

RADIO YACHT “JAN LINGE SOLING (J.L.S)” CLASS RULES

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Preface

Jan Linge was the designer of the full size Soling class yacht upon which this model yacht is based. The Soling is an excellent performing yacht that was selected as an Olympic class racing yacht in 1968 and was used for the following 8 Olympic Games.

Jan on his passing bequeathed the plans of the Soling to the ISAF so that the Soling class would have an ongoing class administrator.

The Brisbane Water Radio Yacht Squadron purchased a set of Soling Plans from the ISAF so a working radio controlled one metre long model could be developed for local manufacture in Australia.

Permission was granted by the ISAF and Jan Linge’s descendants to develop this radio controlled model yacht on the proviso that Jan was acknowledged as the original designer of the Soling on which this class is based.

The class will be known as “JLS” as an acknowledgement of Jan Linge and his Soling design. Only minor alterations have been made from an exact scale model to cover scale affects due to the reduction in length from just over 8 metres to a 1 metre long model.

1 Introduction

The definitions, dimensions, limits, and restrictions listed are intended to maintain the one-design concept of this class. These rules are intended to ensure all complying boats are as close as possible to specified dimensions of hull, keel, rudder, sails, displacement and ballast. Any obvious attempt to negate or violate this concept shall require the boat be barred from competition, until the violation is corrected.

In these Rules the words “shall”, “must” and “will” means the pertinent rule is mandatory. The word “may” indicates that the rule is optional.

The class specification is defined by; these rules, the control drawings and any applicable rules of the BWRYS, NSWRYA & ARYA in that order. If a feature is not specifically allowed by these rules then it is prohibited. These class rules shall be read in conjunction with the Racing Rules of Sailing and the Equipment Rules of Sailing current at the date of measurement.

The class shall be called “J.L.S”. Boats conforming to this rule shall have hulls and keels that have been produced from approved moulds.

2 Class Authority

The Class Authority shall be the Brisbane Water Radio Yacht Squadron Incorporated.

3 Conditions for Racing

3.1 **Boat Eligibility**

No measurement certificate is required; however, boats may be subject to inspection by the race committee at registration or at any time during a regatta or series to determine compliance with these rules. If a boat is found to be noncompliant during a regatta, the race committee may remove all results up to that point and ask the owner to bring the boat back within the rules or, if this is not possible, withdraw the boat from the event.

3.2 **Registration**

To be eligible for racing all boats shall be registered with the class authority. The registration number issued will become the boat’s sail number. This will normally be the hull serial no.

3.3 Crew

The crew shall consist of one person.

3.4 Boat**3.4.1 Displacement**

The displacement of the boat in dry condition excluding wind indicator and headsail boom counterweight shall be between 4.50kg and 5.50kg. Corrector weights if used to meet the minimum displacement must be securely fixed in place and not altered or moved during an event.

3.4.2 Hull Identification

The hull shall be indelibly marked with the boat registration number and shall also be displayed on the external surface of the hull or deck clearly and legibly with a minimum height of 20mm.

3.4.3 Sail Identification

The sails shall be marked as set out in clause 4.14.4.

3.4.4 Remote Controls

3.4.4.1 The control of the boat shall be by radio control with only 2 channels permitted. One channel shall control the sheets and one channel shall be used to control the rudder.

3.4.4.2 Any brand or type of radio equipment is permitted provided it meets the statutory requirements for control of models by radio in Australia.

3.4.4.3 The fitting of a small video camera to the boat is permitted, however, transmission of video images from the boat to shore shall be prohibited.

3.4.5 Equipment Damage

Except where items are lost or damaged, items shall not be replaced during an event. The following items may only be replaced with the approval of the race committee: -

Keel

Rudder

Mast, mainsail boom and/or headsail boom

Mainsail and/or headsail

Fittings and rigging items may be replaced at any time.

3.4.6 Batteries

Radio equipment batteries may be replaced at any time between races subject to the on-board replacement battery being of the same voltage, similar mass (± 15 grams), configuration and installed in the same location to the battery used at the start of the event.

4 Construction Requirements**4.1 Hull and Deck**

4.1.1 The boat must be constructed from a hull provided by an approved manufacturer. The hull shall have the manufacturer's marking and serial number bonded into the hull. Currently approved manufacturers are:- Graeme Smith Ph 0477 007140 and Kevin Humphrey Ph 0409 454591.

4.1.2 The length of the completed hull and deck, when measured parallel to waterline shall not exceed 1000mm.

4.1.3 The transom may be flat or have a convex curve with a radius of not less than 150mm measured at deck level.

4.1.4 The beam at deck level shall comply with the measurements set out in the table below with a tolerance of ± 3.0 mm. Distances from the bow shall be along the deck centreline.

DIST FROM BOW	BEAM
100mm	71mm
200mm	128mm
300mm	175mm
400mm	211mm
500mm	230mm
600mm	232mm
700mm	211mm
800mm	180mm
900mm	137mm

- 4.1.5 The design of the deck is free but shall have a convex cross section throughout its full length.
- 4.1.6 The location of the mast, hatch and fittings shall be in accordance with the control drawing.
- 4.1.7 The hull and deck may be manufactured from any materials except that the mass of the hull with bulkheads and transom fitted, rudder tube and radio gear mounts installed, all built in rigging anchorages fitted and the deck attached shall not be less than 600 grams.

4.2 Keel

- 4.2.1 The keel must be constructed by an approved manufacturer. Currently approved manufacturers are:- Graeme Smith Ph 0477 007140 and Kevin Humphrey Ph 0409 454591.
- 4.2.2 Ballast shall consist of spherical lead shot permanently bonded into the keel by the manufacturer.
- 4.2.3 The keel shall be removable and shall be located as shown on the Control Drawing.

4.3 Hatch

- 4.3.1 The hatch opening shall be a minimum of 125mm wide x 220mm long, of roughly elliptical shape and shall have an upturned coaming with a minimum height of 8mm above the deck.
- 4.3.2 Any hatch cover may be fitted.

4.4 Rudder

- 4.4.1 The rudder shall be of the shape shown on the control drawing and shall have a maximum thickness of 8.5mm.
- 4.4.2 The rudder may be manufactured from timber, formed thermoplastic sheet or composite materials. There is no restriction on the material used for the rudder shaft.
- 4.4.3 The rudder shall be located as shown on the control drawing.

4.5 Interior Construction

The construction, layout, materials, and equipment used inside the hull are unrestricted except where in conflict with any other mandatory rule.

4.6 Bow Bumper

A bow bumper made from elastomeric material not less than 6mm in thickness shall be fitted to the bow of the boat. The thickness of the bow bumper shall not be included in the length of the boat.

4.7 Spars

- 4.7.1 The mast shall be made from timber as set out in 4.8.1 or aluminium or carbon fibre tube as set out in 4.8.2.
- 4.7.2 Booms shall be made from timber as set out in 4.10.1 or aluminium or carbon fibre tube as set out in 4.10.2.

4.8 Mast

- 4.8.1 If of timber the mast shall have a cross section not exceeding 20mm x 9.5mm and may be solid timber or of plywood and may be shaped to provide a streamline section but shall be of a constant cross section between the gooseneck fitting and the jib stay attachment point, with a tolerance of +/- 1mm on width and depth.
- 4.8.2 If of aluminium or carbon fibre the mast shall be manufactured from 10mm dia x 1mm wall thickness tube. Grooved or tapered tubing is not permitted.
- 4.8.3 The placement of fittings and rigging connections on the mast shall be in accordance with the locations shown on the control drawings. Rigging connections not shown are uncontrolled.

4.9 Mast Step

- 4.9.1 The mast shall be stepped on the deck.
- 4.9.2 There is no restriction on the mast step arrangement.
- 4.9.3 A mast jack may be incorporated into the mast step if desired.

4.10 Booms

- 4.10.1 If of timber the booms shall have a cross section not exceeding 15mm x 9.5mm and may be solid timber or of plywood and may be shaped and have a varying cross section.
- 4.10.2 If of aluminium or carbon fibre the booms shall be 8mm dia x 1mm wall thickness tubing and shall be not be tapered or shaped.
- 4.10.3 There is no restriction on length of booms provided the headsail boom does not protrude forward of the bow of the boat.

4.11 Headsail Boom Counterweight

- 4.11.1 A removeable headsail boom counterweight that does not protrude forward of the bow may be fitted. The mass of the headsail boom counterweight shall not be included in the permitted displacement of the boat.

4.12 Fittings

- 4.12.1 The use of any fairleads, turnbuckles, eyebolts, chainplates, tangs, goosenecks, boom vang, mast jacks, mast cranes, outhauls and bowsies shall be permitted.
- 4.12.2 Fairleads (sheet exit guides) shall not extend higher than 13mm from the deck.

4.13 Rigging

- 4.13.1 Single or multi strand wire shall be permitted for shrouds and stays.
- 4.13.2 Upper and lower shrouds or diamond stays plus one pair of shrouds may be fitted.
- 4.13.3 A permanent backstay shall be fitted.
- 4.13.4 The lower end of the backstay shall be attached to the rear deck or transom but not protrude beyond the rear of the boat.
- 4.13.5 Spreaders shall not extend beyond the width of the hull.
- 4.13.6 The lower ends of shrouds shall be anchored a minimum of 6mm inboard of the sheerline.

4.14 Sails

4.14.1 Material

Sails shall be single panel made from single ply woven cloth of polyester fibre with minimum weight of 2 oz per sailmakers yard.

4.14.2 Size and Shape

Sails shall be cut so that the finished sails conform to the sail control drawing in size and shape.

4.14.3 Battens

The fitting of sail battens is optional. If fitted battens shall be as follows: -

4.14.3.1 Mainsail

No more than 3 battens positioned such that the leach is divided into 4 equal parts with a maximum inequality of 20mm. Maximum batten lengths: top 70mm, middle 85mm, bottom 90mm.

4.14.3.2 Headsail

No more than 2 battens positioned such that the leach is divided into 3 equal parts with a maximum inequality of 20mm. Maximum batten lengths: top 100mm, bottom 70mm.

4.14.3.3 Sail Reinforcement

The sails may be reinforced by addition of woven cloth or tape material within 76mm of the head, tack, and clew corners, and within 6mm of the leach edge.

4.14.4 Sail Marking

Sail numbers shall be a minimum of 75 mm in height and 9.5 mm in stroke width. They shall be placed as shown on the control drawings. The Greek letter omega as included on the original Jan Linge design for the Olympic class shall form the class logo as set out on the class insignia drawing. The logo shall be affixed to the sail above the sail numbers.

4.14.5 Wind Indicators

4.14.5.1 The use of a wind indicator or vane on top of the mast shall be permitted.

4.14.5.2 Tell-tales are permissible on the Headsail and Mainsail. The number and position of them is not restricted.

4.14.6 Sail Attachment

4.14.6.1 Mainsail

The mainsail shall be attached to the mast by jack line or cord loops.

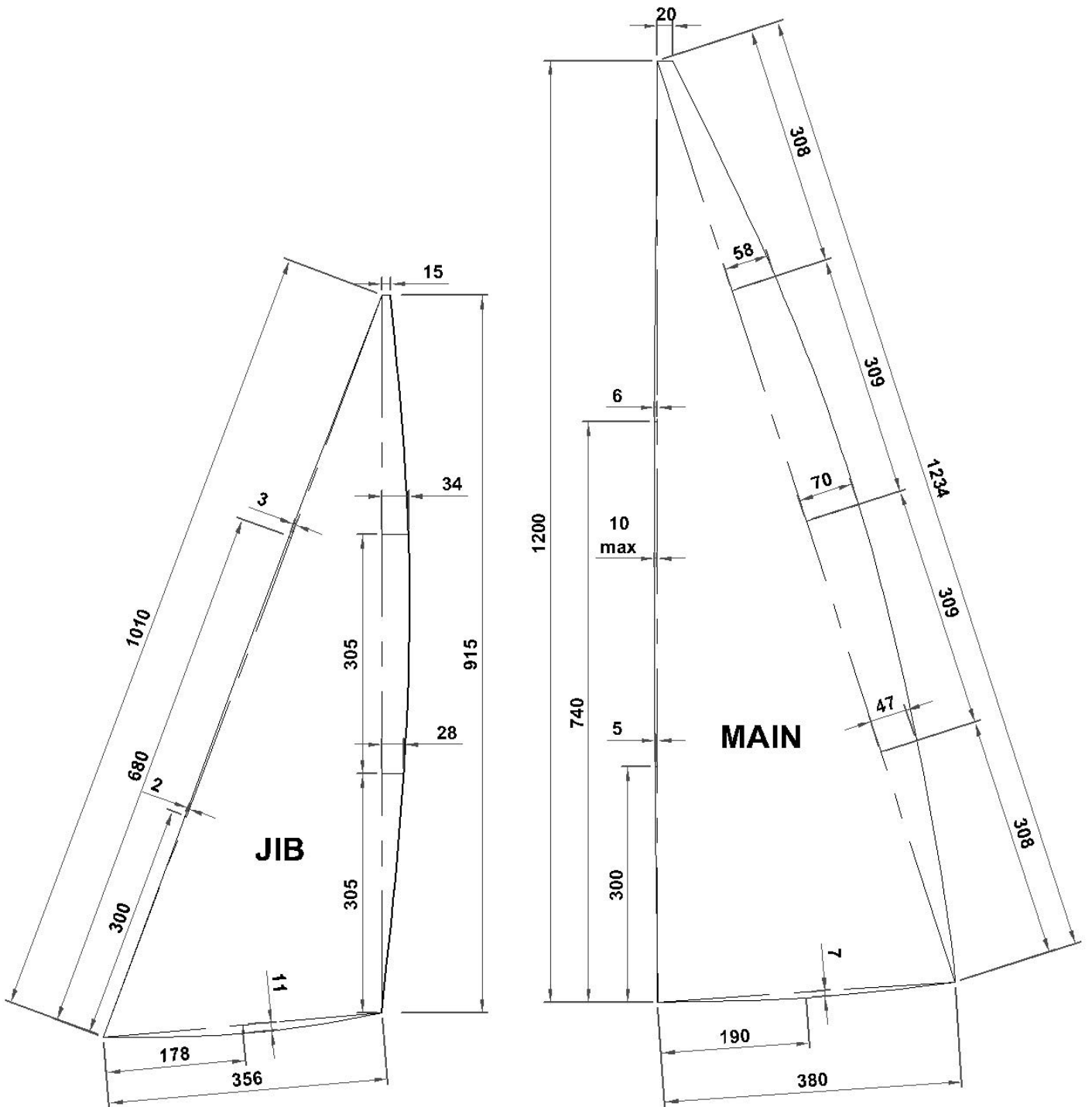
4.14.6.2 Headsail

The headsail shall be supported by a single (max $\text{Ø}0.8\text{mm}$) or multi strand wire jib stay passing through a pocket on the luff of the sail. Rigid type jib stays shall be prohibited.

4.15 Control Drawings

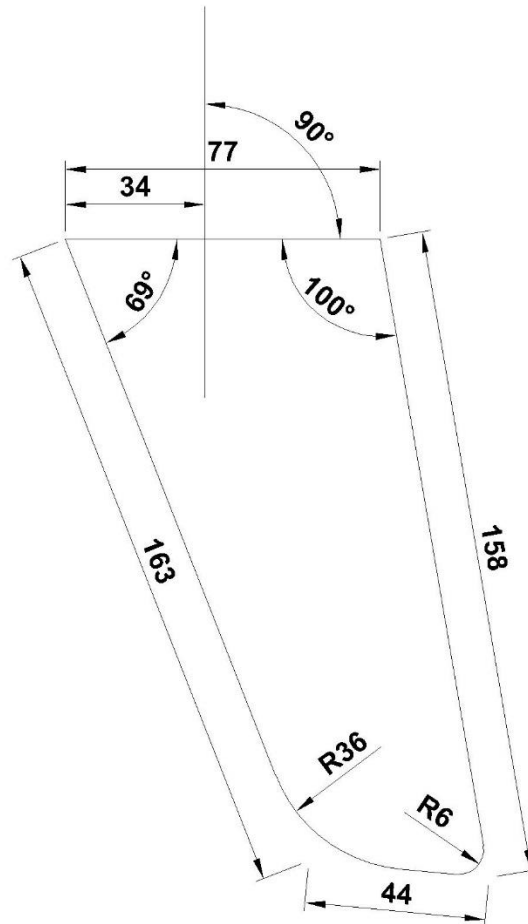
The following Control Drawings form part of these rules and dimensions set out on the Control Drawings shall be adhered to. The dimensions pertinent to the mast shall include the mast jack (if fitted), with the shrouds properly tensioned and shall be measured from the deck adjacent to the mast step.

4.15.2 Sail Control Drawing



All dimensions are in mm and are ± 3 mm
Unless noted otherwise

4.15.3 Rudder Control Drawing



4.15.4 Omega" Class Insignia

