

MERMAID SAILING ASSOCIATION
SPECIFICATION, RULES AND REGULATIONS
FOR
DUBLIN BAY SAILING CLUB MERMAID

INDEX	CLAUSE NUMBER
General	1
Building Fee	2
Registration	3
Recognition Marks	4
Measurement	5
Applicability of the Rules	6
Hull Construction and Specification	7
Hull Dimensions	8
Centre Plate	9
Rudder	10
Spars	11
-General	
-Mast	
-Main Boom	
-Spinnaker Pole	
Sails	12
-General	
-Mainsail	
-Jib	
-Spinnaker	
Standing and Running Rigging	13
Racing Crew	14
Buoyancy	15
Projections	16
Self Bailers	17
Outboard Engine Hatch	18
Sheet Leads	19
Prohibitions	20
Boat's Racing Inventory	21
Painting and Hauling Out	22
Wear and Tear	23
Minimum Weight	24

APPENDICES

Timber Specification	A
Measurement Sheet	B
Schedule of Standing and Running Rigging	C
Permitted Measurement Variations Sheet	D
Annual Declaration	E
List of Mermaid Plans	F
Sail Dimensions and Measurement Definitions	G

1. General

- (a) The Dublin Bay Sailing Club Mermaid is a one-design 17 foot clinker built half decked center plate sailing boat, the copyright of which is vested in the Mermaid Sailing Association.
- (b) The Mermaid Class shall consist of Dublin Bay Sailing Club Mermaids, designed by Mr. J.B. Kearney in 1932 and officially certified by the Mermaid Sailing Association as complying with the specification, regulations and rules as determined by the Mermaid Sailing Association.
- (c) The object of the rules of the Mermaid Sailing Association is to establish the Dublin Bay Sailing Club Mermaid Class as one in which all matters affecting safety and performance are strictly controlled. Some latitude is permitted to maintain interest in fitting out, maintaining and racing the boats. Reference in these specification and regulations to the “Committee” means the Mermaid Sailing Association Committee.
- (d) In the event of discrepancy between the specifications and the regulations, the rules or the measurement form, the matter shall be referred to the Committee whose decision shall be final.
- (e) The Committee, officers, members and/or agents of the Mermaid Sailing Association accept no responsibility in respect of any claim arising from these rules.
- (f) From the commencement of the 1988 season, all boats must comply with the current rules except for hull dimensions already approved by the Committee for boats issued with a class certificate prior to 1st January 1987.

2. Building Fee

The building fee, as determined from time to time by the Mermaid Sailing Association, shall be payable prior to dispatch of a set of plans, specifications and regulations to a prospective builder before the commencement of building each new boat.

3. Registration

- (a) No boat shall be deemed to be a Dublin Bay Sailing Club Mermaid until it has been registered with the Mermaid Sailing Association. Registration shall be effected by the Mermaid Sailing Association when the boat’s measurement certificate has been approved by the Committee.
- (b) A boat number shall be issued when the boat is registered with the Mermaid Sailing Association.
- (c) No boat shall be permitted to race in the class unless it has a valid class certificate and its inventory of sails has been measured and signed by an official class measurer.

- (d) The class certificate is valid only if the owner is a member of the Mermaid Sailing Association and both the annual subscription and the annual declaration (Appendix E), signed by the owner, have been submitted to the Class Secretary.
- (e) Change of ownership shall invalidate the class certificate until such time as the new owner notifies the class Secretary, and complies with all other regulations.
- (f) If a boat whose certificate is not valid participates in a race, then for the purpose of competing for MSA trophies or prizes it shall be deemed to be disqualified in that race. If a boat participating in a race is not helmed by the owner, then the person helming the boat must be a paid up member of the MSA, and the boat must have a valid Class certificate; otherwise for the purpose of competing for MSA trophies or prizes it shall be deemed to be disqualified in that race.
- (g) Appendices A to E form part of the specification and regulations.

4. Recognition Marks

- a) The sail numbers shall be placed on both sides of the mainsail and the spinnaker.
- b) The boat's sail number shall be cut approximately 1/4" deep into the thwart, centre case or main beam in figures which are not less than 1" in height and clearly visible.

5. Measurement

- a) Measurement shall be carried out by measurers appointed by the Committee. A measurer shall report to the Committee anything 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. A certificate may be refused by the Committee even if the specific requirements of the rules are satisfied. The Committee at its discretion may issue an exemption certificate to a boat which does not comply with the rules, provided the Committee is satisfied that the rule variance is a genuine building error which is minor, not easily or economically correctable, and does not favourably affect the performance of the boat.
- b) A measurer shall not measure a boat, spars, sails or equipment owned or built by himself or in which he is an interested party or has a vested interest.
- c) All boat's sails, spars, and equipment shall be liable to re-measurement at any time at the discretion of the Committee but only by an official measurer.
- d) Before being used in races, all sails shall be measured, and signed in waterproof ink with the measurer's signature and dated at the tack in the case of the mainsail and jib, and at the head in the case of the spinnaker. When signing the sails the measurer shall also write the date of measurement and the Boat Number on the sail.
- e) All replacement spars shall be measured by an official measurer before being used in races.

- f) A boat which has been the subject of repairs, modification or partial or total re-building shall be liable to re-measurement at the discretion of the Committee.
- g) It is the responsibility of the owner to ensure that his boat, spars, rigging, equipment and sails comply with the class rules and specification and that alterations or additions to the boat or its equipment and sails do not invalidate the measurement certificate.
- h) The Committee shall have the power to withdraw a boat's class certificate (retrospectively if deemed appropriate by the Committee) if an official measurer confirms in writing to the Committee that a boat does not comply with the specification and regulations and does not hold a relevant exemption certificate from the Committee.

6. Applicability of the Rules

- a) The Dublin Bay Sailing Club Mermaid is a traditional clinker built wooden boat, intended for day sailing and racing. Whilst the Class does not wish to constrain developments which improve the seaworthiness, strength and safety of the boat, it is important that the essential traditional characteristics of the boat are maintained and its suitability as a day sailing boat for family use is not diminished.
- b) The specification, rules and regulations may be changed only with the agreement of a simple majority of boat-owners who are members in good standing of the Association and in attendance at a meeting properly convened by the Committee of the Mermaid Sailing Association.

7. Hull Construction and specification

- (i) The alternative types of timber which may be used in the boat are set out in Appendix A. Variations to the timber specified for different parts of the boat will be permitted only with the prior written approval of the Committee for the relevant component. This permission will be given only when the Committee is satisfied that the timber specified can not be procured or if available, is of inadequate quality.
- (ii) Except for the planking and the timbers, laminations of specified timber are permitted.
- (iii) The following minimum dimensions, except when otherwise stated, shall apply to the components of the hull and deck of the boat:

(a) Keel and Hog

KEEL to be sided 4" in way of centre plate slot, which shall be $\frac{3}{4}$ ", tapered to 2" forward and $1\frac{3}{4}$ " aft, both ends to be bearded to 1" on lower edge. HOG to be 6" x $\frac{5}{8}$ " tapered same as keel, to be screw fastened to keel with 2" No. 14 screws one between each timber, equally spaced.

(b) Stem

To be a crook or fabricated sided 2" and moulded as per building plan to form apron in one piece. DEADWOOD to be sided 3" and chamfered to fit stem.

(c) Stern Post

To be crook or fabricated sided 2" and moulded to Building Plan. All fastenings in stem and stern post to be through and clenched over copper rooves or washers.

(d) Timbers

To be steam bent 7/8" x 5/8" spaced 7" centre to centre along Keel Line. The Garboard to be packed under timbers where necessary.

(e) Transom

To be finished 7/8" thickness. Two fashion pieces or doublers each 18" x 2" x 7/8" shall be screw fastened at the sides on the inside of the transom.

(f) Planking

To be of first quality, free from knots and shakes, 3/8" finished; twelve strakes, maximum width 4 1/2", 3/4" lap, outside edges to be rounded off, plus a Mahogany sheer strake 1/2" thick, to have 1/2" groove 1 1/2" from lower edge, to be moulded 7/8" wider than other strakes; giving thirteen strakes each side. There must be two land fastenings between each timber. In addition, the planks may be glued on the lands. All scarphs in planking must be bonded with waterproof glue.

(g) Centre Plate Casing

The slot for centre plate in casing to be 3/4" +/- 1/8". The case to be constructed with ledge battens to take knees and plate pin, with sides 1 1/8" thick, screw fastened through keel with 6" No.26 screws, 7" apart. The height of the entire top edge of the case above the top of the hog shall be 1' 3" +/- 1/2". Cutouts below the minimum height of the top edge of the centre plate casing are not permitted.

Plate pivot pin to be 5/8" screw bolt, centred 2 1/8" +/- 1/4" above the top of the hog and 9' 8 1/2" +/- 1/2" from aft face of the transom, with ferrule in way of slot.

Four 1 1/2" x 1/4" stainless steel or, galvanised knees, 8" minimum length of arms to be fitted at fore end of case, screwed to ledges and pads with 1 3/4" No. 14 screws or 2 wooden laminated knees 1 1/2" thick, on each side of the casing, to carry and secure the floorboards may be used. Suitable pads or floorings sided 2 1/2" to be fastened to planking under knees, and to then extend at least 9" outside lower arm of same.

No part of the centre plate case on the centreline structure above the hog shall exceed 7" in width.

A plate restraining strop to be fitted to both sides of the casing, passing over top to prevent plate lifting out accidentally.

(h) Forward Floorings

Crook sided 1 1/4" or fabricated knee copper through fastened in way of plank lands, breach to be fastened with 3/8" copper rod clinched over copper rooves. This flooring secures the heel of the Samson post.

(i) Hanging Knees

To be sided 1 1/4" and through fastened top and bottom with 1 3/4" screws between.

(j) Mast Step

To be 3" x 3", jogged over timbers and scarphed on DEADWOOD, as shown on plan and through fastened to HOG and KEEL. The mast shall be stepped on the mast step which shall not exceed a height of 3" above the top of the Hog or be less than 2" above it.

(k) Posts

One plate post 3" x 3" glued and screwed to deck beam at top and secured at mast step by 9mm marine ply fishplates. Sheave and Cleat to be fitted on Starboard side, and eyebolt on port side, to take standing part of plate tackle.

One Samson post 3" x 2" as shown on plan, to be securely fastened to forward flooring, and fitted through King Plank under deck. The Samson post shall extend above the height of the king plank by at least 3" and the bottom of the Samson post may be tapered to not less than 2"x2".

(l) King Plank

A King Plank made at least 3/4" in thickness shall be fitted between the main deck beam and the stem and screw fastened to the foredeck beams. The dimensions shall be 6" at the main deck beam tapering evenly to 2" at the stem. The sides of the King Plank may be rebated by 3/4" to facilitate flush fitting of the decking.

m) Clamp

To be 3" x 3/4" clenched fastened through each timber. Continuous filling piece of planking moulded off sheerstrake to be fitted between timbers and sheerstrake, and bonded with waterproof glue to sheerstrake. Clamp may be tapered for a maximum of 3'0" at either end.

(n) Tie Beams

Main tie-beam at after end of centre casing 5" x I" through fastened to hanging knees and screw fastened to casing. Main deck-beam at break of fore deck moulded to deck curve, to stand 3 " x 1" fastened as above to side knees, with diagonal struts as shown on plan.

(o) Main Thwart

To be 8" x 7/8" thickness, as shown on plan, and neatly rounded off. The forward edge of the main thwart shall be 5' 9" \pm 1/2" from the aft face of the transom.

(p) Seats

To be 9" at forward end, tapering to 7" aft, x 7/8" thickness, as shown on plan, and neatly rounded off. The seats shall be not less than 4' 4" in length and be fitted at a height no lower than 9" above the Hog. Each seat may be divided into a maximum of three longitudinal battens, the aggregate dimensions of which shall not be less than for a solid timber seat.

(q) Breasthook

Breasthook and quarter knees to be crook or laminated timber sided 1 1/4", through fastened and packed so as to bear solid under deck. Breasthook to be fastened through clamps, sides and stem.

(r) Deck Beams, Carlins and Mastpad

To be 7/8" plank, moulded to deck curve, to stand to line of king plank from stem to main deck-beam. Main deck-beam to stand 3" at centre. Sidedeck beams 2" x 1" and 1 1/2" x 1" fitted on flat as shown on plan and screwed to clamp and carlins with 2" No. 12 screws. Similar 1 1/2" x 1" bridging pieces shall be fitted under aft deck. Carlins to be 2" x 1" fitted between main deck beam and aft deck beam, with 2" x 1" struts, as shown, and curved to external line of coamings. Mast pad 9" x 1", fitted as shown on plan.

(s) Decking

A) To be of marine plywood (BS 1088) not less than 6mm in thickness. The area outside the coamings, and the area forward of the main deck-beam shall be decked. Two 1 1/2" x 1/2" purlin battens must be fitted each side of the centre-line of the foredeck. The outside edges of the decking are to be secured with gunwales.

B) The width of the decks shall be as follows:

- i) At the centre line of aft deck 11" to 16"
- ii) At 3'3" from aft edge of transom 11" \pm 1/2"
- iii) At 6'6" from aft edge of transom 11" \pm 1/2"
- iv) At 9'9" from aft edge of transom 14" \pm 1"

The width shall be measured between the external face of the coaming at deck level and the intersection of the outside of the sheerstrake and deck or the transom and the deck.

(t) Coamings

To be bent, 1/2" thick and at least 4 1/2" deep, to stand not less than 2" over side deck and 4" forward, glued and screw fastened to carlins with 1 1/2" No.12 screws, 7" pitch. A suitable quadrant slip batten to be screwed to deck and fitted to curve outside coamings.

(u) Floor Boards

To be made of marine grade plywood, not less than 9mm in thickness, fitted on bearers of 1" thickness, 15" centre to centre, to stand not less than 2 1/2" over HOG. The aggregate area of the floorboards shall not be less than 23 sq. ft.

(v) Fastenings

To be of copper, gunmetal, brass or stainless steel throughout.

(w) Buoyancy Tanks

Buoyancy tanks may be fitted. One attached to the plate post, the other 11" to 16" forward of the aft face the transom. Each to be made of 6mm marine ply, sealed, with epoxy resin, to make an air tight tank. Three inspection hatches, two forward and one aft must be fitted.

8. Hull Dimensions

All measurements referring to the aft transom shall be taken to the bottom of the aft face of transom at the centre-line at the point where the keel is attached to the Hog.

(i) Length and Beam

- (a) The overall length from the aft edge of the transom to the forward edge of the stem at deck level excluding forestay plate and bow protection strips shall be 17' 0" \pm 1" between perpendiculars. With the boat level no part of the boat may extend forward of the stem at deck level.
- (b) The beam measured as the greatest distance between the upper outside edges of the sheerstrakes shall be 6' 1". A tolerance of \pm 3/4" is allowed.
- (c) The forward face of the aft coming shall be 11 1/2" to 16 1/2" from the aft face of the transom.
- (d) The aft face of the main deck beam shall be 10' 7" \pm 3/4" from the aft face of the transom.
- (e) The forward face of the main tie beam, located at the aft end of the centre plate casing, shall be 5' 6" \pm 1/2" from the aft face of the transom.

(ii) Hull Sections and Stem Profile

- (a) The transom profile, hull sections and stem profile shall be measured with moulds. The moulds shall be based on the profiles indicated on the building plans after allowance, when appropriate, is made for the overlapping of planks with an aggregate thickness of 3/4".

The moulds shall touch or clear each plank by not more than 1" at any point. The tolerance from the plan lines is $\pm \frac{1}{2}$ " after allowance for thickness of the planks ($\frac{3}{8}$ " + $\frac{3}{8}$ " = $\frac{3}{4}$ " on the lands).

- (b) The transom shall be flat and vertical. The transom mould makes allowances for the thickness of the planks where overlapped being no more than $\frac{3}{8}$ ". The depth of the transom at the centre line, from sheerline to garboard, is $1' 4 \frac{7}{8}" \pm \frac{3}{8}"$. The rise of the transom above the sheerline is $1 \frac{5}{8}" \pm \frac{1}{8}"$. The width of the transom at the sheerline is $3' 10" \pm \frac{1}{2}"$.
- (c) The hull section shall be measured at 3' 3", 6' 6", 9' 9", 13' 0" and 15' 0" from the aft face of the transom.
- (d) The depth of the hull at these points, measured from the top of the sheerstrake to the outside of the keel shall be:

$1' 10 \frac{1}{2}" \pm \frac{3}{8}"$
 $2' 0 \frac{1}{2}" \pm \frac{3}{8}"$
 $2' 2" \pm \frac{3}{8}"$
 $2' 5" \pm \frac{3}{8}"$
and $2' 6 \frac{1}{4}" \pm \frac{3}{8}"$

- (e) The width of the hull at these points shall be:

$5' 3 \frac{1}{2}" \pm \frac{3}{4}"$
 $6' 0" \pm \frac{3}{4}"$
 $5' 11" \pm \frac{3}{4}"$
 $4' 5 \frac{1}{2}" \pm \frac{3}{4}"$
and $2' 8" \pm \frac{1}{2}"$ respectively.

- (f) The stem profile shall be measured by a mould between a point of 15' 0" forward of the aft face of the transom to a point within 1" of the intersection of the deck and the stem. The mould must touch, or clear the stem and keel by no more than 1".

(iii) Rubbing Strip

The outer edge of the rubbing strips shall not project more than $2 \frac{1}{2}"$ nor less than 1" from the outside edge of the sheerstrakes. The rubbing strips shall extend the full length of the boat. The depth of the rubbing strips at the face of the sheerstrakes shall not exceed $1 \frac{1}{2}"$ nor be less than $\frac{3}{4}"$.

(iv) Rocker

With the boat upside down and the transom and stem supported on blocks, a datum line shall be set up 1' 2½" directly above the centre line at the transom. The other end shall be 7" above the keel 15' 0" from the aft face of the transom.

At the following distances from the aft face of the transom:

- 1 - 3' 3"
- 2 - 6' 6"
- 3 - 9' 9"
- 4 - 13' 0"
- 5 - 15' 0"

the vertical distance from the datum line to the keel shall be

- 1 - 8" ± ½"
- 2 - 6" ± ½"
- 3 - 6" ± ½"
- 4 - 6" ± ½"
- 5 - 7" ± 0" respectively

(v) Chain Plate and Jib Tack Position

A maximum of two chain plates on each side of the boat may be fitted 9' 8 1/2" from the aft face of the transom at ± 9". The jib shall be attached to the centre line of the boat within 3" of the forward edge of the stem. The jib may not be fastened to a point below the intersection of the deck and the stem.

9 Centre Plate

- (i) The centre plate shall be made of ½" mild steel plate, stainless steel, bronze or gunmetal casting. Centre plates made of mild steel plate must be galvanised or coated with an effective rust-inhibiting coating.
- (ii) The profile of the centre plate shall conform to the centre plate Hardware Plan. The profile measurements indicated on the Hardware Plan are the maximum permitted.
- (iii) A maximum chamfer on the centre plate of 1 1/2" is permitted.
- (iv) The maximum thickness of the centre plate at any place is 9/16"
- (v) The minimum weight of the centre plate is 130 lbs.
- (vi) The leading and trailing edges of the centre plate shall not deviate from a straight line by more than 1/4".
- (vii) The pivot point of the centre plate shall be 4 1/4" from the leading edge of the centre plate, and the bottom edge of the centre plate shall be within a radius of 3'10" of the pivot point.

(viii) The use of a centre plate slot gasket is permitted.

10. Rudder

- i. The rudder blade shall be made of ¼” galvanised mild steel or stainless steel plate or wood.
- ii. The profile of the steel rudder blade below the wooden rudder stock shall be within the boundary of the profile indicated in the rudder profile sheet.
- iii. The maximum depth of the rudder blade when placed in position of use on the transom pintle and gudgeon shall be 2’ 0” below the bottom edge of the garboard plank at the transom.
- iv. The minimum depth of the wooden rudder blade when placed in position of use on the transom pintle and gudgeon shall be 2’ 0” below the bottom edge of the garboard plank at the transom.
The maximum depth of the wooden rudder blade when placed in position of use on the transom pintle and gudgeon shall be 2’ 4” below the bottom edge of the garboard plank at the transom.
The maximum width of the wooden rudder blade measured from the leading to the trailing edge shall be 15”
The minimum width of the wooden rudder blade measured from the leading to the trailing edge shall be 9” over 70% of it’s depth below the garboard.
- v. A lifting rudder blade may be fitted but the rudder blade may not be raised whilst racing.
- vi. The leading edge for a distance of 9” from the top of the rudder blade below the rudderstock may not be positioned at a point further forward than 2” aft from the aft face of the transom.
- vii. The maximum thickness of the rudder blade at any point below the aft edge of the transom shall be 5/16”
- viii. The wooden rudder blade shall have a minimum thickness of 1” at its thickest point over the first 90% of its depth, when measured from the garboard.
- ix. Apart from being placed on pintles and gudgeons, the rudder should be securely attached to the boat by a rope to avoid its loss in the event of a capsize.

11. Spars

(a) General

The mast, main boom and spinnaker boom shall be solid, made of wood. The wood used should be of good quality and free from knots. The use of white or red cedar is not

permitted in the construction of spars. A maximum of three scarphs is permitted in the mast. Scarphs in the main boom are not permitted.

(b) Mast

- (i) The mast shall be stayed by a pair of top shrouds, a pair of main shrouds and a forestay.
- (ii) The mast shall be braced by a pair of freeswinging or fixed spreaders. No other form of bracing is permitted.

- (iii) The maximum length of the mast is 24' 10" including the mast tenon. All height measurements are taken from the bottom of the tenon. Recessing or rebating the mainsail track into the mast is not permitted nor is the use of any material or device to achieve the same effect.
- (iv) The minimum mast sections are as follows:

At 2' 0" from mast heel	4" x 3"
At the spreaders	3 1/8" x 2 3/8"
At the main halliard sheave:	2" x 1 1/2"
- (v) The minimum weight of the mast complete with fittings including mainsail track, but excluding all standing and running rigging shall not be less than 30lbs.
- (vi) The mainsail shall be attached to the mast by slides in an external track fastened to the mast between the mast bands.
- (vii) The height of the top shrouds shall be 22' 4" ± 6".
- (viii) The height of the main shrouds shall be 15' 4" ± 6".
- (ix) The forestay shall be fixed at a height of 20' 4" ± 6".
- (x) The spreaders, 1" x 1 1/2" oval, freeswinging or fixed, which shall be made of wood, shall be fixed at a height of 14' 7" ± 6". The length of the spreaders shall be 1' 9" ± 3".
- (xi) The jib halliard hoist shall be fixed at a height of 18' 4" ± 6".
- (xii) The height of the spinnaker halliard hoist shall be 21' 4" ± 6".

The measurement point for items (vii) to (xii) is the point of intersection with the mast.

- (xiii) The mast shall carry two painted bands not less than 1/2" wide, of a colour strongly contrasting with the colour of the mast.
 - a) The upper edge of the lower mast band shall be 3' 10" above the heel of the mast, tenon included.
 - b) The lower edge of the upper mast band shall not be higher than 19' 10" above the upper edge of the lower mast band.
 - c) When racing no part of the mainsail shall extend beyond the upper edge of the lower band and the lower edge of the upper band.
- (xiv) Chocks at deck level are permitted to adjust the bend of the mast.
- (xv) A jib halliard which is adjustable whilst racing is permitted.
- (xvi) Permanently bent or rotating masts are prohibited.

(xvii) No part of the spinnaker hoist or spinnaker boom fitting(s) attached to the mast shall project more than 2" from the mast.

(c) Main Boom

(a) The maximum length of the main boom, measured from the aft face of the mast, is 12'0".

(b) The main boom shall be constructed of one or more pieces of timber to form a "T". The top of the "T", known as the Boom Flange, shall not be less than 2 3/4" x 5/8", and the bottom part of the "T", known as the Boom Web, shall not be less than 3" x 5/8". The Web shall be reinforced for the kicking strap attachment as shown on plan. The Web and flange may be tapered for a distance not exceeding 3' 0" from either extremity of the main boom.

(c) The main boom shall carry a painted band, not less than 1/2" in width, of a colour strongly contrasting with the colour of the main boom. With the boom fixed on the gooseneck, and at right angles to the mast, the distance between the downward projection of the aft edge of the mast, disregarding local projections or cut outs, and the forward edge of the band shall not exceed 11' 7". When racing no part of the mainsail shall extend aft of the forward edge of this band.

(d) The Gooseneck shall be attached to the mast in a manner which prevents any part of the mainsail moving below the upper edge of the lower mast band whilst racing.

(e) A track, at least 10' 0" in length, must be fitted to the boom for attachment of the mainsail by slides.

(f) The main boom complete with fittings must be capable of being passed through a ring with a diameter of no more than 6".

(d) Spinnaker Pole

The maximum overall length of the spinnaker pole including fittings is 7' 0". A boat may carry a spare spinnaker pole. Only one spinnaker pole may be set at any time when racing".

12. Sails

(a) General

(i) Sails shall be made and measured in accordance with the current Mermaid Sailing Association sail measurement form. They shall be of woven material except that two unwoven windows are permitted in the mainsail and two in the jib. Any sail shall be capable of being stowed in a sailbag measuring 4' 0" deep with a diameter of 1' 6".

(ii) The boat's distinguishing number shall be placed on both sides of the mainsail and spinnaker. Numbers shall be of the following minimum dimensions, on both the mainsail and the spinnaker:

Height	12"
Width (excluding number 1)	8"
Thickness	2"
Space between adjoining numerals	2' 2 ½"

- (iii) Not more than one mainsail, two jibs and two spinnakers may be used in any one race.
- (iv) The use of sails other than those included in the boat's inventory in races is only permitted with the prior written consent of the Committee.
- (v) A new mainsail included in a boat's inventory precludes the addition of a further new mainsail until the commencement of the third sailing season following its addition.
- (vi) A new spinnaker included in a boat's inventory precludes the addition of a further new spinnaker until the commencement of the second sailing season following its addition.
- (vii) Only one new jib may be included in a boat's inventory during the course of a sailing season.
- (viii) The date of addition of a sail to the boats inventory shall be the date the sail is measured, stamped and approved by a measurer of the MSA.
- (ix) A boat may add a second-hand sail to its inventory at any time provided the boat from which the sail is being acquired is permitted to replace the second hand sail in accordance with the provisions of (d), (e) or (f) above.
- (x) Before a second hand sail can be added to a boat's inventory, it must be approved by a measurer.
- (xi) If a sail included in a boat's inventory is altered, re-cut or has any panels replaced, it must be re-measured by a measurer before being used for racing.
- (xii) The minimum cloth weights per square yard to be used in the construction of sails are as follows:

Mainsail	- 6 ozs.
Jib	- 6 ozs.
Spinnaker	- 1½ozs.

The use of materials derived from Mylar or Kevlar or similar laminated material is not permitted in mainsails or spinnakers. The use of Dynac material is prohibited from use in spinnakers.

- (xiii) A destroyed or irreparably damaged sail maybe replaced inside the normal replacement period only if prior permission has been obtained from the Committee.

(b) Mainsail

- (i) The mainsail shall be suitable for setting between the mast bands and the boom band.

- (ii) The mainsail must be attached to the mast with slides, at a maximum distance of 1' 10" apart.
- (iii) The leech measurement shall not be greater than 21' 9".
- (iv) The cross width measurement of the sail shall not exceed the following:

at quarter height	9' 3"
at half height	6' 6"
at three-quarter height	3' 6"
- (v) The headboard shall not extend more than 8" aft of the head nor exceed 9" in depth.
- (vi) The number of battens in the mainsail shall be four. The top batten shall not exceed 2' 6" in length. The other battens may not exceed 3' 0" in length. The openings of the four batten pockets shall be at 5' 0", 9' 3", 13' 6" and 17' 6" respectively from the clew, a variation of $\pm 4"$ is allowed. The battens shall not exceed 1½" in width and may be made of wood or glass fiber.
- (vii) Two transparent panels may be fitted in the mainsail. It shall not exceed 4 sq. ft. in area, nor be less than 4" from any edge of the sail.
- (viii) A double luffed or loose footed mainsail is prohibited.
- (ix) The mainsail must be capable of being reefed to a size no greater than 80% of its full size.

(c) Foresail

The foresail shall be a three cornered sail. A convex curve is permitted in the foot, but not in the leech. Only one cringle, eye or ring, is permitted in the vicinity of the clew.

- (i) The length of the luff shall not exceed 14' 3".
- (ii) The length of the leach shall not exceed 13' 0".
- (iii) The length of the foot shall not exceed 7' 0".
- (iv) The length of the centre measurement shall not exceed half the combined lengths of the luff and leach plus 1 1/2".
- (v) No battens or other form of stiffening are allowed in the foresail other than reinforcing patches made of similar material to that of the sail.
- (vi) Two transparent panels may be fitted to the foresail. It shall not exceed 3 sq. ft. in area, nor be less than 4" from any edge of the sail.
- (vii) The luff of the foresail shall not enclose the forestay.

(d) Spinnaker

- (i) The Spinnaker shall be a symmetrical, three cornered sail. No headboard battens or other stiffening device, other than normal woven cloth reinforcing is allowed.
- (ii) When measuring, the sail shall be folded on half with the tack and clew laid on top of each other, and laid on the floor as flat as possible, with just sufficient tension to remove wrinkles along the luffs, the middle fold and the foot of the sail.
- (iii) The length of the luffs shall not exceed 16' 0".
- (iv) The length of the centre fold of the sail shall not exceed 18' 6".
- (v) The half width of the foot shall not exceed 5' 3".
- (vi) The half width shall at no point exceed 5' 6". This measurement shall be taken at right angles to the luff.
- (vii) The half height/half width measurement shall not be greater than 5' 2" nor less than 4' 8". This measurement shall be found by laying the highest point of the sail directly below the centre of the tack and clew cringles. The resulting fold at half height must be made free of wrinkles and the measurement taken round the edge of the fold.
- (viii) Where the clew and the tack cringles are fixed outside the edges of the sail, the point of measurement shall be the intersection of the lines drawn along the edges of the luffs and the foot of the sail.

13. Standing and Running Rigging

- (a) The standing rigging (forestay, top shrouds and main shrouds) shall be of galvanised plough steel or stainless steel multi-strand wire, diameter not less than 3.0mm.
- (b) The forestay shall be separate from the jib luff wire.
- (c) The use of any device which adjusts the effective length of standing rigging or the spreaders whilst racing apart from rigging screws, pins or shackles is prohibited.
- (d) Kicking straps are permitted, but these must be attached to the centre line of the mast step or the mast.
- (e) A device to adjust and control the height of the spinnaker pole is permitted.
- (f) The points of attachment or lead of the standing part of mainsheet to the boat shall be contained within an area from the front of the main thwart to a point 1' 3" aft of this point on the centreline.
- (g) The layout of other running rigging in the boat is optional.

14. Racing Crew

- (a) The crew shall be comprised of three persons when racing unless a special provision is made in the sailing instructions for a different number of persons
- (b) The total weight of clothing and equipment worn or carried by a crew member, including any buoyancy apparatus, shall not exceed 30lbs.
- (c) Fabric weight jackets or similar clothing worn outside waterproof clothing is not permitted.

15. Buoyancy

All boats must carry minimum buoyancy equal to 18 cubic feet of buoyant material. At least 5 cubic feet must be in the form of solid buoyant material such as onazote or polystyrene, positioned as shown on plan. If forward buoyancy bulkheads are fitted, at least four cubic feet of solid buoyancy material must be fitted between the bulkheads and the bow. The balance may be comprised of inflatable buoyancy bags of a make approved by the Committee, i.e. Crewsaver, Holt Allen etc. The buoyancy shall be securely fixed or contained within the boat and so distributed that the boat will float level when swamped. The Committee may at its discretion require a boat to be subjected to a buoyancy test in a swamped condition. To comply with the buoyancy test, a boat in a swamped condition must be capable of floating and maintaining stability whilst supporting three crew members on board.

16. Projection

Apart from the rubbing strips, two pairs of chainplates, horse fittings, forestay plate, rudder and pintle attachments, bow protection strips, centre plate slot gaskets, normal drain plugs, self bailers and keel protection strips, no other form of projection or deflector shall be fitted through or on the outside of the hull.

17. Self Bailers

Four self bailers may be fitted, provided a maximum of two bailers are fitted on any side of the boat are positioned at least 2' apart on different planks. Only makes approved by the Committee may be used, i.e. Elvstrom type - super mini and super midi or Sea Sure Supersuck type ref no. 19.90.

18. Outboard Engine Hatch

A hatch for mounting an outboard engine on the transom is permitted in the aft deck.

19. Sheet Leads

No part of the foresail or spinnaker sheet leads shall project beyond the outside edge of the rubbing strip when viewed in plan.

20. Prohibitions

The following are prohibited:

- (a) The use of any apparatus the purpose or effect of which is, or may be, to support or assist in supporting a member of the crew outboard or partially outboard other than toe straps fitted below the level of the bottom edge of the coaming, or other strap or rope so fitted.
- (b) Self draining cockpits.
- (c) Double luffed, venturi and zipped sails and loose footed mainsails.
- (d) Hydraulic and pneumatic controlled equipment.
- (e) Jib furling gear.
- (f) Instruments except timing devices and compasses (mechanical or electronic), provided they are not programmable, cannot transmit or receive data, and the out put is limited to timing and current compass direction relative to magnetic north.³
- (g) Transom scuppers.
- (h) Sail and building materials containing Kevlar, (except in foresails and ropes) carbon fibre or foam sandwich fibreglass construction techniques.
- (i) Lightening holes in:
 - Transom
 - Decks
 - Deck Beams
 - Deck Supports
 - Floorboard supports (except for drainage)
 - Centre Plate Casing Knees (except for drainage)
 - Seats and Main Thwart
 - Main Mast Beam
 - King Plank
 - Mooring Post
 - King PostFloorboards (except for reasonable access to self bailers and two holes on each side of the centre plate casing for use by a bilge pump).
Holes or cut-outs in these items are permitted only for attachment of fittings or access for rigging and toe-straps in a functional manner.
- (j) Storage of the spinnaker pole on the mast.
- (k) Any mechanism, which permits adjustment of the shrouds or the position of the heel of the mast whilst the boat is racing. Wooden chocks to adjust the bend of the mast at the mast gate and position of heel of the main mast in the mast step are permitted.

³ Amended 49th AGM Nov 2000

- (l) Gybing centre plates
- (m) Any form of mainsheet traveller horse or hoop on the main thwart. It is permitted to raise the mainsheet lead on a device to a height no greater than 9" above the top of the main thwart.
- (n) Positioning the mainsheet horse any further forward than 1' 6" from the aft face of the transom.
- (o) Mainsheet horses capable of adjustment whilst racing.
- (p) Cutouts for spinnaker storage bags or chutes in the deck.

21. Boats Racing Inventory

The boat's racing inventory shall be comprised as follows:

Mainsail, jib, spinnaker, spinnaker pole, two 9ft. oars with rowlocks or two paddles of a length not less than 3' 6" each, two tillers, three functional personal buoyancy aids, three buckets, one pump, one anchor (minimum weight 14 lbs.) and anchor warp to be of 8mm minimum diameter nylon, polypropylene or terylene of a minimum length of 90ft. and a towing warp of not less than 30ft. in length with a minimum circumference of $\frac{3}{4}$ ". A boat may be disqualified by the race committee for racing without its complete inventory.

22. Painting

Boats shall be varnished to the waterline and the underwater portion of the hull may be painted with an anti-fouling paint. A boot top of paint or anti-fouling not exceeding 4" in width may be added.

23. Wear and Tear

On the occasion of the re-measurement of a boat, or any part of a boat's equipment or inventory, the measurer may allow additional tolerance for obvious wear or minor damage. In the case of doubt as to the additional tolerance to be applied, the matter shall be adjudicated by the Committee.

24. Minimum Weight

- a. The minimum all up weight of a boat in dry condition, including spars, rigging, centre plate, rudder and equipment specified under rule 21 but excluding sails, shall be 415kgs. (915lbs.)ⁱ.
- b. If the weight is less than defined, lead corrector weights shall be fastened to the thwart, main tie beam or decks within 3 feet of the main thwart.

ⁱ SGM at RStGYC 28th April 1999.