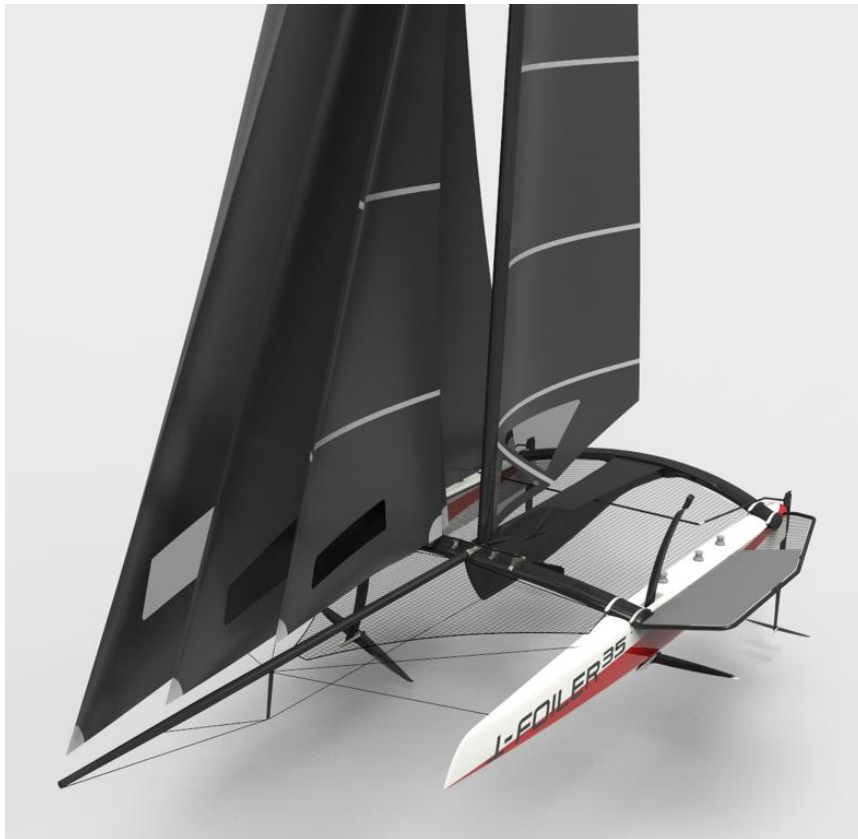




TF35

ONE DESIGN

CLASS RULES 2023-V1



Effective Date: 1ST FEBRUARY 2023

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INTRODUCTION

The TF35 is a high performance one design foiling multihull, created for top level racing under these Class Rules in international regattas.

The TF35 was designed by Foiler Lémanique SA as a light displacement high performance foiling catamaran racer. The concept and the design features of the TF35 are dedicated to enthusiastic amateur and professional sailors looking for high level racing.

The objective of these Class Rules is to keep the absolute one design aspect of the Class by ensuring that all boats are as identical as possible in terms of construction procedures, shape of hull and appendages, weight and weight distribution, deck layout and equipment, sail plan and performance.

TF35 hulls, appendages and rigs shall be manufacturer-controlled and shall only be produced by a manufacturer licensed by Foiler Lémanique SA. Equipment is built in accordance with the TF35 Building Specification. These parts may only be altered to the extent permitted in Section C of these Class Rules or the Building Specification itself.

TF35 sails are measurement-controlled to control all the primary dimensions but may be made by any manufacturer. In order to confirm compliance with these Class Rules sails are required to be certified by an official measurer. These parts may only be altered to the extent permitted in Section C of the Class Rules after certification control has been performed.

THESE RULES ARE CLOSED CLASS RULES WHERE IF IT DOES NOT SPECIFICALLY SAY THAT YOU “MAY” THEN YOU “SHALL NOT.”

PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE

A.1.1 The official language of the Class is English and in case of dispute over translation the English text shall prevail.

A.1.2 The word “shall” is mandatory and the word “may” is permissive.

A.2 ABBREVIATIONS

A.2.1	WS	World Sailing
	MNA	WS Member National Authority
	CA	TF35 Class Association
	NCA	National Class Association
	ERS	Equipment Rules of Sailing
	RRS	Racing Rules of Sailing
	CO	TF35 Class Office
	EC	Executive Committee of the TF35 Class Association
	CM	Class Chief Measurer
	MF	Measurement Form
	TC	TF35 Technical Committee

A.3 AUTHORITIES

A.3.1 The international authority of the Class is the Executive Committee of the TF35 Class Association (EC).

A.3.2 The Class Chief Measurer (CM) shall be appointed by the Executive Committee in cooperation with the Class Office (CO).

A.3.3 Notwithstanding anything contained herein, the CM has the authority to withdraw a certificate and shall do so on the request of WS.

A.4 ADMINISTRATION OF THE CLASS

A.4.1 WS has delegated its administrative functions of the Class to the EC. The EC shall delegate part or all of its functions, as stated in these class rules, to the CO, that may further delegate part or all of its functions to a NCA.

A.5 WS RULES

A.5.1 These class rules shall be read in conjunction with the ERS.

A.5.2 Except where used in headings, when a term is printed in “bold” the definition in the ERS applies and when a term is printed in “italics” the definition in the RRS applies.

A.6 CLASS RULES VARIATIONS

A.6.1 RRS and WS Regulations shall apply.

A.7 CLASS RULES AMENDMENTS

A.7.1 Amendments to these class rules are upon submission or subject to approval of CO and shall be voted by the EC and are subject to the approval of WS in

accordance with the WS Regulations. Only NCA, CM, EC and CO can initiate an amendment.

A.8 CLASS RULES INTERPRETATION

A.8.1 Interpretation of class rules shall be made by the CM upon consultation of the TC and in accordance with the WS Regulations.

A.9 INTERNATIONAL CLASS FEE AND WS BUILDING PLAQUE

A.9.1 The licensed hull builder shall pay the International Class Fee to the WS.

A.9.2 WS shall, after having received the International Class Fee for the hull, send the WS Building Plaque and a measurement form to the licensed hull builder.

A.10 SAIL NUMBERS

A.10.1 Sail numbers shall be issued by the CO.

A.10.2 Sail numbers may be issued in consecutive order starting at "1", this official sail number being the hull number. At the discretion of the CO and according to the owner's national regulations, the CO may deliver a sail number that is not related to the hull number.

A.11 CERTIFICATION

A.11.1 A certificate shall record the following information:

- (a) TF35 Class Association
- (b) Certification authority (currently: CO)
- (c) Sail number issued by the CO
- (d) Owner's name and address
- (e) Hulls, appendages and spar serial numbers
- (g) Hulls, appendages and spar weight and corrector weights (if any)
- (h) Confirmation of TF35 standard equipment list
- (i) Builder / Manufacturers details
- (f) Name and MNA of Official Measurer certifying the hull
- (j) Date of issue of initial measurement form
- (k) Date of issue of certificate

A.12 INITIAL HULLS CERTIFICATION

A.12.1 For a certificate to be issued to hull not previously certified:

- (a) Certification control shall be carried out by an official measurer who shall complete the measurement form (MF).
- (b) The measurement form and the certification fee shall be sent to the certification authority.
- (c) Upon receipt of a satisfactorily completed measurement form and certification fee, the certification authority will issue a measurement certificate (MC). The certification authority shall send the original measurement form to the owner and register a copy with the CO. The certification fee amount shall be approved by the CO and may be reviewed each year by the EC.

A.13 VALIDITY OF CERTIFICATE

A.13.1 A certificate becomes invalid upon:

- (a) The change to any items recorded on the hull certificate as required under A.11.
- (b) Withdrawal by the certification authority,
- (c) The issue of a new certificate,
- (d) Change of ownership,
- (e) Nonpayment of the TF35 Class association annual fee

A.14 HULL RE-CERTIFICATION

A.14.1 The certification authority may issue a certificate to a previously certified boat:

- (a) When it is invalidated under A.13.1 (a), (d) or (e), after receipt of the old certificate, and certification fee if required.
- (b) When it is invalidated under A.13.1 (b), at its discretion,
- (c) In other cases, by application of the procedure in A.12.

A.15 RETENTION OF CERTIFICATION DOCUMENTATION

A.15.1 The certification authority shall:

- (a) Retain a copy of the measurement form upon which the current certificate is based.
- (b) Upon request, transfer this documentation to the new certification authority if the hull is exported.

Section B – Boat Eligibility

For a boat to be eligible for racing, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

B.1.1 The boat shall:

- (a) Be in compliance with the class rules.
- (b) Have a valid certificate.
- (c) Have valid certification marks as required.
- (d) Be a member of the TF35 Class Association

B.2 EQUIPMENT INSPECTION

B.2.1 In the case of a dispute at an event alleging non-compliance with class rules and building specification where specific measurements are not stated, the event equipment inspector or event Technical Committee shall adopt the following procedure:

- (a) A sample measurement of the disputed item shall be obtained by taking the identical measurement from a randomly selected group of boats or items of equipment (control group).
- (b) The measurement of the disputed boat or items of its equipment, taken using the same technique as above, shall be compared to the sample.
- (c) If any of the measurements obtained from the disputed boat or item of equipment lie outside the corresponding range of measurements found in the control group, the matter together with the details of the measurement methods and any other relevant information shall be referred to the CO.

PART II – REQUIREMENTS AND LIMITATIONS

The crew and the boat shall comply with the rules in Part II when racing. In case of conflict Section C shall prevail.

The rules in Part II are closed class rules. Certification control and equipment inspection shall be carried out in accordance with the ERS except where varied in this Part.

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES

- (a) The RRS shall apply.
- (b) The ERS Part I – Use of Equipment shall apply.

C.1.2 Alteration of the Rules of C1.1

- (a) Rule 42.2 (a) will not apply. Lifting and dropping the daggerboards to generate boat speed is not allowed.

C.2 CREW

C.2.1 LIMITATIONS

- (a) The crew shall consist of minimum 6 persons.
- (b) No crewmember shall be substituted during a racing day unless prior written approval from the race committee.
- (c) The number of crew during an event shall not be changed
- (d) The CO may change the crew limitations for exhibition events or special events and shall mention this change in the notice of race.

C.2.2 WEIGHTS

- (a) When competing under these Class Rules, the total weight of the crew including driver (in at least swimwear and weighed individually) shall not exceed 500 kg and shall be above 450kg.
- (b) The owner shall be allocated a weight of 90kg, the Owner may choose to weigh-in.

C.2.3 CREW POSITIONNING

- (a) Hiking while racing is not allowed. The distance between any foot straps or holding lines and the outboard limit of the boat shall be equal or higher than 1100mm.
- (b) Crew shall not be on the forward part of the hulls, in front of the forward beam, while racing. Only for exceptional handling and only when the boat is stopped (maximum 4kts of boat speed), crew may go on the forward part of the hulls.
- (c) Crew may be on the forward trampoline. Only for momentary sail handling, crew can go on the bowsprit but not in front of the forestay. Only for exceptional handling and only when the boat is stopped (maximum 4kts of boat speed) and if the genoa or gennaker halyard is loaded, crew may go on the bowsprit in front of the forestay.

C.3 ADVERTISING

C.3.1 LIMITATIONS

Advertising shall only be displayed in accordance with WS Advertising Code – See WS Regulation 20.

C.4 PERSONAL EQUIPMENT

C.4.1 MANDATORY

- (a) The boat shall be equipped with personal buoyancy device for each crew member to the minimum standard ISO 12402-5 (CE 50 N), USCG Type III or equivalent. Automatic inflatable personal buoyancy is not permitted.
- (b) Each crew shall wear a helmet with high visibility design and color.
- (c) Each crew shall carry a personal knife
- (d) Crew clothing and equipment shall not retain water for the purpose of increasing weight.
- (e) The owner, or the appointed skipper if the owner is not on board, is solely responsible to ensure that adequate personal equipment is available on board for each crew member including driver.
- (f) Personal buoyancy shall comply with national safety regulations applicable in the venue country or required by the Organizing Authority in the notice of race.

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

- (a) Two portable VHF.
- (b) Two safety knives shall be fastened on top of the trampoline and two safety knives shall be fastened underneath the trampoline.
- (c) One compass (TF35 standard electronic compass is acceptable)
- (d) Two spare personal air supply of at least 0,3 liters each secured in a location, which is accessible when the boat is capsized.
- (e) Portable equipment shall comply with national regulations applicable in the venue country or required by the Organizing Authority in the notice of race.

C.5.2 OPTIONAL

- (a) All moveable equipment including but not limited to tools, personal gear bags and spare equipment, but excluding sails, anchor kit and safety equipment shall have a maximum combined weight of not more than 30 kg. The equipment shall be permanently attached on the boat and shall not be moved to increase the righting moment of the boat.
- (b) 3 liters of drinking water for each crew member. This shall not be included in the portable equipment weight limit and shall not be moved to increase the righting moment of the boat.

C.6 OPTIONAL EQUIPMENT

- (a) Electronic systems (wind, navigation, internal communication) on board are free. The systems shall not be connected to the Flight assistance batteries, see C.12.4 (b).
- (b) Logging data on an appropriate device is allowed. The transmission or reception of data while racing is forbidden.

C.7 BOAT

C.7.1 DIMENSIONS

The dimensions of the boat shall be measured and shall be within the tolerances shown in the attached appendices and in the building specifications.

C.7.2 WEIGHT

	minimum	maximum
The weight of the boat in production condition	1'105 kg	
The weight of the boat in racing condition	1'295 kg	

The weight shall be taken with complete hulls including all equipment, all appendages, all spars, fixed running rigging and excluding sails, sheets and all portable equipment as listed in C.4 and C.6.

Before weighing, see Measurement Manual & TF35 boat weight policy.

C.7.3 CORRECTOR WEIGHTS

- (a) One or more pairs of corrector weights of equal weight, made of lead, shall be permanently fastened to the liners in each hull near the daggerboard case (positioned as shown and according to the table in Appendix B.2) when the boat weight is less than the minimum requirement stated in C.7.2. The weight of the corrector weights has to be visibly punched.

C.8 HULLS, POD AND BEAMS

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) The hulls, pod and beams shape shall comply with the drawing detailed in Appendix B.
- (b) No modifications are permitted to the hulls, pod and beams external surface and in particular no filling is permitted on any exterior surface of the hull, with the exception of routine maintenance, which includes antifouling application, painting and minor repairs,
- (c) All repairs requiring the use of filler or composite materials shall be reported to CO and approved by the CM.
- (d) No holes shall be drilled in the boat.
- (e) No additional equipment shall be fitted on the hulls, pod and beams except as listed in the equipment list and provided by the Licensed Builders and Suppliers.

C.8.2 FITTINGS

- (a) The deck hardware and winches fitted on every boat as standard is detailed in Appendix H. The equipment shall be maintained and serviced according to the supplier's specifications.

- (b) The following is permitted without the approval of the ICA's Technical Committee under D.2.2:
 - (1) Placement of line bags and winch handle holders
 - (2) Lashing, tape and other anti-chafe gear on hull, rig or sails
 - (3) Devices to adjust the sheet entry on winches
 - (4) Nonslip material on deck to promote safe movement
 - (5) Brackets or support for electronic devices
 - (6) Floating clutches attached on the rack tubes
 - (7) The use of shock-chord, lines, pulley, blocks, rings, velcro, and flexible adhesive tape is free, but can't change the purpose of any equipment or can't modify the sheeting angle when loaded. The method of attaching these fittings to the hull, spars and beams is restricted and shall not modify the effective operation nor the intended purpose or action of any equipment.

C.8.3 LIMITATIONS

- (a) Any broken or non-functional item shall only be replaced with an approved item. The CO records the latest version of the approved equipment list, in cooperation the Licensed Builders and Suppliers.
- (b) Adding aero fairings is only allowed around the motor boxes and electronic devices supports.
- (c) Reducing de dimensions of the trampolines is allowed up to max 50 mm per sides.

C.9 HULL APPENDAGES

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) No modifications are permitted to the hull appendages and in particular no filling is permitted, with the exception of fairing the bulb fastener housing and routine maintenance which includes antifouling application, painting and minor repairs. See appendix D & E for details.
- (b) All maintenance shall be carried out in a way that hull appendages are retained in the original profiles (see Section E and Appendix D & E).
- (c) Waxing, polishing and application of small quantities of friction-reducing compounds (for example, McLube) on the hull appendages are permitted provided the intention and affect is to reduce friction only (RRS 53 applies).
- (d) No holes shall be drilled in the hull appendages except for the purpose of fastening the 3d printed parts or horn covers. The maximum diameter of the fastener is 3mm.
- (e) No additional equipment shall be fitted on the hull appendages except as listed in the equipment list and provided by the Licensed Builders and Suppliers.
- (f) The trailing edges of the hull appendages may be lightly block-sanded as follows:
 - (1) The trailing edge of the rudder may be squared off, provided that a width of at least 1,2mm is maintained along the entire trailing edge.
 - (2) The trailing edge of the daggerboard may be squared off; provided that a width of at least 2mm must be maintained along the entire trailing edge.
- (g) It is permitted to add a removable cover of any material on top of the daggerboard and rudder to prevent sheets from catching on the motor box

and reduce air drag. The cover shall not be 4mm wider or 15mm higher than the motor box. This covers can replace the supplied 3d printed covers. The covers must be easily removable and cannot be laminated or screwed to the daggerboard and rudder.

- (h) Fairing the bottom daggerboard bearing is allowed. The bottom bearing shall remain removable at all time.
- (i) It is allowed to shim the bulbs to prevent them to move around the foot of the daggerboard.

C.9.2 FITTINGS

- (a) All fittings installed on the appendages shall comply with Appendix H.

C.9.3 T-FOIL

- (a) The shape and weight of the daggerboard, bulb and foil shall comply with Appendix D

C.9.4 RUDDER

- (a) The shape and weight of the rudder, bulb and elevator shall comply with Appendix E.

C.9.5 LIMITATION

- (a) Only one set of T-Foils and one set of rudders shall be used during an event.

C.10 RIG

C.10.1 WEIGHT

The weight of the parts of the rig, see F.3.5, shall be taken with complete mast or boom tube, fittings (screws, mast foot, spreaders and others) and excluding running rigging and removable instrument bracket (see TF35 Measurement Manual).

	minimum	maximum
The weight of the mast	165 kg	-
The weight of the bowsprit	48 kg	-
The weight of the boom	13 kg	-

C.10.2 CORRECTOR WEIGHTS

- (a) If the weight of the mast does not comply with the minimum detailed in rule C.10.1 and F.3.5, one or more corrector weights, made of lead, and shall be added to meet the mast minimum weight.
- (b) The corrector weights may be added in the middle of the mast at the spreader level. The weight of such MCW shall be visibly punched.

C.10.3 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Any broken, deteriorated or non-functional item shall only be replaced with an approved item according to the list in Appendix H.
- (b) No holes shall be drilled in the spars.
- (c) Low friction rings for the sole purpose of fitting take up bungee lines are permitted.
- (d) No additional equipment shall be fitted on the spars except as listed in the equipment list and provided by the Licensed Builders and Suppliers.

C.10.4 FITTINGS

- (a) The mast and rigging listed in Appendix F are fitted on every boat as standard. The equipment shall be maintained and serviced according to the supplier's specifications.

C.10.5 LIMITATIONS

- (a) It is forbidden to adjust the forestay or the shrouds tension whilst racing windward/leeward races.
- (b) No more than one complete spar kit shall be paired with any one hull. If a spar is broken or damaged beyond repair, a replacement spar may be requested through the CO.
- (c) The mast shall be painted in black

C.10.6 MAST

(a) DIMENSIONS

All dimensions shall be in compliance with the builders specification.

Dimensions shall comply with the measurements shown in Appendix F.1.1

C.10.7 BOOM

(a) DIMENSIONS

All dimensions shall be in compliance with the builders specification.

	minimum	maximum
Outer limit mark width	30 mm	
Outer point distance (M)	5'523mm	5'533 mm
Boom full length (L)	5'633mm	5'643 mm
Boom spare curvature	567 mm	577 mm

C.10.8 BOWSPRIT AND CENTRAL SPINE

(a) DIMENSIONS

All dimensions shall be in compliance with the builders specification.

	minimum	maximum
Bowsprit length (shortest distance from the aft part of the bowsprit to bowsprit outer point) (k)	8'166mm	8'176 mm
Headstay bearing point (J)	4'548mm	4'558 mm

C.10.9 STANDING RIGGING

- (a) All dimensions shall be in compliance with the builders specification.
- (b) Rigging links shall not be adjusted whilst racing.

C.11 SAILS

C.11.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Sails shall not be altered in any way except as permitted by these class rules.
- (b) During an TF35 Class series the equipment inspector or the CO Representative shall be notified of any sail requiring repair.
- (c) If a sail is damaged beyond repair, it may be replaced with a new sail. Application shall be made to the equipment inspector (or the CO Representative) for a replacement sail. Application for a replacement Sail Sticker can be made only for a sail produced and with a sail sticker of the current year (January 1st to December 31st). No replacement sticker shall be delivered for a sail produced and registered prior to the year when damage beyond repair occurs.
- (d) All sails declared for an TF35 Class event may be inspected and shall have a numbered Class Association Sail Sticker. Stickers shall not be transferred from one sail to another.
- (e) An official measurer shall measure and certify all sails, see G.2.2. (a).

C.11.2 LIMITATIONS

- (a) The full following inventory shall be used for Grand Prix Events: (1) mainsail, one (1) jib 1, one (1) jib 2 and one (1) gennaker GP.
- (b) Any sails described in this Class Rules can be used for long-distance or promo racing.
- (c) An owner with more than one boat may not transfer sail inventories. A Class Member who charters is permitted to transfer his own sails to the chartered boat.
- (d) A new owner who acquires an TF35 may purchase a base inventory of maximum six (6) sail stickers in the first calendar year (January 1 – December 31). An existing owner is permitted 3 new stickers per odd calendar year and 2 new stickers per even calendar year. Sails must be constructed and stickers applied by the end of the calendar year (January 1-December 31). A sail sticker may be used until the 1st event of the following season. Stickers not used on a measured sail after the 1st event of the following season will be void.
- (e) C.11.2 (c) applies to a Class member who is not a boat owner and charters an TF35.
- (f) In 2020, owners may purchase 6 sail stickers. In 2021 existing owners may purchase 4 sail stickers.
- (g) A TF35 shall not sail (racing or training) with a non-buttoned sail.
- (h) Buttoned sails may be repaired or modified without being considered a new sail provided no more than the allowable percentage of the original area of the original sail (when first declared) is replaced with new material. Approval shall be sought from a CM prior carrying out any sail repair involving area changes, or any modification.
Sail area % of the original sail allowed to be changed is:
Mainsail and headsails: 10%
Gennaker: 15%

C.11.3 MAINSAIL

- (a) IDENTIFICATION
The national letters and sail numbers shall comply with the RRS except where prescribed otherwise in these class rules.
- (b) USE
 - (1) The sail shall be hoisted on a halyard. The arrangement shall permit hoisting and lowering of the sail whilst afloat.
 - (2) The mainsail shall be hoist by using the following Karver cars: 1 head car, maximum 8 batten cars, maximum 6 intermediate cars, 1 car for the tack point and 1 car for the reef point; as listed in Appendix H.
 - (3) The leech of the mainsail shall be attached to the boom.

C.11.4 JIBS

- (a) USE
 - (1) The jibs shall be hoisted on the jib halyard which shall remain attached to the head of the sail at all times whilst hoisted, and the lock shall be engaged when set.
 - (2) The luff shall be attached by soft hanks only to the forestay, zippers are not allowed.
 - (3) The jibs shall be sheeted through a sheave block, defined in Appendix H, attached to the jib car.

C.11.5 GENOA AND GENNAKERS

(a) USE

- (1) The Genoa and Gennakers shall be hoisted on their halyard which shall remain attached to the head of the sail at all times whilst hoisted. Use of mouse line is not allowed.
- (2) Gennakers sheets shall go through a sheave block, defined in Appendix H, attached to the aft beam.

C.12 FLIGHT ASSISTANCE SYSTEM

C.12.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Any broken, deteriorated or non-functional hardware or software shall only be replaced with an approved item by an operator appointed by the CO.

C.12.2 CHANGE FOR RRS RULE 52

- (a) RRS Rule 52 is replaced as follows: «The boat's standing rigging, running rigging, sails, spars, foils or daggerboards shall be adjusted and operated only with the power provided by the crew. Only the foil wings flaps and rudder elevator flaps may be controlled and adjusted by power provided by the TF35 batteries ».

C.12.3 FITTINGS

- (a) All hardware and software fitted on every boat as standard are detailed in Appendix H.4. The equipment shall be maintained and serviced according to the supplier's specifications.

C.12.4 LIMITATIONS

- (a) The flight assistance box, software and hardware are one-design and can't be modified.
- (b) The TF35 flight assistance system batteries shall not be used for other purposes.

Section D – Hull

D.1 GENERAL

D.1.1 RULES

- (a) The hull, including the hull weight, shall comply with the class rules in force at the time of initial certification.

D.1.2 CERTIFICATION

See Rule A.13.

D.1.3 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) The hull shell, deck, bulkheads shall not be altered in any way except as permitted by these class rules.
- (b) Routine maintenance such as painting and polishing is permitted without re-certification.
- (c) If any hull moulding is repaired in any other way than described in C.8.1 an official measurer shall verify that the external shape is the same as before the repair and that no substantial stiffness, or other advantage has been gained as a result of the repair. The official measurer shall also describe the details of the repair on the measurement form.

D.1.4 PARTS

- (a) Starboard and port hulls
- (b) Central pod
- (c) Forward and aft beams
- (d) Trampoline

D.1.5 IDENTIFICATION

- (a) The hull shall carry the WS plaque permanently placed on the starboard side of the transom. Each hull shall carry a hull identification number on each transom.

D.1.6 BUILDERS

- (a) The boat is produced by a limited number of Licensed Builders who are required to adhere to the same building procedures specified by Foiler Lémanique SA.
- (b) The rig and bowsprit shall be built by a builder licensed by Foiler lémanique SA.
- (c) The trampoline shall be built by a builder licensed by Foiler lémanique SA.
- (d) All molds shall be approved Foiler lémanique SA and WS.

D.2 ASSEMBLED PLATFORM

D.2.1 CONSTRUCTION

- (a) The boat shall be built only by Licensed Builders strictly according to the construction documentation issued by Foiler Lémanique SA.

D.2.2 FITTINGS

(a) MANDATORY

The deck hardware and winches according to the list in Appendix H is fitted on every boat as standard. Any broken or non-functional item shall only be replaced with an identical item.

Section E – Hull appendages

E.1 PARTS

- (a) Daggerboard
- (b) Rudder

E.2 GENERAL

E.2.1 RULES

- (a) Hull appendages shall comply with the class rules in force at the time of certification.
- (b) The hull appendages shall be made by licensed manufacturers approved by Foiler Lémanique SA.

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Hull appendages shall not be altered in any way except as permitted by these class rules, see C.9.1.
- (b) No painting shall be applied on the builder's sticker displaying the item serial number.

E.2.3 CERTIFICATION

- (a) The official measurer shall certify hull appendages.
- (b) The CO may appoint one or more persons at a licensed manufacturer to measure and certify hull appendages produced by that manufacturer in accordance with the WS In-house Certification Guidelines.

E.3 DAGGERBOARD

E.3.1 RULES

- (a) Rules E.2. apply.

E.3.2 MATERIALS

- (a) The daggerboard shall be of carbon fiber.

E.3.3 FITTINGS

- (a) MANDATORY per daggerboard
 - (1) 1 daggerboard
 - (2) 1 control engine in its box
 - (3) 1 bulb and 3d printed bulb nose
 - (4) 1 foil with it's flap
 - (5) 1 flap control system
 - (6) 3d printed wing tips and fairings
 - (7) 4 titanium flaps lock per foil

E.3.4 DIMENSIONS

- (a) The daggerboard shall comply with the measurements shown in Appendix D.
- (b) A tolerance of $\pm 0,5$ mm is allowed around the profile defined in Appendix D. A plus 1 mm, minus 3mm tolerance is allowed on the chord length. The trailing edge of the board cannot be less than 2 mm thick.

E.3.5 DAGGERBOARD WEIGHT

	minimum	maximum
Daggerboard weight	30,5 kg	31,5 kg
Foil and bulb weight	38 kg	39 kg
Total daggerboard weight	68,5 kg	70,5 kg

E.4 RUDDER AND STEERING SYSTEM

E.4.1 RULES

(a) Rules in E.2. apply.

E.4.2 MATERIALS

- (a) The rudder and steering system shall be made in accordance with the manufacturer's specifications.
- (b) The steering system according to the list in Appendix H is fitted on every boat as standard.
- (i) The equipment shall be maintained and serviced according to the supplier's specifications.
 - (ii) Any broken, deteriorated or non-functional item shall only be replaced with identical according to the equipment list.
 - (iii) If any item is no longer available the CM shall be consulted before replacement. The CO records that latest list of permitted items.

E.4.3 CONSTRUCTION

(a) The rudder shall be manufactured in a mold approved by Foiler Lémanique SA.

E.4.4 FITTINGS

- (a) MANDATORY per rudder
- (1) 1 rudder blade
 - (2) 1 control engine in its box
 - (3) 1 bulb
 - (4) 1 elevator with its flap
 - (5) 1 flap control system
 - (6) 2 3d printed elevator tips
 - (7) 4 titanium flaps lock per elevator

E.4.5 DIMENSIONS

- (a) The rudder shall comply with the measurements shown in Appendix E.
- (b) A tolerance of $\pm 0,5$ mm is allowed around the profile defined in Appendix E. A plus 1 mm, minus 2mm tolerance is allowed on the chord length. The trailing edge of the board cannot be less than 1,2 mm thick.

E.4.6 RUDDER WEIGHT

	minimum	maximum
Rudder blade weight	22 kg	23 kg
Elevator and bulb weight	4,7 kg	5,1 kg
Total rudder weight	26,7 kg	28,1 kg
Rudder cassette and tiller	6,2 kg	6,7 kg

Section F – Rig

F.1 PARTS

F.1.1 MANDATORY

- (a) Mast
- (b) Boom
- (c) Bowsprit
- (d) Standing rigging and spine
- (e) Running rigging

F.2 GENERAL

F.2.1 RULES

- (a) The spars and their fittings shall comply with the class rules in force at the time of certification of the spar.
- (b) The standing and running rigging shall comply with the class rules.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Spars shall not be altered in any way except as permitted by these class rules.

F.2.3 CERTIFICATION

- (a) The official measurer shall certify all spars.

F.2.4 DEFINITIONS

(a) MAST DATUM POINT

The mast datum point (MDP) is bottom part of the aluminum mast base.

- (b) The mast, boom and bowsprit shall comply with the measurements shown in Appendix E.

F.2.5 MANUFACTURER

- (a) The rig shall be built by a licensed builder approved by Foiler Lémanique SA.

F.3 MAST

F.3.1 MATERIALS

- (a) The spar shall be of carbon fiber.

F.3.2 CONSTRUCTION

- (a) The mast spar shall be built as per the manufacturer's specifications.

F.3.3 FITTINGS

(a) MANDATORY

See list in Appendix H.

F.3.4 DIMENSIONS

The dimensions shall be as per the manufacturer's specifications and as recorded in the Measurement Form, measured as pointed out in the TF35 Measurement Manual. See appendix F.

F.4 BOOM

F.4.1 MATERIALS

- (a) The spar shall be of carbon fiber.

F.4.2 CONSTRUCTION

(a) The boom spar shall be built as per the manufacturer's specifications.

F.4.4 DIMENSIONS

Dimensions shall be as per the manufacturer's specifications and as stated in the Measurement Form.

F.5 BOWSPRIT

F.5.1 MATERIALS

(a) The spar shall be of carbon fiber.

F.5.2 CONSTRUCTION

(a) Construction shall be as per the manufacturer's specifications.

F.5.3 FITTINGS

(a) Aluminum fitting connecting the bowsprit to the mast step

F.5.4 DIMENSIONS

Dimensions shall be as per the manufacturer's specifications and as stated in the Measurement Form.

F.6 STANDING RIGGING

F.6.1 MATERIALS

(a) The standing rigging shall be as per the manufacturer's specifications.

F.6.2 CONSTRUCTION

(a) MANDATORY

See list of fittings in Appendix H.

F.6.3 FITTINGS

(a) Fittings shall be as supplied by the manufacturer.

F.7 RUNNING RIGGING

F.7.1 MATERIALS

(a) Materials are as per the list in Appendix H.

(b) Diameter is mandatory whereas length is recommended.

F.7.2 FITTINGS

(a) Fittings shall be as supplied by the manufacturer.

Section G – Sails (see also appendix A & G)

G.1 PARTS

G.1.1 MANDATORY

- (a) Mainsail
- (b) Headsails
- (c) Gennaker

G.2 GENERAL

G.2.1 RULES

- (a) Sails shall comply with the class rules.

G.2.2 CERTIFICATION

- (a) The official measurer shall certify mainsails, headsails and gennaker near the starboard side of the tack. The official measurer shall sign and date the certification mark.
- (b) The WS or an MNA may appoint one or more In-House Official Measurers to measure and certify sails produced by that manufacturer.

G.2.3 SAILMAKER

- (a) No license is required.
- (b) The production date shall be indelibly marked near the head point by the sailmaker together with his signature or stamp.

G.3 MAINSAIL

G.3.1 CLASS INSIGNIA AND IDENTIFICATION

- (a) The class insignia shall conform with the dimensions and requirements as detailed in the diagram contained in Appendix G.1.a and be placed in accordance with Appendix G.1.b.
- (b) The national letters and sail numbers shall be according to Appendix G, except where varied herein. The national letters and sail numbers shall be positioned on both sides of the mainsail with the starboard side being higher.

.....	Minimum
1. Height:	450mm
2. Thickness:	80mm
3. Width (excluding number one and letter I):	300mm
4. Minimum space between adjoining or opposite characters, or edge of sail:	90mm

G.3.2 MATERIALS

- (a) The ply and ply fibers may consist of any material.
- (b) Sail reinforcement may consist of any material.

G.3.3 CONSTRUCTION

- (a) The construction shall be soft sail.
- (b) The dimensions of the mainsail are specified in G.3.4 and in Appendix A.1.
- (c) The 8 full battens are permitted. The position of the battens is free.
- (d) The sail shall be constructed so that it can be reefed.

- (e) Non-adjustable flutter battens may be added. The flutter battens shall be positioned with one end coinciding with the leech of the sail and shall be no longer than 750 mm and no wider than 20 mm.
- (f) Sail head arrangement:
 - i. The highest point of the mainsail shall not be higher than the edge of top of the mast measurement band.
 - ii. The mainsail shall be attached to the top hook car with a lashing or a similar device.
 - iii. The highest point of the mainsail along the luff shall not be higher than 250mm from the top of the principal halyard head ring.
- (g) The attachment point of the leech of the mainsail to the boom shall not be higher than 300mm above the clew. This also applies when the mainsail is reefed.
- (h) A window shall be included in the deck-sweeper, under the foot of the sail, see App A1. The window can be included in the edge of the sail.
- (i) Apart from restrictions mentioned above, the fittings and items attached to the sail are not limited.

G.3.4 DIMENSIONS

See drawing in appendix A	maximum	minimum
Top width (measured along the sail)	1800	1700
Aft head point from point 2000 mm on luff below head Pt. (i)	2850	2700
MGT	2300	2150
MGU	3050	2900
MGM	4120	3970
MGB	4850	4700
Leech length	18950	18750
Foot	5210	5160

No convex curve on top of the mainsail.

G.4 HEADSAILS

G.4.1 MATERIALS

- (a) The ply and ply fibers may consist of any material.
- (b) Sail reinforcement may consist of any material.
- (c) Sail batten may consist of any material.

G.4.2 CONSTRUCTION

- (a) The construction shall be soft sail,
- (b) No battens are permitted for the Genoa,
- (c) Clew boards are not allowed for the Genoa,
- (d) 5 battens are permitted for the Jibs,
- (e) The jibs luff shall be attached to the forestay with soft hanks and the sail shall be sheeted through the headsail cars. Zippers to attach the luff of the jib to the forestay is not allowed,
- (f) Jib 2 shall be constructed so that it can be reefed.
- (g) The leech of the jibs shall not have double curve fairings,
- (h) Maximum foot round is 100mm,

- (i) Apart from restrictions mentioned above, the parts and items attached to the jibs and genoa are not limited.

G.4.3 DIMENSIONS

See Appendix A.2.

Dimension in mm	Genoa	
	maximum	minimum
Luff length	18 700 mm	18 300 mm
Clew Point to Luff (LP)	6 500 mm	6 300 mm
HHW	50% of LP	45% of LP
Top width	150	70

Dimension in mm	Jib 1		Jib 2	
	maximum	minimum	maximum	minimum
Luff length	17 200	16 900	14 300	14 000
Clew Point to Luff (LP)	4 400	4 250	4 400	4 250
HHW	57% of LP	52% of LP	55% of LP	50% of LP
Reef, distance from tack	no	no	1 900	1 500
Top width	150	70	150	70
Foot round	100		100	

G.5 GENNAKERS

G.5.1 MATERIALS

- (a) The ply may consist of any materials.
 (b) Sail reinforcement may consist of any materials.

G.5.2 CONSTRUCTION

- (a) The construction shall be soft sail.
 (b) Clew boards are not allowed
 (c) Foot round of Gennaker Open is free
 (d) Gennaker GP maximum foot round is 200mm
 (e) No battens are allowed
 (f) Apart from restrictions mentioned above, the parts and items attached to the gennakers are not limited.

G.5.3 DIMENSIONS

See Appendix A.3.

	Gennaker Open		Gennaker GP	
	maximum	minimum	maximum	minimum
Luff length	21 900	21 300	21 700	21 300
Clew Point to Luff (LP)		11 750	11 000	10 800
HHW	55% of LP	50% of LP	53% of LP	48% of LP
Top width	150	70	150	70
Foot round			200	

Section H – Flight assistance system

H.1 GENERAL

H.1.1 RULES

- (a) The flight assistance system shall comply with the class rules in force at the time of initial certification.

H.1.2 CERTIFICATION

See Rule A.13.

H.1.3 MODIFICATIONS, MAINTENANCE AND REPAIR

See Rule C.12.1.

H.1.4 PARTS

- (a) 1 flight control system box in the pod
- (b) 2 daggerboard engines in their motor box
- (c) 2 rudder engines in their motor box
- (d) All sensors, display and devices listed in appendix H.4
- (e) Software supplied by Foiler Lémanique SA

D.1.5 BUILDERS

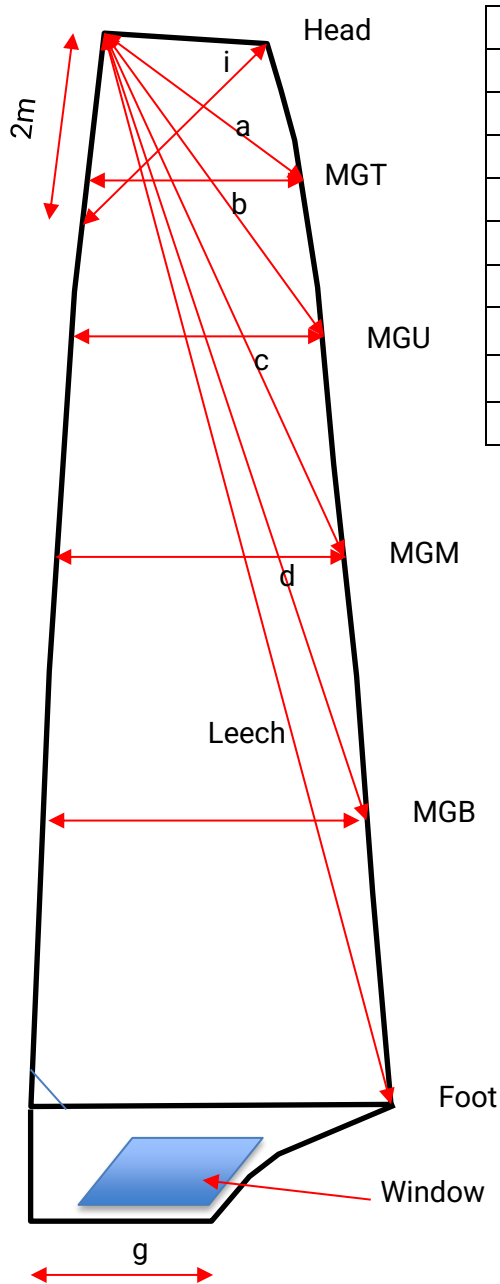
- (a) The flight assistance system is produced by a limited number of Licensed Builders who are required to adhere to the same building procedures specified by Foiler Lémanique SA.

PART III – APPENDICES

The rules in Part III are closed class rules. Measurement shall be carried out in accordance with the ERS except where varied in this part.

Appendix A

A.1 MAINSAIL DIAGRAM

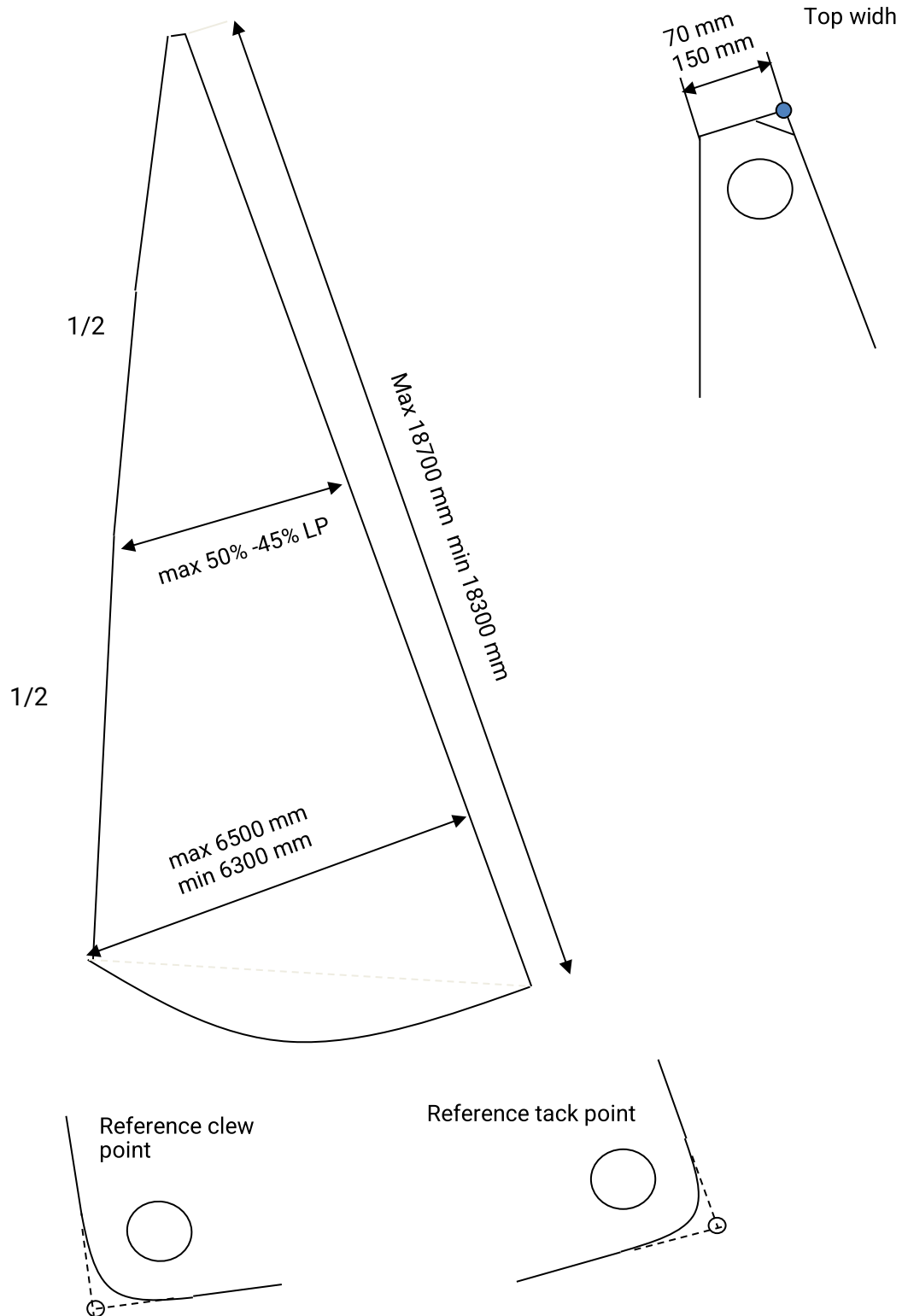


	Max	Min	Comments
Head	1800	1700	
MGT	2300	2150	
MGU	3050	2900	
MGM	4120	3970	
MGB	4850	4700	
Foot	5210	5160	
Leech	18950	18750	
g	2800	2500	
i	2850	2700	

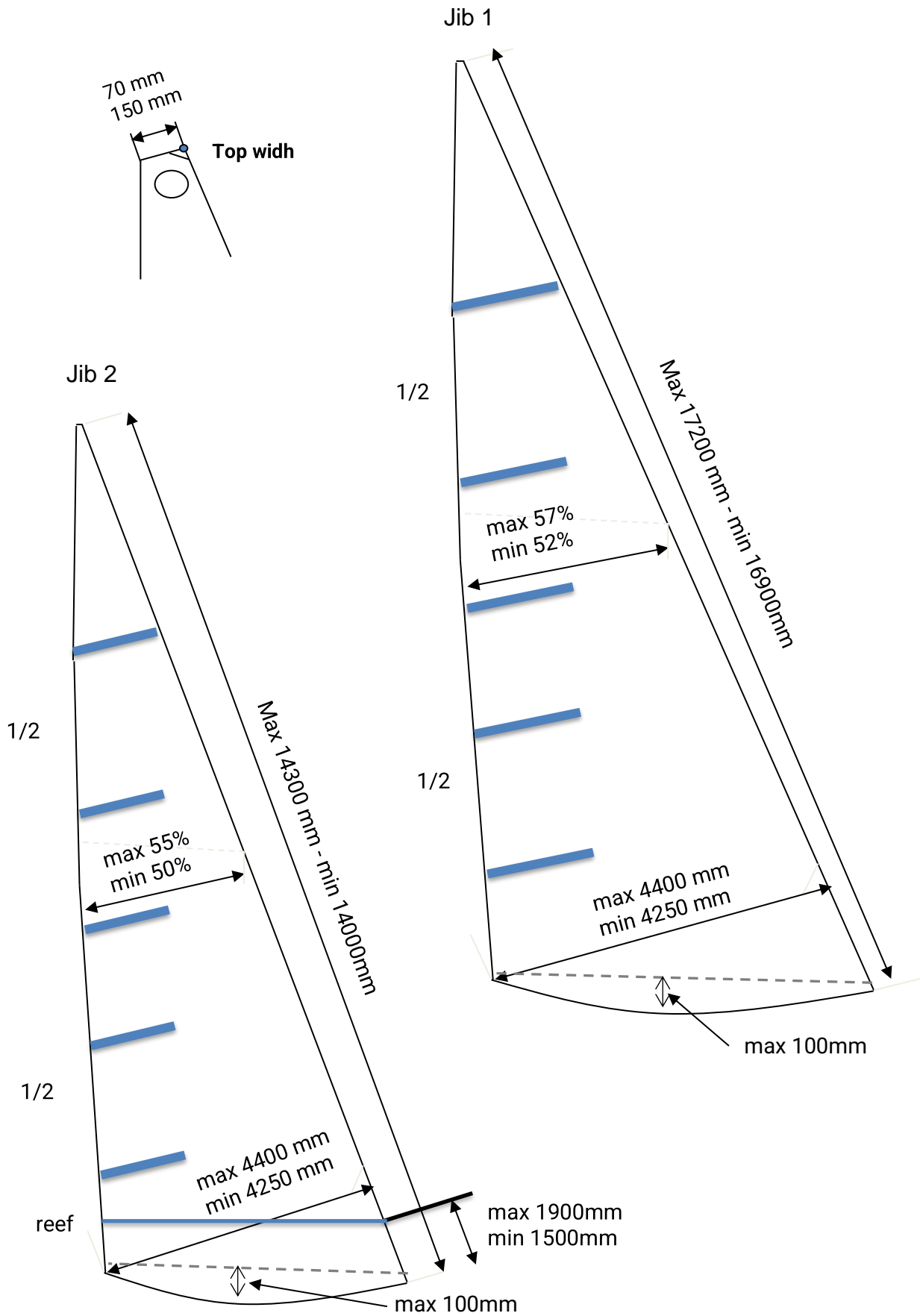
	a	b	c	d
Value	2600	4850	9500	14200

A.2 HEADSAILS DIAGRAM

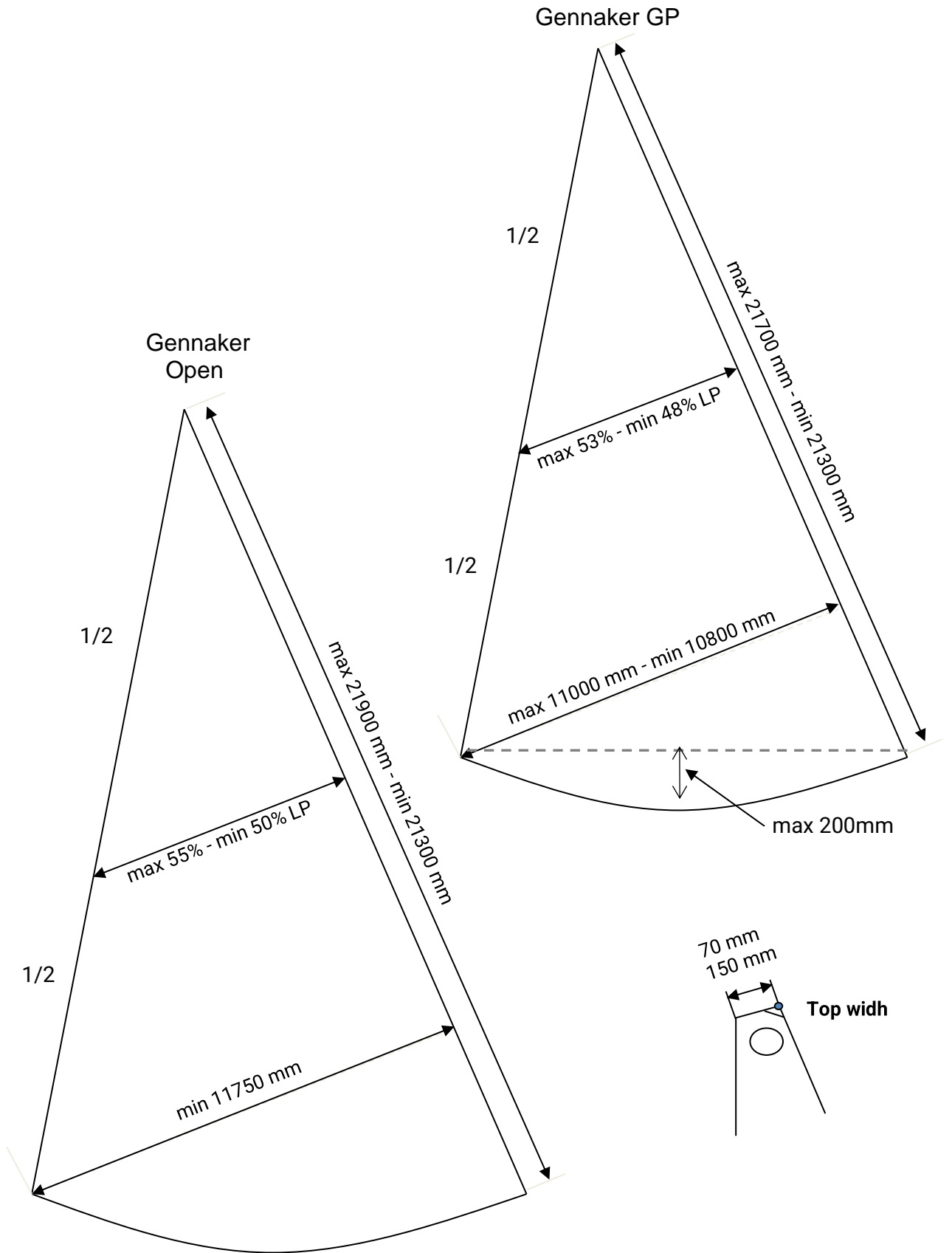
A.2.1 Genoa



A.2.2 Jibs



A.3 GENNAKERS

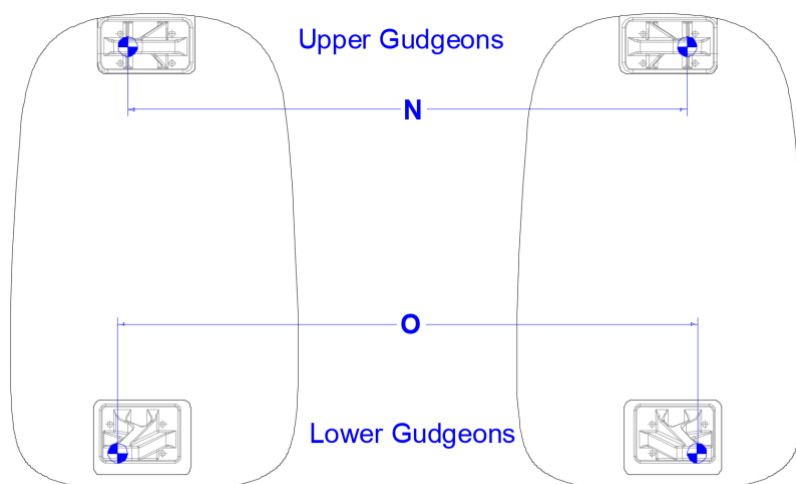
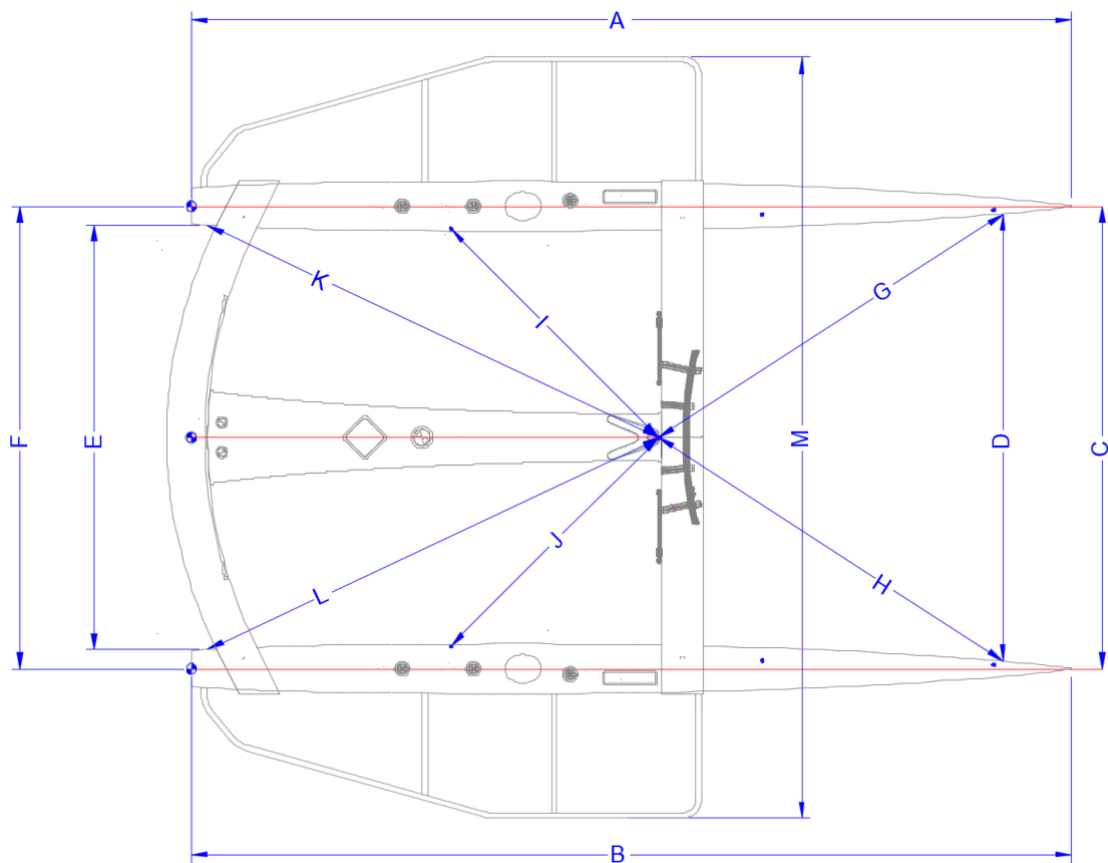


Appendix B

HULLS, POD, BEAMS, CORRECTOR WEIGHTS

B.1 DIMENSIONS

B.1.1 HULL DIAGRAM



B.1.3 TOLERANCES

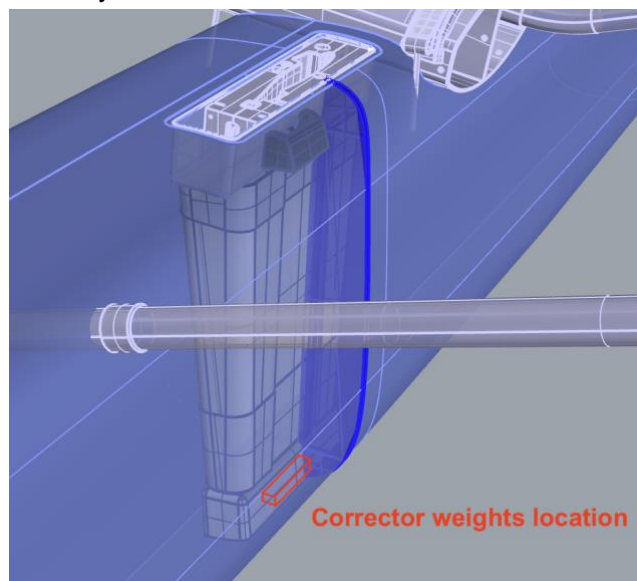
- (a) The Licensed Builder shall record all dimensions listed in B.1.1 as shown on the drawing. Methods of measurement see TF35 Measurement Manual.
- (b) All dimensions are in mm

B.1.4 DIMENSIONS

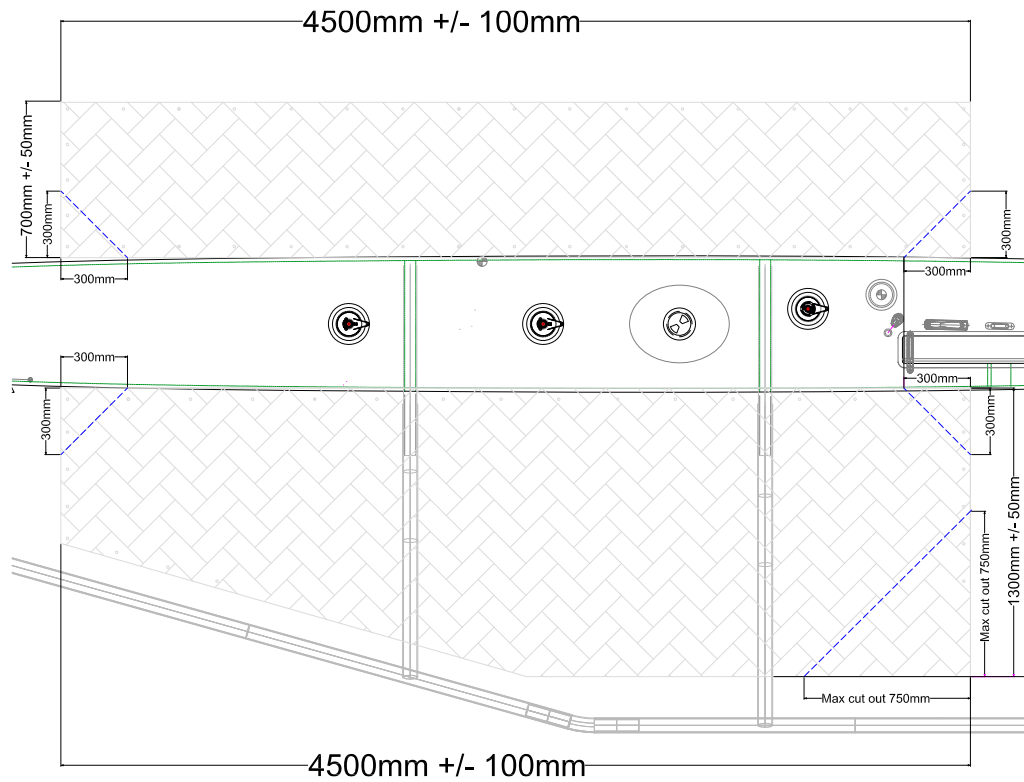
	Min.	Max.
A	-	10850mm
B	-	10850mm
C	5685mm	5700mm
D	5520mm	5530mm
E	5234mm	5238mm
F	5698mm	5704mm
G	5130mm	5138mm
H	5130mm	5138mm
I	3660mm	3670mm
J	3660mm	3670mm
K	6210mm	6220mm
L	6210mm	6220mm
M	-	9375mm
N	5775mm	5780mm
O	5800mm	5805mm

B.2 CORRECTOR WEIGHTS POSITIONS AND WEIGHTS

The pair(s) of corrector weights calculated in accordance with rule C.7.3 shall be positioned and permanently fastened to the liner.



B.3 SPRAY PROTECTION DIMENSIONS



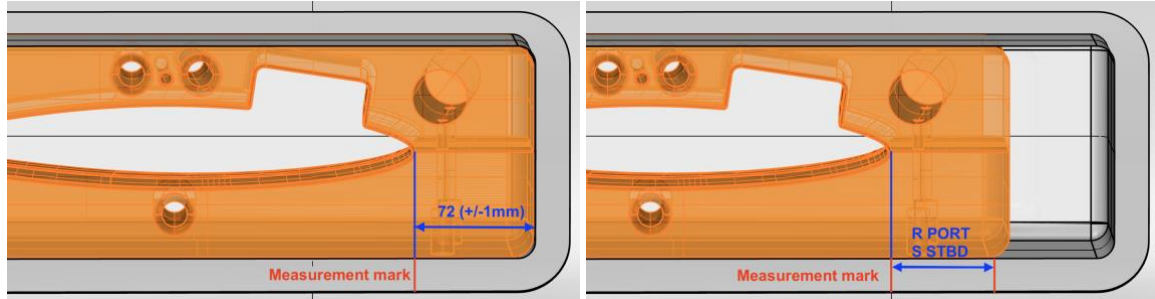
- 300mm cut out are allowed on all corners along the hulls
- A max 750mm cut out on the forward outboard part of the rack spray protection is allowed.

Appendix C

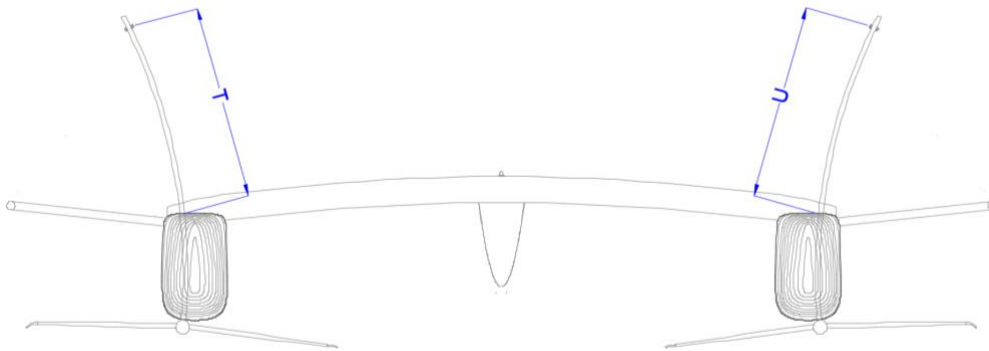
C.1 FOIL POSITION

C.1.1 FOIL POSITION DIAGRAM

Upper bearings measurement



Limit lines



C.1.2 TOLERANCES

- The foil shall be located in accordance with the diagram above in accordance within the tolerances detailed in the table below.
- All dimensions are in mm.
- T and U are the distances between the top of the foil bearing and the axis of the rear bumper screw. Top bearing shall be in its maximum forward position.
- R and S are the displacement of the top boards bearings.

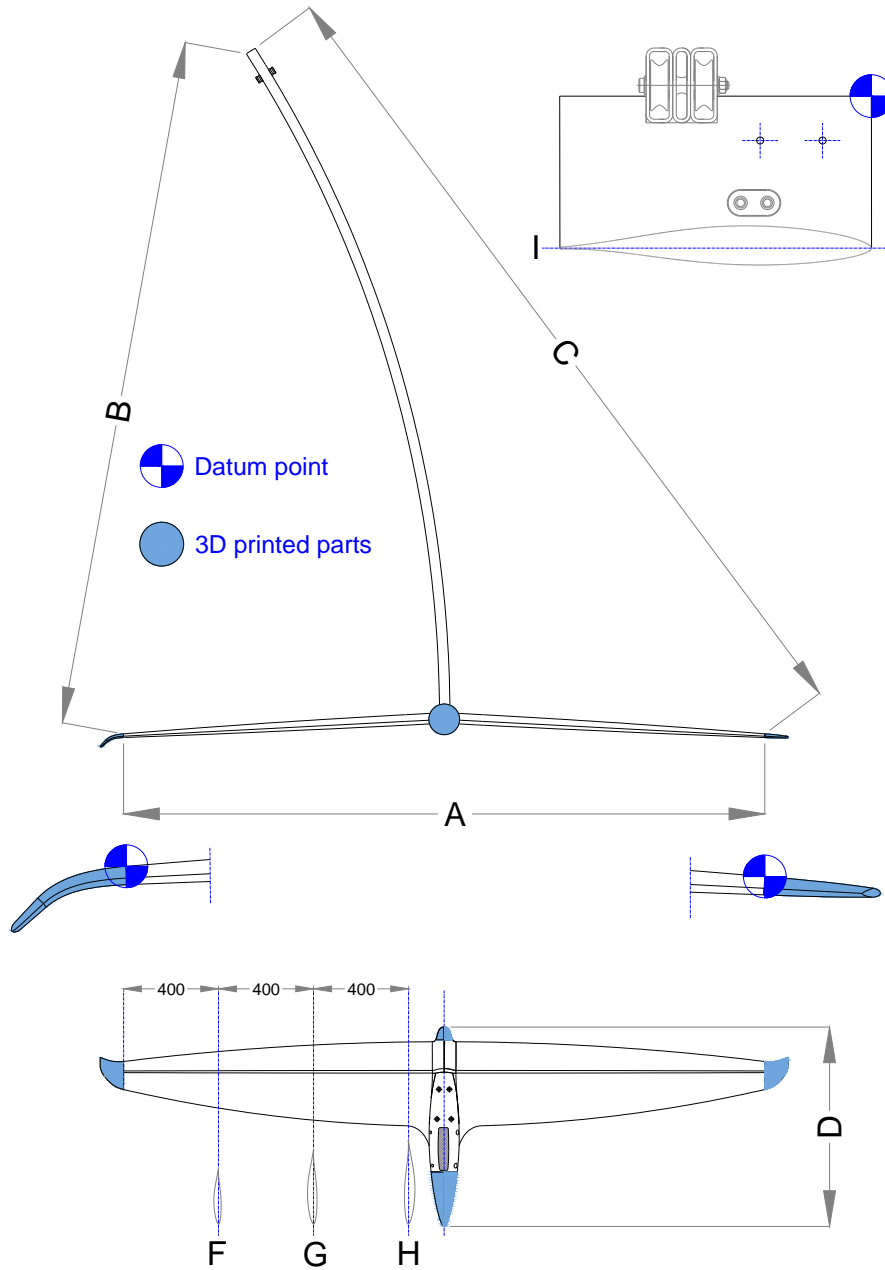
C.1.3 DIMENSIONS

	Min.	Max.	Note
R	77mm	79mm	
S	77mm	79mm	
T		1760mm	Limit line
U		1760mm	Limit line

Appendix D

D.1 DAGGERBOARD / T-FOIL

D.1.1 T-FOIL DIAGRAM + LOCATION OF THE TEMPLATES



D.1.2 FOIL AND OFFSETS

	Min.	Max.
A	2698 mm	2702 mm
B	TBD	TBD
C	TBD	TBD
D	838 mm	842 mm

DAGGERBOARD

Section	Chord length	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
F	238.1	1.0	3.7	9.8	17.1	23.8	28.5	30.6	29.7	26.2	17.1
G	316.5	1.0	4.7	12.7	22.4	31.2	37.4	40.1	38.9	34.3	25.1
H	353.1	1.0	5.2	14.0	24.6	34.2	40.9	43.8	42.5	37.4	23.3
I	350.0	2.0	6.2	15.0	25.4	34.8	41.3	44.1	42.7	37.4	27.3

- I is the constant profile of the daggerboard
- All dimensions are in mm.
- Profile tolerance is $\pm 0,5\text{mm}$.
- Measurement at 100% (trailing edge) is a minimum

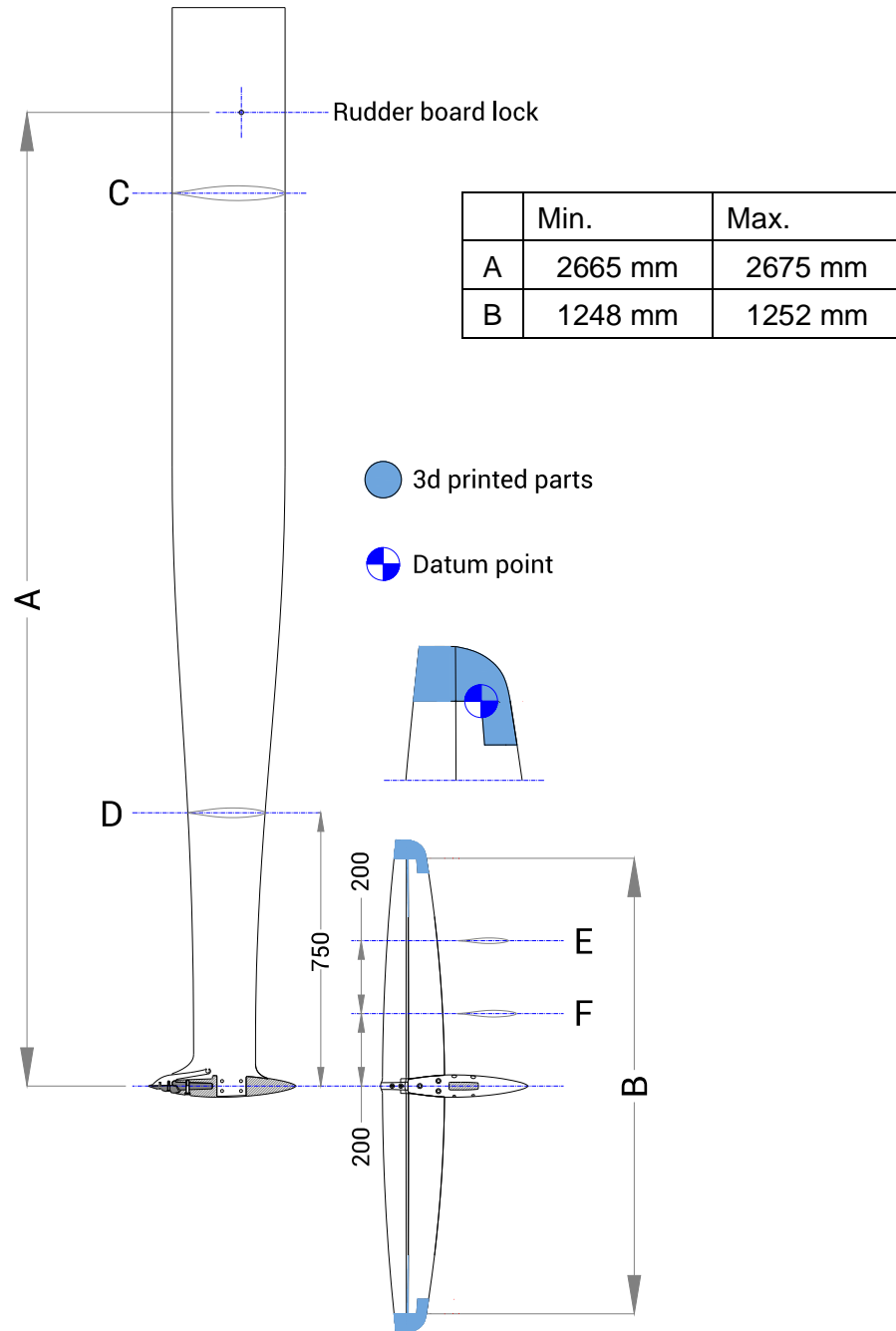
D.1.3 T-FOIL MAINTENANCE

- Filling the bulb fastener housings is allowed.
- Fairing the joint between the bulb and the daggerboard with soft material only is allowed.
- Adjusting and fairing the one-design 3d printed parts and covers, supplied by Foiler Lémanique SA, to the bulb, foil and daggerboard is allowed.
- Painting the daggerboard and other carbon fiber parts with Durepox is allowed. Maximum allowed paint thickness is 0,2mm.
- Painting the bulbs with Durepox is allowed. Maximum allowed paint thickness is 0,2mm.

Appendix E

E.1 RUDDER and ELAVATOR

E.1.1 RUDDER AND ELEVATOR DIAGRAM + TEMPLATE POSITIONS



E.1.2 RUDDER AND ELEVATOR OFFSETS

Section	Chord length	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
C	310.0	1.2	9.5	19.5	29.0	36.0	39.7	40.4	38.2	33.1	23.9
D	212.1	1.2	6.6	13.1	19.3	23.8	26.2	26.6	25.2	21.8	15.7
E	137.0	1.0	2.4	5.4	9.0	12.2	14.5	15.4	14.9	13.0	9.4
F	162.1	1.0	2.7	6.3	10.6	14.5	17.3	18.4	17.8	15.5	11.3

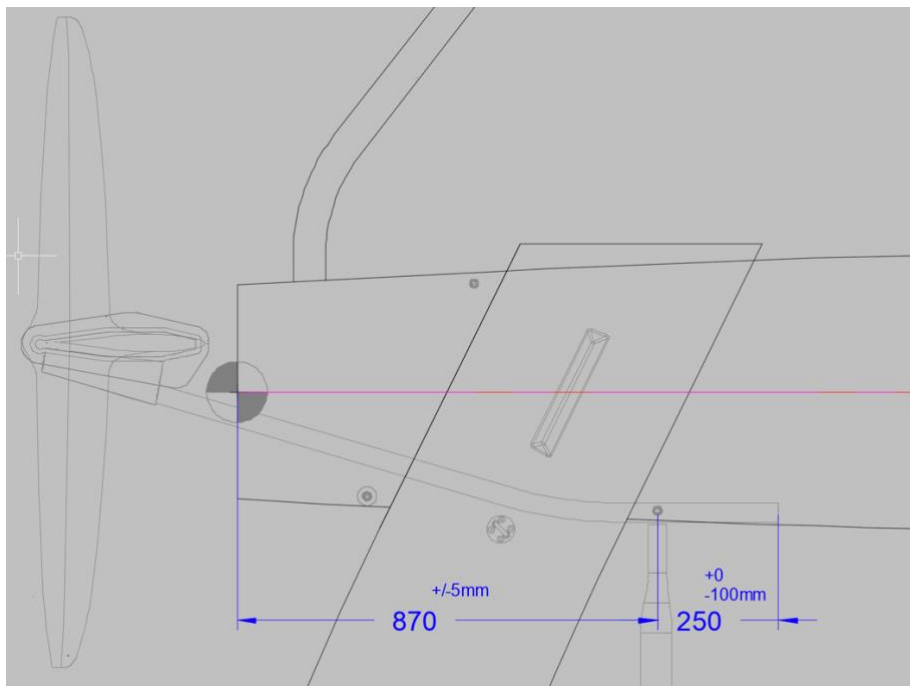
- All dimensions are in mm.
- Profile tolerance is $\pm 0,5\text{mm}$.
- Measurement at 100% (trailing edge) is a minimum

E.1.3 RUDDER AND ELEVATOR MAINTENANCE

- Fairing the bulb fastener housings is allowed.
- Fairing the joint between the bulb and the rudder with soft material only is allowed.
- Adjusting the one-design 3d printed parts supplied by Foiler Lémanique SA to the elevators is allowed.
- Painting the rudder with Durepox only is allowed. Maximum allowed paint thickness is 0,2mm.
- Painting the rudder, elevator and other carbon fiber parts with Durepox is allowed. Maximum allowed paint thickness is 0,2mm.
- Painting the bulbs with Durepox is allowed. Maximum allowed paint thickness is 0,2mm.

E.1.4 CROSSBAR POSITION

- The distance between the center of the steering crossbar and the forward end of the tiller shall be minimum 150mm and maximum 250mm.
- The position of center of the steering crossbar on the tiller shall be 870mm \pm 5mm from the aft of the hull.

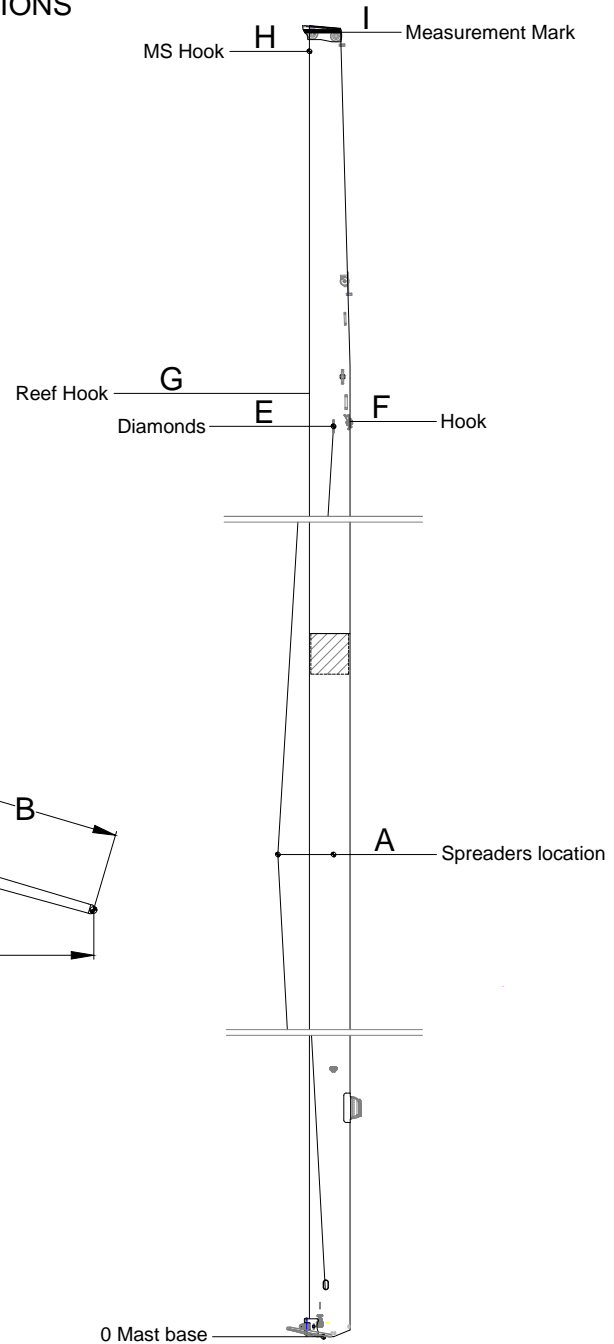
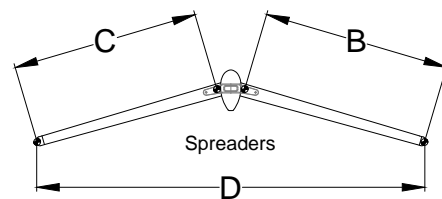


Appendix F

F.1 RIG

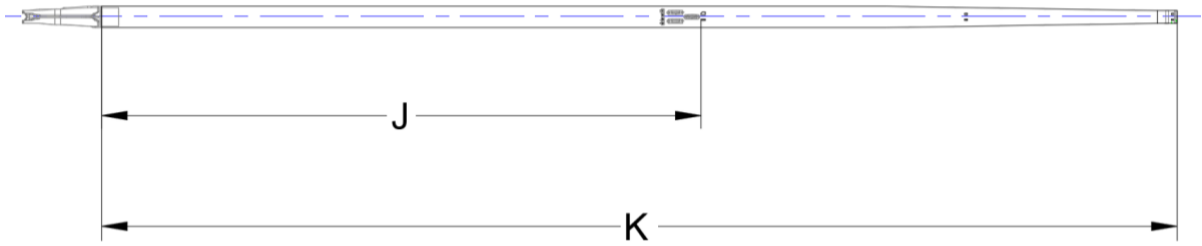
For mast, boom, bowsprit details, see Lorima Information Notice-B. This document is part of the Class Rules.

F.1.1 MAST DIAGRAM AND DIMENSIONS



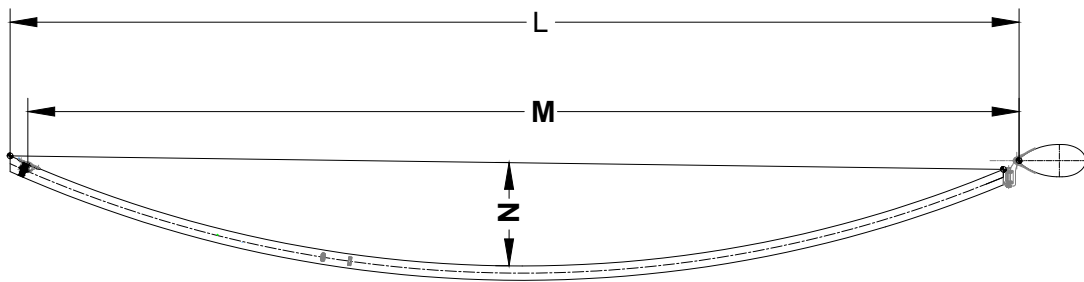
	Min.	Max.
A	8191mm	8201mm
B	1653mm	1663mm
C	1653mm	1663mm
D	3389mm	3439mm
E	16346mm	16363mm
F	16378mm	16394mm
G	16636mm	16652mm
H	19667mm	19683mm
I	-	19855mm

F.1.2 BOWSPRIT DIAGRAM AND DIMENSIONS



	minimum	maximum
Bowsprit length (shortest distance from the aft part of the bowsprit to bowsprit outer point) (k)	8166mm	8176mm
Headstay bearing point (J)	4548mm	4558mm

F.1.3 BOOM DIAGRAM AND DIMENSIONS



	minimum	maximum
Outer limit mark width	30 mm	
Outer point distance (M)	5523mm	5533 mm
Boom full length (L)	5633mm	5643 mm
Boom spare curvature (N)	567 mm	577 mm

Appendix G

G.1 CLASS INSIGNIA & IDENTIFICATION

G.1.a Shape, colors and dimensions of the TF35 Insignia

Red: Scotchcal : 100-466; RAL : 3020

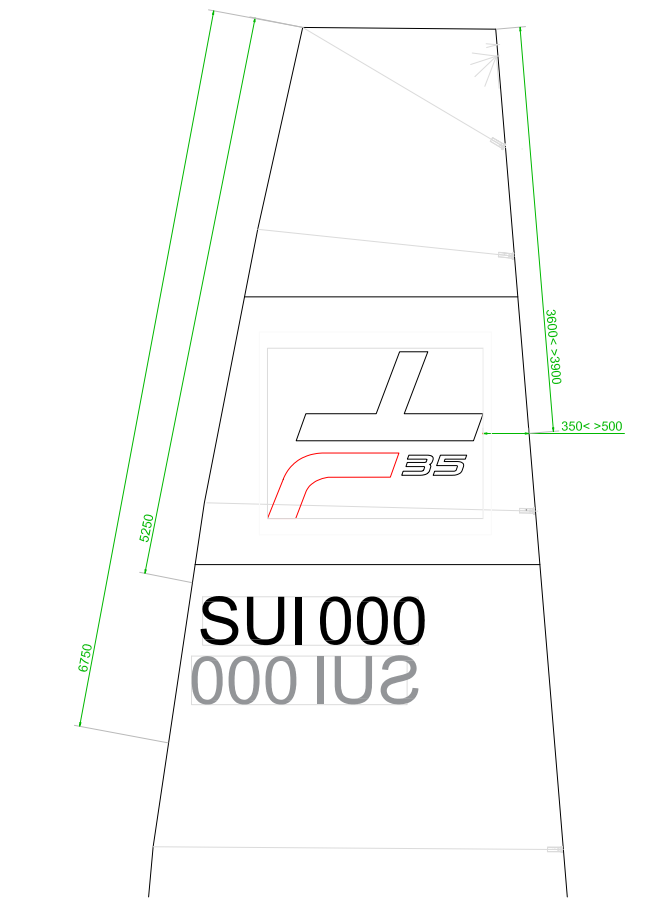
White: Scotchcal : 100-20; RAL : White

Class Insigna dimensions: 200cm x 158cm



G.1.b Position on sail of the Class Insignia & Sail Number:

- (a) Centerline of the insignia between 3600mm and 3900mm from the head of the sail and from 350mm to 500mm from the luff of the mainsail
- (b) The two Class Insignia shall be positioned back to back.
- (c) The national letters and sail numbers shall be positioned horizontally between 5250mm and 6750mm from the aft head point of the mainsail



Appendix H – HARDWARE AND FITTINGS

The lists hereafter will be periodically updated to follow manufacturer's catalogues evolution.

The updated list is published on the TF35 website: www.tf35.org.

Any item listed in Appendix H shall be on board on its designed position. Adding extra items on a sheet or halyard without the prior approval of the TC is not allowed.

H.1 RUNNING RIGGING

Description	Diameter minimum [mm]	Cover
Mainsail		
halyard	6	no
sheet	8	no
sheet to winch	10	yes
traveler GV	10	yes
cunningham purchase	6	yes
cunningham cascade	4	no
outhaul purchase	6	yes
Jib		
halyard	6	no
sheet	8	no
jib & drifter car in/out	6	yes
jib cunningham purchase	6	yes
Gennaker		
halyard	10	no
sheet	8	no
furler	8	yes
Drifter		
halyard	10	no
sheet	10	no
furler	8	yes
Boards		
board down	7	yes
Board up	7	yes
board up stopper	4	no
rake control	6	yes
Mast rotation		
Mast rotation control	6	yes
Net		
As supplied by Iroise rigging	2,7	no
Net catenary	6	no

Definitions:

- All lines shall meet minimum diameter stated above, throughout its entire used length.
- Minimum rope size applies to the outside diameter of a covered rope (if a covered is indicated in the table above). There is no minimum length for the lines.
- Adding a cover to running rigging elements described as core only is permitted. The minimum diameter requirement shall apply to the core in this case.
- Except for the Gennaker and Mainsail sheets or Mainsail traveler, covers shall not be manufactured with PBO.
- Diameter of the lines not listed in the table above is free.

H.2 HARDWARE

When a purchase ratio is mentioned in the above table, it is a maximum ratio.

Description	Builder	Spec / prt #:	Quantity boat	Wkr.Ld [kg]	Break Load [kg]	Weight [kg]	additional specs
Winches							
Mainsheet winch	Harken	F84395001	2			5,3	Hk 50.2
Traveller Winch	Harken	F84395001	2			5,3	Hk 50.2
Primary Winch	Harken	F84782601	2			6,2	Hk 50.3
Winch Handles 10'	Lewmar	L29140046	4			0,6	simple
Winch Handles 10'	Lewmar	L29140048	2			0,74	double

Mainsheet System

Traveller track	Harken	C14639	1	18	45	3,096	3m long CRX
Traveller car	Harken	C8728	2	1497	2994	0,295	32mm CRX Loop Car 1,5T
End stop	Harken	C14670	2			0,1	set of 2
Block under boom	Ronstan Harken	RF79109A or 3395AL	1	3100 3000	7750 6000	0,31 0,124	75mm Orbit Bkl HL V-block 3T AL
Block on car ¹	Ronstan Harken	RF79109A or 3395AL	2	3100 3000	7750 6000	0,31 0,124	75mm Orbit Bkl HL V-block 3T AL
Trav blk on car	Ronstan	RF69109	2	1800	4000	0,148	60mm Orbit Bkl
Trav blk track end	Ronstan	RF69109	2	1800	4000	0,148	60mm Orbit Bkl
Floating block on deck	Ronstan Harken	RF69109 or 3395AL	1	1800 3000	4000 6000	0,148 0,124	60mm Orbit Bkl V-block 3T AL
Turning blocks	Ronstan	RF69109	2	1800	4000	0,148	60mm Orbit Bkl

1. One block may be replaced by a 14X20mm low friction ring

Jib Sheet System

Jib track	Harken	R32HB.2.1m	1	11	15	2,04	R32HB high beam track with bend
Jib car	Harken	T3205B	1	1361	3175	0,579	Loop car
End stop	Harken	562	1				set of 2
Jib block on car	Ronstan Harken	RF69109 or 3295AL	1	1800 1500	4000 3000	0,148 0,095	60mm Orbit Bkl V-block 1,5T AL
Floating block 2 (2:1 on sprite)	Ronstan	RF69109	1	1800	4000	0,148	60mm Orbit Bkl
Deck ring	Antal	R10.07	2	800	0	0,005	10mm rope
Jammer	Spinlock	XTR 0812-HS	1	1000		0,34	
Jammer	Spinlock	XTR 0812-HP	1	1000		0,34	
Jammer C-plate	Carbon Werke	custom	2			0,1	custom 6mm C-plate
Jib Cunningham	Max purchase ratio 16:1		Fittings are free, items below are recommended				
Jib Cuni 1st blk in sprit	Harken	2173	1	650	1300	0,062	40 mm Fly™ Block
Jib Cuni 2nd blk in sprit	Harken	2171	1	350	700	0,026	29 mm Fly™ Block
Jib Cuni fly blk on pod	Harken	2171	1	350	700	0,026	29 mm Fly™ Block,
Jib Cuni blk on padeye	Harken	6236	1	272	544	0,23	45 mm Swivel, Becket, Cam Cleat
Jib & Genoa in/out system	Max purchase ratio 6:1		Fittings are free				
Jib in/out, 14mm ring on alu part	Wichard	WI21510	1	1600	3200	0,012	friction ring lashed on alu part
Cleats for lateral adj	Harken	496	2	136		0,137	Kit — Fast Release Fairlead
Foot blk for lateral adj	Harken	6237	2	700	1400	0,1	

Gennaker system

Gennaker Block aft beam	Ronstan Harken	RF69109 or RF79109A or 3395AL	2	1800 3100 3000	4000 7750 6000	0,148 0,21 0,124	60mm Orbit Bkl or 75mm Orbit Bkl HL V-block 3T AL
Furler	KZ or ProFurl	KZ2FI-N200 ProFurl NEX 2,5	1	2000 2500		1,09 1,104	
Swivel	KZ or ProFurl	KZ2H-SN- F200 ProFurl NEX 2,5	1	2000 2500		0,392 0,435	

Genoa System

Genoa track	Harken	R27.1M	2			0,062	
Genoa car	Harken	T2705B	2	816	2268	0,285	27 mm Loop Car
Track end fitting	Harken	E2700	2				set of 2
Genoa block on car	Ronstan	RF69109	2	1800	4000	0,148	60mm Orbit Bkl
Furler	ProFurl	ProFurl NEX 2,5	1	2500		1,104	
Swivel	ProFurl	ProFurl NEX 2,5	1	2500		0,435	
Sheet line aft beam	Ronstan	RF69109	2	1800	4000	0,148	60mm sheave, Orbit Bkl

All Genoa fittings and associated lines can be removed during GP sailing

Board / Bearing syst. / Rudder

Shv. On top of brd	Harken	727	4	2245	4491	0,113	57 mm High-Load Sheave
Padeye	Spinlock	PD/6C	6	2150		0,075	
Deck block in board case	Antal	00711	2	1300		0,160	
Floating block	Ronstan	RF69109	2	1800	4000	0,148	60mm Orbit Bkl
Thru deck/mast block	Antal	00618	2	1300		0,15	-
Down line stopper	Spinlock	XXA 0812	2	590		1,052	
Down line blk after stopper	Ronstan Harken	RF69109 or 3395AL	2	1800 3000	4000 6000	0,148 0,124	60mm Orbit Bkl V-block 3T AL
Padeye behind the stopper	Ino-rope	Ino-padeye 1,8T	2	1800		0,056	
Snubber	Karver	Karver	2	2500		0,38	
Fix point on board	Wichard	9203	2		2400	0,016	
Footblock on board	Antal	0511	2	600		0,062	
Blk on top of the lift pole	Lewmar	L29195047	4	800	1600	0,11	
Alu part on top of lift pole	ProgramSA	custom	2			0,1	custom
Lifting Pole	Exploder	Custom	2				custom
Blk on bottom of the lift pole	Ronstan or Lewmar	RF69109 L29195047	2	1800 800	4000 1600	0,148 0,11	60mm Orbit Bkl
Cleat for lifting system	Harken	150	2	136	340	0,071	
Top bearing stoppers C-plate	Carbon Werke	custom	2			0,1	custom 6mm C-plate
Foil Top bearing	ProgramSA	custom	1				
Foil bottom bearing	ProgramSA	custom	1				
C-Foil Top bearing	ProgramSA	custom	1				
C-Foil bottom bearing	ProgramSA	custom	1				
3d printed parts	FLSA	custom	12				custom
Rake system	Karver/ FLSA	PF0366137	2				
Rudder cassette bearings	Minebea	ABT10	4			0,054	

Mast

Mainsail halyard sheave	Lorima	custom	1				sheave 100X23X22
Mainsail track	Karver	K0140	1				
Mainsail Lock	Karver	KMS40	1			0,136	
GNK halyard sheave	Lorima	custom	1				sheave 100X23X22
Drifter halyard sheave	Antal	0818/Z	1				80mm sheave box
Jib lock	Karver	KMH2	1	2000		0,37	PF370002
Jib halyard cleat	Harken	496	2	136		0,137	Kit — Fast Release Fairlead
GNK & Genoa Clutch on Mast	Spinlock or Cousin	XXB 0812 CU12 or 14	2	1800 1800		1,052 0,340	Constrictor 12mm
Blocks for halyards	Ronstan	RF79109A	2	2200	4500	0,226	
Mast rotation controls:							
Fiddle becket blk	Harken	6234	2	550	1100	0,245	45 mm Swivel, Becket, Cam Cleat
Fiddle blk	Harken	6232	2	700	1400	0,126	45 mm Swivel
Mainsail Cunningham Ratio 1:32							
Solid sheave	Lorima	Custom	1				
1st stage	Ronstan	RF69109	1	1800	4000	0,148	60mm Orbit Bkl
2nd stage	Ronstan	RF69109	1	1800	4000	0,148	60mm Orbit Bkl
3rd stage	Karver	KBO6, PF800030	3	600	1200	0,047	
Flip-flop blocks ¹	Harken	2156	2	136	430	0,186	40 mm Pivoting Lead Block — cleat

1. The 150 clam cleat for the Cuningham may be placed next to the jib in/out control on the Genoa track plate.
2. The inflatable bag on the top of the mast and related fairings may be removed.

For mast information details, see Lorima Information Notice-B. This document is part of the Class Rules
All Genoa fittings and associated lines can be removed during GP sailing

Boom & Bowsprit

As per Lorima Information Notice-B	Lorima	26.02.20					
Outhaul purchase ratio shall be 8:1, fittings is free							

Misc. Bits on hulls, pod and beams

Central padeye on pod	Lewmar	L29904060	1	3200	6400	0,154	
Padeye for Jib and drifter purchase	Ino-rope	Ino-padeye 0,8T	3	800		0,026	
2 sheave deck organiser	Antal	D420	1	800	1000	0,18	40mm Organizer – 2 Sheave
Padeye lateral rigging	Ino-rope	IP8	2	3000	6000	0,018	
Padeye lateral trampoline	Ino-rope	IP8	2	3000	6000	0,018	
Schroud chainplate padeye	Spinlock	PD/10C	2	7600	0	0,255	
Net Padeye under beams	Lewmar	L29904060	4	3200	6400	0,154	
Hatches on Pod (for bolting)	Barton	40041 (black)	4			0,084	Cut-out dia. 114mm
Hatches on hull deck	Barton	40041 (black)	2			0,084	Cut-out dia. 114mm
Hatch dia.200mm on Pod	Barton	40081 (black)	1			0,400	Cut-out dia. 215mm
Snatch blocks for flight control cables	Lewmar	L29900340	4	140	475	0,078	40Mm Tweeker/Snatch

H.3 STANDING RIGGING & LOOPS

H.3 (a) Standing Rigging

Description	Builder	Supplier	Spec / prt #:	Quantity boat	additional specs
Forestay	Maffioli	Iroise	GREETAITF35	1	DM20 - GM2016
Shrouds	Future Fibres	Iroise		2	ZYLON - GMZ026
Carbon diamond	Future Fibres	Iroise	GREEDIATF35	2	Carbon T-800 EC6
Bowsprit Lateral 1	Maffioli	Iroise	GMY012	2	DSK99, 2530mm
Bowsprit Lateral 2	Maffioli	Iroise	GMY011	2	DSK99, 4960mm
Bowsprit spine	Future Fibres	Lorima	TF35 RAZR	1	Solid carbon rigging

H.3 (b) Loops

Loops Iroise Rigging	Material	Diameter [mm]	Lenght [mm]	Quantity / boat
Shroud	DSK78	3x5, Ø14	630	2
Forestay upper	DSK78	3x5, Ø14	650	1
Diamond upper	DSK78	3x3,5, Ø11	500	2
Diamond lower	DSK78	3x3,5, Ø11	350	2

H.4 FLIGHT ASSISTANCE SYSTEM

Description	Builder	Quantity / boat
IMU	SBG systems	1
GPS antenna	Tallysman	2
Height sensor	Senix	2
Rake sensor	Honeywell	2
Board down sensor	SIK	2
EXOCET GOLD TF35	Pixel sur Mer	1
EXOCET RED - Servo command	Pixel sur Mer	4
4G & Wifi	Teltonika Networks	1
6 boutons	Blink Marine	2
4 boutons	Blink Marine	2
B&G display	B&G	2
Battery pack	Pixel sur Mer	1
Harness and connectors	FLSA	1
Foils engine	Thomson	2
Rudders engine	Linak	2
Software	Foiler Lémanique SA	1

Use of the electronic devices while racing:

- a) Logging data on an appropriate device is allowed
- b) The transmission or reception of data to and from the boat is forbidden

Effective Date: 1ST FEBRUARY 2023