.

37. Sail shape changing devices

The following sail shape changing devices only shall be permitted in addition to halyards and sheets

- Adjustable gooseneck or jaws allowing mainsail luff adjustment.
- Outhaul for adjustment of foot of mainsail.
- Either mainsail central or rear sheeting.
- Boom vang consisting of not more than 4 to 1 purchase.
- Adjustable jib luff.
- Jib sheet tracks.
- Cunningham holes.
- Jib clew adjustment plate.
- Barber haulers for adjusting the jib and spinnaker.
- Two different length jib attachments to the forestay.

No item other than above.....
No more than 4 to 1 boom vang.....
Stamped.....

38. Crew

When racing a minimum crew of two shall be carried.

39. Weight

The dry weight of the hull, with dry equipment, shall be not less than 77 kg inclusive of all normal permanently fixed fittings, i.e. chain plates, bow fitting to take forestay and headsail, cleats, rudder fittings, etc., if permanently fixed in place. This excludes the centreplate, rudder, blocks, shackles, lashings and other fittings attached by shackles or lashings, and standing or running rigging, spars, anchor etc. If the dry weight of the hull is less than 77 kg the owner shall make up that weight with lead securely fastened to the hull. Half of the made up weight shall be affixed above the floor or deck within 650 mm of the bow and the other half shall be secured above the floor within 300 mm of the stern. Brass or other metal strips on the skeg must be recorded and included in the weight of the boat.

Dry Weight.....
Amount of make weight required.....
Position of make weight.....
Metal strip on skeg.....

40. Design

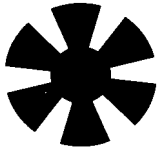
Side seat, false floor, and any combination of side seat and false floor, with side seats within the limits shown on the plans, and the hull and fore deck as specifically shown on the plans, will be permitted.

41. Hull numbering

- All boats receive a registration number when they are measured and then registered.
- Fibreglass boats have hull numbers inscribed during construction. This is not the boat's registration number.
- For wooden boats the registration number is also the hull number. The registration number must be carved or permanently fixed in a visible position on the inside of the transom.

42. Permitted items

Anything not specifically stated in the Plans and Class Restrictions is not permitted.



NEW ZEALAND SUNBURST ASSOCIATION

Box 33 608, AUCKLAND

Extract from:

SUNBURST CLASS RESTRICTIONS & MEASURER'S SHEET FOR REGISTRATION

SAILS:

36. Sails (Measurers please refer to "Sail Measuring Procedure".)

Sails shall be constructed of woven polyester or nylon. Laminates shall not be used except for windows, and these shall not be placed in load-bearing areas to strengthen the sails. Only dacron sail cloth may be used in sails.

Windows are permitted in the jib and mainsail. The maximum areas of the windows shall be:

- Mainsail - up to two windows - total area 0.15 square metres
- Jib - one window - total area 0.08 square metres

The sails, with the exception of the spinnaker which shall be measured hand tight, are to be stretched on the measuring floor till free of wrinkles.

- Mainsail

The mainsail shall not exceed 4575 mm on the luff, 2440 mm on the foot, or 4875 mm on the leech. Measurements for the luff and foot are taken inside the boltrope. (Note that for a sail with a false luff the measurements are taken outside the inner boltrope). The length of the leech shall be taken as the straight distance between the boltrope end of the head and the clew.

The diagonal measurement from head to centre of foot shall not exceed 4650 mm. The mid measurement (inside boltrope to outside of the sail) shall not exceed 1500 mm, measured 2288 mm down the luff and 2438 mm down the leech. Lower battens shall not exceed 610 mm in length and shall be substantially in the positions shown. The top batten shall not exceed 760 mm in length and shall be 915 mm from the boltrope at the head to top of pocket on outer end and 1040 mm from head to top of pocket on inner end. All batten pockets to be parallel and at 915 mm centres. A loose footed mainsail is permitted.

Luff - 4575 mm maximum.....
Leech - 4875 mm maximum.....
Diagonal - 4650 mm maximum.....
Foot - 2440 mm maximum.....
Mid height - 1500 mm maximum.....
Top Batten-----See note
Inner - 1040 mm minimum.....
Outer - 915 mm minimum.....
Length - 760 mm maximum.....

Note: These three measurements form a triangle above the top batten. The leech between the top batten and the outer edge of the headboard shall not fall outside a straight line. There shall be no hollow in the leech at mid height.

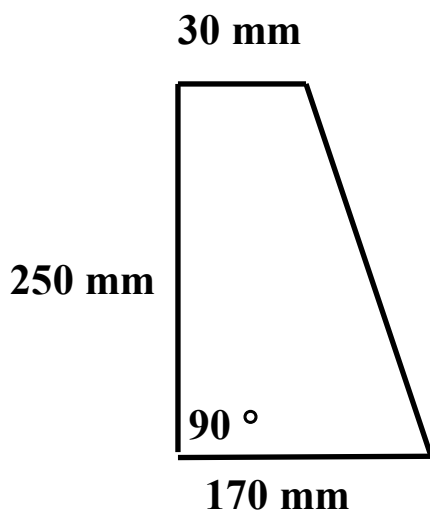
Lower Battens

- Length - 610 mm maximum.....
- Spacing - 915 mm centres.....
- Top of head board - 100 mm maximum.....
- Top of sail - 110 mm maximum.....
- Straight line at leech.....
- Head board to outer top batten.....
- No hollow in leech at midway point.....

- Jib

The jib shall not exceed 3050 mm on the luff, 1220 mm on the foot, and 2895 mm on the leech. The diagonal measurement from the head to the centre of the foot shall not exceed 2945 mm. No battens shall be permitted in the jib. There shall be a measurement which shall not exceed 635 mm measured between points from the head 1525 mm down the luff and 1450 mm down the leech. There shall be an additional measurement which shall not exceed 170 mm measured across the jib perpendicular to the luff at a point 250 mm from the head. Up to 30 mm maximum width at the head is acceptable and luff, leech and diagonal measurements shall be taken from the luff edge of the head. Use template in "Sail Measuring Instructions" to check the three top measurements. The head shall not fall outside the template (shown) nor shall it be 5 mm smaller than the template at any point.

- Luff - 3050 mm maximum.....
- Leech - 2895 mm maximum.....
- Diagonal - 2945 mm maximum.....
- Foot - 1220 mm maximum.....
- Head - 30 mm maximum.....



Cross Measurements

- 1 - 635 mm maximum.....
- 2 - 170 mm maximum.....
- Correct with template.....

- Spinnaker

The Spinnaker shall be measured folded along its centre line with the leeches together. The length of the leeches shall not exceed 3660 mm taken as the distance from the highest point of the sail on the leech. The foot shall not exceed 3050 mm. The length of the centre fold shall not exceed 4040 mm taken as the distance between the head and the mid point of the foot. The luff, foot & diagonal measurements are taken in a straight line with the cloth pulled tight enough to remove wrinkles.

Luff - 3660 mm maximum.....
Foot - 3050 mm maximum.....
Diagonal - 4040 mm maximum.....

The registration number shall be displayed both sides of the mainsail and on the leading face of the spinnaker.

Numbers displayed.....

All sails, including replacement sails must carry the official sail measured stamp.

37. Sail shape changing devices

The following sail shape changing devices only shall be permitted in addition to halyards and sheets

- Adjustable gooseneck or jaws allowing mainsail luff adjustment.
- Outhaul for adjustment of foot of mainsail.
- Either mainsail central or rear sheeting.
- Boom vang consisting of not more than 4 to 1 purchase.
- Adjustable jib luff.
- Jib sheet tracks.
- Cunningham holes.
- Jib clew adjustment plate.
- Barber haulers for adjusting the jib and spinnaker.
- Two different length jib attachments to the forestay.

No item other than above.....
No more than 4 to 1 boom vang.....
Stamped.....