

# International Moth Class Rules

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| Authority                    | International Sailing Federation<br>Ariadne House, Town Quay, Southampton, Hampshire, SO14 2AQ United Kingdom |
| Date of International Status | 1 <sup>st</sup> September 1972  |
| Previous Revision            | 1 <sup>st</sup> September 2007  |
| Effective Date:              | 8 <sup>th</sup> June 2009   |

## 1. General

1. The International Moth is a single-handed development class boat. The intention of these class rules is to give the designer and builder the fullest liberty in design and construction, within these rules to develop and produce faster boats.
2. The official language of the class is English and in the event of a dispute over translation, the English text shall prevail.
3. These rules are complementary to the measurement form. The International Moth Class Association may make interpretations which must be ratified by the ISAF before coming effective
4. In the event of discrepancy between the rules and the measurement form, the matter shall be referred to the IMCA and the ISAF.
5. In countries where there is no National Authority, or where the National Authority does not wish to administer the class, its function as stated in the rules, shall be carried out by IMCA or its delegated representatives (National Associations).
6. Neither the ISAF or the IMCA accept legal responsibility in respect of the rules, or any claim rising therefrom.

## 2. International Class Fee

1. The International Class Fee (ICF) shall be made up of three parts:  
Part A due to ISAF which is set by agreement between the ISAF and IMCA World Secretary based on 0.5% of the average cost of a new boat ready to sail, taken over the World fleets whether made privately or professionally.  
Part B due to IMCA World Association set and minuted at each World Association AGM.  
Part C due to the National Associations to be set and minuted at each World Association AGM.
2. The IMCA is responsible for the collection of the ICF and the distribution of ICF plaques on the above basis.
3. The IMCA may delegate its responsibility to collect the ICF and issue plaques to National Associations.
4. The ICF is payable by the builder on each boat built whether or not it is subsequently measured and registered. Payment shall be made direct to the National Authority or its delegated representative (National Association), which shall issue an official ICF plaque. The ICF plaque shall be delivered by the builder to owner on sale of the boat.
5. ICF plaques shall be valid only if made out on official forms issued by the ISAF. The ISAF will sell these plaques at the rate set out in rule 2 part A above, to the IMCA which shall sell them at the rate set out in rule 2 part B above, to the National Authority or its delegated representative (National Association).  
The purchase price in each case represents the proportion of the ICF due to the ISAF and the IMCA. The National Authority or its delegated representative (National Association) may charge an additional sum (including the amount in rule 2 part C), but not exceeding the administration cost of carrying out this function.

## 3. Registration and Measurement Certificate

1. No boat is permitted to race in the class unless it has a valid measurement certificate.
2. The owner shall be a fully paid-up member of the relevant IMCA National Association or a direct member of IMCA as per the IMCA Constitution.
3. The sail number shall be the same number as the ICF plaque preceded by its national letters.
4. Boats first registered prior to 1 Sept 2007 may use their originally allocated sail number until such time as the boat is sold following which it shall revert to the system in rule 3.3. Boats may voluntarily change to the numbering system in Rule 3.3 upon application to its National Authority or its delegated representative.
5. A National Authority or its delegated representative shall only issue a measurement certificate on receipt of the completed measurement form and evidence that the ICF has been paid.
6. No two boats in the class registered in the same country shall have the same name.
7. Certification Control
  1. Fundamental Measurement
    - a). Fundamental measurement shall be performed in accordance with class rule 4
    - b). The class measurement form shall be used to record the results of fundamental measurement.
    - c). The owner shall be responsible to ensure that fundamental measurement has been performed.
  2. Certification
    - a). The owner shall apply to the Certification Authority for a Certificate by enclosing the ICF plaque number,

completed measurement form, and the proposed name(s) of the boat.

b). The Certification Authority shall record the ICF plaque number and other details on the measurement form.

8. Change of ownership invalidates the certificate but shall not necessitate re-measurement. The new owner may apply to the National Authority or its delegated representative (National Association) for a new certificate, returning the old certificate together with any re-registration fee required and stating the necessary particulars. A certificate shall then be issued to the owner.
9. It is the owner's responsibility to ensure that their boat, spars, sails and equipment comply with the class rules at all times. Alterations and replacement shall be measured, when relevant, by a measurer recognised by the National Authority or its delegated representative (National Association), who will, if necessary, endorse the measurement certificate accordingly, and shall notify the National Authority or its delegated representative where this would apply.
10. Notwithstanding anything contained in these rules the ISAF or the National Authority or its delegated representative (National Association) shall have the power to refuse to grant a certificate to, or withdraw a certificate from any boat.
11. The IMCA shall obtain at regular intervals from each National Authority or its delegated representative (National Association) details of sail numbers and ICF plaques issued.

#### **4. Measurement**

1. Only a measurer officially recognised by the National Authority or its delegated representative shall measure a boat, its spars, sails and equipment and shall sign the declaration form that they comply with the class rules.
2. 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 the class are satisfied.
3. A measurer shall not measure a boat, spars or equipment owned, designed or built by themselves, or in which they are an interested party or have a vested interest.
4. New or substantially altered sails shall be measured by a measurer who shall stamp or sign and date the sail near the tack. The details shall be recorded on the certificate and the entry signed by the measurer or secretary of the National Authority or its delegated representative (National Association).
5. All boats, spars and equipment shall comply with the current rules.
6. All boats, spars, sails and equipment shall be liable to remeasurement at the discretion of a race committee or the National Authority or its delegated representative (National Association).

#### **5. Identification Marks**

1. The class emblem shall be a representation of a Moth and shall conform in shape and size to the pattern held by the ISAF. Copies may be obtained from IMCA or National Authority or its delegated representative (National Association).
2. The ICF plaque shall be fixed to the hull near the transom or on the forward vertical bulkhead. Should this plaque come off or need to be removed at a later date, this shall not invalidate the measurement certificate but the national letters and sail number or the ICF Plaque number shall then be permanently engraved on the hull near the transom.
3. The sail number, national letters(s) and class emblem on the sail shall conform with ISAF RRS Appendix G. Letters and numbers shall not be less than the following sizes:

|   |                                       |
|---|---------------------------------------|
| Height                                      | 250 mm                                |
| Width                                       | 150 mm (excluding 'I' and letter 'I') |
| Thickness                                   | 35 mm                                 |
| Space between adjoining letters and numbers | 50 mm                                 |

4. All emblems, numbers and letters shall be of durable material and securely attached.

#### **6. Hull**

1. The overall length of the hull, excluding attached rudder fittings and stem fittings shall not exceed 3355 mm measured between perpendiculars with hull level transversely and waterline horizontal.
  - i. No attempt at increasing waterline length shall be made by fairings comprising part of, or attached to rudder or stem fittings.
  - ii. Any fittings or fairings attached to the hull, except for the stem and rudder fittings shall be considered part of the hull.
  - iii. If the stem or rudder fittings extend more than 500mm beyond the limits of the overall length, of the hull, the excess shall be added to the measured length of the hull.
2. The overall beam shall not exceed 2250 mm.
3.
  - i. There shall be no visible air gap dividing the boat longitudinally throughout its length when viewed from fore or aft.

- ii. Below the static waterline and within the overall length of the hull, there shall be no hollow in the hull more than 75 mm in any section closer than 2700 mm from the aft perpendicular as described in rule 6.1 The reference line for this hollow shall be a string line stretched tightly around the underside of the hull from points on the static waterline either side of the hull.
  - iii. Any fin or foil, excluding the rudder, shall protrude out of the hull from below the static waterplane.
4. In alteration to RRS 52, only remote controls using stored power are prohibited.

## **7. Buoyancy**

1. Boats shall have not less than two separate buoyancy tanks or bags attached firmly to the hull which together must be sufficient to float the boat's own weight plus 75 kg, approximately level when capsized or full of water, and which, with any one tank flooded must be sufficient to float the boat's own weight plus 10 kg. If a measurer cannot ascertain compliance with this Rule by visual inspection, they shall undertake a buoyancy test to so satisfy themselves.  
(The requirement for two separate tanks or bags shall apply only to boats registered after 10th Jan 1989).
2. The measurer shall satisfy himself that the buoyancy compartments are effective by means of flotation or air test. (As a guide, leakage should not exceed 5% of volume of tank in half an hour.)

## **8. Spars**

1. The overall length of mast shall not exceed 6250 mm.
2. Measurement bands, not less than 15 mm wide shall be marked on the spars so that they are clearly discernible when racing. The inside edges of these band define the limits to which the sail may be set.
3. The distance between the bands shall not exceed 5185 mm.
4. For sails that enclose the mast, an upper measurement band is not required. For the purpose of 8.3, the measurement point for the lower edge of the upper mast band shall be defined as the upper most part of the mast. A minimal amount of webbing or similar, used to secure the head of the sail, shall be disregarded for the purpose of Rule 8.

## **9. Sails**

1. The boat shall carry only one sail when racing, with the total sail area being not greater than 8.00 m<sup>2</sup>.
2. To calculate the sail area for sails measured after 1 January 2005, they shall be measured by triangulation as outlined in the IMCA Measurement Manual. The areas of luff, foot and leech rounds shall also be added or subtracted as the case may be.
3. To calculate the sail area for sails measured before 1 January 2005 they shall be measured using leech offset method as defined in Section 3 of the ISAF 'measured and calculation of sail area' guide, with the following conditions;
  - i. The ISAF 'measurement and calculation of sail area' guide, section 3.2(v)(b) shall not apply.
  - ii. No part of the sail shall extend above the level of the head (A), nor below the tack (B). These limits extend at 90 degrees to the AB line.
  - iii. The sail shall not be of quadrilateral shape.
  - iv. For the purposes of the measurement of the leech offsets, any hollows in the leech shall be bridged.
4. Rule 9.3 shall only apply to boats that were fundamentally measured for the purpose of certification control prior to 1<sup>st</sup> January 2005, all other boats shall only carry sails that comply with rule 9.2.
5. Only the area of that part of the spars that will not pass through a ring of 90 mm internal diameter shall be included in the overall sail area.
6. For a sail which encloses the mast, an area equivalent to the length of the luff multiplied by 50 mm shall be excluded.
7. For a sail which encloses the boom, an area equivalent to the length of the foot multiplied by 90 mm shall be excluded.
8. The area of a boltrope or footrope are excluded from the overall sail area.
9. Battens shall not extend more than 150 mm from the sail. No attempt at increasing sail area shall be made by the number or size of the battens used.
10. Where the sail is set up on spars, no part of the sail luff shall extend beyond the lower edge of the upper mast band, or below the upper edge of the lower mast band except as provided for in rule 9.4.
11. All sail area calculations are to 3 places of decimals, rounded to two at the total area.

## **10. Crew**

There shall only be one person on board when racing. The righting moment of the helmsman weight shall only be transferred to the sail through the hull or sheet or similar, in which case it shall be through blocks attached to the hull.

## **11. Prohibitions**

- 11.1 Moving or detachable seats and trapezes are prohibited.

- 11.2 Catamaran or multihull configurations are prohibited. Sailing any type of permitted hull design consistently as catamaran or multihull is also prohibited.

## 12. Alterations to the Racing Rules of Sailing

- 12.1 RRS 42.3(c) is amended to read:  
When surfing (rapidly accelerating down a wave) or foiling (sailing with the hull clear of the water due to the effect of hydrofoils) or planing is possible, the boat's crew may pull the sheet controlling the sail in order to initiate surfing, foiling or planing, but only twice for each wave or gust of wind or just after having completed a tack or a gybe.

### Appendix A

#### Appendix A – Definitions

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|------------------------------|--|
| 1. Static Waterplane         | The plane containing the static waterline of the hull is determined with the boat fully equipped, afloat and upright without crew. Winged or flexible transoms will be measured in the raised positions. Any cross section shall be taken perpendicular to the hull. |
| 2. Hull                      | Includes a single buoyant hull, wings, racks, which must be rigidly connected while racing. Excludes rudder, rudder fittings, centreboard, and other foils.  |
| 3. Wings or racks            | Structures which are used only to support the crew or rig outboard of the buoyant hull. May include buoyant components which are not normally immersed.  |
| 4. Rudder                    | A steering device mounted to the hull.   |
| 5. Foil                      | Any centreboard, fin, hydrofoil used for lift, stability or lateral resistance.  |
| 6. Rudder Fittings           | Non buoyant structure used solely to support the rudder.   |
| 7. Stem Fittings             | A device to connect an object pertaining to rig or foils to the hull.  |
| 8. Rig                       | The sail and any structure to support or control the sail.   |
| 9. Spars                     | Any rigid elements included in the rig to support the sail.  |
| 10. Luff                     | The fore edge of the mainsail.   |
| 11. Leech                    | The aft edge of the mainsail.  |
| 12. Foot                     | The bottom edge of the mainsail.   |
| 13. Head (A)                 | The upper most point on the luff of the sail.  |
| 14. Tack (B)                 | A point on the extension or projection of the luff 5185mm from the head (A). An imaginary line should be drawn as extensions of the luff.  |
| 15. Clew (C)                 | The point at which the foot and the leech meet.  |
| 16. y                        | The lower limit of the luff pocket.  |
| 17. x                        | The point at which the foot intersects with the chord BC.  |
| 18. Leech offsets (d, e & f) | The perpendicular offsets between the chord AC and the leech, at the $\frac{1}{4}$ , $\frac{1}{2}$ and $\frac{3}{4}$ distances between points A and C.   |
| 19. Luff round (g)           | The maximum perpendicular offset from the chord AB to the luff. Can be positive or negative.   |
| 20. Foot round (h)           | The maximum perpendicular offset from the chord Cx to the foot. Can be negative, hollows are not deducted."  |
| 21. Commercially Built       | Boats that have been built by a builder who produces more than five (5) boats per calendar year for public sale  |
| 22. Fundamental Measurement  | as defined by the ISAF Equipment Rules of Sailing  |
| 23. Certification Control    | as defined by the ISAF Equipment Rules of Sailing  |