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Class Rules

International Musto Skiff Class Association



The Musto Skiff was designed in 1999 by Dr Joachim Harpprecht and was adopted as a World Sailing Class in 2007

sport / nature / technology



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INTRODUCTION

The Musto Skiff is a one-design racing boat, suitable for adult and youth sailors for training, racing and general fun.

Spirit of the Class -

The design principle of the class is that the racing results should depend solely on the attributes and skills of the crew rather than differences between boats and the way that they are rigged. The objective of these class rules is to implement this concept in practice. If you want to make a change ask your self "why"; if the answer is "to make the boat faster", then check these Rules because it is likely to be illegal.

Control

Musto Skiff hulls, hull appendages, rigs and sails shall only be manufactured by licensed manufacturers in accordance with the Building Specifications; and supplied by Authorised distributors.

Equipment is required to comply with the Musto Skiff Building Specifications and construction Manual and is subject to an approved manufacturing control system.

*Musto Skiff hulls, hull appendages, rigs and sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of the **class rules**.*

*Owners and crews shall be aware that compliance with these **class rules**, including Section C is the responsibility of the competitor.*

*Rules regulating to the use of equipment during a race are contained in Section C of these **class rules**, in the Equipment Rules of Sailing and in the Racing Rules of Sailing.*

**PLEASE REMEMBER
THESE RULES ARE CLOSED CLASS RULES MEANING:
ANY CHANGE NOT SPECICALLY PERMIT|TED BY THESE CLASS
RULES IS PROHIBITED. IF IT DOES NOT SPECIFICALLY SAY
THAT YOU MAY – THEN
YOU SHALL NOT.**

**COMPONENTS AND THEIR USE, ARE DEFINED BY THEIR
DESCRIPTION**

PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE

- A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.
- A.1.2 The word “shall” is mandatory and the word “may” is permissive.

A.2 DEFINITIONS

As used in this document, the following terms shall have the following meanings:

- A.2.1
- WS - World Sailing
 - MNA - WS Member National Authority
 - ICA - Musto Skiff Class Association
 - NCA - National Class Association
 - ERS - Equipment Rules of Sailing
 - RRS - Racing Rules of Sailing
 - LM - Licensed Manufacturer
 - NOR - Notice of Race
 - SI - Sailing Instructions

Originally Supplied - the **boat**, equipment and parts as supplied by LM or a distributor authorised by LM to supply the **boat** and as shown in the Rigging Manual

Rigging Manual - the Rigging Manual provided by ICA and submitted to World Sailing and displayed on the ICA website documents section at <http://www.mustoskiff.com/tuning-guide.htm>.

Building Specification - specification for building the Musto Skiff as submitted to WS.

- A.2.2 In addition the following terms when used in this document shall have the following meaning:

Maintenance

Maintenance shall constitute work required to retain the original condition of an item of equipment whilst compensating for normal wear and tear in order to achieve its maximum useful life. This includes preventative maintenance which shall be taken as the systematic inspection, detection and prevention of incipient failures before they become actual or major failures.

Paint

Application of an additional layer or layers of a Permitted Material to the surface. The purpose of painting is to replace existing surface protection on a like for like basis. Painting may require prior preparation of the surface which may involve light abrasion but not fairing unless otherwise permitted.

Polish

Application of small quantities of permitted polishing compounds (as published on the ICA website from time to time) on the **hull**, **hull appendages**, and **rig** of the **boat** in order to reduce the surface roughness.

Sanding

Removal, solely for the purpose of Repair of a component, of part of the outermost surface through use of an abrasive material with or without a lubricating agent, which after final repair does not alter the shape of a component or texture in the surface of the Originally Supplied item.

Re-finishing

See painting, polishing and sanding solely in order to complete a Repair.

Cleaning

The application of small quantities of detergents or similar agents the purpose of which is to remove residue on the surface which was not part of the original or subsequently modified surface.

Fairing

The removal or reshaping of irregularities within the surface form.

Repair

Corrective action following unintended and genuine damage to a component. Repairs shall be carried out using only Permitted Material in the same weight and amount as Originally Supplied. Repairs shall constitute work required to restore the original condition of an item of equipment whilst compensating for any additional material required to return the component to its original characteristics, including by filling, sanding and polishing. Any repair shall (i) only be to the damaged area, and (ii) not be used to reinforce or strengthen a part.

Permitted material

The same material as used in the manufacture of the relevant part of the **boat** and as specified in the Building Specification; a list shall be published on the ICA website from time to time; if you are uncertain then you must consult with the ICA before proceeding.

A.3 AUTHORITIES

- A.3.1 The international **class rules** authority of the class is WS which shall co-operate with the ICA in all matters concerning these **class rules**.
- A.3.2 None of WS, the ICA, an NCA, or MNA have any liability for losses (including direct or consequential) or otherwise in respect of these **class rules** or the Musto Skiff or events.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 WS has delegated its administrative functions of the class to the ICA.

A.5 WORLD SALING RULES

- A.5.1 These **class rules** shall be read in conjunction with the ERS and RRS.
- A.5.2 Except where defined in sections A.2.1 and A.2.2 above to the extent that they are consistent with these Class Rules the definitions in the ERS and RRS apply. Except where used in headings, when a term is printed in “**bold**” the definition in the ERS applies and when a term is printed in “*italics*” the definition in the RRS applies and when a term begins with a capital letter the definition in these Class Rules applies.

A.6 CLASS RULES VARIATIONS

- A.6.1 At Class Events RRS 87 and WS Regulation 10.11 applies. At all other events RRS 87 applies.

A.7 CLASS RULES AMENDMENTS

- A.7.1 Amendments to the **class rules** are subject to the approval of WS in consultation with ICA, substantive amendments will only be made after their adoption by the

simple majority vote of the members through the annual class survey or in a general meeting in accordance with the ICA's constitution.

A.8 CLASS RULES INTERPRETATION

- A.8.1 Interpretation of **class rules** may be made from time to time and shall be made in accordance with WS Regulation 10 except that the interpretation shall be made by (i) World Sailing in consultation with ICA, or (ii) by ICA, which interpretation shall then forthwith be notified to WS, who shall agree, amend or reject that interpretation; any rejection will include reasons and a suggested change.
- A.8.2 The ICA in consultation with WS may from time to time issue guidance and interpretations of the Building Specification which shall be published on the ICAs website and shall be binding.
- A.8.3 Interpretation of **class rules** at an event shall be carried out in accordance with the RRS and shall be posted on the ICA website at <http://www.mustoskiff.com/class-rules.htm>.

A.9 INTERNATIONAL CLASS FEE AND WS BUILDING PLAQUE

- A.9.1 The LM of the **hull** shall pay the International Class Fee.
- A.9.2 WS shall, after having received the International Class Fee for the **hull**, send the WS Building Plaque to the LM of the **hull**.

A.10 SAIL NUMBERS

- A.10.1 **Sail** numbers shall be issued by the LM of the **hull** and shall be used for that **boat**.

A.11 HULL CERTIFICATION

- A.11.1 **Certificates** will not be issued.

A.12 MANUFACTURE

- A.12.1 All **hulls, mast** sections, **boom, bowsprit, sails, hull appendages**, tillers and rudder stocks shall only be manufactured by a LM (and only to the extent permitted by the licence) and only supplied by LM, or a licensed distributor for the Class and shall carry a LM equipment label certifying it as Originally Supplied.
- A.12.2 All production moulds used for manufacture of the **boat, hull appendages, mast, boom, bowsprit** and rudder stock shall be prior approved by the ICA and taken from the Master Plug governed by the Building Specification.

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** and all equipment shall comply in all respects with the **class rules**, the Building Specification (save as permitted to be varied by these **class rules**) in force at the time of manufacture, and to the extent that they are not inconsistent, the ERS and RRS.
- B.1.2 All **hulls, mast** sections, **boom, bowsprit, sails**, daggerboards, rudder blades, tillers, vang levers, vang arms, and other parts and fittings (save as specifically permitted in these **class rules** to be changed) and rudder stocks shall:
- (a) only be manufactured by an LM
 - (i) who shall only produce them from moulds taken from the Master Plugs for moulded products in accordance with the Building Specification; the moulds and products from the moulds shall not be altered other than as prior approved in writing by ICA;
 - (ii) in accordance with the relevant Building Specifications for non-moulded parts; and
 - (iii) use commercially supplied parts in accordance with the Building Specifications for commercially available parts;
 - (b) only be supplied by LM, or an ICA authorised distributor for the **boat**; and
 - (c) in relation to those parts specified in A.12.1 carry an LM equipment label certifying it as Originally Supplied.

B.2 CLASS ASSOCIATION MARKINGS

- B.2.1 A valid Class Association Sticker, if issued by the ICA and/or NCA, shall be affixed to the **mast** near the attachment point for the lowers.

B.3 EQUIPMENT INSPECTIONS

- B.3.1 All equipment inspections shall be carried out in accordance with the ERS except where varied in these Class Rules.
- B.3.2 Equipment Inspectors at an event will as required verify that equipment has been properly produced by LMs and has not been subsequently altered and is as Originally Supplied and is as shown in the Rigging Manual (other than changes permitted within these **class rules**), using whatever inspection methods they deem appropriate, including discussions with the ICA Chief Measurer, ICA committee, LMs and/or comparison with a reference sample of the type of equipment presented for inspection. Should this inspection reveal deviation greater than what the Equipment Inspector considers being within manufacturing tolerances, the following procedure shall be adopted:
- (a) the Chief Measurer of the ICA, or LM (if the ICA measurer cannot be contacted) shall be consulted and provided with full details of the specification or item in question of the offending **boat**.
 - (b) the Chief Measurer will after taking direction from the ICA give a final ruling in line with the ICAs direction regarding the correct specification or interpretation of the Building Specification as the case may require. That ruling will be referred to the Race Committee for action.

- (c) If the ICA or Chief Measurer is not contactable prior to the end of a Regatta the matter will be reported to Race committee, who may make a ruling and will also promptly report full details of all items of equipment lying outside the accepted deviation, corresponding Building Specification/s or **class rules** to the ICA.
- (d) If any specification/s of the disputed **boat** or item of equipment does not comply with the **class rules** or deviates from the Building Specification/s or is not supplied by LM, an ICA licensed distributor for the class (where required by the Class Rules) then the ICA will make a final decision regarding use of the equipment at future events.

B.4 EVENT LIMITATION MARKS

- B.4.1 If an event uses **event limitation marks** these marks shall not be removed during the event. If the **event limitation mark** becomes damaged or lost this shall be reported to the Race Committee as soon as possible.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with these **class rules** and the Building Specification including without limitation the following Part II when *racing*. In case of conflict, the following Section C shall prevail.

These **class rules** are **closed class** rules where anything not specifically permitted by these **class rules** is prohibited: compliance with these **class rules** is demonstrated through original design control.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

- (a) RRS Appendix G1.3(c) shall not apply.
- (b) RRS G1.3(a) is changed so that only one Class insignia on one side of the sail is required.
- (c) RRS G1.3(b) is changed so that national letters and sail numbers are not required to be wholly above an arc whose centre is the head point and whose radius is 60% of the leech length.
- (d) RRS 42.3 is changed
 - (i) as follows “(j) *A boat maybe sculled if the sculling does not propel the boat in any direction.*”; and
 - (ii) by adding: “*Where stipulated in the SI, if the average wind speed is clearly over 8 knots across the course the race committee may signal in accordance with RRS Appendix P5 that pumping, rocking and ooching are permitted, except (i) prior to the start, and (ii) when the **boat** is on a leg of*

the course designated in the SI as a windward leg.” this changes RRS 42.2(a), RRS 42.2(b), RRS 42.2(c).”

- (e) A **trapeze** system can be used, which is an amendment to RRS 49.1

C.2 CREW

C.2.1 LIMITATIONS

The **crew** shall consist of 1 person.

C.2.2 MEMBERSHIP

To be eligible to compete in any international events, including regional and Europcup events, and national events and championships the **crew** must be a current member of the ICA and his/her NCA, where an NCA exists.

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

- (a) The **boat** shall be equipped with **personal flotation devices** (PFD) for each crew member to the minimum standard ISO 12402:5, (level 50), or USCG Type III, or AUS PFD II or equivalent.
- (b) The use of inflatable personal flotation devices is not permitted.

C.3.2 COMPETITOR CLOTHING AND EQUIPMENT

- (a) Each **crew** member may wear a helmet that shall be to the minimum standard EN1385 or EN1077 or equivalent. This may be made mandatory by the Notice of Race and/or Sailing Instructions.
- (b) Each **crew** member may wear body protection, if the body protection also acts as a personal flotation device it shall be to the minimum standard in C.3.1(a). This may be made mandatory by the Notice of Race and/or Sailing Instructions.
- (c) Trapeze harness. The weight shall not exceed 3 kg.

C.3.3 TOTAL WEIGHT

The total weight of worn equipment shall not exceed 10 kg excluding the trapeze harness.

C.4 ADVERTISING & DECORATION

- C.4.1 Advertising is permitted in accordance with WS Regulation 20 (advertising code) but the sail window shall not be covered by advertising or other material.
- C.4.2 Vinyl or other plastic film or paint may be added to the **hull** above the chine, and/or to the sail, solely for the purpose of displaying advertising in accordance with WS Reg 20, the **boat** name or decoration, provided that the film/paint shall not be specially textured or otherwise used in a way that could improve the character of the flow of water or air inside the boundary layer.
- C.4.3 Any advertising on the mainsail will only be displayed in the area shown in the diagram in Section H below, and shall be below the third batten. There are no restrictions on areas of the spinnaker where advertising can be displayed. Any advertising that involves cutting or any alteration to a sail other than painting, printing or attaching film shall only be put in place by an LM.

C.5 PORTABLE EQUIPMENT

C.5.1 OPTIONAL

The following optional equipment may be used so long as it is generally commercially available (and is removed for weighing):

- (1) electronic or mechanical timing devices.
- (2) one magnetic or electronic compass showing only information relating to heading, speed, current or elapsed time.
- (3) GPS device showing only information relating to heading, speed, current or elapsed time.
- (4) non-electronic maps, charts and a marking pencil or pen for recording courses and compass headings.
- (5) mobile phone, solely for emergency communications.
- (6) video and / or still cameras, to record video and pictures provided that the data and output is not viewed or used by the **crew** until he/she is onshore after a race has finished; it may be used for producing broadcasts to the general public during a race but it will not be viewed or used by the **crew** during a race.
- (7) bags, bottles, velcro and tape to secure safety equipment, a paddle, loose clothing and to stow food and/or drinks and tools (as well as food, drink, tools, paddle and safety equipment).
- (8) any additional equipment required by the Sailing Instructions for the event.
- (9) a towing line provided that it is only to be attached to existing fittings or parts.
- (10) up to 2 mast head floats
- (11) any number and design of mechanical wind indication devices may be fitted.
- (12) mounts, rope, shock cord, tape and Velcro for attaching any equipment in (1) to (11) above and the equipment referred to in C.5.2 below; the mounts may be attached to the **Boat** using tape, Velcro, cable ties, bonding or sealing material; providing that attachments do not puncture the surface of the **Boat** and can be removed without damage to the **Boat**. One mount may pivot about a vertical axis to enhance viewing on each tack and ropes may be led from the mount to the mainsheet cleat pivot arm to rotate the mount to the relevant tack.

C.5.2 ELECTRONIC EQUIPMENT

In addition to the optional equipment referred to in C.5.1, where provided by the organising authority and stipulated in the SI one or more devices may be used which have the capability to measure, display, record and broadcast information relating to the boat's position, heading, header and lift information, VMG, time, and/or speed. Such devices will not provide any information or data to the crew during a race.

C.6 BOAT

C.6.1 MODIFICATIONS, MAINTENANCE, AND REPAIR

C.6.1.1 The **boat**, spars, **sails**, **hull appendages**, racks, spinnaker sock, mast step, spreaders, control lines, attachment points and means, blocks, mainsheet, halyards, trapeze, traveller, vang, cunningham, traveller end retainers, traveller block, gooseneck, vang lever, vang arms, rudder gantry, and **rigging** shall be rigged, arranged and have the purchases as Originally Supplied and as shown in the Rigging Manual save as otherwise allowed to be changed by these class rules.

C.6.1.2 Fairing of the **hull**, **hull appendages**, **sails** or any other Originally Supplied equipment other than as specifically permitted in these Class Rules is prohibited.

C.6.1.3 MODIFICATIONS

The following is permitted without approval; unless stated otherwise. Items mentioned in this section may be obtained from any manufacturer or supplier providing that it is openly available to the general public and any replacement is a like for like type weight and size as the Originally Supplied item, and performs the same function and does not modify the effective **rigging** or sheeting position:

- (a) polishing of the **hull**, **hull appendages**, **mast**, **boom** and **bowsprit** is permitted provided that the intention or effect is not to lighten the equipment or improve materials or shape beyond that Originally Supplied.
- (b) lubricant on fittings, pulleys, **mast** join, **mast** collar, gooseneck, bowsprit, spinnaker chute throat, **boom** end (to enable the clew strap to slide more easily), **mast** track, sail (only in the direct vicinity of the tell-tales and bolt rope), and rudder pintle only; it shall not be used on the **hull** or elsewhere.
- (c) calibration marks are permitted.
- (d) originally Supplied ropes may be replaced and/or tapered.
- (e) the use of (i) flexible adhesive tape, to secure knots in rope and shock cord, or to stop the end of the rope fraying, or to protect the surface of the hull from wear by blocks, and (ii) hooks, hooked blocks, and snap shackles to facilitate easy rigging; - provided that this does not modify the intended purpose, purchase or action of any equipment and provided that such material shall not be used in such a way as to create a fitting or extend a function of a permitted fitting or alter the shape of the **boat**.
- (f) a single block of no more than 30mm diameter may be attached to the **mast** using the **mast** step fixing screw and a lacing eye, or the existing hole in the gooseneck.
- (g) packing wedges no thicker than 10mm may be fitted under the vang, Cunningham, mainsheet and spinnaker halyard cleats and eyes.
- (h) additional blocks of no more than 30mm diameter, thimbles, rope and shockcord may be used for (a) tidying the secondary ropes of the vang and cunningham systems (these must not alter the purchase described in C.9.8 (a)(1)), and (b) tidying **sheets** and the spinnaker **halyard**, provided these are not attached to the **boat** other than to existing fittings and fixings or a hole drilled in the inboard end of the bowsprit.
- (i) the Cunningham and vang ropes and blocks may be attached to any Originally Supplied fitting.

- (j) additional blocks of no more than 30mm in diameter, rings, snapshackle or temporary retaining clip, shockcord and rope are permitted
 - (i) to facilitate adjustment of the outhaul from the boat and/or wing,
 - (ii) to permit adjustment of the length of the trapeze lines provided that the lines are attached to the **mast** using the Originally Supplied fitting and are attached to the wing using shockchord, and
 - (iii) to temporarily connect the mainsheet to the trapeze harness.
- (k) trapeze handles, rings, hand holds/grips (which may include tacking sticks) from any supplier may be placed in any location on the trapeze line (provided compliant with C.9.9).
- (l) a stainless steel lacing eye may be fitted, or an additional hole, or set of 2 holes (side by side), of maximum total diameter 10mm may be drilled into the inboard side of each wing through which rope is inserted to allow the vang and/or cunningham take-up to be led into or along the wing. This point shall be no further aft than 350mm from the position of the supplied s/s becket.
- (m) a maximum of two foot loops/foot straps may be fitted to each wing.
- (n) shockcord and/or rope may be fixed to and extend across the aft end of the wings. A hole of maximum diameter of 10mm may be drilled in each wing adjacent the aft end to attach the shockcord and/or rope.
- (o) shockcord of maximum diameter 6mm:
 - (i) to retract or reduce slack in ropes,
 - (ii) for centralising the tiller,
 - (iii) to prevent the spinnaker going between the **forestay** and **mast**,
 - (iv) to act as a temporary retainer of the trapeze and standing rigging T terminals in the mast,
 - (v) to hold the spinnaker blocks inboard,
 - (vi) as a tie for a protective covering referred to in C.9.3 (5) to hold it in place temporarily,
 - (vii) to stop ropes snagging on fittings and mounts, and
 - (viii) to attach the spinnaker sock to the **boat**.
- (p) shockcord with or without a ring and/or protective covering as a release/tension line behind the spinnaker **halyard** cleat.
- (q) shockcord and rope as a righting line that must be attached solely to the wings.
- (r) protective coverings over and on:
 - (i) fittings,
 - (ii) the outboard end of the boom,
 - (iii) the inboard end of the tiller,
 - (iv) the inboard end of the **bowsprit**,
 - (v) the hull where the **bowsprit** contacts it, and
 - (v) the spinnaker chute throat, so long as the shape, weight distribution, characteristics, and function of the covered item as Originally Supplied are not affected. Mylar tape or a similar type of tape is permitted.
- (s) the **daggerboard** case and **rudder** stock packing may be replaced provided it is with a soft compliant fibrous material or a like for like material and does

not extend more than 25mm into the case from the top or bottom, or beyond the surface defined by a straight edge held perpendicular to the centreline and dragged along the bottom of the **hull**, and does not allow the **daggerboard** to gybe within the case.

- (t) a single tiller extension of any material, supplier and length may be used. A spare tiller extension may be carried on board but only one extension may be attached to the tiller at any one time. The spare may be temporarily held in place using flexible adhesive tape, shock cord, or “velcro” and/or no more than 2 x tubes of sailcloth (each of maximum size 5cm diameter and 8cm length), which may be stitched to the outside of the spinnaker sock; provided that this does not modify the intended purpose, purchase or action of any equipment and provided that such material shall not be used in such a way as to create a fitting or extend a function of a permitted fitting or alter the shape of the **boat**.
- (u) non-skid tape or patches made from a flexible material not greater than 3mm thick may be attached to the deck moulding and wings.
- (v) the main halyard may be tied to the top of the mast using any knot, loop and existing holes and may be split into 2 parts.
- (w) the top back edge and/or bottom outside edge of the stainless cassette of the spinnaker halyard exit block at the base of the **mast** may be filed or bent to the extent necessary so that the halyard does not rub against that edge in use.
- (x) one additional hole may be drilled adjacent the inboard end of the bowsprit to attach shock cord and/or a block to tidy spinnaker sheets (see C.6.1.3 (h) and (o)) making 2 in total with the hole in the bowsprit as supplied).
- (y) Loctite, Sikaflex, or adhesive may be used to retain screws and/or bolts in place and placed on the ends to cover exposed sharp edges.
- (z) the use of Fabsil, Holmenkol or similar to rejuvenate the surface of used spinnakers.
- (aa) the mast step as supplied (and shown in the Rigging Manual) has 3 transverse bolts, namely front, back and an intermediate bolt, which shall be rigged in the positions as described and shown in the Manual, except that (i) the bolt closest to the stern may be located in any of the back four hole positions, and (ii) the intermediate bolt may be moved to any of the remaining holes between the front and back bolts. The athwartship recess in the mast foot tang will be located over the intermediate bolt.
- (ab) one or both ends of the traveller may include a sliding splice around one of the deck mounted saddles, the sole purpose and use of the splice being to allow adjustment of the length of the traveller; it shall not restrict movement

of the traveller block from one side to the other except for the final 15cm on the side of the splice.

- (ac) shackles may be replaced by rope ties or rope shackles.
- (ad) the vang block attached to the mast D fitting may be tied on by passing the rope around the mast provided that the rope also passes through both sides of the D fitting immediately prior to being attached to the block.
- (ae) the vang rope turning block may be attached to any of the mast step holes behind the back bolt.
- (af) sharp edges on any fitting may be smoothed but only to the extent appropriate to reduce damage to rope attached at that point, and provided that this does not alter the weight or function of a fitting.

C.6.1.4 MAINTENANCE

- (a) Maintenance of the **rig**, rigging, fittings, fastenings, ropes and shockcord is permitted and includes:
 - (i) the replacement of fastenings and fittings with alternatives provided that the equipment is replaced in the Originally Supplied position using the same fitting and fastening as that Originally Supplied unless otherwise permitted by these **Class Rules**; and
 - (ii) upgrading of one or more parts and any layout from that Originally Supplied when the **boat** was purchased to that as supplied on new **boats** by an LM which was not supplied with the original boat.
- (b) Maintenance may include:
 - (i) re-application of moulded deck non-slip areas with a similar material providing similar grip to the Originally Supplied in the event of wear, and
 - (ii) use of Sikaflex or other bonding or sealing material to bed the fitting so long as it can be removed without damage to the **boat**.
- (c) The following parts or equipment may be replaced using generally available parts obtained from any commercial supplier provided that (save as provide elsewhere in these **Class Rules**) the replacement is placed in the same position and is a like for like basis, does not alter the velocity ratio or purchase, and performs the same function (rope may be of any material):
 - (i) Blocks with the same number of sheaves of substantially the same diameter as Originally Supplied, save as provided in paragraph 6.1.3 (h) above
 - (ii) Bungs
 - (iii) Cam and clam cleats and fairleads (but only a like for like type weight and size as the Originally Supplied item)
 - (iv) **Control lines, running rigging, ropes, rudder and daggerboard handles, and lashings.**
 - (v) Shackles, swivels, clips and pins
- (d) The watertight integrity of the **hull** shall be maintained unless a hole is caused by a collision during that days racing. It is the responsibility of the owner to ensure at all times the water-tightness and sea worthiness of the **boat**.
- (e) The breather in the centre of the plinth, and drainage holes shall all remain open, operational, and unrestricted.

C.6.1.5 REPAIR

- (a) Repairs may be carried out provided the repair:
 - (i) arises as a result of genuine and unintended damage,
 - (ii) is only made to the damaged area and to the minimum extent necessary to reinstate the item to its Originally Supplied condition and shape,
 - (iii) only uses Permitted material,
 - (iv) complies with these Class Rules, and
 - (v) is done in such a way that the shape, weight distribution, characteristics, bend, performance and function of the item as Originally Supplied are not affected.

Any repair shall not be used to reinforce an existing part, change the shape or add a function. Any repair which is substantial, or exceeds more than 5% of the total area of the item, or may alter the weight, profile, structure, air and/or water tight integrity of the item shall be referred to and be prior approved by ICA (which may impose such conditions as it considers appropriate, including stipulating the repairer) before being carried out in order to be in compliance with these Class Rules; the ICA may require the Repair to be carried out by LM or a repairer appointed by LM. Repairs to the sail must use a similar type and weight of material to the Originally Supplied. Repair to the sail exceeding 5% of the area or which are to the luff shall only be made by LM or its designated repairer. Replacement of the entire window on a like for like basis is permitted if it is damaged beyond repair. If you are in doubt whether the damage may be repaired by you without approval of ICA you will refer full details to and consult ICA for determination by ICA.

- (b) No item/s may be painted other than in the immediate area of a repair or as permitted in C.4 above for advertising.

C.6.1.6 LIMITATIONS

Only one **hull**, rudder stock, tiller, set of **hull appendages**, **mast**, **boom** and **bowsprit**, and 2 sets of **sails** shall be used in any one event, except when lost or damaged beyond repair. Any replacement shall only be made with the approval of the Race Committee. Not more than 1 **mainsail** and 1 spinnaker shall be carried aboard when racing.

C.7 HULL

C.7.1 MODIFICATIONS, MAINTENANCE & REPAIR

- (a) Modifications, repairs and maintenance may be carried out but only in accordance with these Class Rules.
- (b) Repairs to chips and scratches in the hull and deck may be filled. The Repair must comply with C.6.1.5. (Advisory note: Fairing of the **hull appendages** is not permitted except to the extent required for localised repair per this rule.)

C.7.2 LIMITATIONS

See C.6.1.6

C.7.3 HULL WEIGHT

The minimum weight of the **boat** in dry condition 82.5 kg. The weight shall be taken including one compass mount and compass used during the event in races but no other item listed in C.5.

C.7.4 CORRECTOR WEIGHTS

- (a) **Corrector weights** of lead shall be permanently fastened split equally between the transom flange and **mast** step area when the **boat** weight is less than the minimum requirement.
- (b) The total weight of such **corrector weights** shall not exceed 2.5kg.

C.8 HULL APPENDAGES

C.8.1 MODIFICATIONS, MAINTENANCE, AND REPAIR

- a) Modifications, maintenance, and repairs may be carried out but only in accordance with these Class Rules.
- b) The **hull appendages** may be secured to the **boat** with shock cord and a snap hook.
- c) The **rudder** pin may be reduced in length so that it does not protrude below the **hull** skin, but shall not reduce its structural integrity.
- d) The rudder stock, rudder gantry and rudder bolt bottom securing plate, as well as the vang arms may be bushed but only using (i) standard bushes retailed by a chandlery, or (ii) made from Nylon, Delrin or carbon impregnated plastic.
- e) The diameter of the bolts used to connect the vang lever arms may be increased.
- f) The location and size of the holes in the **rudder** and **daggerboard** as Originally Supplied shall not be altered.
- g) The rope handle holes in the **daggerboard** and **rudder** shall not be lowered below the line of the deck adjacent to the daggerboard case and rudder stock top (as the case may be), and the **daggerboard, rudder, and daggerboard and rudder** handles shall not be altered to enable said holes to be lowered below that line.
- h) It is not permitted to vary the designed chord width, profile or shape of either the **rudder** or the **daggerboard** from that Originally Supplied.
- i) The leading, bottom and trailing edges of each foil below the **hull** or stock may be sanded and filled to fair the mould joint with the foil profile.
- j) Repairs to chips and scratches in the foil may be filled. The Repair must comply with C.6.1.5. (Advisory note: Fairing of the **hull appendages** is not permitted except to the extent required for localised repair per this rule.)

C.8.2 LIMITATIONS

See C.6.1.6

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE, AND REPAIR

- (a) Modifications, maintenance and repairs may be carried out but only in accordance with these Class Rules.

- (b) The **mast, boom and bowsprit** only may be painted with a UV protective coat provided that it does not change the bend characteristics of the **mast, bowsprit, or boom**.
- (c) The lower **shroud** adjuster fittings may be replaced by an alternative multi-hole adjuster, a bottlescrew or a turnbuckle.
- (d) The **forestay and cap (V1) shroud** adjuster fittings may be replaced by an alternative multi-hole adjuster of substantially the same size and design as Originally Supplied.

C.9.2 LIMITATIONS

See C.6.1.6

C.9.3 STANDING RIGGING

- (1) **Standing rigging** shall not be adjusted while racing.
- (2) The following rigging fittings that are designed to be adjustable may be adjusted when not racing using the fitting functionality – mast spreaders for angle and length, shroud adjusters, and batten tensioners.
- (3) The **rigging** pins may be replaced by other types, but they shall not add any additional function.
- (4) **Standing rigging** shall comply with the following:
 - (i) Construction shall be 1 x 19 stainless steel wire rope (not dyform).
 - (ii) The **forestay, shrouds** and lower **shrouds** shall be of a minimum diameter of 2.9mm and a maximum diameter of 3.1mm.
 - (iii) Terminals and rigging shall be commercially available.
- (5) Protective coverings of any material over exposed fittings and standing rigging are permitted. Such coverings shall not alter the function of the fitting. Any covering over standing rigging shall be no longer than 1.5meters in length on any shroud, no more than 40mm in diameter, and not of a shape to improve airflow over fittings and/or shrouds.

C.9.4 RUNNING RIGGING

(a) MODIFICATION, MAINTENANCE AND REPAIR

- (1) The total purchase ratio in each of the following shall not exceed:
 - vang purchase after the lever 2:1,
 - cunningham 8:1
 - outhaul 4:1
 - main Halyard 2:1

(b) USE

- (i) Save as permitted in C.6.1, **running rigging** shall be led through and attached to the fittings supplied for the function as shown in the Rigging Manual.
- (ii) The crew may control the mainsheet from any of the turning blocks in the mainsheet system.

C.9.5 OTHER RIGGING

(a) MODIFICATION, MAINTENANCE AND REPAIR

- (1) Combined or linked systems are prohibited. The **trapeze** shockcord takeaway point on the wing is limited to:
 - (i) An exit hole within the wing at a point 845mm aft of the front of the wing.
 - (ii) From the s/s becket on the wing for the vang and cunningham take up pulleys
 - (iii) An additional position a maximum of 290mm aft of the front of the wing. The method of attachment is optional.
- (2) Where the **trapeze** shockcord is led externally as in (ii) and (iii) above, a substitute shockcord shall be fitted from the plastic wing end plug to the becket located next to the **forestay** bridge.

C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Modifications, maintenance and repairs may be carried out but only in accordance with these Class Rules.
- (b) Additional tufts and ribbons may be attached to the sails.
- (c) Routine maintenance to repair minor tears or un-stitching, and repairs that do not alter the shape of the **sail** is permitted provided it complies with rule C.6.1.5 above. For the avoidance of doubt, **sails** shall not be recut, and the shape may not be changed or otherwise altered and no aspect of the sail may be changed for any reason other than effecting necessary repairs and as permitted by these Class Rules.

C.10.2 LIMITATIONS

See C.6.1.6

C.10.3 MAINSAIL

(a) USE

- (i) A **halyard** shall be used to hoist the **sail**. The arrangement shall permit hoisting and lowering of the **sail** at sea.
- (ii) The clew strap may be shortened, but not such that this prohibits it sliding along the **boom** when the vang tension is released.
- (iii) The **luff** bolt rope shall be in the **mast** groove.

(b) IDENTIFICATION

- (i) The class insignia shall conform with the dimensions and requirements as detailed in the Building Constructions and be placed entirely within the area bounded by the 1st and 2nd full length **batten pockets** from the **head point** and shall be displayed on the port side only.
- (ii) RRS Appendix G1.2 is amended as follows`:
 - (a) The sail numbers shall comply with the specifications in the RRS Appendix G1.2 for boats not under 3.5 metres (namely use minimum 300mm high sail numbers and letters with a spacing between adjoining characters of minimum 60mm).

- (b) The sail numbers shall be displayed on each side of the mainsail between the 2nd and 3rd batten down, in the positions shown in section H below.
- (c) The National Letters and **Sail** Numbers are optional on the spinnaker. This changes RRS Appendix G1.3(c).
- (d) The National Letters and **Sail** Numbers may be on the same line. This changes RRS Appendix G1.3(a).
- (iii) A crew who has won a Musto Skiff World Championship or Gold Cup may add a 45mm diameter gold dot for each World Championship title won above the top batten pocket from the **head point**.
- (iv) The name of the crew may be applied on one or both sides of the sail, immediately below the bottom batten and no closer than 60 mm to the leech
- (c) NATIONAL FLAGS
 - (i) A **crew** may display the national flag of the **crew** in the relevant area shown in the drawing in section H below, being no larger than 200mm x 150mm. This may be made mandatory in the SIs at International events.
 - (ii) Flags shall only be ordered and purchased through the LM and shall not be trimmed or cut.

Section D – Hull

D.1 MANUFACTURER

Hulls shall only be manufactured in compliance with Class Rules A.12 & B.1 above.

D.2 PARTS

- (a) **Hull** shell
- (b) Deck
- (c) Buoyancy tanks
- (d) Racks

D.3 IDENTIFICATION

- (a) Each **hull** shall carry the WS Plaque permanently placed on the port transom and at least one moulded CIN (Craft Identification Number).

D.4 MATERIALS, CONSTRUCTION AND DIMENSIONS

- (a) Shall comply with the WS approved Builders Construction Manual.

Section E – Hull Appendages

E.1 MANUFACTURER

Hull appendages, rudder stock and **rudder** gantry shall only be manufactured in compliance with Class Rules A.12 & B.1 above.

E.2 PARTS

- (a) **Daggerboard**

- (b) **Rudder** blade
- (c) **Rudder** stock
- (d) **Rudder** gantry
- (e) **Rudder** stock support/mounting plate
- (f) Tiller

E.3 MATERIALS, CONSTRUCTION AND DIMENSIONS

- (a) Shall comply with the WS approved Building Specification.

Section F – Rig

F.1 MANUFACTURER

Rigs shall only be manufactured in compliance with Class Rules A.12 & B.1 above.

F.2 PARTS

- (a) **Mast** (comprising top, middle and bottom sections)
- (b) **Boom**
- (c) **Boom** vang lever
- (d) **Boom** vang arms
- (e) **Standing rigging**
- (f) **Running rigging**
- (g) **Other rigging**
- (h) **Bowsprit**

F.3 SPARS

F.3.1 MATERIALS, CONSTRUCTION, AND DIMENSIONS

- (a) The **spars** shall comply with the WS approved Building Specification.

F.4 STANDING RIGGING

F.4.1 MATERIALS, CONSTRUCTION, AND DIMENSIONS

- (a) The **standing rigging** shall comply with the WS approved Building Specification and Rigging Manual save as permitted to be modified by these class rules.

F.5 RUNNING RIGGING

F.5.1 MATERIALS, CONSTRUCTION, AND DIMENSIONS

- (a) The **running rigging** shall comply with the WS approved Building Specification and Rigging Manual save as permitted to be modified by these class rules.

F.6 OTHER RIGGING

F.6.1 MATERIALS, CONSTRUCTION, AND DIMENSIONS

- (a) The **other rigging** shall comply with the WS approved Building Specification and Rigging Manual save as permitted to be modified by these class rules.

Section G – Sails

G.1 MANUFACTURER

Sails shall only be manufactured in compliance with Class Rules A.12, B.1 & C.10.3(b)(i) above

G.2 PARTS

Mainsail

Spinnaker

G.3 MAINSAIL

G.3.1 IDENTIFICATION

(a)

G.4 SPINNAKER

G.4.1 IDENTIFICATION

(a)

G.5 MATERIALS, CONSTRUCTION, AND DIMENSIONS

(a) Shall comply with the WS approved Building Specification.

PART III – APPENDICES

Section H

Guidance on class rule c.4.1, c.4.3 and c.10.3 (b) & (c)

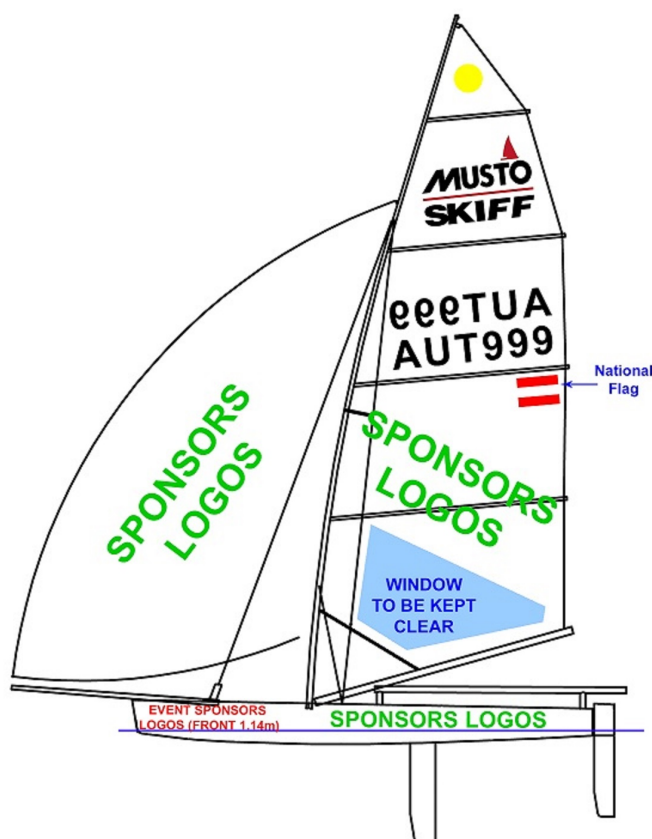
Instructions on the positioning of characters on sails.

Positioning sail numbers & national letters

- 1 Lay the mainsail starboard side down
- 2 Stick a line of masking tape a minimum of 60mm up and parallel to the batten (3rd one down); this keeps the numbers parallel to the batten.
- 3 Measure a minimum of 60mm from the leach and fix the first character on the sail.
- 4 Measure a minimum of 60mm from the fixed character and fix the next character on the sail. Repeat until the full sail number (including national letters) are fixed. NOTE: All characters must be separated by at least 60mm.
- 5 Once you have finished the Port side, turn the mainsail over.
- 6 Stick a line of masking tape on the Starboard side a minimum of 60mm above the characters on the port side (the characters on the starboard side must be highest).
- 7 Measure a minimum of 60mm from the leach and fix the first character on the sail.
- 8 Measure a minimum of 60mm from the fixed character and fix the next character on the sail. Repeat until the full sail number (including national letters) are fixed. NOTE: All characters must be separated by at least 60mm.
- 9 Your sail should look like the sail below.

Positioning national flag

- 10 Measure a minimum of 60mm from the leach and batten and fix the flag on each side of the sail.



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