

**RULES OF THE NATIONAL E ASSOCIATION OF AUSTRALIA**  
**ADOPTED BY THE MEMBERS IN ANNUAL GENERAL MEETING AUGUST 1985**

**NATIONAL E SAILING ASSOCIATION**  
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## **NATIONAL E ASSOCIATION PLANS FOR CONSTRUCTION AND MEASUREMENT**

### **INTRODUCTION**

1. The National E is a one-design class and the objective of these rules is to ensure that in structural members and fundamental sailing components all yachts are as alike as possible and fair competition results.
- 1.1 Any proposed departure from these Rules and/or the Plans must be approved by the National Committee before being implemented. Failure to do so may prejudice the issue of a class "A" registration.
- 1.2 No yacht shall be permitted to race in National E Championship events unless it is a holder of a current Class "A" Measurement Certificate.
- 1.3 A Measurement Certificate is obtained by submitting to the National Secretary a completed "Measurement Form" a sample of which is shown as Schedule 1 to these rules.
- 1.4 A yacht which fully complies with the specifications herein and has been so certified by an approved measurer (see Rules of the National E Sailing Association Inc. Rule 40.6) may be registered as Class "A".
- 1.5 A yacht which does not comply fully with these Rules when measured may be registered as Class "B" which renders it ineligible for championship or interclub events organized by the National E Sailing Association Inc. until faults are rectified when re-measurement may permit upgrading to Class "A".
- 1.6 A registered yacht whether "A" or "B" Class qualifies for the issue of an Annual Measurement Certificate upon payment of the annual subscription by the registered owner.
- 1.7 Measurement Forms are obtainable from the branch secretaries. They must be completed and certified by a Measurer appointed in accordance with Rule 40.6 of the rules of the National E Sailing Association Inc. The Measurer must fully describe all measurements which do not comply with these rules.
- 1.8 It is the responsibility of the owner to ensure the completed form is forwarded to the National Executive for approval and registration.
- 1.9 A yacht substantially reconstructed must be submitted to an authorized Measurer for re-measurement. An owner who replaces any of the components shown on the measurement form in these Rules shall submit that component for inspection and approval by an authorized Measurer prior to participating in any Championship event.

## **PLANS FOR CONSTRUCTION**

2. These rules of measurement shall be read and interpreted in conjunction with the "Rules of the National E Sailing Association Inc. of Australia" and the "Plans for Construction" hereinafter referred to as "The Plans". Where variations appear between these rules and the plans, the specifications in these rules shall prevail.

## **HULL**

### **3.1 MATERIALS**

The hull of the National E Yacht may be constructed by one of the following; -

- (a) All timber construction hereinafter referred to as "All timber hulls" made in accordance with the cutting list shown as Schedule 2 to these Rules and which lays down where parts shall be of solid ply construction. Laminated pieces shall be considered solid.
- (b) G.R.P. hull laid up, in a mould taken from the National E Sailing Association Inc. plug, by a molder approved by the National Committee to which hull is fitted a timber deck in accordance with the plans for an all timber hull. Such hulls are hereinafter referred to as G.R.P. Composite hulls.
- (c) Approved G.R.P. hull with laminated floor and timber deck. The minimum thickness of the floor shall be 15mm. The materials in the laminate may be end grain balsa blacks or marine ply or Airex foam or similar materials approved by the National E Sailing Association Inc. The timber deck shall be fitted in accordance with the plans for an all timber hull. Such hulls are hereinafter referred to as G.R.P. Sandwich Laminate Hulls
- (d) G.R.P. foam sandwich laminate hull and deck constructed in a mould approved by the National Committee in accordance with the plans for a G.R.P. foam sandwich hull. Such hulls are hereinafter referred to as All Glass Hulls.
- (e) A method of construction given specific approval by the National Committee which contains an acceptable combination of the forms of construction given in (a) (b) (c) and (d).

### **3.2 FIXING**

Yachts shall be glued, resin-bonded, screwed, and/or nailed together to the form and scantlings shown in the plans but the size, position and spacing of the nails and screws are at the builder's discretion.

### **3.3 PROTECTIVE COATING**

On all timber parts a protective coating of paint, enamel, varnish, plastic or G.R.P. is allowed, such coating to be in addition to the thickness of the ply skin but included in the weight of the hull.

### **3.4 DIMENSIONS**

The hull is measured in both upright and inverted positions as indicated in Schedule 1. Dimensions given in the cutting list (Schedule 2) are minimum finished sizes except where trimming is required to fit parts in length or fairing.

3.4.1 Hull measurements are taken from a Base established in accord with Schedule 3 and measurement number 34 of Schedule 1 of these Rules. Measurement excludes keelband if fitted.

3.4.2 Length measurements of the hull are taken parallel to the said base. Length overall includes stem band and stem head fittings but not normal rudder fittings.

3.4.3 Depth measurements of the hull are taken perpendicular to the base.

3.4.4 Beam measurements with hull upright are taken between points defined as where the outside line of the hull would, if extended, meet the top of the deck.

### 3.5 KING POST

- (a) The king post in all timber hull shall be made of solid timber with a cross section no less than 32mm \* 48mm or of aluminum tubing no less than 50mm \* 50mm \* 2mm as shown on the Plans.
- (b) For G.R.P. Composite or G.R.P. Sandwich Laminate hull a king post of dimensions 60mm \* 60mm minimum shall be mounted to straddle the forward web (see rule 3.6) and extend to the underside of the king plank doubles or alternatively as for all glass hull.
- (c) The king post in an all glass hull may be made of aluminum tubing no less than 50mm \* 2mm.

### 3.6 FLOOR BATTENS

#### 3.6.1 All timber Hull:

The floor of an all timber hull shall be reinforced by fixing battens to the bottom panels to one of the following specifications:

- (a) If 6mm plywood is used for bottom panels (Item 22 on Schedule 2) there shall be three longitudinal battens with cross-section not less than 45mm \* 10mm and lengths not less than 3048mm, 2438mm and 1879mm respectively positioned so that the three battens are equally spaced between the hog and lower chine on each side of the center board case as shown on sheet 5 of the plans. or
- (b) If 8mm plywood is used for bottom panels the batten measuring 2438 in (a) above may be omitted. or
- (c) As an alternative to the longitudinal battens above a series of 10 battens each side of the center-case may be used provided these alternative side battens measure not less than 30mm wide and not more than 40mm high and are angled at approximately 45 degrees from the hog and the transom and are securely attached to the lower chine, bottom panel and the hog.
- (d) As an optional addition where longitudinal battens are used and greater floor strengthening is desired it is permissible to install up to six battens per side not less than 30mm wide nor more than 40mm high fitted over the longitudinal battens at 90 degrees to the hog and securely attached to the bottom panels. Adequate waterways in battens are advisable.

#### 3.6.2 G.R.P. COMPOSITE HULLS

- (a) The floor of a G.R.P. Composite hull shall be reinforced by extending 10mm plywood webs forward from the center transom to the aft end of the center-board case and forward from the front end of the center-board case for a minimum distance of 1400mm and to the design shown in the plans.
- (b) The plywood web aft of the center-case shall not be more than 50mm high except within 200mm of the transom frame and within 150mm of the centerboard case and shall be entirely enclosed in G.R.P. and shall be securely glassed to the hull, the transom frame and the centerboard case.
- (c) The plywood web extending forward from the centerboard case shall be securely glassed to the centerboard case and centerline of the boat and where applicable to the forward buoyancy compartment and shall be fully enclosed in G.R.P. The king post shall be mounted to straddle this web.
- (d) A minimum of four (4) suitable diagonal battens per side evenly distributed between the transom and the line of the king post shall be securely glassed to the bottom panels extending from the vicinity of the chine to the vicinity of the center line.

#### 3.6.3 G.R.P. SANDWICH LAMINATE HULL

- (a) The floor of a G.R.P. Sandwich Laminate hull shall be reinforced by incorporation of the plywood webs specified in clause 3.6.2 above but the diagonal battens specified in clause 3.6.2 (d) may be omitted.

### 3.7 CENTRE- BOARD CASE - OPTIONAL BRACING:

- (a) In the all timber hull the centerboard case may be extended forward to a point not more than 114mm forward of the king post. Such extension may be a continuation of the sides and packing of the case, or a separate knee, but shall not exceed 51mm in width or extend further than 114mm above the hog except within 254mm of the inside of the front of the case.

- (b) A single cross brace may be attached to the forward end of the centerboard case in any approved hull. Such cross brace may be constructed from either alloy tubing measuring between 16mm minimum and 25mm maximum outer dimension or from timber with a maximum cross section of 1600sq mm. The cross brace shall be securely fastened to the center-board case forward of the thwart and to the lower chines, or upper chines or seat stringers on each side.
- (c) AFT END OF THE CENTREBOARD CASE: -The bracing is to attach to the top of the center-case within 152mm of the inside of the aft end of the center-case and attach to the floor at a point where the side tank attaches to the floor. The brace may be made of either: - alloy, timber, or F/G foam sandwich material.

### 3.8 DECK

- (a) The hull shall be completely decked forward from a line commencing between 3110mm and 3137mm from the aft side of the transom.
- (b) Side decks shall extend from the transom to the foredeck being not less than 140mm nor more than 165mm wide for the first 2845mm forward from the aft side of the transom.
- (c) The deck shall be complete except for lead holes for shrouds, trapeze rigging, spinnaker brace/sheets or mooring lines.
- (d) Rubbing beads (gunwales) may be extended out from the hull along the full length of each side deck but the maximum extension at any point forward of the shroud shall be 51mm and aft of the shroud shall be 38mm.

### 3.9 OPTIONAL HULL EXTRAS

The following hull components shown on the plans for construction are optional:

- (a) The outer bilge keels - parts 13 on sheet 5 of plans
- (b) The aft side-benches - parts 46 on sheet 5 of plans.
- (c) The stern knee - as on sheet 5 of plans
- (d) A keel band.
- (e) The area between the king post and the forward bulkhead and from the hog to the deck may be enclosed by a panel no greater than 50mm in thickness. The material may be plywood, G.R.P. or Foam Sandwich laminate.

## CENTRE-BOARD

- 4.1 The shape, thickness, length and width of the centerboard shall be in accordance with the diagram and measurements shown as Schedule 4 to these rules.
- 4.2 Within the tolerance shown in that Schedule 4 the centerboard may be shaped to a hydrofoil section.
- 4.3 The centerboard may be made either in plywood or solid timber and may be painted, varnished or sheathed in G.R.P. or foam sandwich construction sheathed with Glass Fibre, Carbon or other fibre reinforcements.
- 4.4 The centerboard shall be pivoted on a bolt located not more than 2540mm nor less than 2515mm forward from the aft side of the transom.
- 4.5 The bolthole through the centerboard shall not be more than 114mm nor less than 89mm from the fore edge of the centerboard.
- 4.6 The centerboard when fully lowered at approximately 90 degrees to the keel shall extend no more than 1006mm nor less than 981mm from the keel excluding the keel-band.
- 4.7 The method of securing the centerboard up or down during sailing is optional.

## FITTINGS AND EQUIPMENT

- 5.0 The required fittings are those shown on the plans but others of similar design may be substituted provided they do not incorporate other uses.

### 5.1 MAINSHEET FITTINGS

- (a) The mainsheet shall be led from one of the two positions shown on the plans.
- (b) A mid-boom sheeting system may incorporate a traveler on a beam mounted athwartships within 152mm of the inside of the aft end of the centerboard case. One multi-purchase block or two or three single sheaved blocks may be used on the boom positioned evenly about a center point between 1499mm and 1575mm from the aft side of the bolt rope groove on the mast. The type and material of the sheet block and controls for the traveler are optional.
- (c) A mid-boom sheeting system incorporating a mainsheet bridle or "loveday loop" of either solid or flexible construction mounted athwartships within 152mm of the inside aft end of the center-board case and having an effective height no greater than 500mm above the top of the center-board case. The blocks included in Rule 5.1 (b) may be used in conjunction with this system.

### 5.2 JIB FITTINGS

- (a) The jib shall be tacked on the centerline within 152mm of the bow and no higher than 305mm above the foredeck.
- (b) The jib sheet leads may be of a fixed or adjustable type and shall be positioned on the side decks so that the jib sheet when hard on shall intersect the deck between 2134mm and 2743mm from the aft side of the transom.

### 5.3 CLEATS FOR SECURING SHEETS

- (a) Sheets may be secured by any one of the following; - Jam cleats, cam cleats, clam cleats, snubbing winches or ratchet blocks all of single purchase design excepting for jib sheets which may incorporate two part purchase.
- (b) Positioning of cleats is optional.

### 5.4 OPTIONAL FITTINGS

The following fittings are optional but if fitted must comply with the specifications herein and with the provisions of clause 40.1 and 40.11 of the Rules of the Association.

- (a) TRAPEZE FITTINGS - If a trapeze is installed it shall be attached to the mast at the hounds. Fittings and the belt to support the crew are optional.
- (b) AUTOMATIC SUCTION BAILERS - . Any design.
- (c) TRANSOM SCUPPERS - Total area not more than 645sq cm. In timber hulls the apertures shall not interfere with transom framing. In other hulls the apertures shall be positioned as if transom framing was provided. Covered by closing flaps, funnels or the like.
- (d) BOOM VANG
  - (i) A boom vang comprising kicking strap, winch strap, lever or any arrangement of block and tackle may be fitted.
  - (ii) The anchor point for the boom vang in all timber hull may be either on the hog immediately abaft the king post or on the king post not more than 127mm above the hog.
  - (iii) The anchor point for the boom vang in a G.R.P. hull may be either on the web (see rule 3.6.2, etc.) immediately abaft the king post or on the king post not less than 175mm below a point at which a horizontal line from the upper side of the seat stringers strikes the king post.
- (e) HIGHFIELD LEVERS or POWER BOXES - To tension fore and/or main halyard may be installed provided that sails can be readily lowered when boat is on the water.
- (f) TENSIONING DEVICES
  - To tension luff of mainsail.
  - To tension foot of mainsail.
  - To tension luff of jib.
- (g) MAST STEP AND HEEL FITTINGS
  - Any design provided the mast is fixed in a single position and cannot rotate.
- (h) MAINSAIL REEFING - Either by reef points or roller reefing.
- (i) JIB FURLING - . By roller reefing

- (j) SEAL FOR CENTREBOARD CASE - With strips of rubber, plastic, sailcloth or similar material.
- (k) TOE STRAPS - Any style
- (l) MOORING CLEATS AND LEADS - Any design
- (m) SPINNAKER CHUTE - Optional

## **BUOYANCY**

6.1 There shall be securely attached to every hull at least three separate buoyancy units capable collectively of supporting a total weight of not less than 272kg of which at least 114kg shall be located forward of the king post and so positioned that the hull without spars and filled with water will float roughly level fore and aft.

6.2 Buoyancy units shall consist of inflated bags and/or built in water tight compartments all installed in accordance with the following specifications and disposed in one of the four Alternative buoyancy arrangements included as clause 6.5 of these rules.

### 6.3 INFLATED BAGS

- (i) Inflated Bags - (Approved type) must be securely fastened to seat stringers and in timber hulls, to the chines; in G.R.P. hulls to pads glassed to bottom panels.
- (ii) Bags less than 750mm in length (short bags) shall be supported by at least two lashings or webbing straps evenly spaced. Bags longer than 750mm (long bags) shall be supported by at least three lashings or webbing straps evenly spaced.
- (iii) Blocks of solid closed cell foamed plastic, the surface of which is protected by woven cloth impregnated with a waterproof sealing material or by an equivalent alternative may be substituted for Inflated bags. These buoyancy blocks may be shaped to fit closely against the hull and under the side benches and thwarts but must otherwise meet the specifications for inflated bags.

### 6.4 BUILT IN COMPARTMENTS

- (i) Built in bow and/or stern compartments shall be constructed of not less than 4mm plywood supported by stringers and bearers of at least 19mm X 13mm section at intervals of not more than 254mm. Built in side compartments shall be constructed in accordance with the plans.
- (ii) A built in bow compartment may be either a full bulkhead at position of DECK beam 2 in the plans or a "half tank" formed by a partial bulkhead at or within 152mm of the king post with a top carried by stringers forward horizontally level to the stem at a height not less than 254mm above the hog at the king post. The seat stringers may extend forward to carry the top of the tank to the stem.
- (iii) A built in stern compartment may extend forward from the transom to under the after thwart. If so constructed the stiffening piece to the thwart (part 27 in Schedule 2) shall be incorporated into tank. The thwart, as per the plans shall be included on top of separate from the compartment. The seat stringers may be extended to the transom to carry the top of the compartment.
- (iv) Built in side compartments shall extend from the fore seat knees (part 36 Schedule 2) to the transom and be constructed of not less than 4mm plywood supported by stringers and bearers or G.R.P, or G.R.P. sandwich laminate of equivalent strength in accordance with plans for built in buoyancy. Each side compartment shall be divided into a minimum of 2 separate tanks and shall be built with near horizontal top sides at the level of the seat stringers and where the center thwart attaches to the top of the center-case as shown on plans of construction and with a near vertical face extending at 90deg down to the floor or anywhere less than 90deg to the floor or the lower chine. In a hull with built in side compartments the installation of the forward and aft side benches above the buoyancy tanks is optional.

### 6.5 ALTERNATIVE ARRANGEMENTS OF BUOYANCY UNITS

#### (l) Alternative A

Built in bow compartment plus inflated bags. In addition to built in bow compartment there shall be:

- (a) In all timber hulls at least one long bag and one short bag on each side extending aft from approximately amidships.
  - (b) In G.R.P. Composite hulls and G.R.P. Sandwich laminate hulls there shall be at least two long bags each side one under the side bench and one between the aft end of the side bench and the transom.
- (ii) Alternative B  
Built in bow and side compartments without inflated bags.
- (iii) Alternative C  
Built in bow and stern compartments plus inflated bags.  
There shall be at least one short bag installed approximately amidships on each side.
- (iv) Alternative D  
Inflated bags without built in compartments.  
NB: Applicable only to all timber hulls.  
Arrangement comprising one bow bag forward plus one long bag and one short bag on each side extending aft from approximately amidships. A shelf of plywood may be provided above the bow buoyancy bag.

### **WEIGHT**

7. The weight of the complete hull in dry condition excluding spars, rigging, rudder and tiller but including centerboard, specified buoyancy, and fittings permanently attached by bolts, screws, nails, rivets or glue shall not at any time be less than 97.4kg.  
A hull which weighs less than 97.4kg shall be fitted with correctors aggregating not more than 4.5kg total weight which shall be affixed to the center line of the Hull in plain sight and as close as practical to the transom and noted on the measurement form and annual certificate.  
Removal of the correctors voids the boat's "A Class" certificate.

### **RUDDER BLADE, RUDDER STOCK AND TILLER**

#### 8.1 RUDDER BLADE

- (a) The thickness, length width and shape of the rudder blade below the point at which it pivots in the rudderstock shall be in accordance with the measurements shown for that portion of the rudder in Schedule 5 to these rules. It may be either in plywood, solid timber or foam sandwich construction and may be sheathed with Glass Fibre, Carbon or other fibre reinforcements.
- (b) Within the tolerances shown in Schedule 5 the rudder blade may be shaped to a hydrofoil section.
- (c) The rudder blade shall pivot within the rudder stock and may be used at any angle but when fully lowered at approximately 90 degrees to the keel, shall extend no more than 560mm nor less than 480mm from the keel, (excluding the keel band) measured at the transom.
- (d) The method of holding down the blade is optional.
- (e) The horizontal distance of the leading edge of the rudder blade when centered in the vertical position from the transom shall not exceed 50mm.

#### 8.2 RUDDER STOCK

The rudder stock may be of any design and made of any material provided it is of equal strength to the timbers shown in Schedule 2 and/or the plans of construction.

#### 8.3 TILLER

The tiller may be of any shape, design, size or material and may be an integral part of the rudder stock.



## SPARS

### 9.1 MAST

- (a) The mast shall be made of all timber or aluminum.
- (b) A timber mast shall be made in accordance with the design on sheet 7 of the plans with the section between the hounds and a point 948mm above the deck at mast base being 83mm X 64mm (-3mm +6mm).
- (c) An aluminum mast shall be Comalco section E7658 or equivalent having a section between the hounds and a point 948mm above the deck at mast base of 76 (+3.5 -3)mm X 60(+4-3)mm. Circular sections are not permitted.
- (d) The mast may be tapered above the hounds.
- (e) Black (or contrasting color) bands shall be painted on the mast such that the lower edge of the upper black band shall be 6110mm above the deck at mast base and the upper edge of the lower black band shall be 471 mm above the deck at mast base. The luff of the main sail shall not extend beyond the stated edges of the black bands.
- (f) The weight of a timber mast including rigging and fittings shall not be less than 10.4kg
- (g) The weight of an aluminum mast including rigging and fittings shall not be less than 9.5kg.

### 9.2 MAIN BOOM

- (a) The main boom shall be made of timber or aluminum having a major diameter of not less than 63mm nor more than 108mm.
- (b) A boom vang attachment may be fitted provided it is secured between 635mm and 711mm from the aft side of the bolt rope groove on the mast.
- (c) A black (or contrasting color) band shall be painted on the boom with its inner edge 2667mm from the aft side of the bolt rope groove on the mast. The foot of the mainsail must not extend beyond this edge.

### 9.3 SPINNAKER BOOM

- (a) One spinnaker boom made of either timber or aluminum with minimum diameter of 32mm is permitted.
- (b) The effective length measured forward from mast to working surface of outer fitting when rigged shall not exceed 2600mm.
- (c) Spinnaker boom fittings and associated control systems are optional.
- (d) The spinnaker boom shall be attached to the mast at a point not less than 471 mm nor more than 776mm above the deck at mast base.

## RIGGING

### 10.1 STANDING RIGGING (see Schedule 10)

- (a) Material and gauge are optional but shall be at least equivalent in strength to that shown in Schedule 10.
- (b) The mast shall have one pair of shrouds and one forestay. The upper ends of the shrouds shall be attached to the mast not less than 4459mm nor more than 4510mm above the deck at the mast base. The lower ends of the shrouds shall pass through a bush on the side decks, the center of which is not less than 2616mm nor more than 2667mm forward from the aft side of the transom and no more than 70mm inboard of the outside of the hull and shall be securely attached to the fore seat knees or similar anchorage.
- (c) A timber mast must be fitted with either diamond stays or shroud spreaders. These are optional if the mast is aluminum.
- (d) Diamond stays, if used, shall be connected to the mast at the hounds led over a cross-tree not less than 533mm nor more than 584mm long located between 2427mm and 2478mm above the deck at mast base and reconnected to the mast at a point between 446mm and 497mm above the deck at the mast base.
- (e) Shroud spreaders if used shall be connected to the mast at a distance between 2427mm and 2478mm, above the deck at mast base and shall not deflect the shroud by more than 51mm from the normal position when the mast is stepped without sails.

## 10.2 RUNNING RIGGING

- (a) Material and gauge is optional.
- (b) The mainsail, jib and spinnaker halyards may each be led either outside or inside the mast.
- (c) The jib halyard sheave shall be attached to the mast not less than 4281mm nor more than 4434mm above the deck at mast base.
- (d) The spinnaker halyard sheave shall be attached to the mast not less than 4611mm nor more than 4662mm above the deck at mast base.

## SAILS

### 11.

- (a) General - A suit of sails shall comprise jib, mainsail and spinnaker. Colored peaks on jib and mainsail are a distinguishing feature of the class and must be included.
- (b) Only one suit of measured sails may be used throughout a National or State Championship series except that a Race committee may approve the replacement of a sail lost or damaged to the extent that its efficiency is seriously impaired.
- (c) Sail measurements shall be taken with sails spread on a flat surface and under sufficient tension to remove wrinkles along the line measured. Datum point is from the tack unless otherwise defined. Measurements are straight lines except where otherwise specified. The width measurements of the mainsail at nominal half height and three quarter height positions are taken at the distances shown above the tack and at right angles to the luff.
- (d) The sails are to be made of woven material except for optional unwoven transparent panels in jib and/or mainsail. Such a panel shall not exceed 0.3sqm in area and shall be positioned so that no edge is closer than 150mm to the luff, leech or foot.

### 11.1 JIB OR FORESAIL

- (a) The plan and measurements for the jib are shown as Schedule 7 to these rules.
- (b) The jib shall be white sailcloth except for a triangle peak colored on both faces from the head 1,000mm (+/-100mm) down the leech and thence extending to the luff at approximately 90 degrees.

### 11.2 MAINSAIL

- (a) The plan and measurements for the mainsail are shown as Schedule 8 to these rules.
- (b) The mainsail shall be white sailcloth except for a triangle peak colored on both faces extending from the head 1,500mm (+or-100mm) down the leech and thence extending to the luff at approximately 90 degrees.
- (c) The mainsail may have stiffening, which shall consist of a headboard not more than 114mm wide plus three battens. The batten pockets shall divide the leech into four approximately equal parts, none of which shall exceed any other by more than 305mm.
- (d) The top pocket shall run through from leech to luff and shall not be more than 1,219mm long. The lower pockets shall not be longer than 914mm.
- (e) The material for battens is optional.
- (f) The class insignia (a black E turned on its back) measuring approximately 437mm wide X 305mm high with 76mm sections shall be placed below the Coloured peak on each side of the sail. The insignia may be placed back to back.
- (g) The registered number of the yacht shall be placed on each side below the insignia in black figures approximately 305mm high X 76mm section. The number of the starboard side being placed higher than the port side.

### 11.3 SPINNAKER

- (a) The plan and measurements for the spinnaker are shown as Schedule 9 to these rules but note that a spinnaker which is to be used at a National Championship series prior to 1987/88 shall comply with the plan and measurements shown as Schedule 9 to these rules.
- (b) The spinnaker is to be symmetrical about its centerline and may be of any color or combination of colors.

- (c) (deleted).
- (d) The measurement across the width of the spinnaker be measured after folding the head to the clew as per the standard IYRU method, rather than attempting to construct an imaginary line at 90 degrees to the centreline fold. That the maximum cross width found by folding the head to the clew and smooth free of wrinkles, be a maximum of 1600mm measured along the fold.

#### **REGISTERED NUMBER**

- 12.
  - (a) The registered number is issued by the National Registrar and permanently identifies each yacht thereafter.
  - (b) The registered number shall be permanently affixed to the hull in numbers not less than 19mm high in the following positions: -
    - (i) for all timber hulls it shall be carved into the top of the hog between centerboard case and transom.
    - (ii) for G.R.P. Composite and G.R.P. Sandwich laminate hulls it shall be indented in the transom beam.
    - (iii) For all glass hulls it shall be fixed to the centerline of the floor near the transom and covered with transparent fiberglass.

#### **INTERPRETATION**

- 13. In translating and interpreting these rules it shall be understood that the word "shall" is mandatory and the words "can" or "may" are permissive.

#### **CHANGES TO THE RULES OF MEASUREMENT**

- 14. In accordance with the rules of the National E Sailing Association Inc. changes to any component of the rules of measurement shall require a notice - on - motion at a general meeting of all members.