

# International FJ Class Rules 2003

## 1. General

1. The FJ is a One-Design Class. The intention of these rules is to ensure that boats are as alike as possible in hull form, hull weight, shape of centerboard and rudder blade, mast and weight and sail plan.
2. The official language of the Class is English and in the event of dispute over the interpretation the English text shall prevail.
3. These rules are complementary to the plans, measurement form and measurement diagram. Any interpretation shall be made by the ISAF, which may consult the International FJ Organization (IFJO).
4. In the event of discrepancy between these rules, the measurement form and/or the plans, the matter shall be referred to the ISAF.
5. In countries where there is no National Authority (NA) or the NA does not wish to administer the class, its functions as stated in these rules shall be carried out by the IFJO or its delegated representatives (National Associations).
6. Neither the ISAF nor the IFJO accept any legal responsibility in respect of these rules and/or the plans or any claim arising therefrom.

## 2. Builders

1. The FJ may be built by any professional or amateur builder, no building license is required.

## 3. International Class Fee

1. The amount of the International Class Fee shall be reviewed biennially by the ISAF in consultation with the IFJO.
2. The ISAF is responsible for the collection and distribution of the International Class Fees. The International Class Fee shall be payable by the builder on each boat built whether or not it is subsequently measured and registered. The International Class Fee shall be 41.82 pounds sterling (plus VAT where applicable) for 2003.
3. Payment shall be made to the ISAF which shall issue an International Class Fee Receipt and plaque. The International Class Fee Building Plaque shall be fixed by the builder into the boat and the builder shall deliver the International Class Fee Receipt to the owner of the boat.
4. Boats built, measured and registered before 1 July 1972 do not need to have an International Class Building Fee Plaque.

## 4. Registration

1. No boat is permitted to race in the class unless it has a valid measurement certificate and the International Building Fee Plaque is fixed into the boat except as exempted by Class Rule 3.4.
2. Each NA shall issue sail numbers which shall be consecutive and the number shall be preceded by the official national letter(s). A NA shall issue a sail number only on receipt of evidence that the International Class Fee has been paid.
3. No two boats in the class registered in the same country should have the same name.
4. The certificate is obtained as follows: (i) The owner or builder shall apply to the appropriate NA for a sail number enclosing the International Class Fee receipt and may at the same time submit the proposed name of the boat. The NA shall enter the sail number on the International Class Fee receipt. ii) The owner or builder shall have the boat

measured by a measurer officially recognized by the NA. Three copies of the completed measurement form shall be supplied to the owner of the boat. The owner shall send three completed measurement forms to the NA together with any registration fee that may be required. On receipt of this the NA may issue a certificate to the (iii) owner. The certificate contains the information as stated on the measurement form.

5. Change of ownership invalidates the certificate but shall not necessitate remeasurement. The new owner may apply to the NA for a new certificate, returning the old certificate together with any registration fee required and stating the necessary particulars. A certificate shall then be issued to the new owner, or the original measurement certificate endorsed.
6. It is the owner's responsibility to ensure that the boat, spars, sails and equipment comply with the class rules at all times and that alterations, replacements or repairs to the boat, spars, sails or equipment do not invalidate the certificate.
7. Notwithstanding anything contained in these rules, the ISAF or NA shall have the power to refuse to grant a certificate to, or to withdraw a certificate from, any boat.
8. The IFJO shall receive at regular intervals from each NA details of sail numbers and certificates issued, together with the names and addresses of owners and a copy of the measurement forms, or measurement certificates.

## **5. Measurement**

1. Only a measurer officially recognized by a NA shall measure a boat, its spars, sails and equipment and sign the declaration on the measurement form that they comply with these rules.
2. Measurement tolerances are intended to allow for genuine building errors only and shall not deliberately be used to alter the design. The measurer shall report on the measurement form anything which he may consider to be unusual or to depart from the intended nature of the boat, or to be against the general interest of the class and a certificate may be refused even if the specific requirements of these rules are satisfied.
3. A measurer shall not measure a boat, spars, sails or equipment owned or built by himself, or in which he is an interested party, or has a vested interest.
4. New or substantially altered sails shall be measured by a measurer who shall stamp, or sign, and date the sails near the tack.
5. Templates used for official measurements shall be supplied by ISAF. Templates shall be full width non-hinged or two half-width templates hinged and fitted with a locking system.
6. Boats measured before 1 April 1982 and made with building moulds made before 1 April 1980 in accordance with half-width templates and not measuring to above described templates shall have the right to race in all regattas in the future.
7. All boats, spars, sails and equipment shall comply with the current rules or with the corresponding rules applying to them at the time the certificate was issued. Any alterations or replacements shall comply with the current rules.
8. All boats spars, sails and equipment shall be liable to re-measurement at the discretion of a NA or race committee.

## **6. Identification Marks**

1. The hull shall carry, either cut into or indelibly marked on the hog or the top of the centerboard case or near the shroud fittings, the sail number and national letters in figures and letters not less than 25mm high. If the boat is sold to another country, the hull shall carry the new sail number and national letters in addition to the old one.
2. The hull shall carry the International Class Fee plaque fixed in a conspicuous position inside the cockpit.

3. The mainsail and spinnaker shall carry identification marks as indicated in rules 19.3.
4. All emblems, marks and numbers shall be of a durable material securely attached. Emblems, marks and numbers made with indelible ink will also be accepted providing they are distinctly visible.

## 7. Construction

1. The construction of the hull and layout of deck and cockpit is optional. The plans give recommended forms of construction together with suggested scantlings.
2. No part of the deck shall be more than 30mm above the deckline. The spray deflector is not part of the deck.
3. The 'deckline' is the imaginary line between the upper edge of the transom at the centerline and the highest point of the stem (excluding fittings).
4. The size and construction of the centerboard case, thwarts, floors, and bottom-boards is optional.
5. The centerboard slot shall not be more than 2262mm or less than 1288mm from the aft side of the transom measured along the keel. If fitted for a daggerboard the aft side of the centerboard slot shall not be less than 1588mm from the aft side of the transom measured along the keel. The width of the centerboard slot shall not exceed 40mm.
6. The transom shall be set at the extreme aft end of the hull as shown on the plans.
7. The height of the transom at the centerline of the hull shall be 400mm +/- 6mm.
8. The transom shall meet the extension of the keel line at an angle of 84° +/- 6°.
9. Where the skin of the hull joins the transom the radius shall not exceed 10mm.
10. Drainage flaps shall not be installed so that they can serve as surfaces lengthening the boat.
11. Gunwale rubbing strakes shall be fitted along the topsides at the height of the sheerline and shall not extend more than 50mm forward of the stem or 50mm aft of the transom. The width of the rubbing strakes shall not be less than 5mm or more than 50mm outside the skin if the boat is partly covered with fixed decking, or 90mm outside the skin if the boat is undecked. The width of the rubbing strake inside of an undecked boat less than 5mm or more than 35mm. The depth of the rubbing strake shall be not more than 35mm.
12. A keelband is optional. If fitted, the keelband, 4mm +/- 1 mm thick and 7.5mm +/- 1 mm wide, shall run the full length of the outside of the keel and stem and shall be duplicated round the centerboard slot. The keelband shall not be let or faired into the hull.

## 8. Hull Measurement

1. The sum of the maximum positive and maximum negative deviation in the keel rocker measurements (H) shall not exceed 10mm. Templates shall be whole templates as shown. The sum of the maximum positive and maximum negative deviation in the shape of any hull section checked by template shall not exceed 10mm. (This means the difference between largest and smallest clearance shall not exceed 10mm).
2. The hull shall conform to the lines plan, the plan of sections, stem and transom at full size to be controlled by the table of offsets, and shall be measured in accordance with the measurement diagram.
  - i. The sum of the maximum positive deviation and the maximum negative deviation in the hull measurements shall not exceed 10mm (the hull measurement being the distance from the constructed line over the keel as in the diagram to the keel.)
  - ii. The tolerance for each beam measurement shall be +/- 10mm (beam measurement as on the diagram).
  - iii. The sum of the maximum positive deviation and the maximum negative deviation (ignoring plus or minus, so taking the figures only) of any section checked by a template shall not exceed 10mm.

3. The overall length of the hull, excluding fittings and rubbing strake overlaps, shall be 4030mm +/- 10mm.
4. With the aft end of the stem template within 6mm of section 9, the vertical distance from the upper side of the template at the sheerline, to the upper side of the deck at the stem shall be not more than 12mm. The template, between the end lugs, shall touch or clear the stem by not more than 6mm.
5. The section templates shall be placed so that:
  - i. The template is situated entirely on the imaginary plane through the points set out on both gunwales and on the keel.
  - ii. The lugs (extensions) of the templates touch the skin.
  - iii. One end (keel) is situated on the centerline of the boat or if the keel is not in the center of the boat at an equal distance from the sheerlines of that section. The sum of the maximum positive and negative deviations taken over both sides of one section shall not exceed 10mm. The rubbing strake shall not prevent the template lug (extension) from touching the hull. The vertical distance from the upper side of the template at the sheerline to the upperside of the deck shall not be more than 12mm.

See Measurement Diagram

## **9. Buoyancy**

1. Boats shall have buoyancy tanks or bags firmly attached to the hull sufficient to float the boat, plus 150kg approximately level when capsized or full of water. Boats built from 1 January 1995 shall have at least two separated buoyancy tanks.
2. Boats shall have a separate bow buoyancy bag of not less than 70 liters securely fastened or put into a tank. Inspection of the bag shall be easily possible. If buoyancy bags are not readily available, the bow buoyancy bag may be replaced by slabs of rigid non-communicating air cell foam plastic.
3. The structure of the hull shall be inherently buoyant in the event of failure of all buoyancy tanks and/or bags.
4. Inspection holes shall be closed in a watertight manner with detachable covers capable of resisting dislodgement whenever the boat is afloat, capsized or full of water, and shall be of sufficient size to enable secondary buoyancy to be inspected.
5. The measurer shall satisfy himself that buoyancy compartments are watertight.

## **10. Centerboard Or Daggerboard**

1. The construction and materials is optional.
2. The under hull part of the board in its lowest position shall conform to the equivalent plan with a tolerance of +/- 6mm on the bottom and trailing edges (excluding keel bands). A stop shall be fitted on the board to prevent it from being lower more than 710mm below the hull.
3. The position of the board bolt or notch is optional.
4. The centerboard or daggerboard shall not be turned so that the aft side faces forward be rotated so that its aft edge is raked forward of perpendicular at the point it exits the hull.
5. Trim tabs and similar contrivances are prohibited.

## **11. Rudder And Tiller**

1. The construction and material of the rudder, tiller and tiller extension are optional.
2. The shape of the underwater part of the rudder blade shall conform to the full size plan with a tolerance of +/- 6mm on the bottom and trailing edges. Rudder blades, measured before 1 March 1996 may be used up to 1 March 2000. However, the waterline shown on the plan need not conform to the actual waterline.

3. A pivoting rudder blade is permitted. The depth of the rudder blade, measured vertically, below the underside of the transom, shall not exceed 600mm with the blade in the fully lowered position.

## 12. Mast

1. The mast shall be of wood or aluminum alloy.
  2. The position of the mast is optional.
  3. Permanently bent masts and rotating masts are prohibited but a set due to distortion of up to 40mm between the upper and lower measurement bands is permitted.
  4. The weight of the mast including rigging (incl. trapeze wires) and usual fittings but without any removable part of the trapeze system shall not be less than 7kg if deck stepped, or 7.5kg if stepped inside the boat.
  5. Measurement bands, not less than 10mm wide, shall be marked on the mast in a contrasting color, clearly discernible when racing.
    - No. 1 The upper edge of which shall be below the deckline. If the mast is decked stepped, band No. 1 is not used. All other bands on the mast shall relate to the deckline.
    - No. 2 The upper edge of which shall be not more than 650mm above the upper edge of band No.1.
    - No. 3 The lower edge of which shall be not more than 4850mm above the upper edge of band No.2.
    - No. 4 The lower edge of which shall be not more than 4100mm above the upper edge of band No.1.
- Band Nos 1, 2, 3 and 4 shall be white on black spars.
6. The extension of the underside of the spinnaker halyard, when held taut at right angles to the mast, shall intersect the foreside of the mast not more than 45 mm above the lower edge of band No. 4. If led through an eye or block, no part of such eye or block shall project more than 51 mm from the foreside of the mast.

## 13. Boom

1. The boom shall be of wood or aluminum alloy.
2. The boom complete with track but without other fittings, shall be able to pass through a 100mm diameter circle.
3. Permanently bent booms are prohibited but a set due to distortion up to 20mm between the measurement band and the fore end of the boom is permitted.
4. A measurement band, not less than 10mm wide, shall be marked on the boom, so that it is clearly discernible when racing with its inner edge not more than 2440mm from the aft edge of the mast excluding any local curvature.

## 14. Spinnaker Boom

1. When the spinnaker boom is fixed to the mast under light pressure and held at right angles to the centreline, the bearing surface of the outboard fitting, shall not project further at the frontside from the centreline from the mast more than 1625mm.
2. If the spinnaker boom is used to boom out the headsail it may be placed against the weather shroud.

## **15. Standing Rigging**

1. The standing rigging is optional but a wire forestay, diameter not less than 2mm shall be fitted. The forestay shall be attached at a point not more than 100mm aft of the stem, but it shall not be placed on the gunwale. The forestay shall be separate from the jib.
2. A rigid forestay and running backstays are prohibited.

## **16. Running Rigging, Sheets And Fittings**

1. The type of material of running rigging, sheets and fittings is optional. The headsail tack shall be attached at or aft of the forestay attachment.
2. Contrary to The Racing Rule of Sailing 50.3, fairleads may be fitted to the rubbing strake, but shall not project beyond the outer edge of the rubbing strake.

## **17. Prohibitions**

1. Roller reefing devices for the headsail.
2. Spinnaker chutes.
3. Electronic instruments.

## **18. Weight**

1. The weight of the hull in dry condition including all fixed fittings, buoyancy apparatus and protective finish, but excluding sails, spars, rudder, centerboard, movable fittings, floorboards (unless glued to the hull shell) and other equipment shall not be less than 75kg.
2. If a boat is found to be under weight, as in 18.1, corrector weights shall be fitted to bring up to the minimum weight permitted. The total weight of the correctors shall not exceed 5kg. The correctors shall be fixed to the hull in a secure and visible manner. The total weight of the correctors shall be recorded on the certificate. The boat shall be re-weighed by a measurer and certificate obtained following alteration or removal of the correctors.

## **19. Sails**

1. All sails shall be flexible, soft and capable of being easily stowed whether of woven or non-woven fabric. The body of the sail other than windows as defined under this rule shall be so constructed that it can be folded flat in any direction other than in way of the corner stiffening as defined below. Reinforcement having the effect of stiffening the sail shall be permitted within a distance of 320mm from each corner, but it shall be possible to fold it (with one hand) in any direction with an external diameter not exceeding 4mm. All two or more layers of cloth which are greater size than normal seams or broad seams will be deemed reinforcement but shall be allowed provided it is not stiffened by the addition of bonding agents, close stitching or otherwise. Glued seams shall not be considered stiffening. One unwoven window each in mainsail and jib is permitted. Such shall not exceed 0.30 square meters and shall not be closer to the luff, leech or foot than 150mm for the mainsail and 100mm for the jib. All sails shall be measured in a completely dry state and a flat surface with tension adequate to remove wrinkles adjacent to the measurement being taken. After it has passed measurement each sail shall be stamped with a special stamp dated by the measurer.
2. Sails shall be made and measured in accordance with the ISAF Sail Measurement Instructions where varied herein. Non-woven sails are permitted.

3. The sail number, letter(s) and class emblem shall be placed as laid down in The Racing Rules of Sailing. The emblem of the class shall be the letter FJ not less than 250mm high. The sail and letters shall be of the following minimum dimensions: Height 250mm Width 165mm (excluding number one and letter 1) Thickness 35mm Minimum space between adjoining figures 50mm. On the spinnaker, the class emblem, the national letters and the sail number shall be placed only one time, good readable from the front. On the spinnaker the national letters and sail numbers shall be placed on the front side of the sail (and may be placed on both sides) in such a way that they are clearly visible and legible.
4. No intentional openings in the sails are permitted except for normal cringles, cunningham reefing eyelets.

5. Mainsail

- i Three sail battens be fitted dividing the leech into approximately equal parts +/- 60mm.
- ii A headboard may be fitted. The width of the headboard measured at right angles to the line of the luff shall not exceed 120mm at the widest point.
- iii No part of the sail shall extend aft of the inner edge of band No.3. The forward extension of the line of the upper edge of the boom shall not be lower than the upper edge of band No.2. The luff of the sail, when set, shall be between the bands 2 and 3.
- iv The following measurements shall be taken:
  - (a) Leech, distance in a straight line from upper forward corner of headboard to lower edge of boltrope below centre of clew cringle, shall not exceed 5250mm.
  - (b) Length of middle batten pocket shall not exceed 775mm
  - (c) The length of the lowermost batten pocket shall not exceed 525mm.
  - (d) Headpoint to intersection of luff and centreline of uppermost batten pocket shall not exceed 1290mm.
  - (e) The width of the batten pockets shall not exceed 50mm.
  - (f) At the half leech point the nearest point on the luff including the luff rope shall not be more than 1600mm. The half leech point shall be found by folding head to clew and smoothing the sail flat
  - (g) At the three-quarter leech point the nearest point on the luff including the luff rope shall not be more than 1015mm. The three quarter leech point shall be found by folding head to the half leech point and smoothing the sail flat
- v The leech shall not be hollowed to evade the width measurements.
- vi A double luffed or loose-footed mainsail is prohibited.

6. Headsail

- i. The leech shall not extend beyond a straight line, i.e. shall not be convex.
- ii. The following measurements shall not exceed:
  - Luff 3800mm
  - Leech 3500mm
  - Foot 1950mm
  - Center measurement 3660mm

The center measurement shall be the distance between the head of the sail and the lowest edge of the sail at the mid-point of the foot. The mid-point of the foot shall be determined by placing the tack cringle over the clew cringle and tensioning both halves of the foot equally. The measurement shall be taken as a straight line measurement with just sufficient tension to remove the wrinkles along the line of

measurement. 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 10mm of each other when laid flat.

- iii. A double luffed headsail is prohibited.
  - iv. For measurement the head is the highest point of the sail measured perpendicular to the line of the luff.
7. Spinnaker
- i. The spinnaker shall be a three cornered sail symmetrical about its centerline, constructed in accordance with the spinnaker measurement diagram. No headboard, battens or other stiffening device other than normal reinforcing (whether of woven or non-woven cloth) is permitted.
  - ii. The spinnaker shall be measured folded along its centerline with the leeches together.
  - iii. The length of the center fold taken as the distance between the head and the mid-point of the foot, measured around the fold of the sail shall not exceed 4200mm. The length of the center fold shall be measured by laying a tape measure in the sail when the sail is suspended by holding it off the ground with the luffs and foot taut approximately horizontally.
  - iv. Where the clew and the tack cringles are outside the edges of the sail, the measurement points shall be the intersection of the lines drawn along the edges of the luffs and the foot of the sail.
  - v. Only one spinnaker shall be on board during a race.

## 20. Equipment

1. The following equipment shall be on board when racing:
  - i. Two efficient paddles minimum length 950mm, minimum weight 300 grams: both measured on the paddle proper.
  - ii. At least one bailer or suction bailer except in self-bailing boats.
  - iii. One synthetic painter not less than 20.00 meters in length and of minimum diameter 6mm.
  - iv. Two adequate personal buoyancy garments, without pockets which can hold water, ready for direct use.
  - v. Unless prescribed in the Sailing Instructions an anchor does not need to be carried. If prescribed in the Sailing Instructions the anchor shall weigh at least 2.3kg with 20.00m synthetic line, minimum diameter 6mm attached to the anchor and boat. The anchor shall be ready to use.

## 21. Trapeze

1. Crew supported outboard.
2. 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 trapeze. This contrivance consists of two wires attached directly or indirectly to the mast, one on each side, which can be fastened to a bodybelt to enable the crew to stand outside the gunwale. The trapeze shall not be used to support more than one person at a time.
3. The bodybelt of the trapeze when wet must float its own weight and shall not weigh more than 3kg.
4. The minimum age of a person using the trapeze shall be 12 years.
5. For non-international events the organizing authority or the national FJ Class Association may prohibit the use of a trapeze.

## **22. Crew**

1. There shall be two persons while racing, both amateurs as defined by the ISAF.

## **23. Class Flag**

1. International Code Flag 'Z' is recommended.

## **24. Advertising**

In accordance with the ISAF Advertising Code, Category C shall apply.

## **25. Official Plans**

1. Sections, stem, centerboard and rudder blade full size and table of offsets.
2. Lines

For Guidance Only:

1. General Arrangement.
2. Single bottom construction (daggerboard).
3. Single bottom construction (centerboard).
4. Double bottom construction (wood).
5. Double bottom construction (grp).
6. Mast and Boom.
7. Sail Plan.

Effective: 1st March 1992

Amendment: Rule 24.1 Advertising (in line with current ISAF Regulations)

Amendment: Rule 19.5 Mainsails (effective 1st March 2003)