

Measurement Instructions

Addendum to

IFDCO CLASS RULES

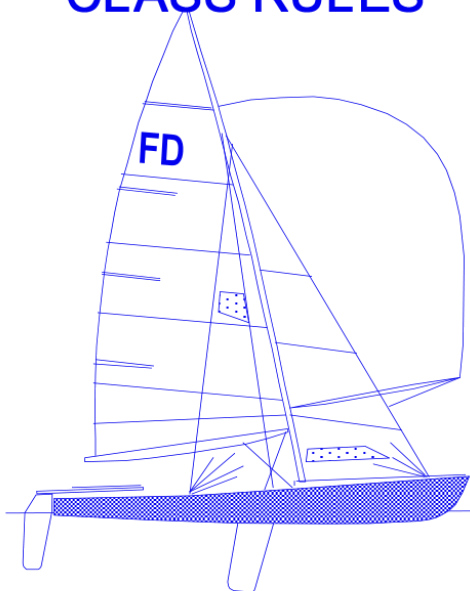
Effective Date: March 2026

Status: Final

THE INTERNATIONAL

FLYING DUTCHMAN

CLASS RULES



MARCH 2026



The Flying Dutchman was designed in 1951 by Conrad Gulcher & Uus Van Essen and was adopted as an international class in 1952. The FD was the Olympic two-person dinghy from 1960 to 1992.

Measurement instructions

Addendum to IFDCO CLASS RULES

Valid from 1 March 2026

INTRODUCTION	4
PART III – TECHNICAL SPECIFICATIONS	5
SECTION D - HULL	5
D.1 General	5
D.2 Builders	6
D.3 Hull	7
SECTION E - TRAPEZE AND APPENDAGES	15
E.1 Trapeze	15
E.2 Centerboard (See Appendix F)	16
E.3 Rudder (See Appendix F)	17
SECTION F - SPARS AND RIGGING	18
F.1 Mast	18
F.2 Boom	20
F.3 Spinnaker pole	21
SECTION G - SAILS	21
G.1 Parts	21
G.2 General	21
G.3 Mainsail (See Appendices G and H)	22
G.4 Jib/Genoa (Note Rules D.3.17 and D.3.18 are repeated for convenience)	23
G.5 Spinnaker (See Appendix I)	23
APPENDICES	25
Equipment required for measurement	25
Appendix A: Advertising	26
Appendix B: Measurement Plan	27
Appendix C: Genoa Sheet Fairlead	28
Appendix D: Jib/Genoa	29
Appendix E: Genoa, Mast and Boom	30
Appendix F: Centerboard and Rudder	31
Appendix G: Mainsail	32
Appendix H: Mainsail	33

Appendix I: Spinnaker	34
Appendix J: Full size drawing	35
Appendix K: Line Planes	36
Appendix L: Table of Offsets	37

Introduction

The International Class Rules of the Flying Dutchman are established as open class rules. The class has a long-standing tradition of development, in which modifications to existing boats and the construction of new boats are common practice. New boats may be built both by certified builders and by builders without a licence, in accordance with rule D.2.1 of the IFDCO Class Rules.

The Class considers it essential that both builders and sailors retain the freedom to make modifications, provided these remain within the applicable Class Rules. In the interest of transparency and clarity, this document sets out the measurement procedures applied within the class. By doing so, it aims to provide guidance and to prevent misunderstandings regarding compliance with the Class Rules.

In these Measurement Instructions, you will find a copy from the IFDCO Class Rules: **Part III – Technical Specifications**, supplemented with the instructions shown in blue.

These Measurement Instructions constitute an addendum to the International Class Rules and are intended solely as a supplementary document. In the event of any discrepancy, inconsistency, or dispute between these Measurement Instructions and the Class Rules, the International Class Rules shall at all times prevail.

PART III – TECHNICAL SPECIFICATIONS

Expensive Materials

Unusually expensive materials or equipment shall be deemed to be contrary to the spirit of the class and may be prohibited. Before using such materials and/or equipment, permission must be obtained from the General Committee of the IFDCO. Composite materials such as those incorporating boron and other materials of limited availability are prohibited. Carbon fibre (Fibre of graphite) and/or aromatic polyamides (aramids) such as Kevlar (Dupont trade name) are prohibited in the body of the sail.

SECTION D - HULL

D.1 General

D.1.1 The hull shall comply with the **class rules** and official plans in force at the time of initial certification, but all **fittings** shall comply with the current rules.

D.1.2 Hull measurement procedures

- (a) Boats shall be measured with official certified full FD **templates**, including their matched tie bars. The set number of the **templates** used for fundamental measurement shall be recorded on the measurement form.
- (b) The Flying Dutchman lines are specified by offsets in vertical and waterline planes. The Construction Water Line (CWL) intersects the **keel line** at **stations** 0 and 10, thus the **Hull Datum Point (HDP)**, which is at the intersection of the plane of the transom and the **keel line** is 11 mm above the origin, which is on the CWL. The planes of the measurement **templates**, which are determined by points measured along the **keel line** and **sheerline**, are therefore only ideally at the **station** planes.
- (c) The official **templates** will be issued by the IFDCO and World Sailing, and consist of 6 Hull shape **templates** with tie bars, 1 Stem **template**, 1 Transom angle-height **template** and 1 Sheer guard **template**. Each **template** must have the serial number of the set, must have been certified as correct and identified as such by a special mark made by the person appointed by IFDCO to check the **templates**.

- (d) If measurers find deviations which do not contravene the exact letter of the rules but which might contravene the spirit of the rules, they must, before signing the measurement form, submit the matter to the IFDCO Executive Committee.
- (e) Only the IFDCO Executive committee can decide to give a waiver for a rule on which a boat deviates. The deviation and waiver are to be noted and countersigned by the IFDCO Chief measurer on the **(electronic) certificate** before the **certificate** can be issued and become valid.
- (f) The General Committee of the IFDCO reserves the right to exclude a boat from racing even if it measures within the letter of these **class rules**, if the owner or builder has taken advantage of a loophole in the rules in order to build a boat which is different in shape and/or weight of hull, **centerboard**, **rudder**, **mast** or sail plan, from the plans of the class.

D.2 Builders

- D.2.1 Yachts of the Flying Dutchman Class may be built by any yard that has paid the required annual fee and acquired a license from World Sailing Ltd. On request, and after advice from IFDCO, builders who do not build more than two Flying Dutchman a year shall receive a free license from World Sailing Ltd. Yards and amateurs building shells only do not need a license.
- D.2.2 The International Class Fee will be set by World Sailing in conjunction with IFDCO. Payment has to be directed to World Sailing Ltd. As receipt for the International Class Fee payment, a numbered WS plaque will be sent by World Sailing and must be glued to the boat before Fundamental measurement:
 - (a) To the starboard forward bulkhead (just forward of the **mast**), or if this is not possible:
 - (b) To the starboard aft side of the aft bulkhead of a half double bottom, or if this is not possible:
 - (c) To the starboard side of the hog (vertical inner keel) about 300 mm from the transom, or if this is not possible:
 - (d) To the aft bulkhead of the cockpit.

D.3 Hull

D.3.1 Deviations from the tolerances due to fair wear and damage, which do not affect the performance of the boat, shall not invalidate a **certificate** for a particular race, but shall be repaired, and put right as soon as possible.

D.3.2 Within the tolerances allowed, the hull shape must conform to the Mylar plan of the sections, stem and transom at full size and the master plan of lines and verticals to be controlled by the table of offsets. The skin curvature radius must not be less than a minimum of 75 mm, except within 100 mm from the keel band. Hollows exceeding 1 mm in depth in the keel or in the hull surface aft of section 7 are not allowed. (For the lines plan see Appendices J and K, and for the table of Offsets see Appendix L)

	Minimum	Maximum
Skin Curvature radius, except within 100 mm of keel	75 mm	
Hollows aft of station 7		1 mm

D.3.3 Overall hull length, measured along the **deck line**, is to be between 6040 mm and 6070 mm.

	Minimum	Maximum
Hull length along deck line	6040 mm	6070 mm

D.3.4 Body sections: transom, 1, 3, 5, 7 and 9 must be verified with official numbered **templates** applied in the manner shown in the measurement plan.

Tolerances: For the sections: transom, 1, 3, 5 and 7, the negative deviation must not exceed a maximum of 12.5 mm per section. For section 9, the positive deviation must not exceed a maximum of 12.5 mm. Boats built after 1 November 1981 have to conform to this rule.

Template gaps, measured in the template plane	Minimum	Maximum
Sections: transom, 1, 3, 5 & 7	12.5 mm	25.0 mm
Section 9	0 mm	12.5 mm

Instruction: See Measurement Plan. For sections transom, 1, 3, 5 and 7, the gap between **template** and hull must be between a maximum of 25 mm and a minimum of 12.5 mm. For section 9, the gap must be between a maximum of 12.5 mm and a minimum of 0 mm (i.e., **templates** touching the hull).

D.3.5 **Sheerline** height: The tolerance is plus 12 mm and minus 6 mm.

	Minimum	Maximum
Sheerline height tolerance	-6 mm	12 mm

Instruction: Template Position and Measuring method

a. After measuring the length, the hull is turned upside down and supported on trestles. The positions of the **stations** at the keel and the **sheerline** are to be determined by taking the following measurements from the outside of the transom along the keel and along the skin under the sheer guard.

Station	1	2	3	4	5	6	7	8	9
Keel line mark	732	1283	1835	2385	2936	3486	4036	4587	5137
Sheerline mark	745		1856		2958		4068		5210

b. Check at the same time the position and width of the **centerboard** slot (Rule D.3.12). The **station templates** are set up on the keel and **sheerline** positions as found above (3 points per **station**). The adjustable lugs near the **sheerline** must be adjusted to have equal gaps on both sides between shell and **template** with the **template** center at the center of the keel band, or with equal sheer heights, whichever gives better results. One of the studs near the keel must touch the shell, with a tolerance of 2 mm for the other stud.

c. Check with a straight-edge (approx. 1000 mm long) for hollows aft of section 7. Small bumps or cut outs are also prohibited under this rule.

d. The **sheerline** height must be measured where the extended hull shell meets the top of the decking, by taking the vertical distance to the tie bar of the **template**. This distance must not vary more than a maximum of plus 6 mm or minus 12 mm from the distance of the sheer height mark on the **template** to the tie bar, with the exception of the stem **template** (See Rule D.3.6).

D.3.6 Stem, Profile and Height: The gap between the hull and stem **template**, when positioned as per instruction D.3.10 (a), shall be between zero and a maximum of 6 mm. The height of the stem point, i.e. the top of the stem, shall be within plus/minus 6 mm of the mark on the **template**. A bulbous stem is not permitted.

	Minimum	Maximum
Stem template gap	0 mm	6 mm
Stem point height tolerance	-6 mm	+6 mm

D.3.7 Transom: The height of the transom on the centerline, excluding the keel band, shall be between a minimum of 284 mm and a maximum of 296 mm. A hard chine transom is not permitted.

	Minimum	Maximum
Transom height above HDP	284 mm	296 mm

D.3.8 The transom must be placed at the extreme end of the hull and must be vertical to the waterline. The spacing between the transom **template** lug and the baseline controls this, and it must be between 5 mm and 15 mm.

	Minimum	Maximum
Transom template lug to baseline	5 mm	15 mm

D.3.9 No projections or apertures are permitted in the transom within 20 mm of the outside of the hull other than **rudder** pintles and 2 drain holes, each not larger than a maximum of 20 mm diameter. Corks or normal drain hole **fittings** protruding aft of the transom are allowed.

	Minimum	Maximum
Transom drain holes within 20 mm of outside of hull		20 mm

D.3.10 **Keel line** measurements: The shape of the **keel line** shall be checked by measuring the minimum distance to the baseline, which is the line drawn from a point 100 mm under the keel at the transom to a point 120 mm under the keel at **station** 9. These minimum distances, “H” measurements, must be taken at each **station**:

Station	1	2	3	4	5	6	7	8	9
“H”	72	56	45	40	40	46	59	80	120

Tolerance: The absolute value of the algebraic difference between the maximum and minimum deviations including zero at **station 9** must not exceed 12.5 mm.

	Minimum	Maximum
Absolute Diff. between the Max. & Min. H deviations		12.5 mm

Instruction: Measuring Method

a. Put the stem-**template** with its lugs on the stem itself, not on the stem band, and the aft end of the **template** as much forward or aft of **station 9** as the hull is respectively longer or shorter than 6055 mm overall (measured under D.3.3). The gap between the **template** and the stem is nowhere to exceed a maximum of 6 mm or be less than zero.

b. For measuring the height of the stem, the lugs must be placed on the stem itself, not on the stem band. (If the stem band is not visible a minimum thickness of 3 mm, together with a width of 6 mm, shall be accepted as such). The stem point, i.e. the top of the stem must be between the height marks on the **template**.

c. Put the transom height-angle **template** on the bottom of the hull next to the keelband. The top of the transom must then be between the maximum and minimum height marks on the **template**. Then put the transom **template** on the keel (not on the keelband) together with the stem **template** also on the keel. Using the triangular-shaped holes in the **templates**, draw a string tight between the **templates**. This is the baseline. The gap between the lug on the arm of the transom angle **template** and the string must be between 5 and 15 mm (see Appendix B, Measurement Plan for directions).

d. Now take the H measurements between the baseline and the keel.

e. When the thickness of the keelband is consistent, the stem and transom **templates** may be put on the keelband and the H measurements must then be taken between the base line and the keelband.

D.3.11 Keelbands: Keelbands of metal, hardwood, plastic or glass-reinforced plastic must be fitted and must measure between 3 and 10 mm in thickness and between 6 and 15 mm in width. The keelband must run the full length of the hull along the keel including the stem to form a stem band.

If the keelband is faired into the hull so that its width and thickness cannot be determined, the junction between the hull and the keelband shall be taken such that the dimensions of the assumed keelband conform to the above limits, that is, at least 6 mm wide and 3 mm thick.

Adjacent to the **centerboard** slot, the keelband must be duplicated and must clearly overlap the center keelband but by not more than a maximum of 50 mm at each end. Keelband joining fishplates are permitted.

	Minimum	Maximum
Keel band thickness	3 mm	10 mm
Keel band width	6 mm	15 mm
Keel band overlap at C/B slot	0 mm	50 mm

D.3.12 **Centerboard** slot: The aft end of the **centerboard** slot must be between 2000 and 2106 mm and the forward end must be between 3396 and 3408 mm from the transom **station**.

The width of the slot must not exceed a maximum of 40 mm.

	Minimum	Maximum
Aft end of C/B slot to HDP	2000 mm	2106 mm
Forward end of C/B slot to HDP	3396 mm	3408 mm
Width of C/B slot		40 mm

D.3.13 Deck: The deck shall not be higher than the **deck line** and shall be below the **deck line** at the **mast** partners. The **deck line** is the imaginary line between the top of the transom at the centerline and the stem point, that is, the highest point on the deck at the stem. (excluding stem **fittings**).

	Minimum	Maximum
150 mm reference line to deck	150 mm	

Instruction: Erect a taut reference line 150 mm above both the stem point and the top of the transom, i.e. parallel to the **deck line**. The **mast** partners and the rest of the deck must be at least 150 mm below this line.

D.3.14 The depth from the **deck line** to the **keel line** at section 9 must be between a minimum of 603 mm and a maximum of 615 mm.

	Minimum	Maximum
Depth from the deck line to the keel line at section 9	603 mm	615 mm

Instruction: This is checked by applying the **station 9 template** and measuring the distance between the tie bar lower edge, which shall be 90 mm above the **sheerline** marks, and the reference line used for checking the height of the deck. The vertical distance shall be between 90 and 102 mm. Note that if the stem and transom **templates** are used to establish the reference line then the height mark arrow on the stem **template** must be adjacent to the stem point while the **upper limit mark** on the transom **template** must be at the top of the transom (the triangular aperture to height mark arrow distance on the transom **template** is 156 mm while on the stem **template** it is 150 mm) (See Appendix B Measurement Plan).

D.3.15 Cockpit: The area of the hull, including **spinnaker** holes, not covered by fixed decking must be between a minimum of 1.5 m² and a maximum of 4.2 m². Fixed decking is decking which is screwed, nailed, glued or moulded-in with the hull, which must not be removable during the race and which lies above or at the same level as the sheer height.

	Minimum	Maximum
Area of hull not covered by fixed decking	1.5 m ²	4.2m ²

Instruction: To find the limits of the cockpit area, a straight edge shall be laid across the cockpit. Measure the distance between the straight-edge and the sheer. The limit of the cockpit is where the inboard side of the side deck is at the same distance from the straight-edge as the sheer. (See Measurement Plan, Appendix B). It may be necessary to use Simpson's rule to determine the area.

D.3.16 Sheer Guards (Rubbing Strakes): All hulls must be fitted with sheer guards (rubbing strakes) along the full length of the hull at the **sheerline**, which must nowhere measure more than a maximum of 50 mm or less than a minimum of 5 mm perpendicular to the hull shell and parallel to the hull shell more than a maximum of 35 mm or less than a minimum of 10 mm. The sheer guard is to be placed along the topsides at the **sheerline**. The width of a rubbing strake across the transom if fitted and/or forward of the stem must not exceed a maximum of 12.5 mm.

	Minimum	Maximum
Width of sheer Guard	5 mm	50 mm
Height of sheer Guard	10 mm	35 mm

Instruction: A **sheerline template** is to be used to locate the sheer points on the surface of the deck and to check maximum sheer guard dimensions. (See measurement Plan, Appendix B).

Callipers are to be used to check minimum dimensions.

D.3.17 The **bearing point** of the jib sheet on its **fairlead** must be forward of a plane perpendicular to the **deck line** and 2000 mm along the **deck line** from the transom. It must be impossible to fix the **bearing point** of the jib sheet on its **fairlead**, or to extend the operational clew **cringle** of the jib, aft of this plane. The **bearing point** of the jib sheet on its **fairlead** must not exceed a maximum of 60 mm above the upper side of the deck. The **bearing point** of the jib sheet is the after most point of the bottom of the groove of a **sheave**, or the forward side of the opening of a **fairlead** for the jib sheet. (See Appendices C and D)

	Minimum	Maximum
Bearing point of jib sheet to transom, along deck line	2000 mm	

D.3.18 When the boat is fully rigged with **mast** vertical, sails hoisted in racing trim and sheeted for windward sailing, no part of the jib **luff** wire, excluding **cringles**, shall project more than 5 mm forward as measured perpendicular to the **luff**, of an imaginary line drawn from a point on the **deck line** a maximum 5450 mm from the aft side of the transom to a point on the front of the **mast** at a maximum 5250 mm above the **deck line**, that is below the lower edge of **Limit mark (band)** number 4. (See Appendices D and E)

	Minimum	Maximum
Intersection of jib luff wire forward edge with deck line , to transom		5450 mm
Intersection of jib luff wire forward edge with mast forward edge, to deck line		5250 mm
Jib/genoa luff wire forward edge forward of line		5 mm

D.3.19 Weight: The hull weight, including all fixed and movable **fittings** (including trapeze hooks, shroud length adjustment systems, and baby stays), buoyancy apparatus as prescribed in Rules D.3.24 – D.3.27 (whether removable or fixed) and running gear, but not including main, genoa and spinnaker sheets, shall not be less than a minimum of 130.0 kg

	Minimum	Maximum
Hull weight, including all fixed and movable fittings	130.0 kg	
Hull corrector weights		15 kg

D.3.20 Outrigger: The outrigger may extend no more than 60 mm outside the hull and shall be located no more than 500 mm from the **shrouds**, and may be used for leading the spinnaker guy.

	Minimum	Maximum
Outrigger outside the hull		60 mm
Outriggers from the shrouds		500 mm

D.3.21 Foot straps: Foot straps, which support the **crew's** feet, further outboard than the sheer guards (rubbing strakes) are prohibited.

D.3.22 Corrector weights: If the hull as weighed in Rule D.3.19 weighs less than 130.0 kg, lead corrector weights must be permanently fastened to the underside of the deck, forward of the **mast**, be easily visible and stamped by the measurer. The actual weight must be stated on the measurement form. No boat shall carry more than a maximum of 15.0 kg of corrector weights.

D.3.23 The corrector weights may only be adjusted to comply with the minimum hull weight, Rule D.3.19, after a measurement by an IFDCO approved measurer. The amount removed shall be marked on the measurement form and certified by the measurer.

D.3.24 Buoyancy: The boat shall float its own weight when all buoyancy tanks or bags have been removed or filled with water. Boats built of non-buoyant material shall have rigid buoyancy made of closed cell foam plastic, or similar buoyant material, which is permanently attached to the hull. Buoyancy tanks or bags shall provide a minimum of 220 kg of positive buoyancy. At least two completely independent buoyancy tanks or bags, of at least 50 kg buoyancy each, are required.

	Minimum	Maximum
Hull positive buoyancy	220 kg	
Number of independent tanks of Minimum 50 kg	2	

Instruction: Volume of buoyancy should be 0.22 m³ of air or 0.28 m³ for Styrofoam or similar material.

D.3.25 Side Deck Pads: Detachable side deck pads, are allowed aft of the **bearing point** of the jib sheet (Rule D.3.17) but must not project outside of the maximum permitted width of the sheer guards (rubbing strakes) (Rule D.3.16).

D.3.26 Buoyancy apparatus must be kept securely fastened and fully effective at all times.

D.3.27 The buoyancy must be fitted to the hull such that in the event of complete flooding, the boat will float approximately level with an effective weight of not less than a minimum of 220 kg placed at a point between the **mast** and a position 1500 mm aft of the **mast**.

SECTION E - TRAPEZE AND APPENDAGES

E.1 Trapeze

E.1.1 RRS 49.1 is amended to allow a trapeze, which consists of 2 wires or lines attached directly or indirectly to the **mast**, one on each side, which can be fastened to a trapeze harness. The trapeze shall not be used to support more than one person at a time. The weight of the trapeze hooks, handles, rings, and gear to adjust the length between the trapeze wire or line and the trapeze harness, must not exceed a maximum of 1.0 kg.

	Minimum	Maximum
Weight of the trapeze hooks, handles, rings, etc.		1.0 kg
Weight of the trapeze harness		4.0 kg
Trapeze quick release time		2 sec

E.1.2 The trapeze harness may be attached directly or indirectly to a trapeze wire or line but only by means of a single quick release system (2 seconds). The weight of the trapeze harness must not exceed a maximum of 4.0 kg and shall float after complete immersion. The trapeze harness is separate from, and shall not constitute a **personal flotation device** (PFD), as required by rule C.4.1.

E.2 Centerboard (See Appendix F)

E.2.1 The shape of the under hull part of the **centerboard**, in its lowest position, must conform to the profile as defined in Appendix F. With the leading edge fully up against the leading edge line, within a tolerance of maximum 3 mm for local gaps, the tolerance is plus or minus 6 mm on the bottom and trailing edges and on the curves at the bottom of the **centerboard**.

E.2.2 A stop must be fitted on the **centerboard** to prevent it from being lowered farther than a maximum of 1060 mm under the hull. The use and position of a **centerboard** bolt, notch or holes are optional.

E.2.3 The weight of the complete **centerboard** including blocks of maximum combined weight of 300g, must not be less than a minimum of 5.50 kg.

E.2.4 Thickness of the under hull part of the **centerboard** must not exceed a maximum of 23.0 mm.

E.2.5 It must be possible to raise the **centerboard** into its case by rotating it so that the leading edge of the **centerboard** is close to and approximately parallel to the **keel line**.

E.2.6 When it is fully or partly lowered, no part of the **centerboard** shall be aft of the extension of that part of the trailing edge that is below the hull. (See Appendix F)

	Minimum	Maximum
C/B profile deviation from Appendix F outline		6 mm
Depth of C/B under the hull		1060 mm
Weight of the complete centerboard	5.5 kg	
Thickness of the under hull part of the centerboard		23.0 mm

E.3 Rudder (See Appendix F)

- E.3.1 The shape of the part of the **rudder** blade, when in its lowest position, which is situated under the extended **keel line**, must conform to the profile as defined in Appendix F. With the leading edge fully up against the leading edge line, within a tolerance of maximum 3 mm for local gaps, the tolerance is plus or minus 6 mm on the bottom and trailing edges, and on the curves at the bottom of the **rudder**. (See Appendix F)
- E.3.2 The total weight of the complete **rudder** including **fittings**, tiller and tiller extension must not be less than a minimum of 4.00 kg.
- E.3.3 The part of the **rudder** projecting under the extended line of the keel must not project under this line more than a maximum of 810 mm. (See Appendix F)
- E.3.4 The leading edge of this part of the **rudder** shall make an angle that must not exceed a maximum of 105 degrees with the **keel line**. When racing, boats with lifting **rudder** blades must fix the position of the leading edge as above by means of a pin, unless a special exception is made in the sailing instructions. (See Appendices B and G)
- E.3.5 The distance from the leading edge of the **rudder**, at the point of intersection with the extended **keel line**, must not exceed a maximum of 60 mm from the transom. (See Appendices B and G)
- E.3.6 A safety device must be fitted so that the **rudder** cannot come off unintentionally if the boat is inverted.
- E.3.7 Tiller: The tiller may extend aft of the transom not more than a maximum of 1000 mm.
- E.3.8 Double **rudders** and **rudders** fully or partly forward of the plane of the transom are prohibited. Trim tabs, lifting foils or similar contrivances, attached to the **rudder** and/ or transom are prohibited.

	Minimum	Maximum
Rudder profile deviation from Appendix F outline		6 mm
Depth of rudder under the hull		810 mm
Weight of rudder including fittings , tiller & extension	4.00 kg	
Angle of rudder leading edge with keel line		105 deg
Leading edge of the rudder to transom		60 mm
Tiller extension aft of the transom		1000 mm

SECTION F - SPARS AND RIGGING

F.1 Mast

F.1.1 Rotating **masts** are prohibited.

The **Mast Spar** Curvature shall be less than 20 mm.

F.1.2 The weight of the **mast** (excluding trapeze hooks, shroud length adjustment systems, and baby stays, but including a compass bracket and shroud rollers of combined maximum weight less than 400g) shall not be less than a minimum of 8.50 kg. **Mast** corrector weights of lead shall be permanently attached to the **mast** above **limit mark (band)** No. 1.

The height of the center of gravity of the **mast** must not be less than a minimum of 2500 mm above the top of **Limit mark (band)** number 1.

Instruction: For the **mast** CG measurement the halyards must be in their sailing position. The **shrouds, forestay** and trapezes must be stretched along the **mast** and attached at a point 2500 mm above the top of the **Limit mark (band)** number 1. Those parts of the rigging below this point may be supported. When a knife-edge at 2500 mm above **band 1** supports the **mast** it must tip, Top point down.

F.1.3 The **mast** must have openings near the top and the heel to allow the **mast** to drain. The sum of the areas of the openings at the top and at the heel must not be less than a minimum of 150 mm².

	Minimum	Maximum
Mast Spar Curvature		20 mm
Weight of the mast (excluding trapeze hooks etc.)	8.5 kg	
Height of mast CG above Limit mark 1	2500 mm	
Sum of areas of drain openings at top and heel	150 mm ²	
Mast heel measurement point to transom		3600 mm

F.1.4 **Mast Spar** Cross-Section, including the sail track or its extension, for the sections:

	Minimum	Maximum
From the heel to the limit point No 4, fore and aft	70 mm	100 mm
From the heel to the limit point No 4, transverse	50 mm	100 mm

- F.1.5 **Mast Position:** A stop must be fitted at the **mast** step to prevent the “**mast** heel measurement point” from being moved aft of a point perpendicularly down from the **deck line** and 3600 mm from the transom, as measured along the **deck line**. The **mast** heel must be on the centerline. Slides or carriages on the **mast** heel track are prohibited. (See Appendix D)
- F.1.6 **Mast Rigging:** Running **backstays** and rigid **forestays** are prohibited, and only an optional single adjustable centerline **backstay** is allowed. All **shrouds** must be installed such that movement of their lower ends is impossible while racing. A flexible or solid baby stay, if fitted, must not be attached higher than the Lower point, i.e. the upper edge of **band** number 2 (see Rule F.1.9).
- F.1.7 A **forestay**, of minimum diameter 2.00 mm, and of material of strength equivalent to stainless steel wire, shall be rigged. The position of the **forestay** shall be forward of the **luff** of the jib and within 200 mm of the centerline, see RRS 54. The **forestay** must be independent of the jib, and must support the **mast** when the jib is lowered, or the jib halyard or tack is broken in a strong wind. The measurer must be convinced of a seaman-like job, also under the foredeck.

	Minimum	Maximum
Forestay diameter	2.00 mm	

- F.1.8 It must normally be possible to lower the main and the jib from the cockpit, while the **mast** is standing in its normal sailing position.
- F.1.9 **Limit marks** must be bands around the whole **spar**, of minimum **limit marks** width 10 mm, white or yellow on black **masts**, in contrasting colour for other **spars**, and except for **Limit mark** 1 which shall be below deck level, must remain visible while racing. The relevant edge shall be as follows:
- (a) No 1: The upper edge of this **limit mark (band)** must be under the deck level at the **mast**.
 - (b) No 2: The Lower point (**Mast Datum Point**), the upper edge of the **Lower limit mark (band)** must be less than a maximum of 800 mm above the upper edge of **band** No 1.
 - (c) No 3: The Upper point, the lower edge of the **Upper limit mark (band)** must be less than a maximum of 6400 mm above the lower point (upper edge of **band** No 2).
 - (d) No 4: The lower edge of this **limit mark (band)** must be less than a maximum of 5250 mm above the upper edge of **band** No 1. **There must be a stop to prevent extending beyond Upper Point.**

	Minimum	Maximum
Lower point to upper edge of the Lower limit mark		800 mm
Upper point height		6400 mm
Lower edge of limit mark 4 to upper edge of band 1		5250 mm
Outer Point Distance		2840 mm

- F.1.10 Contrary to ERS F.2.3 (l) the final **bearing point** of the spinnaker halyard on its **fairlead** or **sheave** must be below and aft of the line from a point on the forward edge of the **mast** 500 mm above the lower edge of the No 4 **band**, to a point 160 mm forward (measured perpendicular to the forward edge of the **mast** of the lower edge of the No 4 **band**). (See Appendix E)
- F.1.11 The extension of the top of the **boom**, when perpendicular to the **mast**, shall not cross the **mast** at a point lower than the Lower point, i.e. the upper edge of the **band** number 2. A stop on the **boom** shall prevent the **clew point** of the mainsail from extending beyond the outer point. (See Appendix E)
- F.1.12 Except when in the center plane of the **mast spar**, the central axis of the **boom spar** shall intersect the **mast spar** center plane at a distance of not more than 90 mm from the aft edge of the **mast spar**.
- F.1.13 Loose **footed** mainsails shall have a system to prevent the **clew point** to be positioned more than 60mm from the **boom** outer point. To achieve this, the clew outhaul shall pass under a strap positioned at or forward of the plane of the **outer limit mark**.
- F.1.14 The Trapeze consists of 2 wires or lines attached directly or indirectly to the **mast**, one on each side, which can be fastened to a trapeze harness. The trapeze shall not be used to support more than one person at a time. The weight of the trapeze hooks, handles, rings, and gear to adjust the length between the trapeze wire or line and the trapeze harness, must not exceed a maximum of 1.0 kg.

F.2 Boom

- F.2.1 **Boom**. Permanently bent **booms** are prohibited.
- F.2.2 The **boom**, without **fittings**, must be able to pass through a circle having a diameter of 150 mm.
- F.2.3 **Boom** Outer point, the inner edge of the **Outer limit mark (band)** must be less than a maximum of 2840 mm from the aft side of the **mast**. (See Appendix E)

	Minimum	Maximum
Boom must pass through a circle of		150 mm
Boom spar axis to aft edge of mast spar		90 mm

F.3 Spinnaker pole

F.3.1 The **Spinnaker Pole** length must not exceed a maximum of 2500 mm. The **spinnaker pole fitting** projection must not exceed a maximum of 50 mm.

	Minimum	Maximum
Spinnaker Pole length		2500 mm
Spinnaker pole fitting projection		50 mm

SECTION G - SAILS

G.1 Parts

G.1.1 Mandatory

- (a) Mainsail
- (b) Jib/Genoa

G.1.2 Optional

- (a) Spinnaker
- (b) 2nd Jib/Genoa

G.2 General

G.2.1 Sails shall comply with the current **class rules**:

- (a) The dimensions given on the sail plan are maximum, except the measurement giving the position of the top **batten** (minimum dimension). Sails must be of woven ply (Mylar or Kevlar are prohibited (see PART III – TECHNICAL SPECIFICATIONS Expensive materials)).
- (b) All sails must be single woven ply. The body of the mainsail and the genoa must each be of a single colour except for **sail windows**, and **markings** in accordance with RRS 77 and Appendix G. **Reinforcements** are permitted without limitation but it must be possible to fold the sail, including **reinforcements**, by hand in any direction within an outside diameter of 8.0 mm.
- (c) Double **luff** sails are prohibited.
- (d) Sail openings, except **eyelets**, **cringles** and windows, are prohibited. Windows made of any material and with a total area that must not exceed a maximum of 1.00 m² in each sail are permitted, but only in the mainsail and in the genoa.

- G.2.2 Emblems - Sail Letters – Numbers: The class emblem shall be the letters FD. The sail number, letters and class emblem must be in accordance with the RRS Appendix G. In addition to RRS Appendix G1.1(b) mainsails must carry Boa and sail numbers are not required on either genoas or spinnakers.
- G.2.3 After a sail has passed measurement, the measurer shall stamp and sign the sail.

G.3 Mainsail (See Appendices G and H)

- G.3.1 The **mainsail top width** shall not exceed a maximum of 150 mm. (See Appendix H)
- G.3.2 The mainsail when set must lie between the **upper point** and the **lower point** on the **mast** and the **outer point** on the **boom**, i.e. between the **bands**.
- G.3.3 The **leech** length must not exceed a maximum of 6800 mm.
- G.3.4 The **upper width** of the mainsail is the shortest distance from the **upper leech point**, which is 3400 mm from the **head point**, to the **luff**, and must not exceed a maximum of 1900 mm.
- G.3.5 The extension of the upper edge of the inside of the upper **batten pocket** must meet the **luff** at a point a minimum of 1500 mm from the **head point** (the **luff** being stretched so as to remove wrinkles in the material of the sail). The distance from this point to the **leech**, measured along the inner edge of the upper **batten pocket** must not exceed a maximum of 1010 mm. (See Appendix H)
- G.3.6 A maximum of 4 sail **battens** are permitted in the mainsail. The **batten pockets** must divide the **leech** into equal parts plus or minus 100 mm. The **batten pocket** inside widths must not exceed a maximum of 60 mm. The **batten pocket** inside lengths must not exceed a maximum of 1000 mm.

	Minimum	Maximum
Mainsail top width		150 mm
Mainsail leech length		6800 mm
Mainsail upper width at 3400 mm		1900 mm
Head point to the intersection of upper edge of the inside of the upper batten pocket with the luff		1500 mm
Leech to the intersection of upper edge of the inside of the upper batten pocket with the luff		1010 mm
Mainsail Foot Median		6700 mm

G.4 Jib/Genoa (Note Rules D.3.17 and D.3.18 are repeated for convenience)

G.4.1 See Rule D.3.17.

	Minimum	Maximum
Bearing point of jib sheet to transom, along deck line	2000 mm	

G.4.2 See Rule D.3.18.

G.4.3 No part of the jib/genoa shall extend more than 10 mm in front of the forward edge of the **luff** wire when the **luff** is tensioned.

	Minimum	Maximum
Intersection of jib luff wire forward edge with deck line , to transom		5450 mm
Intersection of jib luff wire forward edge with mast forward edge, to deck line		5250 mm
Jib/genoa luff wire forward edge forward of line		5 mm
Jib/genoa extent forward of the LE of the luff wire		10 mm

G.4.4 Elastic strips and regulating cords in or attached to the **foot** of the jib or genoa are prohibited.

G.4.5 No **headboard**, **battens** or **foot** club are allowed in the jib.

G.5 Spinnaker (See Appendix I)

G.5.1 Spinnakers must be symmetrical in form and construction.

G.5.2 The **luff lengths** must not exceed a maximum of 5500 mm.

G.5.3 The **Foot median** must not exceed a maximum of 6600 mm.

G.5.4 The straight-line distance from the **Clew points** to the Mid **foot** point must not exceed a maximum of 2050 mm. The **Foot Irregularity** must not exceed a maximum of 20 mm.

G.5.5 The **upper leech points** are at 2750 mm from the **head point**. The **spinnaker upper width** must not exceed a maximum of 3950 mm.

G.5.6 The spinnaker **headboard** must not exceed a maximum of 150 mm in any direction.

	Minimum	Maximum
Spinnaker luff lengths		5500 mm
Spinnaker Foot median		6600 mm
Spinnaker upper width at 2750 mm from head point		3950 mm
Spinnaker Clew points to the Mid foot point		2050 mm
Spinnaker Foot Irregularity		20 mm
Spinnaker headboard in any direction		150 mm

Appendices

These appendices are not to scale and in the event of discrepancies between these appendices and the written rules, the written rules shall take precedence.

Equipment required for measurement

- (a) Copy of current **Class rules** and Mylar measurement plan
- (b) Triplicate measurement form (white, green. and blue)
- (c) Stamps for marking the boat and gear
- (d) Self-adhesive paper (pencil etc.) for marking station points
- (e) Set of certified official templates
- (f) 3 padded trestles
- (g) Accurate weighing machine (up to 150 kg, 0.1 kg)
- (h) Accurate weighing machine (up to 15 kg, 0.1 kg)
- (i) 7 m fine strong thin line
- (j) 10 m steel tape
- (k) 2 or 3 m steel tape
- (l) Two 150 mm, 0.5 mm steel rules
- (m) Micrometer
- (n) Calipers of the inside and outside type
- (o) Centerboard thickness gauge (23 mm)
- (p) Feeler gauges, 0.10 and 2.0 mm
- (q) 2 mm feeler
- (r) 1000 mm straight edge
- (s) 1100 mm flexible batten

Appendix A: Advertising

Flying Dutchman Dimensions

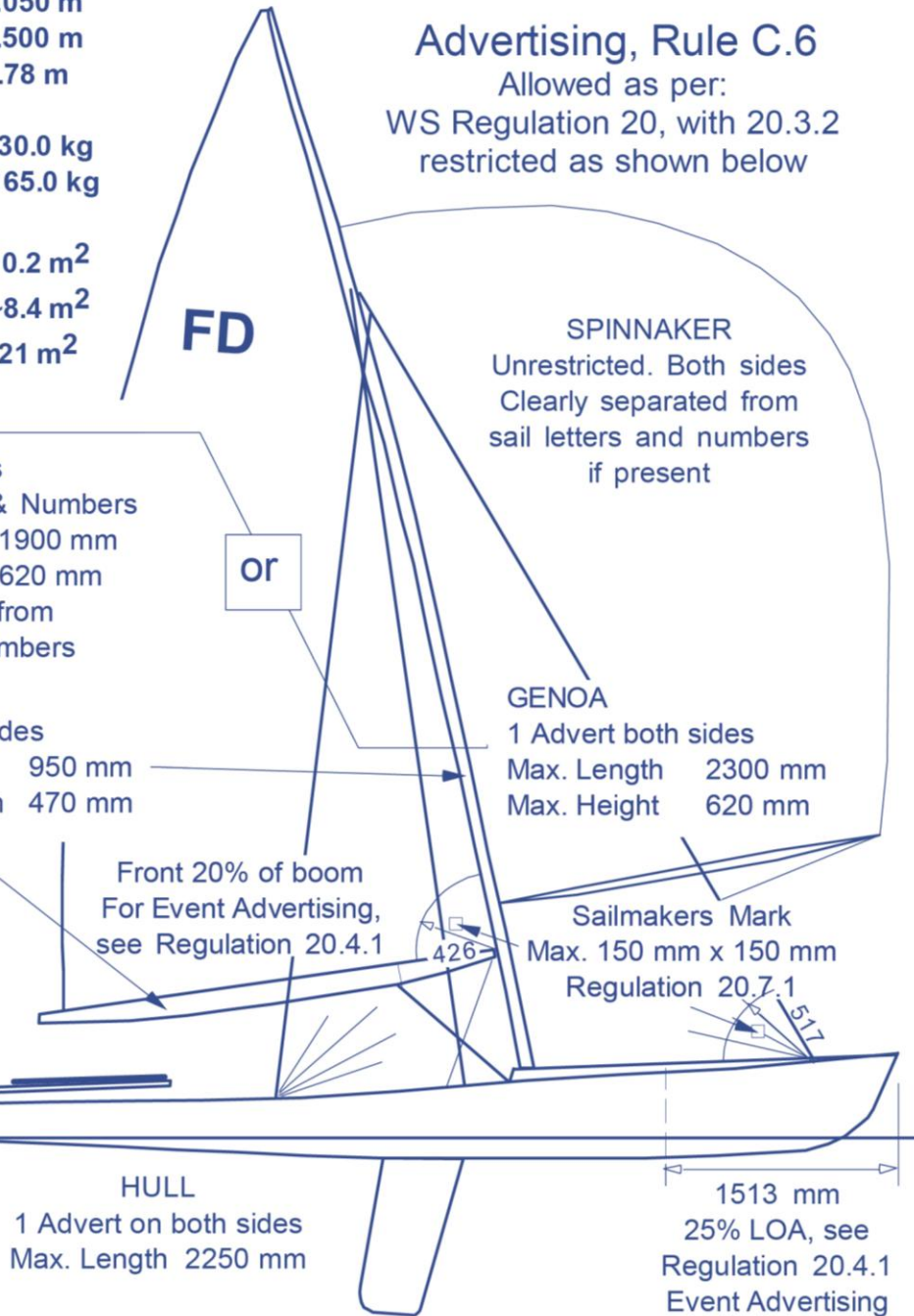
Deck Length 6.055 m
 Length LOA 6.050 m
 Length DWL 5.500 m
 Beam ~1.78 m

Hull Weight 130.0 kg
 Sailing Weight ~165.0 kg

Mainsail ~10.2 m²
 Genoa ~8.4 m²
 Spinnaker ~21 m²

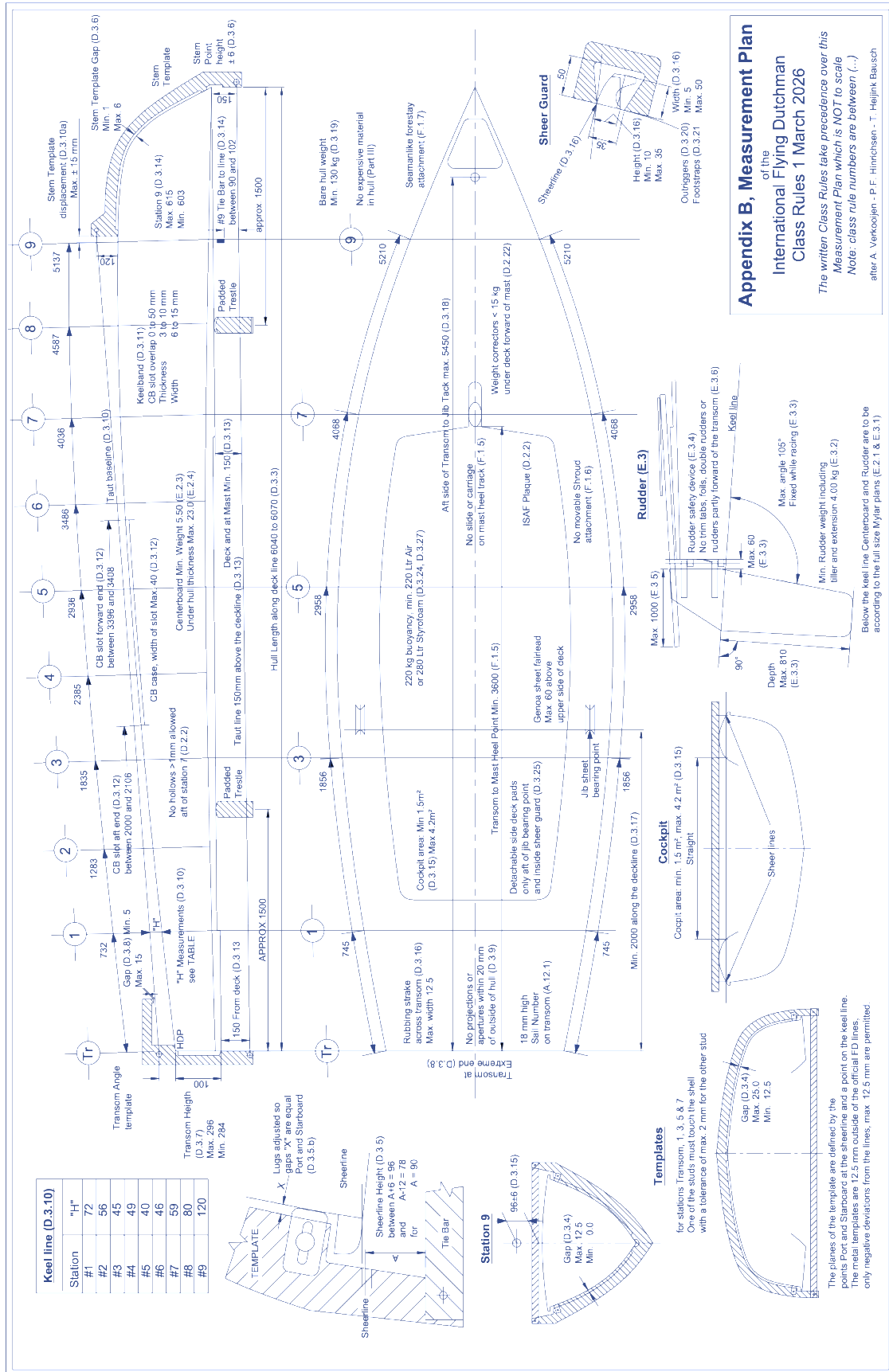
MAINSAIL
 1 Advert both sides
 Below sail letters & Numbers
 Max. Length 1900 mm
 Max. Height 620 mm
 Clearly separated from
 sail letters and numbers

SPARS
 1 Advert on both sides
 Mast: Max. Length 950 mm
 Boom: Max. Length 470 mm

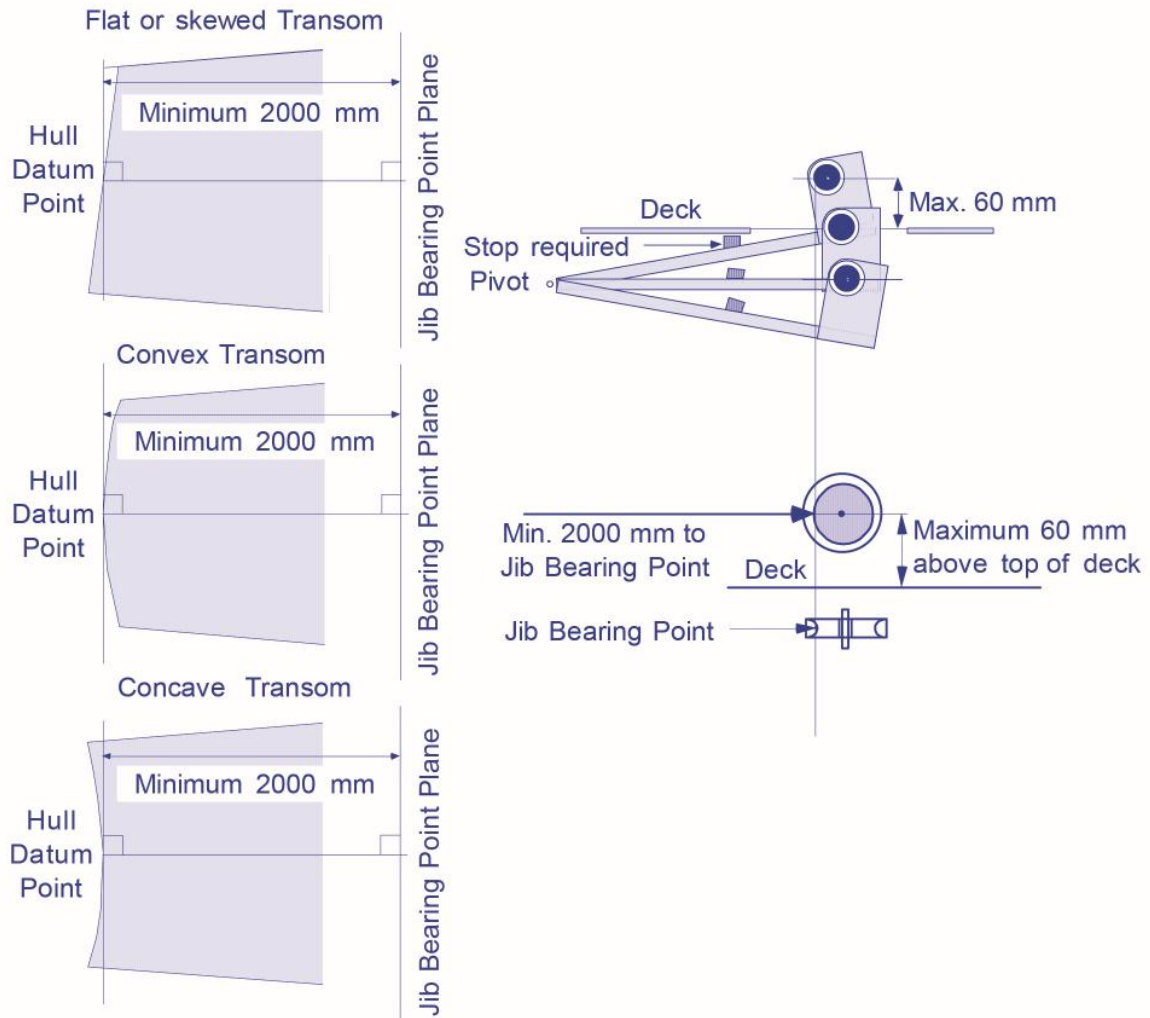


Advertising, Rule C.6
 Allowed as per:
 WS Regulation 20, with 20.3.2
 restricted as shown below

Appendix B: Measurement Plan

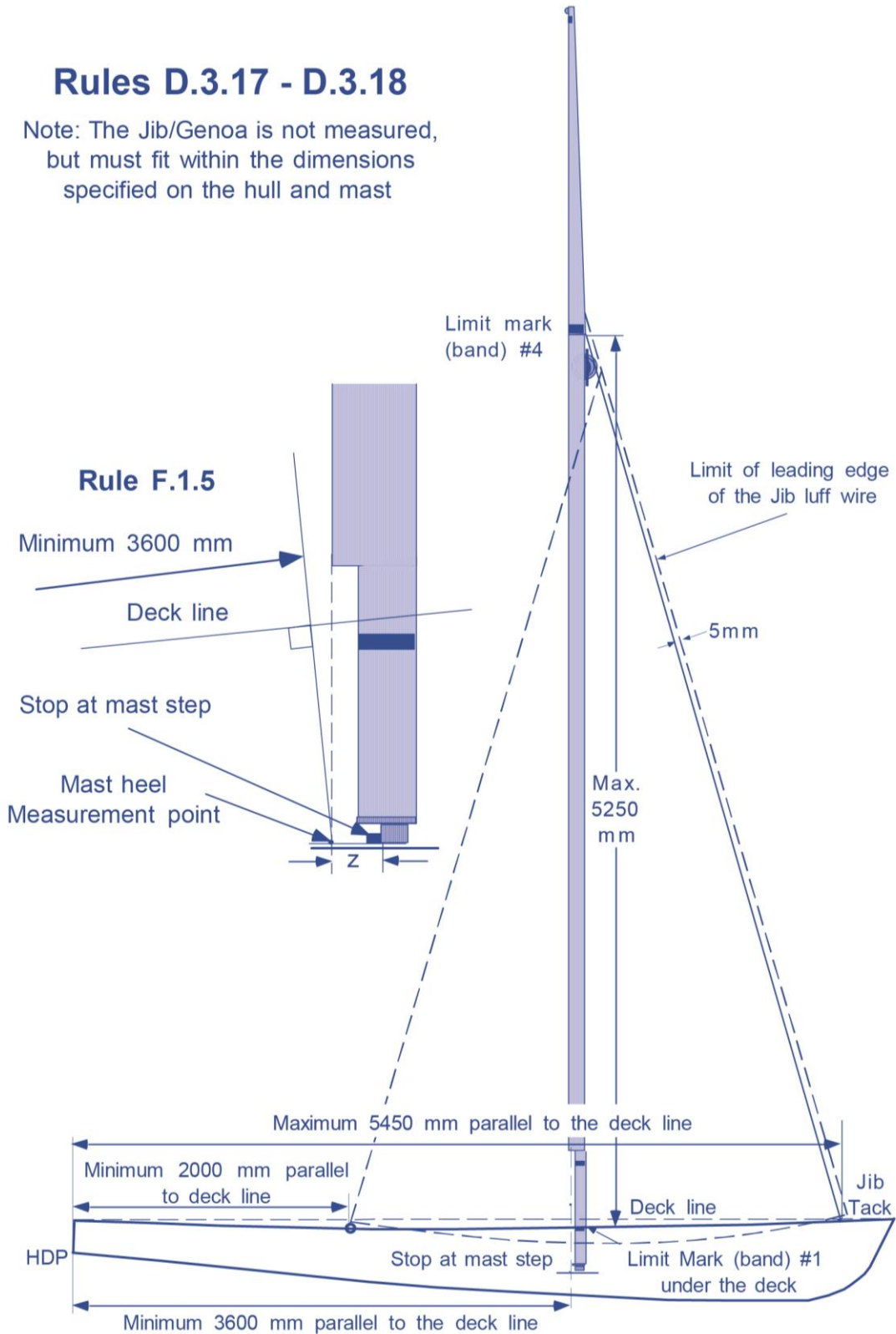


Class Rule D.3.17

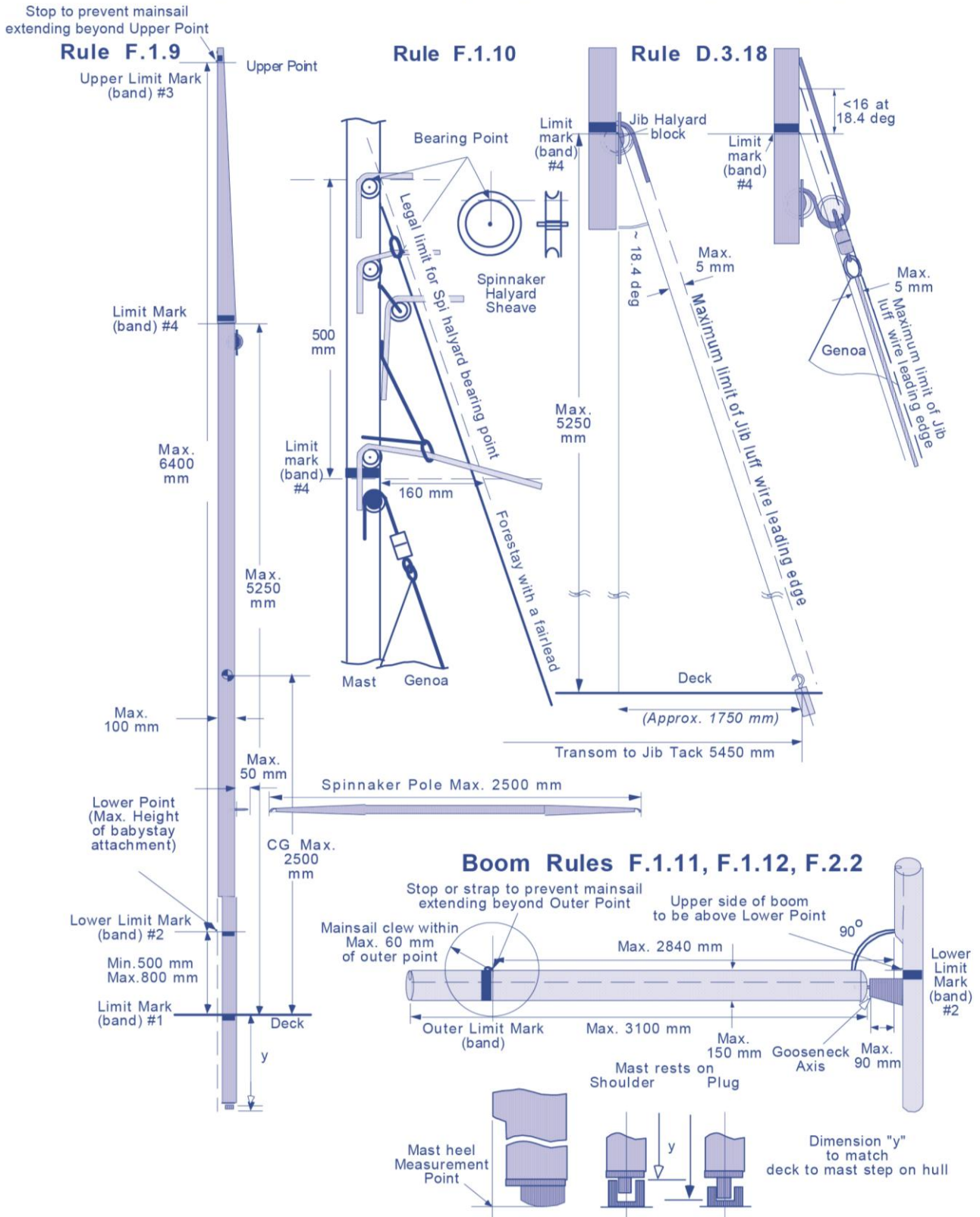


Rules D.3.17 - D.3.18

Note: The Jib/Genoa is not measured, but must fit within the dimensions specified on the hull and mast



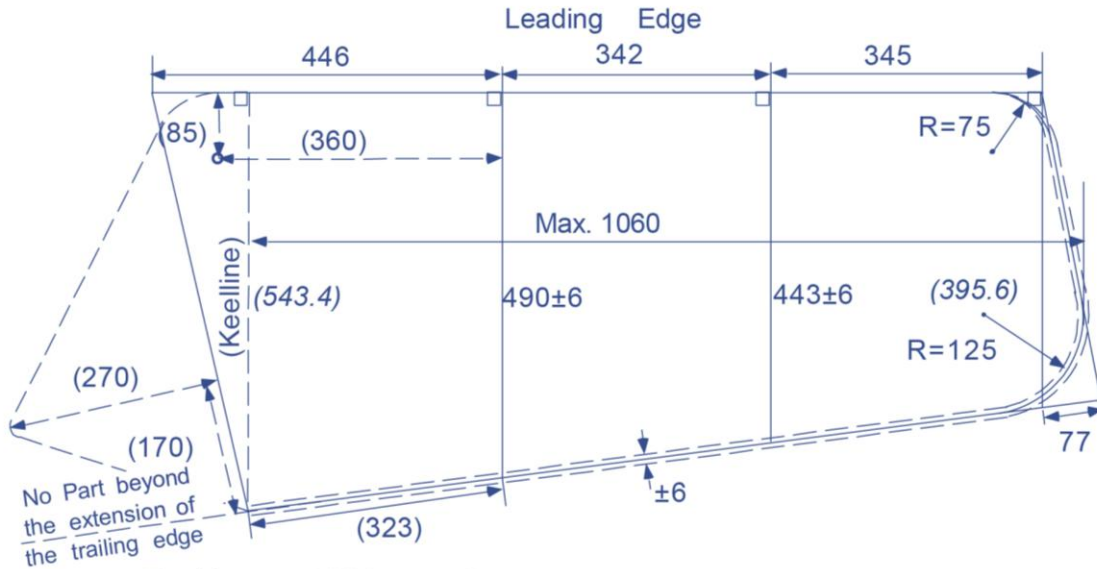
Genoa Rule D.3.18, Mast and Boom Rules F



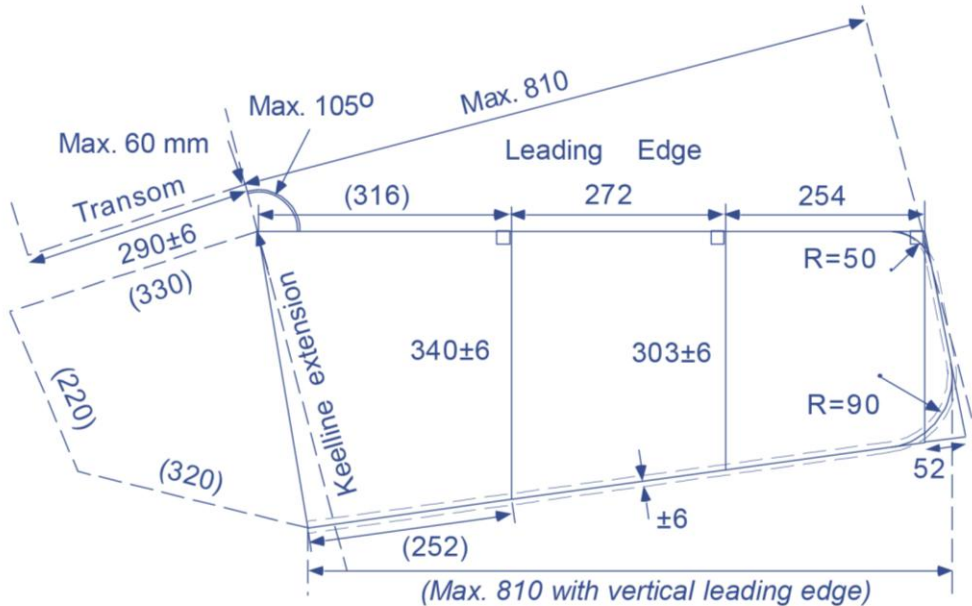
Appendix F: Centerboard and Rudder

Centerboard and Rudder Rules E.2 - E.3

Centerboard
 Rule E.2 Max. thickness 23.0 mm
 Min. weight 5.50 kg

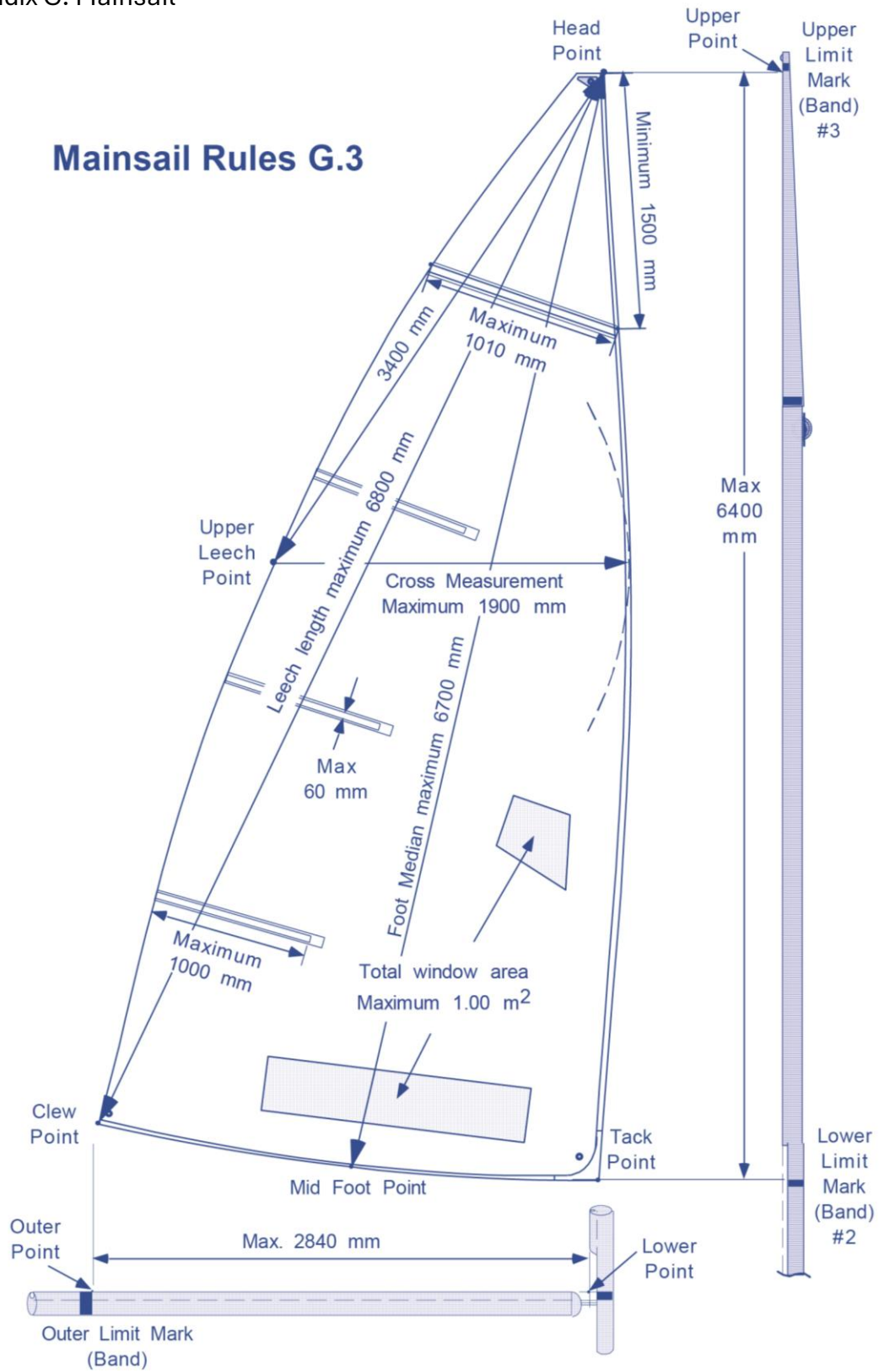


Rudder Thickness: free
 Rule E.3 Min. weight: 4.0 kg (including tiller and extension)

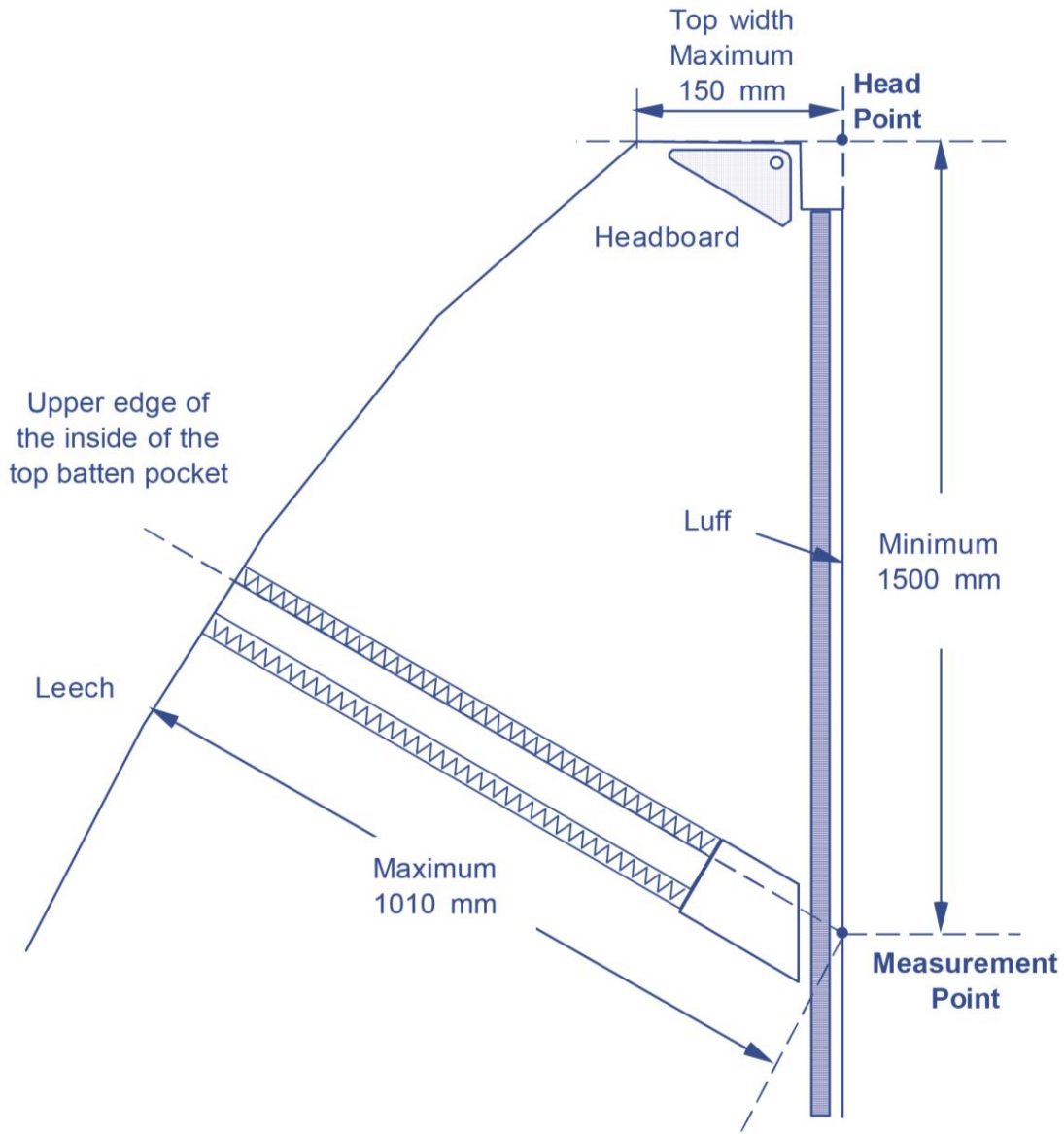


Notes: Only under keel line part must conform
 Dashed lines are advised shapes and dimensions only
 Keel line drawn perpendicular to C/B leading edge, at Max. depth.
 Leading edge of rudder drawn at 105° to keel line, at Max. Depth
 Dimensions in mm, (suggested in brackets), (derived in italics).

Mainsail Rules G.3

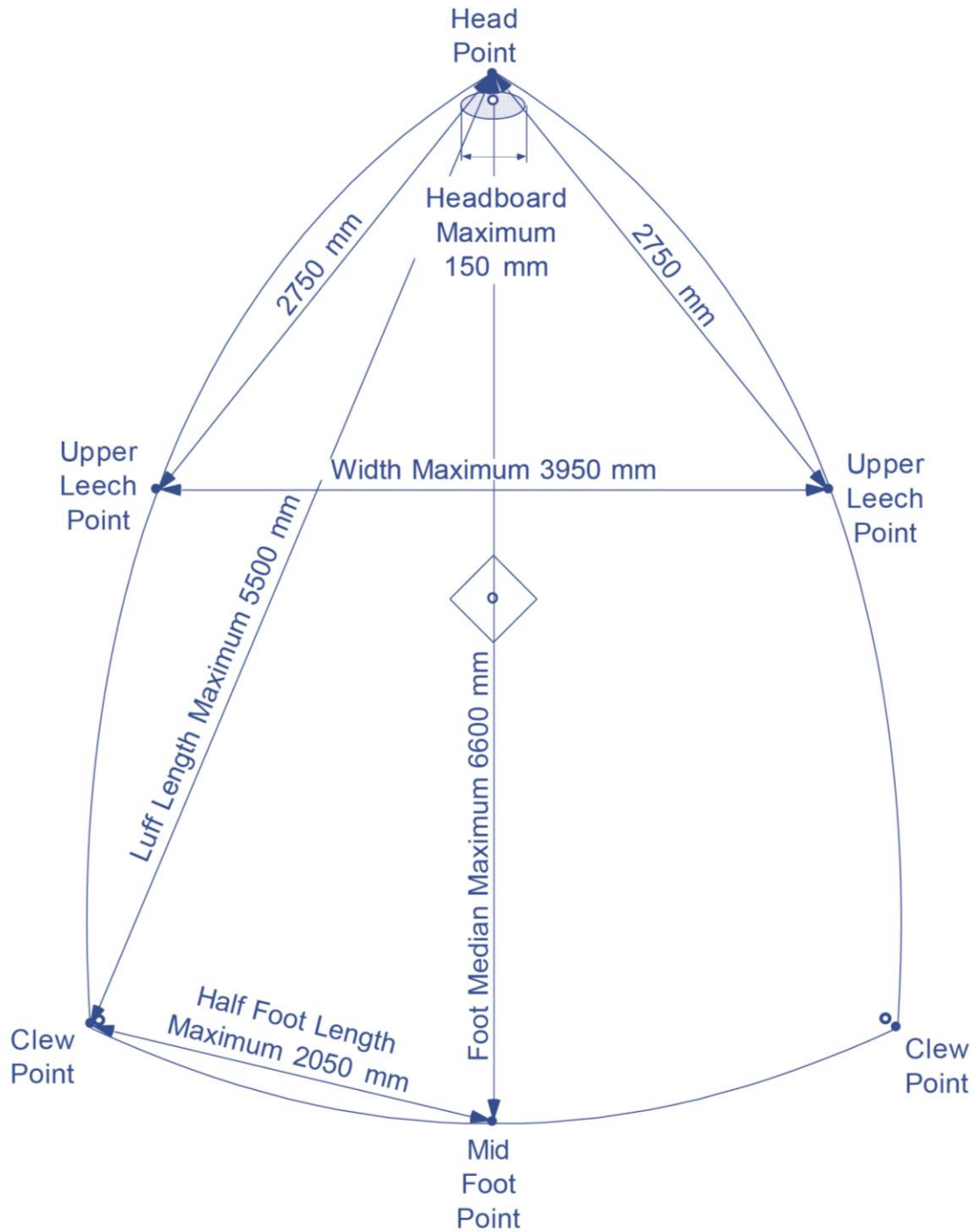


Mainsail Rules G.3

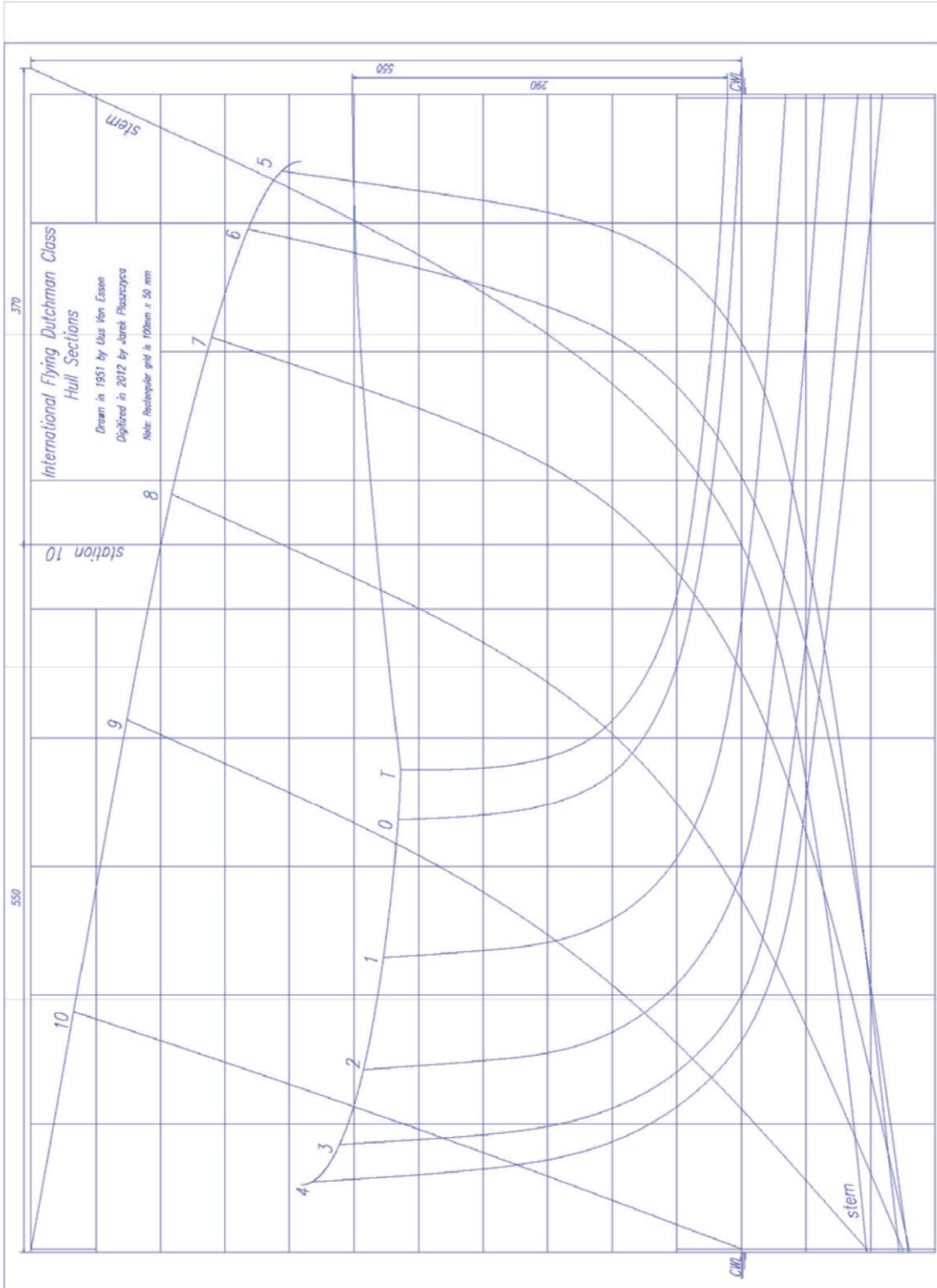


Spinnaker Rules G.5

Rule G.5.2 Spinnaker must be symmetrical in form and construction



Appendix J: Full size drawing
Full size drawing, AutoCad file and
Spreadsheet of Bezier curves
available from IFDCO



Appendix K: Line Planes

