



# AUSTRALIAN IMPULSE ASSOCIATION INCORPORATED

## IMPULSE CLASS RULES

Version 7.4  
October 2022

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# 1.0 General

## 1.1 Definitions

These Rules should be read in conjunction with the Building Instructions (including patterns) particularly in relation to the definition of terms such as “gunwales”, “coamings” or any other term used in the Class Rules.

## 1.2 Objective

The objective of the Impulse Class Rules is to ensure uniformity of construction, appearance and performance potential in order to maintain the Class as a one design single handed dinghy.

Fitting out shall be maintained within these Rules.

## 1.3 Scope

These Rules apply to the construction of new boats and the modification, maintenance and repair of existing boats.

## 1.4 Building & Measurement

The Official Building Instructions as supplied by the association (while not deemed part of the Class Rules) are issued as a guide for the construction and building intent and represent the minimum strength to which the boat shall be built. Should the Rules not cover a particular aspect, then the AIA Inc. Executive Committee shall use the Building Instructions (including the paper patterns) as a basis for decision. Throughout the Class Rules the words “**shall**” or “**will**” are mandatory.

Measurement tolerances are intended to allow for genuine building variations only and shall not be used to deliberately alter the design. The Measurer shall advise the State Committee anything considered to be a departure from the intended nature and design of the boat or to be against the interests of the class.

In the event of a dispute over measurement procedures, then reference shall be made to the National Measurer for guidance. The AIA Inc. shall be the final arbiter in any dispute.

Measurements to rounded corners shall be taken to the extrapolated intersection point of the two faces concerned unless otherwise noted.

## 1.5 Measurement Compliance Plates

A Measurement Compliance Plate shall be issued by the Australian Registrar to a financial member of the association whose boat is found to comply with all the requirements of these Class Rules after measurement by an official Class Measurer and due approval of the relevant State Association. The Measurer shall record and retain all such measurements.

The Measurement Compliance Plate shall be permanently attached to the top right corner or top centre of the main bulkhead.

A Measurer shall not measure a boat owned by himself or in which he has a vested interest.

## 1.6 Dispensation

The completed hull, regardless of the construction method used, shall measure within the tolerances specified in these Rules for a Measurement Compliance Plate to be issued. The executive Committee of the AIA Inc. may give dispensation only for deviations that are not a sailing advantage and providing the deviation was not deliberately induced.

A State Committee shall have the power to grant dispensation to a boat for a single regatta (not being an Australian Championship event).

No items prohibited under these Class Rules shall receive dispensation to be used. Generally, it should be noted that if an item or feature is not specifically provided for, then it may be assumed that item or feature is prohibited.

### **1.7 Change of Ownership/Measurement Check**

Change of ownership shall not invalidate the Measurement Compliance Plate. Significant changes or replacements of components shall be presented to the State measurer for a measurement check. No charge shall be made to the original purchaser of the patterns for measurement, but a subsequent owner shall be required to pay such sum as the State committee determines.

### **1.8 Australian Championships**

A boat shall have a valid Measurement Compliance Plate affixed to the main bulkhead to be accepted as an entry in an Australian or State Championship Regatta. The official measurer for such events shall be that person as nominated under the Sailing Instructions, or in the event of no such nomination, the measurer for the State where the regatta is held.

### **1.9 Class Rule Changes**

A significant change to the Class Rules affecting the sailing performance capability of the Impulse dinghy shall be approved by at least a 66% acceptance vote of members voting as set out in the attached Addendum.

Changes to these Rules are not retrospective.

### **1.10 Impulse 6.6 Name**

The divisional name for the 6.6 sail shall be "Impulse 6.6". All reference to previous smaller sails shall be removed from future measurement, rules and advertisements and shall be recorded as "Impulse 6.6".

## **2.0 Hull**

Refer FIG. 1 IMPULSE HULL DIMENSIONS for key dimensions.

### **2.1 Construction - General:**

The hull shall be constructed from any one of the following methods:

- a. **Timber:-** 4mm and/or 5mm thickness waterproof plywood. The hull may be laminated with glass reinforced plastic, (hereafter referred to as GRP.) either on the outer and/or inner surfaces. In addition, the floor panels may be laminated with closed cell foam and/or end grain balsa wood as specified in Rule 2.14.2
- b. **Laminated GRP:-** Closed cell foam and/or end grained balsa wood sandwich, provided that the foam/wood material for the completed cockpit floor panels shall be at least 9mm thickness and all other panels shall be at least 5mm total thickness.
- c. **Mixed Construction:-** Combinations of construction as outlined in clauses 2.1.a and 2.1.b may be used.

For all methods a, b and c, the total laminated thickness including ply and/or sheathing and GRP and/or foam or balsa, for all panels - shall be a maximum of 30mm.

- d. The use of carbon fibre or Kevlar cloth (or similar) in the hull is prohibited.

### **2.2 Weight**

The completed **hull**, including all fixed fittings and finish, and in a dry condition shall **weigh not less than 47.0 kg** (centreboard, rudder assembly, mainsheet, cords, and compass shall be excluded). The sensitivity of the weighing device shall be at least 0.5kg.

If the weight is less than 47.0kg then a sufficient number of 0.5kg weights shall be fixed to either the thwart, keel forward of the centrecase or centrecase capping of up to a maximum of 2.5kgs. If more weights are required then these shall be placed inside the aft tank attached to the transom.

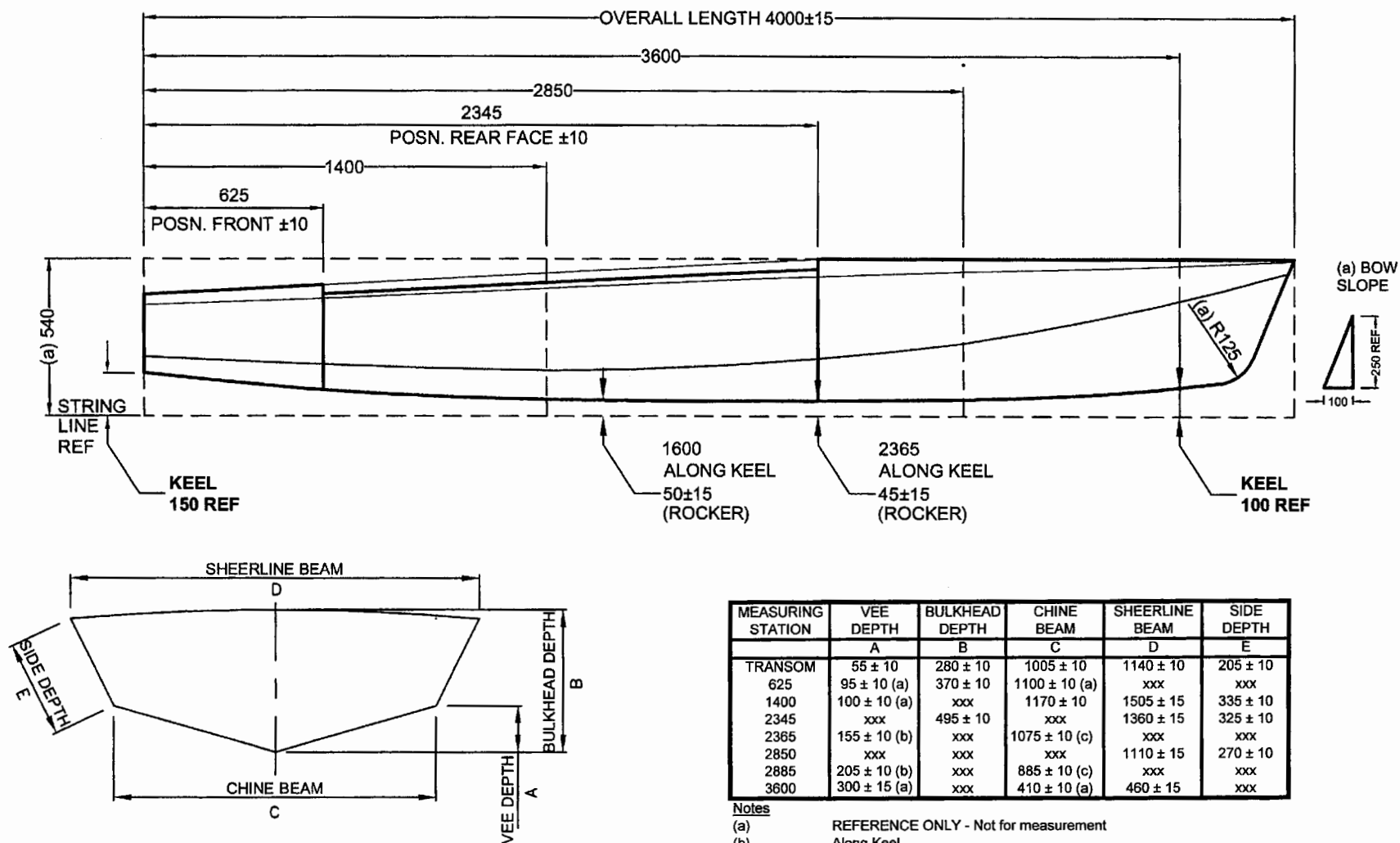


FIG. 1 IMPULSE HULL DIMENSIONS

## 2.3 Hull Dimensions

### 2.3.1 Length

The **overall length** measured along the hull centreline from the transom over the deck to the forward corner of the bow excluding gunwales and fittings shall be **4000 +/- 15mm**. See FIG. 1 IMPULSE HULL DIMENSIONS.

The key measurements for the location and height of Bulkheads and intermediate sections, and the profile of the Keel rocker and Bow are also detailed on FIG. 1 IMPULSE HULL DIMENSIONS. Determination of these key measurements, unless otherwise stated, shall be measured either 'over the decks' or 'over the hull'.

### 2.3.2 Beam

The **overall Beam** at the maximum point, including gunwales and coamings, shall not exceed **1634mm**.

## 2.4 Transom

The Transom profile at the bottom shall be developed from two convex arcs with a **maximum depth of 5mm** to the chord from each chine to the keel "Vee" point. The keel 'Vee' point may be finished with a maximum radius of 15mm.

The ends of side and bottom panels shall be finished flush with the aft face of the transom.

## 2.5 Bulkhead

Bulkheads may not be shaped to contain any additional mouldings but may contain a fillet area at the floor junction of 50 mm high by 25 mm wide maximum size.

A total of four leaning strap anchor blocks may be attached on the cockpit face of the bulkheads, each having maximum dimensions of 100mm wide x 50mm high x 30mm thick and shaped as desired. Additional blocks may be attached behind the bulkheads as required.

### 2.5.1 Main Bulkhead lower panel rounding

The lower panel rounding on the outside at the Main bulkhead position shall be developed from two convex arcs with a maximum depth of 17 mm to the chord from each external chine corner to the external keel "V" point.

## 2.6 Side Panel Depth

The depth of the Side Panels shall be measured from the deck sheerline point to the chine. Measurements shall be made using the gauge illustrated in FIG. 9 CHECK GAUGE.

## 2.7 Keel (For plywood construction)

The keel plank shall be continuous from the transom to at least the forward kingplank strut. The **exposed portion** of the keel in the cockpit shall be **44mm +/- 2mm wide and 19mm +/- 2mm thick**.

## 2.8 Bow

The profile of the bow shall conform to the Bow Gauge shown in Appendix Fig. 8. When held against the Bow, there shall not be any variance greater than 5mm between the Gauge and the Bow.

The effective **depth** of the Bow shall be **395+/-10mm** as measured using the Bow Gauge as shown in Appendix, FIG. 8.

Bow height shall be measured using a string line 150 mm above the transom top to a point 40 mm above the forward deck centreline at the 3600 mm measuring station point. The distance from top of Main Bulkhead to string shall be 40 +/- 10 mm. The angle of the bow stem leading edge to fore deck shall be 70° +/- 5°.

### 2.8.1 Stem

The leading edge of the bow stem shall not exceed **6mm radius** for either plywood or GRP construction.

### 2.8.2 Upper Through Hull Measurement

A calliper measurement of **325+/-10** mm shall be made across two points on the upper bow panels. The two points shall be developed by measuring 310 mm from the bow along a line drawn parallel to and 125mm from the deck using a sheerline side gauge. Bow fittings shall be excluded from these measurements.

### 2.8.3 Lower Through Hull Measurement

A calliper measurement of **265+/-10** mm shall be made across two points on the lower bow panels. These two points shall be established by first finding a point along the keel forward 3600mm from the transom. From this point, 180mm arcs are drawn on both of the lower bow panels. The calliper points are established by measuring 3600 from the transom/keel centre point of the above arcs

## 2.9 Buoyancy Tanks

The forward, aft and side tanks shall each be fitted with at least one sealable screw type hatch.

### 2.9.1 Internal Cockpit to floor junction

The distance measured over the internal cockpit floor, from the internal cockpit side and floor junction to centre of the keel line at a point immediately aft of the centre case (including any capping) shall be 505 +/- 10 mm.

## 2.10 Gunwales, Capping & Coamings

Refer FIG. 2 COAMING DIMENSIONS

### 2.10.1 Gunwales & Capping

The Gunwale and Capping shall be measured at right angles from the side panel face, directly under the gunwale, to the outer face. The ends of the gunwale may be **tapered for 100mm** to the Transom and **250mm to the Bow**.

### 2.10.2 Coamings – External

Coamings shall be fitted flush with the top of the gunwale capping and shall terminate not greater than 120mm from the main and aft bulkheads.

The coamings may be shaped as described provided the combined width of the gunwale, capping and coaming does **not exceed 57mm**.

### 2.10.3 Coaming - Internal

Internal Coamings may be fitted flush with the side deck and shall terminate not further than **120mm** from the main and aft bulkhead.

Alternatively, an internal coaming, 20mm wide by 30mm deep maximum sized chamfer or radius, may be constructed at the side deck to tank wall junction as shown in FIG. 2.

### 2.10.4 Grab Rails

Grab Rails or handgrips may be fitted to the side tank walls (separate) or be combined with the Internal coaming when constructed at the side deck to tank wall junction as per alternative option in Rule 2.10.3. **Maximum** distance below deck surface on side tank, **80mm, with maximum grip of 30mm** (See FIG. 2).

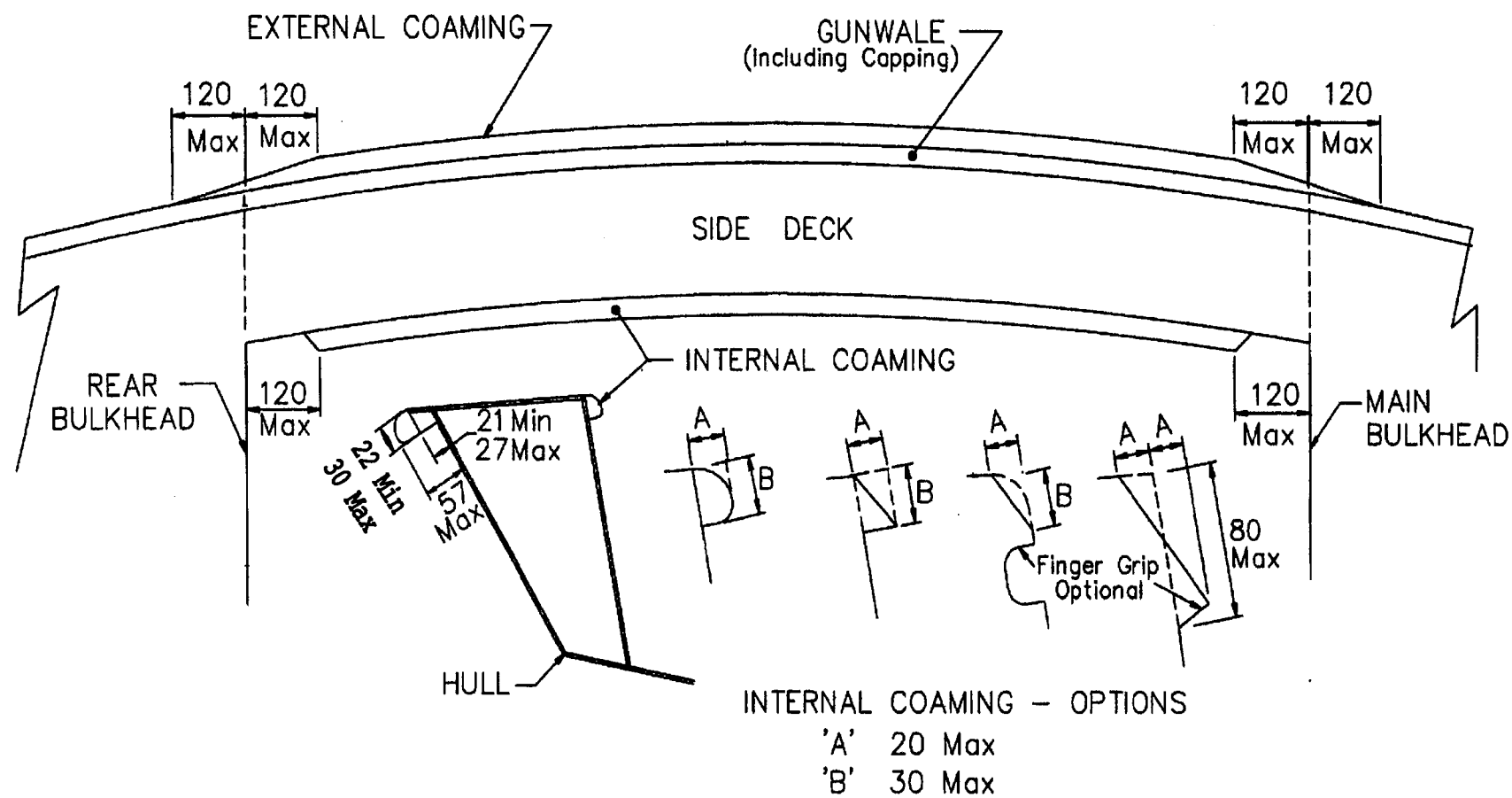


FIG. 2 COAMING DIMENSIONS

## 2.11 Centrecase

Refer FIG. 3 CENTRECASE & THWART LOCATION.

The position of the centrecase and centreboard slot shall conform to the details shown in the adjacent diagram.

The aft end of the centrecase slot is defined as the intersection of the keel with an extension of the inner aft face of the centrecase, excluding any packing or shaping.

The slot shall be contoured to the centreboard foil and shall not permit a gybing board.

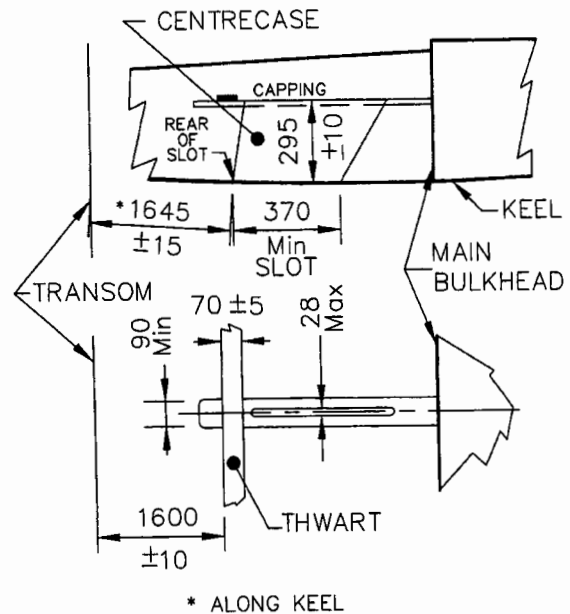


FIG. 3 CENTRECASE & THWART LOCATION

## 2.12 Thwart and Floor Struts

Refer FIG. 3 CENTRECASE & THWART LOCATION.

The Thwart shall be straight and securely fixed to each side tank wall. The **thwart** shall be: **70 +/- 5mm wide by 19 +/- 2mm thick**.

A pair of **floor struts** are optional but if fitted shall be **60 +/- 5mm wide and 27 +/- 5mm thick**.

## 2.13 Decks

### 2.13.1 Side Decks

Side Decks shall be substantially uniform in width over their complete length. The **width** of any section between sheerline points of side and cockpit panels shall be **between 190mm and 230mm**, including internal coamings when constructed at the side deck to tank wall junction as per alternative option in Rule 2.10.3 but excluding Grab Rails or handgrips where fitted as per Rule 2.10.4 and excluding additional padding as per Rule 6.4 IX.

### 2.13.2 For GRP construction,

The deck moulding may be of a glued capping type or of an integral rollover gunwale/coaming construction. In either method all dimensions shall comply as set out under these rules.

## 2.14 Floor Battens

### 2.14.1 Floor Battens

Six main and intermediate Floor Battens shall be fitted. Battens may be rounded off but shall remain a uniform shape. The height and width after rounding shall be:

Height	22mm +/- 2mm, when fitted
Width	19mm +/- 2mm, when fitted.

The six main floor battens shall extend from the forward bulkhead to within 70mm of the transom ply. Each main floor batten may have drain holes in the cockpit area as outlined in the Building Instructions.

The eight intermediate floor battens shall be at least 500mm long and located in accordance with the Building Instructions. These intermediate battens may be extended to either of the two bulkhead faces.



A plywood sub-floor over the battens may be fitted aft of the thwart. In existing boats and in lieu of the eight intermediate and/or sub floor assembly, closed cell foam/balsa wood may be laminated over the floor area from the forward bulkhead to the aft bulkhead between the keel, the main floor battens and the cockpit sides. The six main battens may be planed down flush with foam/balsa to within 50 mm of the forward and aft bulkheads.

In new boats, the foam/balsa wood laminate may be applied to the floor panels from the transom to at least 3000mm forward of the transom. This method of construction requires no floor battens or keel. Non-skid battens may be fitted to the cockpit floor area as desired. Where fitted, these non-skid battens shall measure as follows:

Maximum width:- 40mm      Maximum height:- 10mm

#### 2.14.2 GRP Construction

This method of construction requires no floor battens but non-skid battens may be fitted to the cockpit floor area as desired. Where fitted they shall conform to the measurements as in 2.14.1.

### 2.15 Bulkhead/Floor Filler Blocks

#### 2.15.1 Plywood Construction.

Eight triangular filler blocks or glassed fillets shall be fitted to each end of the cockpit between the floor battens, keel and cockpit sides.

#### 2.15.2 GRP Construction (GRP Hull & timber walled tanks)

Not required, but the bulkhead and the side tank/floor junctions shall be securely fibreglass taped both sides of the cockpit sides to form a strong waterproof joint.

### 2.16 Mast Step & Chainplates

The Mast Step block shall be **at least 250mm long** with the **aft end located 2710 +/- 10mm** from the transom face. The mast shall be stepped on this block.

**Chainplates** shall be of the single hole type with the centre of the hole located a **maximum of 2585mm** from the transom.

## 3.0 Centreboard

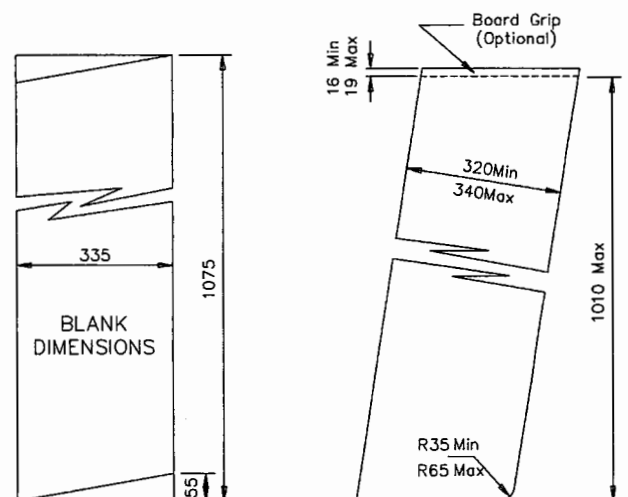
Refer FIG. 4 CENTREBOARD DETAILS.

The Centreboard may be made from timber and/or foam laminate GRP. Carbon fibre/Kevlar cloth is permitted for laminating purposes. The board shall not be fitted as a gybing board.

A strong lifting /retaining cord shall be fitted and adjusted to prevent the centreboard fouling the boom when fully retracted. Board grips/stops are required to prevent the board being lowered past the centrecase top. The centreboard shall be a maximum of 25mm thick (including any fibreglass laminate). The cross section may be faired as desired. The centreboard leading/trailing edges and the head/foot edges shall be parallel within 2mm to each other.

The leading bottom corner shall be radiused.

The maximum dimensions of the board as measured below the grips (head if no grips fitted) are shown on the Drawing FIG. 4 CENTREBOARD DETAILS.



NOTE: OPPOSITE SIDES OF CENTREBOARD TO BE PARALLEL WITHIN 2mm

FIG . 4 CENTREBOARD DETAILS

## 4.0 Rudder

### Refer FIG. 5 RUDDER & MOUNTING DETAILS.

The Rudder assembly shall be of a pivoting design within a rudder box as set out in Fig 5 (Rudder and Mounting detail). The material used for construction of the rudder box is unrestricted. The tiller arms are of optional design. The rudder blade shall be made of timber and/or foam laminate GRP. Carbon fibre/Kevlar cloth is permitted for laminating purposes.

The rudder blade shall be a maximum thickness of 22mm and may be faired as desired.

The dimensions of the rudder blade and the location of the rudder relative to the hull are shown on the Drawing FIG. 5 RUDDER & MOUNTING DETAIL. The leading edge of the blade when fully down shall be parallel to the transom.

The blade shall be locked down in the vertical position whilst sailing by a cleated control cord and/or pin/wedge.

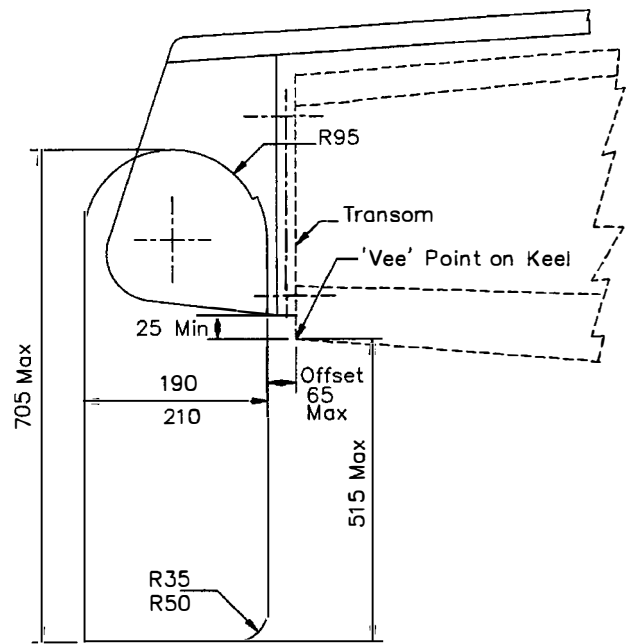


FIG.5 RUDDER & MOUNTING DETAIL

## 5.0 Spars

### 5.1 General

The mast shall be of an aluminum alloy with an integrated sail track. It shall be of constant section throughout its length and fit within a rectangle of 55mm maximum width and 70mm maximum depth. It shall be in the form of an oval or teardrop shape.

The boom shall be made from an aluminum alloy. It shall be of constant section throughout its length and fit within a square 80mm x 80mm, or be a round aluminum tube not exceeding the maximum radius of 80mm outside diameter, fittings not included. Tapering, cutout sections or saw slotting of the mast or boom to influence bending or lightening is not permitted.

### Mast

The **overall length** of the mast section excluding fittings shall be **5600mm +/-15mm**. The mast shall be finished square across both ends.

### 5.2

It shall pivot at the base on a point within the mast cross section.

The Mast shall not be pre-bent between the mast band and a point 430mm up from the base by more than 30mm when in an un-rigged state, without sail and off the hull.

The top of the mast shall be plugged in addition to the base plug. The mast shall be either:

- (a) completely sealed to prevent the entry of water;
- or
- (b) have a 15mm minimum diameter drain hole within 300mm of the base of the mast and/or
- (c) have 30% of the mast, measured from the top, filled with closed cell rigid foam.

The Mast shall be supported by three wires attached to the eye of a **single hound**, the centre of which shall be located **between 3350mm and 3750mm** from the base of the mast. A strop, maximum length including fittings of 150mm, may be used between the shroud thimbles and the eye of the single hound.

The Mast may be additionally supported by one set of lower stays or diamonds but not

both simultaneously. The mast shall not be externally braced by any other wire or device. Internal stiffening of the mast is permitted.

The mast shall have painted on one **band of a color** that contrasts strongly with the mast color; and shall be **18 +/- 5mm**. The **lower edge** of the mast band shall be a **maximum of 5,460mm** from the base of the mast (excluding the plug & pivot point). The sail shall not be hoisted above this point whilst sailing.

With the mast mounted in the normal sailing position, **the base** of the mast (excluding the mast plug) to the deck face **shall not exceed 90mm**.

### 5.3 Boom

The **minimum overall length of the Boom**, when measured from the aft face of the full mast section, shall be **2300mm**.

The Boom ends may be tapered for up to 100mm at the tack & for up to 300mm at the clew. Measurements shall be made from the ends of the sections. Sleeving is permitted. The boom shall have painted a band of colour, 18+/-5mm wide, which contrasts strongly with the boom colour. The **forward edge of the band** shall be located a **maximum of 2200mm** from the aft edge of the full mast section when the boom is positioned on the gooseneck and perpendicular to the mast.

In addition, a stop shall be fitted to the boom which physically prevents the sail from being drawn past the inner edge of the boom band.

Should a round tube section be used, then a slot to permit a slide fitting may be attached up to 250mm forward of the boom band at the clew end.

The height of the **top of the boom** from the mast base shall be **not less than 430mm**.

This measurement is made when the boom is mounted and perpendicular to the mast and is taken from the base of the mast to the point of intersection between the mast sail track and a line projected forward from the top of the boom.

For **Impulse 6.6** the same rules apply in clause 5.3, however the boom may be a minimum overall length of 2040mm from the aft face of the full mast section, a standard Impulse boom can be used on Impulse 6.6. The forward edge of the painted band shall be located a maximum of 1940mm & marked on both standard Impulse boom and Impulse 6.6 boom when Impulse 6.6 sail is being used. An Impulse 6.6 boom cannot be used if sailing with a Standard Impulse sail.

## 6.0 Rigging & Fittings

### 6.1 Safety Requirements.

Notwithstanding any requirements of these rules, Yachting Australia, Racing Rules of Sailing, Special Regulations, Part 2 "Off the Beach Yachts" shall take precedence over these Class Rules.

### 6.2 The following items are expressly prohibited:

- I. Rubbing strips outside the hull.
- II. Draining devices (other than two self-bailers); transom flaps.
- III. More than one compass.
- IV. The following items must not be adjusted or be accessible to be adjusted when sailing and whilst the skipper is in a normal sailing position: Mast Step, Standing Rigging, Diamond wire tension, goose neck height, sail reefing.
- V. Trapeze.
- VI. No padding or coverings are permitted apart from practical non slip surfaces that do not exceed 4mm in thickness. This non slip can be placed anywhere on the hull, including over external coamings, as long as the thickness of the material remains within the overall maximum width of the hull.
- VII. Halyard and/or control lines within the enclosed section of the mast.

### 6.3 The following items are to be specifically provided for:

- I. Centreboard cord: A cord terminating in a metal quick release device shall be fitted to retain the centreboard in the centre-case in the event of a capsize. The length shall be adjusted to prevent the board striking the boom when fully raised.
- II. Rudder Pintles: At least one rudder pintle shall be fitted with a stainless steel retaining pin or ring.
- III. The gooseneck shall be of the fixed type.

- IV. Halyard lock design is optional but must permit the sail to be easily lowered by hand from the cockpit with the boat in both the upright and capsized positions.
- V. Tow Ring Guide: A ring constructed of solid stainless steel with minimum thickness of 4mm and not less than 38mm internal diameter shall be secured at the bow.
- VI. Tow Rope: A tow rope with a soft and easily handled outer casing with a minimum dimension of 6mm and 10 m in length must be carried.
- VII. Mast Sealing: In accord with Class Rule 5.2.

#### **6.4 When fitted the following shall be of optional design:**

- I. Boom Vang; Mast Rotation Limiters & Controls; Cunningham and Foot Controls. The designs are optional (except boom vang deck mounted tracks not permitted). There is no limit on purchase. Control lines may be mounted on the spars, deck, centrecase or thwart.
- II. Tiller length and extension is unrestricted.
- III. Bailer: at least one self-bailer shall be fitted or a minimum one litre bucket be carried, secured in the cockpit by a cord.
- IV. Paddle: Carrying is optional, unless required by State authority.
- V. Mainsheet may be of optional design and purchase. The location of the ratchet block and/or cleats is optional.
- VI. A track type traveller is optional but shall be straight and attached directly to the thwart.
- VII. Adjustable bridle, hawse or Loveday loop.
- VIII. Adjustable toestraps.
- IX. Padding to internal coaming/side tank walls &/or side deck top.

## **7.0 Sail**

### **7.1 General**

The Sail shall be made of the following:

- a. The sail shall be made of Dacron or Mylar (or an equivalent material under a different trade name) or any combination of the two.
- b. Polyester film sails may use polyester, polyethylene or aramid fibre reinforcement, however carbon reinforcement is prohibited.
- c. Single panel molded sails are prohibited.

The Sail shall be entirely of a single color. Natural Dacron and Mylar shall be regarded as a single color. Tapes around the outer edge may be colored but shall not exceed 40mm.

The Sail shall be loose-footed with the luff held captive in the sail track of the mast and shall be provided with a sail track slide or a cringle for boom attachment at the clew. Separate cringles/sheaves may be fitted for downhaul of luff, foot outhaul/inhaul, or reefing. If reefing points are fitted the Sail shall not be adjustable whilst sailing.

Shock-cord bolt rope is permitted provided the sail may be lowered as per class rule 6.3.iv.

The Sail shall not be hoisted above lower edge of the mast band whilst sailing. The clew shall not be stretched out beyond the inner edge of the boom band whilst sailing.

One sail only shall be used for all heats of any Class Championship. That sail shall be measured, signed and dated, with waterproof ink in the tack or clew region by a State appointed measurer for sails prior to competing in the event.

For championship purposes the sail shall be used for the whole series in the (reefed) manner as initially sailed in the series.

Permission to change a sail damaged during a Championship series may be granted by the respective Race Committee if the circumstances are judged to be bona fide.

## **7.2 Measurement Procedure**

**Refer FIG. 7 IMPULSE STANDARD and FIG 7A IMPULSE 6.6 SAIL DIMENSIONS.**

All measurements shall be taken with the sail spread out flat (with all battens removed) and sufficient tension applied along the line of measurement to remove wrinkles. (Shockcord luffs shall be stretched taut for measurement).

The sail shall not be folded to determine any measurement points. Straight line measurements shall be by the radius arc method.

The peak is defined as the top forward corner of the sail. The measurement point of peak, to clew, tack and aft corner of the headboard shall be the intersections of the extensions of the outer edges of the sail. Bolt ropes and their enclosures shall be included within the measurement and extension lines.

Girth measurements shall be taken from the appropriate positions on the leach to the nearest point on the forward edge of the bolt rope.

The curve of the foot shall be as formed by a constant section batten held at the tack, centrefoot and clew points.

Leech overhang shall not be permitted to extend beyond the straight line as formed between any two adjacent leech measurement points.

## **7.3 Battens**

Four battens shall be fitted and shall be continuous from luff to leech. The centreline of each batten pocket shall intersect the leech as shown.

## **7.4 Reinforcing**

The tack, clew and sail peak may be reinforced with multiple layers of sailcloth, including Kevlar. For reinforcing extending beyond a 300mm radius but no more than 800mm radius, then the additional cloth shall be limited to a maximum of two layers of the same material as the sail body.

A two ply leech is permitted but shall be restricted to 100mm maximum from the outer leech edge.

## **7.5 Transparent Panel**

A transparent panel may be fitted in the sail. If fitted it shall be in the area between the bottom batten and the foot. If fitted it may be any shape but must fit within a rectangle measuring 2400mm x 800mm. Two tuff windows may also be fitted but shall fit within a 200mm diameter circle. This rule applies to both Impulse & Impulse 6.6 sails.

## **7.6 Sail Shape Stripes**

Three stripes are permitted per side affixed back to back; but shall not exceed 20mm in width. The stripes shall be parallel to each other and substantially parallel to the waterline when the sail is rigged on the mast.

## **7.7 Numbers**

The Impulse Standard Sail Numbers shall be made from either woven black or white material whichever contrasts most strongly with the sail color (Mylar & clear film material shall be defined as white for the purpose of numbers). To identify an Impulse 6.6 sail, numbers must be RED in colour and contrast with the sail colour. They shall be permanently attached to both sides of the sail between the centre and quarter height battens. The upper numbers shall be on the starboard side with the exception of mirror image numbers which may be fixed back to back.

The numbers shall be 300mm high by 200mm wide and 40mm minimum in width. The numbers shall be Arabic in style. Cursive or italic style is not permitted.

The numbers are to conform to Racing Rules of Sailing prescriptions (Appendix G).

## 7.8 Class Insignia

Refer FIG. 6 IMPULSE STANDARD INSIGNIA.

This shall be of a woven material the same color as the sail numbers. The insignia shall conform to the design illustrated and be permanently attached back to back on both sides of the sail in the position shown on the SAIL drawing.

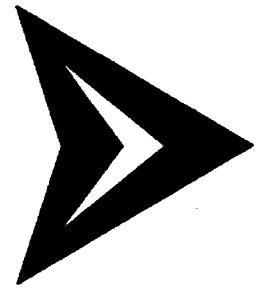
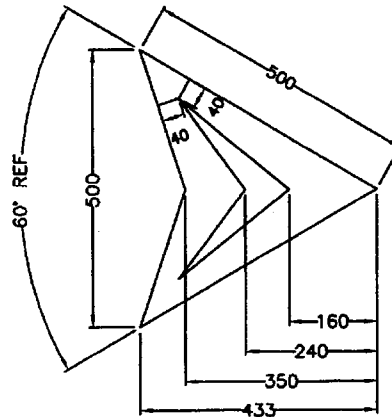


FIG. 6 IMPULSE STANDARD INSIGNIA

Refer FIG. 6A IMPULSE 6.6 INSIGNIA

An additional stripe will be added parallel to the bottom edge of the Class Insignia. It shall be the same colour as the class insignia and shall be 25mm +/- 5mm in width and located such that there is a 20mm +/- 5mm width gap between it and the bottom edge of the class insignia. The length of the stripe shall extend past the bottom edge corners of the class insignia and be equal in angle and in line with insignia's angle extensions. To identify an Impulse 6.6 sail the Impulse insignia and sail numbers shall be Red in colour and contrast with the sail colour.

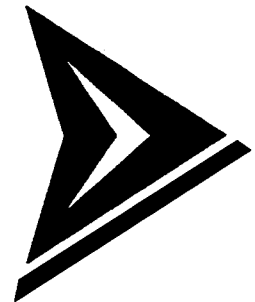


FIG. 6A IMPULSE 6.6 INSIGNIA

## 7.9 Emblem

Individual emblems may be drawn on each side of the sail provided that the emblems fit below the bottom batten.

Where possible emblems should be "mirror images" and placed back-to-back.

Should the boat or sail be sold, the original owner has claim to the emblem. If he/she desires to retain it, the original owner must replace or alter the emblem in a way that clearly distinguishes it from the original.

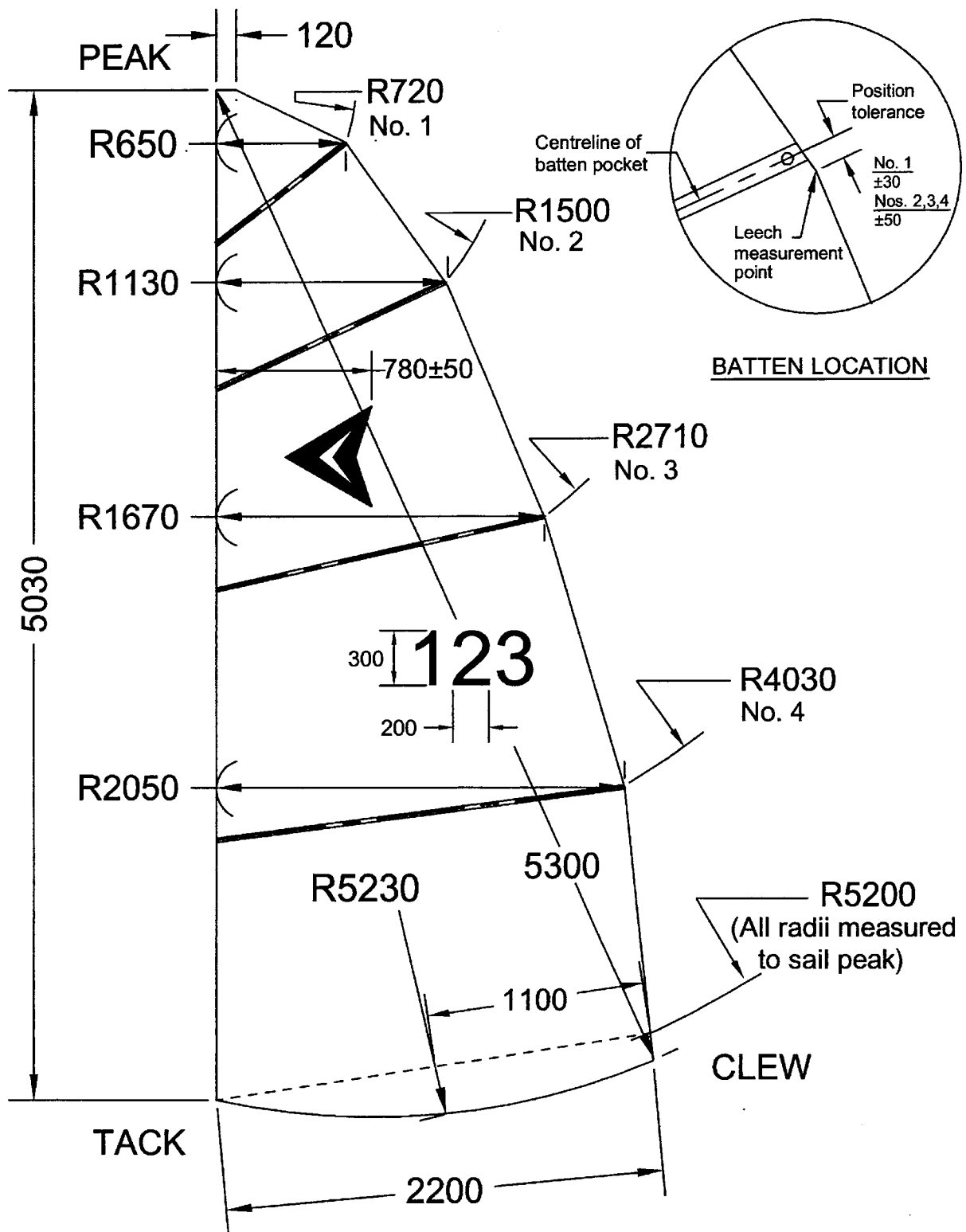
Emblems must be submitted to the AIA Inc. for approval to ensure that no two boats are sailing with the same emblems.

## 8.0 Addendum - Class Rule Changes

- 8.1. A proposed alteration shall be submitted in writing to the AIA Inc. secretary in the form of a motion bearing the signature of the proposer and five seconders' who all shall be financial members of a State Association. This proposal shall be in the hands of the AIA Inc. secretary six weeks ahead of the next planned Annual General Meeting of the AIA Inc.
- 8.2. The secretary shall include the proposed change as a notice of motion in the agenda for the next A.G.M. of the AIA Inc. when it shall be discussed and voted upon.
- 8.3. If a majority vote is attained at the AIA Inc. AGM, then the secretary shall within forty-five (45) days put the matter to a vote by all current financial members.
- 8.4. Alternatively the Executive Committee of the AIA Inc. may call for a vote of the members of the AIA Inc, as per clause 8.6 of this Addendum, should a proposed alteration significantly affecting the sailing performance of the Impulse dinghy be submitted in writing to the AIA Inc. secretary. The motion shall bear the signature of the

proposer and ten seconders, who all shall be financial members of a State association. Such motion shall be put directly to the members, but shall carry a recommendation or otherwise from the Executive Committee, together with argument for and against.

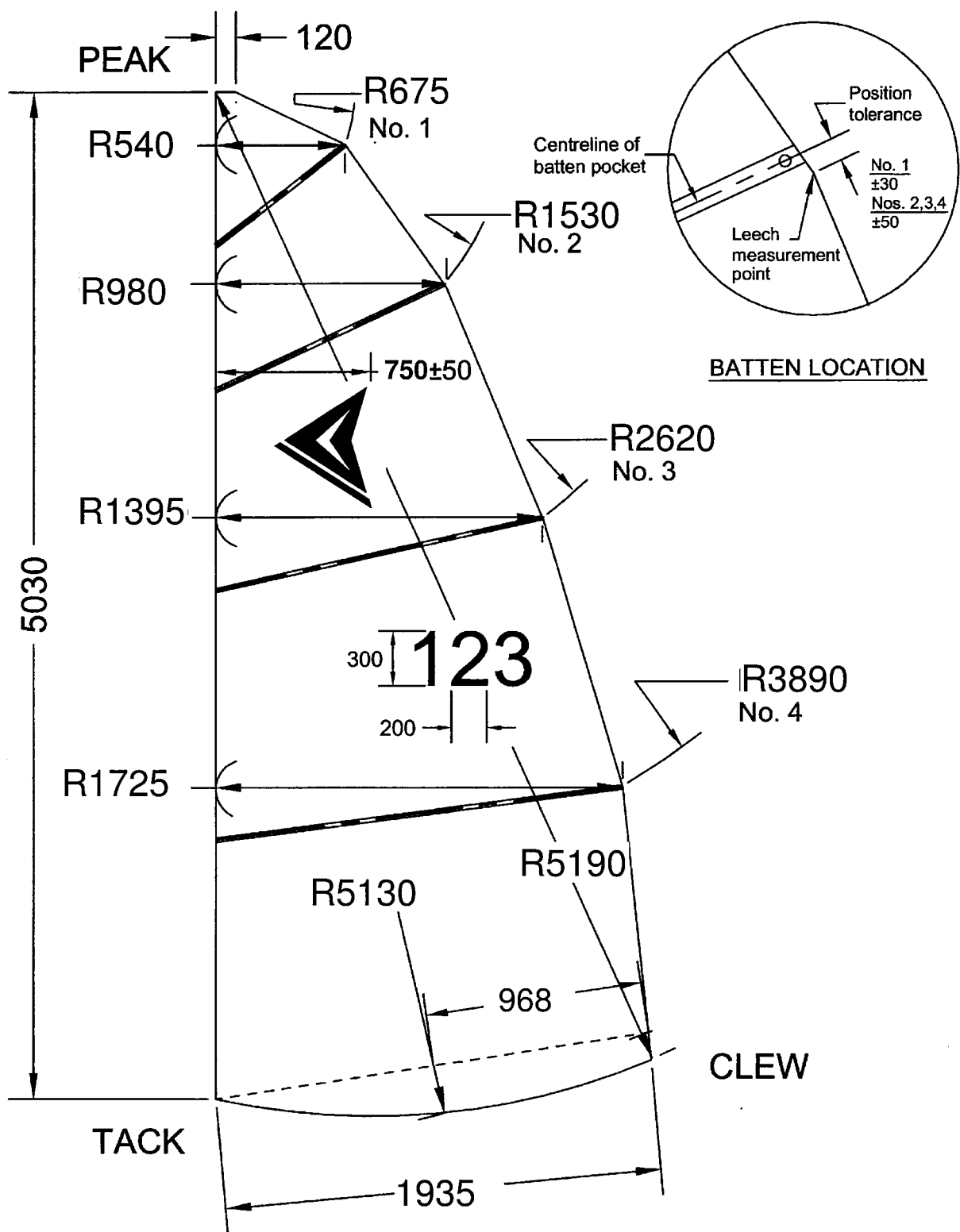
- 8.5. Only those voting papers received from members by the AIA Inc. secretary at his nominated address within thirty days (30) of the issuing of the voting papers shall be counted.
- 8.6. A vote shall be carried if at least a two-thirds majority of the votes received is attained. The secretary of the AIA Inc. will within two months of the close of the vote, advise members of the result by means of the "*On Impulse*" newsletter.
- 8.7. Any change to the Class Rules will become effective on the declaration of the poll.



\* All measurements are maximum unless otherwise stated.

FIG. 7 IMPULSE STANDARD SAIL DIMENSIONS





\* All measurements are maximum unless otherwise stated.  
**FIG. 7A IMPULSE 6.6 SAIL DIMENSIONS**

## 9.0 Appendix

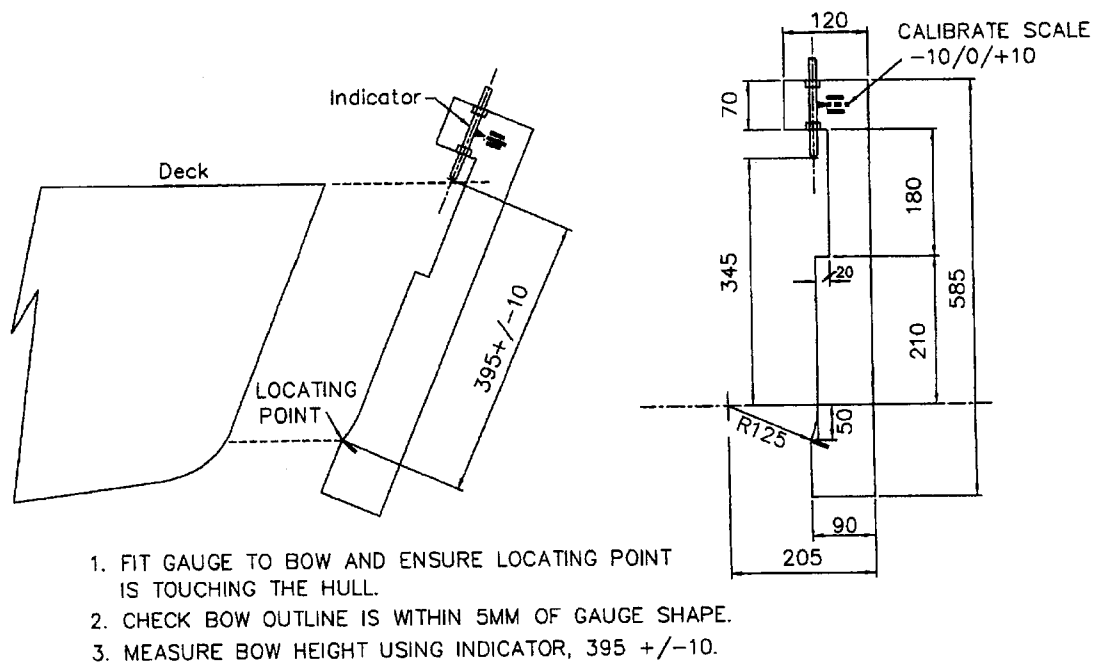
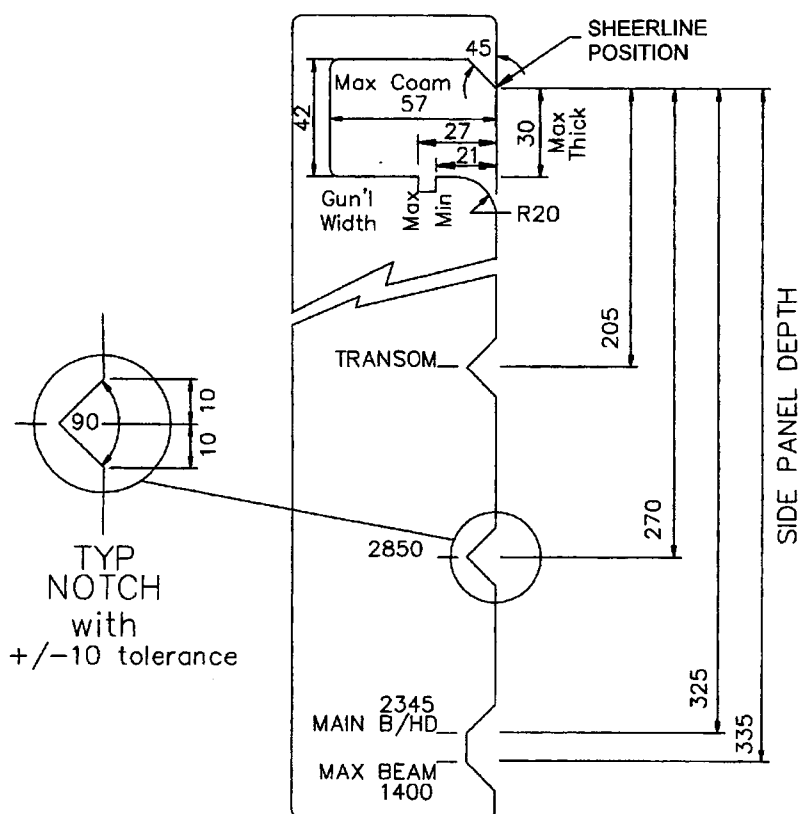


FIG. 8 BOW GAUGE



Suggested Measurement Tool Manufacture using 1.0 thick Aluminium

FIG. 9 CHECK GAUGE  
SHEERLINE, SIDE PANEL, GUNWALE, COAMING