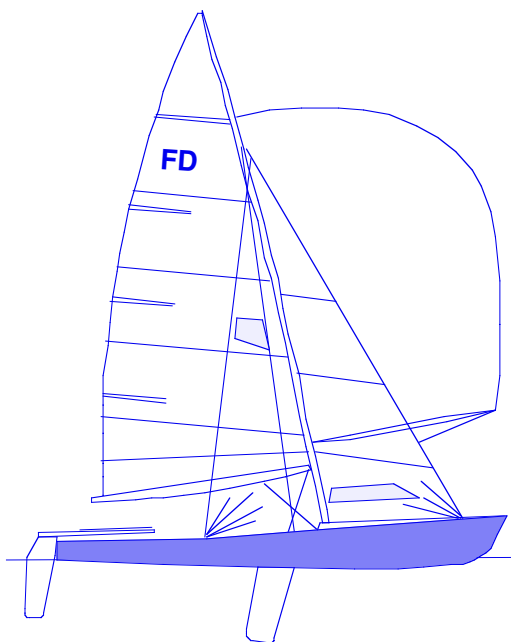


**THE INTERNATIONAL
FLYING DUTCHMAN
CLASS RULES**



MARCH 2003

THE INTERNATIONAL FLYING DUTCHMAN CLASS RULES

Version A5M1.50, Valid from 1 March 2003

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General

1. The object of these rules is to ensure that the boats of this class are as nearly the same as possible in shape and weight of hull, centreboard, rudder and mast and shape of sail plan and that the boats at all times conform to these rules.

2. In order to achieve the objective in Rule 1, the General Committee of the IFDCO reserves the right to exclude a boat from racing even if it measures within the letter of these 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, centreboard, rudder or sail plan from the plans of the class.

3. Alterations to the Class Rules shall require the approval of the ISAF except that where in the interests of the class an immediate alteration is deemed necessary by the IFDCO Executive Committee, action may be taken forthwith, but this shall be regarded as temporary. If such temporary action is taken, it shall be submitted at once to the ISAF for final decision at its next meeting.

4. In the event of disputes over interpretation, these rules take precedence over the plans. The English text will prevail. The words shall and will are mandatory. The word should is advisory and not mandatory. The words can and may are permissive.

5. The IFDCO issues plans, measurement instructions, and measurement equipment, but can never be held liable for faults, errors, omissions, and deviations.

6. Builders

Yachts of the Flying Dutchman Class can be built by any yard which has acquired a license from the ISAF Ltd. at the required annual fee. Builders who do not build more than two Flying Dutchman a year shall receive a free license from the ISAF Ltd., after a request and after advice from IFDCO. Yards and amateurs building shells only do not need a license.

7. International Class Fee (Royalty, Building Fee) Payable by Licensed Builders.

7.1. The International Class Fee will be fixed by the IFDCO. Payment has to be directed to the ISAF Ltd. As receipt for the International Class Fee payment, a numbered ISAF plaque will be sent by the ISAF and shall be glued to the boat before measurement:

- a. to the starboard aft side of the aft bulkhead of the double bottom, or if this is not possible:
- b. to the starboard side of the hog (vertical inner keel) about 300mm from the transom, or if this is not possible:
- c. to the starboard forward bulkhead (just forward of the mast), or if this is not possible:
- d. to the aft bulkhead of the cockpit.

Instruction: The International Class Fee of Pound Sterling 100 has to be paid to the ISAF Ltd, Ariadne House, Town Quay, Southampton, SO14 2AQ. England. Only by, bank draft or remittance to Account Number 7124 3461 with Natwest Bank, Isle of Man, Sort Code 60 06 03.

7.2. Sail Buttons

Each sail manufactured after 1 September 1984 shall have permanently fixed near to its tack an officially numbered sail button. No sail shall be accepted for its first measurement without a sail button. Buttons shall not be transferred from one sail to another. Buttons shall be obtained from the IFDCO by the sailmakers.

8 Certificate and Measurement Form

Measurement certificates are issued by the IFDCO after measurement by an official measurer and receipt of the completed measurement forms. The issuing of certificates can be delegated by IFDCO to National Yachting Authorities or National FD Class Associations.

Measurement Form: A certificate will be issued only upon the receipt of 3 original measurement forms, signed by the builder and an official measurer, which show the boat to comply fully with all the rules. When the boat is measured outside the country of origin, it is desirable to have the signature of the builder, but not obligatory. When the boat proves to be within the rules, the 3 forms are to be signed by the issuing authority. One form is to be kept by the IFDCO Registration; one will go to the National Yachting Authority; and one to the National FD Class Association. A certified photocopy of the measurement form will be part of the certificate. The certificate with the certified photocopy of the measurement form is to be produced upon demand at official FD regattas.

9. Owner's Responsibility

No boat shall take part in Class Races unless it has:

- a. a valid certificate and measurement form with Sail-, ISAF plaque-, and Yard number shown;
- b. registration in the owner's name;
- c. a numbered ISAF plaque glued to the boat at the required place;
- d. the helmsman has an IFDCO membership card with valid year sticker;
- e. a sail button on each sail;
- f. the entrants for any class race shall be members of IFDCO (Foundation Rule IVc) and shall have paid the International Class Fee and the annual subscription for the respective year. The helmsmen shall be members of IFDCO as well, but need not necessarily sail their own boats.

Annual Subscription Sticker

9.1. A subscription sticker shall be sent by the National FD Secretary to every member who has paid his annual subscription, as a receipt. The National FD Secretary shall issue a membership card to each new member. The annual sticker shall be applied to this card as proof that the current subscription has been paid.

9.2. It is the owner's responsibility that a boat racing is fully certified and conforms to these rules and the spirit of the class in all respects, and that after alterations or modifications, the boat is remeasured where applicable.

Warning: *In connection with this rule, which extends to major regattas also, owners are strongly advised to clear with the IFDCO Committee any point which may contravene the spirit of the rules.*

9.3. The certificate of a second-hand boat is invalid until it has been put in the name of the new owner and countersigned by the issuing Authority.

10 Sail Numbers

10.1. Sail numbers, preceded by the National Letters, shall be issued per country consecutively starting from 1.

10.2. Personal Sail Numbers

In accordance with ISAF RR Appendix G1.1(c), National Class Associations may issue personal sail numbers (Sail numbers staying with the owner for every boat he owns as long as he sails FD) this number must be shown on the personal IFDCO Membership Card. After the sale of the boat, the new owner has to use the original sail number or his own personal number on his sails.

10.3. Hull numbers

The sail number of the boat must be shown on the transom. Size of letters: minimum 30mm

11 Measurers and Measurement Instructions

11.1. Measurers shall be approved by the National Yachting Association and/or the IFDCO in close co-operation.

11.2. A measurer shall not measure his own boat, a boat built by himself or when he is in some way an interested party.

11.3. Only the owner and crew of the boat, the measurer, measurer's assistants, members of the Jury and the IFDCO

Technical Committee may be present during measurement at a major regatta.

11.4. Boats shall be complete in every respect with all required gear when presented for measurement, except that sails and masts may be measured separately. The numbered ISAF plaque (see rule 7) shall be glued to the boat at the required place before measurement takes place.

11.5. Partly built boats can be partly measured but the measurer shall put under his signature - Partly measured - and shall list on the measurement form the unmeasured items. Such boats shall also bear the name of the measurer who completed the measurement, on the measurement form.

11.6. If measurers find deviations which do not contravene the exact letter of the rules but which might contravene the spirit of the rules, they shall, before signing the measurement form, submit the matter to the IFDCO Executive Committee.

11.7. 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 certificate and all 3 originals of the measurement form, before the certificate can be issued and become valid.

11.8. The measurement instructions, within these rules, and the measurement plan, form part of these rules. The object of the instructions is to make sure that the boats are measured the same way in all parts of the world.

11.9. Upon completion of the measurement, 3 of the original measurement forms (white, green and pink) are to be sent to IFDCO Registration for the issuing of a certificate and sail number. The blue copy may be kept by the measurer.

12 Measurement Procedure

12.1. Boats shall be measured with official certified templates only.

12.2. The official templates will be issued by the IFDCO and the ISAF, and will consist of 6 Hull shape templates with tie bars, 1 Stem template, 1 Transom angle-height template and 1 Gunwhale

template. Each template will carry a serial number and 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.

12.3 Stamps

When the measurement is completed to the satisfaction of the National Authority, a special stamp, issued by the National Authority or National FD organisation, shall be put (pressed, cut, burned or on a plaque embedded) at a position next to the ISAF plaque and also to the piece of correcting ballast, centreboard, and stamped on all sails (as Rule 86). If sails are presented at a later date, they also shall be stamped by a measurer after measurement. No sails shall be used without a stamp.

Note: Equipment required for measurement.

- a. 10 m steel tape
- b. 2 or 3 m steel tape
- c. Callipers of the inside and of the outside type
- d. 7 m fine strong thin line
- e. Self-adhesive paper or other means (pencil, etc.) for marking station points
- f. Accurate weighing machine (up to 130 kg)
- g. 2 trestles
- h. Set of certified official templates
- i. Copy of class rules and measurement plan
- j. Stamps for marking boat and gear
- k. Triplicate measurement form (White, green. and blue)
- l. 2 mm feeler
- m. 150 mm ruler
- n. 1000 mm straight edge

(number 12.4 is not used)

12.5 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.

(numbers 13-19 are not used)

Hull

20. The construction is optional. The plan gives a recommended form of construction only, together with suggested scantlings.

21. Within the tolerances allowed, the hull shape shall conform to the Mylar plan of 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 shall have a minimum radius of 75mm except within 100 mm from the keelband. Hollows exceeding 1 mm in depth in the keel or in the hull surface aft of section 7, are not allowed. **(For diagram see appendix)**

22. Overall length, excluding fittings, stem- and transom-rubbing strakes, is to be 6057mm measured along the deck line.

Tolerance: plus/minus 12.5mm.

23. Body sections: transom, 1, 3, 5, 7 and 9 shall be verified with official numbered templates applied in a manner shown in the measurement plan.

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

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

24 Sheer height: Tolerance is plus 12 mm and minus 6 mm.

Instruction: Measuring method

- a. *After checking the length, the boat is to be turned upside down on trestles and the positions of the stations at the keel and the gunwhale are to be determined by taking the following measurements from the outside of the transom along the keel and along the skin at the gunwhale.*

Station	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
For Keel mark	732	1283	1835	2385	2936	3486	4036	4587	5137
For Gunwhale mark	745		1856		2958		4065		5210

- b. *Check at the same time the position and width of the centreboard slot (Rule 31). The station templates are set up on the keel and gunwhale positions as found above (3 points per station). The adjustable lugs near the gunwhale must be adjusted to have equal gaps on both sides between shell and template with the template centre at the centre of the keelband, or with equal sheer heights, whichever gives better results. The studs near the keel shall be in contact with the shell with a tolerance of 2 mm.*
- c. *Measuring the gap now between shell and template, the variation in width of this gap shall not be more than 12.5mm. (See details on measurement plan.)*
- d. *Check with a straight-edge (approx. 1000mm long) for hollows aft of section 7. Small bumps or cut-outs are also prohibited under this rule.*
- e. *Sheer height shall be measured where the shell meets the top of the decking by taking the distance to the tiebar of the template. The difference shall not vary more than plus 6 mm or minus 12 mm from the distance of the sheer height mark on the template to the tiebar, with the exception of the stem template (See Rule 25).*

25. Stem, Profile and Height

Tolerance allowed is 3 mm plus/minus for shape and 6 mm plus/minus for height. A bulbous stem is not permitted.

26. Transom

The height of the transom on the centreline, excluding the keelband, shall be 290 mm plus/minus 6 mm. A hard chine transom is not permitted.

27. The transom shall be placed at the extreme end of the boat and shall be vertical to the waterline with a tolerance of plus/minus 5 mm at the bottom.

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

29. Keelline measurements

The shape of the keelline shall be checked by measuring the 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 distances, H measurements, will be taken at:

<u>Station</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
"H"	72	56	45	49	40	46	59	80

Tolerance: The absolute value of the algebraic difference of the greatest positive and greatest negative deviations shall not exceed 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 boat is respectively longer or shorter than 6057mm overall (measured under rule 22). The gap between template and stem is nowhere to be more than 6 mm. For measuring the height of the stem, the lugs shall be placed on the stem itself, not on the stem band. (If the stem band is not visible 3 mm shall be accepted as such). The top of the stem shall be between the height marks on the template.*

- b. Put the transom height-angle template on the bottom of the boat next to the keelband. The top of the transom shall then be between the maximum and minimum height marks on the template. Then put the 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 shall be between 5 and 15 mm (see Measurement Plan for directions).*
- c. Now take the H measurements between baseline and keel.*
- d. When the thickness of the keelband is consistent, the stem and transom template can be put on the keelband and the H measurements then can be taken between the base line and the keelband.*

30. Keelbands

Keelbands of metal, hardwood, plastic or glass reinforced plastic shall be fitted and shall measure between 3 and 10 mm in thickness and between 6 and 15 mm in width. The keelband shall run the full length of the boat along the keel including the stem. The keelband shall protrude not less than 3 mm. 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 assumed to be where the hull is 6 mm wide. In the way of centreboard slot, the keelband shall be duplicated and shall overlap the centre keelband by not more than 50 mm at each end. Keelband joining fishplates are permitted.

31. Centreboard slot

Centreboard Slot is to be cut into skin and hog. The fore end shall be 3402 mm from transom station plus/minus 6 mm tolerance. The aft end shall be between 2106 and 2000 mm from the transom station.

The width of the slot shall not exceed 40mm.

(number 32 is not used)

33. Deck

The deck at the mast partners shall not be higher than the deck line. The deck line is the imaginary line between the top of the transom at the centreline and the highest point of the stem (excluding stem fittings).

Instruction: Put the stem template in its required place with "topstem" mark at the top of the stem. Put the transom height-angle template in position with its maximum height mark at deck level. Use the triangular shaped holes 150 mm above deck-level in both templates to draw a line tight between the two templates. The mast partners shall be at least 150 mm below this line.

34. Depth of section 9 shall be 609 mm plus/minus 6 mm.

Instruction: This is checked by applying the station 9 template and measuring the distance between the tie bar and the line used for checking the height of deck (to be between 90 and 102 mm). (See the diagram on the Measurement Plan.)

35. Cockpit

The area of the boat not covered by fixed decking shall be more than 1.5 m² but less than 4.2 m², spinnaker holes included. Fixed decking is decking which is screwed, nailed, glued or moulded-in with the hull, which shall not be removable during the race and which lies above or at the same level of the sheer height. Decking can be of any material including cloth.

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. It may be necessary to use Simpson's rule to determine the area. (See Measurement Plan).

36. All boats shall be fitted with **rubbing strakes** (sheerguards) along the full length of the boat, which shall nowhere measure horizontally more than 50 mm nor less than 5 mm and vertically more than 35 mm nor less than 10 mm. The rubbing strake is to be placed along the topsides at the gunwhale. Width of rubbing strake

across the transom and/or forward of the stem to be maximum 12.5 mm.

Instruction: Gunwhale template is to be used to check maximum dimensions. Callipers are to be used to check minimum ones.

37. The bearing point of the jib sheet on its fairlead must be forward of a line 2000 mm from and parallel to the transom. It shall be impossible to fix the bearing point of the jib sheet on its lead further aft, nor shall it be possible to extend the jib or genoa beyond this point. The aft side of a black band approximately 50 mm long and minimum 10 mm wide, shall be at least 2000 mm from the aft side of the transom. The bearing point of the jib sheet on its fairlead shall be less than 60 mm from the upper side of the deck. The bearing point of the jib sheet is the aftermost point of the bottom of the groove of a sheave or the forward side of the opening of a fairlead for the jibsheet. **(For diagram see appendix)**

38. The size of the jib is optional but, when the boat is fully rigged with sails hoisted in racing trim and sheeted for windward sailing, no part of the jib shall project forward of or above an imaginary line, drawn from a point on the deckline 5450 mm from the aft side of the transom to a point on the mast below band number 4, with a tolerance forward of 5 mm at the halyard sheave. **(For diagram see appendix)**

Weight

39. The minimum hull weight in dry condition including all fixed and movable fittings buoyancy apparatus (whether removable or fixed) and running gear except main, genoa and spinnaker sheets is 130.0 kg. Not included are spars, rigging, centreboard, rudder, sails and loose equipment.

(number 40 is not used)

41. When the hull is weighed, it shall be dry to the satisfaction of the measurer.

42. If the hull as weighed in Rule 39 weighs less than 130.0 kg, lead correctors shall be permanently fastened to the underside of the deck, forward of the mast, be easily visible and stamped by the

measurer. The actual weight shall be stated on the measurement form. No boat shall carry more than 15.0 kg of corrector weights.

43. The correctors may be adjusted to comply with the minimum stripped weight rule only at a measurement by an official measurer, when the amount removed shall be marked on the measurement form.

44. Buoyancy

The boat **shall float** its own weight when all buoyancy tanks or bags have been removed or filled with water, so boats built of non-floatable material shall have rigid buoyancy made of foam plastic with closed cells or similar buoyancy, permanently attached to the hull. Buoyancy tanks or bags shall provide a minimum of 220 kg of positive support. One single bag or tank shall have at least 50 kg positive support. Only one single tank or only one single bag is not allowed.

***Instruction:** Volume of buoyancy should be 0.22 m^3 of air or 0.28 m^3 for styrofoam or similar material.*

(number 45 is not used)

46. Buoyancy apparatus shall be kept securely fastened and fully effective at all times.

47. The buoyancy shall 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 220 kg placed at a point between the mast and a position 1500 mm aft of the mast.

48. Trapeze

The use of any apparatus or contrivance outboard or extending outboard and attached to the hull, spars, rigging or crew outboard is prohibited with the exception of the flying trapeze. This contrivance consists of 2 wires or lines attached directly or indirectly to the mast, one on each side, which can be fastened to a body belt to enable the crew to stand outside the gunwhale. 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 and the bodybelt shall not exceed 1.0 kg.

49. The bodybelt may be attached directly or indirectly to a trapeze wire but only by means of 1 quick release hook (2 seconds). The bodybelt shall weigh not more than 4 kg and shall float when immersed.

50. Centreboard

50.1 The shape of the underhull part of the centreboard, in its lowest position, shall conform to the equivalent part of the full size Mylar plan, with the leading edge fully up against the line of the Mylar plan with a tolerance for local gaps of maximum 3 mm, with a tolerance of plus or minus 6 mm on the bottom and trailing edges (excluding keelbands) and plus or minus 12 mm on the curves at the bottom of the centreboard. A stop shall be fitted on the centreboard to prevent it from being lowered farther than 1060 mm under the hull. The mark of Rule 12.3 shall be directly next to it. The use and position of a centreboard bolt, notch or holes are optional.

50.2. The construction and material of the centreboard are optional.

50.3. The weight of the complete centreboard shall be not less than 5.5 kg.

50.4. Thickness of the underhull part of the centreboard shall not exceed 23 mm.

50.5. It shall be possible to raise the centreboard into its case by rotating it so that the leading edge of the centreboard is close to and approximately parallel to the keel. When it is fully or partly lowered, no part of the centreboard shall be aft of the extension of the trailing edge which is below the hull. **(For diagram see appendix)**

51. Rudder

51.1 The shape of the part of the rudder blade, when in its lowest position, which is situated under the lengthened keelline aft, shall conform to the equivalent part of the full size Mylar plan, with the

leading edge fully up against the line of the Mylar plan with a tolerance of local gaps or maximum 3 mm; with a tolerance plus or minus 6 mm on the bottom and trailing edges and plus or minus 12 mm on the curves at the bottom of the rudder. **(For diagram see appendix)**

51.2. Double rudders and rudders fully or partly under the bottom of the boat are prohibited.

51.3. The under hull part of the rudder is the part projecting under the extended line of the keel, and it shall not project under this line more than 810 mm. The leading edge of the under hull part of the rudder shall make an angle of not more than 105 degrees with the keelline. Boats with lifting rudder blades shall fix the position of the leading edge as above during the race by means of a pin, unless a special exception is made in the sailing instructions. The distance from the leading edge of the rudder at the point of the lengthened keelline shall be not more than 60 mm from the transom. **(For diagram see appendix)**

The total weight of the complete rudder including fittings, tiller and tiller extension shall not be less than 4.0 kg.

51.4. A safety device shall be fitted so that the rudder cannot come off unintentionally if the boat is inverted.

51.5 Tiller

Construction and design of the tiller are optional. The tiller may extend aft of the transom maximum 1000 mm.

51.6. Trim tabs, or similar contrivances attached to the rudder and/or transom, are not permitted.

(numbers 52-56 are not used)

Spars and Rigging. (For diagram see appendix)

57. Mast. Permanently bent masts and rotating masts are prohibited. Construction of the mast is optional.

58. Minimum weight of the mast with only rigging, trapeze wires, and halyards, stopped and stretched along the mast, shall be

11.0 kg (excluding trapeze hooks, shroud end fittings, compasses and brackets) and then the minimum height of the centre of gravity shall be 2500 mm above band number 1. Mast corrector weights shall be permanently attached to the mast.

59. Holes shall be made in the mast near the head and the foot to allow the mast to drain. The sum of the diameters of the holes at the head and at the foot shall not be less than 10 mm. (So total 20 mm minimum).

60. The distance from the **fore side to the aft side** of the mast measured parallel to the deck line shall not be more than 100mm.

61. Mast Position: Perpendicular down from the deck line at 3600 mm from the transom, a stop shall be fitted at the mast step to prevent the mast from being moved aft of this point. The mast foot shall be on the centreline. Only a plain mast track, i.e., without slide or carriage, is allowed. **(For diagram see appendix)**

62. Mast Rigging: The standing rigging is optional, but a wire forestay shall be rigged of minimum 2 mm diameter. A rigid forestay, runners, and running backstays are prohibited, but a single centreline adjustable backstay is allowed. The shrouds shall be installed such that movement fore and aft during the race will be impossible. A flexible or solid babystay is allowed, but shall be attached not higher than 800 mm above the upper edge of band number 1 (see Rule 68).

63. The position of the forestay on the centreline is optional but shall be forward of the luff of the jib. The forestay shall be independent of the jib, and shall 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.

64. Type and material of all running rigging is optional, but it must be possible to lower the main and the jib from the cockpit while the mast is standing in its normal sailing position.

65. Boom. Permanently bent booms are prohibited. Construction of the boom is optional. Maximum length: 3100 mm.

66. The boom and the sail track, without other fittings, shall be able to pass through a circle having a diameter of 150 mm.

67. Spinnaker Boom. Maximum length including fittings: 2500 mm. Diameter and construction optional. Spinnaker boom fittings on the mast shall not protrude more than 50 mm from the outside of the mast.

68. Bands. Bands of minimum width 10mm, shall be put on the mast, in contrasting colour to the mast, as follows:

- No 1: Whose upper edge is under the deck level.
- No 2: Whose upper edge shall be maximum 800 mm above the upper edge of No 1
- No 3: Whose lower edge is maximum 6400 mm above the upper edge of No 2.
- No 4: Whose lower edge is maximum 5250 mm above the upper edge of No 1.

(For diagram see appendix)

69. The bearing point of the spinnaker halyard on its fairlead or sheave shall 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. .

(For diagram see appendix)

70. A band in contrasting colour shall be put on the boom with its foremost edge a maximum of 2840 mm from the aft side of the mast. A stop on the boom shall prevent the mainsail from extending beyond this point. **(For diagram see appendix)**

71. Bands may be painted or taped but the relevant edge of the band shall be marked with a centre punch mark.

(numbers 72-75 are not used)

Fittings and Equipment

76. The type and material of all fittings is optional except that hydraulic, pneumatic and electrical devices (including instruments) are prohibited. But electronic watches and magnetic and electronic compasses are permitted provided they have no data correlation capabilities.

(number 77 is not used)

78. The following shall always be carried on board:

- 2 efficient paddles, minimum length 1000 mm; each of minimum weight 0.25 kg.
- 2 adequate buoyancy aids each of which shall support at least 5.0 kg of lead in water.
- 1 towing line, synthetic material, minimum diameter 8 mm, minimum length 15 m and dry weight not less than 0.50 kg.

An anchor plus line are required only when and as specified in the Notice of Race and/or in the Sailing Instructions.

79. Maximum 6 bailers are allowed, total width of which shall not exceed 200mm. No bailer to be longer than 110mm. The self-bailers should have no sharp corners.

80. Sails

The dimensions given on the sail plan are maximum, except the measurement giving the position of the top batten (minimum dimension). Material and weight of sail cloth are optional. (No Mylar or Kevlar allowed, see Rule 112.) Sails shall be of woven material.

81. All sails shall be flexible, soft and capable of being easily stowed. The body of the mainsail and the genoa shall each be of a single colour except for windows, and markings in accordance with **ISAF RR 77 and Appendix G**. The body of the sail, other than the windows, as defined under Rule 83, shall be so constructed that it can be folded flat in any direction other than in the way of the corner stiffening as defined below. Reinforcement having the effect of stiffening the sail shall be permitted without limitation in size but

it shall be possible to fold it by hand in any direction within an outside diameter of 8 mm. For batten pocket stiffening, see Rule 100.

82. Sails passing round the forestay or mast and attaching back onto themselves are considered to be double luffed sails and are not permitted.

83. Unwoven windows are permitted in the mainsail and in the genoa with a total area not exceeding 1.00 m² in each sail.

84. No intentional openings in the sails are allowed apart from the cringles and reefing eyelets. An eyelet in the middle of the spinnaker is permitted.

85. Emblems - Sail Letters – Numbers

The class emblem shall be the letters **FD**. The sail number, letters and class emblem shall be placed as laid down in the ISAF RR Appendix G. In addition to ISAF Appendix G1.1 (b) mainsails and spinnakers shall carry national letters in home waters. Contrary to ISAF RR Appendix G1.3(e) national letters and sail numbers are not required on genoas.

86. All sails shall be measured in a completely dry state and laid on the floor with tension adequate to remove all wrinkles adjacent to the measurement being taken. After it has passed measurement each sail shall be stamped with the special stamp (Rule 12), and dated and signed by the measurer.

Jib/genoa

87. The size of the jib is optional but, when the boat is fully rigged with sails hoisted in racing trim and sheeted for windward sailing, no part of the jib shall project forward of or above an imaginary line drawn from a point on the deckline 5450 mm from the aft side of the transom, to a point on the mast below band number 4, with a tolerance of 5 mm at the halyard sheave (Rule 38). **(For diagram see appendix)**

88. The bearing point of the jib sheet on its fairlead must be forward of a line 2000 mm from and parallel to the transom. It shall be impossible to fix the bearing point of the jibsheet on its lead

further aft, nor shall it be possible to extend the jib or genoa beyond this point (Rule 37). **(For diagram see appendix)**

89. The bearing point of the jib sheet on its fairlead shall be less than 60mm from the upper side of the deck.

89a. Multiple clew eyes are allowed in the genoa.

90. No jib may be set unless tacked down on the centreline of the boat.

90a. A blooper or big-boy type jib is prohibited. The sheet of the spinnaker shall not pass to windward of any other jib.

91. Neither elastic strips of different material to that of the sail, nor regulating cords are permitted in or attached to the foot of the jib or genoa.

92. No headboard, battens or footclub are allowed in the jib.

Mainsail

93. A double-luffed or loose-footed mainsail is prohibited.

94. The leech of the mainsail when not under tension shall in no place be concave.

95. The headboard of the mainsail shall not exceed 120 mm in any direction and no part shall extend higher than the top of the luff. **(For diagram see appendix)**

96. The luff of the mainsail when set shall lie between bands number 2 and number 3. The extension of the foot rope groove in the boom shall not cross the mast at a lower point than the upper edge of the band number 2. The foot of the mainsail shall not extend beyond the forward edge of the band on the boom.

97. The length of the leech for the purpose of this measurement shall be the straight line distance between the lowest point of the sail, directly under the centre of the clew cringle, and the highest

point of the headboard nearest the luff and shall not exceed 6800 mm.

98. The cross measurement, being the distance between the mid-point of the leech and the mid-point of the luff, shall be maximum 1900 mm, including the bolt rope, with the sail lying on the floor with just sufficient tension to remove wrinkles.

***Instruction:** The mid-point of the luff shall be determined by folding the sail upon itself, with the highest point of the headboard nearest the luff even with the lowest edge of the bolt rope nearest the tack. The mid-point of the leech shall be determined with highest point of headboard nearest the luff even with the lowest point of the sail directly under the centre of the clew cringle. Where the tack of the mainsail cannot be clearly defined, the mid-point of the luff shall be found by stretching the full length of the luff by hand sufficiently to remove the wrinkles in the cloth and measuring from the head along the luff a distance equal to half the measurement between the inner edges of the mast bands, (mostly 3200 mm).*

Battens

99. The extension of the upper edge of the inside of the upper batten pocket shall 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 leach, measured along the inner edge of the upper batten pocket shall be less than 1010 mm. **(For diagram see appendix)**

100. Not more than 4 sail battens are permitted in the mainsail. The batten pockets shall divide the leech into equal parts plus or minus 100 mm. Batten pockets shall not be more than 60 mm wide. The maximum inside length of the batten pockets, measured from the aft edge of the sail, shall not exceed 1000 mm.

Sail stiffening adjoining the batten pockets is permitted but it shall be possible to fold the stiffening by hand in any direction within an outside diameter of 8 mm (Rule 81).

Spinnaker

101. The spinnaker shall be measured folded along its centreline with the luffs together, lying flat on the floor with just sufficient tension to remove wrinkles. When sails are cut spherically and

without a middle seam, the sail is laid down with a minimum of wrinkles or loose cloth.

Instruction: *The spinnaker shall be measured folded in half. With the contour (spherical) spinnaker, this is not very easy but it can be done when the clew and tack are laid on top of each other and the middle fold of the spinnaker found. It is not possible to lay the spinnaker entirely flat but that does not matter. The middle is measured by laying the tape along the middle fold. The leech and the luff lying on top of each other are measured in the same way. If the leech and luff are rounded, the tape is laid along the edge of the sail and not straight from top to clew and tack. With the sail in this position the top is brought onto the tack and clew so that the leech and luff are folded in half. Then the fold created by this is measured. In case of a contour spinnaker this fold is not straight but the measurement is taken from the luff/leech to the middle along the fold. Then the top is folded back again onto the fold just found which will give the top transverse measurement in the same way as the first measurement was found.*

102. Spinnakers must be symmetrical in form and construction.

103. The length of the luffs shall not exceed 5500 mm. They are measured along the edges of the sail from the highest point of the sail or the headboard to the lowest point of the sail directly below the centre of the tack or clew cringles.

104. The length of the centrefold shall be measured around the curved edge and shall not exceed 6600 mm.

105. The half length of the foot shall be measured around the curved edge and shall not exceed 2050 mm. The foot shall have a substantially uniform curvature (i.e., it shall be part of a circle). It shall be possible to superimpose any two parts of the foot in such a way that they are within 20mm of each other when laid flat.

106. The half-height cross measurement shall not exceed 2080 mm and is measured along the edge of the fold found by putting the highest point of the sail or the headboard on top of the lowest point of the sail directly below the centre of the tack or clew cringles.

107. The three-quarter height cross measurement shall not exceed 1750 mm and is measured along the edge of the fold found by moving the head back to the intersection of half-height cross fold and the leach.

108. The spinnaker headboard shall not exceed 120mm in width.

109. Not more than 2 spinnakers are allowed on board during a race.

110. Reinforcement, as in Rule 81, is permitted somewhere in the middle of the spinnaker for holding the fitting for lowering the sail.

111. Crew

The crew consists of two persons, both amateurs as defined by the ISAF.

112. 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 shall be obtained from the General Committee IFDCO. Composite materials such as those incorporating boron and other materials of limited availability, are prohibited. However, carbon fibre (fibres of graphite) and/or aromatic polyamides (aramid) such as Kevlar (Dupont trade name), shall be permitted as a reinforcing material in hulls, rudders and centreboards, booms and spinnaker poles, but not on Masts (including spreaders) and sails.

113. Equipment Limitation

a) In regatta series, certain limitations regarding equipment may be enforced when the notice of race and the sailing instruction contain the following provisions:

"This regatta series named _____ from _____ to _____ has limitations as to equipment in accordance with Rule 113."

b) Definition of regatta series: A regatta series is a number of races scheduled to be sailed on consecutive days (one or two days or rest days or non-sailing days do not break the sequence) or on two consecutive weekends or long weekends, for one points prize or

title.

c) The limitations regarding equipment for a series are:

1 mainsail, 1 spinnaker, 2 genoas, 1 mast, 1 boom, 2 spinnaker poles, 1 centreboard, 1 rudder.

d) If there is any damage to the equipment as mentioned under subparagraph c), it is at the discretion of the jury to allow replacements.

e) Marking limited equipment: The equipment mentioned in c) shall be identified by clearly visible markings, which cannot be transferred to other equipment.

114. Wet Clothing

Clothing Weight ISAF RR 43.1 and appendix H shall apply, but weights shall be as specified below:

Crew: Total weight of clothing and equipment worn or carried, excluding trapeze harness, socks and shoes, shall not exceed 10 kg

Helmsman: Total weight of clothing and equipment worn shall not exceed 7 kg; weighed as for the crew.

115. Outrigger

In contravention to ISAF RR 50.3, an outrigger is allowed, of maximum 60mm outside the hull and not more than 500mm from the shrouds, to lead the spinnaker guy (luff sheet).

116. Foot straps

Foot straps which do not support the crew's feet further outboard than the gunwhale rubbing strip are permitted.

117. Shoes

The soles of the crew's footwear (trapeze man) shall not be thicker than 30mm.

118. Side Deck Pads

Detachable side deck pads, material optional, are allowed aft of the bearing point of the jib sheet (Rule 37) but shall not project outside of the maximum permitted width of the rubbing strake (Rule 36).

119. Advertising

Advertising is permitted in accordance with ISAF RR 79 and Appendix 1, Regulation 20, Category C, but restricted, in accordance with regulation 20.4.4, as shown in the diagram in the appendix.

120. Sailing Instructions

For World and European Championships and the FD Week, only the latest version of the ISAF Standard Sailing Instructions, ISAF RR Appendix K, as amended by the IFDCO and ISAF to be in compliance with the FD Championship Rules, shall be used.

121. Propulsion

All of ISAF RR 42 is altered (as permitted by ISAF RR 86.1 (c)) to read as follows:

On a free leg of the course, the following actions are permitted for the sole purpose of accelerating a yacht down the face of a wave (surfing) or, when planing conditions exist, responding to an increase in the velocity of the wind:

Not more than three rapidly-repeated trims and releases of any sail (pumping).

There shall be no further pumping with respect to that wave or increase of wind.

Appendix:

Diagrams

Length LOA 6.06 m
Length DWL 5.50 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

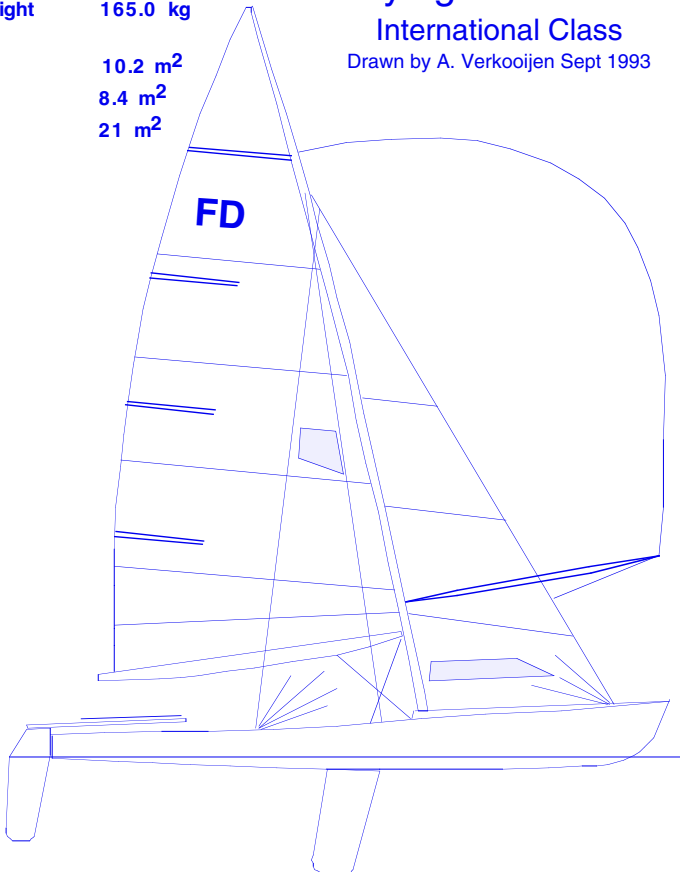
Sailplan

of the

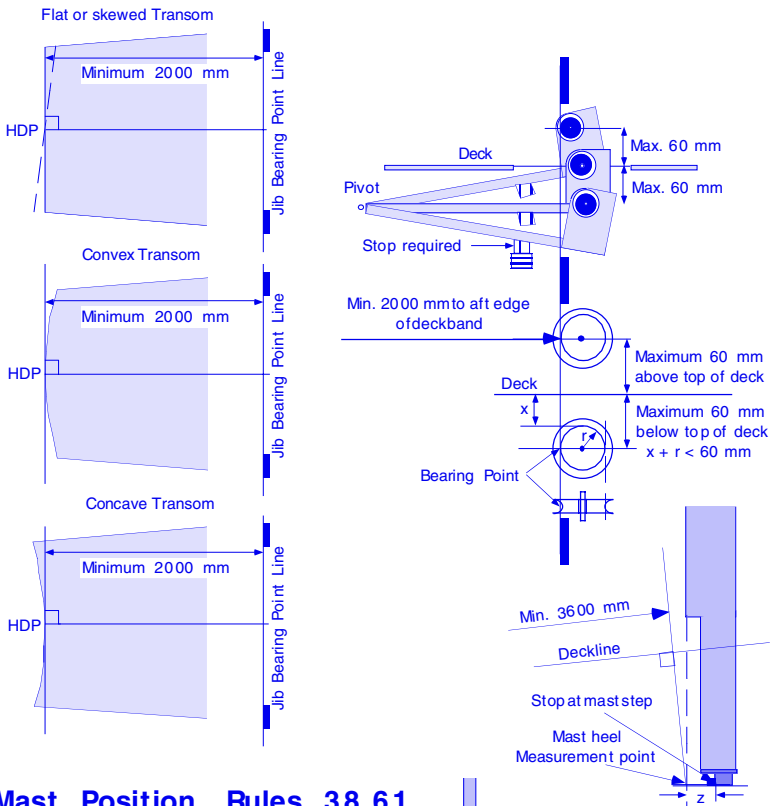
Flying Dutchman

International Class

Drawn by A. Verkooijen Sept 1993



Genoa Sheet Fairlead, Rule 37



Centerboard and Rudder Rules 50-51

Centreboard

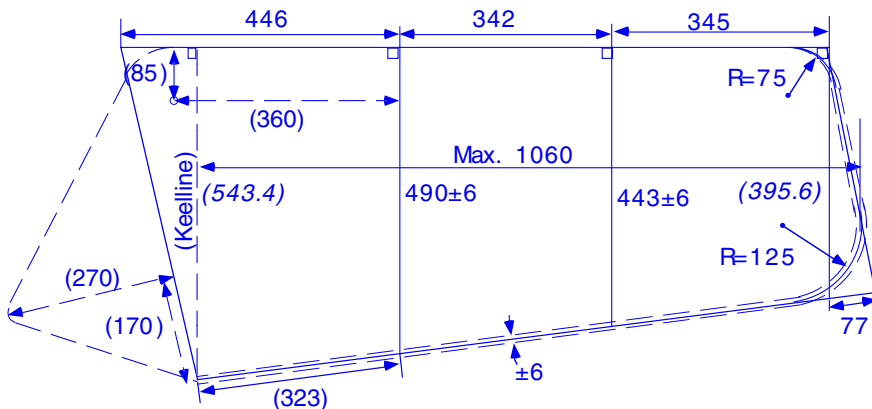
Rule 50

Max. thickness 23.0 mm

23.0 mm

Min. weight

5.50 kg

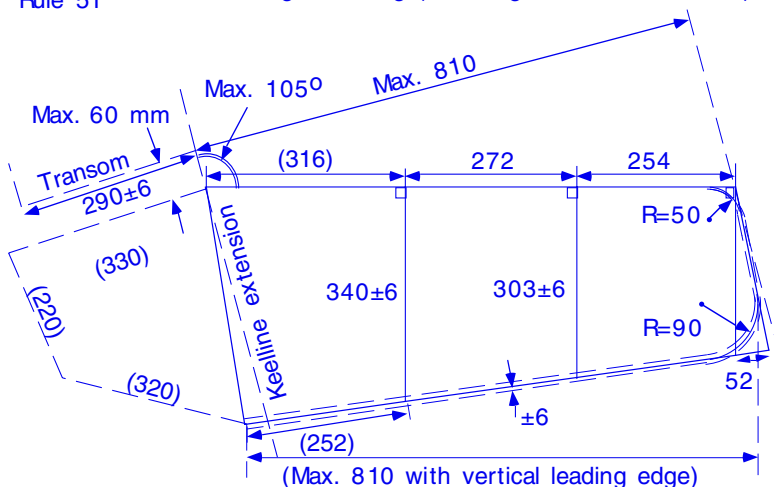


Rudder

Rule 51

Thickness: free

Min. weight: 4.0 kg (including tiller and extension)



Notes: Only under keel line part must conform

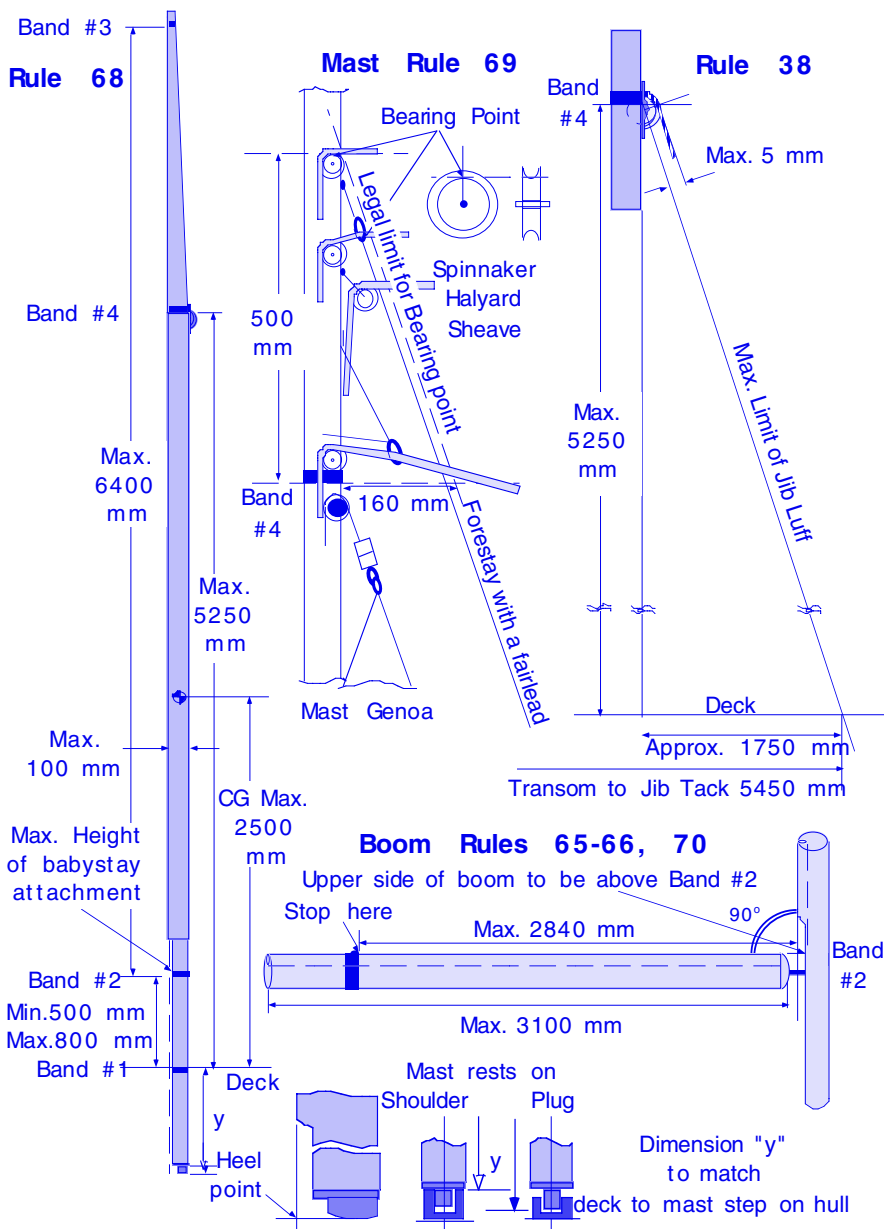
Dashed lines are advised shapes and dimensions only

Keel line drawn perpendicular to C/ B leading edge, at Max. depth.

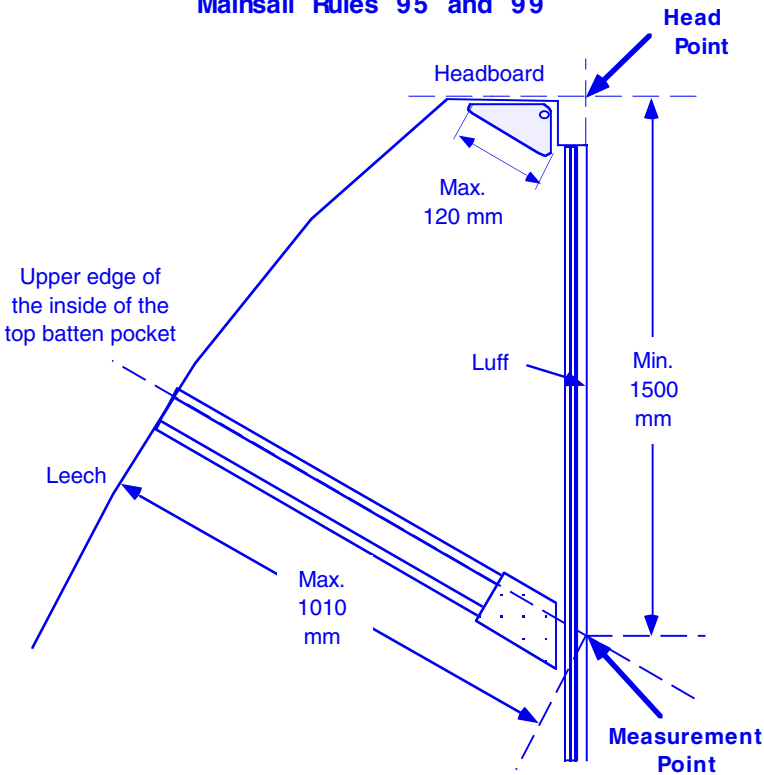
Leading edge of rudder drawn at 105° to keel line, at Max. Depth

Dimensions in mm, (suggested in brackets), (*derived in italics*).

Mast and Boom Rules 57-71

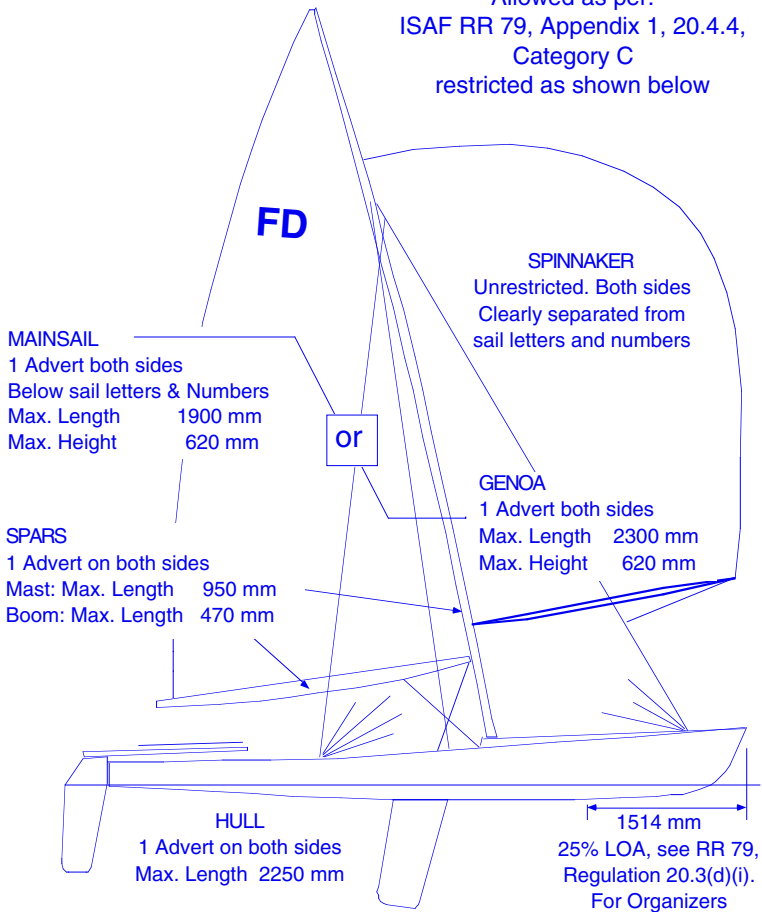


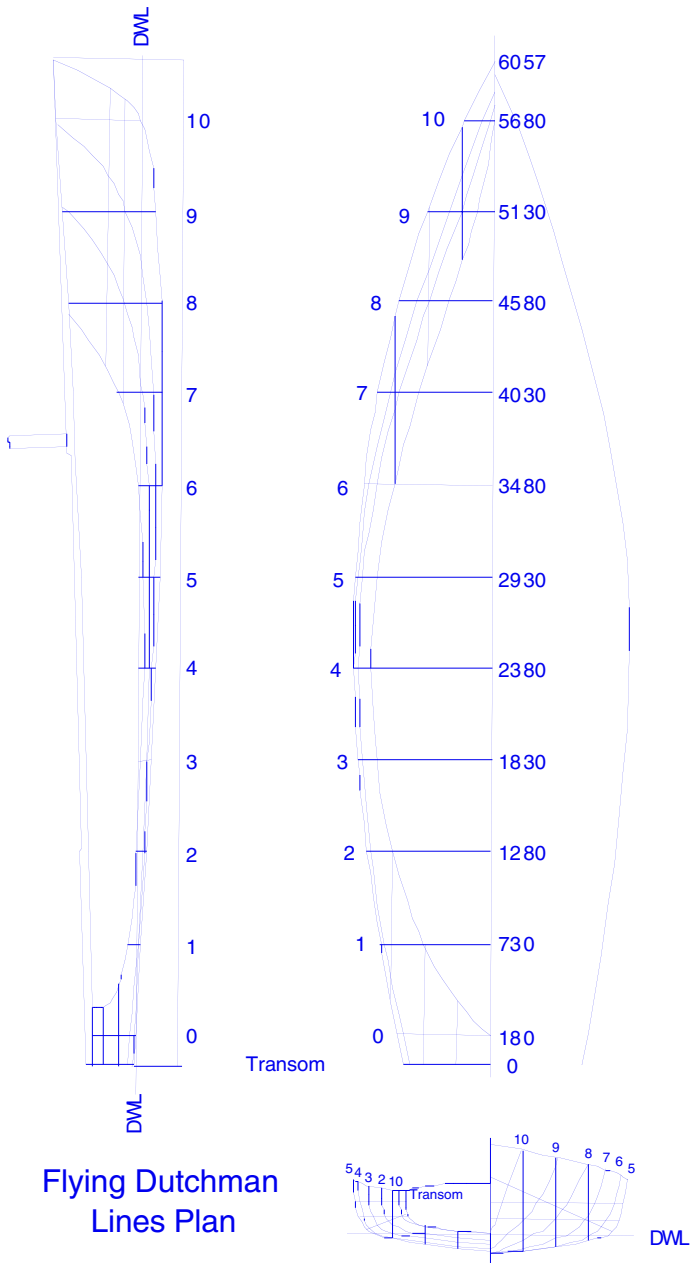
Mainsail Rules 95 and 99



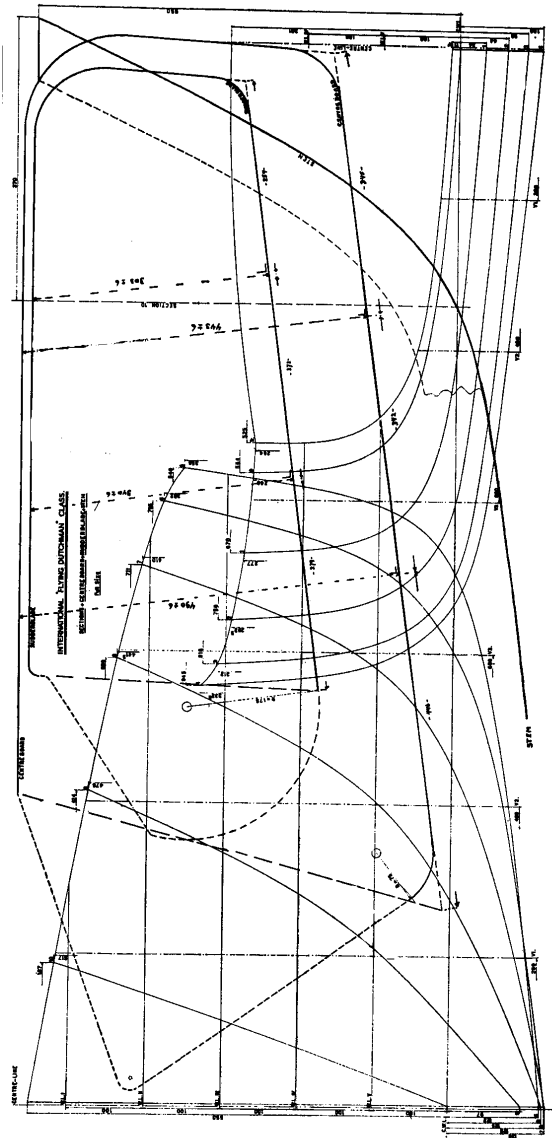
Advertising, Rule 119

Allowed as per:
ISAF RR 79, Appendix 1, 20.4.4,
Category C
restricted as shown below

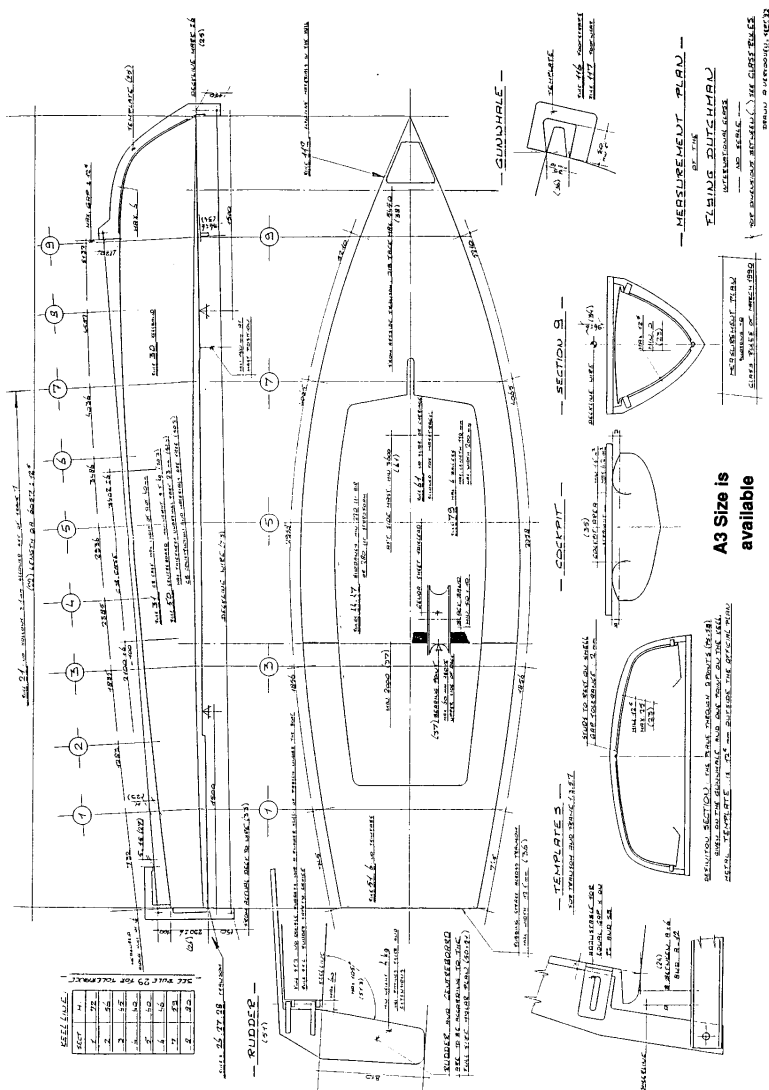




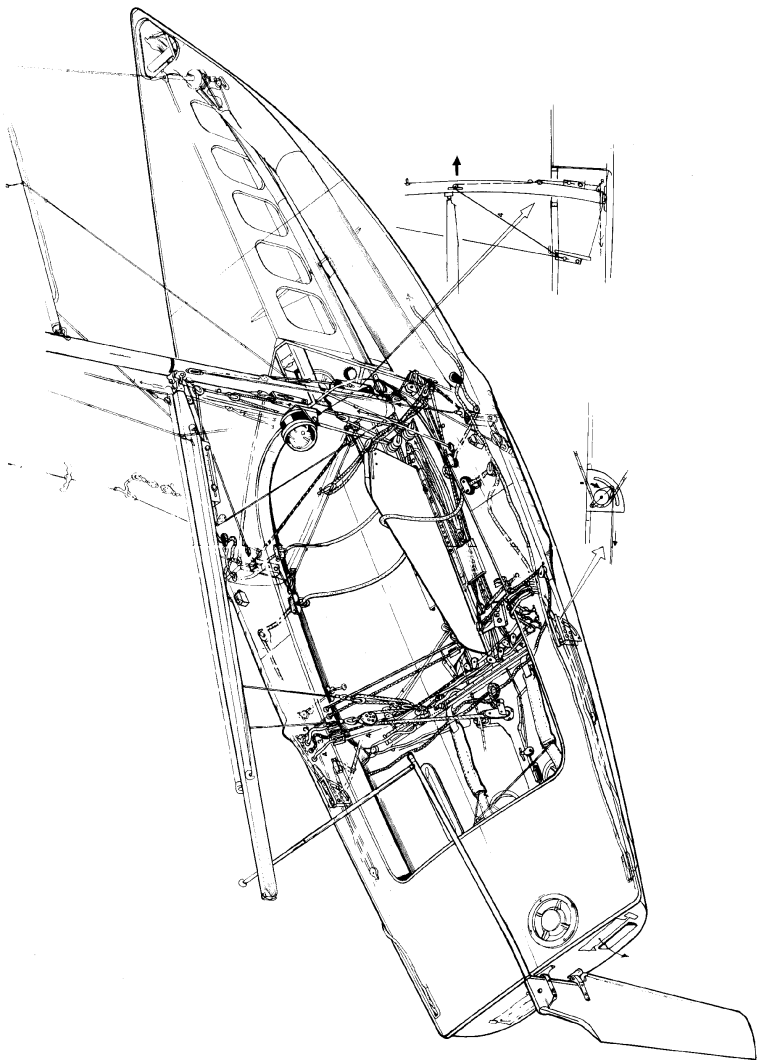
Flying Dutchman
Lines Plan



Flying Dutchman Plan (available full size on Mylar)



Flying Dutchman Measurement Plan



The Diesch 1980 Mader Flying Dutchman



MODERN CONSTRUCTION WITH REINFORCEMENTS

Table of Offsets in mm

Half Breadth to outside planking														
waterline														
Post fwd	tr	0	1	2	3	4	5	6	7	8	9	10	waterlines	stem behind
0	0	180	730	1280	1830	2380	2930	3480	4030	4580	5130	5680	6057	ord. 11
1												181.5	1	23
1.5											402.5	164.5	1.5	45.5
2											380	148	2	69
2.5							839	788	691	548	357.5	130.5	2.5	93
3					815.5	843	831.5	777.5	674	525	333	113	3	118
3.5	525	563.5	669	755	812.5	839.5	824.5	765	655.5	500.5	308.5	95.5	3.5	145
4	524	560	665.5	751	808.5	835	817	751.5	635	473	280	78	4	174
4.5	515	552	659	745	802	828	807	735	611	442	247.5	60	4.5	207
5	487	528	641	729	788	814	793	712.5	578.5	403	208	41.5	5	245
5.5	390.5	446.5	594	691.5	760	787	767.5	672.5	530	349.5	163	22	5.5	294
6	3	407.5	603	700	735.5	707	603	451	274.5	111	3	cwl	cwl	370
6.5			187.5	424	548	545.5	472	326	176.5	56	6.5	6.5	6.5	370+183
sheer	525	564	670	758	816	845	840	795	711	589	414	187	sheer	0
0.5	16	5.5	-27.5	-57	-81	-99.5	-111	-115.5	-108.5	-84.5	-10.5	262	0.5	
1	23.5	12.5	-20.5	-49	-72.5	-90	-100	-101.5	-85.5	-39	90.5		1	
1.5	34.5	22.5	-11.5	-40	-62.5	-79.5	-89	-86	-58	15	234	1.5		
2	52.5	38.5	-1	-30	-52.5	-68	-75	-68	-23	96.5	444	2		
2.5	115.5	75.5	14.5	-18	-41	-56	-59	-41.5	28	249		2.5		
3			54	-1	-27	-42.5	-37	-1.5	131.5			3		
3.5			58	0	-18	-3.5	81	376				3.5		
keel	11	0	-34	-64	-90	-109	-122	-129	-130	-125	-97	0	keel	
sheer	264	266	277	292.5	312	332.5	356	382	410	441.5	476	517	sheer	
Post fwd	0	180	730	1280	1830	2380	2930	3480	4030	4580	5130	5680	6057	
from cwl to outside planking														
waterline														
Post fwd	tr	0	1	2	3	4	5	6	7	8	9	10	waterlines	stem behind
0	0	180	730	1280	1830	2380	2930	3480	4030	4580	5130	5680	6057	ord. 11
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1.5	34.5	22.5	-11.5	-40	-62.5	-79.5	-89	-86	-58	15	234	1.5		
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2.5	115.5	75.5	14.5	-18	-41	-56	-59	-41.5	28	249		2.5		
3			54	-1	-27	-42.5	-37	-1.5	131.5			3		
3.5			58	0	-18	-3.5	81	376				3.5		
keel	11	0	-34	-64	-90	-109	-122	-129	-130	-125	-97	0	keel	
sheer	264	266	277	292.5	312	332.5	356	382	410	441.5	476	517	sheer	
Post fwd	0	180	730	1280	1830	2380	2930	3480	4030	4580	5130	5680	6057	

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