The Norlin mark III design for the 2.4mR Class, which was adopted as an international class in 1993, was designed in 1987 by Peter Norlin. The Norlin mark III design was chosen to be the 2.4 Norlin One Design boat. The 2.4 Norlin One Design Class was introduced as a Class in 2011.
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INTRODUCTION

These Class Rules apply to 2.4 Norlin One Design boats. These boats may race in both open 2.4mR Class events and in closed 2.4 Norlin One Design events such as Paralympics, IFDS World Championships or other events, which have been given such status.

The 2.4 Norlin One Design hulls, rudders and rigs supplied by the Licensed Builder are manufacturing controlled. Rigs and sails are measurement controlled as well as boats built before 2011-03-01

The 2.4 Norlin One Design hulls and rudders shall only be manufactured by Licensed Builders – in the class rules referred to as licensed hull builder. Equipment is required to comply with the 2.4 Norlin One Design Construction Manual and is subject to a manufacturing control system approved by the ICA.

2.4 Norlin One Design hulls, rudders, rigs and sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of these Class Rules.

Owners and crews should be aware that compliance with rules in Section C is NOT totally checked as part of the fundamental certification.

Rules regulating the use of equipment during a race are contained in Section C of these Class Rules, in ERS Part I and in the Racing Rules of Sailing.

This introduction only provides an informal background and the 2.4 Norlin One Design Class Rules proper begin on the next page.

These Rules are “Closed Rules”. Anything not specifically allowed by these rules is “Prohibited”
PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE
A.1.1 The official language of the class is English and in case of dispute over translation the English text shall prevail.
A.1.2 The word “shall” is mandatory and the word “may” is permissive.

A.2 ABBREVIATIONS
A.2.1 ISAF International Sailing Federation
MNA ISAF Member National Authority
ICA International 2.4mR Class Association
NCA National Class Association
ERS Equipment Rules of Sailing
RRS Racing Rules of Sailing

A.3 AUTHORITIES
A.3.1 The international authority of the class is the ICA.
A.3.2 No legal responsibility with respect to these class rules, or accuracy of measurement, rests with:
   the ISAF,
   the MNA,
   the ICA,
   a NCA,
   a class measurer.
No claim arising from these class rules can be entertained.
A.3.3 Notwithstanding anything contained herein, the ICA (certification authority) has the authority to withdraw a certificate.

A.4 ADMINISTRATION OF THE CLASS
A.4.1 The ICA will have the administrative functions of the class.
A.4.2 The ICA will be the certification authority. The ICA may delegate this administration to an NCA.

A.5 ISAF RULES
A.5.1 These class rules shall be read in conjunction with the ERS and RRS.
A.5.2 Except where used in headings, when a term is printed in “bold” the definition in the ERS applies and when a term is printed in “italics” the definition in the RRS applies.
A.6 CLASS RULES VARIATIONS
A.6.1 At Class Events –ruled by ISAF– ISAF Regulation 28.1.3 applies. At all other events RRS 87 applies.
A.6.2 At international Class Championships the sailing instructions may vary these class rules only with the agreement of the ICA.

A.7 CLASS RULES AMENDMENTS
A.7.1 Amendments to these class rules are subject to the approval of the ICA.

A.8 CLASS RULES INTERPRETATION
A.8.1 Interpretation of class rules shall be made in accordance with the ISAF Regulations.

A.9 INTERNATIONAL 2.4MR CLASS FEE AND ISAF BUILDING PLAQUE
A.9.1 The licensed hull builder shall equip the boat with a 2.4mR Class ISAF plaque.

A.10 2.4 NORLIN ONE DESIGN LICENSE FEE AND 2.4 NORLIN ONE DESIGN CLASS STICKER
A.10.1 The licensed hull builder shall pay the License Fee to the ICA as stated in the License Agreement between the hull Builder and the ICA.
A.10.2 The ICA or its accredited representative shall, after having received the License Fee for the hull, send the 2.4 Norlin One Design Class sticker to the licensed hull Builder.
A.10.3 An owner of a hull built before 2011-03-01, which has been approved to comply with these rules, shall send this documentation to the ICA together with the registration fee.
A.10.4 The ICA or its accredited representative shall, after having received the registration fee and documentation according to A.10.3, send the 2.4 Norlin One Design Class sticker to the owner.

A.11 SAIL NUMBERS
A.11.1 The sail number shall be the one assigned to the boat in its 2.4mR certificate.

A.12 MEASUREMENT
A.12.1 All measurement shall be carried out by a 2.4 Norlin One Design Class Measurer
A.12.2 Class Measures shall be either,
   (a) An Official Measurer or
   (b) Appointed by the ICA. The appointment shall be renewed annually
A.12.3 The ICA may refuse to accept measurement reports made by an Official Measurer or a Class Measurer who has misused the trust of their title by poor measurement work.
A.13 CERTIFICATION
A.13.1 ICA is the authority that certify 2.4 Norlin One Design boats.
A.13.2 A certificate shall record the following information:
(a) Class
(b) ICA (Certification authority)
(d) ISAF Building Plaque Number
(e) Builders details and hull number (hull number not needed for boats built before 2011-03-01)
(f) 2.4 Norlin One Design Class Sticker Number
(g) Date of measurement report and name of measurer
(h) Date of issue of initial certificate
(i) Date of issue of certificate
(l) Type of rudder (only for boats built before 2011-03-01)
(m) Specific data of the boat according to the measurement form.

A.14 INITIAL HULL CERTIFICATION
A.14.1 For a certificate to be issued to a hull built after 2011-03-01 not previously certified:
(a) Certification control shall be carried out by the builder as “in house certification”, IHC. The ICA certification report form shall be used for the 2.4 Norlin One Design certificate, and the 2.4mR measurement report form for the 2.4mR hull certificate. If the builder has not been approved for that, the certification control shall be carried out by a class measurer who shall complete the appropriate measurement report. The ICA measurement report form shall be used for submission of the 2.4 Norlin One Design certificate
(b) When the hull and the rig is supplied by two different builders, the rules in (a) shall apply for both builders.
(c) The certification and or measurement report(s) together with a copy of the 2.4mR certificate and certification fee shall be sent to the ICA (certification authority).
(d) Upon receipt of a satisfactorily completed certification/measurement report, the copy of the 2.4mR certificate and certification fee, the ICA (certification authority) shall issue a certificate and send it to the owner. The ICA certificate form shall be used

A.14.2 For a certificate to be issued to a hull built before 2011-03-01 not previously certified:
(a) Certification control shall be carried out by a class measurer who shall complete the appropriate measurement report. The ICA measurement report form shall be used.
(b) The measurement report(s), a copy of the 2.4mR certificate, and certification fee shall be sent to the ICA (certification authority).
Upon receipt of a satisfactorily completed measurement report, a copy of the 2.4mR certificate, and certification fee the ICA (certification authority) may issue a certificate and send it to the owner. The ICA certificate form shall be used.

### A.15 VALIDITY OF CERTIFICATE

A.15.1 A certificate becomes invalid upon:

(a) significant repair or replacement to the hull and keel and the change to any items recorded on the certificate as required under A.13 (a) – (m).

(b) withdrawal by the ICA (certification authority),

(c) the issue of a new certificate.

### A.16 RE-CERTIFICATION

A.16.1 The ICA (certification authority) may issue a certificate to a previously certified boat:

(a) when it is invalidated under A.15.1(a), after receipt of the old certificate and if needed appropriate documentation given by a class measurer, and certification fee if required.

(b) when it is invalidated under A.15.1 (b), at its discretion.

(c) in other cases, by application of the procedure in A.14.

### A.17 RETENTION OF CERTIFICATION DOCUMENTATION

A.17.1 The ICA (certification authority) shall:

(a) retain the original relevant certification report or measurement report upon which the current certificate is based, and a copy of the certificate.

### A.18 BUOYANCY FLOATATION FORM

A.18.1 The ICA Buoyancy Certificate shall state the ISAF plaque number, the date of confirmation and the name and signature of the confirming individual.

A.18.2 The confirmation of the ICA Buoyancy Certificate shall be done by a class measurer or a person authorised by the NCA stating the date of the check.

A.18.3 A flotation check is valid maximum five (5) years from the date of the confirmation.

A.18.4 The flotation check shall be accomplished according to Section L.

### Section B – Boat Eligibility

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

### B.1 CLASS RULES AND CERTIFICATION

B.1.1 The boat shall:

(a) be in compliance with the class rules.

(b) have a valid 2.4 Norlin One Design certificate.
(c) have valid **certification marks** as required in the 2.4mR Class Rules
(d) have been certified according to The Int 2.4mR Class Rules
(e) have a valid Buoyancy Certificate according to A.18

**B.2 FLOTATION CHECKS**
B.2.1 A race committee may require that a boat shall pass a flotation test according to Section L.

**B.3 CLASS ASSOCIATION MARKINGS**
B.3.1 A 2.4 Norlin One Design Class Sticker shall be fixed to the hull in the cockpit on the port side.
B.3.2 An ISAF Plaque shall be fixed to the inside of the hull in the cockpit on the port side.
B.3.3 Boats measured and certified before 1st July 1994 according to the International 2.4mR Class Rules and provided with a plaque issued by the Scandinavian Sailing Federation may have that plaque instead of the ISAF Plaque, (B.3.2).

**B.4 2.4 NORLIN ONE DESIGN CLASS MEMBERSHIP**
B.4.1 For a boat to be eligible for racing in an international Class Championship of the 2.4 Norlin One Design Class, its helmsman for the race must be a current member of the ICA, either directly or by the relevant NCA.
PART II – REQUIREMENTS AND LIMITATIONS

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

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

Section C – Conditions for Racing

C.1 GENERAL

C.1.1 RULES
(a) RRS 50.4 and 52 shall not apply.
(b) The ERS Part I – Use of Equipment shall apply.
(c) The ERS Part III – Rules governing equipment control and inspection shall apply with the following amendment of H.5.1 Condition of sail: Battens may be left in the sail unless the Measurer requires them to be removed in order to properly measure the sail.

C.2 CREW

C.2.1 LIMITATIONS
(a) The crew shall consist of one person.
(b) In normal positions of the crew both the legs and the main part of the torso shall be below deck and inside the sheer line.

C.3 PERSONAL EQUIPMENT

Personal equipment is optional.

C.4 ADVERTISING

C.4.1 LIMITATIONS
Advertising is unrestricted according to ISAF Regulation 20.
C.5 PORTABLE EQUIPMENT
C.5.1 MANDATORY
(a) Towing rope minimum 9m long of not less than 5mm in diameter and of material that floats. This may not be used for any other purpose than towing.

C.5.2 OPTIONAL
(a) One electrical pump with battery.
(b) Paddle, bailer, mooring lines, fenders, current stick, portable anemometer, tools, spare lines and spare blocks may be carried on board above the floor (See Section J for floor definition).
The total weight of this optional portable equipment shall not exceed 2.0kg.
(c) Extra sails.
(d) The use of electronic navigation equipment is permitted. Timing devices are permitted. Hand held communication devices (cell phones, pagers, radios, etc.) are permitted but may be prohibited or restricted in the notice of race or sailing instructions.

C.6 BOAT
C.6.1 WEIGHT
(a)

<table>
<thead>
<tr>
<th>The weight of the boat in dry condition</th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>253 kg</td>
<td>254 kg</td>
</tr>
</tbody>
</table>

The weight shall be taken including one jib and one mainsail and portable equipment as listed in C.5.1 (a) and, portable equipment in C.5.2 (a)
The seat may be excluded if it fulfils the requirement according to D.6.2(b). The approval of such a seat shall be marked on it by a class measurer.
(b) The horizontal distance between the balance point (centre of gravity) of the boat, when its baseline (waterline) is horizontal, and section 0 shall not be more than 1371mm or less than 1343mm. See also Section M.

C.6.2 CORRECTOR WEIGHTS
(a) Corrector weights of lead shall be securely fixed to the hull when the boat weight is less than the minimum requirement.
(b) Corrector weights shall be placed on the underside of the deck not more than 200 mm aft of the mast.

C.7 HULL
C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR
(a) The hull shall comply with the templates as defined in section J with tolerances according to section K.2
(b) Application of fillers to the hull for fairing is not allowed in order to change the shape of the original hull.

(c) Routine maintenance such as painting and polishing is permitted without re-measurement and re-certification.

(d) Repair of hull damages is permitted, see D.2.4 (e).

(e) Corrections of ballast weight in order to comply with C.6.1 will be permitted. It will also be permitted to remove the ballast pigs from the keel for certain reasons (transportation, cleaning etc). However the ballast shall be restored such that the boat complies with C.6.1.

(f) The interior of the boat may be modified.

C.7.2 FLOTATION

(a) The boat shall float in an approximate horizontal position when flooded and loaded with minimum 35kg lead ballast placed 1350mm ± 100 mm from the hull datum section defined in D.2.4(b).

(b) Hulls with water tight compartments shall be checked according to (a) with the compartments filled with water. See also Section L.

(c) For flotation check confirmation see A.18.

C.7.3 BALLAST

(a) Ballast pigs shall comply with D.8.

(b) The maximum weight of the ballast, including any equipment placed below the floor.(e.g. battery) (See Section J for floor definition), but excluding electrical pump and adherent hoses and cables, is 181kg. To exclude electrical pump and adherent hoses and cables, the weight of these may not exceed 1.5 kg.

C.8 RUDDER

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The rudder shall comply with the templates as defined in section J with the following tolerances. The maximum permitted distance between outer shape template and rudder is 0 to 5mm, and between cross section templates and rudder is 0 to 2mm, and between templates for leading and trailing edges and rudder is 0 to 1mm.

(b) Routine maintenance such as painting and polishing is permitted without re-measurement and re-certification.

(c) Repair of rudder damages will be permitted if the rudder complies with (a).

C.8.2 LIMITATIONS

(a) Only one rudder shall be used during an event of less than 8 consecutive days, except when a rudder has been lost or damaged beyond repair.
C.8.3 USE
(a) Boat built before 2011-03-01, which is not equipped with the deep standard rudder, may have the small standard rudder. This shall be stated on the certificate. Dimensions of the small rudder shall comply with templates and specifications given in Section J.

C.9 RIG
C.9.1 CONSTRUCTION
(a) All spars shall comply with Section F.

C.9.2 MODIFICATIONS, MAINTENANCE AND REPAIR
(a) Routine maintenance such as painting and polishing is permitted.

C.9.3 FITTINGS
(a) All mandatory fittings and their positioning shall comply with Section F. Other fittings are optional.

C.9.4 LIMITATIONS
(a) Only one set of spars and standing rigging shall be used during an event of less than 8 consecutive days, except when an item has been lost or damaged beyond repair.

C.9.5 MAST
(a) DIMENSIONS

<table>
<thead>
<tr>
<th>Limit mark width</th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10mm</td>
<td>15mm</td>
</tr>
</tbody>
</table>

Mast spar curvature at a distance of 2700 mm from the mast datum point (See F.2.4 (a))

(b) USE

(1) The spar shall be stepped in the mast step in such a way that the heel is not capable of moving more than 10mm athwart ships. The mast may be movable in fore-and-aft direction.

(2) The mast datum point shall not be above the deck measurement point. (See D.2.5 (c)).

(3) Rotating masts are not permitted.

C.9.6 BOOM
(a) DIMENSIONS

<table>
<thead>
<tr>
<th>Limit mark width</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer point distance</td>
<td>10mm</td>
<td>15mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outer point distance</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10mm</td>
<td>1960mm</td>
</tr>
</tbody>
</table>

(b) Positioning

(1) The intersection of the aft edge of the mast spar and the top of the boom spar, each extended as necessary, shall not be below the upper
edge of the mast lower limit mark when the boom spar is at 90° to the mast spar.

C.9.7 WHISKER POLE
(a) DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whisker pole length</td>
<td></td>
<td>2106mm</td>
</tr>
<tr>
<td>Whisker pole cross section</td>
<td>22mm</td>
<td></td>
</tr>
</tbody>
</table>

C.9.8 HEADSAIL BOOM
(a) CONSTRUCTION
Materials, dimensions, construction and fittings are optional

C.9.9 STANDING RIGGING
(a) DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foretriangle base</td>
<td></td>
<td>1560 mm</td>
</tr>
<tr>
<td>Forestay height (see F.2.4 (a))</td>
<td></td>
<td>3750 mm</td>
</tr>
<tr>
<td>Distance from hull datum section to forward end of the foretriangle base</td>
<td>3516 mm</td>
<td>3536 mm</td>
</tr>
</tbody>
</table>

(b) USE
(1) Whilst racing upwind the mast is not permitted to be adjusted in an athwart ships plane to windward of a plane perpendicular to the deck. On boats with adjustable shrouds it shall be possible to have both sides tight to their upward limit at the same time.
C.9.10 RUNNING RIGGING

(a) MANUFACTURER
Manufacturer is optional

(b) Materials
Materials are optional

(c) Construction

(1) Mandatory
   (1) Mainsail halyard
   (2) Headsail halyard
   (3) Mainsail sheet
   (4) Headsail sheets
   (5) Boom vang
   (6) Backstay
   (7) Backstay control line

(2) Optional
   (1) Mainsailouthaul line
   (2) Mainsail tack and cunningham control lines
   (3) Mainsail traveller control lines
   (4) Mainsheet bridle system, fixed or with adjustment lines
   (5) Mainsail sheet fine tune
   (6) Headsail cunningham control line
   (7) Headsail fairleads or blocks adjustment lines
   (8) Whisker pole control lines
   (9) Headsail boom control lines
   (10) Forestay, backstay and shroud adjustment lines
   (11) Mast control lines fore and aft at deck
   (12) Mast control lines fore and aft at butt
   (13) Shock cords for whisker pole control
   (14) Shock cords for Headsail boomouthaul
   (15) Shock cord for Mainsail outhaul retention
   (16) Shock cord for backstay control line retention

(d) USE
   (1) The use of running rigging is optional.
C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

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

(b) Routine maintenance such as repair of damage is permitted without re-measurement and re-certification.

C.10.2 LIMITATIONS

(a) Not more than 2 main sails and 3 jibs shall be used during an event of the status National Championship or higher and of less than 8 consecutive days, except when a sail has been lost or damaged beyond repair.

C.10.3 MAINSAIL

(a) IDENTIFICATION

The national letters and sail number shall comply with these class rules.

(b) USE

(1) The sail shall be hoisted on a halyard. The arrangement shall permit hoisting and lowering of the sail by the crew.

(2) The highest visible point of the sail, projected at 90° to the mast spar, shall not be set above the lower edge of the mast upper limit mark. The intersection of the leech and the top of the boom spar, each extended as necessary, shall not be behind the fore side of the boom outer limit mark.

(3) The luff bolt rope shall be in the spar groove or track.

C.10.4 JIB

(a) USE

(1) The highest visible point of the sail, projected at 90° to the mast spar, shall not be set above the forestay rigging point.

(2) The sail shall be hoisted on a halyard. The arrangement shall permit lowering the sail so that no part of it is above a plane 1800 mm above the mast datum point. From there it shall be possible to hoist it again to its original position.

(3) The sail shall not be attached to any point on the boat that is in front of the forestay.

(4) Headsail boom headsail shall only be used together with a headsail boom.
Section D – Hull

D.1 PARTS

D.1.1 MANDATORY

(a) Hull shell including keel and deck
(b) Rudder
(e) Ballast
(d) Buoyancy equipment

D.1.2 OPTIONAL

(a) Seat
(b) Parts used inside the boat
(c) Parts to cover deck openings

D.2 GENERAL

D.2.1 RULES

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

(b) For approving Norlin mk III boats built before 2011-03-01 the hull shall comply with the class rules in extent according to Section K. The ICA Measurement Report form shall be used.

D.2.2 CERTIFICATION

(See A.14)

D.2.3 MATERIALS

(a) The hull and keel shall be built from Glass Reinforced Plastic. Aluminium or stainless steel reinforcements are permitted where needed.

(b) The hull shell, keel and deck mouldings shall not weigh less than 3,6 kg/m².

(c) Where sandwich construction is used, the core material shall be of balsa, PVC or polyester or combinations thereof and shall be of density before lamination not less than 60kg/m³ in average over a square with the sides 25mm.

(d) Parts of the hull excluding hull shell, deck and keel may also be made from aluminium.

(e) Parts or a structure of several parts that in no direction exceed the size of 120 mm may be of any material if the weight is less than 0,3 kg.

(f) Wiring, pumps and adherent hoses may be of any material.

(g) Parts of the steering system may be of any material. Such parts shall not add structural strength to the hull. Hatches may be of any plastic material. The minimum weight of hatches in the deck shall be no lighter than the pieces of deck they replace. This includes the original hatch over the rudder.
(i) Any soft material may be used to cover the cockpit. A hard cover shall be made of GRP.

(j) Stainless steel may be used for mast foot and shroud leavers.

(k) Parts intended to protect edges around holes according to D.2.4 (c) including mast hole may be of any material.

(l) Navigation instruments may be of any material.

(m) In case a disabled sailor cannot sail without a specific part, that does not comply with these rules, a dispensation can be given by the ICA.

D.2.4 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The hull shell and deck shall not be altered in any way except as permitted by these class rules.

(b) Bulkheads and reinforcements may be modified.

(c) Holes not bigger than necessary for the installation of fittings and passage of lines may be made in the deck. Modification of shroud holes are permitted within the limits defined in D.3.1(c). Routine maintenance such as painting and polishing is permitted without re-measurement and re-certification.

(e) If any hull moulding is repaired in any other way than described in D.2.4(d), a class measurer shall verify on the certificate that the external shape is the same as before the repair, the repair has been done using materials according to D.2.3, and that no substantial stiffness, or other, advantage has been gained as a result of the repair. The class measurer shall also describe the details of the repair on the certificate.

(f) One inspection hatch is permitted in the deck forward of the mast and one aft of the cockpit. This in addition to the hatch over the rudder post that is a part of the deck mould.

(g) The mast opening in the deck may be modified. The forward edge of the mast hole shall not extend forward of 2093mm from station 0. Its width shall not exceed 64mm.

(h) The deck mouldings may be modified to accommodate headsail boom with associated fittings.

D.2.5 DEFINITIONS

(a) HULL DATUM POINT

The hull datum point is a point on the centreline of the hull placed at the intersection of the underside of the hull and the aft surface of the rudderstock.

(b) HULL DATUM SECTION, (SECTION 0)

The vertical cross section transverse to the centre line through the hull datum point is defined as the hull datum section (section 0). This shall be permanently marked in the surface of the hull on starboard and port sides on both the sheer line and the deck near the sheer line.

(c) MEASUREMENT POINT OF THE DECK
The measurement point of the deck is a point, at the mast hole section, 36mm above the deck level, measured 15mm from the outmost part of the hull shell in this section.

D.2.6 IDENTIFICATION
(a) The **hull** shall carry the ISAF Plaque, see B.3.2.
(b) The **hull** shall carry the 2.4 Norlin One Design Class sticker, see B.3.1
(c) The **hull** shall carry information of: builder, date built and the boat’s sequential identification number permanently embossed or debossed into the hull shell.
(d) **Hulls** built before 2011-03-01 are excluded from (c).

D.2.7 BUILDERS
(a) The **hull** shall be built by a builder licensed by the ICA.
(b) All moulds shall be approved by the ICA.
(c) **Hulls** built before 2011-03-01 are excluded from (a) and (b) and shall comply with the rules in Section K.

D.3 HULL SHELL INCLUDING KEEL AND DECK

D.3.1 CONSTRUCTION
(a) As specified in the Construction Manual
(b) Boats built before 2011-03-01 are excluded from D.3.1 (a), However any additional filler on the external hull extension of the hull (for example in the stern or the stem or the keel) shall be removed to the original shape of the hull. See Section K.
(c) Position of **shroud** holes/slots in the **deck**.

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to back end of <strong>shroud</strong> hole from section 0</td>
<td>1902mm</td>
<td>1982mm</td>
</tr>
<tr>
<td>Distance to front end of <strong>shroud</strong> hole from section 0</td>
<td></td>
<td>60mm</td>
</tr>
<tr>
<td>Hole length</td>
<td>240mm</td>
<td></td>
</tr>
<tr>
<td>Distance from centreline to inner edge of hole</td>
<td></td>
<td>268mm</td>
</tr>
<tr>
<td>Distance from centreline to outer edge of hole</td>
<td></td>
<td>12mm</td>
</tr>
<tr>
<td>Hole width</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to back end of <strong>shroud</strong> hole from section 0</td>
<td>1812mm</td>
<td>1982mm</td>
</tr>
<tr>
<td>Distance to front end of <strong>shroud</strong> hole from section 0</td>
<td></td>
<td>60mm</td>
</tr>
<tr>
<td>Slot length</td>
<td>230mm</td>
<td></td>
</tr>
<tr>
<td>Distance from centreline to inner edge of hole</td>
<td></td>
<td>280mm</td>
</tr>
<tr>
<td>Distance from centreline to outer edge of hole</td>
<td></td>
<td>14mm</td>
</tr>
<tr>
<td>Hole width</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
D.4 INTERIOR STRUCTURE
D.4.1 CONSTRUCTION
(a) Optional.

D.5 BUOYANCY
D.5.1 CONSTRUCTION
(a) Buoyancy equipment shall comprise of rigid non-communicating air cell foam plastic incorporated into the boat inside the bulkheads.
(b) Water tight Compartments shall be inspectable by an opening of minimum 100 mm in diameter. The highest point of the opening shall be placed no more than 50mm below the underside of the deck.

D.6 SEAT
D.6.1 MATERIALS
(a) In addition to what is specified in D.2.3 any soft material that does not take up significant amounts of water.

D.6.2 CONSTRUCTION
(a) Seat included in boat weight
   (1) Construction is optional.
(b) Seat excluded from the boat weight
   (1) Construction is optional except for what is given in (3)
   (2) The total weight of the seat shall exceed 4 kg.
   (3) When the seat is placed in its position for sailing, the centre of gravity of the seat, shall be located not more than 300mm below the sheer line level measured 1350mm forward of section 0.
   (4) The approval of the seat shall be marked on it by a class measurer.

D.7 ASSEMBLED HULL
D.7.1 FITTINGS
(a) MANDATORY
   (1) A suitable fitting or system in the bow area to enable the boat to be towed. The fitting/system shall be easy to access by rescue craft, and shall be able to handle line of at least 5mm in diameter.
   (2) Lifting eye(s) each dimensioned to take 500 kg of load.
   (3) Rudder post
   (4) One manual bilge pump permanently installed which may discharge through hull shell or deck. The pump shall have a minimum capacity of 0.5 litre/stroke out of the boat.
   (5) A suitable fitting or device shall be installed in the deck level, in order to prevent the mast to move astern of that position, which corresponds to the Foretriangle base, 1560mm.
(b) OPTIONAL
   (1) Fittings placed inside the hull
(2) Fittings on deck
(c) CONSTRUCTION
   (1) No fittings may be attached to the outside of the hull shell (This means that for example that plastic flaps between hull and rudder are not permitted)

D.8 BALLAST
D.8.1 RULES
   (a) The ballast shall comply with the current class rules.

D.8.2 MATERIALS
   (a) The density of the ballast materials shall not be greater than the density of lead.

D.8.3 CONSTRUCTION
   (a) The ballast shall be internal in the boat and shall be removable from the inside of the boat.
   (b) The ballast shall be divided in lead pigs consisting of minimum 8 pieces and maximum 16 pieces. The maximum weight of one pig is 30kg. In addition a battery may be one piece.
   (c) Ballast pigs shall have their primary dimension in horizontal direction.

Section E – Rudder

E.1 PARTS
E.1.1 MANDATORY
   (a) Rudder blade
   (b) Rudder stock

E.2 GENERAL
E.2.1 RULES
   (a) The rudder shall comply with the current class rules.

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR
   (a) The rudder shall not be altered in any way except as permitted by these class rules. See also C.8.1.
   (b) Routine maintenance such as polishing and painting is permitted without re-measurement and re-certification. See also C.8.1.

E.2.3 MANUFACTURERS
   (a) Manufacturers of the rudder shall be a licensed builder. See D.2.7.
(b) Boats built before 2011-03-01 may use a small standard rudder according to section J. See also C.8.3 (a)

E.2.4 MATERIALS
(a) As specified in the Construction Manual

E.2.5 CONSTRUCTION
(a) As specified in the Construction Manual.

E.2.6 DIMENSIONS
(a) As specified in the Construction Manual
(b) Diameter of rudder stock is 25mm

E.2.7 POSITION
(a) In accordance with the Construction Manual

E2.8 FITTINGS
(a) The fitting for attaching steering lines or other arrangement to the rudder stock is optional.

Section F – Rig

F.1 PARTS
F.1.1 MANDATORY
(a) Mast
(b) Boom
(c) Standing rigging
(d) Running rigging

F.1.2 OPTIONAL
(a) Whisker pole
(b) Headsail boom

F.2 GENERAL
F.2.1 RULES
(a) The spars and their fittings shall comply with the class rules.
(b) The standing and running rigging shall comply with the class rules.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR
(a) Spars shall not be altered in any way except as permitted by these class rules.
(b) Routine maintenance such as polishing and replacement of fittings is permitted

F.2.3 CERTIFICATION
(a) No certification of spars, standing and running rigging is required.

F.2.4 DEFINITIONS
(a) Mast datum point
The mast datum point is a point on the forward side of the mast 3750mm (Forestay height) below the forestay rigging point. The mast datum point shall be marked by a punch.

F.2.5 MANUFACTURER
(a) No licence is required.

F.3 MAST
F.3.1 MATERIALS
(a) The spar shall be of aluminium alloy.

F.3.2 CONSTRUCTION
(a) The spar extrusion shall include a fixed sail groove or track, which may or may not be integral with the spar but shall be of aluminium alloy.

F.3.3 FITTINGS
(a) MANDATORY
(1) Boom attachment fitting
(2) Shroud attachments
(3) A set of spreaders
(4) Mainsail halyard sheave
(5) Headsail halyard sheave

(b) OPTIONAL
Other fittings and instrumentation are optional

F.3.4 DIMENSIONS

<table>
<thead>
<tr>
<th>Mast spar cross section at upper point</th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fore-and-aft</td>
<td>28mm</td>
<td>66mm</td>
</tr>
<tr>
<td>transverse</td>
<td>24mm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mast spar cross section between a point 400 mm below the mast datum point and a point 3500mm above</th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>fore-and-aft</td>
<td>56mm</td>
<td>66mm</td>
</tr>
<tr>
<td>transverse</td>
<td>38mm</td>
<td></td>
</tr>
</tbody>
</table>
### Mast spar cross section
between upper point and the point 3500mm above the datum point may have a fair rounding taper

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mast limit mark width</td>
<td>10mm</td>
<td>15mm</td>
</tr>
<tr>
<td>Lower point height</td>
<td>340mm</td>
<td>350mm</td>
</tr>
</tbody>
</table>

Upper point height 4990mm to 5000mm

**Lower point to upper point**

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestay height</td>
<td>3750mm</td>
<td>3750mm</td>
</tr>
<tr>
<td>Shroud height</td>
<td>3770mm</td>
<td>4000mm</td>
</tr>
</tbody>
</table>

**Spreader:**

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>length</td>
<td>200mm</td>
<td>350mm</td>
</tr>
<tr>
<td>height</td>
<td>1950mm</td>
<td>2050mm</td>
</tr>
</tbody>
</table>

### F.3.5 WEIGHTS

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mast weight</td>
<td>6.5kg</td>
<td></td>
</tr>
<tr>
<td>Mast tip weight</td>
<td>2.0kg</td>
<td></td>
</tr>
</tbody>
</table>

### F.4 BOOM

**F.4.1 MATERIALS**

(a) The spar shall be of aluminium alloy.

**F.4.2 CONSTRUCTION**

(a) The spar extrusion may or may not include a fixed sail groove or track which may or may not be integral with the spar but shall be of the same material.

**F.4.3 FITTINGS**

(a) Fittings of the boom are optional

**F.4.4 DIMENSIONS**

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom spar cross section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vertical</td>
<td>75mm</td>
<td></td>
</tr>
<tr>
<td>transverse</td>
<td>27mm</td>
<td>55mm</td>
</tr>
</tbody>
</table>
F.5 WHISKER POLE

F.5.1 MANUFACTURER
(a) Manufacturer is optional.

F.5.2 MATERIALS
(a) The spar shall be of aluminium alloy.

F.5.3 CONSTRUCTION
Construction is optional

F.5.4 FITTINGS
(a) Fittings are optional.

F.5.5 DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whisker pole length</td>
<td></td>
<td>2106mm</td>
</tr>
<tr>
<td>Whisker pole cross section</td>
<td></td>
<td>22mm</td>
</tr>
</tbody>
</table>

F.6 HEADSAIL BOOM

F.6.1 MANUFACTURER
(a) Manufacturer is optional.

F.6.2 MATERIALS
(a) Materials are optional.

F.6.3 CONSTRUCTION
(a) Construction is optional

F.6.4 FITTINGS
(a) Fittings are optional.

F.6.6 DIMENSIONS
(a) Dimensions are optional

F.7 STANDING RIGGING

F.7.1 MATERIALS
(a) The standing rigging excluding backstay and forestay shall be of stainless steel.
(b) Material of the backstay and forestay is optional.

F.7.2 CONSTRUCTION
(a) MANDATORY
   (1) Forestay
   (2) Upper shrouds
   (3) Upper shrouds and lower shrouds if present shall go through the same holes/slots in the deck.
(a) OPTIONAL
   (1) Lower shrouds
F.7.3 FITTINGS
   (a) Fittings are optional
F.7.4 DIMENSIONS
   (a)

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper shroud</td>
<td></td>
<td>2.5 mm</td>
</tr>
</tbody>
</table>

(b) Other dimensions are optional

F.8 RUNNING RIGGING
F.8.1 MATERIALS
   (a) See C.9.
F.8.2 CONSTRUCTION
   (a) MANDATORY
       See C.9.10.
   (b) OPTIONAL
       See C.9.10.
F.8.3 FITTINGS
   (a) Fittings are optional
F.8.4 DIMENSIONS
   (a) Dimensions are optional

Section G – Sails

G.1 PARTS
G.1.1 MANDATORY
   (a) Mainsail
   (b) Headsail

G.2 GENERAL
G.2.1 RULES
   (a) Sails shall comply with the class rules in force at the time of certification.
G.2.2 CERTIFICATION
   (a) The class measurer shall certify mainsails and headsails in the tack and shall sign and date the certification mark.
(b) An MNA may appoint one or more persons at a sail-maker to measure and **certify sails** produced by that manufacturer in accordance with the ISAF In-house Certification Guidelines.

G.2.3 SAILMAKER
(a) No licence is required.

G.3 MAINSAIL
G.3.1 IDENTIFICATION
(a) The class insignia shall conform with the dimensions and requirements as detailed in the diagram contained in Section H.  
(b) The class insignia of the International 2.4mR class may also be used as an alternative.  
(c) As an alteration to RRS APPENDIX G 1.3, the Insignia may be placed on the starboard side only.  
(d) The national letters and sail numbers shall comply with the RRS, but as an alteration to RRS APPENDIX G1.2 b), the national letters and sail numbers shall be of the following dimensions:

<table>
<thead>
<tr>
<th>Height</th>
<th>250mm ± 20mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>30mm ± 10mm</td>
</tr>
<tr>
<td>Space between adjoining letters</td>
<td>45mm ± 10mm</td>
</tr>
</tbody>
</table>

G.3.2 MATERIALS
(a) The **ply** fibres are optional
(b) Materials of **stiffenings**, cornerboards, reinforcements and battens are optional

G.3.3 CONSTRUCTION
(a) The construction shall be: **soft sail**.
(b) The **body of the sail** shall consist of **single ply**.
(c) The **sail** shall have 4 equally spaced batten **pockets** in the **leech**. These equal parts shall be within the tolerances ± 50mm

(d) The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, **batten pocket patches**, batten pocket elastic, batten pocket end caps, mast and boom slides, leech line with cleat, **windows**, tell tales, **sail reinforcements**, **tabling**, **battens**, sail shape indicator stripes and items as permitted or prescribed by other applicable **rules**.

G.3.4 DIMENSIONS

<table>
<thead>
<tr>
<th>Leech length</th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>4900mm</td>
<td>5150mm</td>
<td></td>
</tr>
</tbody>
</table>
G.4 HEADSAIL

G.4.1 MATERIALS
(a) The ply fibres are optional.
(b) Materials of stiffenings, cornerboards, sail reinforcements and battens are optional.

G.4.2 CONSTRUCTION
(a) The construction shall be: soft sail.
(b) The body of the sail shall consist of single ply.
(c) The following are permitted: Stitching, glues, tapes, corner eyes, hanks, batten pocket elastic, batten pocket patches, batten pocket end caps, leech line with cleat, windows, tell tales, sail reinforcements, tabling, battens, sail shape indicator stripes and items as permitted or prescribed by other applicable rules.

G.4.3 TYPES OF HEADSAILS
(a) Standard headsail. No limitations of use.
(b) Headsail boom headsail. Use is limited to together with a headsail boom.

G.4.4 DIMENSIONS STANDARD HEADSAIL

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot length</td>
<td>1716mm</td>
<td></td>
</tr>
<tr>
<td>Three-quarter width</td>
<td>437mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>minimum</td>
<td>maximum</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Half width</strong></td>
<td></td>
<td>827mm</td>
</tr>
<tr>
<td><strong>Top width</strong></td>
<td></td>
<td>40mm</td>
</tr>
<tr>
<td>Number of batten pockets</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Batten pocket length</strong> outside</td>
<td></td>
<td>450mm</td>
</tr>
<tr>
<td><strong>Batten pocket width</strong>: outside</td>
<td></td>
<td>60mm</td>
</tr>
<tr>
<td>Number of battens</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Batten length:</td>
<td></td>
<td>400mm</td>
</tr>
<tr>
<td>Head point to intersection of leech and centreline of uppermost batten pocket</td>
<td></td>
<td>700mm</td>
</tr>
<tr>
<td>Clew point to intersection of leech and centreline of lowermost batten pocket</td>
<td></td>
<td>700mm</td>
</tr>
<tr>
<td><strong>Primary reinforcement</strong></td>
<td></td>
<td>600mm</td>
</tr>
<tr>
<td><strong>Secondary reinforcement</strong>:</td>
<td></td>
<td>600mm</td>
</tr>
</tbody>
</table>

### G.4.4 DIMENSIONS HEADSAIL BOOM HEADSAIL

<table>
<thead>
<tr>
<th></th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foot length</strong></td>
<td></td>
<td>1482mm</td>
</tr>
<tr>
<td>Three-quarter width</td>
<td></td>
<td>468mm</td>
</tr>
<tr>
<td><strong>Half width</strong></td>
<td></td>
<td>850mm</td>
</tr>
<tr>
<td><strong>Top width</strong></td>
<td></td>
<td>40mm</td>
</tr>
<tr>
<td>Number of batten pockets</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Batten pocket length</strong> outside</td>
<td></td>
<td>450mm</td>
</tr>
<tr>
<td><strong>Batten pocket width</strong>: outside</td>
<td></td>
<td>60mm</td>
</tr>
<tr>
<td>Number of battens</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Batten length</td>
<td></td>
<td>400mm</td>
</tr>
<tr>
<td>Head point to intersection of leech and centreline of uppermost batten pocket</td>
<td></td>
<td>700mm</td>
</tr>
<tr>
<td>Clew point to intersection of leech and centreline of lowermost batten pocket</td>
<td></td>
<td>700mm</td>
</tr>
<tr>
<td><strong>Primary reinforcement</strong></td>
<td></td>
<td>600mm</td>
</tr>
<tr>
<td><strong>Secondary reinforcement</strong>:</td>
<td></td>
<td>600mm</td>
</tr>
</tbody>
</table>
PART III – APPENDICES

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

Section H - Class Insignia

H. 1 CLASS INSIGNIA DIAGRAM

H.2 INSIGNIA COLOURS

The class insignia shall be in blue colour. Current and former champions may have the horizontal line in the insignia in a different colour:

- International Champion - Gold
- Continental Champion - Orange
- National Champion - Green

Section J – Hull, internal structure and rudder specifications, drawings and templates

J.1 HULL
(1) Profile drawing

Drawing number J 1
- definition of base line
- definition of floor and floor level
- permitted long ships tolerances
- placing of keel profile templates
- placing of cross section templates of hull and keel

(2) Cross section of hull and keel J 2
- definition of floor and floor level
- permitted athwartship tolerances of internal structure
- distance between mast step and deck measurement point

(3) Cross section templates
Templates at Section 0 and Section 4 J 3
Templates at Section 2 J 4

(4) Keel section templates J 5
Vertical template
Horizontal template 75mm below Base Line
Horizontal template 400mm below Base Line
Trailing edge

(5) Rudder templates J 6
- Profile standard and small rudder
- Cross section 200 standard and small rudder
- Cross section 400 standard rudder
- Cross section 600 standard and 400 small rudder
- Trailing edge
Section K – Requirements for old Norlin mark III boats built before 2011-03-01

K.1 SCOPE
In order to be approved as a 2.4 Norlin One Design Boat the following requirements must be met:
1. The hull shall have been built before 2011-03-01.
2. The hull shall have been built in moulds which were produced from the original “Master Plug Boat” of the Norlin Mark III design.*
3. The boat shall have a valid 2.4mR Certificate
4. The boat shall comply with C.6, C.7, C.8, C.9, D, E, F and K.

*Hulls built in moulds which were produced from a properly built hull according to above may even be accepted.

K.2 CHECKS OF THE HULL BY TEMPLATES.
The templates and their positions are defined in Section J. Only templates approved by the ICA shall be used.

<table>
<thead>
<tr>
<th>Clearance to templates at:</th>
<th>minimum</th>
<th>maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 0 Template placed perpendicular to the water line</td>
<td>2</td>
<td>4mm</td>
</tr>
<tr>
<td>Section 2 Template placed perpendicular to the water line</td>
<td>2</td>
<td>4mm</td>
</tr>
<tr>
<td>Section 4 Template placed perpendicular to the water line</td>
<td>2</td>
<td>4mm</td>
</tr>
<tr>
<td>Underside of keel at section 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Template placed perpendicular to the water line</td>
<td>1</td>
<td>4mm</td>
</tr>
<tr>
<td>Keel profile at 75mm below the base line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Template placed parallel to the water line</td>
<td>1</td>
<td>5mm</td>
</tr>
<tr>
<td>Keel profile at 400mm below the base line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Template placed parallel to the water line</td>
<td>2</td>
<td>5mm</td>
</tr>
<tr>
<td>Aft most part of stern foil template</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Template placed on the stern ± 100 from centre plane</td>
<td>0</td>
<td>2mm</td>
</tr>
<tr>
<td>Trail edge of the keel</td>
<td>0</td>
<td>1mm</td>
</tr>
<tr>
<td>Small rudder profile template</td>
<td>1</td>
<td>5mm</td>
</tr>
<tr>
<td>Small rudder cross section templates 1 and 2</td>
<td>2</td>
<td>5mm</td>
</tr>
<tr>
<td>Trail edge of the small rudder</td>
<td>0</td>
<td>1mm</td>
</tr>
<tr>
<td>Standard rudder profile template</td>
<td>1</td>
<td>5mm</td>
</tr>
<tr>
<td>Standard rudder cross section templates 1, 2 and 3</td>
<td>2</td>
<td>5mm</td>
</tr>
<tr>
<td>Trail edge of the standard rudder</td>
<td>0</td>
<td>1mm</td>
</tr>
</tbody>
</table>

K.3 ADDITIONAL CHECKS
The draught shall be checked by taking the chain girth measure at cross section 2 from the sheer line on one side round the keel to the sheer line on the other side: \( \leq 2752\text{mm} \)

When checking dimensions against drawing J 1 and J 2 dimensions in brackets shall be used.
Visual checks shall be made to see that the hull shape has not been changed by application of fillers or by grinding. In such cases the hull shape shall be restored to its original shape. When in doubt even templates in the sections A, 1 and 3 shall be checked, where relevant. The same tolerances as for cross sections 0, 2 and 4 apply.
Section L – FLOTATION CHECK

L.1 CONDITION OF THE BOAT

The boat shall be in racing condition according to Rule C.6.1 (a) and with an additional weight of 35 kg lead placed 1350 mm forward of section 0 (+/- 100 mm). Hatches to watertight compartments, if any, shall be opened in order to let the tanks to be filled with water.

L.2 EXECUTION OF THE CHECK

The boat shall be filled with water and tilted over to starboard, to port, to the bow and to the stern in order to let the air enclosed under deck and other parts of the hull to come out.

L.3 REQUIREMENTS

The boat shall float in an approximately horizontal position. Neither the stern nor the bow shall have tendencies to sink under the water level.
Section M – Procedure when measuring centre of gravity of the boat

M.1 CONDITIONS

The boat weight shall be in accordance with C.6.1 (a).

The mast shall be at right angles to the waterline. The boom shall be attached to the mast and be on the centre line of the boat. The mainsail shall be placed alongside and parallel to the boom and the headsail placed on the fore deck.

M.2 MEASURING PROCEDURE

The boat shall be hung by a rope fixed in the two lifting eyes.

Using the friction of the rope over the lifting hook, the level of the boat should be adjusted. The boat shall hang with the waterline horizontal.

This can be checked by placing a spirit level on the centre line of the boat, with one end on the forward cockpit frame and the other on the aft cockpit frame. A 10mm shim should be placed between the spirit level and the aft cockpit frame. Other methods are, optical or laser levels on the waterline.

A plum bob is hung from the centre of the hook as close as possible to the floor. The centre of gravity is measured horizontally from the section 0 to the line of the plum bob. Section 0 is permanently marked on the sheer line.

The position of the ballast pigs or the corrector weights, may be a used to adjust the centre of gravity to comply with rule C.6.1(b).

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