## **Sandhopper Class British Association**

### **Rule Book**

**July 2023** Issue 7



BRITISH ASSOCIATION

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November 2001

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#### Part A RULES FOR THE SANDHOPPER CLASS BRITISH ASSOCIATION.

#### A.1 TITLE

The full title of the Association shall be the Sandhopper Class British Association.

#### A.2 OBJECTS

The objects of the Association are to promote and further the interests of the Sandhopper Class throughout Britain and to represent the interests of owners of Sandhoppers as follows:

- A.2.1 To keep members informed of developments concerning the class and any proposals concerning class rules.
- A.2.2 To organise British Open Championships and to co-ordinate the programme for other races for the class in the British Isles.
- A.2.3 To encourage National Competition in Britain for the class.
- A.2.4 To promulgate information on technical development within the Sandhopper Class.
- A.2.5 To keep a National Association Register.
- A.2.6 To encourage the building of new boats.

#### A.3 TERMS AND DEFINITIONS

Throughout these rules the following defined terms will be used:-

- A.3.1 "The National Association" shall mean the Sandhopper Class British Association.
- A.3.2 "The Committee" shall mean the Committee of the National Association, consisting of duly elected committee members and members appointed as regional members.
- A.3.3 "The National Association Rules" shall mean the rules governing the conduct of the National Association.
- A.3.4 "The National Association Register" shall mean the register of owners of Sandhoppers in Britain, with their addresses, name and number of boat, to be kept as hereinafter provided.
- A.3.5 "The Class" shall mean the class of sailing yachts designed by Oliver J Lee and made in accordance with his measurement diagrams and specifications, and known under the name Sandhopper.
- A.3.6 "The Measurement Rules" shall mean the rules relating to measurement, construction and racing conditions of the class and governing the building of each Sandhopper and its rating as a recognised boat within the class for class racing purposes.
- A.3.7 "The Registered Number" shall mean the sail number allocated to the boat.
- A.3.8 "The National Class Secretary" shall mean the duly elected Honorary Secretary or duly appointed Secretary as the case may be, of the National Association.
- A.3.9 "Certificate" shall mean a certificate to be issued, ratified and endorsed as hereinafter provided and recording:
- A.3.9.1 The registered number and current ownership of a Sandhopper and as far is practicable any changes in ownership.
- A.3.9.2 The fact that such Sandhopper originally complied with the class measurement rules on completion of construction, together with such particulars as may be required by the class measurement rules, or currently complies with the class measurement rules as proven by a measurement certificate.
- A.3.10 "Valid Certificate" shall mean a certificate in which:

- A.3.10.1 The particulars of ownership are up to date and entered on the Class Register of the Sandhopper Association.
- A.3.10.2 Any endorsement required by the Measurement Rules has been duly entered.
- A.3.11 "Fleet" shall mean three or more registered Sandhoppers normally located sufficiently near to each other to permit regular racing between them.
- A.3.12 "Owner" and "Joint Owner" shall mean any person or persons, corporation or association entered on a certificate as owner or joint owner of a Sandhopper.

#### A.4 MEMBERSHIP AND VOTING RIGHTS

- A.4.1 The following classes of membership shall be recognised:
  - a) Full Membership.
  - b) Associate Membership.
  - c) Honorary Membership.
- A.4.2 Full Membership shall, upon payment of the prescribed annual subscription, be open to any owner of a British Registered Sandhopper, any joint owners, or in the case of a British Sandhopper owned by a Corporation or Association, to a nominated representative of that organisation.
- A.4.3 Associate Membership shall, upon payment of the prescribed annual subscription, be open to any joint owner of a British Registered Sandhopper not being a full member, or to all individuals or clubs interested in the Sandhopper Class in Britain.
- A.4.4 Honorary Membership shall be open to any person having an interest in the National Association in Britain who is proposed by a Full Member and seconded by at least one member of the Committee and is elected by Members of the National Association at any General Meeting of the National Association.
- A.4.5 Members shall be bound by the National Association rules.
- A.4.6 Members acting as helmsmen or entering Sandhoppers in races which consist of, or include, the class, shall be bound by the Measurement Rules.
- A.4.7 Each full member shall be entitled to one vote at a General Meeting of the National Association, or in a postal ballot. Associate and Honorary Members shall be entitled to attend and speak at any General Meeting, but not to vote. In the case of joint ownership, only one vote per boat will be permitted.

#### A.5 MANAGEMENT

- A.5.1 The affairs of the National Association shall be managed by the Committee, which shall be the only body empowered to make recommendations to the Sandhopper Association for changes in the Measurement Rules.
- A.5.2 The committee shall consist of 2 full members of the Association, elected annually at a General Meeting of Members by secret ballot, or postal vote, as elected Committee Members. In addition each of the founding Clubs, Maylandsea Bay Sailing Club and Thorpe Bay Yacht Club shall be entitled to appoint 2 Full Members or 1 Full and one Associate member to the Committee. In addition every other Club with a fleet of Sandhoppers shall be entitled to appoint one Full Member to the Committee. The Committee shall have powers to co-opt any person to assist it, whether a full member of the Association or not, but such persons shall have no vote in Committee.
- A.5.3 No Committee member shall serve as Chairman for more than three successive years after which he/she shall stand down. He/she may be re-appointed after a period of one year. The Committee shall endeavour to select the Chairman on a rota basis from each of the Clubs with qualifying representation on the Committee.

- A.5.4 The Committee need not fill a vacancy arising in the Committee unless the total number of Committee Members has dropped below the minimum of six.

  Committee Members appointed to fill vacancies shall remain in office until the expiry of the term of office of the person whose position they have filled.
- A.5.5 At it's first meeting to be held immediately after the Annual General Meeting of the National Association, the Committee shall :
- A.5.5.1 Elect one of its Full Members to act as Chairman of the Association for the following year.
- A.5.5.2 Elect an Honorary Secretary or appoint a Secretary, who shall keep correct Minutes and records of all Committee and General Meetings, together with the National Association Register, and shall be responsible for communicating the decisions of the Committee to members of the National Association and, when directed by the Committee, to owners and joint owners not being members of the National Association.
- A.5.5.3 Elect an Honorary Treasurer, who shall control the funds of the National Association: make such disbursements as the Committee shall direct: present an annual financial statement at each Annual General Meeting. The Secretary or Honorary Secretary may act as Treasurer.
- A.5.5.4 Elect an Honorary Membership Secretary who shall maintain the National Association Register and the list of members of the National Association.
- A.5.5.5 Appoint an Auditor who shall certify the annual financial statement.
- A.5.6 At meetings of the Committee a quorum shall exist if at least four Committee members including two of the appointed members are present, provided that the two appointed members are from different Clubs.
- A.5.7 The Committee shall have power to make recommendations to the members in general meeting, or by post, for alteration in, or additions to, the National Association Rules.
- A.5.8 The Committee may arrange an Annual National Championship of the class and shall co-ordinate such Regional Championships as may be required. All matters pertaining to International Championships held in Britain shall be settled by the Committee in consultation with the sponsoring Club or Clubs, the R.Y.A. and the I.S.A.F.
- A.5.9 At least two weeks notice of the date, place and agenda for any Committee Meeting must be given in writing by the Secretary to each Committee Member. Any business conducted by correspondence shall always be circulated through the Secretariat and any Committee Member not answering a motion communicated to him/her in writing within three weeks of the date of sending shall be deemed to have agreed to such a motion.
- A.5.10 Acceptance of a Certificate by an owner or joint owners shall ipso facto render him/her or them subject to the jurisdiction of the National Association or the Committee in any matter pertaining to the rules of the National Association.

#### A.6 POWER OF THE COMMITTEE

Subject to the provision of these rules, and in particular to the object of the National Association, as expressed in Rule 2, the General Committee shall be empowered to perform all functions of management and administration.

The making of payments and receipt of monies shall be validly evidenced only by the signature of the Treasurer or his Deputy as appointed by the Committee and payments or receipt of monies exceeding the sum of fifty pounds shall require the signature of the Chairman and Secretary or Treasurer.

#### A.7 CONDUCT OF MEETINGS OF THE NATIONAL ASSOCIATION

- A.7.1 The Annual General Meeting of the National Association shall be held annually in November in a place judged by the Committee to be most convenient to the majority of members of the Association. The precise date, time and place to be at the Committee's discretion.
- A.7.2 A special General Meeting shall be called by the Chairman or Class Secretary upon receipt by the Class Secretary of a written request, signed by not fewer than ten full members of the National Association.
- A.7.3 At least two (2) weeks' written notice shall be given to members of any General Meeting.
- A.7.4 At any General Meeting or Committee Meeting decisions shall be limited to matters on the agenda and other than those concerning measurement rules shall be carried by a majority vote. Other than for the election of Committee Members, voting shall be by a show of hands, unless a secret ballot is demanded by not fewer than three of the full members present. At any meeting the Chairman shall have a casting vote. The Secretariat shall be responsible for circulating all members or in the case of Committee Meetings, all Committee Members, with the result of voting. In the event of a postal ballot, all returns shall be made to the Secretariat within two weeks of the date of posting the ballot paper.
- A.7.5 At any General Meeting of the National Association, eleven shall form a quorum.
- A.7.6 Changes in or additions to the Measurement Rules must be approved at a General Meeting and shall require a majority of two thirds.

#### A.8 SUBSCRIPTIONS AND REGISTRATION FEES

- A.8.1 Subscriptions payable for all classes of membership of the National Association shall be payable annually and shall be decided at the Annual General Meeting and shall become due on first January of the following year.
- A.8.2 The annual subscription for full and associate members shall be determined annually by the National Association in General Meeting.
- A.8.3 Any member whose subscription has not been paid within three months of the date due may have his/her name removed from the list of members of the National Association by the Committee. A member's name may be restored to the National Association Register at the discretion of the Committee, on payment of any subscription due.

#### A.9 ACCOUNTS

- A.9.1 The Committee shall cause true accounts to be kept giving full particulars of:
- A.9.1.1 All monies, assets and liabilities of the National Association.
- A.9.1.2 All monies received and expended by the National Association and the reasons for such receipts and expenditure.
- A.9.1.3 All sales and purchases by the National Association.
- A.9.2 The Committee shall cause the annual financial statement to be prepared and presented at every Annual General Meeting of the National Association.

A.9.3 A copy of the annual financial statement, duly audited, prepared for presentation at a General Meeting shall, not less than fourteen days prior to such General Meeting, be sent to every full member at their registered address.

#### A.10 PROTECTION OF 'ONE-DESIGN' OF THE CLASS

- A.10.1 The National Association shall maintain the one-design character of the class yacht and shall report to a General Meeting any matter which may appear to violate or threaten the spirit of the class measurement rules.
- A.10.2 The National Association shall make recommendations concerning the number and distribution of builders in Great Britain.
- A.10.3 The National Association shall collaborate with the R.Y.A. in the allotment and issue of Class Numbers for British owned Sandhoppers as they are built, and in providing information on allotment of numbers, names of boat, names of owners and addresses and change of ownership.
- A.10.4 Certificates for British owned Sandhoppers shall be obtainable from the R.Y.A. which may delegate its duties to the National Association, upon production of a measurement form properly completed by a National Measurer or Official Measurer appointed by the National Association, showing the boat to be within the requirements of the measurement rules.
- A.10.5 The National Association shall arrange for inspection of Certificates of all Sandhoppers competing in British National Championships, and shall arrange that entry forms for such Championships give notice that valid certificates shall be inspected and that measurements of new or replacement sails are entered on the certificate and that the Helms are Full or Associate Members of the National Association.
- A.10.6 ISAF Advertising Code category "A" shall apply. This states that no competitor advertising is permitted on the boat. Except for Event Sponsor advertising, when a boat is allowed to display advertising, the choices of the advertising lie with the competitor and cannot be restricted by the Sailing Instructions or Notice of Race.

Approved and adopted 15 June 1997

# Part B SANDHOPPER ONE DESIGN KEELBOAT MEASUREMENT RULES

#### B.1 GENERAL.

- B.1.1 This is a one-design class. The rules, measurement diagrams and specifications are intended to ensure that the boats of this class are as nearly as possible the same as regards shape and weight of hull and decking, shape and weight of keel, shape of rudder, area and shape of sail plan and in some other items which affect performance.
- B.1.2 These rules are complementary to the measurement form and measurement diagrams. Any interpretation shall be made by the Class Association.
- B.1.3 In the event of any discrepancy between these rules, the measurement form or the measurement diagrams, the rules shall take preference.
- B.1.4 The Class Association does not accept any legal responsibility in respect of these rules and/or the measurement diagrams or any claims arising there from.
- B.1.5 "ISAF" Advertising Code: The Sandhopper Class is Category "A"

#### B.2 BUILDERS.

B.2.1 G.R.P moulding shall be produced only from moulds approved by the Association.

#### **B.3** REGISTRATION FEE.

B.3.1 Any Registration Fee is payable to the Class Association on the issuing of the Certificate and includes the hire fee of the measuring templates.

#### B.4 REGISTRATION AND MEASUREMENT CERTIFICATE

- B.4.1 No boat shall be permitted to race in the Class unless it has a valid measurement certificate.
- B.4.2 The Association will issue sail numbers which shall be consecutive.
- B.4.3 No two boats in the class shall have the same name.
- B.4.4 The Certificate is obtained as follows:-
- B.4.4.1 The owner shall apply to the Association for a sail number and may, at the same time, submit the proposed name of the boat.
- B.4.4.2 The owner or builder shall have the boat measured by an R.Y.A. measurer. The completed measurement form shall be supplied to the owner of the boat.
- B.4.4.3 The owner or builder shall submit the completed measurement form to the Class Association together with the Registration Fee of £5.00 on receipt of which the Association shall issue the measurement certificate.
- B.4.5 Change of ownership invalidates the Certificate but shall not necessitate remeasurement. The new owner may apply to the Association for a new Certificate, returning the old Certificate together with a re-registration fee of £5.00 and stating the necessary particulars. A new Certificate shall then be issued.
- B.4.6 It is the owner's responsibility to ensure that his boat complies with the class measurement rules at all times and that alterations, replacements or repairs do not invalidate its Certificate.

#### **B.5** MEASUREMENT

- B.5.1 An R.Y.A. measurer shall measure a boat, its spars or sails and sign the declaration on the measurement form that it complies with the class rules. Sails may also be measured by an Association member appointed by the Committee.
- B.5.2 Measurement tolerances are intended to allow for genuine building errors and shall not be used deliberately to alter the design. The measurer shall report on the measurement form anything which he considers to be a departure from the intended nature and design of the boat, or to be against the general interest of the class and a Certificate may be refused even if the specific requirements of the rules are satisfied.
- B.5.3 A measurer shall not measure a boat, spars or sails owned or built by himself or in which he is an interested party or has a vested interested.
- B.5.4 All boats, spars and sails shall comply with the current rules or with the corresponding rules applying to them at the time the original Certificate was issued. Any alterations or replacements shall comply with the current rules.
- B.5.5 New or substantially altered sails shall be measured by an official measurer who shall stamp or sign and date the sails near the tack.
- B.5.6 All boats shall be liable to re-measurement at the discretion of the Association or race committee.

#### B.6 IDENTIFICATION MARKS.

- B.6.1 The hull shall carry the sail number either cut into or indelibly marked on the forward or rear vertical face of the rear buoyancy compartment in figures not less than 15mm high.
- B.6.2 The mainsail and spinnaker shall carry identification marks as indicated in Rule B.19.3.
- B.6.3 All emblems, numbers and letters shall be of a durable material securely attached.

#### B.7 CONSTRUCTION.

- B.7.1 The hull and deck shall be of g.r.p. constructed in accordance with the measurement diagrams and specifications and from moulds approved by the Class Association.
- B.7.2 The hull and deck moulding shall not be modified, apart from the drilling of holes for the attachment of fittings and equipment.
- B.7.3 A gunwale rubbing bead of timber, plastic, aluminium or any resilient material 24mm 56mm wide by 6mm 38mm deep, shall extend unbroken from a point not more than 50mm from the bow (excluding the stemhead fitting) to a point not more than 50mm from the transom.

#### B.8 KEEL

- B.8.1 The keel shall be of fine grain cast iron manufactured from a pattern approved by the Class Association. The keel may be treated with any non-reinforced paint, resin or plastic coating.
- B.8.2 The bilge keels shall be of g.r.p. to moulds approved by the Class Association.

#### B.9 HULL MEASUREMENT.

- B.9.1 The hull and deck shall be measured in accordance with the measurement diagrams.
- B.9.2 The length overall, mast position, keel position and the location of Sections 3, 6 and 9 shall be measured from the aft perpendicular as shown on the

measurement diagrams. The distances of the sections from the aft perpendicular are:

Section 9 (1047mm.)

Section 6 (2610mm.)

Section 3 (4172mm.)

- B.9.3 Floatation equipment shall comprise:-
- B.9.3.1 A Forward buoyancy tank as detailed on the measurement diagrams.
- B.9.3.2 An aft buoyancy tank as detailed on the measurement diagrams or a full height aft flotation tank.
- B.9.3.3 Not less than 158 litres of additional floatation equipment must be fitted forward of the mast.

Floatation equipment of any type additional to the foregoing may be fitted under the deck's seats or floors. All flotation equipment must be maintained in good condition.

Note: Where a full height aft flotation tank is fitted this shall comprise of a compartment formed between the hull, deck and athwart ships bulkhead of plywood of not less than 12mm in thickness and not more than 2500mm. nor less than 2400mm. aft of the forward buoyancy tank. Such tank shall contain not less than 0.18m3 of either securely fixed closed cell foam with a density of not less than 150kg/m3 and water absorption by volume or less than 8% or securely fixed rigid wall air containers.

B.9.4 The hull below the waterline, including the keel and bilge keels, is to be treated with a suitable antifouling composition.

#### B.10 COCKPIT LAYOUT.

- B.10.1 The arrangement of seats, mainsheet horse, mast step and cockpit floor shall be in accordance with the measurements diagrams.
- B.10.2 The following additional items may be fitted:-
- B.10.2.1 Extra lockers and / or shelves.
- B.10.2.2 Additional buoyancy in the form of expanded polystyrene, air bags or watertight compartments.
- B.10.2.3 Extra seats of wood or g.r.p. fitted within the cockpit area or on the top of the side decks
- B.10.3 Cockpit Layout, forward seats. The forward seats shall not be less than 895mm long and shall not be longer than 945mm long. The width of the seats shall not be less than 245mm wide and shall not be more than 265mm wide. The continuous thickness of the seats shall not be less than 22mm thick and shall not be more than 26mm thick. Materials to be used for the seats shall be solid. The following materials only, may be used: Teak; Afrormosa; Afzeua; Agba; Iroko; Sapele; Seraya; Utile; or Mahogany.

#### B.11 RUDDER AND TILLER.

- B.11.1 The rudder shall be of wood and/ or g.r.p.
- B.11.2 The profile of the rudder blade below the waterline shall conform to a template approved by the Association. The edge of the blade shall be not more than 6mm from the edge of the template. For the purpose of this rule the waterline shall be a continuation of the underside of the hull along the centreline.

- B.11.3 The sectional shape of the rudder blade is optional but the thickness of the blade shall not exceed 36mm.
- B.11.4 The design of the tiller and tiller extension is optional.
- B.11.5 The design of the rudder bearings is optional but the centreline of the pintles shall not be more than 16mm forward or aft of the leading edge of the rudder blade and not more than 25mm aft of the transom centreline.

#### B.12 FITTINGS.

- B.12.1 The following fittings shall be positioned in accordance with the measurement diagrams:
  - a) Stemhead fitting
  - b) Forestay fitting.
  - c) Bow mooring cleat.
  - d) Stern mooring cleat.
  - e) Shroud plates.
  - f) Headsail fairleads which may be adjustable fore and aft but shall be mounted within the confines of the outer unsanded area of the deck edge
  - g) Mainsheet track, maximum length 610mm.
- B.12.2 In addition to the fittings listed above and those shown on the measurement diagrams, only the following may be fitted:
  - a) One or two headsail sheet winches, position optional.
  - b) Additional cleats, fairleads jamming cleats, blocks.
  - c) Outboard bracket (s) on transom or gunwale.
  - d) Stowage blocks and/or brackets for outboard motor.
  - e) Deck clips for cockpit cover and/or tent.
  - f) Tiller lock and rudder retaining device
  - g) Compass(s).
  - h) Cunningham eye equipment for mainsail
  - i) Adjustable mainsail foot outhaul equipment
  - i) Toe straps (see Rule B22.3).
  - k) Stowage clips for paddle(s), spinnaker boom, sail bags and other equipment.
  - I) Echo sounder.
  - m) Boom crutch.
  - n) Bilge Pump(s). No more than three bilge pumps that may discharge through the hull or deck. These may be manual or electrically operated, although one must be manually operated
  - o) Headsail halliard tensioner
  - p) Adjustable hook rack for mainsail halyard
  - q) Spinnaker sheet barber haulers.
  - r) Removable watertight access hatches to fore and aft buoyancy tanks.
  - s) Wind direction indicator. (Windex or similar equipment.)
  - t) Headsail furling / roller reefing device and fitting plate, which shall retain the forestay and be fixed to the forestay plate above the deck.

#### **B.13** MAST POSITION.

B.13.1 The fore and aft position of the mast hole through the deck shall be measured from the aft perpendicular in accordance with the measurement diagrams.

- B.13.2 The heel of the mast shall be stepped on top of the forward buoyancy tank as shown on the measurement diagrams. The overall height of the mast step shall not exceed 50mm.
- B13.3 The vertical distance between the buoyancy tank top and the top of the deck at the forward end of the mast hole shall be measured in accordance with the measurement diagrams.

#### B.14 MAST

- B.14.1 The mast datum point is the lower edge of the mast heel tenon.
- B.14.2 The mast shall be of aluminium alloy extrusion with a continuous fixed groove which may or may not be integral with the spar section but shall be the same material. It may be anodised.
- B14.3 The overall length of the mast measured from the mast heel tenon shall be not less than 7695mm.
- B.14.4 Distinctively coloured bands 10mm wide shall be marked indelibly on the mast as follows:
  - a) Band No 1. The upper edge shall be not more than 1236mm above the lower edge of the mast heel tenon.
  - b) Band No 2. The lower edge shall be not more than 7561mm above the lower edge of the mast heel tenon.
- B.14.5 The distance between the upper edge of Band No 1 and the lower edge of Band No 2 shall not exceed 6325mm.
- B.14.6 Rotating and permanently bent masts are prohibited but a set, due to distortion, of up to 50mm between Band No 1 and Band No 2 is permitted.
- B.14.7 The mast shall have one set of spreaders for the upper shrouds which may be of a swinging type. The spreaders shall be attached to the mast above lower shrouds and this bearing point for the main shrouds shall be 549mm+/- 10mm from the mast.
- B.14.8 The weight of the mast including normal fixed fittings and riggings shall not be less than 15kg.
- B.14.9 No part of the spinnaker boom fitting(s) attached to the mast shall project more than 70mm from the mast.
- B.14.10 The spinnaker halyard extension mast crane shall not extend more than 100mm horizontally from the forward edge of the mast.
- B.14.11 The intersection of the forestay and the main shrouds shall be not less than6400mm nor more than 6500mm measured from the lower edge of the mast heel tenon.
- B.14.12 The intersection of the lower shrouds shall be not less than 3400mm and not more than 3500mm measured from the lower edge of the mast heel tenon.
- B.14.13 The centre line of the spreader bracket shall be not less than 3500mm and not more than 3550mm measured from the lower edge of the mast heel tenon.

#### B.15 STANDING AND RUNNING RIGGING.

B.15.1 The standing rigging shall be of stainless steel or galvanized wire, diameter not less than 2.5mm and shall consist of :- a forestay, backstay, two main shrouds and two lower shrouds.

- B.15.2 The backstay shall be attached to the mast crane and may be adjusted while racing.
- B.15.3 The shrouds may be fitted with plastic tubes.
- B.15.4 The extension of the line of the top of the spinnaker halliard when held taut at right angles to the mast shall intersect the foreside of the mast not more than 6490mm above the lower edge of the mast extrusion.
- B.15.5 The type and material of the running rigging is optional.

#### B.16 MAIN BOOM.

- B.16.1 The boom shall be of aluminium alloy extrusion with a fixed groove or track which may or may not be integral with the spar section but shall be of the same material. It may be anodised.
- B.16.2 A distinctively coloured band 10mm wide shall be marked indelibly on the boom with its inner edge not more than 2286mm from the aft side of the mast including the groove or track but excluding any local curvature when the boom is fitted and horizontal.
- B.16.3 The boom with mainsail fittings attached must be capable of passing through a circle of 120mm diameter.
- B.16.4 Tapered or permanently bent booms are prohibited but a set, due to distortion of up to 25mm between the measurement band and the fore end of the boom is permitted.

#### B.17 SPINNAKER BOOM.

- B.17.1 The spinnaker boom shall be made of aluminium alloy.
- B.17.2 The overall length including fittings shall not exceed 2210mm.
- B.17.3 The spinnaker boom including fittings shall be able to pass through a 76mm diameter circle.

#### B.18 WEIGHT.

- B.18.1 The hull weight in dry condition including permanently fixed compulsory and any permanently fixed optional equipment listed in these rules shall not be less than 700 kg. This excludes mast, all spars, standing and running rigging, sails, rudder and anchor.
- B.18.2 Correctors of metal or wood shall be permanently fastened to the underside of the cockpit seats in all boats weighing less than 700kgs in order to bring the weight up to the minimum requirement. The total weight of correctors shall not exceed 30kgs. The weight of the correctors shall be recorded on the measurement Certificate.

#### B.19 SAILS.

B.19.1 Sails shall be made and measured in accordance with the ISAF Sail Measurement Instructions except where varied herein. With the exception of windows, the sails shall be made of a single ply woven fibre cloth, the body of the sail shall be flexible and be capable of being folded flat in any direction without damaging the fibres. Any finishing material or coating applied to the cloth shall not prevent the sail being folded flat.

For the material to be considered as woven, when it is torn it shall be possible to separate the fibres without leaving evidence of a film. Specifically, the use of Kevlar, Mylar, Carbon Fibre and similar materials are banned.

A maximum of 2 unwoven windows are permitted in the mainsail and a maximum of 2 unwoven windows are permitted in the headsail. The maximum size for each window shall be \*\*0.75 \*\*square metre. No edge of the window shall be closer than 150mm from any edge of the sail. In addition, a maximum of 3 Genoa/Jib tell-tale windows is permitted, of maximum size of 150mm diameter. The cloth used for all headsails and mainsail shall weigh not less than 185gms per square metre.

- B.19.2 Subject to the committee's power to reject a sailmaker for good reason, any sailmaker may be used. The mainsail and headsail shall be white or coloured light blue.
- B.19.3 The sail number, letters and class emblem shall be placed as laid down in the ISAF. Sail Yacht Racing Rules. The emblem shall be not less than 370mm high or 450mm wide.

Numbers and letters shall be of the following minimum dimension.

- a) Height: 300mm.
- b) Width:- 200mm except No 1.
- c) Thickness:- 45mm.
- d) Minimum space between letters and figures:- 60mm.

#### **B.19.4 MAINSAIL**

- B.19.4.1 The mainsail shall have three battens of any material which shall divide the leech, the aft edge of the sail, into four equal parts +/- 100mm. The inside length of the batten pockets shall not exceed:
  - a) Top:- 630mm
  - b) Middle and bottom:- 780mm.
  - c) The inside width of the batten pockets shall not exceed 60mm.
- B19.4.2 The width of the headboard shall not exceed 130mm measured at right angles to the luff.
- B.19.4.3 No part of the sail or headboard shall extend beyond the inner edge of the boom band, the lower edge of Band No 2 and upper edge of Band No1.
- B.19.4.4 The length of the leech shall not exceed 6720mm.
- B.19.4.5 The distance from the ¼, ½, and ¾ leech points to the nearest point on the luff, including the bolt rope, shall not exceed 2010mm, 1530mm and 880mm respectively. Any hollows in the leech shall be bridged by straight lines. The half leech point shall be determined by folding the sail with the highest point of the headboard nearest the luff even with the lowest point of the sail directly under the centre of the clew cringle.

The  $\frac{1}{4}$  and  $\frac{1}{2}$  leech points shall be determined by folding the clew and head points as defined above to the mid-point of the leech.

#### B.19.5 HEADSAIL.

- B.19.5.1 The length of the luff shall not exceed 5370mm.
- B.19.5.2 The length of the leech shall not exceed 5090mm.
- B.19.5.3 The length of the foot shall not exceed 2920mm.
- B.19.5.4 The measurement from the head to the mid point of the foot (determined by placing the bearing surface of the clew cringle above the bearing surface of the tack cringle) shall not exceed 5200mm.

- B.19.5.5 Battens are prohibited.
- B,19.5.6 The headsail shall at all times be sheeted to the sliding fairlead outside the upper and lower shrouds.

#### **B.19.6 SPINNAKER**

- B.19.6.1 The spinnaker shall be a symmetrical three cornered sail. No headboard battens or other stiffening device other than normal woven cloth reinforcing is permitted.
  - The sail shall be measured folded along its centreline with the leeches together.
- B.19.6.2 The length of the leeches shall not exceed 5360mm measured along the edge of the sail from the highest point of the sail at the head to the lowest point of the sail directly below the centre of the tack and clew cringles.
- B.19.6.3 The half width of the foot shall not exceed 1920mm measured round the edge of the sail.
- B.19.6.4 The half height cross measurement shall not exceed 2050mm. The measurement shall be taken between points on the leech and on the centre fold 2680mm from the head measured in a direct line.
- B.19.6.5 The three-quarter height cross measurement shall not exceed 1300mm. The measurement shall be taken between points on the leech and the centre fold 1340mm from the head measured in a direct line.
- B.19.6.6 Not more than two spinnakers shall be carried on board whilst racing, of which not more than one may be used in any one race.

#### B.20 EQUIPMENT.

The following equipment shall be on board whilst racing:-

- B.20.1 One paddle not less than 1000mm in length.
- B.20.2 One hand bailer or bucket.
- B.20.3 One anchor minimum weight 4kg, with not less than 18mtrs of line of 9mm minimum diameter.
- B.20.4 The boat shall be equipped with personal buoyancy for each crew member to the minimum standard ISO 12402-5.

#### B.21 CREW.

There shall be not less than two persons on board when racing.

#### B.22 PROHIBITIONS.

- B.22.1 Adjustable rigging links, lanyards and rigging screws shall not be adjusted whilst racing.
- B.22.2 No equipment is permitted for the purpose of moving the heel of the mast while racing
- B.22.2 Inside ballast or ballast carried by the crew.
- B.22.3 Trapeze or similar contrivance to support the crew outboard except for toe straps which shall be arranged inside the cockpit.
- B.22.4 No sheeting arrangement is permitted through the sides of the hull.
- B.22.5 Devices transmitting or correlating data relative to wind direction or speed or boat speed and location by means such as, but not limited to, electronic, mechanical, hydraulic or pneumatic

B.22.6 Spinnaker chutes.

#### **B.23 MEASUREMENT DIAGRAMS.**

Single sheets showing sail plan and general arrangement of hull and deck layout.

#### **B.24 OFFICIAL TEMPLATES**

Keel pattern

Bilge keel mould

Rudder blade template.

#### **B.25 COMMITTEES DISCRETION**

- B.25.1 Notwithstanding anything in these rules, the Committee shall have the power to refuse to grant a Certificate or to withdraw a Certificate from any boat.
- B.25.2 The Committee when satisfied that any variations from the rules do not confer a marked advantage may, subject to any conditions they wish to impose, issue a certificate and allow a boat to race as a Sandhopper.

Authority - Sandhopper Class British Association. November 2015.

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