

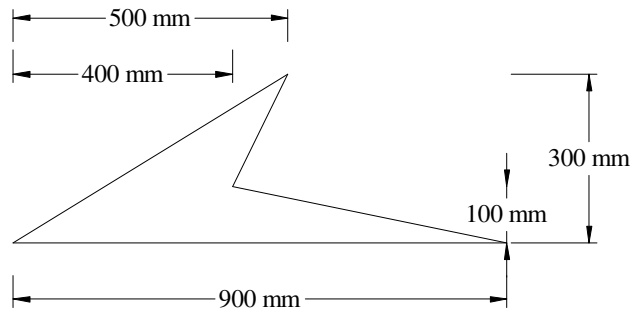
Javelin Class Restrictions

Part 2: Javelin Class Restrictions

INTRODUCTION. The class rules are designed to provide monohull boats that will yield high performance with varying crew weights, varying hull and rig designs and varying ages of crews and boats. The boats shall not be so restricted as one design but not have unlimited development. The Javelin should be a light weight exciting sailing dinghy easily handled by two persons both in the water and out, with no minimum or maximum crew weight. The Javelin Class International Association should be made aware of unusual hull or rig designs, and it shall make a ruling in the interests of the Association and it's members, keeping in mind this intention.

1. INSIGNIA

- 1.1. Shall be as shown placed on each side of sail towards mast and backed.



- 1.2. Registration numbers to be placed below insignia and may be backed only where reversible ie. 1, 8, 11, 88 etc.
- 1.3. Numbers to be sized approximately as follows: Height - 300 mm, Width - 200 mm (excluding No. 1), and Thickness - 50 mm.

2. REGISTRATION

- 2.1. Shall be issued by Class International Association on receipt of measurement form where hull, spars, gear and sails conform to all class rules.
- 2.2. The owner of the boat is responsible that the certificate is not rendered invalid by any cause, and where alteration or replacement to hull, spars, sail or gear to which any rule is applicable, the measurer shall be informed and re-measurement effected as necessary.

3. INTERPRETATION OF THESE CLASS RESTRICTIONS

Shall be as shown in the Measurement Guidelines where appropriate. All other disputes arising out of measurement shall be referred to the Javelin Class International Association for a ruling.

4. SAFETY REGULATIONS

It is drawn to the Owner's attention that boats must comply with the Safety regulations of the National or State Yachting Associations for the area in which they wish to sail. Particular regard should be paid to buoyancy requirements which may affect the construction of boats on materials other than wood.

5. INTERNATIONAL COMPETITIONS

In all international Javelin competitions, competing boats will be restricted to nominating only one mast, one mainsail, two jibs and either two spinnakers or two gennakers for use during the competition. Permission to replace damaged sails or masts must be applied for in writing, from the Race Committee.

6. AMENDMENTS TO CLASS RESTRICTIONS

- 6.1. Alteration to class rules normally applies to boats built after date of amendment but replacements shall conform to Rules at time of replacement.

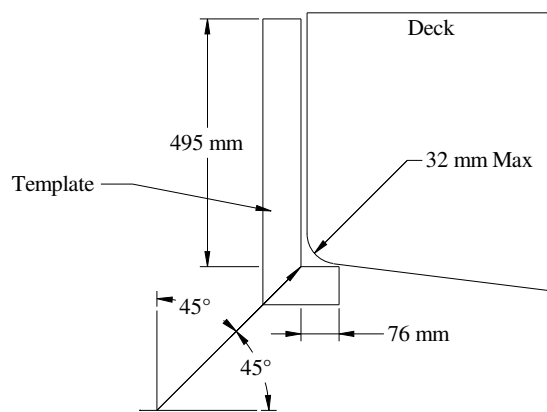
7. CREW

Shall consist of two persons of which only one member of the crew may be using a trapeze at any time.

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8. HULL

- 8.1. **Length Overall:** Not to exceed 4267 mm excluding normal stem-head and rudder fittings.
- 8.2. **Beam at Widest Point:** No part of the boat may exceed 1727 mm overall beam.
- 8.3. **Boats to be hard-chine type** with not more than one chine each side of the fore and aft centreline. In both plan view and in elevation the chine line (and its extension to the stem) shall form a fair curve and may not be hollow at any point. The angle formed by the junction of bottom and sides along chines may disappear forward due to development of the lines but may not be rounded off at or aft of mid-length to a radius greater than 5mm. Where the chine is rounded to a radius not greater than 5 mm measurements shall be taken on skin mid-way on round.
- 8.4. **Materials:** Hull may be constructed of any materials provided that the decks are rigid and permanently fixed.
- 8.5. **For and Aft Centreline:** Shall form a fair curve externally and may not be hollow at any point.
- 8.6. **Sheer:** Shall be a fair continuous concave curve from stem to transom as determined with the hull orientated in its normal sailing position.
- 8.7. **Stem:** Should be approximately perpendicular to the waterline and straight except that the junction between stem and forefoot may be round in elevation. Measurements of the above to be taken off a template (as illustrated) approved by the Javelin Class International Association.



- 8.8. **Mid-length:** The following shall be measured at mid-length;
- 8.8.1. Depth measured vertically from sheer to underside of keel outside of skin but excluding keel band if fitted shall not be less than 495 mm.
- 8.8.2. Depth measured vertically from chine to underside of keel outside of skin but excluding keel band if fitted shall not exceed 210 mm.
- Note: Measurements 8.8.1 and 8.8.2 may occur over the centre case slot, in which case they shall be measured to the intersection of the projections of the bottom skin on each side of the slot (i.e. the imaginary point where the underside of the keel would be, if the centre case slot did not exist).
- 8.8.3. Beam measured outside external gunwale assembly shall not be less than 1524 mm.
- 8.8.4. Beam measured between chines shall not be less than 1212 mm.
- 8.9. **Stern:** The following shall be measured at the stern;
- 8.9.1. Depth measured vertically from sheer to underside of keel outside of skin but excluding keel band if fitted shall not be less than 267mm.
- 8.9.2. Depth measured vertically from sheer to chine shall not be less than 191 mm.
- 8.9.3. Beam measured between chines shall not be less than 915 mm.
- 8.10. **Curvature in Sections:**
- 8.10.1. Aft of mid-length, no vertical cross section of the hull may contain more than 12 mm of curvature, either concave or convex, between chine and sheer.

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- 8.10.2. Between chine and fore and aft centre-line, curvature aft of mid-length may only be convex, and may not exceed 36 mm.
- 8.10.3. Any such curvature in sections shall be in the form of a fair curve and shall have its maximum rise or depth at a point not less than one quarter of the span from either extremity (ie. from sheer, chine or centre-line).
- 8.11. **Gunwale Assembly:** The outer edge of the gunwale assembly shall form a fair, continuous curve for the full length of the boat and may not be hollow in plan view at any point except that foot-stops for crew, if fitted, may extend outside of this. No projections beyond outer edge of gunwale assembly other than foot-stops are permitted.
- 8.12. **Centrebase:** Shall be fixed centrally and shall not be fitted with any device or means by which the centreplate may be set or allowed to be set off centre.
- 8.13. **Decks:** (No Current Rule)
- 8.14. **Buoyancy:**
- 8.14.1. Not less than 0.25 cubic m. of buoyancy shall be built in the form of two or more watertight compartments, disposed in such a manner as to enable the boat to comply with the buoyancy test Rule 8.14.2. Additional buoyancy is optional.
- 8.14.2. Where measurer is not satisfied as to whether buoyancy compartments are properly effective in accordance with Rule 8.14.1 these may be tested at the direction of the Class Association as follows: With sails, boom, rudder, centre board and all loose gear removed but with mast stepped, supported forward by spinnaker halyard where no forestay fitted, shall after being swamped, support continuously for half an hour with gunwales clear all round, two persons of total combined weight of not less than 136 kg and not immersed above the knees. Neither person shall be forward of mast and one only shall be forward of mid-length. Buoyancy compartments shall remain reasonably watertight during this test.
- 8.15. **Weight and Weighing:**
- 8.15.1. An accurate measuring device shall be used for weighing each boat. Weighing of each end separately is not permitted.
- 8.15.2. The hull, to be weighed in a dry condition, and inclusive of all normal permanently fixed fittings, but excluding centerboard, rudder, rudder box, sheets, tiller and extensions, mast, standing rigging, boom, sails and ram strut shall not be less than 70kg. Any item, which in the opinion of the measurer constitutes ballast, shall be removed before weighing.
- 8.15.3. In the event of a boat being underweight, one weight corrector weighting not more than 5kg will be permitted. The weight corrector shall be lead and be bolted or screwed along the centerline of the boat between the mast base and the front of the centre case and be clearly visible at all times. The weight corrector must be able to be removed and weighted separately. Any other weight deficiency shall be added by structural additions that must be permanently fastened (eg. by glue), lead being deemed not a structural material.
- 9. FOILS**
- 9.1. **Centreboard:** Centreboard may be of any material but unballasted and may not be fitted with any device or means by which it may be made asymmetric in section or set off centre. May not exceed 1677 mm in length overall.
- 9.2. **Rudder:** Rudder shall be attached centrally on stern, with rudder vertical pivot centre line not projecting greater than 300 millimetres from the stern. Rudder and rudder assembly may be of any type including tripod rudder assemblies. The rudder assembly may not be used to trapeze or hike from. No part of the rudder assembly may constitute a planing surface.
- 10. SPARS**
- 10.1. **Measuring Bands:** Shall be at least 12 mm wide and of contrasting colour to that of the spar.
- 10.2. **Mast:**
- 10.2.1. Mast shall be stepped on centreline at or below height of foredeck at centreline or projection thereof, and may revolve, but shall not be constructed with a permanent bend. The section to be such that mast will pass through a 102 mm diameter ring. Mast may be constructed from

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any material and may be hollow.

- 10.2.2. Where the mast is stepped below sheerline, a measuring band shall be painted on the mast with its upper edge at sheerline, at the vertical cross-section through the mast position when the mast jack, if any is fully extended. A further measuring band shall be painted on the mast with its upper edge at the point where the projection of the top of the mainboom intersects the mast with the boom in the lowest position in which it will be set. This will be referred to as the lower measuring band. The upper measuring band shall be painted on the mast with its lower edge no more than 6250mm above the upper edge of the lower measuring band.
- 10.2.3. Height of mast not to exceed 7160 mm overall from the sheerline at the vertical cross-section through the mast position.
- 10.2.4. Forward side of jib luff or projection thereof shall not intersect the forward side of the mast at a point higher than 5025 mm above the sheerline level measuring band.
- 10.2.5. The gennaker halyard must be led from the gennaker firstly through a sheave or fair lead placed on the mast in such a way that when the halyard is held tightly perpendicular to the mast, the projection of the halyard shall intersect the mast no higher than 5825 mm above the sheerline measuring band, and the forward edge of the sheave or fair lead shall not extend further than 64 mm from the forward side of the mast. Other sheaves or fair leads after this first one are not restricted.

Note: Measurements 10.2.4, 14.3 and 10.2.5 to be taken with mast jack, if any, fully extended.

- 10.2.6. Fitting(s) to which forestay and/or jib luff are attached shall be fixed on deck forward or foreside of stem and may be attached to the bowsprit (as described by rule 10.4.2), provided the forestay and/or the projection of it passes no more than 20mm forward from the top of the bow stem.
- 10.3. **Main Boom:** May be constructed from any material and may be hollow, but shall not be constructed with a permanent bend. Section of boom shall be such that it will pass through a 102 mm diameter ring.
- 10.4. **Gennaker Boom:**
 - 10.4.1. A gennaker boom, mounted in a permanently fixed position through or on the bow may be used. The tack-line, when held perpendicular to the gennaker boom, shall not exceed 1800mm from the bow stem head at the point where it exits the boom, when fully extended. If the gennaker boom is retractable, the boom shall not project more than 700mm from bow stem head when fully retracted and shall be kept in a fully retracted position while spinnaker is not in use.
 - 10.4.2. A bowsprit may be fitted for the purpose of launching a gennaker boom, but shall not project more than 400 mm forward of bow stem head. A reinforcement may be fitted between bowsprit and bow stem. Reinforcement may be made of any material provided its dimensions are no greater than 50 mm x 12 mm. Lowest end of the reinforcement to be not less than 50 mm from lowest point of bow or projection.

11. SAILS:

11.1. Construction and Measuring:

- 11.1.1. Weight of cloth shall not be less than 135 grams per sq. m in the mainsail and the jib.
- 11.1.2. All sails shall be capable of being stowed in sail bags of conventional dimensions.
- 11.1.3. All measurements shall be made with the sail laid on a flat surface, with the part being measured being stretched just sufficiently to remove wrinkles across the line of the measurement being taken.
- 11.1.4. Sails shall preferably be dry when measured. Should a sail exceed the restriction when wet, the owner may request a re-measure when the sail is dry.

11.2. Mainsail:

- 11.2.1. Shall be set at all times within measuring bands as prescribed on spars. No part of the headboard or sail shall be set above a line produced from the lower edge of the upper measuring band perpendicular to the mast.
- 11.2.2. In addition, the following shall be measured and the sum total of (a), (b) and (c) shall not

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exceed 5652 mm.

- (a) Width at three-quarter height shall be measured along the line of the fold obtained when the top forward corner of the headboard is placed on the mid-point of the luff with the two upper quarters of the luff coinciding and the sail smoothed out. This measurement shall not exceed 1600 mm.
- (b) Width at half-quarter height shall be taken along the line of the fold obtained when the top forward corner of the headboard is placed on the bottom forward corner of the tack with the two halves of the luffs coinciding and the sail smoothed out. This measurement shall not exceed the width at quarter height.
- (c) Width at quarter height shall be taken along the line of the fold obtained when the bottom forward corner of the tack is placed on the mid-point of the luff with the two quarters of the sail coinciding and the sail smoothed out. The point of measurement on the leach shall be the intersection of the fold line and an imaginary leach line. This imaginary leach line shall be established as follows: The lower point is the outside edge at the widest part of the sail below quarter height. The upper point is tangential to the widest point in the sail above quarter height. This line shall lie outside of all sail in all circumstances.
- (d) Headboard: Shall not exceed 102 mm width at any point. No part of the headboard shall be set above a horizontal line extended aft of mast from lower edge of upper measuring band.
- (e) Leach: Shall not exceed 6655 mm when stretched hand taut. The measurement of the leach shall be taken from the point of intersection of all adjacent edges outside all internal edging at clew to top forward corner of headboard.

Note: Measurements 11.2.2 (a), (b) and (c) to be taken over full width of the sail outside all external edging inclusive of false luff if fitted and any hollows in leach shall be bridged by straight lines to which measurements shall be taken.

11.2.3. Battens in Mainsail: Shall not exceed six in number. Width inside pockets shall not exceed 58 mm. battens may be of any length.

11.3. **Jib:**

11.3.1. The area of the jib shall be taken as $(0.5 \times \mathbf{A} \times \mathbf{B}) + (0.66 \times \mathbf{C} \times \mathbf{D})$ where **A**, **B**, **C** and **D** are as defined in rule 11.3. The area shall be rounded off to the nearest 0.01m^2 and shall be equal to or less than 4.30m^2 .

11.3.2. The luff length **A** shall be measured from the bottom edge of the sail at the tack to the top edge of the sail at the head. The head is defined as the intersection of the luff and the leech.

11.3.3. The length **B** shall be measured from the outside edge of the clew to the nearest point of the luff. The clew is defined as the intersection of the foot and the leech extended as necessary.

11.3.4. Headboards are not permitted. Clewboards having a maximum dimension of 230mm are permitted. Clewboards are defined as being incapable of being folded by hand.

11.3.5. **D** shall be the maximum distance of the leech from a straight line joining the head and clew as defined in rule 11.3 measured at right angles to that line. **C** shall be the length of the line from head to clew. Where no part of the leech projects outside of the line **C**, then **D** shall be taken as equal to zero.

11.3.6. Battens not exceeding 3 in number are permitted.

11.4. **Gennaker:**

11.4.1. Gennaker to be measured with the head, tack and clew stretched out simultaneously so as to tension the three edges of the sail equally. The total length of the luff, leach and foot shall not exceed 17500 mm.

11.4.2. A Gennaker shall only be flown from a gennaker boom of the type described in rule 10.4.1.

11.5. **Only one spinnaker or gennaker** may be used or carried on board any boat in a race.

12. **PERMITTED EQUIPMENT AND METHODS:**

12.1. Contrivances for controlling or adjusting bend in mast while sailing, or adjusting the fore and aft position of mast heel and/or rake in mast while sailing are permitted.

12.2. Winches in mast for hoisting sails or adjustment of kicking strap(s) are permitted.

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- 12.3. Contrivances by which bending of boom whilst sailing can be controlled or adjusted in addition to normal kickstrap, disposition of mainsheet blocks, etc. are permitted.
- 12.4. RIGGING: Standing and running rigging arrangements are optional.
- 12.5. Fore and aft position of mast is optional.
- 12.6. Wire luff in jib may be used in place of forestay.
- 12.7. Self-bailing devices: Any type permitted.

13. THE FOLLOWING ARE PROHIBITED:

- 13.1. **Bumpkins** and any other form of spar not included in Rule 10; permanently bent spars; outriggers for sheeting sails or for any other purpose; double luffed sails; pocket luff mainsails; any form of ballast.

Note: Double luffed sails does not include the type of spinnaker commonly described by that term, ie. flat parachute type spinnaker.

- 13.2. **Any item not specifically mentioned** above or elsewhere in Class Restrictions but over which doubt could reasonably be expressed shall be considered as prohibited until a ruling has been obtained from the Class international Association.

14. SPINNAKER:

- 14.1. Spinnaker Boom: Shall not exceed 2743 mm in length, measured along boom when attached to mast in normal position, from forward face of mast to point at which sail is attached with boom touching forestay. Self-retrieving spinnaker poles shall be pulled out to maximum position for measurement. May be hollow and of any material. May be jointed.
- 14.2. Two spinnaker booms may be carried but both must comply with measurement rule 14.1. Only one spinnaker boom may be attached to the clew or tack of the spinnaker in normal position at any time.
- 14.3. The spinnaker halyard must be led from the spinnaker firstly through a sheave or fair lead placed on the mast in such a way that when the halyard is held tightly perpendicular to the mast, the projection of the halyard shall intersect the mast no higher than 5024 mm above the sheerline level measuring band, and the forward edge of the sheave or fair lead shall not extend further than 64 mm from the forward side of the mast. Other sheaves or fair leads after this first one are not restricted.
- 14.4. The spinnaker to be measured with the head, tack and clew stretched out simultaneously so as to tension the three edges of the sail equally. The total length of the luff, leach and foot shall not exceed 12800 mm. Measurements to be taken from centre above all cloth or external edging at head and from points of intersection of projections of adjacent edges outside all cloth or other external edging at tack and clew. No battens are permitted in spinnaker. Width of headboard may not exceed 102 mm at any point.