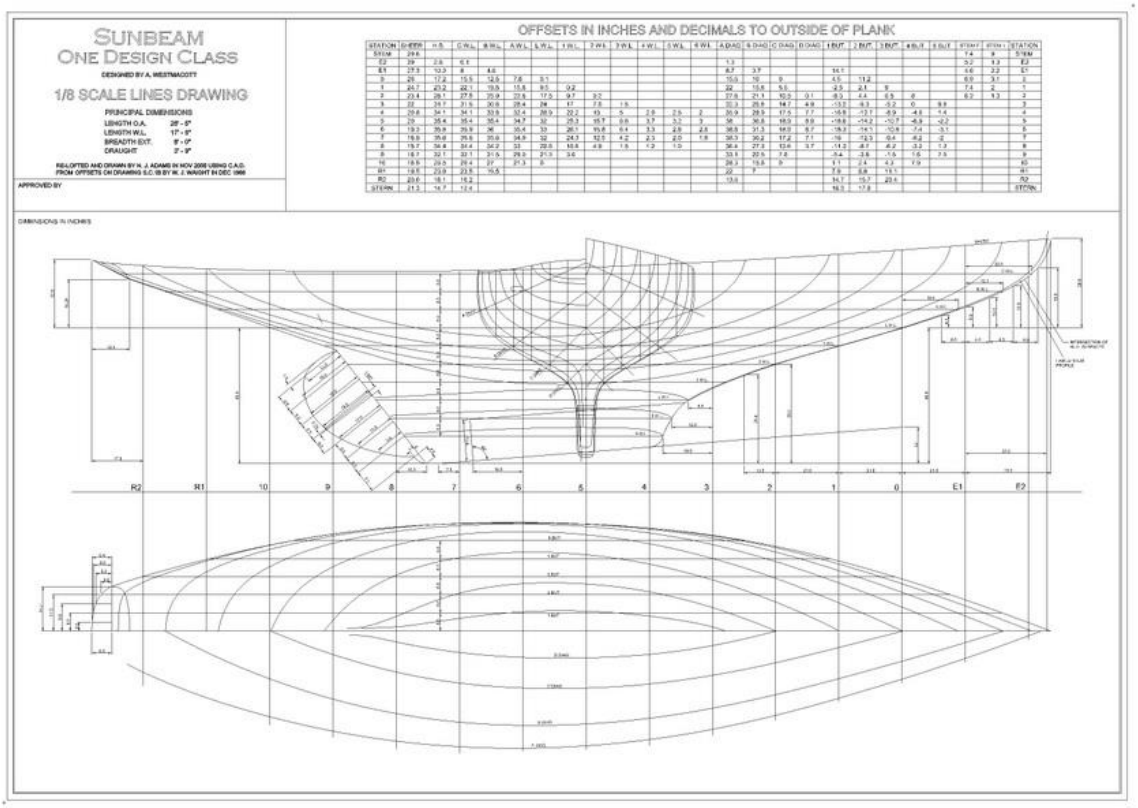
FALMOUTH SUNBEAM

CLASS RULES

2019-2020



Record of Changes

Date	Description
28th April 2018	2018 edition approved by owners at the Spring Meeting
19th May 2018	Missing rule regarding headsail corner eye cringle size inserted at F.5.2(f)(1)
	Previous rule F.5.2(f)(1) renumbered F.5.2(f)(2)
23rd July 2018	Missing rule regarding headsail cloth width at the head of the sail inserted at F.5.2(c).
	Previous rules F.5.2(c) to (f) renumbered F5.2(d) to (g)
6th January 2019	Metric equivalents in G.1 corrected
	2019-2020 edition published

INDEX

INTRODUCTION

This new edition of class rules follows the World Sailing template for Standard Class Rules (SCR). It incorporates material from the previous edition published on 30 March 2013, plus the backlog of changes voted on and passed at AGMs since then. In addition, the SCR template includes standard rules that did not feature in the previous class rules.

The rules comprise three Parts: Part I – Administration, Part II – Requirements and Limitations, and Part III – Appendices.

Part I - Administration

This part is divided into two Sections. Section A - General covers how the rules are administered by the rule authority (which is the Class Association), and how the rules are applied to new boats. Section B - Boat Eligibility sets out the top-level requirements for a boat to be eligible to take part in racing.

Part II – Requirements and Limitations

This part is divided into four sections. Section C - Conditions for Racing covers rules that are not part of fundamental measurement, for example portable equipment that does not determine whether or not a boat is a *bona fide* Sunbeam and that can only be checked on an ad-hoc basis and not certified. Section D - Hull covers fundamental rules that do determine whether or not a boat is a Sunbeam. Similarly, Section E - Rig and Section F - Sails contain fundamental rules for those aspects of the design.

Part III - Appendices

This part contains three sections. Section G - Hull Specification contains detailed rules on the construction of a Sunbeam. Section H - Sail and Rigging Plans contain schematic diagrams of the two permitted configurations of sails and rigging. Section I – Sail Measurement states the method for calculating sail areas.

GLOSSARY OF TERMS

Arch Board	The vertical, flat, solid block of timber that closes the aft end of the hull
Bollard	A sturdy, short vertical post above the foredeck for securing a mooring rope or tow rope.
Breasthook	Shaped, flat timber located beneath the deck, and securing together the shelves, deck and stem.
Cleat	Any device for securing the end of a rope or line under tension, e.g. horned cleat, cam cleat, clam cleat, clutch.
Counter	The shaped solid block of timber on the aft face of the arch board, that completes the lines of the boat.
Covering Board	A finishing plank, either sawn to shape or edge bent, that creates the join between the outer edge of the deck planking and the top strake.
Deadwood	A tertiary structural member formed from a solid block of timber usually binding together named items of the structure, e.g. filling the triangular gap between the keel and the horn timber
ERS sail measurements	MTW – Mainsail Three Quarter Width (called G1 in 2013 rules) MHW – Mainsail Half Width (called G2 in 2013 rules) MQW – Mainsail Quarter Width (called G3 in 2013 rules) HLU – Headsail Luff Length (called L in 2013 rules) HLP – Headsail Luff Perpendicular (called LC in 2013 rules)
Fore Gripe	The centreline timber connecting the keel to the stem.
Frame Clamp	A longitudinal timber fitted beneath the shelf and on the inside of the bent timbers to give support to the hull structure against the loads on the chainplates.
Horn Timber	The centreline timber connecting the keel to the arch board.
Mainpiece	The metal fabrication comprising the curved straps either side of the rudder and the round bar passing through the tube to the tiller.
Mast Bed	The flat timber on top of the deck in way of the mast opening.
Mast Opening	The opening through which the mast passes downwards to the mast step.
Platform	The horizontal surface within the cockpit on which the crew stand.
Rack Chainplate	A longitudinal, vertical piece of stainless steel with multiple holes, either bolted to the original chainplates or part of an inverted-T welded fabrication replacing the original chainplates.
Shelf	The longitudinal timber fitted on the inside of the bent timbers from stem to stern to support the outer ends of the deck beams.
Sprung Deck	Where the deck planks are bent to the curvature of the side of the boat rather than laid fore and aft.
Station Moulds	Cross-sectional formers corresponding to the inside surface of the hull at specified locations along its length, around which longitudinal battens are fixed to create the three-dimensional shape to which the bent timbers fitted during building.
Stem	The centreline timber connecting the fore gripe to the bow.
Taffrail	The flat timber that completes the deck edge across the top of the counter.
Toerail	Vertical timber at either side of the fore deck.
Top Strake	The topmost plank of the hull.

PART I – ADMINISTRATION

Section A - General

A.1 LANGUAGE

A.1.1 The word “shall” is mandatory and the word “may” is permissive.

A.1.2 Except where used in headings, when a term is printed in “**bold**” the definition in the Equipment Rules of Sailing (ERS) applies and when a term is printed in “*italics*” the definition in the Racing Rules of Sailing (RRS) applies.

A.1.3 Use of the term “**class rules**” everywhere refers to **closed class rules**, where the default is that anything not specifically permitted is prohibited. Note, however, that the rules are structured in such a way that different degrees of control can be applied to different aspects of the design. Whilst core components such as the **hull**, **spars**, **standing rigging**, and **sails** are subject to control, the rules permit extensive customisation of **rig** adjustment systems.

A.2 AUTHORITY AND ADMINISTRATION

A.2.1 The authority for **class rules** is the Class Association.

A.2.2 Amendment to these **class rules** shall be approved by the Class Association.

A.2.3 Interpretation of **class rules** shall be made by the Class Association.

A.3 POLICY

A.3.1 It is the policy of the **class rules authority** that **class rules** underpin close, fair, competitive and safe racing between **boats** and **crews** of all ages, and control the pursuit of performance advantage through unnecessary expenditure. The rules protect the competitiveness of existing **boats** and sustain this historic and iconic local class for future generations.

A.4 NEW BOATS

A.4.1 Anyone wishing to build, or have built, a new **boat** shall apply to the Class Association for permission.

A.5 CLASS FEE

A.5.1 The approved **hull** builder shall pay the Class Association fee.

A.6 SAIL NUMBERS

A.6.1 **Sail** numbers shall be issued by the Class Association.

A.6.2 **Sail** numbers shall be issued in consecutive order starting at the next unallocated number.

A.7 HULL CERTIFICATION AND RE-CERTIFICATION

A.7.1 **Hulls** shall be built under the supervision of the Class Measurer in conjunction with any person, or persons, appointed by the Class Association.

Section B - Boat Eligibility

For a **boat** to be eligible for *racing*, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

B.1.1 The **boat** shall be in compliance with **class rules**, except that:

(a) From time to time the **class rules authority** may authorise a **boat** temporarily to depart from **class rules** on a trial basis to investigate the pros and cons of a possible rule change.

B.1.2 The **boat’s** owner, or owners, shall be members of the Class Association, and shall have paid such subscriptions due under the rules of the Class Association.

B.1.3 A **boat** that has been owned for 12 consecutive months by anyone who for any reason has not been admitted to membership of the Class Association, or has not paid subscriptions due under the rules of the association, shall be “out of class”. Any **boat** that is “out of class” shall only be re-admitted if the Class Captain is satisfied that it complies with **class rules**.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and **boat** shall comply with the rules in Part II when *racing*. In case of conflict Section C shall prevail.

Section C - Conditions for Racing

C.1 GENERAL

C.1.1 Rules

(a) RRS 54 shall not apply.

(b) The ERS Part I - Use of Equipment shall apply.

(1) ERS B.1.1(a), B.1.2 and B1.1.3 do not apply.

C.1.2 Paid Hands

(a) One paid hand is permitted.

C.2 CREW

C.2.1 The helm shall be a Full, Associate or Honorary Life Member of the Class Association. This **class rule** may be waived by the Class Captain, or another officer of the association in his absence, by prior request.

(a) The helm shall not be a paid hand in the employ of the owner in any **boat**.

C.2.2 There are no restrictions on the total number and weight of the **crew**.

C.2.3 The waists of the **crew** shall remain inside the coaming except when:

(a) Holding out the **mainsail boom**.

(b) Lowering or raising a **sail**.

(c) Making temporary repairs to the **hull**, fitting, **rig** or **sail**, or making an adjustment.

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

(a) The **boat** shall be equipped with:

(1) One **personal flotation device** for each **crew** member to the minimum standard ISO 12402-5 (CE 50 Newtons) or equivalent.

C.4 ADVERTISING

C.4.1 Maker's marks on **hull**, **spars,** equipment and **sails**, and advertising required by event organisers, are permitted.

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

(a) FOR USE WHEN RACING

(1) **Internal ballast** weighing not less than 250lbs (113kg) and not more than 450lbs (205kg). Each item of ballast shall be stamped, or legibly and permanently marked, with its own weight and the sail number of the **boat**.

(2) One bucket of minimum capacity 2 gallons (9L).

(3) One anchor, or anchor and chain, weighing a maximum of 35lbs (15.9kg) and a minimum of 20lbs (9.1kg) (Fisherman type) or 14lbs (6.4kg) (Stockless type), and with not less than 15 fathoms (27.4m) of line of average breaking load not less than 2 tons (2033kg).

(4) A working marine VHF radio.

(5) One non-inflatable lifebuoy ready for immediate use.

(6) Heaving line not less than 6mm diameter, 15-25m long, readily accessible from the cockpit.

(7) Strong, sharp knife, sheathed and restrained, and readily accessible from the cockpit.

(b) NOT FOR USE WHEN RACING

(1) At least one oar and rowlock, or at least one paddle, capable of propelling the **boat** adequately.

(2) Two red pyrotechnic flares, in-date, or one electronic red flare.

(3) A suitable tow rope.

C.5.2 OPTIONAL

(a) FOR USE WHEN RACING

(1) One bamboo sounding rod of maximum diameter ½in (12.7mm) and maximum length 6ft (1.83m).

(2) One electronic depth sounder.

(3) Electronic or mechanical timing devices.

(4) Electronic or mechanical magnetic compass displaying solely the **boat's** heading.

(5) Tool box with tools.

(6) Bailer.

(7) Battery for electric bilge pump if fitted, and spare battery.

(8) Broom or mop, which may be used to hold out the **mainsail boom**.

(b) NOT FOR USE WHEN RACING

(1) Electronic navigation devices.

(2) One outboard engine and necessary mounting arrangements, the total weight of which shall be included in the weight of **inside ballast** (see **class rule** C.5.1(a)(1)).

(3) Mobile telephones and other mobile communication devices.

(4) Boat hook.

(5) Scrubbing brush.

(6) One pair of legs complete with fittings.

C.6 HULL

C.6.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The **hull** may be altered only as permitted by these **class rules**.

C.7 RIG

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The **rig** may be altered only as permitted by these **class rules**.

C.7.2 LIMITATION

(a) Only a mast for which a valid measurement certificate has been issued shall be used.

C.7.3 MAST

(a) The intersection of the fore side of the **spar** and the upper surface of the deck to the fore side of the stem at deck level shall not be less than 8ft 6ins (2590mm).

(b) The intersection of the aft side of the **spar** and the upper surface of the deck shall not be aft of the fore end of the cockpit coaming.

(c) The position of the **mast** heel shall not be moved.

C.7.4 STANDING RIGGING

(a) Rigging screws on cap and lower **shrouds** shall not be adjusted.

(b) **Spreader** angle and length shall not be adjusted.

C.7.5 RUNNING RIGGING

(a) A solid kicker shall not support the **boom** when sailing.

C.8 SAILS

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) **Sails** may be altered only as permitted by these **class rules.**

C.8.2 LIMITATION

(a) Only **sails** for which a valid measurement certificate has been issued shall be used.

(b) One spare **mainsail** and one spare **headsail** may be carried aboard.

(c) Except as provided below a **boat** shall not buy or acquire more than one **mainsail** and one **headsai**l per calendar year, but no more than two **mainsails** in every three-year period.

(1) Newly built **boats** may buy or acquire two sets of **sails** in the first year.

(2) The Class Captain may allow additional purchases or acquisitions in exceptional circumstances.

(3) The relevant date shall be the Class Measurer's date as first marked on the **sail**.

Section D - Hull

D.1 CONSTRUCTION

D.1.1 All **boats** shall be built using traditional techniques in accordance with the original design of Alfred Westmacott conforming with the specification at Appendix G and Class Association official drawings. The shapes of station moulds for building new **boats** shall be traced from Polyester or Mylar film official patterns issued by the Class Association, except that Mylor Yacht Harbour may continue to use its existing moulds until they need replacing.

D.2 MODIFICATIONS, MAINTENANCE AND REPAIR

D.2.1 Internal strengthening approved in writing by the Class Captain, and carried out under the supervision of the Class Measurer, is permitted. Re-arrangement of benches, seats and platform are not considered to be structural alterations. The following alterations have been previously approved:

(a) Frame clamps of Pine, sized to strengthen chainplate area, efficiently secured to bent timbers and hull planking.

(b) Crew side seats or thwart that are not rigidly fixed so as to cause hull strengthening or stiffening.

(c) A single, solid, centreline plate made of stainless steel located fixed between the underside of the breasthook and the top of the stem beneath, efficiently secured to the headsail tack fitting above deck.

(d) Beam, of Teak or Iroko, to support mainsheet traveller track, efficiently secured to the primary hull structure.

(e) Battens, of Teak or Iroko, attached to bent timbers on either side of the platform.

(f) Internal doubling to maintain the watertight integrity of the hull.

(g) Frame clamps beneath the side deck at both sides of the cockpit, efficiently secured to bent timbers and hull planking, to carry below-deck **running backstay** adjustment systems.

D.2.2 Structural repairs, due to accident or otherwise, shall be carried out under the supervision of the Class Measurer, and shall, as far as possible conform to the original design and specification as amended by **class rules**.

D.2.3 Glues may only be used for:

(a) Re-establishing the integrity of individual timbers, except that it is not permissible to glue together separate timbers that were not so joined in the original design, nor is it permissible to apply glue to the outside surface of re-established timbers other than such as may arise from (d) below.

(b) Permanently repairing plank edges using good quality Pitch Pine. The abutting edges of the plank and replacement timber may be glued together using a waterproof glue. An epoxy resin type glue may be used for this purpose. Any such glue shall not be left on the outer or inner surfaces of the repaired plank. Where the edges of the two adjoining planks both need repair over the entire length of each plank, the edge of each plank may be cut back uniformly along its length. In such case, only the edge of one plank need have new timber added to reduce the gap between the planks to a caulkable width, so long as the overall number of planks is not reduced. Any seam so

reformed shall be caulked in accordance with the caulking specification as stated in Part III, Section G.

(c) Scarphing together sections of hull plank where replacement of the plank over its entire length is not appropriate.

(d) Small scale repairs as a temporary expedient during a sailing season, provided the glue is removed before the start of the subsequent season.

(e) Construction of laminated wood components as stated in Part III, Section G.

(f) Fitting a permitted covering to the upper surface of the deck.

D.2.4 Seams may be re-caulked in accordance with the specifications as stated in Part III, Section G.

D.2.5 With the written agreement of the Class Captain in conjunction with the Class Measurer, the seams between the topmost eight planks (the first plank being the Top Strake) may be filled by a Spruce spline glued on both sides.

(a) The spline shall have a maximum thickness of 8mm and a maximum depth of 9mm.

(b) The glue used shall be a single-pack polyurethane type.

(c) Permission for splining shall be conditional upon the submission to the Class Captain of a current written structural survey by a professionally qualified marine surveyor. Surveys dated more than 12 months prior to submission will not be considered current.

(d) Recommendations made by the surveyor concerning the integrity of the hull and deck structure shall either have been previously carried out to the satisfaction of the Class Measurer or shall form part of the work programme to include splining.

(e) The owner shall provide written assurance of the work programme to be commissioned.

(f) The work programme shall be supervised and approved upon completion by the Class Measurer. The written approval will be copied to the Class Captain for inclusion in class records.

D.2.6 Fillers may be used to make good cosmetic defects before re-painting.

D.3 FITTINGS

D.3.1 MANDATORY

(a) **Forestay** attachment.

(b) Chainplates.

(1) Rack chainplates are permitted.

(c) **Mast** step.

(d) **Backstay** attachment.

(e) One or more bilge pumps with associated overboard discharge hoses shall be fitted. At least one pump shall be manually operated. The total weight of the pumps and associated fittings shall not exceed 25lbs (11.4kg).

D.3.2 OPTIONAL

(a) Bow fairlead for mooring.

(b) Mooring cleats on fore deck and after deck.

(c) Ensign staff holder.

(d) Fastening points for a cover.

(e) Tensioned, flexible wires to tie the **mast** step to the chainplates and to the **headsail tack** fitting.

Section E - Rig

E.1 ARRANGEMENT

E.1.1 The Sunbeam is a **Sloop**. The rig comprises a **mast**, **mainsail boom**, kitty pole, **standing rigging** and **running rigging**.

(a) The kitty pole is a **spar** attached to the **mast spar** at its inboard end when set and the **headsail tack** at its outboard end. Its use is to trim the **headsail tack** (which is **set**

flying) when sailing off the wind. It is controlled by two guys and a **headsai**l **tack** downhaul.

(1) The kitty pole shall swivel independently of the **mainsail boom**.

(2) The kitty pole may be lowered to the deck when not in use.

(b) The **mainsail boom** shall swivel independently of the **mast**.

E.1.2 Except as amended by these **class rules**, the **rig** shall conform to either the original or 1997 rigging plans (see Part III, Section H) but not a mixture of both.

(a) There is no restriction on the position of the **running backstays** at deck level.

E.2 GENERAL

E.2.1 RULES

(a) The **spars** and their fittings shall comply with the **class rules** in force at the time of **certification** of the **spar**.

(b) The **standing** and **running rigging** shall comply with **class rules**.

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) **Spars** may be altered only as permitted by these **class rules**.

(b) Routine maintenance such as repairing wear and tear and damage, and replacing fittings is permitted without re-measurement and re-**certification**.

E.2.3 CERTIFICATION

(a) The measurer appointed by the Class Association shall **certify spars** as required by **class rules**.

(b) No **certification** of standing and running **rigging** is required.

E.2.4 DEFINITIONS

(a) The **mast datum point** is the vertical position on the **mast** level with the upper surface of the deck described in **class rule** G19.1.

(1) The position of the **mast datum point** shall be indicated by the bottom edge of a contrasting colour band permanently marked on the **mast**.

E.2.5 MANUFACTURER

(a) No licence is required.

E.3 MAST

E.3.1 The **mast** shall be constructed from either aluminium alloy or wood.

(a) No restriction is placed upon the cross-section of the **mast**, except that an aluminium alloy extrusion shall include an integral sail groove.

(b) A permanently bent **mast** is not permitted.

E.3.2 The distance from the centre of the **mainsail halyard** sheave pin to the **mast datum point** shall not exceed 32ft 6ins (9906mm).

E.3.3 FITTINGS

(a) MANDATORY

(1) **Backstay** crane (except if following the original rigging plan).

(2) **Forestay** attachment.

(3) **Topmast forestay** attachment (if following the original rigging plan).

(4) **Shroud** hook terminals or tangs.

(5) One set of fixed **spreaders**.

(6) **Running backstay** tangs.

(7) Jumper stay struts and hook terminals or tangs (except if following the original rigging plan).

(8) **Mainsail halyard** sheave.

(9) **Headsail halyar**d sheave.

(10) **Boom** gooseneck.

(11) Kitty pole attachment.

(12) Heel fitting with sheaves for **mainsail** and **headsail halyards**.

(b) OPTIONAL

(1) Mechanical wind indicator.

(2) Compass bracket.

(3) Attachment(s) for jumper stay tension adjustment system.

(4) Attachments and blocks for **halyard adjustment**.

(5) **Mast** ram attachment.

(6) **Spinnaker** fittings (for boats wishing to compete on the Solent)

- **halyard** sheave
- **spinnaker pole** attachment
- **spinnaker pole** uphaul and downhaul sheaves

E.3.4 The distance from the **mast datum point** to the **forestay rigging point** shall not exceed 23ft 4½ins (7125mm).

(a) The **headsail hoist height** shall not exceed the height of the **forestay rigging point**.

E.3.5 New **masts** shall be weighed prior to shortening for individual bury, and shall be a length of 35ft 8ins (10800mm), measured from the centre of the **mainsail halyard** sheave pin to the lower end of the aluminium extrusion with the heel fitting removed.

(a) Only the following items and fittings shall be fixed in their positions:

(1) Jumper struts (except if following the original rigging plan)

(2) **Spreader** root fittings and **spreaders**

(3) **Halyard** sheaves and pins, including integral **forestay** attachment

(4) **Running backstay** attachments

(5) Messenger cords not exceeding 2mm diameter

E.3.6 The total weight of the **mast**, in the condition specified above, shall not be less than 56lbs (25.42kg) and the centre of gravity shall not be lower than 14ft 1⅜ins (4300mm) above the **mast datum point**.

E.3.7 In the event of a **mast** requiring correction, corrector weights shall be applied either at the masthead inside the **backstay** crane or inside the **spreaders**.

E.3.8 MEASUREMENT CERTIFICATE

(a) All check points and measurements taken for the purpose of certification shall be stated on the **mast** measurement certificate. All measurements shall be shown, including if 'zero'.

(b) The Class Measurer shall check and measure all new **masts**, and shall sign and date all new **mast** measurement certificates.

(c) If any **mast** is subsequently altered or repaired, whereby a check point or measurement is changed, then a new **mast** measurement certificate is required.

E.4 BOOM

E.4.1 The **boom** shall be constructed from either aluminium alloy or wood.

E.4.2 No restriction is placed upon the length, weight or cross-section of the **boom**, except that it shall be able to pass through a 10ins (254mm) diameter ring, and that an aluminium alloy extrusion shall include an integral sail groove.

E.4.3 FITTINGS

(a) MANDATORY

(1) Attachments for mainsheet blocks.

(2) **Clew** outhaul attachment and sheaves/blocks.

(3) Kicking strap attachment.

(4) Gooseneck attachment.

(b) OPTIONAL

(1) Wire or rope strops, or webbing straps, for mainsheet blocks.

(2) **Clew** outhaul cleat.

(3) Reefing line attachments and sheaves/blocks.
(4) Kicking strap cleat(s).

E.5 KITTY POLE

E.5.1 The kitty pole shall be constructed from either aluminium alloy, or wood, or synthetic fibre and resin.

E.5.2 There is no restriction on:

(a) The length, weight or cross-section of the kitty pole.

(b) The methods of attaching the kitty pole to the **mast** and to the **headsail tack**.

E.6 STANDING RIGGING

E.6.1 Standing **rigging** comprises **forestay**, cap **shrouds**, lower **shrouds**, and **backstay** (except that a **backstay** is not permitted if following the original rigging plan).

E.6.2 Standing **rigging** shall be of stainless steel wire or HMPE/LCP rope.

E.6.3 FITTINGS

(a) MANDATORY

(1) **Shroud** rigging screw.

(2) **Forestay**/**backstay** rope tails, sheaves/blocks and cleats for adjusting tension. The backstay may be led below deck.

E.7 RUNNING RIGGING

E.7.1 **Running rigging** shall be manually controlled using lines/ropes/wires, levers, winches and/or block and tackle, including “muscle boxes”, and cleats

E.7.2 There is no restriction on line/rope materials and the arrangement of pulleys, sheaves, blocks, levers, winches, cleats, and mounting and backing pads.

E.7.3 ELEMENTS

(a) MANDATORY

(1) Jumper stays (except not permitted if following the original rigging plan).

(2) **Running backstays**, which may be led below deck.

(3) **Mainsail halyard.**

(4) **Mainsail sheet.**

(5) Kicking strap.

(6) **Headsail halyard.**

(7) **Headsail sheets.**

(8) **Headsail tack** downhaul, which may be led below deck.

(9) Kitty pole guys.

(b) OPTIONAL

(1) Shockcord lines to restrain **running backstays** behind **spreaders** when loosened.

(2) **Mainsail outhaul** adjustment.

(3) **Mainsail** Cunningham adjustment.

(4) **Mainsail sheet** traveller car adjustment.

(5) **Mainsail halyard** adjustment.

(6) **Mainsail** reefing line(s).

(7) **Headsail halyard** adjustment.

(8) **Headsail luff** tension adjustment.

(9) **Headsail** Barber hauler adjustments.

(10) **Headsail** sheet traveller car adjustment.

(11) **Headsail** furling control line.

(12) **Mast** ram to control movement of the **mast** in the **mast** opening.

(13) Kitty pole inboard end deployment system.

Section F - Sails

F.1 GENERAL

F.1.1 RULES

(a) **Sails** shall comply with the **class rules** in force at the time of **certification**.

F.1.2 CERTIFICATION

(a) The measurer appointed by the Class Association shall **certify sails** in the port side of the **clew** as required by **class rules.**

F.1.3 SAILMAKER

(a) No licence is required.

(b) The weight in g/m^2 of the **body of the sail** shall be indelibly marked near the **head point** by the sailmaker together with the date and his signature or stamp.

F.2 SAIL AREA

F.2.1 The combined area of **mainsail** and **headsail** together shall not exceed 300ft^2 (27.87m^2).

F.2.2 The area of the **headsail** shall not exceed 100ft^2 (9.29m^2).

F.3 SAIL COLOUR

(a) **Sails** shall be white.

(b) There is no restriction on the colours of identification markings, stitching, **sail** shape indicator stripes, and tell tales.

F.4 MAINSAIL

F.4.1 IDENTIFICATION

(a) The class insignia is the letter “V”.

(b) The class insignia and sail number allocated by the Class Association shall be carried on the **mainsail** conforming with the requirements of Appendix G of the RRS. The class insignia shall be the same size as the sail number.

F.4.2 MATERIALS

(a) The **woven ply** fibres shall consist of Polyester or Cotton.

(b) **Stiffening** shall consist of:

(1) A headboard that shall not exceed 6ins (152mm) measured perpendicular to the **luff**.

(2) Four battens that shall divide the **leech** into five equal parts with a tolerance of + or - 6ins (152mm). The top and lower battens shall not exceed 3ft (914mm) in length and the intermediate battens shall not exceed 4ft (1219mm) in length. Battens shall not exceed 2ins (51mm) in width. The top and intermediate battens shall be perpendicular to the **leech** of the sail.

(c) **Sail** reinforcement is permitted at the corners of the sail and at Cunningham and reefing eyes adjacent to the **luff** and **leech**.

(1) This reinforcement shall be within 1ft 6ins (457mm) of the relevant corner point, Cunningham eye or reefing eye.

(2) Other reinforcement, as a continuation of the **stiffening** as specified above, comprising not more than two additional layers of the same cloth as the **body of the sail** is permitted, provided that it can be folded flat in any direction without damaging the fibres, and that it does not extend more than 4ft 3ins (1295mm) measured from the relevant corner point, Cunningham eye or reefing eye, and is not stiffened by the addition of bonding agents or close stitching consisting of parallel, or nearly parallel, lines of stitching, closer than 1½ins (38mm) apart, or other stiffening. (However, stitching for the purpose of sewing the edges of reinforcing patches is permitted).

F.4.3 CONSTRUCTION

(a) The construction shall be **soft sail**, **single ply sail**.

(b) The **body of the sail** shall consist of the same **woven ply** throughout. The weight of the **woven ply** shall not exceed 295g/m^2 nor be less than 215g/m^2.

(c) The **sail** shall have four **batten pockets** in the **leech**.

(d) The **sail** shall be attached to the **boom** by a **foot** bolt rope.

(1) The **foot** bolt rope shall be continuous and shall end not further than 175mm from the **tack point** and 200mm from the **clew point** respectively.

(e) The following are permitted: stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, **batten pocket patches**, **batten pocket** elastic, **batten pocket** end caps, **clew** boom slide, **leech** line with cleat, **windows**, tell tales, **sail** shape indicator stripes, slits near the **boom** for webbing straps, and items as permitted or prescribed by other **class rules**.

(1) The total area of **windows** in a **mainsail** shall not exceed 3ft^2 (0.28m^2). **Windows** shall not be placed closer than 6ins (152mm) to the **luff**, **leech**, or **foot** of the **sail** and the material shall be a single thickness of clear film of a weight to suit the weight of cloth of the **sail**. The **window** material may have an internal opaque reinforcement spaced so as not to impair visibility.

(f) The **sai**l may have one row of slab/jiffy reefing lines at a minimum height of 2ft 6ins (914mm) above the centres of the **tack and clew** cringles measured to the centres of the said reefing cringles.

F.4.4 PROFILE

(a) The **leech length** shall not exceed 77% of the sum of the **luff length** and the **foot length**.

F.5 HEADSAIL

F.5.1 MATERIALS

(a) The **woven ply** fibres shall consist of Polyester or Cotton.

(b) **Stiffening** shall consist of not more than 3 battens which shall be positioned at any of the points that divide the **leech** into four equal parts with a tolerance of + or - 6ins (152mm). Battens shall not exceed 12ins (305mm) horizontally into the sail from the **leech**, but, if roller reefing is fitted, may be up to 3ft 3ins (990mm) in length measured parallel to the **luff**. Battens shall not exceed 2ins (51mm) in width.

(c) **Sail** reinforcement is permitted at the corners of the sail and at a Cunningham eye adjacent to the **luff**.

(1) This reinforcement shall be within 1ft 3ins (381mm) of the relevant corner point or Cunningham eye.

(2) Other reinforcement, as a continuation of the stiffening as specified above, comprising not more than two additional layers of the same cloth as the **body of the sail** is permitted, provided that it can be folded flat in any direction without damaging the fibres, and that it does not extend more than 3ft 8ins (1117mm) measured from the relevant corner point or Cunningham eye, and is not stiffened by the addition of bonding agents or close stitching consisting of parallel, or nearly parallel, lines of stitching, closer than 1½ ins (38mm) apart, or other stiffening. (However, stitching for the purpose of sewing the edges of reinforcing patches is permitted).

F.5.2 CONSTRUCTION

(a) The construction shall be **soft sail**, **single woven ply** sail.

(b) The **body of the sail** shall consist of the same **woven ply** throughout. The weight of the **woven ply** shall not exceed 295g/m^2 nor be less than 215g/m^2.

(c) The width of the cloth at the head of the sail shall not exceed 2ins (51mm) measured perpendicular to the line of the luff.

(d) The **sail** shall have one **batten pocket** in the **leech** for each batten.

(e) The **leech** shall not extend beyond a straight line from the **aft head point** to the **clew point**.

(1) When checking the **leech** shape the **sail** shall be flat in the area being checked.

(f) The **foot** round of the sail shall either be straight or a fair curve about its centre point extended through the **tack point** and **clew point**.

(g) The following are permitted: luff wire/rope, stitching, glues, tapes, corner eyes, Cunningha**m eye, batten pocket patches, batten pocket elastic, batten pocket end caps,** leech line with cleat, **windows**, tell tales, **sail** shape indicator stripes, and items as permitted or prescribed by other **class rules**.

(1) Corner eyes used in the foresail shall not exceed an outside diameter of 2½ins (64mm).

(2) The total area of **windows** in a **headsail** shall not exceed 3ft^2 (0.28m^2). **Windows** shall not be placed closer than 6ins (152mm) to the **luff**, **leech**, or **foot** of the sail and the material shall be a single thickness of clear film of a weight to suit the weight of cloth of the **sail**. The **window** material may have an internal opaque reinforcement spaced so as not to impair visibility.

PART III – APPENDICES

The rules in Part III are **closed class rules**. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

Section G - Hull Specification

G.1 Principal Dimensions

Hull Length	26ft 5ins	(8.05m)
Hull Waterline Length	17ft 6ins	(5.33m)
Hull Beam	6ft 0ins	(1.83m)
Hull Draft	3ft 9ins	(1.14m)

G.2 Official Drawings

G.2.1 The following official drawings shall be used:

(a) Construction Plan, reference number SC 1B, December 1966.
(drawn up by M J Wraight from lines and information taken from published plans dated March 1923)

(b) Lofted Lines Plan, unreferenced, November 2005.
(drawn up by N J Adams using CAD and the un-lofted table of offsets lifted by W J Wraight in 1966 from a representative Solent Sunbeam)

G.3 Laminations

G.3.1 Laminated Afrormosia, Iroko or Oak may be used as an alternative in all cases where grown Oak or Oak grown to form is specified.

G.4 Stainless Steel

G.4.1 Stainless Steel is acceptable as an alternative where Galvanised Steel or Gunmetal is specified.

G.5 Keel

G.5.1 To be of English Elm, moulded 4ins (102mm) to 5½ins (140mm) and sided as required to lines of boat.

G.6 Fore Gripe

G.6.1 To be of Oak, sided 4ins (102mm) to 5ins (127mm), and efficiently fastened to the main keel.

G.7 Stem

G.7.1 To be of Oak, grown to form, sided 3ins (76mm) at head to 4ins (102mm) at heel and moulded as required, efficiently fastened to fore gripe.

G.8 Horn Timber

G.8.1 To be of Oak, sided 4ins (102mm), moulded as required and efficiently fastened to main keel.

G.9 Arch Board

G.9.1 To be of well-seasoned Mahogany.

G.10 Counter

G.10.1 To be of well-seasoned Mahogany, efficiently constructed on horn timber and arch board.

G.11 Deadwoods

G.11.1 To be of Oak, sided as required and securely fastened through keel and stem, long enough to take mast step and bollard.

G.12 Floors

G.12.1 To be of English grown Oak, sided 2½ins (63mm), moulded as required to take keel bolts and efficiently fastened to planking.

G.13 Bent Timbers

G.13.1 To be of American Elm (or Oak), moulded ¾ins (19mm) and sided 1¼ins (32mm), spaced 6ins (152mm) centre to centre, and fastened to planking with clenched nails.

G.14 Shelf

G.14.1 To be of Pitch Pine, 3¼ ins (83mm) by 1½ ins (38mm). Finished, tapered at ends, worked fore and aft and through-fastened to frames and planking.

G.15 Planking

G.15.1 To be of Pitch Pine ⅝ins (16mm) thickness, finished in one length where possible. Hollow to be worked round top strake for gold line or other suitable finish.

G.16 Knees

G.16.1 To be of Oak, hanging and lodging knees to main beams and arch board.

G.17 Breasthook

G.17.1 To be of Oak, grown to form.

G.18 Beams

G.18.1 To be of Pine, 3ins (76mm) x 1½ ins (38mm) and spaced about 1ft 3ins (380mm), efficiently secured to shelf at ends and with necessary fore and aft carlines and mast partners.

G.19 Deck

G.19.1 The following alternative deck constructions are permitted:

(a) Of best Pine ⅝ins (16mm) "finished" thickness, tongued and grooved, securely fastened to beams.

(1) The tongued and grooved shall not be edge-glued or glued to the beams.

(2) The deck shall be covered with canvas or other suitable material, including FRP.

(b) Sprung laid decks in Yellow Pine or Teak securely fastened to the beams.

(1) The strips of timber making up the sprung deck may be tongued and grooved, but shall not be edge-glued or glued to the beams.

(2) These strips shall be at least ¾ins (19mm) "finished" thickness.

(3) The weight of the deck shall be equal to or greater than the original deck specified in (a) above.

(c) Laid deck on tongued and grooved best Pine.

(1) The tongued and grooved shall be ⅝ins (16mm) "finished" thickness, securely fastened to the beams.

(2) The tongued and grooved shall not be edge-glued or glued to the beams.

(3) The strips of timber making up the laid deck shall be Yellow Pine or Teak at least ¼ins (6.5mm) "finished" thickness, and may be face-glued but not edge-glued.

(4) The total weight of the deck must be equal to or greater than the original deck.

G.19.2 Other existing deck constructions will remain "In Class" for the duration of the life of the deck. Replacement decks must be in accordance with one of the approved constructions given above.

G.20 Covering Board, Taffrail, Toe Rails and Mast Bed

G.20.1 To be of Teak.

G.21 Coamings, Beading, Benches, Aft Bulkhead and Hatch

G.21.1 To be of Teak

G.22 Platform

G.22.1 To be of Teak with gratings

G.23 External Ballast Keel

G.23.1 To be of lead, of nominal weight 17cwt (864kg), efficiently bolted to the underside of the keel with bolts of sufficient strength.

G.24 Rudder and Tube

G.24.1 Mainpiece of rudder to be of Galvanised Steel or Gunmetal, blade to be of English Elm or Mahogany 1½ins (38mm) thick tapered to ¾ins (19mm) measured maximum 2ins (51mm) from the trailing edge, and well bolted to mainpiece; tube of Galvanised Steel, well finished with metal flange and Teak chock on deck. The blade may be laminated from solid wood, the section of which before tapering must not be less than 1½ins (38mm) square, glued vertically fore and aft.

G.25 Tiller

G.25.1 To be of Ash, fitted with Galvanised Steel or Gunmetal straps.

G.25.2 Existing tillers not of Ash will remain “In Class” for the duration of the life of the tiller. Replacement tillers shall be of Ash as specified.

G.26 Fastenings

G.26.1 To be of copper and metal throughout.

G.27 Caulking

G.27.1 All seams to be caulked with best cotton and stopped with red lead putty or equivalent flexible waterproof stopping such as Sikaflex.

G.28 Painting

G.28.1 Topsides and bottom to be well rubbed down and cleaned off to receive sufficient priming and flattening, and to be finished in enamel and anti-fouling, the hollow worked round the top strake to be gilded or finished in another suitable manner.

G.28.2 The colours of the boats shall be optional. Painting shall be in a traditional style to preserve the dignity of the class, and shall be subject to the approval of the Class Captain.

G.28.3 Inside, below platform to have three coats of suitable bilge paint. All deck work and inside above platform to be well rubbed down and receive three coats of varnish or paint.

G.28.4 Teak oil may be used on platform and benches.

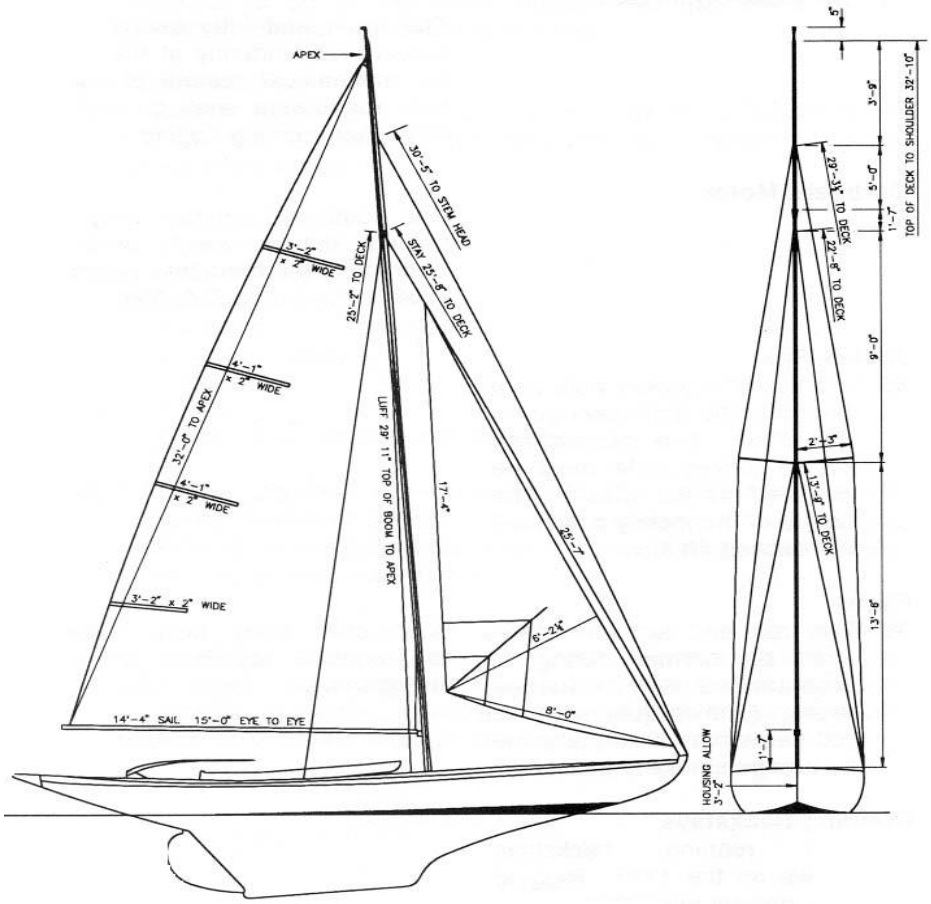
G.29 Sling Bolts (optional)

G.29.1 One pair of metal sling bolts securely fastened.

Section H - Sail and Rigging Plans

H.1 Original Sail and Rigging Plan

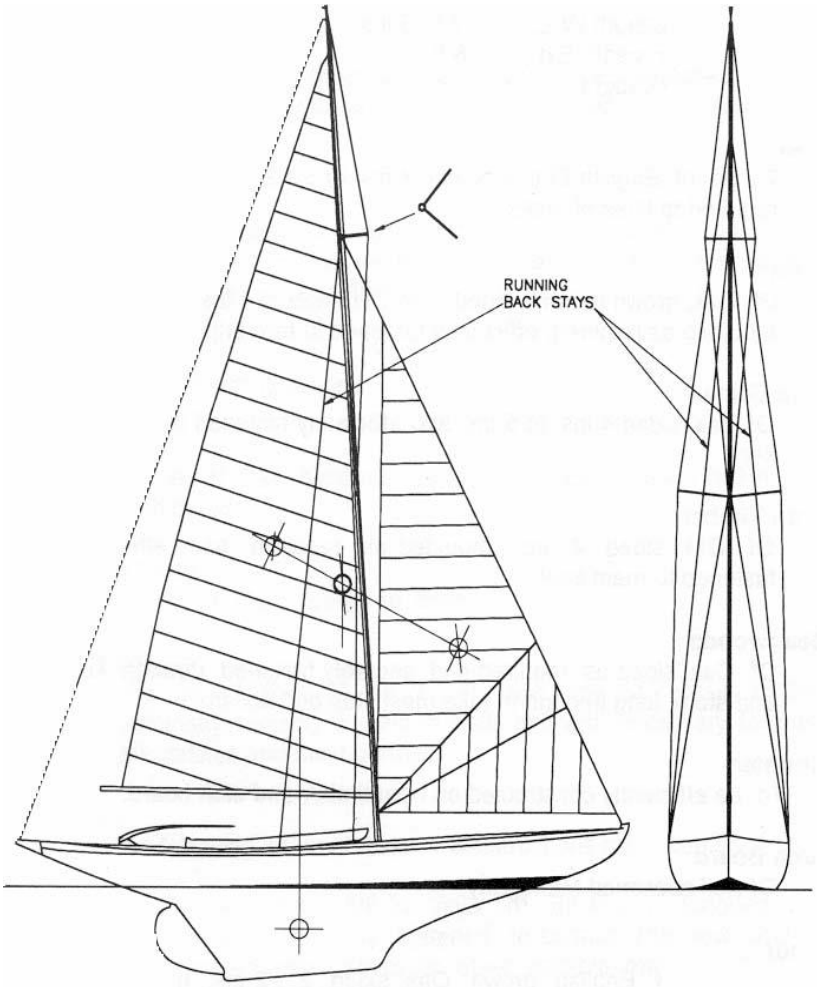
(Tracing made from one of Messrs Woodnutt's original Works Copies)



Components:

- Upper shrouds
- Lower shrouds
- Running backstays
- Forestay
- Fore topmast stay

H.2 1997 Modified Sail and Rigging Plan



Components:

- Upper shrouds
- Lower shrouds
- Running backstays
- Forestay
- Backstay
- Jumper stays

Section I - Sail Measurement

I.1 General

I.1.1 All measurements shall be taken over the full width of the **sail**, including **tabling** and roping with the battens in position.

I.1.2 Linear dimensions shall be measured in millimetres. Areas shall be rounded up to the nearest 0.01 sq. m.

I.1.3 All owners shall be directly responsible for the fees due to the Class Measurer for sail measurement, these fees being as agreed from time to time between the Class Captain and the Class Measurer.

I.2 Mainsail

I.2.1 The area shall be calculated using the following formula:

$$0.25 \times A \times (\mathbf{MTW} + \mathbf{MHW} + \mathbf{MQW} + 0.5B) + 0.66 \times (B \times D)$$

where A is the **luff length**;
B is the **foot length**;
D is the greatest distance to the **foot** from a straight line drawn from the **tack point** to the **clew point**;

I.2.2 When measuring the **foot** round, D, the **sail** shall be flat in the area being measured.

I.2.3 The **leech length** shall not exceed 77% of the total of the **luff length** plus the **foot length**.

I.3 Headsail

I.3.1 The area shall be calculated using the following formula:

$$0.5 \times \mathbf{HLU} \times \mathbf{HLP} + 0.66 \times (R \times F)$$

where R is the greatest distance to the **foot** from a straight line drawn from the **tack point** to the **clew point** (see I.3.2);
F is the **foot length**.

I.3.2 When measuring the **foot** round, R, the **sail** shall be flat in the area being measured.

I.4 Measurement Certificates

I.4.1 All measurements taken for the purpose of certification, and the weight and type of material of the cloth from which the sails are made, shall be stated on the **sail** measurement **certificate**. All measurements shall be shown, including if 'zero'.

I.4.2 The Class Measurer shall check and measure all new **sails**, and shall sign and date all new **sail** measurement **certificates**. The Class Measurer shall also stencil the measured area – in square feet rounded up to the nearest 0.1 sq. ft - on the port side of the **sail** near the **clew**, and add his signature and the date nearby. The measured area in square feet shall be converted from the area in square metres calculated before rounding up.

I.4.3 If any **sail** is subsequently altered or repaired, whereby a check point or measurement has been affected, then a new **sail** measurement **certificate** is required.