

S80 ASSOCIATION OF VICTORIA

S80 ONE DESIGN RULES AND SPECIFICATIONS

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RULES AND SPECIFICATIONS

1.GENERAL INTENT

The S80 is a one-design yacht designed for racing and cruising. It is intended to provide, at reasonable cost, high-performance racing for inshore and limited offshore events, while at the same time providing simple and spacious accommodation to exploit the cruising potential of the boat. It is with this racing and cruising potential of the yacht in mind, together with the aim to prohibit the use of expensive and sophisticated equipment, that the rules of the Class have been framed.

It is fundamental to the interpretation of the Class Rules and specifications that racing in S80 Class events shall be a test of skill and seamanship in boats which are essentially the same. Any boat which differs from the rules and specifications of the Class, or which is deliberately altered in any way to gain an advantage over other boats of the Class through exploiting a loophole in the Class Rules, contrary to the spirit of the rules, shall not be accepted as eligible for the S80 Class.

2.INTERPRETATION

In order to maintain the one design of the S80 yacht in Victoria the measurement of the boats and interpretation of the rules and specifications shall be the responsibility of a measurer appointed by the S80 Association of Victoria. Any measurer requiring clarification on matters arising from the rules shall refer these to the Association.

S80 yachts constructed prior to August 1985 and deemed to measure under the previous rules shall be considered to measure legally under these revised rules.

3.HULL, DECK, KEEL AND RUDDER

These shall be manufactured from moulds and patterns approved by the S80 Association of Victoria or their authorised agents. Each hull shall be fitted with at least two structural bulkheads, one forward and one aft, as indicated on the construction plan. The bulkheads shall be of not less than 9 mm thickness plywood or equivalent strength G.R.P. The aft bulkhead shall seal permanently the accommodation from the cockpit hatches. The anchor well shall also be sealed permanently from the accommodation.

No filling or sanding of the hull except for etching for painting and repair of damage is allowed. The keel may be filled to fair the surface to a thickness no greater than 6 mm but no alteration to the basic shape is allowed.

The keel will be made to the template and drawings of the designer K. Swarbrick and shall be cast from material of uniform density throughout. The finished weight of the keel shall be 550 kilograms.

Yachts with keels of consistent density, but other than cast iron, if correct in profile and dimensions, may race as S80s in Victoria.

No material may be removed from the hull, deck, keel or rudder except for the installation of legitimate hardware. All holes cut in the hull and deck must be sealed and made structurally sound. Approved ventilations may be used.

No modification may be made to the standard fittings supplied by the yacht builder.

All hatches shall be mechanically fastened to the deck or cockpit.

4. ACCOMMODATION

Minimum requirements for the internal fit-out of the yacht shall be as follows:

- (a) Floorboards of not less than 9 mm plywood fitted for a distance of 2000 mm fore and aft and the full width of the floor webs or between the bunks or galley fronts.
- (b) The entire interior flocoated, painted or lined.
- (c) Yachts constructed prior to August 1985, shall have four pipe cot berths with minimum length of 1830 mm and width of 500 mm.

or

Four fixed berths constructed of plywood not less than 6 mm thickness or of GRP and with a minimum length of 1830 mm and width of 500 mm. The plywood or GRP shall cover the top bunks and sides. An adequate double vee berth forward may be counted as two berths. Quarter berths count as single berths.

Yachts constructed after August 1985, shall have the standard quarter berth and bunk mouldings supplied and fitted by the builder.

- (d) A securely fitted battery to operate instruments and/or navigation lights is optional.
- (e) Strengthening devices inside the boat to transfer tension more directly to the keel may only be in the form of a permanent fixed perimeter bulkhead. All other forms of strengthening are prohibited.
- (f) Movable items may not be moved from their normal cruising position to gain advantage when racing.

5. ANCHOR

Each yacht shall carry an anchor and warp as specified in the Australian Sailing Safety Regulations, Addendum B Part 2.

6. ENGINES

The fitting and use of either inboard or outboard engines shall comply with the requirements of Sailing Australia Safety Regulations, Addendum B, Part 1, in all respects.

7. MINIMUM YACHT WEIGHT

The minimum yacht weight shall be 1680 kg. For the purpose of weighing, an S80 yacht shall be fitted out in accordance with clause 4a, b, c and d, and shall be complete with all standing and running rigging, one spinnaker pole and shall be free of water. An optional battery when securely fitted as per clause 4 may be included in the minimum weight.

All removable items such as sails, the anchor and tackle, outboard motor and fuel tank, winch handles, spinnaker and jib sheets, tools, eating and cooking utensils, shall be removed before weighing.

If a yacht is under weight, compensating weights shall be added and located as follows:

First 0 to 30 kg	At the base of the mast.
Weight in excess of 30 kg	Equally distributed port and starboard on chain plate bulkhead not more than 300mm below underside of deck.

All compensating weights shall be securely fixed in position.

Minimum Yacht Weight With Fixed Inboard Engine

Where an inboard engine is fixed in position in a yacht, the minimum yacht weight, including the engine, fixed tanks, fuel lines and other items necessary to the installation, shall be 1680 kg, plus 26 kg compensating weight in lieu of an outboard motor, normally carried additional to the minimum weight.

Fixed fuel tanks are to be weighed empty or the fuel compensated for in establishing the actual weight of the yacht with engine and fittings.

8. MAST AND RIGGING

Refer to S80 Mast Layout Diagram in these class rules.

Mast:

Mast shall be keel stepped. Devices for moving the mast at deck level or keel step while sailing are not allowed.

Mainsail headboard locking devices are not permitted and the weight of any sail shall be taken by the halyard.

All spars must be made of aluminium with tapering by cutting and welding only. Concavity of taper is not permitted.

Section measurements with sail track fitted shall be:

	Untapered	Tapered
Fore and Aft	125 mm Min	75 mm Min
Athwartships	80 mm Min	55 mm Min

Weight per metre: 2.40 kg Min.

Height of untapered section above cabin top at centre line	8,500 mm Min
Top Black Band height above cabin top at centre line	10,350 mm Max
Underside of Spinnaker halyard led horizontal -height above cabin top	8,700 mm Max
Intersection of forestay to front of mast (“I”) —height above cabin top at centre line	8,400 mm Max
Spreaders - Length from side of mast	800 mm Min 850 mm Max
Spreaders - Height above cabin top to centre of spreader	4,350 mm Min 4,450 mm Max
Spinnaker pole attachment to mast —height above cabin top at centre line	1,250 mm Max
Bottom black band —height above cabin top at centre line	600 mm Max

Boom:

Shall be of aluminium of optional section not exceeding 130 mm depth with a minimum weight of 1.7 kg/metre.

Length from aft side of mast to black band	3,500 mm Max.
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Spinnaker Pole:

Shall be aluminium of optional section.

Length measured from, centre line of mast to extreme end of pole when pole extended at 90° to centre line of boat	3,500 mm Max.
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Standing Rigging:

Running backstays are not permitted. Only the backstay may be adjusted while racing. Backstay to be 4 mm minimum stainless steel wire and all other stays 5 mm minimum. Rod rigging is not allowed.

Running Rigging:

The following halyards are permitted:

- 1 main halyard
- 2 jib halyards
- 1 spinnaker halyard
- 1 spinnaker pole lift

9. DECK EQUIPMENT

Optional except for the following:-

- a. Four winches are allowed. Linked winches are not allowed.
- b. Headsails may be sheeted by any means, with or without tracks, fixed blocks or otherwise, from any position on the boat.
- c. Hiking devices - no rope, wire, rail, handhold or other special device shall be used by any member of the crew for the purpose of supporting his weight outboard of the sheerline. However, the use of the headsail, spinnaker and or main sheets, held solely by the hands for hiking purposes, is permitted.
- d. No running rigging may be led below the deck other than through the standard hatches.
- e. Rigid or lever vang or vang tracks are not allowed.
- f. Hydraulic equipment is not allowed.
- g. No electronic wind instruments are allowed. A mechanical wind vane may be fitted with a light.
- h. Lifelines, stanchions and pulpits as specified in Sailing Australia Safety Regulations, Addendum B, Part 1 shall be fitted.

10. CREW

In S80 Class and State Championships events, each yacht shall carry a crew of no more than five persons including the skipper.

11. SAILS

Sails shall be limited to one mainsail, three jibs and two spinnakers. A storm headsail may be required by safety regulations and for this purpose a number 4 jib may be carried. New sails are restricted to a maximum of 2 sails per season, however damaged or very worn sails may be replaced at the State Measurer's discretion. Spinnaker chutes and retrieval cords may be used.

Mainsail:

Each mainsail shall carry the S80 Class sail emblem as defined in these rules and also the yacht registration number.

Luff - Measured between black bands on mast	9,750 mm Max
Foot - Measured between black bands on boom	3,500 mm Max
Leech – Measured from maximum head height 30mm in from face of boltrope to the intersection of leech and foot	10,500 mm Max
Headboard – Measured at 90° to luff	150 mm Max
Mid Girth Measured at 90° to luff by folding head to tack	2,215 mm Max

Battens: Four evenly spaced with 100 mm tolerance

At least one set of reefing points adequately reinforced, shall be provided 1.2 metres minimum above the boom.

A transparent panel of minimum size 550 mm long by 250 mm high shall be provided in the lower third of the mainsail.

The top girth measurement of the sail shall not exceed a radius of 1,070 mm, measured from a point at the luff 2,210 mm below the head of the sail. See mainsail drawing.

Jibs:

Type	Number allowed	L.P. Measurement
No 1	One only	4,350 mm Max
No 2	One only	3,400 mm Max
No 3	One only	2,800 mm Max

Spinnakers:

Must be Symmetrical

No. 1: One only

Luffs	9,200 mm Max
Girth	6,000 mm Max
Foot	5,300 mm Max

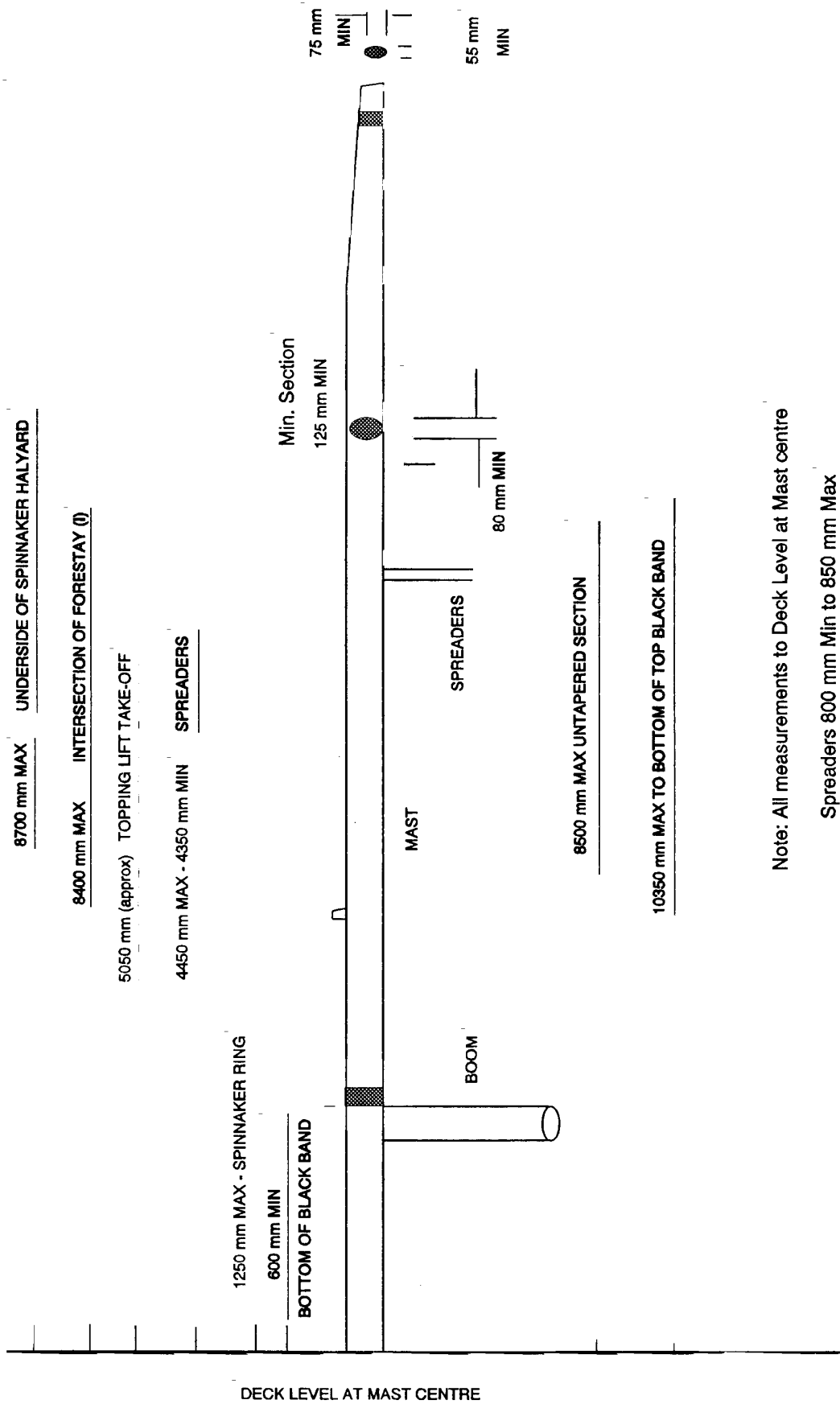
No. 2: One only

Luffs	8,800 mm Max
Mid - Girth	4,400 mm Max 3,900 mm Min
Foot	5,200 mm Max

Masthead spinnakers may be used in non-championship events only. They are not approved for State or National Championships.

S80 MAST LAY-OUT DIAGRAM

S80 MAST LAYOUT



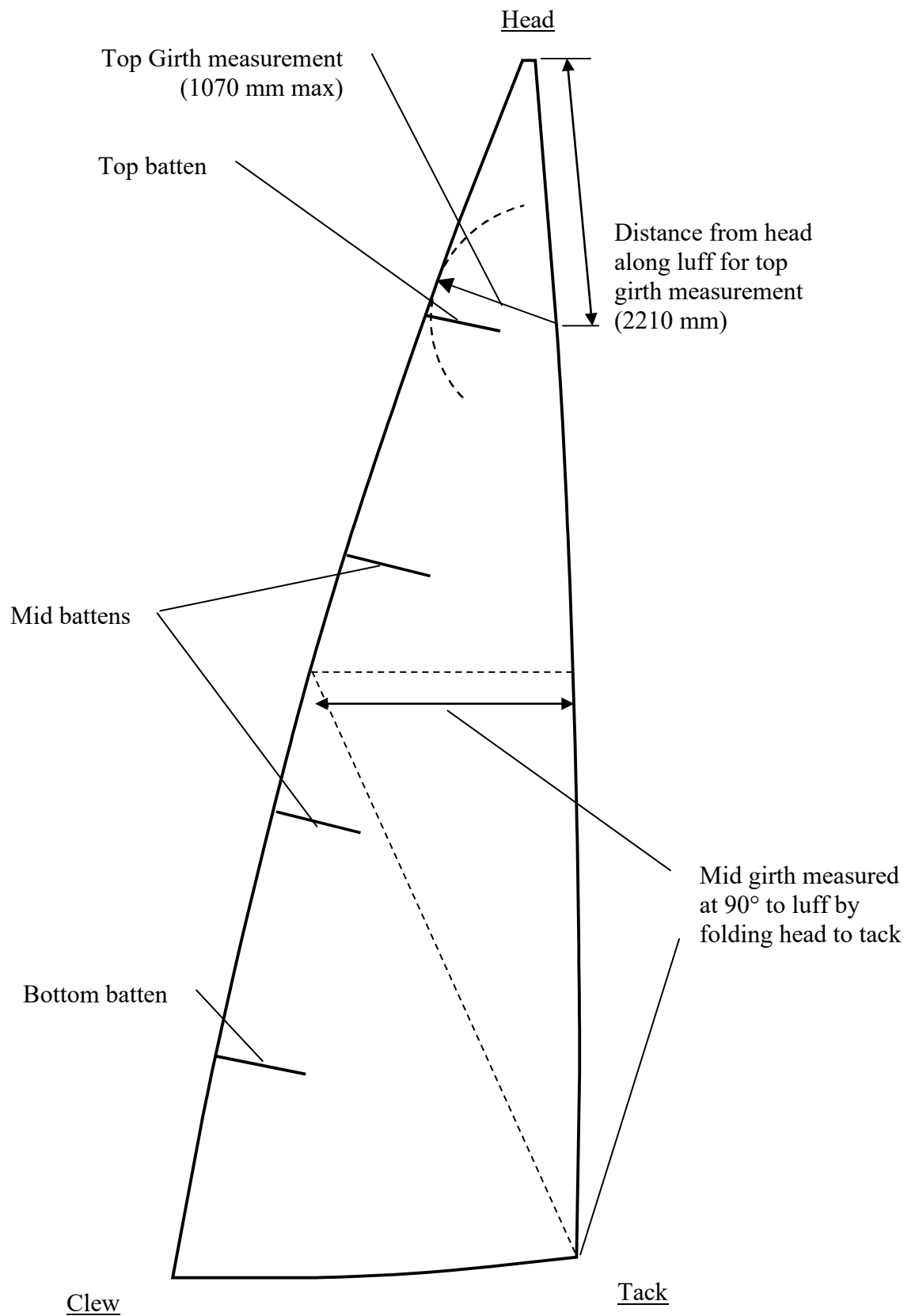
Note: All measurements to Deck Level at Mast centre

Spreaders 800 mm Min to 850 mm Max

Shroud to Shroud across Spreaders 1500 mm (at 800 mm)

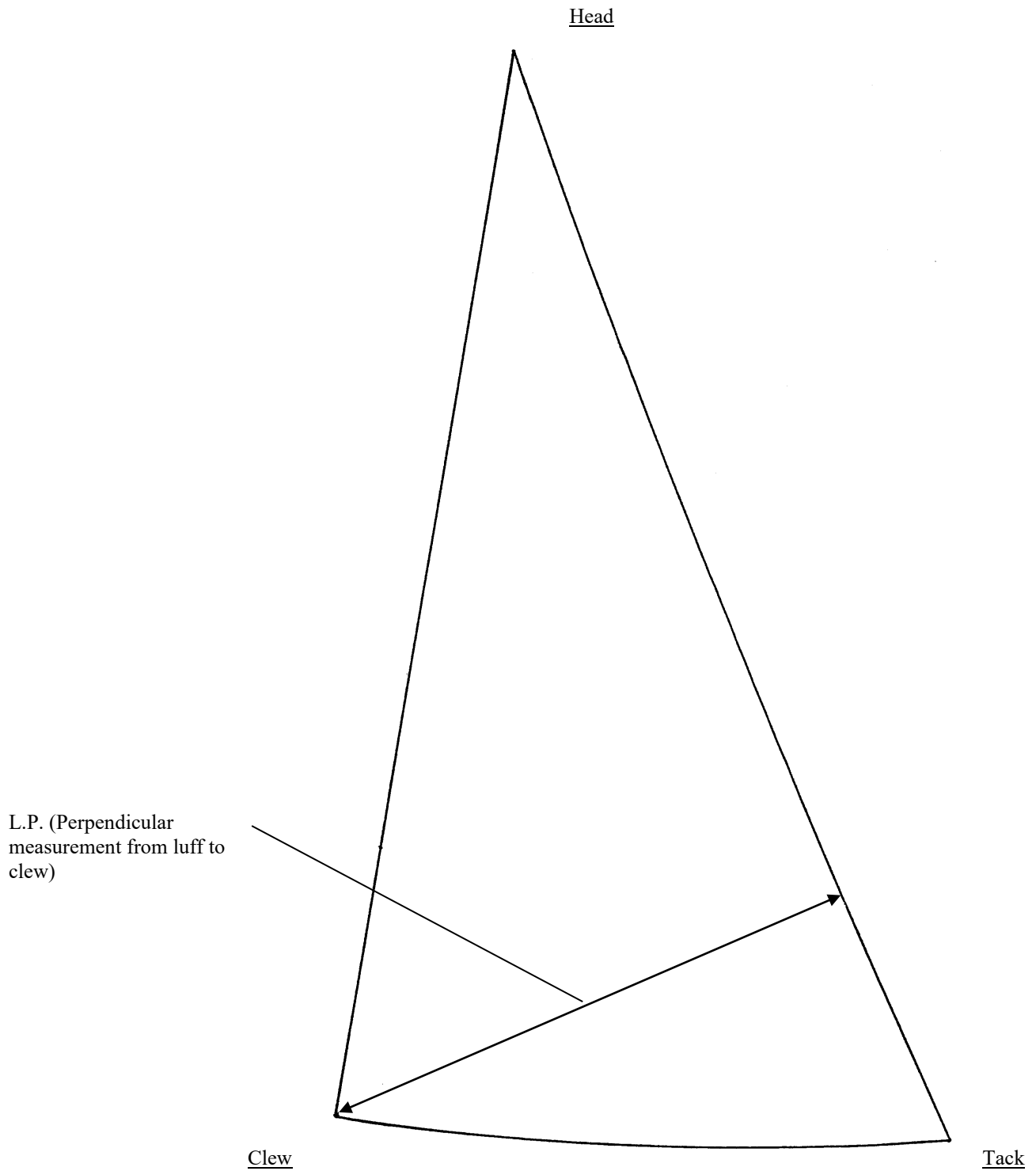
MAINSAIL MEASUREMENT DIAGRAM

Luff and foot dimensions measured between black bands on mast and boom.

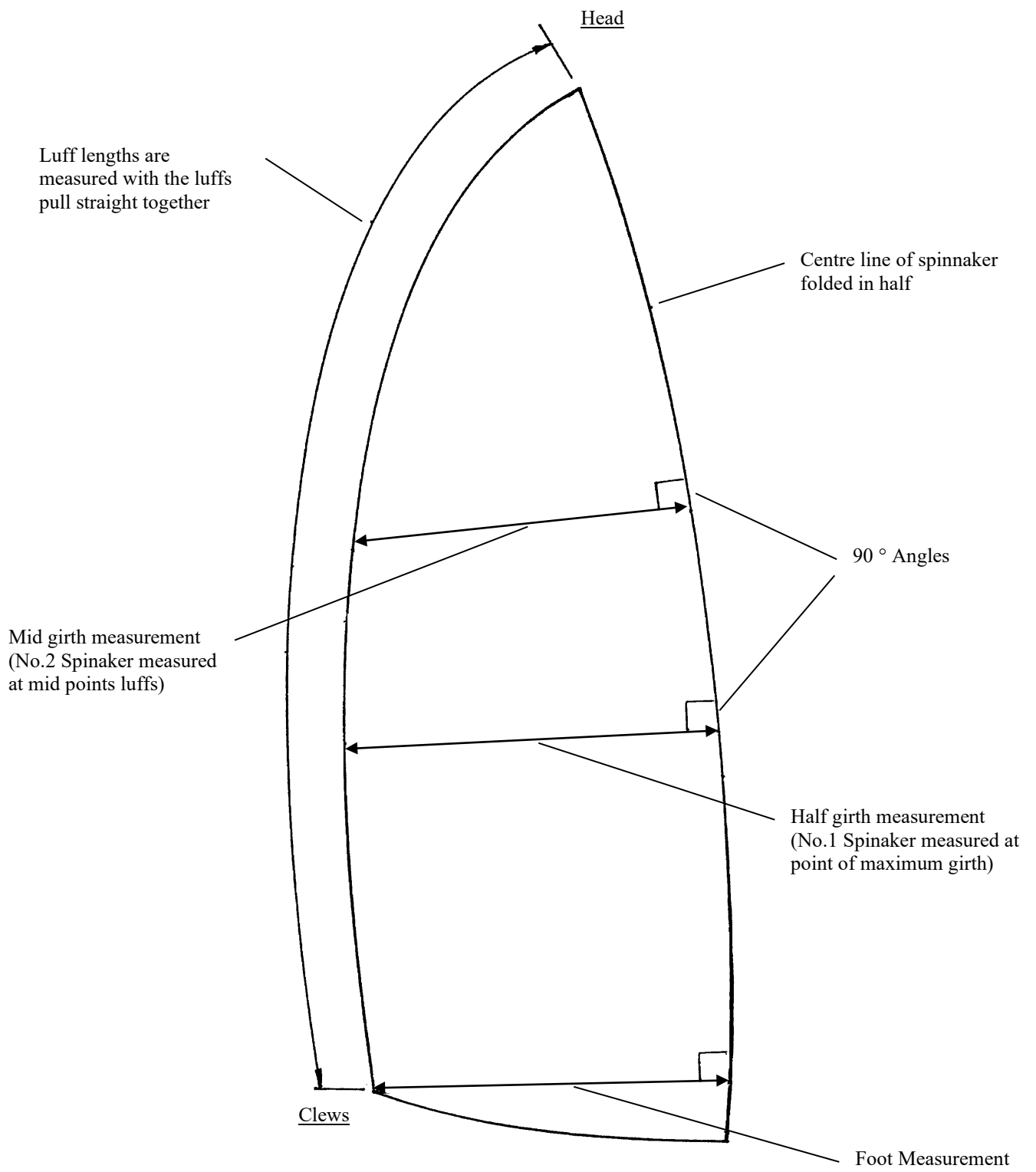


HEADSAIL MEASUREMENT DIAGRAM
FOR No.1, No.2 AND No.3 JIBS

Luff, foot and leech dimension are optional but all jibs must be capable of sheeting of the standard tracks



SPINAKE MEASUREMENT DIAGRAM
FOR No.1 AND No.2 SPINAKERS



SAIL EMBLEM

Scale – 1:4

x = 55 mm Radius
 # = 30 mm Radius
 o = 10 mm Radius

