

The “X” One Design Class Association

CLASS RULES

These Class Rules together with the accompanying Constitution form the rules for the ‘X’ One Design Class of boat and the ‘X’ One Design Class Association.

Bold black margin to a Rule denotes a change. There are no rule changes for 2011.

PART 1 - GENERAL

SECTION A - FUNDAMENTAL RULES

A.1 CLASS RULES

A.1.1 These **Class Rules** became effective on 1st January, 1998.

A.2 ABBREVIATIONS

A.2.1	ISAF	International Sailing Federation.
	RYA	Royal Yachting Association.
	XODCA	“X” One Design Class Association.
	ERS	Equipment Rules of Sailing.
	RRS	Racing Rules of Sailing.

A.3 AUTHORITY

A.3.1 The authority of the class is the **XODCA**.

A.3.2 Neither the ISAF nor the RYA nor the **XODCA** nor the **official measurer** is under any legal responsibility in respect of these **class rules** or accuracy of measurement and no claim arising from them can be entertained.

A.4 LANGUAGE

A.4.1 The word “shall” is mandatory and the word “may” is permissive.

A.4.2 The “ Terms and Definitions” as defined in the **XODCA constitution**, shall apply to these **class rules**.

A.5 ISAF RULES

A.5.1 These **class rules** shall be read with the ERS and measurements shall be taken in accordance with these unless specified. Where a term is used in its defined sense, it is printed in “**bold**” type if defined in ERS , in “**bold italic**” if defined in the **constitution** and in “*italic*” type if defined in the RRS.

A.6 INTERPRETATION OF CLASS RULES

A.6.1 Any interpretation of the **class rules**, except as provided A.7, shall be made by the **committee**.

A.6.2 Where the same material aspect of the boat is defined in both the Official Class Drawings and the **class rules** and the definitions do not agree then the matter shall be referred to the **committee**.

A.7 INTERPRETATION OF THE CLASS RULES AT AN EVENT

A.7.1 Interpretations of the **class rules** at an event shall be carried out in accordance with the RRS and the race organising authority shall, as soon as practicable after the event, inform the **XODCA** of such an interpretation.

SECTION B - ORGANISATION

B.1 ADMINISTRATION OF THE CLASS

B.1.1 The functions as stated in the **class rules** shall be carried out by the **XODCA**.

B.2 CLASS BUILDING FEE

B.2.1 The Build Fee shall be paid by the **owner** to the **XODCA**.

B.3 SAIL NUMBERS

B.3.1 Sail numbers shall be issued by the **XODCA**. The **XODCA** shall only issue a sail number on receipt of a completed measurement form. The **XODCA** shall record the names and addresses of owners issued with sail numbers.

B.4 MEASUREMENT CERTIFICATE

B.4.1 Provided the **committee** is satisfied that the requirements of these **class rules** are met, each **boat** that is or has been accepted by the present or past **committees** as being an **X.O.D boat**, shall be issued with a **measurement certificate**.

B.4.2

- a. Upon request, an **owner** is to return the **measurement certificate** to the **XODCA**.
- b. Notwithstanding anything contained herein, the **committee** may withdraw a **measurement certificate** provided that, within seven days of the decision being made, the **committee** shall advise the **owner**, in writing, of the grounds of such withdrawal.
- c. Each boat shall be re-measured according to the Class "Boat Check List" at five year intervals. The Five Yearly Certification rule will be introduced from 2010 to 2014. Boat with numbers ending 0 and 5 will be re-measured in 2010 and thereafter at five year intervals. Boats with numbers ending 1 and 6 will be re-measured in 2011 and thereafter at five year intervals. Boat numbers ending 2 and 7, 3 and 8, 4 and 9 will be re-measured in 2012, 2013 and 2014 respectively and thereafter at five year intervals.

B.4.3 The **XODCA** shall always retain a copy of the **measurement certificate**.

B.4.4 The **measurement certificate** shall contain the following information:

The **hull** and sail number.

The **boat's** name.

The **boat's** builder and date when built, if known.

The name or names of the **owner/s** [the first named being the contact for administration purposes].

The weight of any corrector weights, if fitted.

Reference to any dispensations or special conditions that may have been applied to the **boat**.

The signature by or on behalf of the **committee**.

The date of issue.

B.4.5 A boat's **measurement certificate** shall remain valid until:

The **boat** is not available for inspection by a **divisional captain**, whatever the reason, for a period greater than one year.

or The **boat** has been the subject of a protest and found not to comply with the requirements of the **class rules**.

or The **boat** has been altered, repaired, or refitted in such a manner that its weight or measurement may have changed.

or The recorded corrector weights have been changed.

or The boat has been found out of compliance with the Class "Boat Check List" and corrections have not been made within the required time limit.

The means by which an owner can have a **measurement certificate** re-issued is covered by B.4.6.

- B.4.6 RE-ISSUE OF A MEASUREMENT CERTIFICATE
When a **measurement certificate** becomes invalid due to any of the reasons stated in B.4.5:
- a. The **divisional captain** shall:
 - (i) Inform the boat's **owner/s** that the **measurement certificate** will have to be re-issued before the **boat** can participate in X.O.D. races.
 - (ii) Report such action to the **secretary**.
 - b. Opportunity shall be given to the **owner** to rectify any deviations and the **divisional captain**, with the assistance of the division's technical representative, shall check that the boat conforms to the **class rules**.
When satisfied, the **divisional captain** shall inform the **secretary** who shall update the records and arrange for the **committee** to re-issue the revised **measurement certificate**.
 - c. If there is any question or doubt as to the boat conforming to the **class rules**, the matter shall be referred to the **committee**, who, with the advice of the **technical advisory committee**, may require the **boat**, or parts of the **boat**, to be re-measured by the **official measurer**.
 - d. In those cases where the measurement form indicates that the boat does not conform to the **class rules**, the **committee**, advised by the **technical advisory committee**, shall, whilst taking into account any past **committee** decisions relating to that **boat**, recommend what remedial action, if any, must be undertaken prior to the **measurement certificate** being re-issued.
- B.5 CHANGE OF OWNERSHIP OR BOAT NAME
- B.5.1 Change of ownership invalidates the **measurement certificate**, but re-measurement is not required. The new **owner/s** shall apply to the **XODCA** for a new **measurement certificate**, returning the old certificate together with any entrance or subscription fees that may be required. A new **measurement certificate** shall then be issued to the new **owner**.
- B.5.2 Change of the boat name invalidates the **measurement certificate**, but re-measurement is not required. The **owner/s** shall apply to the **XODCA** for a new **measurement certificate**, returning the old certificate together with details of the new name. A new **measurement certificate** shall then be issued to the **owner**.
- B.6 AMENDMENTS TO CLASS RULES
- B.6.1 Amendments to these **class rules** shall be made in accordance with the **constitution**, rule 7.
- B.6.2 The use of **sails** or the fitting of apparatus not shown in the official class drawings or permitted in these **class rules**, and not in the spirit of the objectives of the constitution, may result in the **committee** proposing rules for the prohibition of such sails or apparatus, [see **constitution** rule 2].
- B.7 DRAWINGS
- B.7.1 Copies of the official drawings are available to members on payment to the **secretary**, but may not be used for building an **XOD boat**, except with the permission of the **committee** under B.9.1.
- B.7.2 A list of the latest amendment numbers and issue dates may be obtained from the **secretary**, who will hold a master set of drawings which shall be signed and dated by the **chairman of the technical advisory committee** and counter signed by the **class captain**, [for the latest amendment numbers see Appendix A]
- B.8 REPAIRS AND ALTERATIONS
- B.8.1 GENERAL
When repairs or alterations to the **hull**, **spars** or **sails** are to be undertaken that could potentially involve a change in weight, a change in hull shape, performance, or may contravene the **class rules**, the **divisional captain** must be so advised by the owner and given the opportunity of overseeing the repair or alteration. He will, if he

thinks fit, instruct the owner to refer the overseeing of the repair or alteration to the **official measurer** who may request that the **measurement certificate** be withdrawn until the relevant parts have been re-measured and the **measurement certificate** has been re-issued by the **XODCA**.

B.8.2 SPECIFIC

Limitations regarding repairs or alterations to a specific part of the **hull, spars** or **sails** are covered in the relevant section.

B.9 NEW CONSTRUCTION

B.9.1 Any person may apply to the **XODCA** for permission to have an **X.O.D. boat** built. A condition of giving assent to an application is that the **committee** approves the chosen builder on whose selection it may advise. The intending owner will be informed of conditions relating to membership of the **XODCA** and any other conditions applying to the consent.

B.9.2 Having given consent and received the class building fee, the **committee** shall issue a licence to the builder to build one boat. He shall be advised of measurement procedures and any special conditions that apply.

B.9.3 A new **X.O.D. boat** may only be built at the yard of the builder licensed by the **XODCA** and shall be monitored by the **official measurer** who shall measure the **boat**, using the measurement form, and report his findings. This form shall be lodged in duplicate with the **secretary** who will arrange for the **committee** to issue a **measurement certificate**. In those cases where the measurement form indicates that the proposed **boat** does not fully conform to the **class rules**, the **committee** assisted by the **technical advisory committee**, may withhold the issuing of a **measurement certificate** until the **boat** has been rectified and re-measured, to the satisfaction of the **committee**.

B.9.4 A new boat shall only be allocated a sail number on the correct issuing of the final measurement certificate in accordance with Rules B.9 and B.4. Sail numbers to be issued in numerical sequence.

PART II - MEASUREMENT

SECTION C - CONDITIONS FOR RACING

The crew and the **boat** shall comply with the rules in this section before the preparatory signal and, when applicable, when racing.

C.1 IDENTIFICATION OF SAILS

C.1.1 Only **sails** that have been measured and are marked in accordance with G.1.4 shall be used for racing.

C.2 EQUIPMENT

C.2.1 MANDATORY

- a. One or more anchors (none to exceed 11kg [25lbs] each in weight) and not less than 18m [10 fathoms] of chain and/or warp. The combined weight of the anchors and chain must not be less than 7kg [15lbs] and not more than 23kg [50lbs].
- b. A sweep or an oar of a minimum length of 2438mm [8ft] and suitable crutch or rowlock, or as an alternative two paddles each with a minimum length of 1372mm [4ft 6ins].
- c. A bucket or bailer.
- d. A minimum of 2 hand held smokes.

C.2.2 OPTIONAL

- a. Electronic or mechanical timing devices.
- b. Adjustable mast chock/s may be fitted at deck level.
- c. Torches or navigation lights.

- d. Prescribed medical devices.
- e. Compasses that are reliant only upon the earth's magnetic forces.
- f. A light bamboo or cane not exceeding 19mm [³/₄in] in diameter and 1830mm [6ft] in length, or a lead line, may be used for sounding.
- g. A whisker pole for booming out the jib.
- h. A security line or lines attached at one end to the boat, below the level of the top of the cockpit coaming. These lines shall lead directly to the hand or hands and thereafter provide no means of support.
- i. Additional oars or paddles.
- j. Fitted Buoyancy bags.
- k. Tactick Micro Compass (T060) only or any model approved by the **Committee**.
- l. Fitted electric bilge pump of maximum flow of 4,500 litres/hour [approx 1,000 gallons/hour].
- m. A rescue quoit or throw bag with a least 15m of floating line.
- n. VHF radio.

C.2.3 LIMITATIONS

- a. Other than the equipment permitted in C.2.2 and C.2.3 no equipment shall be carried that utilises electrical power whether from batteries or otherwise.
- b. Telephones may be carried but only used in emergencies. Mobile telephones are permitted for receipt of text messages from the Race Committee during Cowes Week.
- c. No echo sounder may be installed.
- d. Other than the corrector weights required in D.7.3, inside ballast shall not be carried.
- e. The use of any apparatus, toestraps or contrivance inboard, outboard or extending inboard, outboard and attached to the hull, spars, rigging or crew, the purpose or effect of which is to support or assist in supporting a member of the crew outboard or partially outboard is prohibited. [This does not preclude the use of the security lines allowed in C.2.2 h.]

C.3 BUOYANCY

- C.3.1 Life-saving equipment shall be carried in accordance with the current RRS.

C.4 HULL

C.4.1 HULL WEIGHT

The weight of the **hull** is part of the overall weight, which includes **hull, mast, boom** and equipment [see D.7. Weight and Weighing].

C.4.2 HULL MARKINGS

The **hull/sail** number shall be cut in Roman numerals on the after face of the beam immediately forward of the **mast**. The year of building shall be engraved in Arabic numerals in the same place.

C.5 SPARS

C.5.1 MAST

- a. There is no restriction on the rake or position of the **mast** except that the centreline of the **mast** shall be placed between 1880mm [6ft 2in] and 2134mm [7ft] at deck level aft of the foremost part of the stemhead and the **mast** shall be placed on the centreline of the hull. The front edge of the deck mast slot shall prevent the mast going further forward than allowed above.
- b. The position of the heel of the **mast** shall be fixed whilst racing and no device, the purpose of which is to move the position of the heel of the **mast** whilst racing, shall be fitted.
- c. Upper and lower shroud lengths, or attachment points, shall not be altered during a race nor shall any device specifically designed to permit adjustment whilst racing, be fitted.
- d. Permitted methods of adjusting the upper and lower shrouds shall be locked and remain locked whilst racing.

C.5.2 MAIN SPAR

The gooseneck of the **boom** must either be fixed or, if it is able to slide, fitted with a permanent stop so that in either case the forward projection of the track on the **boom** is never below the top of the lower black band with the **boom** horizontal.

C.6 CREW

C.6.1 Not more than three persons may sit or position themselves on the side deck or coaming at any one time.

C.6.2 Professional crews may be used.

C.7 ADVERTISING

C.7.1 Unless permission has been granted by the **committee** *advertising* shall be limited to Category A as defined in the RRS Appendix G3.

C.8 SETTING OF SAILS

C.8.1 MAINSAIL

a. The highest visible point of the **sail**, projected at 90⁰ to the **mast** shall not be set above the lower edge of the upper black band. The leech, or its extension, shall not intersect the upper edge of the **boom** beyond the inner edge of the black band on the boom. **Luff** and **foot** sail slides shall be in or on sail tracks.

b. The cloth at the **luff** and **foot**, when normally set, must be clear of the tracking, i.e. bolt ropes running in luff grooves or similar devices are not permitted.

c. The mainsail may be reefed.

C.8.2 HEADSAIL

a. The headsail shall be set so that the sailcloth in the **foot** at the **tack** is at least 102mm [4ins] above the level of the deck covering at the stemhead.

b. Headsails may not be lowered or furled when the spinnaker is set during a race. If the headsail is lowered accidentally or lowered to free a fouled spinnaker, it must be set as soon as practicable and the onus of showing that this has been done will rest on the helmsperson concerned.

If the spinnaker halliard is lost up the mast immediately prior to or during a race then the jib halliard may be used to hoist the spinnaker and the jib together for that race.

C.9 MEMBERSHIP

C.9.1 In any race which is restricted to the X.O.D. class the helm or one crew member shall be a full or associate member of the **XODCA**.

C.9.2 In special events, and with the approval of the captain of the appropriate **division**, the helm and crew members need not be full or associate members of the **XODCA**.

C.10 POLISHING AND PAINTING

C.10.1 Polishing and painting of hull shell, deck and **hull appendages** is permitted.

C.11 ADDITIONAL RULES

C.11.1 LAUNCHING AND HAULING UP

a. Each racing season a boat may be launched at the **owner's** wish, thereafter she may not be out of the water for more than 50 hours in any consecutive 14 days, except in special circumstances and then only by leave of the **divisional captain**.

b. To be eligible to race at Cowes Week, a boat must have been launched prior to July 1st, except in special circumstances and then only by leave of the **divisional captain**.

c. Subject to C.11.1a. above, or to rules enforced by a **division** for racing within that **division**, a **boat's** bottom may be scrubbed as frequently as an **owner** desires.

C.11.2 CHARTERED OR LOANED BOATS

An X.O.D. **boat** on loan or charter may *race* only if the charter is in accordance with the relevant ISAF rules in force at the time.

C.11.3 MEASUREMENT CERTIFICATE

In order to participate in XOD *races* a boat shall possess a **valid measurement certificate**.

SECTION D - HULL

D.1 MEASUREMENT AND CERTIFICATION

- D.1.1 The **hull** shall comply with the **class rules** that were in force at the time of **fundamental measurement** unless specified otherwise in these **class rules**.
- D.1.2 Measurement shall be carried out in accordance with the ERS.
- D.1.3 Repairs and Alterations.
- Before a **hull** is altered or repaired refer to B.8.
 - Any alterations or repairs made to the **hulls** of existing boats must, whenever possible, be designed to bring them into line with the present **class rules**.
- D.1.4 It is recognised that the hulls of some of the **XOD boats** built prior to 1st January, 1964 do not comply precisely with the **class rules**. These minor variations are not considered to give such **boats** any unreasonable advantage in **rac**ing and **owners** are authorised to sign the declarations required by the ISAF notwithstanding such variations.

D.2 BUILDERS

- D.2.1 Builders will be licensed to build an XOD on a boat by boat basis, subject to their approval by the **committee** and their written acceptance of the terms of the license.
- D.2.2 The licensed builder shall, at his own expense, correct or replace any **hull** that does not comply with the **class rules** as a result of an omission or error by the builder, if the **hull** is submitted for **fundamental measurement** within twelve months of purchase.

D.3 HULL SHELL

D.3.1 MATERIALS

Materials for the **hull** shell shall be as specified in these **class rules** and in the latest issue of the official class drawings.

D.3.2 DIMENSIONS

- The shape of the **hull** is defined by the latest issue of the official class drawings and the official templates, unless specified otherwise by the **class rules**.
- For general information the overall design dimensions of the **hull** are as follows:

Length Overall (LOA)	6309mm	[20ft 8 ³ / ₈ in]
Design Waterline (DWL)	5213mm	[17ft 1 ¹ / ₄ in]
Max Breadth (inc. overlap of covering board)	1803mm	[5ft 11in]
Draught to DWL	914mm	[3ft 0in]
- All boats built since 1945 shall not exceed 6321mm [20ft 8 ⁷/₈in] in overall length or be less than 6296mm [20ft 7 ⁷/₈in]
- All boats built since 1945 shall have the respective template positions marked on the covering board, stem, wood keel, the horn timbers with small round-headed screws to enable the template positions to be quickly located.
- Divergence between **hull** and official templates must not exceed 10mm [³/₈in] at any point measured at right angles to the tangent to the surface of the hull.
- The width on deck at Stations 2, 4 and 6 and at the transom shall be within 6mm [¹/₄in] of the design dimensions.

D.3.3 PLANKING

- Pitch Pine, or Mahogany of approx. 560kg/M³ [35 lbs/ft³] density, 16mm [⁵/₈in] finished.
- Not less than 13 planks or more than 14 planks are to be used on each side.
- Planking to be in one length if possible and to be through fastened at each timber by two 10 gauge copper nails or alternatively if glued by two 1 inch by No.8 or larger stainless steel or bronze wood screws.
- The two planks nearest the keel may be laminated. The remainder shall be solid wood.
- Seams may be caulked with cotton and stopped. Wooden splines, close seams and filler are permitted.

D.3.4 SCREW FASTENING, GLUEING AND LAMINATING

- Wherever screws are used to fasten planking or hull fittings they shall be of bronze or stainless steel.
- All structural joints may be glued.

- c. Laminated construction may be used for any part of the hull and fittings except where solid wood is specified in these Rules. Special rules apply to spars.
- D.3.5 TRANSOM
English Elm or Mahogany 29mm [$1\frac{1}{8}$ in] thick, shaped to the official drawing and securely fastened to the stern frame.
- D.3.6 KEEL
English Elm or Iroko, sided and moulded to the 'table of offsets' in the official drawing.
- D.3.7 DEADWOOD
- The after deadwood shall be made from English Elm or Iroko.
 - A metal plate may be fitted to protect the underside of the deadwood. The plate must not project outside the profile of the deadwood and shall not weigh more than 3.4kg [$7\frac{1}{2}$ lbs].
 - The after end of the deadwood adjacent to the fore end of the rudder maybe faired to not less than 51mm [2in] wide.
- D.3.8 STEM
- Oak 76mm [3in] sided at head grown to shape with the forefoot piece well scarfed to the stem through fastened to the fore end of the keel.
 - An alternative construction using Oak, Iroko or Mahogany laminations may be used to make the stem and forefoot piece as one.
- D.3.9 STERN FRAME
- Pitch Pine or Mahogany 102mm [4in] sided and moulded to the 'table of offsets' in the official drawing.
- D.3.10 TIMBERS
- American Elm or English Oak 16mm x32mm [$\frac{5}{8}$ in x $1\frac{1}{4}$ in] spaced 152mm [6in] centres.
 - Where possible the timbers shall run from gunwale to gunwale.
- D.3.11 SHELF
- Pitch Pine or Douglas Fir 76mm x 32mm [3in x $1\frac{1}{4}$ in] through fastened to the timbers and planking.
- D.3.12 STRINGER
- Pitch Pine or Douglas Fir 63mm x 25mm [$2\frac{1}{2}$ in x 1in] through fastened to the timbers and planking, as shown on the Official Drawings.
- D.3.13 BEAMS
- Pine or Douglas Fir 63mm x 35mm [$2\frac{1}{2}$ in x $1\frac{3}{8}$ in] spaced as shown on the construction plans with ends dovetailed into the shelf and carlins.
 - Cockpit end beams 63mm x38mm [$2\frac{1}{2}$ in x $1\frac{1}{2}$ in].
 - Half beams in way of cockpit 51mm x 38mm [2in x $1\frac{1}{2}$ in].
- D.3.14 CARLINS
- Pine or Douglas Fir 28mm x 28mm [$1\frac{1}{8}$ in x $1\frac{1}{8}$ in] dovetailed into beams at ends.
- D.3.15 FLOORS
- Oak, Iroko or Mahogany, five in number, moulded and sided as on the official drawing.
 - The arms shall run up to the turn of the bilge.
 - Floors shall be through fastened on to the keel and planking.
 - Boats may be stiffened around the mast step by extra floors; these must not exceed the following dimensions:
 Siding of extra floors in bow.....32mm [$1\frac{1}{4}$ in]
 Moulding at throat.....76mm [3in]
 Moulding at points.....38mm [$1\frac{1}{2}$ in]
 Length of arms from centre line.....457mm [18in] Max.
- D.3.16 KNEES
- Oak, fitted where shown on the official drawings.

D.3.17 HEIGHT OF MAST STEP

- a. No part of the mast step shall be at a height that is more than 250mm above the level top of the keelson (measured vertically). The top measurement will be taken at the highest point of the mast slot.

D.4. DECK

D.4.1 MATERIALS

Pine of approx 515kg/cu metre [32lbs/cu ft] density, 16mm [$\frac{5}{8}$ in] thick.

D.4.2 DIMENSIONS

Dimensions of the deck shall conform to the latest issue of the official class drawings, unless specified otherwise in the **class rules**.

D.4.3 DECK COVERING

The deck shall be covered with canvas or plastic material.

D.4.4 COVERING BOARD

A Teak or Mahogany covering board 57mm x 19mm [$2\frac{1}{4}$ in x $\frac{3}{4}$ in] thick, to project 10mm [$\frac{3}{8}$ in] shall be fitted.

D.4.5 COAMINGS

- a. Teak or Mahogany 16mm [$\frac{5}{8}$ in] thick (tolerance + or - 1.5mm [$\frac{1}{16}$ in]) fastened to the carlins. A wooden, plastic or metal protective strip may be fitted to form the upper edge of the coaming.
- b. The coamings shall be to the shape shown on the Official Drawings. The minimum height of the coaming (including the protective strip) above the surface of the deck shall be:

Fore end of coamings	146mm [$5\frac{3}{4}$ in]
Station 3 (approx 2057mm [6ft 9ins] from aft end of cockpit)	84mm [$3\frac{1}{4}$ in]
Station 4 (approx 1220mm [4ft] from aft end of cockpit)	76mm [3ins]
Aft end coaming	70mm [$2\frac{3}{4}$ ins]
- c. A teak or mahogany beading is to be worked along the angle between the coaming and the deck.

D.4.6 HOLES

No open holes are permitted in the deck or kingboards or covering boards except that, within 76mm [3in] of the fore and aft centreline of the deck, suitably sized through deck fittings may be fitted for the operation of control lines of up to 8mm maximum diameter: a tack downhaul line, a spinnaker boom downhaul line, a mainsheet traveller adjusting line, a backstay tensioner line.

D.5 INTERNAL STRUCTURE

D.5.1 BULKHEADS

- a. A rear bulkhead, constructed of solid teak or mahogany or veneered marine plywood 16mm ($\frac{5}{8}$ in) thick, shall be fitted as shown on the official drawings.
- b. The locker space under the quarter deck shall be accessible from the cockpit through a hatchway in the rear bulkhead.
- c. The hatchway in the rear bulkhead shall not exceed more than 250mm from the centre line of the boat.
- d. The hatchway in the rear bulkhead may be fitted with an optional cover.

D.5.2 SEATS

- a. The cockpit shall be fitted with side seats and/or cross benches of a usable seating area of at least 0.743m² [8sq. ft] in total.
- b. The seats must be of wood and may be slatted or of solid planking.
- c. Any thwart included in the overall weight of the boat must be permanently fixed in place.

D.5.3 PLATFORM

- a. The platform shall be either 16mm [$\frac{5}{8}$ in] to 20mm [$\frac{3}{4}$ in] timber (solid slatted or grating) or solid 12mm [$\frac{1}{2}$ in] to 16mm [$\frac{5}{8}$ in] marine plywood and shall cover the whole area on top of the platform bearers.
- b. The overall length of the platform shall be not less than 2286mm [7ft 6in] forward of the after locker bulkhead, and the width shall extend to within 38mm [$1\frac{1}{2}$ in] of the side

- planking.
- c. At least one section of the platform shall be made removable to give access to the bilges.
- d. Gaps between slats or in any grating area shall not exceed 25mm [1in] width.

D.5.4 PLATFORM BEARERS

- a. The platform shall rest on bearers 64mm x 38mm [2 ½ in x 1 ½ in] spaced as shown on the official drawing.
- b. The top of the bearers shall not be less than 190mm [7 ½ in] above the keelson.

D.5.5 MAINSHEET POST (optional)

If a mainsheet post is fitted, the following provisions shall apply:

- a. The mainsheet post must be of wood and must be attached by bolts or brackets to one of the floors and/or a platform bearer.
- b. The maximum cross section of the mainsheet post shall be 102mm x 102mm [4in x 4in].
- c. No mainsheet post shall project above the level of the top of the sheer strake.

D.6 COMPLETE HULL

D.6.1 FITTINGS

- a. Fittings must include a chain fairlead fitted on or close to the stem head and a teak or oak samson post and may include rowlock chocks and sockets.
- b. Fittings shall not be made of titanium.
- c. A kicking strap of any design may be fitted subject to it complying with F.2.3i.
- d. It is permitted to fit a device to transmit loads from the shrouds directly between the foot of the mast and the deck beam or shelf. The device shall consist of wire rope not less than 4mm in diameter attached to the highest practicable point on the structure adjacent to the forward chainplate, and attached to the foot of the mast step at the **owners** discretion. The device shall be tensioned by means of a bottle screw attached to the wire rope.
- e. Any new stemhead fitting, fitted since 1976, shall have a plate running for at least 152mm [6in] down the foreside of the stemhead and shall have integral attachment points for the forestay and headsail tack not more than 152mm [5in] from the front face of the fitting.
- f. Pre 1976 stemhead fittings are permitted provided the extension downwards of the line of the forestay intersects with the level of the deck at a point forward of the aft face of the stem.
- g. The headsail tack attachment for all fittings shall be such that, using a standard shackle or pin, the cloth of the headsail when set is not less than 102mm [4in] above the deck.
- h. A minimum of one and a maximum of three manually operated bilge pumps, with a combined weight of not more than 6kg [13.5lbs], shall be fitted. The weight of the suction and discharge piping shall not exceed 1kg per metre. The discharge overboard must be above the waterline. One sump not exceeding 19mm [³/₄in] in depth and 161.3 sq.cm. [25sq.in] in area may be formed in the keelson to accommodate a pump suction.
- i. Suction bailers are not permitted.
- j. Mastjacks, sheet and halyard winches, and any tensioning devices other than bottle screw lanyards, tackles, muscle boxes or levers are not permitted.
- k. If buoyancy bags are fitted they shall have a minimum total capacity of 650kg [1433lbs].
- l. Where fitted, an electric bilge pump shall be fit for purpose and weigh no more than 4kg excluding battery. The pump battery shall not be included when the boat is weighed, under Rule C.4.1 and Rule D.7. The pipe, discharge and sump details in Rule D.6.1.h. shall apply.

- D.6.2 For all parts of the hull and appendages, but not for spars, alternative timbers to those specified in the rules may be allowed where supply is difficult or unreasonably expensive provided they are of a similar density and appearance to the timber specified. Such alternatives will be authorised in writing by the committee for a specific boat.

D.7 WEIGHT AND WEIGHING

D.7.1 WEIGHT

- a. **Boats** must conform to a minimum weight of 1304kg [2875 lbs].
- b. At the time of weighing there is to be no portable equipment aboard and the bilges are to be sponged dry. The following shall be on board:

- i) **Mast** and **boom** together with all standing and running **rigging**.
 - ii) Fixed thwarts and seats and all floor boards.
 - iii) Fitted bilge pumps.
 - iv) Any fitted buoyancy bags.
 - c. In order to allow for the initial absorption of water, weighing may be delayed at least 4 weeks after first launching at the start of the season.
 - d. Any material or fitting not completely defined by these **class rules**, and drawings, is to be no heavier than is reasonably necessary to fulfil its purpose in the judgement of the **Official measurer**.
 - D.7.2 WEIGHING EQUIPMENT
 - a. **Boats** shall be weighed using the Class measuring link or a suitable measuring link that has been calibrated against the Class measuring link within the last 12 months by the **Official measurer**.
 - b. In the event of any discrepancy, the official measuring link shall prevail.
 - D.7.3 COMPENSATING WEIGHTS
 - a. When a **boat** is found to be below the minimum weight, compensating weights shall be added to bring the boat up to the correct weight as detailed in D.7.3.b and c.
 - b. Up to the first 27.2kg [60lbs], four slabs of lead of equal weight shall be permanently fitted to the inside of the planking in the following positions:
 - (i) Forward - one slab on each side fitted between the seventh and eighth timbers from the bow, as shown on the official drawing, and with the middle of the slab 559mm [22in] below the deck at side, measured around the planking.
 - (ii) Aft - one slab on each side fitted between the timbers next aft of the rudder trunk at the stern frame and with the middle 406mm [16in] below the deck at side, measured around the planking.
 - c. For weight in addition to the first 27.2kg [60lbs], two slabs of lead of equal weight shall be permanently fitted to the inside of the planking approximately amidships, one on each side with the centre of gravity of the slab 457mm [18ins] below the side deck, measured around the planking.
 - d. For weight in addition to the first 54.4kg [120lbs] six slabs of equal weight shall be permanently fitted closely adjacent to the six slabs fitted in accordance with subparagraphs (b) and (c) above.
 - D.8 ADDITIONAL RULES
 - D.8.1 SHEATHING

The sheathing of the **hull** is prohibited (inclusive of Nylon, Glass Fibre, Kevlar, Copper or other similar substances).
-

SECTION E - HULL APPENDAGES

- E.1 MEASUREMENT AND CERTIFICATION
 - E.1.1 The **hull appendages** shall comply with the **class rules** in force at the time of **fundamental measurement** unless specified otherwise in these **class rules**.
 - E.1.2 Measurement shall be carried out in accordance with the ERS except where varied herein.
 - E.1.3 Repairs and Alterations.
 - a. Before a **hull appendage** is altered or repaired refer to B.8.
- E.2 MANUFACTURERS
 - E.2.1 Manufacturers shall be approved by the **XODCA**. This restriction does not apply to replacement rudders.
 - E.2.2 The approved manufacturer shall, at his own expense, correct or replace any **hull appendage** that does not comply with the **class rules** as a result of an omission or error by the manufacturer, if the appendage is submitted for **fundamental measurement** within twelve months of purchase.

- E.3 IRON KEEL
- E.3.1 MATERIALS
Cast iron.
- E.3.2 FITTINGS
The keel shall be secured, at the stations shown on the construction drawing, by 5 x 22mm [$\frac{7}{8}$ in] diameter wrought iron, galvanised mild steel or marine grade stainless steel bolts.
- E.3.3 DIMENSIONS
- The **keel** shall be cast at an approved foundry from the mould pattern owned by the Association.
 - The mould pattern shall conform to the official class drawings.
- E.3.4 WEIGHT
- A **keel** shall weigh not less than 635kg [12.5cwts] nor more than 660kg [13cwts] including the keel bolts, nuts and washers.
 - The weight of the **keel** and attachments shall be checked by the **official measurer**.
 - The weight of the **keel** may be adjusted within the above limits by the addition of heavier density materials positioned subject to the prior approval and direction of the **official measurer**, and subject to the **committee** re-issuing the **measurement certificate** on completion.
- E.3.5 INFILL
The **keel** shall be finished off at ends with pieces of English elm or iroko to the required shape.
- E.4 RUDDER
- E.4.1 MATERIALS
Rudder to be of English elm, mahogany or marine plywood.
- E.4.2 FITTINGS
- The **rudder** arms may be wholly countersunk or faired by the use of wood, paint or cement. Either a hinge strap 51mm x 5mm [2in x $\frac{3}{16}$ in] thick shall be fitted to hold the rudder, or the foot of the **rudder** shall be secured with a pintle attached to the deadwood.
 - If a pintle is fitted, the profile of the pintle fitting shall fall within the outline of the deadwood as shown on the Lines Plan.
- E.4.3 DIMENSIONS
- The **rudder** shall be moulded to the Lines Plan and sided 38mm [1 $\frac{1}{2}$ in] at fore edge tapered to 22mm [$\frac{7}{8}$ in] at 51mm [2 in] from the after edge.
 - The after edge may be fairly tapered from 22mm [$\frac{7}{8}$ in] to nothing in the manner shown in the Class drawing, that is for a width of up to 51mm [2 in] wide between points B and C in the drawing, outside points B and C the limit of the fairing shall be evenly reduced in width to nil as indicated.
- E.5 RUDDER STOCK AND TRUNK
- E.5.1 MATERIALS
- The stock shall be of solid construction, manufactured from stainless steel or galvanised iron and be split below the trunk to receive the **rudder**.
 - The stock shall work in a stainless steel or galvanised iron tube trunk.
- E.5.2 FITTINGS
The trunk shall be fastened at its lower end to the horn timber and at the top with a flange fastened to a teak or mahogany chock fitted on deck.
- E.5.3 DIMENSIONS
- Rudder stock - 25mm(1 inch) diameter.
 - Rudder tube - 35mm ($1\frac{3}{8}$ inch) outside diameter

- E.6 TILLER
 - E.6.1 MATERIALS
 - a. The tiller shall be of wood.
 - E.6.2 FITTINGS
 - Optional
 - E.6.3 DIMENSIONS
 - Optional
-

SECTION F - RIG

- F.1 MEASUREMENT AND CERTIFICATION
 - F.1.1 The **rig** shall comply with the **class rules** in force at the time of **fundamental measurement** unless specified otherwise in these **class rules**.
 - F.1.2 Measurement shall be carried out in accordance with the ERS except where varied herein.
 - F.1.3 Repairs and Alterations:
 - a. Before a **spar** is altered or repaired refer to B.8.
 - b. Broken **spars** may be repaired by scarfing. [see F.2.2].
 - c. Where a **mast spar** becomes distorted in use, it may be repaired by gluing up the centre of the **spar** a layer of wood, similar to the remainder of the **spar**. The overall repair must not be more than 20mm in thickness.
 - d. Any alterations or repairs to a **mast** that was made before 1st January, 1964 must be designed to bring the **mast**, wherever possible, into line with the shape and dimensions shown on the official class drawings and current **class rules**.
- F.2 MAST
 - F.2.1 MANUFACTURER
 - The manufacturer is optional.
 - F.2.2 MATERIALS
 - a. The **mast spar** must be made of fir or spruce.
 - b. The **mast spar** must not be hollow.
 - c. Between 76mm [3in] above the lower black band to the top of the **mast spar** may be made from up to six pieces of such wood glued together by scarfs each with a slope of not longer than 1 : 24.
 - d. Not more than two pieces to be in any cross section except in way of scarfs.
 - e. Lengths of wood not exceeding 300mm used to correct minor defects, and graving pieces fitted in the way of bolts through the **mast spar** for the attachment of upper and lower shrouds, shall be excluded from the above limitations.
 - f. There is no restriction on the number of pieces of wood making up the **mast spar** below 76mm [3 in] above the lower black band.
 - F.2.3 FITTINGS
 - a. The **mast spar** shall be dressed accordingly to the official class drawing.
 - b. A portion of the **mast** up to 1016mm [40 in] above the lower black band may be covered with a protective material in clear contrast to the bands.
 - c. The Jumper struts, length 381mm [1ft. 3in] must be set at an angle of 100 degrees, the limits of tolerance being plus or minus 10 degrees and plus 0 or minus 6mm [$\frac{1}{4}$ in] on length.
 - d. The **spreaders** shall be of wood or metal 610mm [2ft.] long plus 0 or minus 6mm [$\frac{1}{4}$ in] and fitted between 2642mm [8ft. 8in] and 3251mm [10ft. 8in] above the upper edge of the lower black band.
 - e. The spinnaker boom attachment on the **mast** may be an eye, a swivel pin, or a cup; these may be on a slide attached to the mast.
 - f. The spinnaker boom attachment shall not extend the spinnaker boom more than 2032mm [6ft. 8in] from the face of the mast.

- g. A crane fitting at the **mast** head to carry the backstay clear of the mainsail roach is optional.
- h. The spinnaker halyard block shall be positioned not more than 102mm [4 in] above the intersection of the forestay on the foremost of the **mast spar** and shall be secured either on to a hole in the forestay tang, or to a fitting on the **mast spar**, at a point not more than 102mm [4 in] forward of the foreside of the **mast spar**.
- j. Sail tracks, which run throughout the length of the **mast spar** between the top black band to within 914mm [3ft] of the bottom black band, shall be fitted.

F.2.4 DIMENSIONS

- a. The **mast** must comply with the shape and dimensions shown on the official class drawings and these **class rules**.
- b. The forestay intersection shall be the point at which an extension of the forestay intersects the front of the **mast spar**; for the purpose of measurement it may be assumed that the forestay meets the mast at 20 degrees.
- c. Tolerances [except as stated otherwise] shall be:

Length measurements	plus 0	minus 6mm [¹ / ₄ in]
Sections [exclude allowed protection material]	plus 3mm [¹ / ₈ in]	minus 0
- d. **Mast** dimensions:

	<u>Minimum</u>	<u>Maximum</u>
Upper edge of lower band to:		
forestay intersection	No min.	5105mm [16ft 9in]
lower edge of upper band	7233mm [23ft 8 ³ / ₄ in]	7239mm [23ft 9in]
centre of spinnaker boom attachment	No min.	508mm [1ft 8in]
the level of the top of the wooden keelson [measured vertically]	1372mm [4ft 6in]	1422mm [4ft 8in]
Lower edge of upper band to:		
centre of sheave pin	375mm [1ft 2 ³ / ₄ in]	381mm [1ft 3in]
Mast section at:		
diameter at sheave pin	51mm [2in]	54mm [2 ¹ / ₈ in]
diameter at forestay intersection	76mm [3in]	79mm [3 ¹ / ₈ in]
underside of deck to		
76 mm [3in] above } lower band }	89mm diameter [3 ¹ / ₂ in diameter]	92mm x 92mm [3 ⁵ / ₈ in x 3 ⁵ / ₈ in]
Width of black bands	51mm [2in]	No max
Heel (excluding tongue)	76mm x 51mm [3inx2in]	89mm x 89mm [3 1/2 x 3 1/2in]
- e. Reducing or scalloping the mast below a straight line drawn between the minimum cross sections at the measurement points is not allowed.
- f. Masts shall conform to a **tip weight** of not less than 11.8kg [26 lbs] including correctors permanently attached to the mast and /or fittings. [see Appendix B].

F.2.5 FINISH

- a. Black bands shall be painted on the **mast spar** in accordance with measurements given in F.2.4.
- b. **Mast spars** shall be clear finished, and not coloured in any way other than the black bands.
- c. A portion of the mast up to 1016mm [40in] above the lower black band may be covered with a protective material in clear contrast to the bands.
- d. Additional glass cloth protection, the total sum of the length or lengths not to exceed 500mm (19 3/4 ins), and may be fitted anywhere up the mast to avoid chafe.

F.3 BOOM

F.3.1 MANUFACTURER

Manufacturer is optional.

F.3.2 MATERIALS

- a. The **Boom spar** shall be made of solid construction using fir or spruce.
- b. The **Boom spar** shall be made up of two pieces of wood glued together with the

- grain reversed to form a circular section except for a flat to receive the sail track.
- c. As an alternative the **boom spar** shall be made of up to three pieces of wood glued together to form a rectangular section.
 - d. The two lower corners of the **boom** may be protected against chafe by the spinnaker sheets. Any material may be used but not in a continuous length longer than 610mm (24 ins).

F.3.3 FITTINGS

- a. The **boom** shall be fitted with a sail track.
- b. Tackles to adjust the tension to the luff and foot, and position the tack may be fitted.

F.3.4 DIMENSIONS

- a. The **boom spar** shall be constructed straight. Length measurements shall be taken from the aft face of the **mast spar**, measured at the lower black band and excluding mast fittings. During measurement the **boom** shall be horizontal.

b.	<u>minimum</u>	<u>maximum</u>
Aft face of mast to:		
inner face of black band	No min.	3480mm [11ft 5in]
outer end of boom [inc. fittings]	3626mm [11ft 10 ³ / ₄ in]	3658mm [12ft]
outer end of gooseneck fitting	No min.	914mm [3ft]
Sail track:		
inner end of aft face of mast	No min.	305mm [1ft]
outer end to black band	No min.	152mm [6ins]
Circular boom spar cross section:		
diameter	70mm [2 ³ / ₄ in]	73mm [2 ⁷ / ₈ in]
Rectangular boom spar cross section:		
Depth	76mm [3in]	79mm [3 ¹ / ₈ in]
Width	54mm [2 ¹ / ₈ in]	57mm [2 ¹ / ₄ in]
Corner radii	6mm [1 ¹ / ₄ in]	10mm [3 ³ / ₈ in]
Width of black band	51mm [2in]	No max.

- c. **Booms** made before 1st January 1976 may be altered to conform with F.3.2 and F.3.4, or may remain unaltered providing that their sectional measurements are not less at any point than those specified in F.3.4.
- d. At the owner's option, two battens 2210mm [7ft 3in] long x 19mm [³/₄ in] wide x 10mm [³/₈ in] deep at the sides tapering to not less than 3mm [¹/₈ in] at the inner end may be fitted to the outer end of circular booms at 120 degrees and 240 degrees to the diameter through the centre of the flat portion of the **boom spar**.
- e. The flat to receive the sail track shall not reduce the diameter at the centre of the circular **boom spar** by more than 3mm [¹/₈ in].

F.3.5 FINISH

The **Boom spar** shall be clear finished and not coloured in any way other than that a black band shall be painted on the **boom spar**.

F.4 SPINNAKER POLE

F.4.1 MANUFACTURER

The manufacturer is optional.

F.4.2 MATERIALS

Materials are optional.

F.4.3 FITTINGS

Fittings are optional.

F.4.4 DIMENSIONS

Spinnaker pole length [including fittings]	<u>minimum</u>	<u>maximum</u>
	No min.	1981mm [6ft 6in]

- F.5 WHISKER POLE
- F.5.1 The manufacturer, materials and dimensions are optional.
- F.6 STANDING RIGGING
- F.6.1 MANUFACTURER
The manufacturer is optional.
- F.6.2 MATERIALS
- a. Standing rigging shall consist of galvanised plough steel wire, or stainless steel wire, or stainless steel rod.
- b. The forestay shall be bare stranded wire or solid rod and shall not be covered by a fairing of any kind.
- F.6.3 FITTINGS
- a. Shrouds shall be secured with lanyards or rigging screws or simple stay adjuster plates.
(i) Lanyards shall be no longer than 300mm [12in] from the lower end of the shroud to the chainplate.
(ii) The lower ends of the upper and lower shrouds on each side of the mast, shall be secured at points not less than 254mm [10in] apart in a direction approximately fore and aft.
- b. The lower end of the backstay shall be attached, by means of a bottle screw or a lanyard or an adjustable tackle, to a plate on the transom. Alternatively the backstay may be led through a block attached to the transom.
- F.6.4 DIMENSIONS
The diameter of steel wire or rod rigging shall not be less than 4mm for the upper and lower shrouds and 3mm for the jumper, fore and back stays.
- F.7 RUNNING RIGGING
- F.7.1 The manufacturer, materials and dimensions are optional unless stated otherwise by these **class rules**.
- F.7.2 If a downhaul is attached to the tack of the jib then a stop, such as a Talurit, shall be fitted to maintain the clearance required by C.8.2.
- F.7.3 The main sheet system is optional provided that:-
- a. The mainsheet shall run through a block or blocks attached within 75mm (3 ins) of the outer end of the boom and through a block or blocks which may be fixed or moveable on the deck aft of the rudder stock.
- b. When the main sheet is led through a block or blocks attached to the boom and down into the cockpit any mainsheet block or blocks in the cockpit shall be attached to a single fixed point amidships.
- c. The hauling part of the mainsheet shall not be secured in any way other than by a quick release jamming cleat or block.

SECTION G - SAILS

- G.1 MEASUREMENT AND CERTIFICATION
- G.1.1 Sails shall comply with the **class rules** currently in force.
- G.1.2 Measurement shall be carried out in accordance with the ERS except where varied herein.
- G.1.3 Repairs and Alterations:
- a. Before the sail is altered or repaired refer to B.8.
- G.1.4 **Sails** shall carry the official **certification mark** near the **tack point**. The mark shall be signed and dated by the **official measurer**, the **divisional captain** or their appointed representatives.

- G.1.5 If a **sail** is re-measured, the **official measurer** shall attach a new official **certification mark** showing the new date of **fundamental measurement**.
- G.1.6 The weight in g/m² of the **body of the sail** shall be indelibly marked near the **head point** by the sail maker together with the serial number, date and his signature.
- G.1.7 The class insignia, and the **sail** numbers, as issued by the **XODCA**, shall comply with the RRS except where prescribed otherwise in these **class rules**.

G.2 SAILMAKERS

- G.2.1 The sail maker is optional.

G.3 MAINSAIL

G.3.1 CONSTRUCTION

- a. The construction shall be: **Soft sail, single ply sail**.
- b. The **body of the sail** shall consist of one, or more, of the materials on the list at Appendix E.
- c. **Sail Reinforcement** shall consist of the same materials permitted in the **body of the sail**.
- d. The **sail** shall have 3 **batten pockets** in the **leech**.
- e. A **window** or **windows**, if fitted, shall be covered by transparent **ply**.
- f. The highest point of the headboard shall be adjacent to the **luff** of the **sail**.
- g. Cross measurement points shall be taken from the **head point** at the **luff** down the **luff** and **leech** in a straight line.
- h. Loose footed mainsails are prohibited.
- i. Mainsails shall be fitted with **sail** slides attached to the **luff** and **foot** and set in or on tracks. A maximum of 25 slides shall be fitted to the **luff**, each being joined to the sail by an attachment not measuring more than 25mm [1in] along the **luff**.

G.3.2 DIMENSIONS

	<u>Minimum</u>		<u>Maximum</u>	
Luff length	7010mm	[23ft]	7240mm	[23ft 9in]
Leech length	7390mm	[24ft 3in]	7620mm	[25ft]
Distance of clew from the aft side of the mast spar with foot fully extended	3325mm	[10ft 11in]	3480mm	[11ft 5in]
Cross width at 610mm [2ft] [see G.3.1g]	No min.		460mm	[18in]
Cross width at 2438mm [8ft] [see G.3.1g]	1345mm	[4ft 5in]	1475mm	[4ft 10in]
Cross width at 4880mm [16ft] [see G.3.1g]	2435mm	[8ft]	2590mm	[8ft 6in]
Top width inc. headboard	No min.		130mm	[5in]
Top batten	No min.		610mm	[24in]
Lower batten	610mm	[24in]	915mm	[36in]
Centreline of top batten at the leech measured } to the Head-point }	1830mm	[6ft]	No max.	
Sail slide spacing	No min.		610mm	[2ft]
Windows - total area	No min		0.5m ²	[approx 5ft ²]
Distance of window to luff, leech or foot	150mm	[6in]	No max.	
Sail numbers & class insignia				
Height	375mm		No max.	
Width	50mm		No max.	
Ply weight of the body } of the sail }	7 ¹ / ₄ oz/yd ²	[UK]	No max.	
or	5.73oz/yd	[US]	No max.	

G.3.3 IDENTIFICATION

- a. **Sail** numbers and class insignia shall be fixed to each side of the **sail**.
- b. The class insignia shall conform with the requirements as detailed in the diagram contained in Appendix C.

G.4 HEADSAIL

G.4.1 CONSTRUCTION

- a. The construction shall be: **Soft sail, single ply sail.**
- b. The **body of the sail** shall consist of one, or more, of the materials on the list at Appendix E.
- c. **Sail reinforcement** shall consist of the same materials permitted in the **body of the sail.**
- d. The headsail may have 2 **batten pockets** in the **leech.**
- e. A **window** or **windows**, if fitted, shall be covered by transparent **ply.**
- f. The shape of the **leech** shall not be convex.
- g. The shape of the **foot** shall be a continuous convex curve.

G.4.2 DIMENSIONS

Leech length and foot median measurement point above the **tack point** = 4880mm [16ft].

	<u>Minimum</u>		<u>Maximum</u>	
Luff length	4825mm	[15ft 10in]	4880mm	[16ft]
Leech length				
[from the measurement point]	4370mm	[14ft 4in]	4420mm	[14ft 6in]
Foot length	2235mm	[7ft 4in]	2285mm	[7ft 6in]
Foot median				
[from the measurement point]	No min.		4610mm	[15ft 1½in]
Foot roach	No min.		75mm	[3in]
Top width	No min.		25mm	[1in]
Windows total area	No min.		0.5m ²	[approx 5ft ²]
Distance of window to				
luff, leech or foot	150mm	[6in]	No max.	
Batten length	No min.		305mm	[12in]
Batten width	No min.		51mm	[2in]
Centre of batten to head point	915mm	[3ft]	No max.	
Centre of batten to clew point	915mm	[3ft]	No max.	
Ply weight of the body of the cloth	} 7¼oz/yd ² 5.73oz/yd	[UK]	No max.	
		[US]	No max.	

G.5 SPINNAKERS

G.5.1 CONSTRUCTION

- a. The construction shall be: **Soft sail, single ply sail.**
- b. The **body of the sail** shall consist of one, or more, of the materials on the list at Appendix E.
- c. **Sail reinforcement** shall consist of any of the materials on the list at Appendix E.
- d. The **sail** shall be symmetrical about a line joining the **head** to the **mid foot point.**
- e. When measuring the leech length, the **foot length** and the foot median a tension of approximately 2.2kg [5 lbs] shall be applied.
- f. Means of adjusting the **leech** tensions are prohibited.

G.5.2 DIMENSIONS

The upper measurement point is at the intersection of the centreline of the sail and the line through the highest point of the sail at 90° to the centreline.

	<u>Minimum</u>		<u>Maximum</u>	
Leech lengths				
[from the measurement point]	4800mm	[15ft 9in]	4880mm	[16ft]
Foot median				
[from the measurement point]	No min.		5410mm	[17ft 9in]
Foot length	2970mm	[9ft 9in]	3050mm	[10ft]
¾ Width	1295mm	[4ft 3in]	1375mm	[4ft 6in]

½ Width	2210mm	[7ft 3in]	2285mm	[7ft 6in]
¼ Width	2770mm	[9ft 1in]	2845mm	[9ft 4in]
Headboard	No min		111mm	[4½in]
Ply weight of the body of the sail	1.0oz/yd ²	[UK]	No max.	
	0.75oz/yd	[US]	No max.	
Cloth width	No min.		1070mm	[42in]
Sail numbers				
Height	375mm		No max.	
Width	50mm		No max.	

G.5.3 IDENTIFICATION

Sail numbers shall be fixed on each side of the **sail**.

PART III - APPENDICES

APPENDIX A

OFFICIAL CLASS DRAWINGS

	Drawn / Re-issued	Amendment / Date
Lines Plan, Table of offsets and Rudder dimensions	2001	1 - 19/1/01
Construction Plan		
Iron Keel Mould Plan	1998	0 - 1/4/98
Mast plan	2000	1 - 28/2/00
Sail plan	1998	0 - 1/4/98

OFFICIAL TEMPLATES

Station Templates
Transom Template
Stern Profile Template
Stem Profile Template
Keel mould

DRAWING INTERPRETATION

“ Maintaining the Shape of Pre 1964 Hulls”

Rule D.1.4 allows for hulls built prior to 1964 which do not comply precisely with the Class Drawings. This dispensation applies to the shape of the wooden hull as it was built even where this shape departs from the Class templates. It is not permitted to add material to change the shape of the hull, even if this may locally bring the shape closer to the templates, as selective change to the hull shape still within the templates could produce an unreasonable advantage in racing. Fairing of the hull is allowed providing the thickness is not significant (say 6mm or ¼in) and there is no filler applied to the front of the stem, the bottom edge of the transom or in such a way as to extend the length of the waterline. A pre 1964 hull may forego this dispensation and opt to be measured against Class Lines Plan in all respects. This to be annotated on the boats measurement Certificate.

APPENDIX B

DEFINITIONS

TIP WEIGHT

The **mast** is to be fully rigged with all rigging in the sailing position except that the rigging may be supported separately from the **mast spar** below the level of the lower band. The **mast** itself should be supported in line with the upper edge of the lower band and the tip weight should be measured at the lower edge of the upper band. Note: The Tinley kicker arm must be removed, if present.

APPENDIX C

CLASS INSIGNIA



The class insignia shall be an 'X' as shown.

Type face: Helvetica / Arial
or similar.

APPENDIX D

LIST OF PRACTICING BOAT BUILDERS WITH EXPERIENCE OF BUILDING AND RESTORING XODs - [subject to D.2.2.]

Clare Lallow	3 Medina Road, Cowes, Isle of Wight. PO31 7BU	01983 292112
David Heritage Racing Yachts	Unit 117A Medina Village, Thetis Road, Cowes, Isle of Wight. PO31 7DJ	01983 280065
A.A. Coombes	Embankment Road, Bembridge, Isle of Wight. PO35 5NR	01983 872296
Haines Boatyard	Itchenor, Chichester, West Sussex. PO20 7AN	01243 512228
J. Perry	6 French Street, Old Portsmouth, Hants. PO1 2JS	02392 738433
Maples	33 Satchell Lane, Hamble, Southampton, Hants. SO31 4HF	02380 455661
Jeremy Rogers Ltd	Lymington Yacht Haven, Kings Saltern Road, Lymington, Hants. SO41 3QD	01590 645454
John Claridge Composites Ltd	Sadlers Farm Workshops, Lower Pennington Lane, Lymington, Hants. SO41 8AL	01590 674821
Stephen Etheridge Yacht Construction	9 Manor Road, Milford-on-Sea, Lymington, Hants. SO41 0RG	01590 683597
Synergy Yacht Components	Unit 4, Setley Ridge Vineyard, Lymington Road, Brockenhurst, Hants. SO42 7UF	07855 265490
Traditional Shipwright Services Ltd	Westons Point Boatyard, Turks Lane, Sandbanks Rd, Poole, Dorset BH14 8EW	01202 748029
Harold Hayles	The Quay, Yarmouth, Isle of Wight. PO41 0RS	01983 760373
Yarmouth Marine Services	River Yar Boatyard, Gas Works Lane, Yarmouth, Isle of Wight. PO41 0SE	01983 760521

APPENDIX E

SAIL MATERIALS

	Contender	Dimension -Polyant	Bainbridge	Challenge
Main and Jib	Polykote 5.52 Polykote 6.50 RS 5.5 RS 6.0 Supercruise 6.5	240 AP 253 Square 265 Square	Ocean 655 Ocean Premium Plus 653	Marblehead 5.77
Spinnaker	Superkote 60 Superkote 75 Dynakote 75	32 CHS 32 SCN	Airx 600 Airx 700	

Minimum weight specifications apply throughout