

THE NATIONAL ILLUSION CLASS - BEMBRIDGE FLEET

CONSTITUTION

1. TITLE

The full title of the Association shall be the National Illusion Class Association – Bembridge Fleet

2. OBJECTIVES

- 2.1 The Association is formed with the object of promoting and facilitating the sport of Illusion sailing and also to provide social and other facilities for members as may from time to time be determined.
- 2.2 This constitution is intended to cover all Illusion Fleets, but is written with particular reference to the Bembridge Fleet.
- 2.3 Illusion Fleets based elsewhere are invited to adopt the principals behind this Constitution and the Rules attached hereto as Appendix A so that all Illusions conform to the same set of designs and measurements with the aim that yachts from each fleets are as nearly alike as possible and may sail against each other on an equal and fair basis.
- 2.4 If other Illusion Fleets adopt this Constitution and its Rules then the setting up of a National Association will be considered.

3. MEMBERSHIP AND VOTING RIGHTS

- 3.1 There shall be two categories of membership of the Association:
 - Full Members and
 - Associate Members.
- 3.2 Full Membership shall, upon payment of the prescribed annual subscription, be open to any owner or part owner of an Illusion Yacht.
- 3.3 Associate Membership shall, upon payment of the prescribed annual subscription, be open to other interested persons such as those who may wish to sail Illusions from time to time by borrowing a yacht.
- 3.4 Members shall be bound by this Constitution and the Rules attached hereto as Appendix A.
- 3.5 Each Full Member of the Association shall be entitled to one vote at a General Meeting of the Association. Associate Members shall be entitled to attend and speak at any General Meeting, but not to vote.

4. MANAGEMENT OF THE ASSOCIATION

- 4.1 The affairs of the Association shall be managed by the Committee consisting of the Officers of the Association, the Bembridge Sailing Club Illusion Class Captain, and two or more other Full Members so that the Committee consists of a minimum of seven and a maximum of nine members.
- 4.2 The Officers of the Association shall be Full Members and shall consist of: The Chairman, The Secretary, The Treasurer, and The Technical Officer (who may also be the Measurer).
- 4.3 The Committee shall, within these Regulations, have entire control of the Association and their decision on all matters shall be final.

5. CONDUCT OF MEETINGS OF THE ASSOCIATION

- 5.1 The Annual General Meeting (“AGM”) of the Association shall be held each year during October or early November.
- 5.2 The year for the Association and for such purposes as subscriptions shall run from 1st October of a year until 30th September of the following year.
- 5.3 A Member of the Committee shall circulate to Members notice of any General Meeting or AGM with an Agenda at least four weeks before the date of such meeting.
- 5.4 At any General Meeting or Committee Meeting decisions shall be limited to matters on the Agenda and shall be carried by a majority vote. Voting shall be by a show of hands, unless a poll is demanded by not fewer than three of the Full Members present. At any meeting the Chairman shall have a casting vote.
- 5.5 The presence of ten Full Members at an AGM and four Committee Members at a meeting of the Committee shall form a quorum. Only Full Members shall be able to vote at a General Meeting.

6. ELECTION OF OFFICERS AND THE COMMITTEE

- 6.1 The Officers and other Committee members shall be elected at the AGM and shall hold office for one year, retiring at the next AGM. All Officers and Committee members shall be eligible for re-election over five consecutive years, after which they must stand down for at least one year before being eligible for re-election..
- 6.2 Any Full Member may be proposed or propose themselves as an Officer or Member of the Committee for election at an AGM.

7. SUBSCRIPTIONS

Subscriptions for each category of membership shall be proposed by the Committee to Members at the AGM in each year for approval.

8. ACCOUNTS

- 8.1 The Committee shall cause true accounts to be kept giving particulars of all monies, assets and liabilities of the Association, all monies received and expended by the Association and the reasons for such receipts and expenditure.
- 8.2 The Committee shall cause an annual financial statement to be prepared and presented at every AGM of the Association.

9. COMPLIANCE WITH RULES AND BUOYANCY AND INSURANCE

- 9.1 It is the responsibility of all Full Members to ensure that when racing their Yachts at all times comply fully with the current Rules of the Association, including carrying out buoyancy tests to ensure their boats meet the buoyancy requirements contained therein. Full Members will be asked to self-certify on a yearly basis that their Yacht complies with the buoyancy regulations in the Rules.
- 9.2 All Full Members must also ensure that their Yachts carry comprehensive third party cover as is recommended by their insurance broker.
- 9.3 It is recommended that when racing Members wear personal buoyancy.

RULES OF THE NATIONAL ILLUSION CLASS – BEMBRIDGE FLEET

1. **GENERAL**

The Objects of these rules, specifications and official plans is to ensure that Illusion One Design Yachts are as nearly alike as possible as regards:

- a. hull and deck shape and weight
- b. shape of rudder
- c. shape and area of sail plan
- d. seize and weight of spars and rigging
- e. weight distribution, and
- f. any other matter which may influence the speed, performance or seaworthiness of the yacht.

2. **ADMINISTRATION**

The administration of these Rules shall be the responsibility of the Committee of the National Illusion Class - Bembridge Fleet (the “Association”) or such person who the Committee shall appoint.

3. **BUILDERS**

Illusions Yachts shall be built only by builders licensed to do so under copyright of Jo Richards, Cowes, Isle of Wight, and shall comply with the Building Specifications detailed by the copyright holder and attached to these Rules as Exhibit A. A building fee of £50 shall be payable to Jo Richards when the moulding of the hull commences

4. **REGISTRATION AND MEASUREMENT CERTIFICATES**

- 4.1 No yacht shall be deemed to be an Illusion until it has been completed with a Building Number assigned by the Association and attached to the hull on a plate.
- 4.2 The sail number shall be assigned by the Association. Each Illusion shall have consecutive sail numbers starting from 1 and proceeded by the national letters – GBR.
- 4.3 No yacht shall race unless a current valid Measurement Certificate has been issued by the Association.
- 4.4 Change of ownership shall invalidate the Measurement Certificate unless such change is registered with the Association
- 4.5 Any alteration, replacement or major repair to an item of equipment may require measurement in the rules
- 4.6 It is the responsibility of an owner to ensure that the Yacht complies at all times with the current version of these Rules.
- 4.7 No yacht shall race unless the owner(s) is a Full Member of the Association.
- 4.8 Alterations and modifications to these Rules shall only be permitted through such modification being presented to a General Meeting of the Association by the Committee and approved by such Meeting.

5. **MEASUREMENT**

- 5.1 Yachts shall only be measured by the Measurer appointed by the Committee.
- 5.2 The Measurer shall not measure a yacht, spars, sails or equipment owned or built by himself, or in which he is an interested party, or has a financial involvement
- 5.3 The Measurer shall report on the Measurement Form, attached as Exhibit B, anything which is considered to be a departure from the intended nature and design of the yacht, or to be against the general interest of the Class. A certificate may be refused even if the specific requirements of these Rules are satisfied.
- 5.4 The method of measurement, unless otherwise stated, shall be in accordance with the recommendations of the ISAF.

6. **CONSTRUCTION AND MEASUREMENTS**

6.1 **GENERAL**

The hull, deck, interior layout, ballast, rudder, sail plan and deck layout shall conform to the building specifications, class rules and official diagrams

6.2 **HULL**

- a. The hull and deck flange shall be moulded by a licensed builder, in glass reinforced plastics to the building specifications of lamination.
- b. The cockpit, deck, interior bulkheads and buoyancy tanks shall conform to the details of official Diagram A - attached in Exhibit C.
- c. The deck and bulkheads shall be constructed from Glass Reinforced Plastics, G.R.P. Decks and bulkheads shall be constructed on an approved mould to the building specifications of laminations.
- d. The deck shall be flat in section with no camber either positive or negative, with a tolerance of plus or minus 5mm.
- e. The cockpit coaming shall be as detailed in official Diagram A, and shall not exceed a height of 30mm from the deck level.
- f. A watertight deck recess shall be fitted in the forward section of the deck (as shown in Diagram A) with a minimum depth of 35mm.
- g. Chainplates shall be fixed in line with the mast step and there shall be a minimum shroud base of 580mm and a maximum shroud base of 630mm
- h. The following are not permitted:
 - coring, drilling out, rebuilding, replacement of materials, or grinding in any way to reduce weight, and
 - reshaping of the hull profiles or contours.
- i. The maximum beam, at any point on the sheerline, shall not be more than 830mm.

6.3 **BALLAST**

- a. Ballast shall be made up of solid lead ingots, and/or bags of lead shot. No individual ingot or bag shall weigh more than 15kgms. The ballast shall not weight more than 160kgs +/- 5kgs.
- b. Trimming ballast may be placed in the forward buoyancy compartment to allow correct sailing trim.

- c. Crew weight shall be made up to 100 kg by way of corrector weights in lead shot bags of no more than 15kg each and must be placed on top of lead keel ingots .
- d. No ballast with a greater specific density than lead shall be used.

6.4 **BILGE PUMP**

- a. An adequate bilge pump shall be fitted.
- b. The bilge pump shall drain from the lowest point in the keel and shall exit through the deck at a point between the forward edge of the cockpit coaming and the aft edge of the mast.

6.5 **RUDDER AND STEERING SYSTEM**

- a. The external dimensions and configuration of the rudder shall comply with the official rudder drawing and table of offsets contained in official Diagram D.
- b. The rudder shall be constructed of either solid timber or glass reinforced plastic or a combination of both.
- c. The rudder stock shall be constructed of aluminium or stainless steel tube, with a minimum outside diameter of 25mm.
- d. The rudder bearings shall consist of simple plastic or nylon rings.
- e. The steering system must be controlled by means of a foot-bar as indicated but additional control lines to facilitate hand steering by rope and pulley are permitted.
- f. Steering control lines shall be of synthetic rope not less than 2mm in diameter.
- g. Solid linkages in the steering system are not permitted.

6.6 **SPARS**

6.6.1 **Mast**

- a. The mast shall be of aluminium extrusion. The standard section supplied by Needlespar. No alterations or modifications to the mast extrusions are permitted except to facilitate the attachment of rigging and fittings as specified in these Rules.
- b. Permanently bent masts and rotating masts are not permitted.
- c. The distance from the forward surface of the mast at deck measured horizontally to the stem at sheerline shall not be more than 1,550mm nor less than 1,530mm.
- d. The mast shall be deck stepped.
- e. Bands of minimum width 10mm shall be put on the mast in contrasting colour to the mast as follows:
 - No 1 whose upper edge shall be minimum 350mm above deck level;
 - No 2 whose lower edge is maximum 3840mm above the upper edge of No 1.
- f. Not more than two spinnaker boom attachment fittings shall be fixed to the forward surface of the mast. The maximum height shall not be more than 280mm above deck level. The fitting shall project not more than 35mm horizontally from the forward surface of the mast.

6.6.2 **Standing Rigging**

- a. The mast standing rigging shall only consist of one backstay, two upper shrouds, two intermediate shrouds and two lower shrouds.
- b. The standing rigging shall be 2mm in diameter 1x19 grade stainless rigging wire.

- c. The shrouds shall be attached at their lower ends and shall not be adjusted while racing.
- d. The backstay shall be fixed to the masthead crane which has a max length of 100mm from the aft face of the mast

6.6.3 **Running Rigging**

- a. One spinnaker halyard of synthetic rope not less than 2mm diameter which shall not bear more than 5mm forward of the mast or more than 2710mm above the upper surface of the lower black band.
- b. One mainsail halyard of synthetic rope not less than 3mm diameter.
- c. One genoa halyard which shall not bear more than 2550mm above the upper surface of the lower black band. The genoa halyard may be adjustable in length.
- d. One kicking strap.
- e. One spinnaker boom downhaul.
- f. One mainsail outhaul.
- g. One Cunningham control of synthetic rope.
- h. One backstay adjuster tackle of synthetic rope.
- i. One mainsheet of synthetic rope.
- j. Spinnaker and headsail sheets of synthetic rope.
- k. One spinnaker boom uphaul of synthetic rope.

6.6.4 **Main Boom**

- a. The boom shall not be tapered or permanently bent.
- b. The boom shall be of aluminium extrusion round section of not more than 50mm diameter
- c. A contrasting coloured band of minimum width 10mm shall encircle the boom. The forward edge of the band shall be not more than 1350mm from the aft surface of the mast, when the boom is held at right angles to the mast.

6.6.5 **Spinnaker Boom**

The overall length of the spinnaker boom, including fittings, shall not be more than 1260mm.

6.7 **SAILS**

6.7.1 **Sail Plan**

One mainsail, one genoa and one spinnaker only shall be carried when racing. Such sails shall comply with the following:

- a. The sails shall be single ply except for permitted reinforcements, constructional seams, tabling, camber lines and genuine repairs to damage, and may be of woven or unwoven material.
- b. The genoa may be fitted with transparent windows of any material.
- c. All materials and cloth weights are open, moulded sails are prohibited
- d. National letters and distinguishing numbers shall be placed on the mainsail. The class emblem on the mainsail shall be as in Diagram B in Exhibit C, and contained within two 140 x 130mm rectangles located starboard on top of port but separated by a 30mm space. The rectangles shall be located immediately below the midpoint of the top batten.

- e. The national letters and distinguishing numbers shall be of equivalent height and size to the class emblem, and shall be located immediately below the midpoint of the second batten.

6.7.2 **Mainsail**

- a. A double luffed or loose footed mainsail is prohibited.
- b. The headboard may be of any material and shall not extend more than 90mm aft of the head when measured at right angles to the luff.
- c. The cross width measurements shall be taken from the three-quarter and half heights on the leech, located when the head is folded to the clew for the half-height point, and when the head is folded to the half-height point to determine the three-quarter height point.
- d. The maximum three-quarter height width between the leech and the nearest point on the luff, including the luff rope, shall be not more than 530mm
- e. The maximum half-height width between the leech and nearest point on the luff, including the luff rope, shall not be more than 900mm.
- f. The length of the leech shall not exceed 4050mm.
- g. The sail shall have four battens. The top batten shall not be more than 230mm in length, and the bottom three battens shall not be more than 310mm in length. The Maximum width of the battens shall not be more than 12mm. The battens shall divide the leech into five equal sections
- h. A cunningham hole may be fitted in the luff.
- i. Camber lines are permitted

6.7.3 **Genoa**

- a. The intersection between the sheerline and the extension of the genoa luff shall be between 350mm and 370mm aft of the stem.
- b. The width of the head measured at right angles to the luff, including the luff tape, shall not be more than 32mm.
- c. The luff shall not be more than 2890mm nor less than 2860mm.
- d. The diagonal (LP) shall not be more than 1700mm nor less than 1660mm measured to the forward side of the luff tape.
- e. The leech shall not be convex.
- f. Camber lines are permitted.
- g. No headboard as indicated, or battens are allowed in the genoa.
- h. Foot round of 150mm is permitted.
- i. The helmsman must be able to furl the whilst sailing.

6.7.4 **Spinnaker**

- a. The spinnaker shall be a three cornered sail, symmetrical about its centreline.
- b. The sail, laid out on a flat surface, shall be measured when folded in half about its centreline, with the leeches superimposed. Sufficient tension shall be applied to remove wrinkles and creases along the lines of measurement.
- c. The length of the leeches shall not be more than 3330mm nor less than 3250mm.

- d. The length of the vertical centrefold shall not be more than 3690mm nor less than 3500mm.
- e. The half-width of the foot shall not be more than 1000mm nor less than 970mm.
- f. The half-height, half-width, shall be taken as the distance between the points on the leech and the centrefold 1640mm, measured in a straight line from the head. The half-height, half-width shall not be more 1000mm nor less than 940mm.

7. **CREW**

- 7.1 The crew shall consist of one person only.
- 7.2 There shall be a standard minimum weight for crew of 100 kilograms which each helmsman shall weigh in at with the aid of corrector weights.

8. **BUOYANCY**

- 8.1 There shall be four separate buoyancy compartments as detailed in Diagram A in Exhibit C. Air bags are permitted in hulls built before 2000.
- 8.2 The side buoyancy compartments and forward buoyancy compartment shall be accessible through watertight hatches.
- 8.3 No part of a side buoyancy compartment shall be more than 500mm below the level of the sheerline when measured on a perpendicular plane.
- 8.4 Yachts, having been fully flooded, must float for at least 30 minutes before sinking.

9. **WEIGHT**

The all up weight in full racing rig, including crew and crew corrector weights and ballast shall not be more than(to be confirmed)

10. **FIXED FITTINGS & EQUIPMENT TO BE CARRIED WHEN RACING**

- 10.1 Two headsail sheet tracks, each not more than 250mm in length, located in the positions as indicated on Diagram A.

11. **GENERAL PROHIBITIONS**

The following are not permitted:

- 11.1 Hydraulics;
- 11.2 Running backstays or devices to simulate such;
- 11.3 Spinnaker chutes through the deck;
- 11.4 Bushed or unbushed holes or slots to feed halyards or control lines through the hull, transom or buoyancy compartments;
- 11.5 Levers or other equipment that may increase the power ratio of the running rigging;
- 11.6 Hiking - at no time while racing shall the majority of the crew's torso be above deck level;
- 11.7 Trimming of genoa sheets by means other than by a sheet from the clew directly to the block fastened to the headsail track. Trimming by hand is allowed off the wind;
- 11.8 The use of barber haulers and similar devices is prohibited;
- 11.9 Angling of headsail tracks, or athwartships movement is prohibited. The tracks are to be approximately parallel as shown in diagram A; and
- 11.10 Reef points fitted to either the mainsail or genoa are prohibited.

BUILDING SPECIFICATIONS

MEASUREMENT CERTIFICATE

No: Name: Owner:

HULL

1	Overall to transom corner	3275 +/- 10 =
2	To aft side of track well	2400 max =
3	To bulkhead	1200 +/- 10 =
4	Cockpit width at 2270	630 +/- 10 =
5	Cockpit width at 2730	470 +/- 10 =
6	Overall to cockpit aft side	2885 +/- 10 =
7	Overall to cockpit foreside	2050 +/- 10 =
8	OA to centre of genoa take off point	1540 +/- 10 =
9	Overall to front side of mast	370 max 300 min =
10	OA to aft edge of jib well	410 +/- 5 =
11	OA to fore edge of jib well	130 +/- 5 =
12	Length of genoa track well	250 +/- 5 =
13	Track well to track well	700 +/- 10 =
14	Max beam at front of genoa track well	830 +/- 10 =
15	Max beam at front of mast	720 +/- 10 =
16	Beam at transom	625 +/- 10 =
17	Distance between skeg and transom	720 +/- 10 =
18	Distance from keel to skeg	410 +/- 10 =
19	Depth skeg to bottom of keel	350 +/- 10 =
20	Girth from max beam around keel	1020 +/- 10 =
21	Distance between shrouds at deck level	min 580 max 630 =
22	Depth of aft edge of rudder	400 max =
23	Rudder width at top	155 max =
24	Rudder width at mid section	255 max =
25	Rudder width at 100mm from bottom	230 max =
26	Painter fitting	Yes / No =
27	Four separate buoyancy compartments	Yes / No =

MAST

28	Upper edge of lower black band	350 max =
29	Lower edge of upper black band to 28	3800 max =
30	Height of spinnaker boom attachment from deck	280 max =

BOOMS

- 31 Distance from mast to front edge of black band 1350 max =
- 32 Overall length of spinnaker boom plus fittings 1260 max =

WEIGHT

- 33 Ballast weight 160kgs min +/- 5kgs =

BUOYANCY

- 34 Annual buoyancy test Date: Measurers initials:

SAIL MEASUREMENT

- 35 All sails to be measured on separate form and attached

Measurer's signature:

Owners signature:

.....

.....

EXHIBIT C

ILLUSION MEASUREMENT DRAWINGS

DIAGRAM A

DIAGRAM B – SAIL MARKINGS

DIAGRAM C

DIAGRAM D - RUDDER