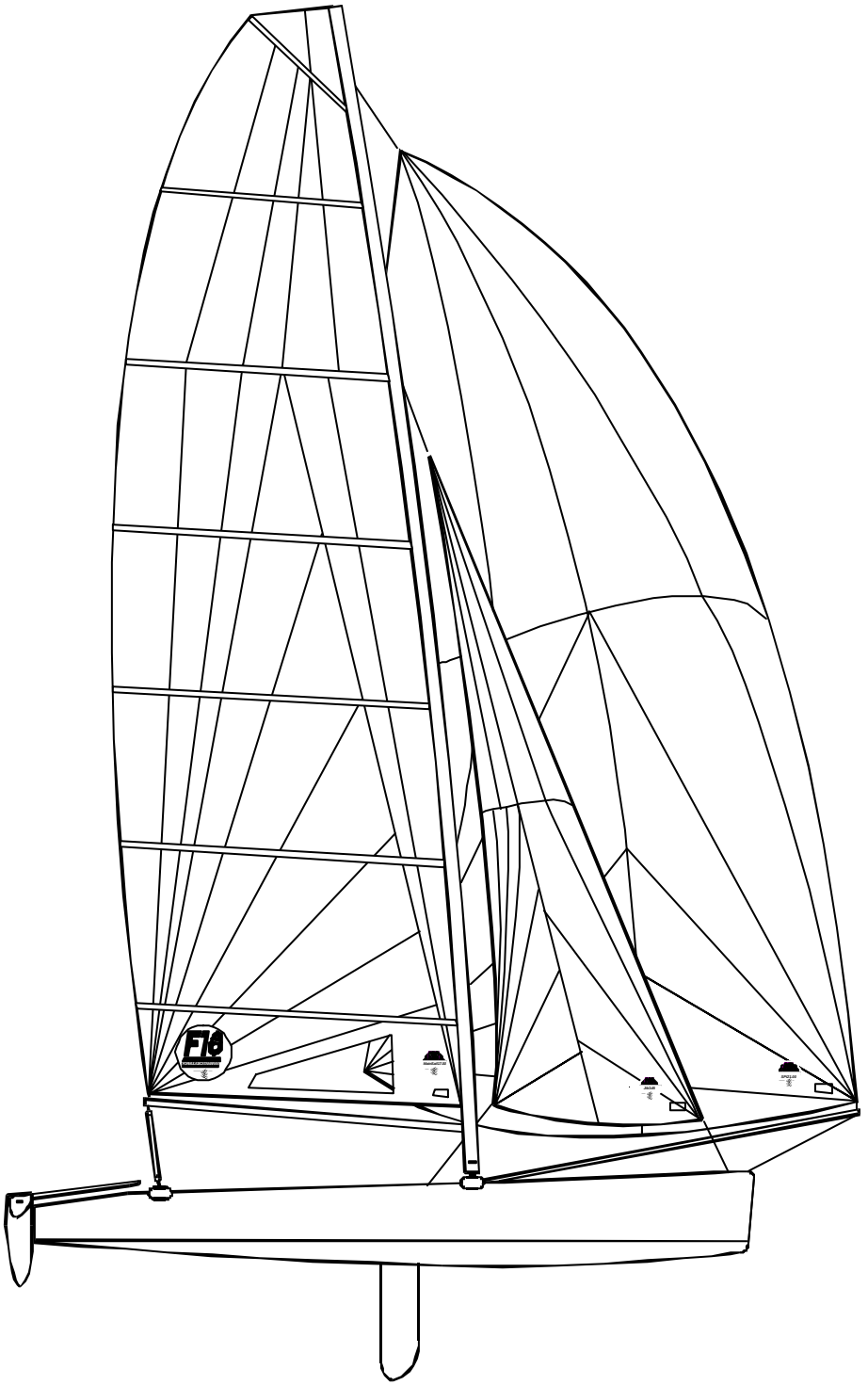


INTERNATIONAL FORMULA 18 ASSOCIATION

CLASS RULES

FORMULA 18 CLASS RULES

Updated 1st July 2007

The Formula 18 is a restricted class, reserved for sport catamarans with two crew and of amateur or professional construction and destined for racing on elapsed time.

A . ADMINISTRATION OF THE RULE

A.1. AUTHORITY

The rules of the Formula 18 are established under behalf of the International Sailing Federation (ISAF), which publishes the interpretations and recognizes them as the authorized interpretations and explanations of the rules.

A.2. ADMINISTRATION

The Formula 18 Measurement Committee appointed by the ISAF nominates the measurers.
Formula 18 class rules are closed class rules, what is not expressly permitted is prohibited.

A.3. INTERPRETATION

After having eventually consulted the Formula 18 Measurement Committee, the chief measurer shall give an interpretation on all points of the Formula 18.
For the interpretation of the rules, the builders have to consult the Chief Measurer in writing, which shall give an answer by 30 days.

A.4. REFERENCE TEXT

For the interpretation of the rules, the original text in English shall prevail over all translations.

A.5. SPIRIT OF THE RULE

In case of doubt, the intention of the rule makers, which is the spirit, shall take precedence over the letter of the rule.

A.6. DISPENSATIONS

For the boats constructed before 1st January 1994 dispensations, limited in duration, may be given by the Formula 18 Measurement Committee after examining the owner's request.

A.7. AMENDMENTS

The Formula 18 Measurement Committee will propose amendments to the rule if necessary. Amendments shall be placed on one year's notice unless it is considered essential to act immediately to prohibit or penalize an un-desirable feature.

B. MEASUREMENT RULES

GENERAL

For the construction, only the following materials are authorized : polyester or vinylester resin, glass fibres, core of PVC or balsa or felt, the combination of wood-epoxy, injected plastic, steel, extruded aluminium profiles of constant section, which shall not be altered, other than locally for the fixings and passage of equipment and normal reinforcement.

Every material that is not expressly permitted, is prohibited.

Carbon is only permitted in spreaders, rudder blades, dagger boards, blocks, cleats and tiller extension.

Epoxy glue is permitted for joining components.

For the trampoline : all types (except netting).

B.1. PLATFORM

B.1.1. DIMENSIONS

The maximum overall length measured on the hulls is 5.52m.

The maximum overall beam is 2.60m.

See diagram B1 - Platform

B.1.2. FLOTATION

Each hull shall carry at least 110 litres of flotation, by solid closed cell foam, air bags, sealed air compartments in hulls, and at least one inspection hatch.

B.1.3. MINIMUM WEIGHT

The minimum weight of the platform is fixed at 130 kg.

The minimum weight of the boat ready to sail is fixed at 180 kg.

A corrector weight of maximum 7 kg may be used to satisfy these two conditions. This corrector weight shall be fixed to the outside of the forward beam on the starboard side and shall be removable for checking.

B.1.4. DAGGERBOARDS AND RUDDERS

The platform shall be equipped with a pair of rudders and, if fitted, a pair of dagger boards or centreboards.

The dagger board boxes and the rudders have to be in the vertical plan of the hulls.

All underwater appendages must be symmetrical.

The dagger boards or centreboards and rudders may be made using epoxy resin.

The carbon may be used for the construction of dagger boards, centreboards or rudder blades.

1.4.1 Minimum weight of rudders :

The minimum weight of each complete rudder assembly comprising blade, stock and tiller is fixed at 3 kg. For rudders built prior to 1st January 1996 correctors may be added to achieve minimum weight. The controlled weight shall be noted on the measurement form and on the rudder, on F18 sticker.

1.4.2. Maximum weight of dagger boards or centreboards :

The maximum weight of dagger boards or centreboards is fixed at 5,5 kg.

The weight of each dagger board or centreboard shall be carried on the dagger board or centreboard under F18 transparent sticker, and shall be noted on the measurement form.

Distribution of the material of dagger boards or centreboards shall be homogeneous. Ballast or mass use of whatever nature is prohibited.

B.1.5. BEAMS

The beams shall be made of extruded aluminium profiles of constant section.

The beams shall not be convex except for the necessary pre-bend to counteract the mast loading. The pre-bend shall be limited to a maximum of 15 mm. *See diagram.*

The mast pivot on the front beam shall be fixed on the longitudinal axe of the boat. *See diagram*.

B.2. RIGGING

B.2.1. MAST

The perimeter of the mast section shall be a maximum of 385mm. *See diagram.*

The maximum distance between the top of the forward crossbeam and the bottom of the upper measurement band of the mainsail shall be 9100mm.

The maximum distance between the mast heel and the axis of the point of attachment of the highest standing rigging shall be 6750mm. *See diagram.*

The maximum distance between the mast heel and the point over which the spinnaker can not be hoisted shall be 8150mm. *See diagram.*

The mast shall be watertight.

The maximum distance between the top of the forward crossbeam and the bottom of extrusion shall be 120 mm. *See diagram.*

Measurement shall be taken at the point across from the axe of rotation about the pivot. The Mast Datum Point is located at the front edge of the mast, on the longitudinal axe, at the lower end of the profile. *See diagram.*

B.2.2. BOOM

A loose-footed mainsail is permitted. If used, the boom shall be made of extruded aluminium profile of constant section. *See diagram.*

B.2.3. BOWSPRIT

The bowsprit shall be made of extruded aluminium profile of constant section.

The length shall not be greater than the distance, measured in total from its attachment point from the centre of the front beam to the vertical line touching the most forward part of the hull, with the bowsprit measured when level to the deck of the catamaran, plus an additional 800mm.

The bowsprit shall be fixed and approximately on the longitudinal centreline of the boat. *See diagram.*

The forward end of the bowsprit shall be rounded and blunt.

B.2.4. RIGGING AND EQUIPMENT

The standing rigging shall be constituted at most with : 2 shrouds, 1 forestay, 1 pair of bridle stay, 1 pair of diamonds with a pair of spreaders, 2 pairs of trapeze wires.

The standing rigging shall be of conventional stranded steel wire (1 x 19). Dyform® or similar materials are prohibited. 1 x 7 is allowed. Minimum size : 3 mm.

It is not permitted to adjust while racing : the rake of the mast, the tension of the standing rigging, the angle or length of the spreaders, the tension of the diamonds other than that by one or two turn buckles appropriately lockable.

Trapeze wires will have a minimum diameter of 2.5 mm.

B.3. WEIGHT OF CREW

B.3.1. MINIMUM WEIGHT OF CREW

The combined weight of the two crew shall be a minimum of 115 kg.

B.3.2. CATEGORIES OF CREW WEIGHT

3.2.1 There are three categories of crew weight :

(i) of 115 to less than 130 kg

(ii) 130 to 150 kg

(iii) above 150 kg

3.2.2 The crew in the category of 115 kg to less than 130 kg shall carry a weight equal to half of the difference between 130 kg and the actual weight of the crew. The weight shall be fixed to the outside of the forward crossbeam on the port side and shall be removable for control checking.

B.3.3. CHANGE OF CATEGORY

The crew in the category of 140 kg to 150 kg may use a corrector weight to compete in the upper category.

The corrector weight, equal to half of the difference between 150 kg and the actual weight of the crew shall be fixed to the outside of the forward beam on the port side and shall be removable for control.

B.3.4. RESPONSIBILITY OF THE CREW

The respect of the weight declared is the sole responsibility of the crew, which may be controlled and protested at any time during the event.

B.4. SAILS

SAIL PLAN

The sail plan comprises a mainsail, a jib and a spinnaker.

The sails shall be made of any polyester material for main and jib, and of nylon and polyester woven only for spinnakers, and shall fit in a bag of normal dimensions.

B.4.1. MAINSAIL

B.4.1.1. The mainsail shall have a surface area of maximum 17.00m² including the mast.

B.4.1.2. No part of the sail shall be above the upper mast band.

B.4.1.3. The aft head point of the mainsail shall not be above the head point.

B.4.1.4. Maximum Upper width at upper leech point 1500 mm from head point : 1290 mm

B.4.1.5. Maximum Top width : 1000 mm

B.4.1.4 & B.4.1.5: Sails with larger measurements can be measured and used until 01.01.2009.

B.4.2. JIB

~~It shall be possible to roll the jib around the stay.~~ From 01.03.07, the roller reefer unit is optional. Any Long Distance race manager or organiser wanting the use of such device for safety reasons shall mention it in the Notice of Race, otherwise sailors may sail with the roller reefer as an optional aid.

The leech shall not be convex.

The head shall be not more than 50mm wide.

There shall not be battens on the foot.

The ISAF Equipment Rules of Sailing shall apply to jibs.

4.2.1. Two sail areas of jib are available as a function of the crew weight :

4.2.1.1. Crew categories of 115 to 150 kg :

Maximum jib sail area : 3.45m²

4.2.1.2. Crew categories of more than 150 kg and crews opting for the over 140 kg changing of category (see B.3.3) :

Maximum Jib sail area : 4.15m²

4.2.2. ~~For safety purpose, it is mandatory for the crew to be able, when racing, and in normal position on the trampoline, to furl the jib around the stay. The crew may be asked to demonstrate such ability at any time.~~

~~4.2.3. The maximum diameter of the furled jib shall be 100 mm.~~

4.2.4. ~~The maximum number of jib battens will be 4. The battens and/or the batten pockets length shall not exceed a distance of 250 mm normal from the leech. See diagram.~~

From 1st March 2007, fully battened jibs are allowed.

Those may have a maximum of three battens which shall have no moving parts and be made of glass fibre, with a maximum width of 25 mm.

4.2.5. The jib tack shall not be fixed below the highest point of the bridle wire.

4.2.6. Self tacking jib devices are allowed.

B.4.3. SPINNAKER

Two sail areas of spinnakers are permitted as a function of crew weight.

Crews of 115 kg to 150 kg :

Maximum surface area for the spinnaker : 19.00m².

Crews of more than 150 kg and crews over 140 kg changing of category (see B.3.3) : Maximum surface area for the spinnaker : 21.00m².

Battens and stiffening devices, except textile leech lines, are not permitted.

Spinnaker retrieving systems, which may be attached to the bowsprit, are allowed, subject they comply with the general measurement F18 rules.

Regarding the legality of carbon snuffer arrangements, a carbon ring is used on some North American snuffers, the spinnaker pole being aluminium. Such existing snuffers has been accepted under a grandfathering arrangement until 1 January 2007. Carbon is not permitted in the construction of new snuffers.

B.4.4. LIMITED NUMBER OF SAILS

One single suit of sails can be used for the whole duration of an event.

B.5. MARKING

All sails measured after 01/07/2007 shall have the following details clearly marked close to the tack point of the sail:

- The year of manufacture
- The loft of manufacture
- The cloth type used
- A unique serial number

B.5.1. MARKING OF SAILS

All the sails measured shall be marked with a colour sticker affixed near the clew on the starboard side. The sails corresponding to different weight categories of crew weight shall be identified by the following colour code :

Jib	Mainsail	Spinnaker
3.45m² Green	17.00m² Pink	19.00m² Green

4.15m² Pink 17.00m² Pink 21.00m² Pink

The maximum permitted area shall be marked on the colour stickers.

The actual measured area shall be marked on the Measurement Certificate.

The area and the dimensions of the spinnaker (SL1, SL2, SMG, SF) shall be written in an indelible manner near the starboard tack.

B.5.2. MARKING OF CORRECTOR WEIGHTS

The weight defined in B.1.3.1 and B.1.3.2 shall be noted on the measurement certificate. Mention shall be carried near the stern of each hull, on the inward facing sides, under a transparent F18 sticker.

B.5.3. IDENTIFICATION

The number of the measurement certificate corresponding with the boat shall be written by the measurer :

at the stern of the hull, on the inward facing sides ;

at the bottom of the mast, starboard side ;

at the starboard tack of each sail.

B.5.4. CLASS EMBLEM

The mainsail shall carry the Formula 18 logo supplied with the measurement certificate. The Formula 18 logo will be put starboard side within 1m from the clew point.

C. DEFINITIONS AND MEASUREMENT PROCEDURE

GENERAL

The method of measurement of sail shall be as defined in the ISAF Equipment Rules of Sailing.

The method of calculation of sail area shall be as defined in the 1999 Formula 18 Measurement Form and Measurement Certificate.

The measurements shall be taken and expressed in meters and centimetres, kilograms and hectograms.

C.1. WEIGHT OF THE CREW

The controlled crew weight is based on the weight of the crew in swimming costume.

C.2. CONTROL OF MINIMUM WEIGHT OF THE BOAT

C.2.1. THE PLATFORM :

2.1.1 This shall be weighed assembled, dry and clean.

2.1.2 It comprises : the hulls, the crossbeams, the trampoline, the dagger boards or centreboards, the steering system, the mainsheet and jib traveller cars, steering compass(es), all the equipment normally bolted, screwed or fixed in a permanent manner on the boat and used whilst racing, the re-righting system when existing, and eventually the corrector weights specified in B.1.3.3.

C.2.2. BOAT READY TO SAIL

The minimum weight of the boat ready to sail shall be the assembled platform conforming to rule 2.1 above and carrying the dry and clean equipment normally used for navigation : mast, boom, bowsprit, mast rigging, halyards, sheets, sails, blocks, except the safety equipment defined by Chapter E rule 2.

C.3. OVERALL LENGTH OF THE HULLS :

The overall length of the hulls, outside rudder pintles, corresponds with the horizontal distance between the verticals passing through the extremity of the hulls, the boat being levelled on its waterline.

C.4. SAILS

C.4.1. GENERAL

The intention is to establish a reliable and simple method of measuring the active surface of the entire sail plan, including the mast.

In the measurement of sail area, the term sail shall be considered as defining the part of the sail outside the mast and including headboard.
Cringles which are totally outside the edge of the sail or the bolt rope which is inside the mast shall not be included.
The measures of head point, tack point, aft head point and clew point shall be in accordance with diagram C.4.1., extract from ISAF ERS

C.4.2. MAINSAIL AND JIB :

The battens shall be without tension in their pockets, the sail shall be pinned on a flat surface with tension just sufficient to eliminate creases, then smoothed flat to give the longest dimensions.
Whilst the sail remains pinned, all the measurement necessary shall be taken, the tension should not be adjusted.

C.4.3. MAST MEASUREMENT

The measurement of the perimeter of the mast shall be considered as the distance, at right angles to the mast axis, measured around and back to the same point. The dimension shall be divided by two to give the value for the half-circumference.

C.4.4. SPINNAKER

4.4.1 Definition of a spinnaker

All triangular sails not complying with the definition of a mainsail or a jib are spinnakers, on condition that the girth at mid-height is equal or greater than 75% of that of the foot.

4.4.2 Calculation of the spinnaker area CSPI :

CSPI = SF x (SL1 + SL2)/4 + [(SMG – SF/2) x 2/3 x (SL1 + SL2)/2]
- where SMG > 75% of SF ;
- where SF is the length of the foot measured around the edge of the sail between the lowest points of the luff and the leech ;
- where SL1 is the length of the luff of the sail, from the highest point of the sail, to the lowest point of the sail on the luff ;
- where SL2 is the length of the leech of the sail measured along the edge of the sail, from the highest point of the sail, to the lowest point of the sail on the leech.
- where SMG is the width at mid-height, which shall be taken between the mid point of the luff and the mid point of the leech.

D. CONTROLS

D.1. MEASUREMENT FORM AND MEASUREMENT CERTIFICATE

D.1.1. COMPETENCE

Only the controls, measurements and calculations made by a measurer recognised by the Formula 18 Catamaran Association, a National Authority or the ISAF are considered valid.

D.1.2. MEASUREMENT FORM AND MEASUREMENT CERTIFICATE

The measurement form completed (measurement sheets and calculations) and signed by a measurer is not a measurement certificate.

The measurer shall record on the measurement form anything he considers as departing from the concept of the Formula 18 rule, he shall send it with detailed explanations on the contentious points to the Formula 18 Catamaran Association for a ruling.

The measurement certificate is issued by the National Authority responsible for the administration of the rule in the country of the owner when, after examining the completed measurement form signed by the measurer, it considers that the boat conforms to the Rules of Formula 18.

A competitor has an obligation to present with his entry the measurement certificate and measurement form of his boat.

D.1.3. REGISTRATION

The measurement form (measurement sheets and calculations) and the measurement certificate are established and registered by the Formula 18 Catamaran Association or a National Authority.

D.1.4. VALIDITY

A change of ownership shall invalidate a measurement certificate, a re-registration shall be made by returning to the national authority the initial measurement certificate accompanied by the details of the new owner. The valid certificate and registration will be returned to the new owner. It is not necessary to re-measure the boat.

All modifications or replacements of parts of a significant change, shall be remeasured and notification made on the measurement certificate by a measurer recognised by the Formula 18 Catamaran Association.

D.1.5. COST OF THE MEASUREMENT

Initial Measurement : The cost of measurement is at the discretion of the relevant National Authority corresponding with the provision of the class emblem, the marking stickers for the sails, the hulls, the mast and the establishment and registration of the measurement certificate.

The cost of additional measurement, marking and registration is fixed at the discretion of the National Authority.

The other items (travel and accommodation of the measurer) are at the owner's expense.

D.2. EVENT MEASUREMENT

The travelling and accommodation expenses of the measurer are the responsibility of the event organizer.

It is the sole responsibility of the competitor in a race to maintain his boat in accordance with its certificate.

E. SAFETY

E.1. RIGHTING

The crew shall be able to demonstrate their capability to re-right the boat.

E.2. SAFETY EQUIPMENT

Minimum mandatory equipment to be on board :

If a paddle is required in the Notice of Race, then it shall be suited for its purpose, with a min. blade of 140 x 250 mm and min overall length of 1m.

1 towing line 15m long and 6mm diameter minimum,

1 re-righting line 4m long and 10mm of diameter minimum,

2 lifejackets (conforming to the rules in force).

E.3. BALLAST AND WEIGHT JACKETS

Ballast on the boat or worn by the crew is prohibited.

E.4. STEERING COMPASS

There shall be not less than 1 fixed steering compass.

E.5. COMPLIMENTARY ARRANGEMENTS

REDUCTION OF SAIL AREA

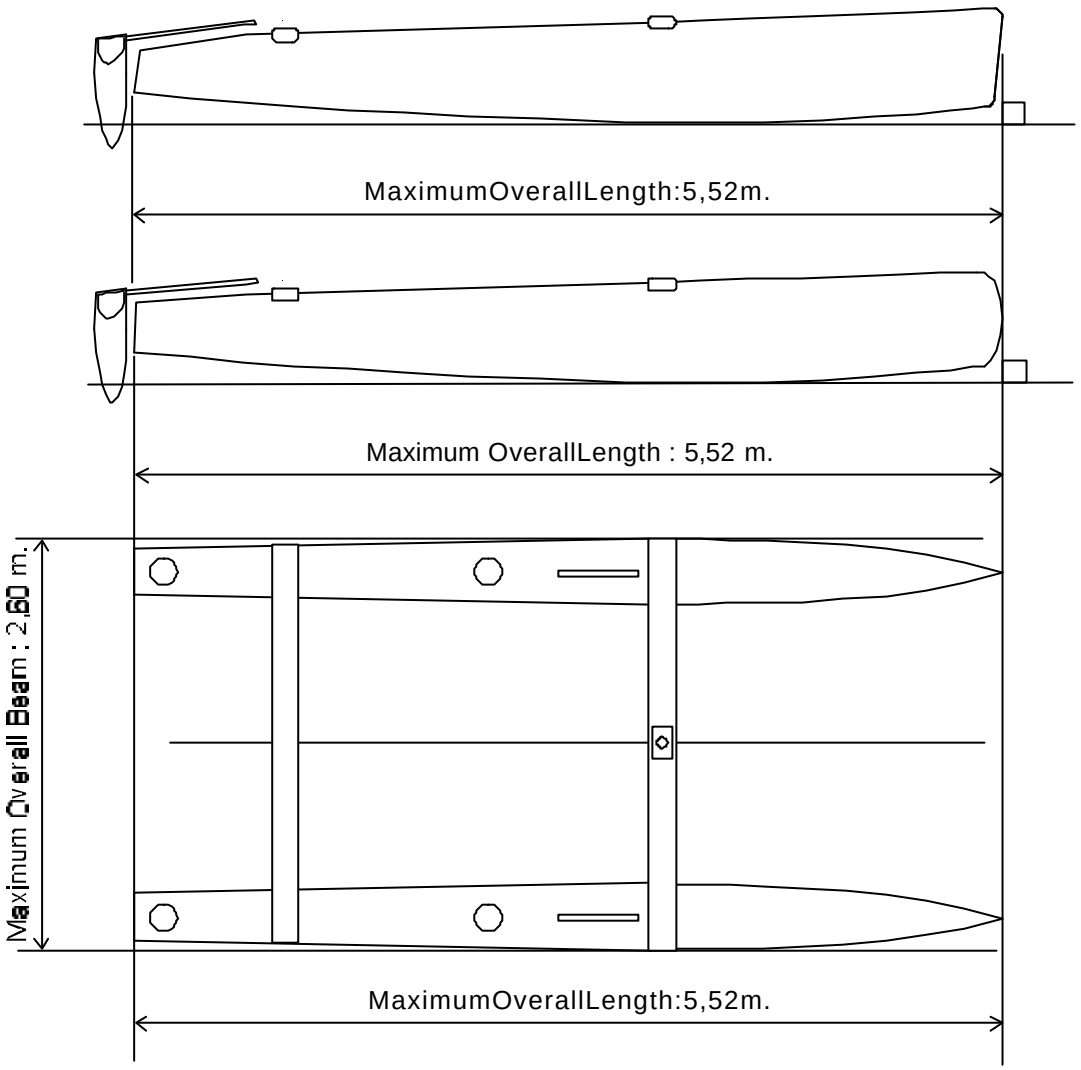
If specified in the Notice of Race, the organizers may require the following complementary equipment :

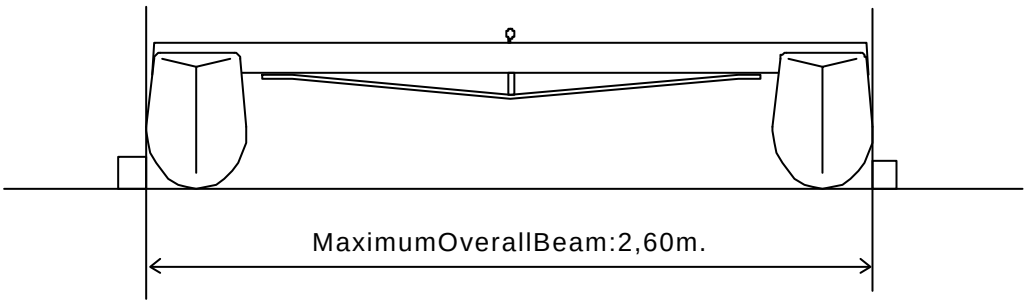
- the mainsail to be equipped with reefing points not less than 1000mm from the foot,
- the jib to be mounted on a furling device.

* amendments decided during both Puntala and Paris 2004 WC meetings

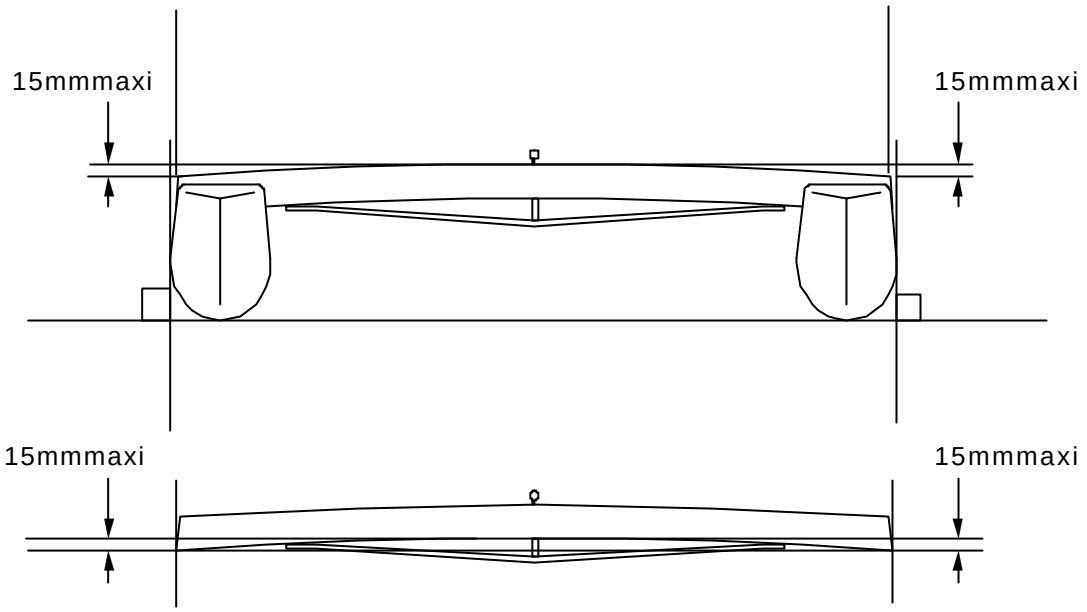
* amendments decided during both Hyeres and Paris 2006 WC meetings

B.1. PLATFORM


MaximumOverallLength:5,52m.
Maximum OverallLength : 5,52 m.
Maximum Overall Beam : 2,60 m.
MaximumOverallLength:5,52m.


MaximumOverallBeam:2,60m.

B.1.5.2.THEBEAMS



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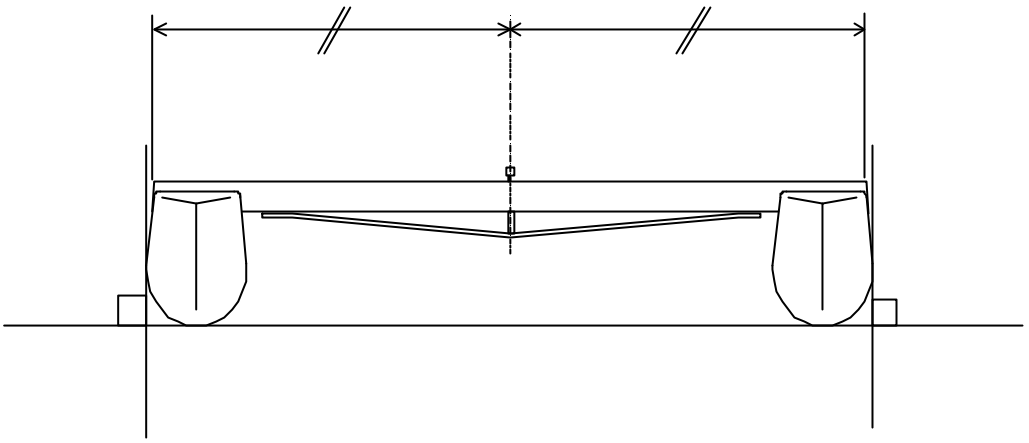
B.1.5.3.PIVOTBOTTOMMAST



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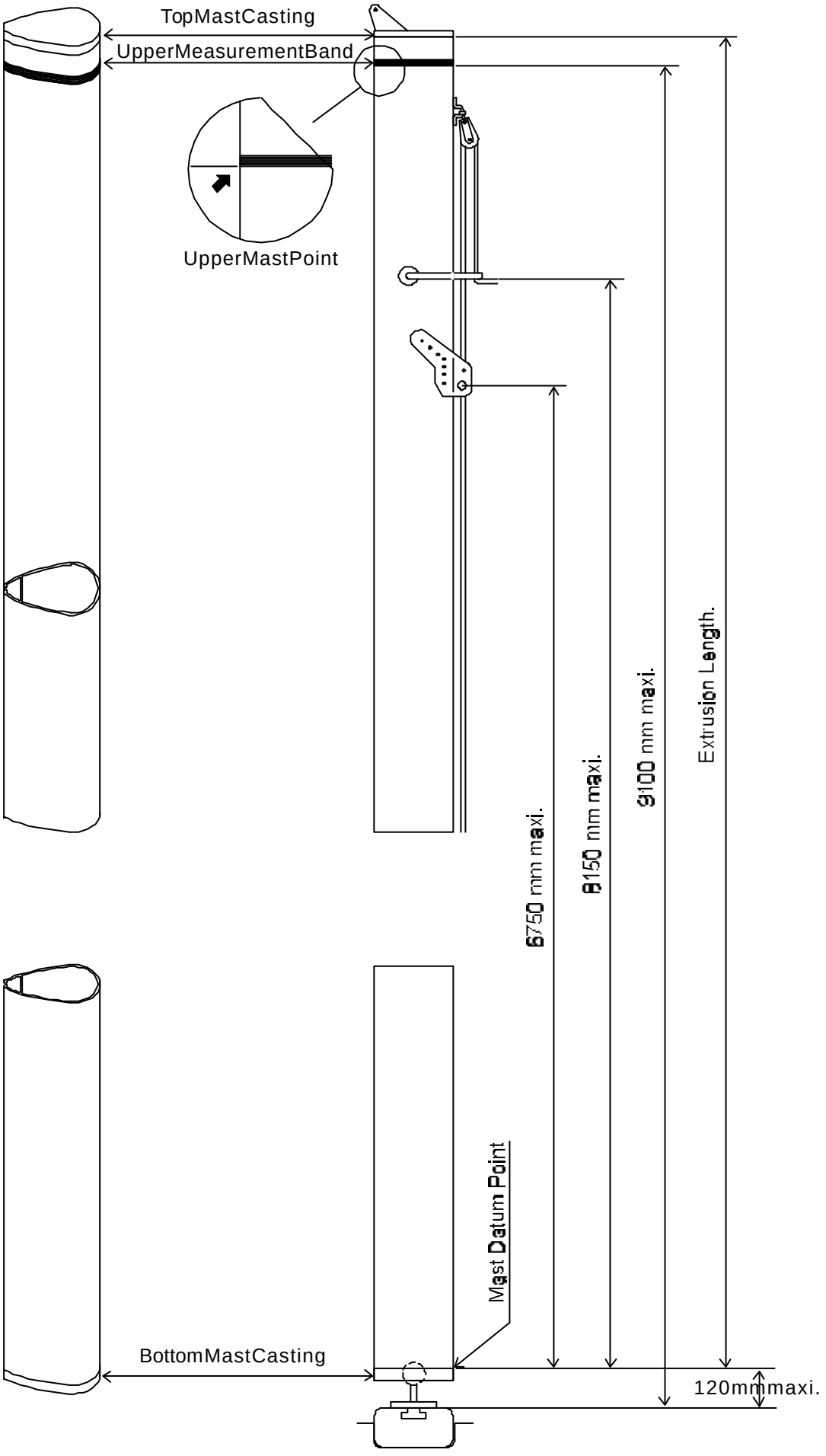
B.2THEMAST



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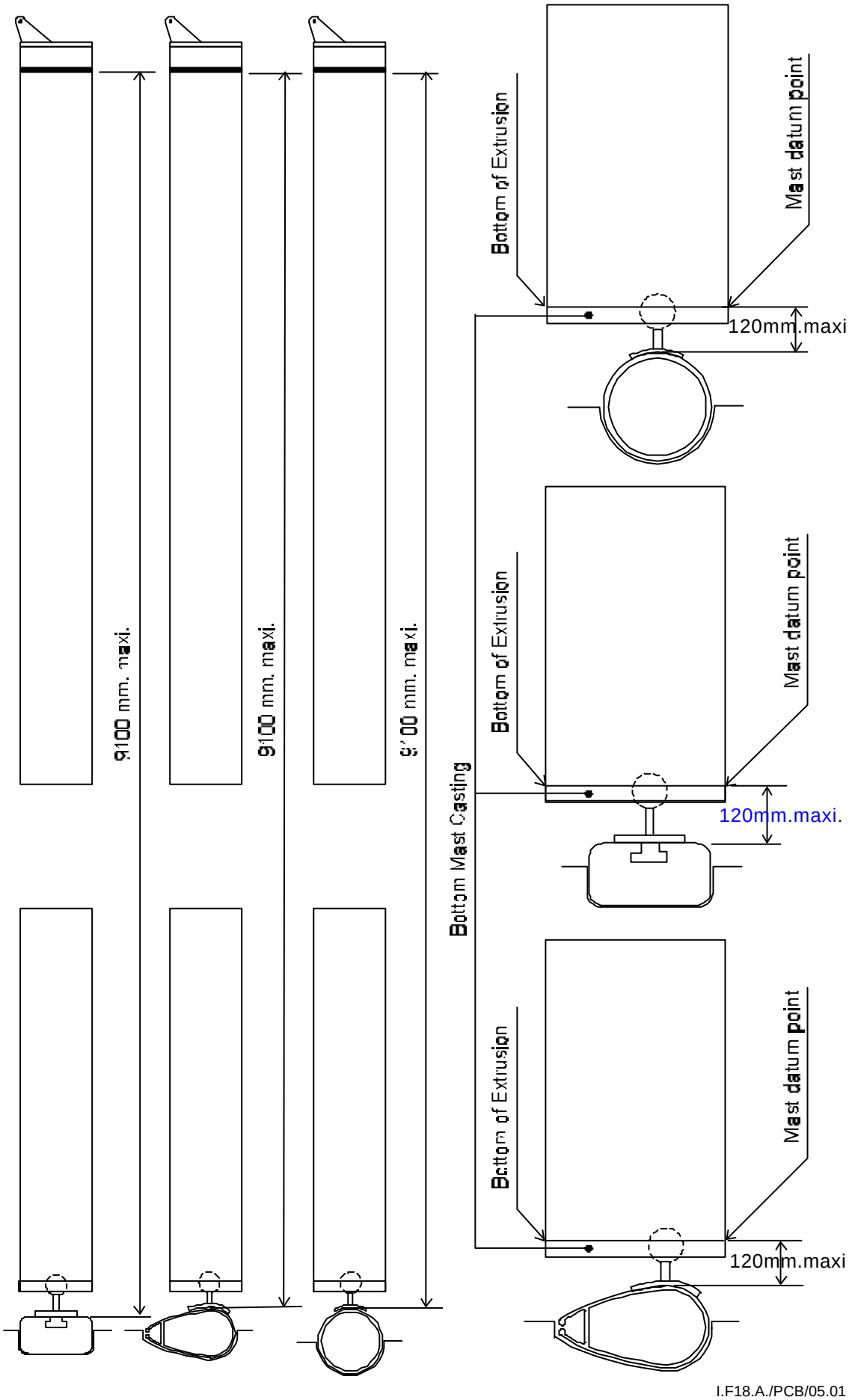
B.2.1.THE MAST
B.2.1.2. and B.2.1.6.



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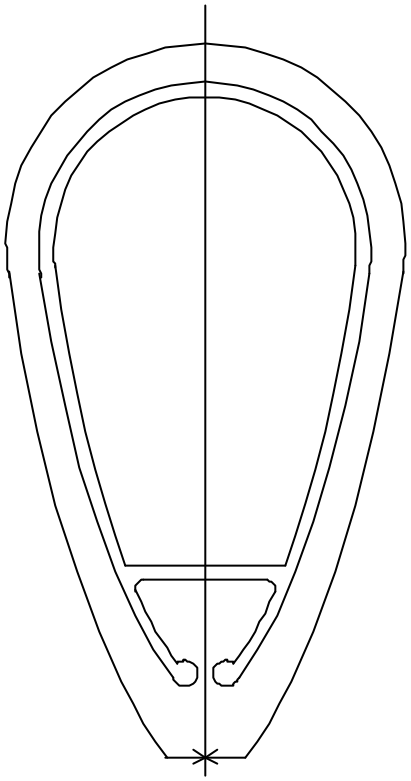
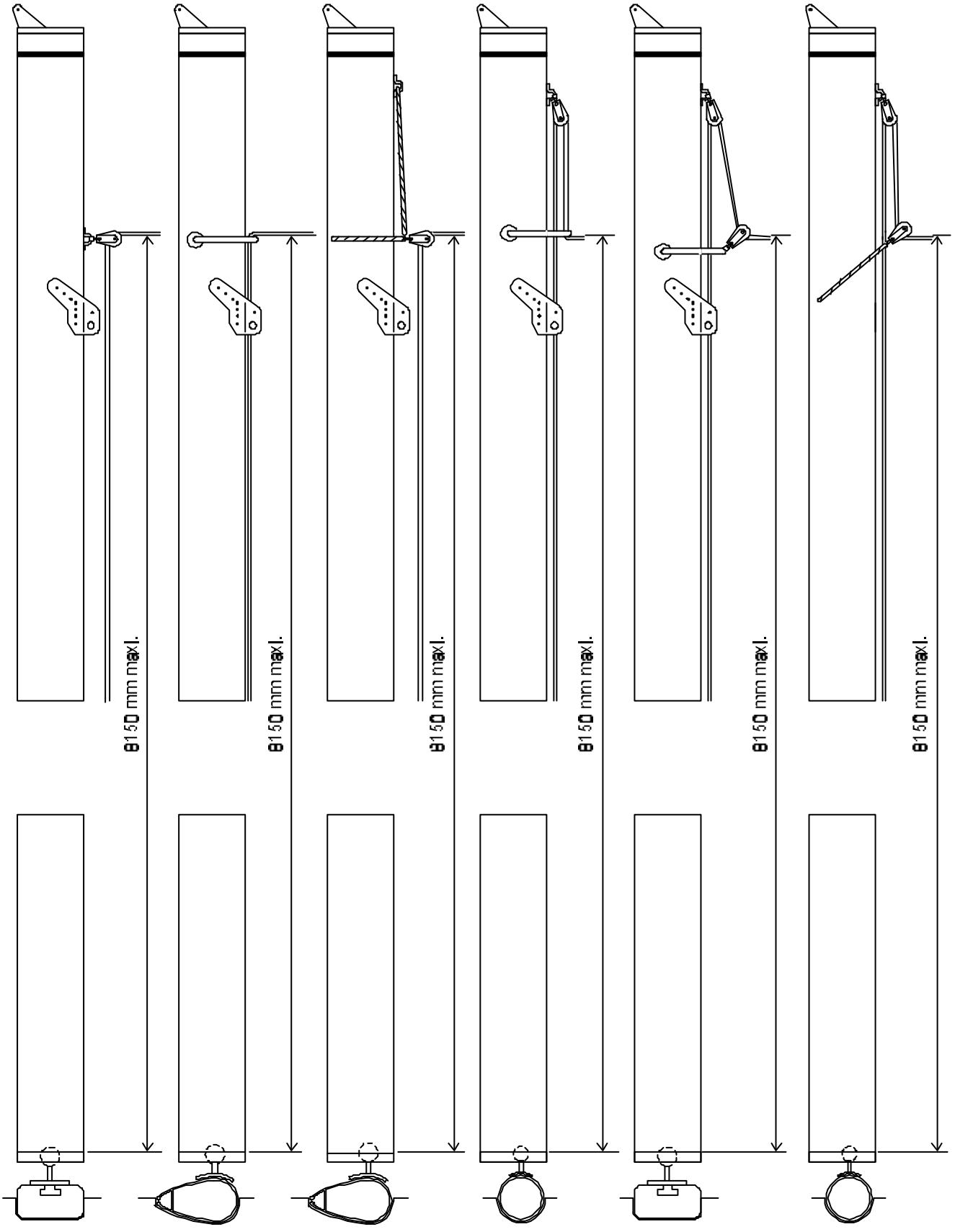
B.2.1.1. PERIMETER OFTHEMAST



385 mm Maximum

I.F18.A/PCB01/01

B.2.1.4SPINNAKERHOLSTHEIGHT



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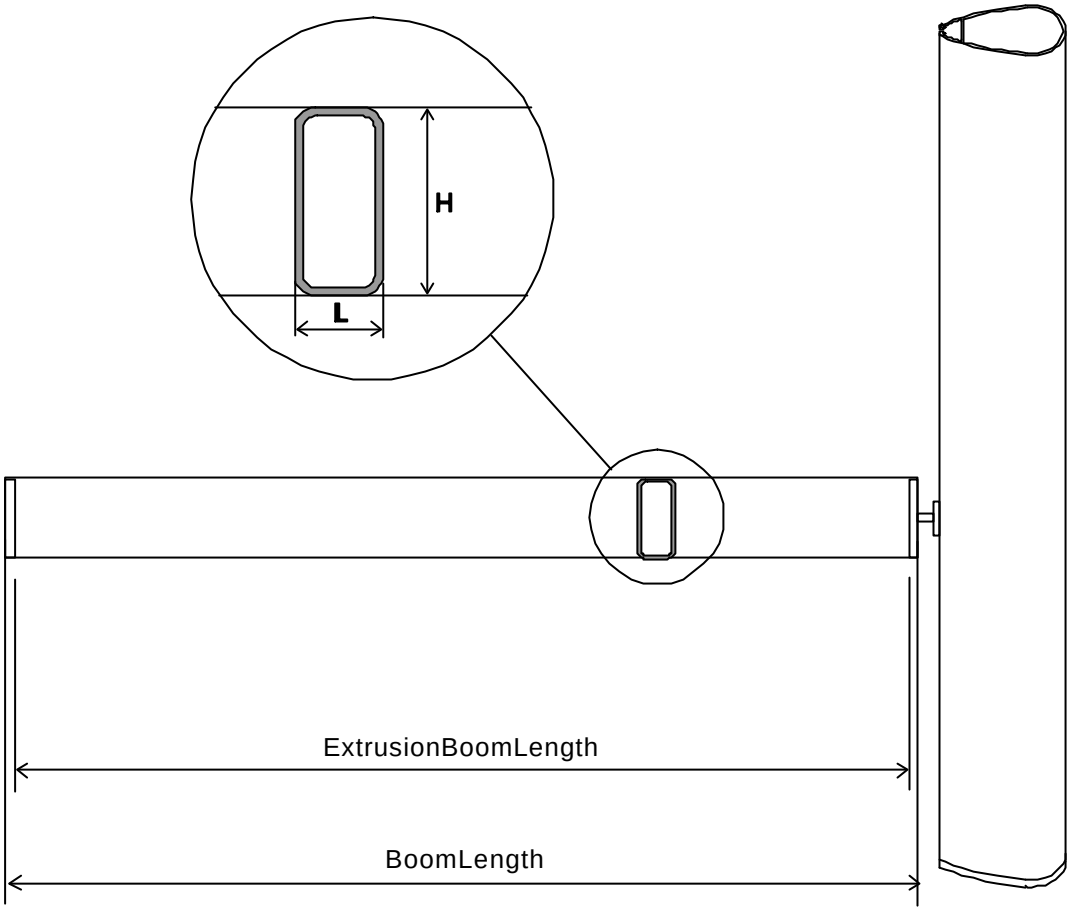
B.2.2. THEBOOM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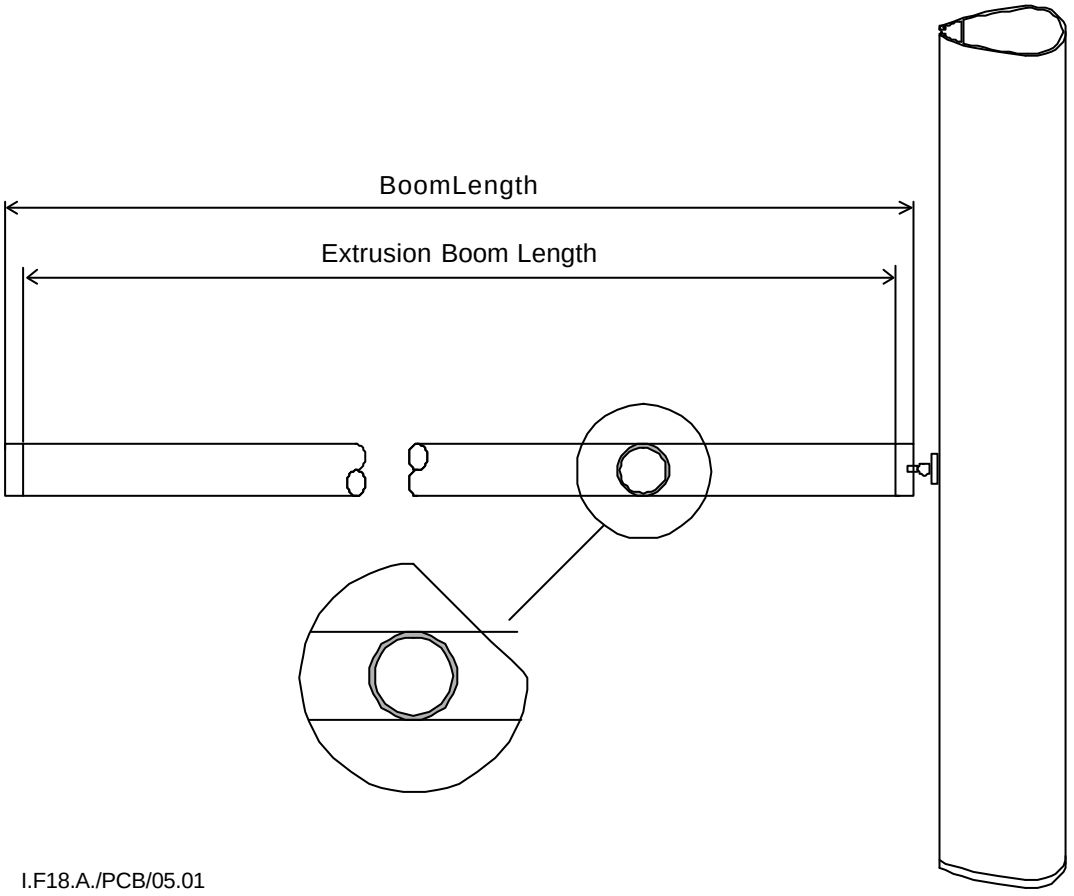
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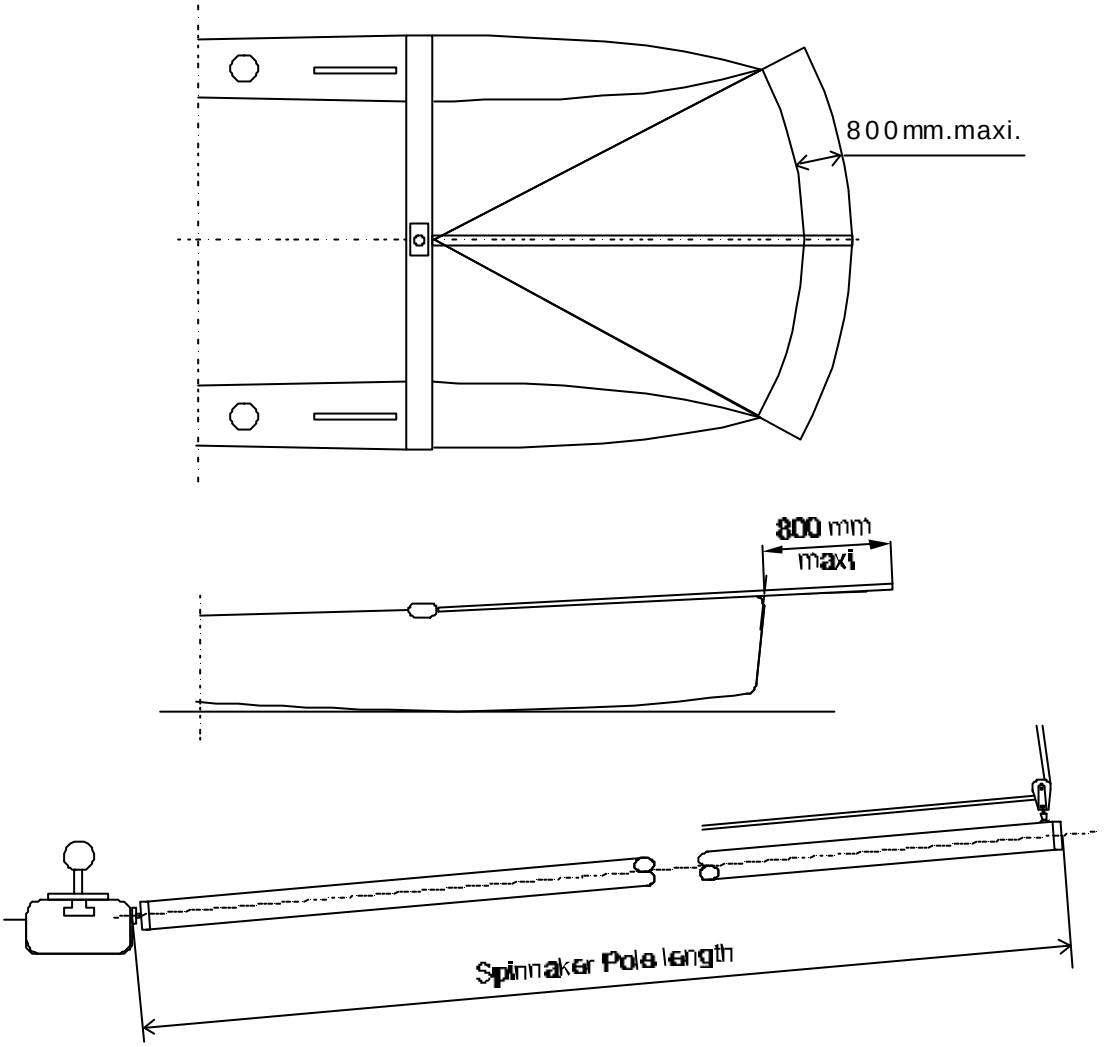
Extrusion Boom Length

B.2.3. SPINNAKER POLE



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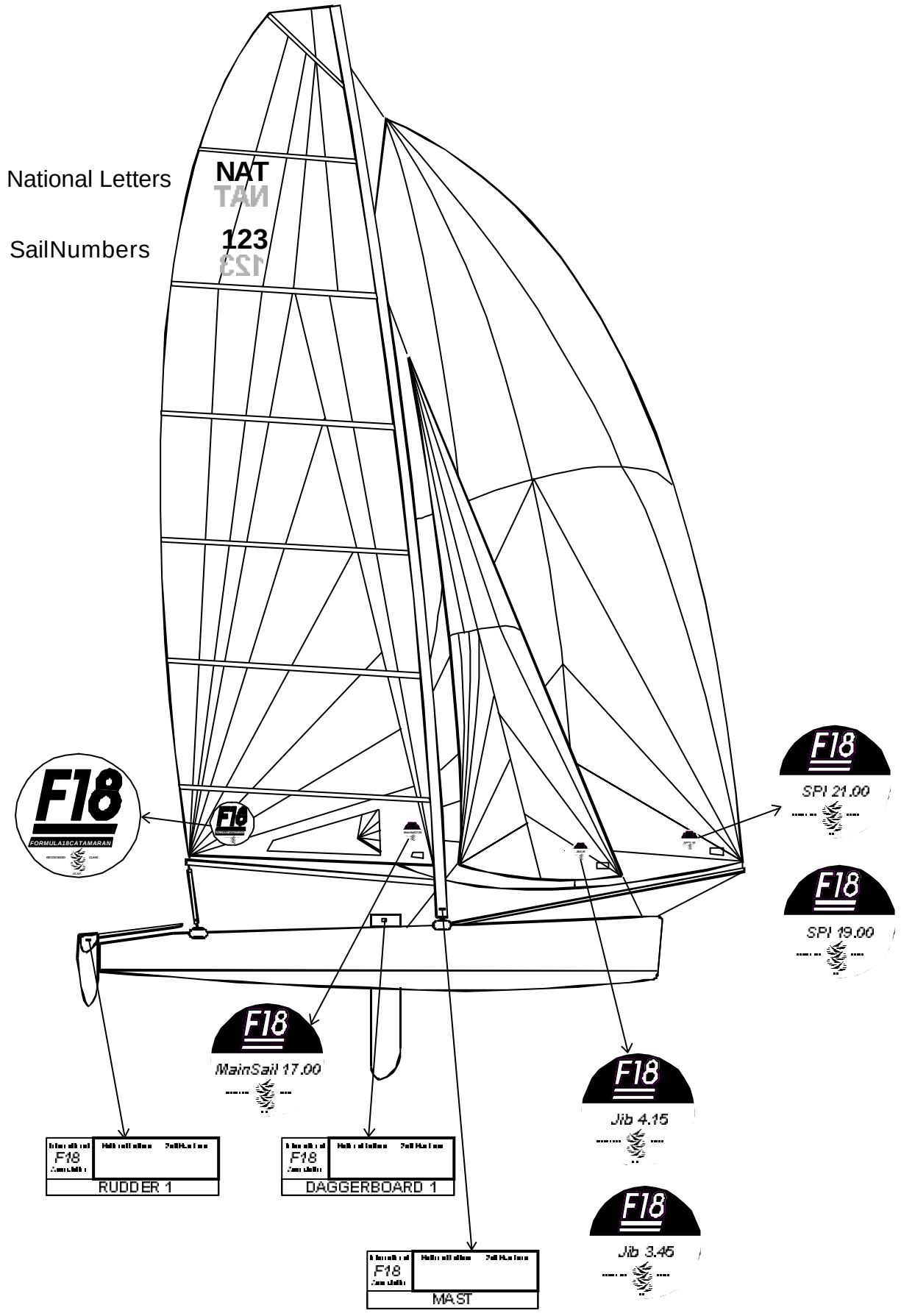
B.5. MARKING



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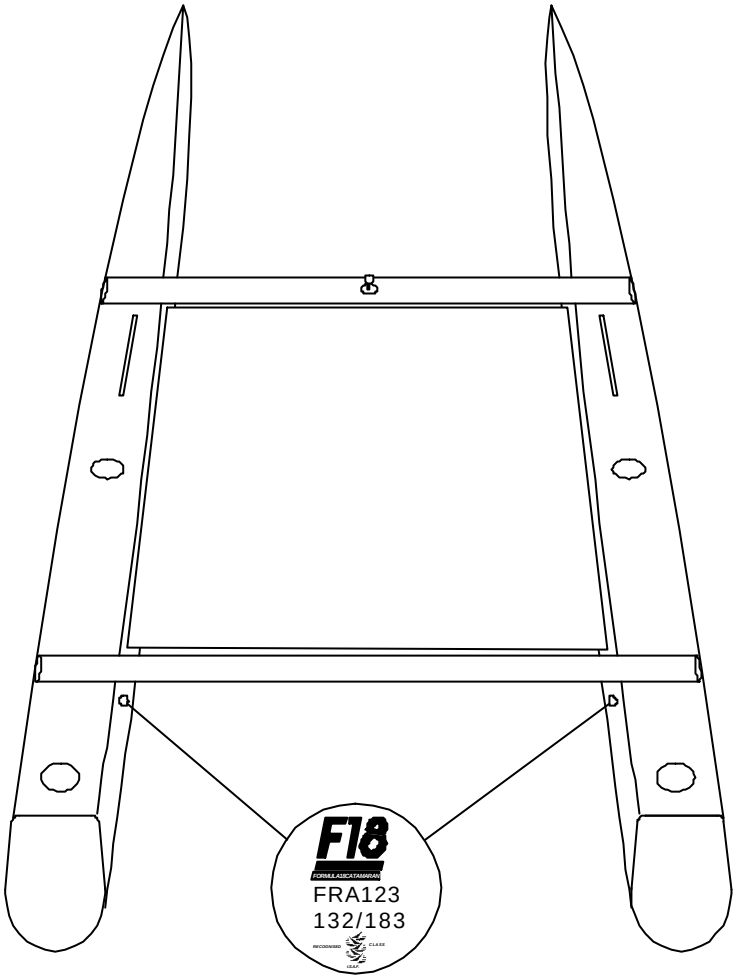
B.5.2. MARKING OFTHECORRECTORWEIGHTS.



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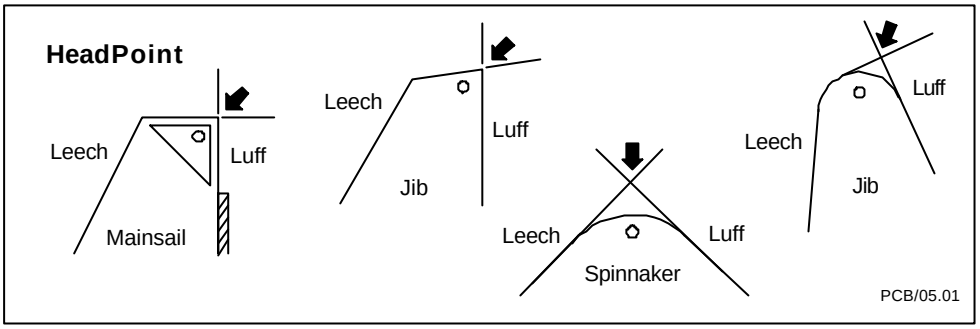
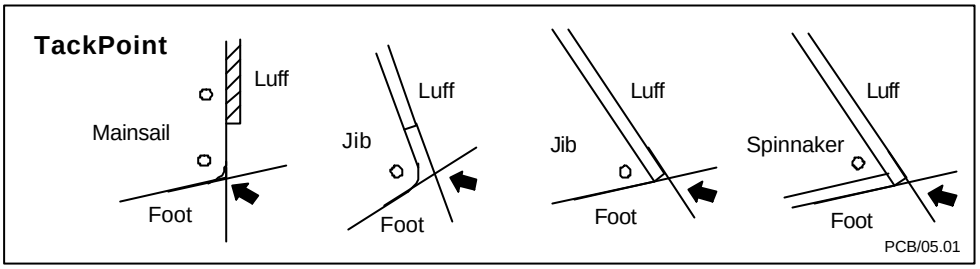
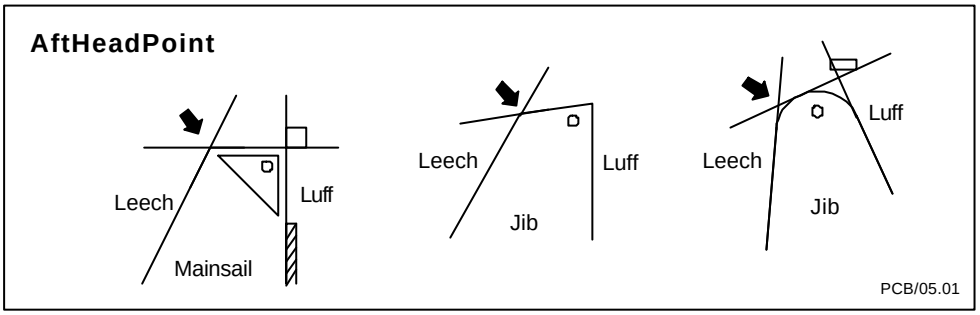
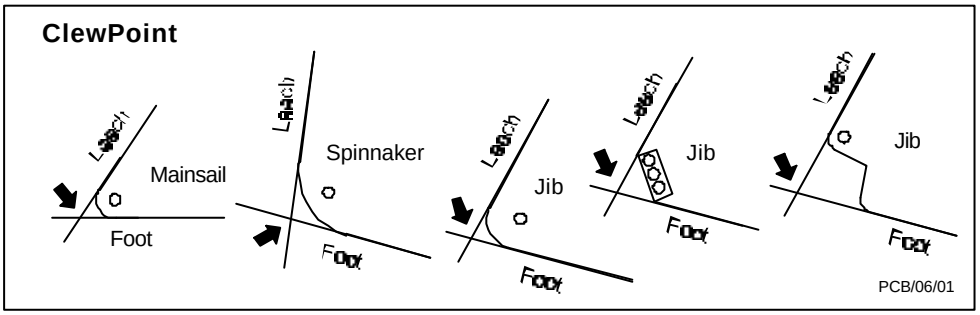
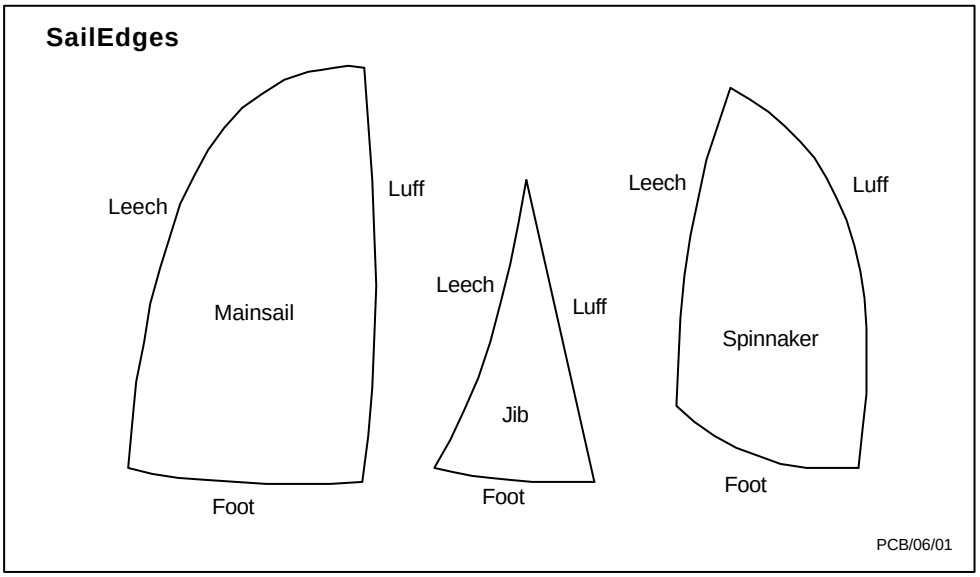
C.4.1. SAILCORNERMEASUREMENT POINTS AND SAIL EDGES



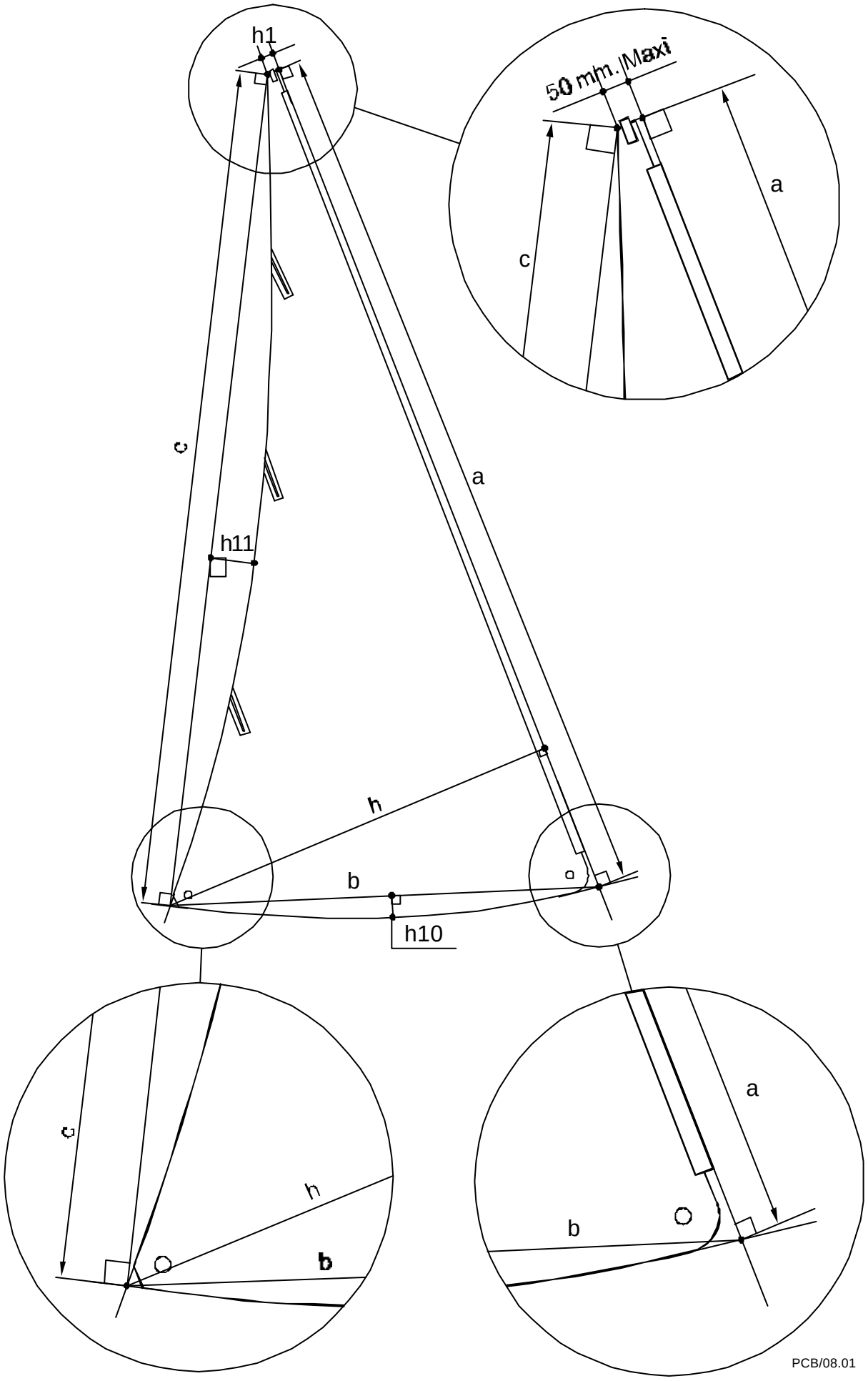






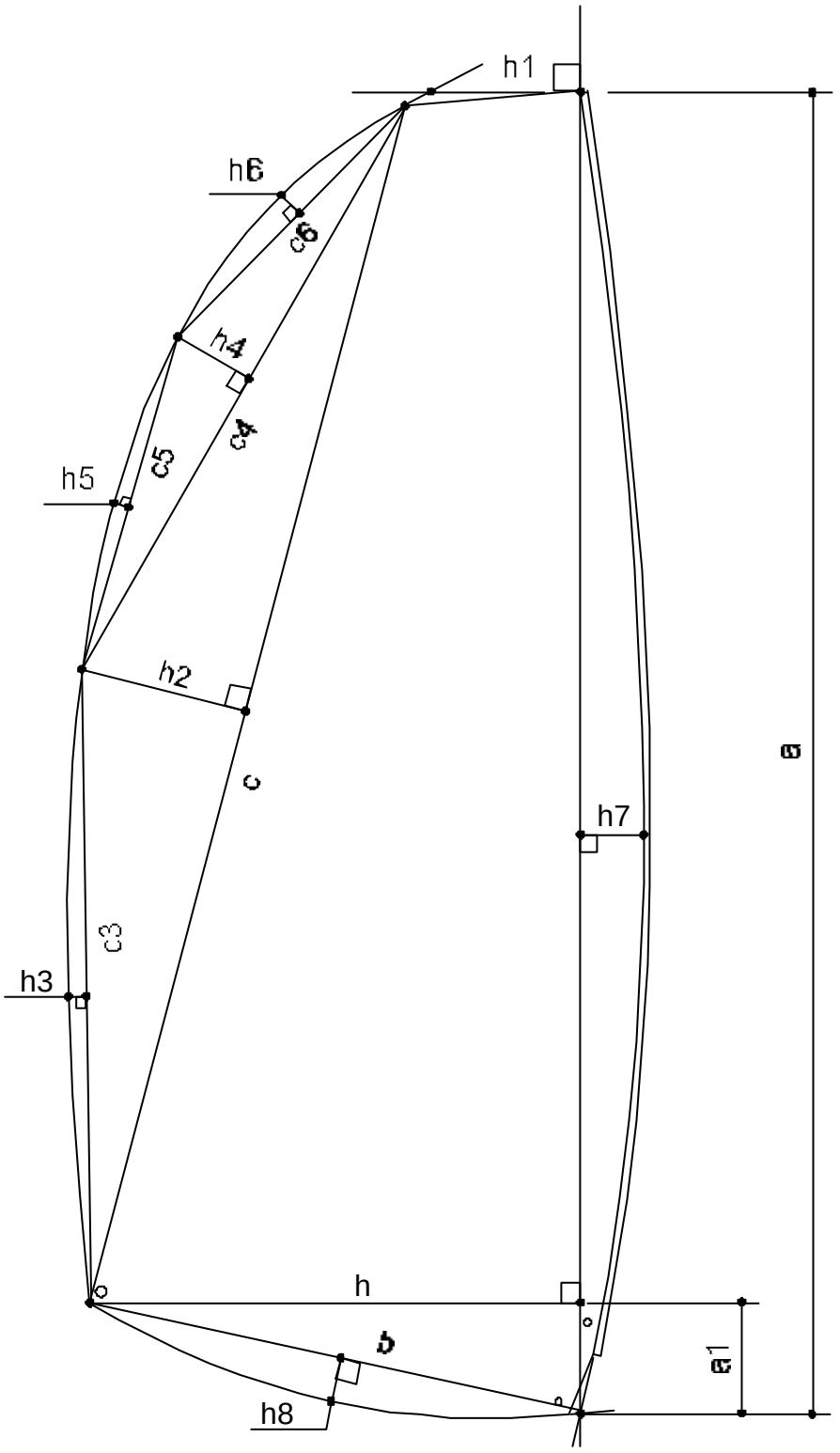


C.MEASUREMENTPROCEDURE(Jib).



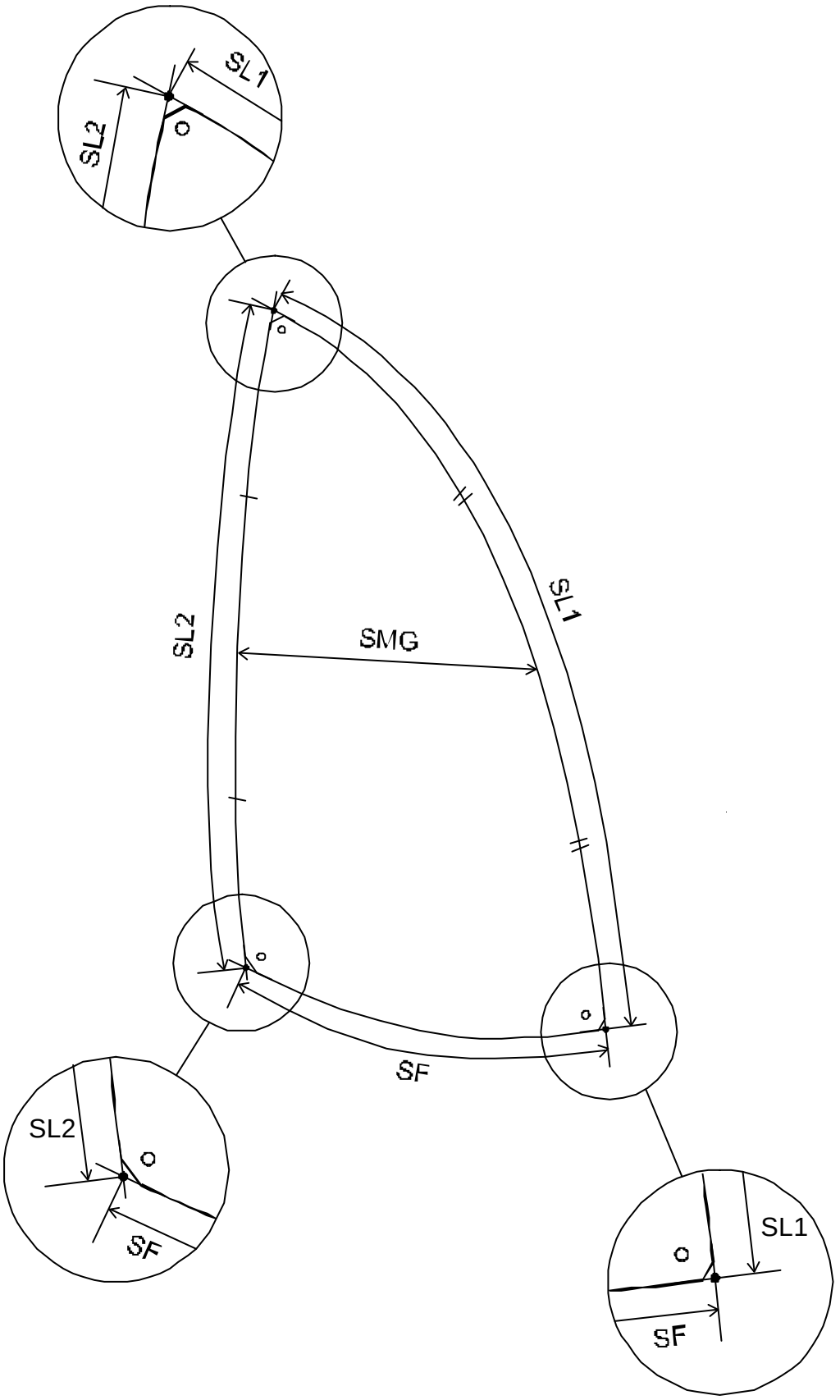
PCB/08.01

C. MEASUREMENTPROCEDURE (Mainsail).



PCB/06.01

C. MEASUREMENTPROCEDURE(Spinnaker).



PCB/06/01