NATIONAL
SQUIB™
CLASS RULES
June 2009

The Squib was designed in 1967 by Oliver Lee and was adopted as a national class in 1972.

INDEX

INTRODUCTION

*The National Squib Class Rules are **closed class rules** (previously known as one-design class rules) where anything not specifically permitted by the class rules is prohibited. The rules are intended to ensure that boats in the National Squib Class are as nearly as possible the same as regards shape and weight of hull, the deck, keel, rudder, spars and sails, and in all respects affecting performance.*

National Squib hulls, hull appendages, rigs and sails are measurement controlled.

National Squib shall only be manufactured by RYA licenced builders, using the moulds for the hull and deck approved by the RYA and owned by the NSAO. The keel shall be cast using the pattern approved by the RYA and owned by the NSOA.

National Squib rudders may be manufactured by optional builders.

National Squib rigs may be manufactured by optional builders.

National Squib sails shall only be manufactured by RYA licenced manufacturers.

National Squib hulls, hull appendages, rigs and sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of the class rules.

Owners and crews should be aware that compliance with rules in Section C is NOT checked as part of the certification process.

Rules regulating the use of equipment during a race are contained in Section C of these class rules, in ERS Part I and in the Racing Rules of Sailing.

This introduction only provides an informal background and the National Squib Class Rules proper begin on the next page.

Note: The class permits In-house Certification – as detailed in Section G sails – in accordance with the ISAF Guidelines.

PLEASE REMEMBER:IF THESE RULES DO NOT SAY THAT YOU CAN – THEN YOU CAN NOT.

PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE

A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.

A.1.2 The word "shall" is mandatory and the word "may" is permissive.

A.2 ABBREVIATIONS

A.2.1 ISAF International Sailing Federation
RYA Royal Yachting Association
NSOA National Squib Owners Association
ERS Equipment Rules of Sailing
RRS Racing Rules of Sailing

A.3 AUTHORITIES

A.3.1 The national authority of the class is the RYA which shall co-operate with the NSOA in all matters concerning these **class rules**.

A.3.2 Notwithstanding anything contained herein, the RYA has the authority to withdraw a **certificate**.

A.4 ADMINISTRATION OF THE CLASS

A.4.1 The class shall be administered by the RYA in conjunction with the NSOA

A.5 ISAF RULES

A.5.1 These **class rules** shall be read in conjunction with the ERS.

A.5.2 Except where used in headings, when a term is printed in "**bold**" the definition in the ERS applies and when a term is printed in "*italics"* the definition in the RRS applies.

A.6 CLASS RULES VARIATIONS

A.6.1 At Class Events – see RRS 88.1.d) – ISAF Regulation 26.5(f) applies. At all other events RRS 86 applies.

A.7 CLASS RULES AMENDMENTS

A.7.1 Amendments to these **class rules** are subject to the approval of the RYA.

A.8 CLASS RULES INTERPRETATION

A.8.1 Interpretation of **class rules** shall be made by the RYA.

A.9 CLASS BUILDING FEE

A.9.1 The licensed hull builder shall pay the Class Building Fee to the RYA on commencement of building whether or not it is subsequently certified.

A.9.2 The RYA shall, after having received the Class Building Fee for the hull, send a Building Fee receipt and a sail number to the licensed hull builder.

A.10 SAIL NUMBERS

A.10.1 Sail numbers shall be issued by the RYA.

A.11 HULL CERTIFICATION

A.11.1 A **certificate** shall record the following information:

(a) Class
(b) **Certification authority**
(c) Sail number issued by the **certification authority**
(d) Owner
(e) Hull identification when applicable
(f) Builder/Manufacturers details
(g) Date of issue of initial **certificate**
(h) Date of issue of **certificate**
(i) Details of **corrector weights**
(j) Extra items per D.8.1 (b)
(k) Name of **official measurer**
(l) Sailing weight of **boat**

A.12 INITIAL HULL CERTIFICATION

A.12.1 For a **certificate** to be issued to hull not previously **certified**:

(a) **Certification control** shall be carried out by the **official measurer** who shall complete the appropriate documentation.
(b) The documentation and **certification** fee shall be sent to the **certification authority**.
(c) Upon receipt of a satisfactorily completed documentation and **certification** fee the **certification authority** may issue a **certificate**.

A.13 VALIDITY OF CERTIFICATE

A.13.1 A hull **certificate** becomes invalid upon:

(a) the change to any items recorded on the hull **certificate** as required under A.11.
(b) withdrawal by the **certification authority**,
(c) the issue of a new **certificate**,

A.14 HULL RE-CERTIFICATION

A.14.1 The **certification authority** may issue a **certificate** to a previously certified **hull**:

(a) when it is invalidated under A.13.1 (a), after receipt of the old **certificate** when available, and **certification** fee.
(b) when it is invalidated under A.13.1 (b), at its discretion.
(c) in other cases, by application of the procedure in A.12.

A.15 RETENTION OF CERTIFICATION DOCUMENTATION

A.15.1 The **certification authority** shall:

(a) retain the original documentation upon which the current **certificate** is based.

Section B – Boat Eligibility

For a **boat** to be eligible for *racing*, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

B.1.1 The boat shall:

(a) be in compliance with the **class rules**.

(b) have a valid hull **certificate**.

B.2 FLOTATION CHECKS

B.2.1 Where a full height aft flotation tank is fitted it shall be pressure tested by the application of an over pressure test of 1.25kPa (125mm water) which shall not drop by more than 0.75kPa (75mm water) within 30 seconds. Such test shall be undertaken by an RYA Approved Class Measurer who shall endorse and date the boat's Measurement Certificate upon satisfactory testing.

B.3 CLASS ASSOCIATION MARKINGS

B.3.1 A valid Class Association Sticker shall be affixed to the **hull** in a conspicuous position.

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. In case of conflict Section C shall prevail.

The rules in Part II are **closed class rules**. **Certification control** and **equipment inspection** shall be carried out in accordance with the ERS except where varied in this Part.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

(a) The ERS Part I – Use of Equipment shall apply.

C.2 CREW

C.2.1 LIMITATIONS

(a) The **crew** shall consist of a minimum of 2 persons.

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

(a) The **boat** shall be equipped with **personal buoyancy** for each crew member to the minimum standard ISO 12402-5.

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising on the **boat** chosen by the owner or person in charge is prohibited.

C.5 PORTABLE EQUIPMENT

C.5.1 FOR USE

(a) MANDATORY

(1) One hand bailer or bucket

(2) One anchor of not less than 4 kg in weight and with not less than 18 m of line of not less than 8 mm in diameter

(b) OPTIONAL

(1) Electronic or mechanical timing devices

(2) Magnetic or digital compasses that are entirely self-contained units with the following modes: Heading, tactical scale, timer

(3) Echo Sounder

(4) Marine band hand held VHF Radio

C.5.2 NOT FOR USE

(a) MANDATORY

(1) One paddle minimum 1000 mm long

(b) OPTIONAL

(1) One outboard engine

C.6 BOAT

C.6.1 WEIGHT

	minimum	maximum
The weight of the **boat** in dry condition	680 kg	

The weight shall be taken to include sails and compulsory and permanently fitted optional equipment. Only one anchor with a maximum weight of 5Kg, and not more than 20m of warp with a maximum diameter of 12mm, and no chain cable shall be included within the all-up sailing weight.

C.6.2 CORRECTOR WEIGHTS

(a) **Corrector weights** of wood or metal shall be permanently fastened to the underside of the cockpit seats when the **boat** weight is less than the minimum requirement.

(b) The total weight of such **corrector weights** shall not exceed 30 kg. See also rules A.11.1 and B.1.1.

C.6.3 FLOTATION

(a) The flotation elements shall be maintained in good condition.

C.7 HULL

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) Routine maintenance such as painting and polishing is permitted without re-measurement and re-**certification**.

C.7.2 FITTINGS

(a) USE

(1) Hatch covers and drainage plugs shall be kept in place at all times.

(2) Toe straps, if fitted, shall be arranged inside the cockpit and not capable of extending out board of the **sheerline.**

(3) Optional handles on the deck shall not exceed 75mm in overall height.

C.7.3 LIMITATIONS

In addition to the fittings listed in D.8.1 and those shown on the plans, only the following may be fitted:

(a) One or two headsail sheet winches, position optional.
(b) Additional cleats, fairleads, jamming cleats, blocks.
(c) Outboard bracket(s) on transom or gunwale.
(d) Stowage chocks and/or brackets for outboard motor.
(e) Deck clips for cockpit cover and/or tent.
(f) Spinnaker turtle and associated fittings.
(g) Tiller lock.
(h) Stowage clips for paddle(s), spinnaker boom, sail bags and other equipment.
(i) Boom crutch.
(j) Bilge pump(s) which may discharge through the **hull** or the deck.
(k) Halyard winches or tensioners.
(l) Headsail fairlead tracks maximum length 385mm, which shall be mounted within the outer un-sanded areas of the deck edge.
(m) Jib furling / roller reefing device and fitting plate which shall retain the forestay and be fixed to the forestay plate above the deck.

C.8 HULL APPENDAGES

C8.1 LIMITATIONS

(a) Only one **rudder** blade shall be used during an event of less than 7 consecutive days, except when a rudder has been lost or damaged beyond repair.

C8.2 RUDDER

(b) USE

(1) The **rudder** blade shall be attached to the hull in such a way that it cannot float away.

C.9 RIG

C.9.1 LIMITATIONS

(a) Only one set of **spars** and standing **rigging** shall be used during an event of less than 7 consecutive days, except when an item has been lost or damaged beyond repair.

C.9.2 MAST

(a) USE

(1) The **spar** shall be stepped in the mast step in such a way that the heel is not capable of moving more than 10 mm.

C.9.3 BOOM

(a) DIMENSIONS

	minimum	maximum
Limit mark width	10 mm	
Outer point distance		2743 m

(b) USE

(1) The intersection of the aft edge of the **mast spar** and the top of the **boom spar**, each extended as necessary, shall not be below the upper edge of the mast **lower limit mark** when the **boom spar** is at 90° to the **mast spar**.

(2) The **limit mark** shall be indelibly marked.

(3) The positions of the mainsheet and kicking strap attachments shall not be altered.

C.9.4 SPINNAKER POLE

(a) LIMITATIONS

(1) Not more than 1 spinnaker pole shall be carried on board.

C.9.5 STANDING RIGGING

(b) USE

(1) Rigging links and rigging screws shall not be adjusted.

(2) The shrouds may be fitted with rollers or plastic tubes.

(3) The backstay shall be attached to the mast head crane and may be adjusted.

C.9.6 RUNNING RIGGING

(a) USE

(1) The type and material is optional.

(2) The mainsheet shall be lead either directly to the mainsheet traveller, or to the mainsheet traveller and swivel block mounted adjacent to the centre of the mainsheet traveller.

(3) Barber haulers, i.e. a freely floating block or eye on each sheet between the clew of the headsail and the fairleads as defined in rule D.8.1.(6) with single control line which when being adjusted shall effect a modification to the sheeting angle in one direction only are permitted.

(4) Barber haulers or reaching hooks for the spinnaker sheet and/or guy are permitted.

(5) A Cunningham on the mainsail and jib is permitted.

(6) A mainsail outhaul is permitted.

C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) **Sails** shall not be altered in any way except as permitted by these **class rules**.

(b) Routine maintenance such as cleaning and minor repairs is permitted without re-measurement and re-**certification**.

C.10.2 LIMITATIONS

(a) Not more than 1 mainsail, 1 jib and 1 spinnaker shall be carried aboard.

(b) Event Notice of Race or Sailing Instructions may permit an additional spinnaker to be carried. The second spinnaker shall be used only if the first is lost or damaged beyond repair.

C.10.3 MAINSAIL

(a) USE

(1) A halyard shall be used to hoist the **sail**. The arrangement shall permit hoisting and lowering of the **sail** at sea.

(2) The highest visible point of the **sail**, projected at 90° to the mast **spar**, shall not be set above the lower edge of the mast **upper limit mark**. The intersection of the **leech** and the top of the **boom spar**, each extended as necessary, shall not be behind the fore side of the **boom outer limit mark**.

(3) **Luff** and **foot** bolt ropes shall be in the **spar** grooves or tracks.

(4) Reefing points or lacing may be fitted.

C.10.4 HEADSAIL

(a) USE

(1) A halyard shall be used to hoist the **sail**. The arrangement shall permit hoisting and lowering of the **sail** at sea.

(2) The jib shall not be furled while *racing*.

Section D – Hull

D.1 PARTS

D.1.1 MANDATORY

(a) Hull shell

(b) Deck

(c) Buoyancy Tanks

(d) Gunwale Rubbing Strakes

(e) Thwarts

D.2 GENERAL

D.2.1 RULES

(a) The **hull** shall comply with the **class rules** in force at the time of initial **certification.**

D.2.2 CERTIFICATION

See Rule A.12.

D.2.3 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The **hull** shall not be altered in any way except as permitted by these **class rules**.

(b) The removable cockpit floorboard may be made in two pieces.

(c) Routine maintenance such as painting and polishing is permitted without re-measurement and re-**certification**.

(d) If any hull moulding is repaired in any other way than described in D.2.3(c), an **official measurer** shall verify that the external shape is the same as before the repair and that no substantial stiffness, or other, advantage has been gained as a result of the repair.

D.2.4 DEFINITIONS

(a) HULL DATUM POINT

The **hull datum point** is the aft intersection of the underside of the **hull** and the transom, as shown on the diagram in section H and a perpendicular line through this point for all length measurements.

D.2.5 IDENTIFICATION

(a) The **hull** shall carry the sail number cut into or permanently marked on the transom in figures minimum height 30mm.

D.2.6 BUILDERS

(a) The **hull** shall built by a builder licensed by the RYA.

(b) All moulds & patterns shall be approved by the RYA.

D.3 HULL SHELL

D.3.1 MATERIALS

(a) The material of the **hull** shall be in accordance with a material specification submitted by the manufacturer to and approved by the RYA prior to the commencement of construction.

D.3.2 CONSTRUCTION

(a) The **hull** shall be constructed to the RYA approved plans and specifications.

D.4 DECK

D.4.1 MATERIALS

(a) The deck shall be built from glass reinforced plastic.

D.4.2 CONSTRUCTION

(a) The deck shall be constructed to the RYA approved plans and specifications.

(b) Holes not exceeding 120mm in any direction are permitted for the instillation of fittings or equipment.

D.5 BUOYANCY TANKS

D.5.1 CONSTRUCTION

(a) Buoyancy equipment shall comprise of:

(1) A forward buoyancy tank as detailed on the official plans, of plywood of not less than 12mm nominal thickness (11.18mm minimum).

(2) Not less than 158 litres of additional flotation equipment fitted forward of the mast.

(3) An aft buoyancy tank as detailed on the official plans or a full height aft flotation tank, of plywood of not less than 12mm nominal thickness (11.18mm minimum)

(b) Where a full height aft flotation tank is fitted this shall comprise of a compartment formed between the hull, deck and an athwartships bulkhead. Such tank shall contain not less than 0.180 m^3 of either securely fixed closed cell foam with a density of less than 150kg/m^3 and water absorption by volume of less than 8% or securely fixed rigid wall air containers.

(c) Flotation equipment of any type additional to the foregoing may be fitted under the decks, under the seats and/or under the floor.

(d) Each buoyancy tank may be fitted with two inspection holes. Each hole shall be closed in a watertight manner with a detachable cover capable of resisting accidental dislodgement.

(e) Drain holes in buoyancy tanks are permitted, provided that the watertight integrity of the buoyancy tank is maintained.

D.6 GUNWALE RUBBING STRAKES

D.6.1 MATERIALS

(a) The rubbing strakes shall be of any resilient material.

D.6.2 CONSTRUCTION

(a) The rubbing strake shall run unbroken on each gunwale.

(b) The rubbing strake shall be uniform in section to a point within 50mm of the extreme ends. (joint gaps up to 5mm are allowed).

D.7 THWARTS

D.7.1 MATERIALS

(a) The forward cockpit seats shall be either/or:

(1) Solid teak

(2) Afrormosia

(3) Afzelia

(4) Agba

(5) Iroko

(6) Sapele

(7) Seraya

(8) Utile

(9) Mahogany

D.7.2 CONSTRUCTION

(a) The seats shall be fitted in accordance with the official plans.

D.8 ASSEMBLED HULL

D.8.1 FITTINGS

(a) MANDATORY

The following fittings shall be positioned in accordance with the measurement diagram:

(1) Stemhead fitting
(2) Forestay fitting
(3) Bow mooring cleat
(4) Stern mooring cleat
(5) Shroud plates
(6) Headsail fairleads mounted within the outer un-sanded area of the deck
(7) Mainsheet track with one traveller. Maximum useable length 610mm
(8) Mast step on top of the forward buoyancy tank
(9) Cockpit floor. (Nominal thickness 12mm (11.18mm minumum)

(b) OPTIONAL

The following additional items may be fitted but shall not be readily removable and shall, if included in the weight of the boat, be recorded on the measurement certificate and shall not be removed without a reweighing of the boat.

(1) extra lockers and/or shelves
(2) extra seats of wood or GRP fitted within the cockpit area or on top of the side decks.

D.8.2 DIMENSIONS

The keel line shall be taken as the intersection line from transom to stem of the hull shell and the **hull** centreplane.

The sections shall be taken as vertical, transverse planes at the following positions:

Section 3: at 4172 mm from **hull datum point** as defined in D.2.3
Section 6: at 2610 mm from **hull datum point** as defined in D.2.3
Section 9: at 1047 mm from **hull datum point** as defined in D.2.3

The baseline shall be on the centreplane of the **hull** at the at following vertical distances:

at the **hull datum point** as defined in D.2.3: 355 mm from the **hull** shell
at section 3: 133 mm from the **hull** shell

	minimum	maximum
Hull length	5755 mm	5785 mm
Vertical distance from baseline to underside of **hull** shell;		
at section 6	70 mm	90 mm
at section 9	196 mm	216 mm
Vertical distance from baseline to underside of **keel**		
at section 6	588 mm	618 mm
Beam of **hull**, excluding rubbing strakes and fittings, at sheerline;		
at section 3	1420 mm	1450 mm
at section 6	1885 mm	1915 mm
at section 9	1600 mm	1630 mm
At Section 3: Keel line to (port & starboard) **Sheerline**	740 mm	770 mm

Hull 229mm athwartships of centreline ..... 110 mm .... 128 mm
Hull 457mm athwartships of centreline ..... 255 mm .... 275 mm

At Section 6: Keel line to (port & starboard)
Sheerline ..... 735 mm .... 765 mm
Hull 229mm athwartships of centreline ..... 60 mm ..... 76 mm
Hull 457mm athwartships of centreline ..... 139 mm .... 157 mm
Hull 686mm athwartships of centreline ..... 254 mm .... 275 mm

At Section 9: Keel line to (port & starboard)
Sheerline ..... 580 mm .... 610 mm
Hull 229mm athwartships of centreline ..... 48 mm ..... 64 mm
Hull 457mm athwartships of centreline ..... 113 mm .... 129 mm
Hull 686mm athwartships of centreline ..... 234 mm .... 256 mm

Longitudinal distance from **hull datum point** perpendicular as defined in D.2.3;
to intersection of **keel** trailing edge and hull ..... 2204 mm .. 2230 mm
to aft point of mast **spar** hole at deck ..... 3440 mm .. 3476 mm

Longitudinal dimension of mast **spar** hole .... 130 mm

Horizontal distance from centre of forestay attachment
hole to forward end of **hull** ..... 125 mm .... 145 mm

Centre line of shroud plate forward of Section 6 ..... 410 mm .... 460 mm

Centre line of shroud plate
to outer edge of deck ..... 70 mm ..... 90 mm

Gunwale rubbing strakes;
depth ..... 24 mm ..... 56 mm
width ..... 6 mm ..... 38 mm
distances from transom and forward end of **hull**,
excluding stemhead fitting, ... 50 mm

Overall height of mast step .... 25 mm

Mainsheet track;
length .... 610 mm
vertical height to top above cockpit sole ..... 260 mm .... 325 mm

Headsail track length .... 385 mm

Forward buoyancy tank top:
length along centreline from inside of stem ..... 2135 mm .. 2185 mm
height of aft end above cockpit sole ..... 50 mm ..... 80 mm
vertical dist from top of deck at fore side of **spar** hole 653 mm .. 703 mm

Half height aft buoyancy tank
length along centreline from inside of transom ..... 800 mm .... 850 mm
height of fore end above cockpit sole ..... 205 mm .... 265 mm

Full height aft buoyancy tank
fore side of tank from aft side of forward tank ..... 2400 mm .. 2500 mm

Inside diameter of buoyancy tank inspection holes .... 350 mm

Inside diameter of buoyancy tank draining holes .... 26 mm

Top edge of cockpit coaming to top of cockpit sole at
section 6 ..... 600 mm .... 660 mm
section 9 ..... 520 mm .... 580 mm

Fore cockpit seats

length	895 mm	945 mm
width	245 mm	265 mm

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

(a) **Keel**

(b) **Rudder**

E.2 GENERAL

E.2.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) **Hull appendages** shall not be altered in any way except as permitted by these **class rules**.

(b) Routine maintenance such as painting and the repair of minor damage is permitted without re-measurement and re-**certification**.

(c) If any **hull appendage** is repaired in any other way than described in E.2.1(b), an **official measurer** shall verify on the **certificate** that the external shape is the same as before the repair and that no substantial stiffness, or other, advantage has been gained as a result of the repair.

E.2.2 CERTIFICATION

(a) The **official measurer** shall **certify hull appendages**.

E.3 KEEL

E.3.1 RULES

(a) The **keel** shall comply with these **class rules**.

E.3.2 DEFINITIONS

(a) The **Keel** Aft Measurement Point (KAMP) is the point at which the extension of the aft edge of the keel intersects the extension of the line of the underside of the keel.

E.3.3 MANUFACTURERS

(a) Manufacturers shall be licensed by the RYA.

E.3.4 MATERIALS

(a) The **keel** shall be of fine grain cast iron.

(b) The **keel** may be covered with any non-reinforced paint, resin, or plastic coating.

E.3.5 CONSTRUCTION

(a) The **keel** shall be manufactured from a pattern approved by the RYA.

(b) The **keel** shall conform to the dimensions as detailed in the diagram in H1. Tolerances of the transverse dimensions shall be +/- 8mm.

E.3.6 DIMENSIONS

	minimum	maximum
Transverse width of **keel** at 100mm above underside at:		
165mm forward of KAMP	88 mm	100 mm
365mm forward of KAMP	124 mm	136 mm

565mm forward of KAMP ..... 140 mm .... 152 mm
765mm forward of KAMP ..... 126 mm .... 138 mm

Transverse width of keel at 200mm above underside at:
565mm forward of KAMP ..... 92 mm .... 109 mm

Transverse width of keel at 400mm above underside at:
185mm forward of KAMP……22 mm……..30 mm
1115mm forward of KAMP……...22.mm……..30 mm

Transverse width of keel at 500mm above underside at:
200mm forward of KAMP……22 mm……..30 mm
1165mm forward of KAMP……...22.mm……..30 mm

Transverse width of keel at 600mm above underside at:
220mm forward of KAMP……22 mm……..30 mm
1300mm forward of KAMP……...22.mm……..30 mm

Transverse width of keel at 700mm above underside at:
250mm forward of KAMP……22 mm……..30 mm
1365mm forward of KAMP……...22.mm……..30 mm

E.4 RUDDER AND TILLER

E.4.1 RULES

(a) The **rudder** blade shall comply with the **class rules** in force at the time of **certification**.

E.4.2 DEFINITIONS

(a) The waterline for rule E.4.5(b) shall be taken as the extension of the underside of the hull along the centreline.

E.4.3 MANUFACTURERS

(a) Manufacturers are optional.

E.4.4 MATERIALS

(a) The **rudder** shall be of one or more of:
  (1) Wood
  (2) GRP
  (3) Core material

(b) Core material may only be used in a GRP **rudder** and, when used, shall be of wood and/or foam.

(c) The tiller and tiller extension material is optional.

E.4.5 CONSTRUCTION

(a) The **rudder** section is optional.

(b) The profile of the **rudder** blade below the waterline shall conform to the official plan. The edge of the blade shall be a maximum of 6mm from the outline of the **rudder** on the plan.

(c) The design of the tiller and tiller extension is optional

E.4.6 FITTINGS

(a) MANDATORY
  (1) The design of the rudder bearings is optional.

E.4.7 DIMENSIONS

	minimum	maximum
Centreline of bearing forward or aft of leading edge	.....	16 mm
Centreline of bearing aft of transom centreline.....	.....	25 mm

Section F – Rig

F.1 PARTS

F.1.1 MANDATORY

(a) **Mast**

(b) **Boom**

(c) Standing **rigging**

F.1.2 OPTIONAL

(a) **Spinnaker pole**

(b) Running **rigging**

F.2 GENERAL

F.2.1 RULES

(a) The **spars** and their fittings shall comply with the **class rules** in force at the time of **certification** of the **spar**.

(b) The standing and running **rigging** shall comply with the **class rules**.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) **Spars** shall not be altered in any way except as permitted by these **class rules**.

(b) Routine maintenance such as cleaning, polishing and repair or replacement of fittings is permitted without re-measurement and re-**certification**.

F.2.3 DEFINITIONS

(a) MAST DATUM POINT

The **mast datum point** is the **heel point**.

(b) CENTRE OF GRAVITY

The mast with normal fixed fittings, shall have all the halyards fully hoisted and the halyard tails led back up the mast and secured along its length. Any excess halyard tail shall be secured to the masthead crane. The standing rigging shall be secured along the mast.

F.2.4 MANUFACTURER

(a) No licence is required.

F.3 MAST

F.3.1 MATERIALS

(a) The **spar** shall be of aluminium alloy.

F.3.2 CONSTRUCTION

(a) The **spar** extrusion shall include a fixed sail groove or track which may or may not be integral with the **spar** but shall be of the same material. It may be anodised.

(b) The spreaders shall be fitted above the lower shrouds.

(c) The spreaders shall be free to swing through an arc of at least 45 degrees aft from the athwartships position.

F.3.3 FITTINGS

(a) MANDATORY

(1) Mast head crane
(2) Shroud fittings
(3) One set of swinging spreaders
(4) Mainsail halyard sheave box
(5) Headsail halyard sheave box
(6) Spinnaker halyard sheave box
(7) Spinnaker pole fitting
(8) Spinnaker pole lift block with attachment
(9) Spinnaker pole downhaul block with attachment
(10) Gooseneck
(11) Kicking strap attachment
(12) Heel fitting

(b) OPTIONAL

(1) One mechanical wind indicator
(3) Compass bracket
(4) Spinnaker crane

F.3.4 DIMENSIONS

	minimum	maximum
Mast length	7695 mm	
Mast spar curvature		50 mm
Mast spar cross section below the **upper point**;		
fore-and-aft	86 mm	92 mm
transverse	64 mm	70 mm
Mast limit mark width	10 mm	
Lower point height	1160 mm	
Upper point height		7485 mm
Forestay height	6400 mm	6440 mm
Main **Shroud height**	6400 mm	6500 mm
Lower **Shroud height**	3400 mm	3500 mm
Spinnaker pole fitting:		
projection	… mm	70 mm
Spinnaker hoist height	… mm	6490 mm
Extension of spinnaker hoist eye or block bearing surface from front of mast		100 mm
Spreader;		
length	538 mm	558 mm
height	3500 mm	3550 mm

Distance from **mast datum point** as defined in F.2.4 To centre of gravity in condition as described in F.2.4(b) **.....** 3400 mm

F.3.5 WEIGHTS

	minimum	maximum
Mast weight	16 kg	

F.4 BOOM

F.4.1 MATERIALS

(a) The **spar** shall be of aluminium alloy.

F.4.2 CONSTRUCTION

(a) The **spar** extrusion and shall include a fixed sail groove or track which may or may not be integral with the **spar** but shall be of the same material. The track may be anodised.

(b) The **spar** shall be of constant section and shall not be tapered.

F.4.3 FITTINGS

(a) MANDATORY

(1) Mainsheet block/s with attachment/s

(2) Kicking strap fitting

(3) Gooseneck attachment

(b) OPTIONAL

(1) Not more than two wire strops for mainsheet blocks fixed to the boom.

(2) Spinnaker pole stowage fittings including Pulleys, blocks and elastic for pole launch system

(3) Other sail control fittings

F.4.4 DIMENSIONS

	minimum	maximum
Boom spar curvature		25 mm
Boom spar cross section;		
vertical		100 mm
transverse		75 mm

F.5 SPINNAKER POLE

F.5.1 MANUFACTURER

(a) Manufacturer is optional.

F.5.2 MATERIALS

(a) The material of the **spar** is optional.

F.5.3 CONSTRUCTION

(a) The construction is optional.

F.5.4 FITTINGS

(a) Fittings are optional.

F.5.5 DIMENSIONS

	minimum	maximum
Spinnaker pole spar including end fittings shall pass thorough a circle, diameter		76 mm
Spinnaker pole length		2140 mm

F.6 STANDING RIGGING

F.6.1 MATERIALS

(a) The standing **rigging** shall be of stainless steel.

F.6.2 CONSTRUCTION

(a) MANDATORY

(1) A forestay.

(2) Main shrouds.

(3) Lower shrouds.

(4) A backstay.

(5) A backstay span of wire and/or rope.

F.6.3 FITTINGS

(a) Optional

F.6.4 DIMENSIONS

	minimum	maximum
Forestay diameter	2.5 mm	
Shroud diameter	2.5 mm	
Backstay diameter	2.5 mm	

F.7 RUNNING RIGGING

F.7.1 MATERIALS

(a) Materials are optional.

F.7.2 CONSTRUCTION

(a) Optional

Section G – Sails

G.1 PARTS

G.1.1 MANDATORY

(a) Mainsail

(b) Headsail

G.1.2 OPTIONAL

(a) Spinnaker

G.2 GENERAL

G.2.1 RULES

(a) **Sails** shall comply with the **class rules** in force at the time of **certification**.

G.2.2 CERTIFICATION

(a) The **official measurer** shall **certify** mainsails and headsails in the **tack** and spinnakers in the **head** and shall sign and date the **certification mark**.

(b) An MNA may appoint one or more persons at a sailmaker to measure and **certify sails** produced by that manufacturer in accordance with the ISAF In-house Certification Guidelines.

G.2.3 SAILMAKER

(a) There shall be a maximum of 5 sailmakers who shall each be approved by the RYA.

G.2.4 SAIL NUMBERS

(a) The mainsail and spinnaker shall display the boats sail number.

G.3 MAINSAIL

G.3.1 IDENTIFICATION

(a) The class insignia shall conform to the dimensions and requirements as detailed in the diagram contained in H1.

G.3.2 MATERIALS

(a) The **ply** fibres shall consist of 5.2oz impregnated polyester (e.g. Polypreg). The colour shall be 'Mace' or similar and the cloth manufacturer shall be approved by the RYA.

(b) **Stiffening** shall consist of:

(1) Cornerboards of optional material

(2) Battens of optional material

(c) **Sail reinforcement** shall consist of:

(1) **Primary reinforcement:** optional **woven ply** polyester

(2) **Secondary reinforcement** shall be of **woven ply** cloth the same specification as the **ply** fibres.

(3) **Tabling** may consist of optional **woven ply** polyester coloured white or 'Mace' (or similar).

G.3.3 CONSTRUCTION

(a) The construction shall be: **soft sail**, **single ply sail**.

(b) The **body of the sail** shall consist of the same **woven ply** throughout.

(c) The **sail** shall have a maximum of 3 batten **pockets** in the **leech**.

(d) The sail shall be constructed so that all **seams** in the **body of the sail** run across the sail from **luff** to **leech**.

(e) The battens shall remain in place during measurement.

(c) The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, **batten pocket patches**, batten pocket elastic, boom slide, leech line with cleat, one **window**, tell tales, spreader chaffing patches and items as permitted or prescribed by other applicable *rules*.

G.3.4 DIMENSIONS

	minimum	maximum
Leech length		6815 mm
Quarter width		2320 mm
Half width		1690 mm
Three-quarter width		985 mm
Top width		145 mm
Primary reinforcement		340 mm
Secondary reinforcement:		
from **sail corner measurement points**		1020 mm
for **flutter patches**		120 mm

for **chafing patches** ..... 150 mm
for **batten pocket patches** ..... 120 mm
Tabling width ..... 50 mm
Distance from **clew point** to **foot** bolt rope ..... 200 mm
Distance from **tack point** to **foot** bolt rope ..... 200 mm
Window area ..... 0.25 m^2
Window to **sail edge** ..... 150 mm
Batten pocket length:
uppermost pocket:
inside ..... 785 mm
intermediate pocket:
inside ..... 935 mm
lowermost pocket:
inside ..... 855 mm
Batten pocket width:
inside ..... 60 mm
Head point to intersection of **leech** and centreline of uppermost **batten pocket** ..... 1630 mm
Clew point to intersection of **leech** and centreline of lowermost **batten pocket** ..... 1630 mm

G.4 HEADSAIL

G.4.1 MATERIALS

(a) The **ply** fibres shall consist of 5.2oz impregnated polyester (e.g. Polypreg). The colour shall be 'Mace' or similar and the cloth manufacturer shall be approved by the RYA.

(b) **Sail reinforcement** shall consist of:

(1) **Primary reinforcement:** optional **woven ply** polyester

(2) **Secondary reinforcement** shall be of **woven ply** cloth the same specification as the **ply** fibres.

(3) **Tabling** may consist of optional **woven ply** polyester coloured white or 'Mace' (or similar).

G.4.2 CONSTRUCTION

(a) The construction shall be: **soft sail**, **single ply sail**.

(b) The **body of the sail** shall consist of the same **woven ply** throughout.

(c) The sail shall be constructed so that all **seams** in the **body of the sail** run across the sail from **luff** to **leech**, except that below the bottom **seam**; **seams** or **tucks** are permitted and they may run in any direction.

(e) The sail shall have a steel wire of minimum diameter 3mm in the **luff**.

(f) The **leech** shall have **tabling**.

(g) The **leech** shall not extend beyond a straight line from the aft **head point** to the **clew point**.

(h) The following are permitted: Stitching, glues, tapes, corner eyes, hanks, one Cunningham hole, leech line with cleat, foot line with cleat, one **window**, tell tales and items as permitted or prescribed by other applicable *rules*.

G.4.3 DIMENSIONS

	minimum	maximum
Luff length	… mm	5380 mm
Leech length	… mm	4670 mm
Foot length	… mm	2410 mm
Foot median	… mm	5030 mm
Top width		40 mm
Primary reinforcement		315 mm
Secondary reinforcement:		
from **sail corner measurement points**		935 mm
for **flutter patches**		120 mm
Tabling width		50 mm
Window area		0.25 m^2
Window to **sail edge**		150 mm

G.5 SPINNAKER

G.5.1 MATERIALS

(a) The **ply** fibres shall consist of nylon.

(b) **Sail reinforcement** shall consist of:

(1) **Primary reinforcement:** optional **woven ply** nylon or polyester.

(2) **Secondary reinforcement** optional **woven ply** nylon or polyester.

(3) **Tabling** optional **woven ply** nylon or polyester.

G.5.2 CONSTRUCTION

(a) The construction shall be: **soft sail**, **single ply sail**.

(b) The **body of the sail** shall consist of the same **woven ply** throughout.

(c) All **seams** in the **body of the sail** shall either:

(1) be not more than 8 in number and run across the sail from **leech** to **leech** OR,

(2) be not more than 6 in number and run from the **head** to the **foot.**

(d) The following are permitted: Stitching, glues, tapes, webbing, corner eyes, and items as permitted or prescribed by other applicable *rules*.

G.5.3 DIMENSIONS

	minimum	maximum
Leech lengths		4900 mm
Foot length		3420 mm
Foot Median		5250 mm
Half width		3200 mm
Three-quarter width		1880 mm
Weight of **ply** of the **body of the sail**		40 g/m^2
Primary reinforcement		300 mm
Secondary reinforcement:		
from **sail corner measurement points**		890 mm
Tabling width		20 mm

PART III – APPENDICES

The rules in Part III are **closed class rules**. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

Section H

H.1 Measurement diagrams

NATIONAL SQUIB CLASS MEASUREMENT DIAGRAMS
DIAGRAM 1

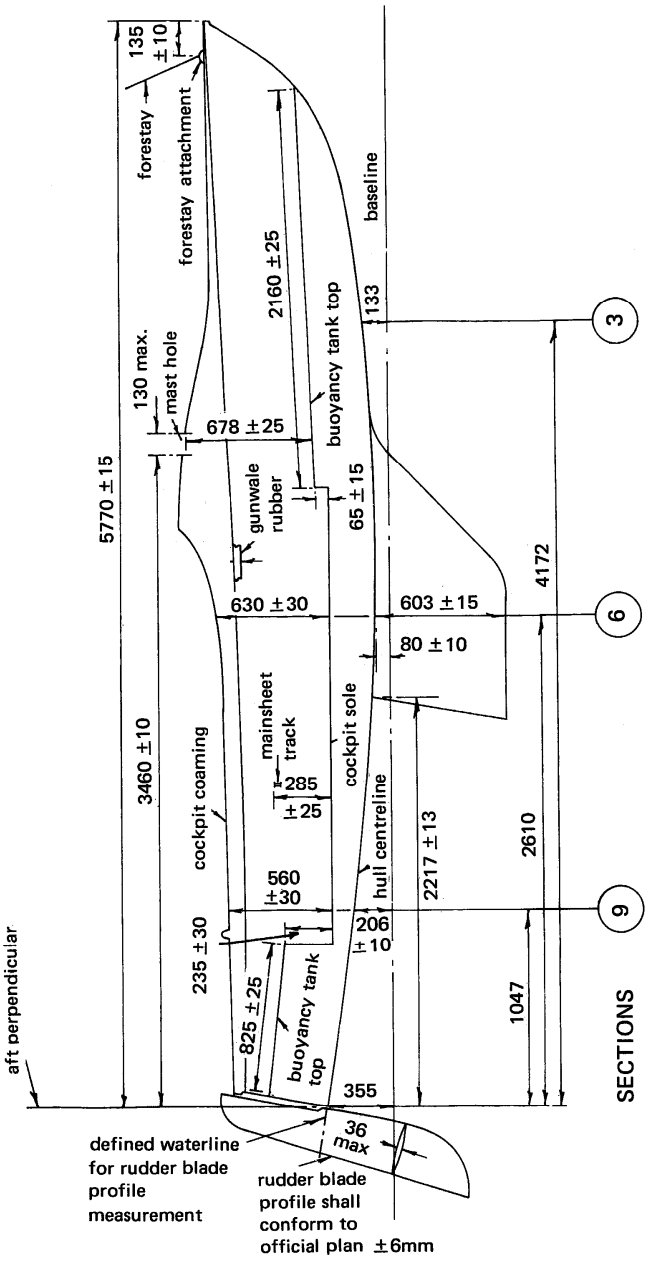
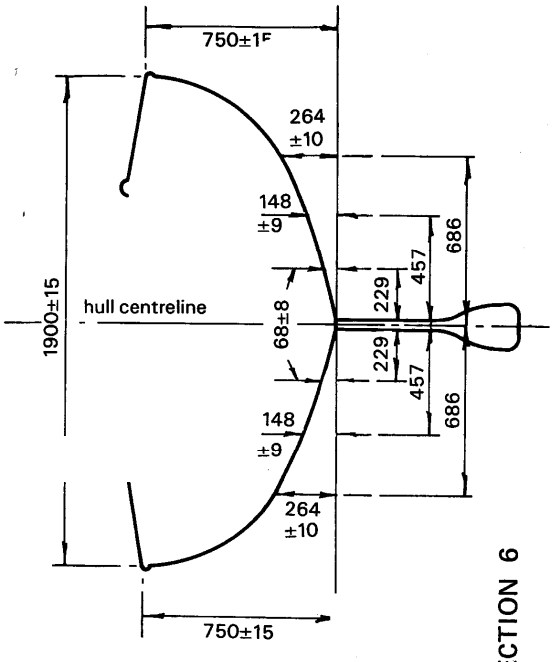
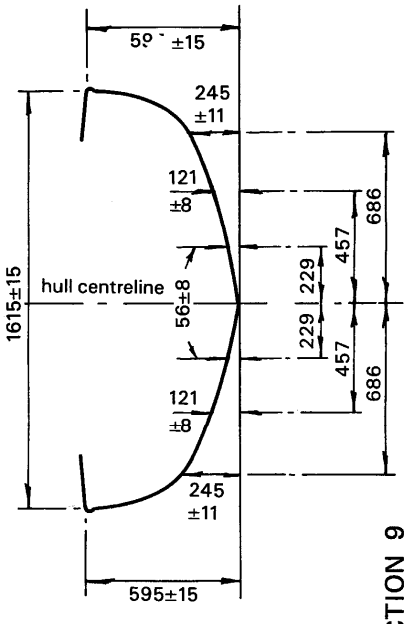


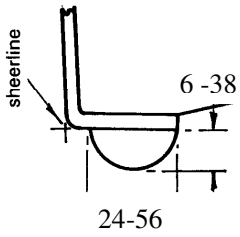
DIAGRAM 2



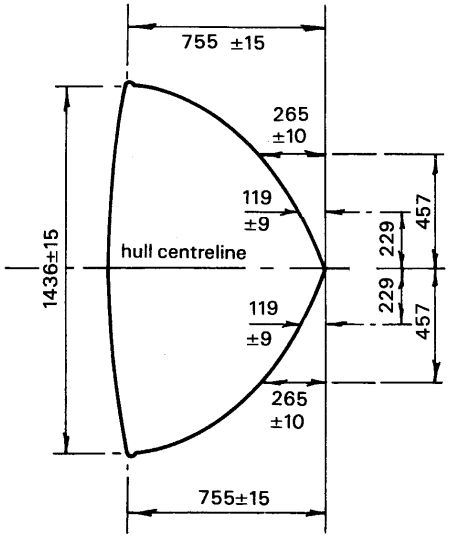
SECTION 6



SECTION 9



DECK EDGE DETAIL



SECTION 3

DIAGRAM 3
KEEL SHAPE

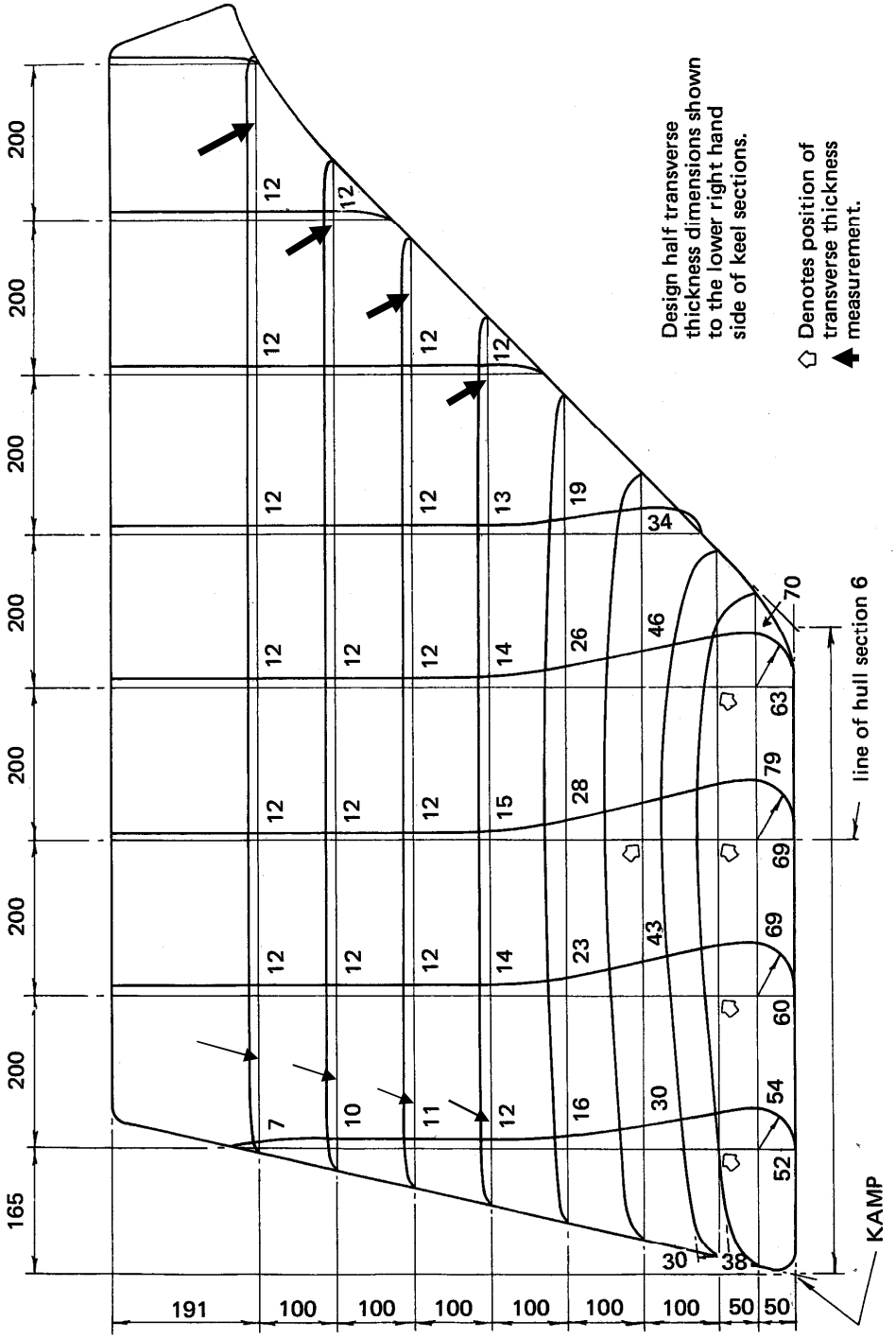
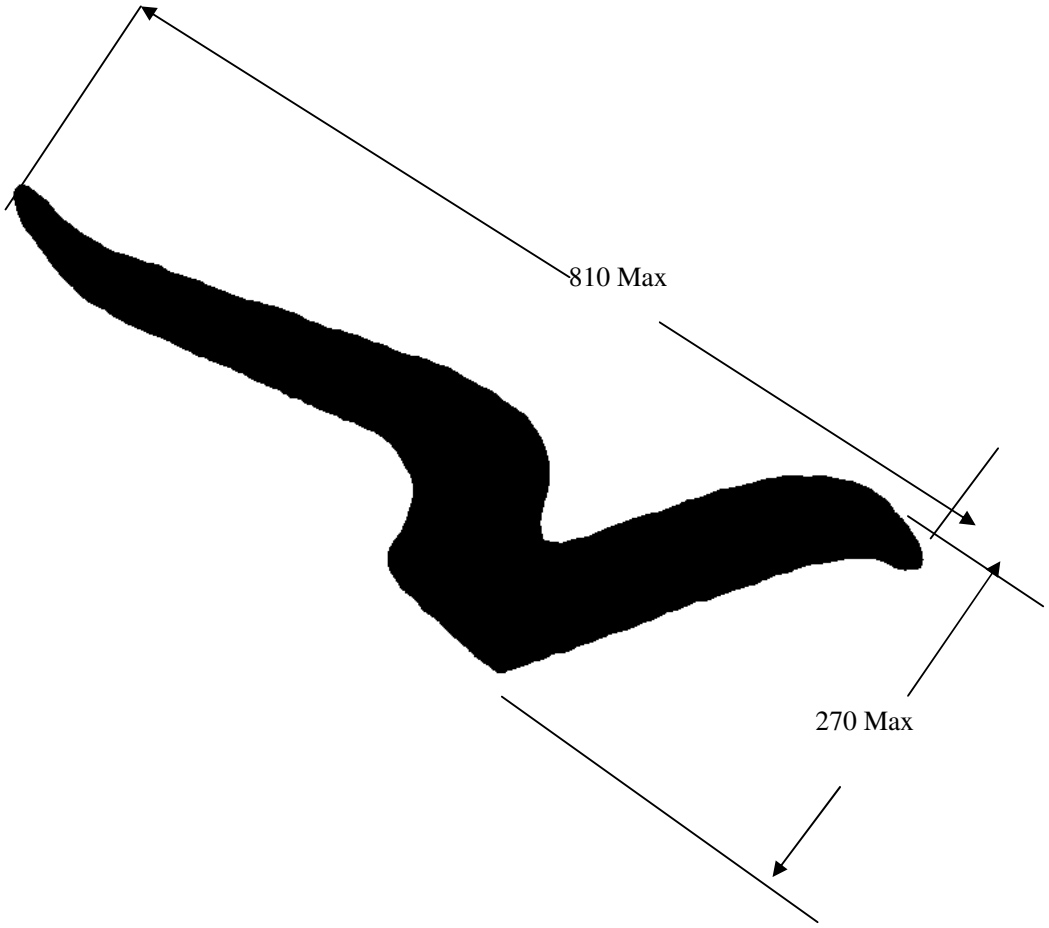


Diagram 4

National Squib Insignia



H.2 OFFICIAL PLANS FOR BUILDING

1. General Layout
2. Rig Layout
3. Keel
4. Rudder Blade Profile.

Effective:	June 2009
Previous issues:	December 2008
	April 2008
	December 2007
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	1 April 2006
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