

2.4mR World Championship Equipment Inspections

Objective:	To ensure fair and safe racing for all competitors with a friendly atmosphere.
Background:	Boats are required to be certified in accordance with the class rules. The 2.4mR class requires that event inspection includes certification checking, equipment checks and equipment marking.
Event Inspections:	Registration Inspections – certificate check, boat plaque check, buoyancy certificate check, boat and spar stamping, sail certification check, sail stamping, safety equipment check, weight check Regatta Inspections – equipment check, measurement check, weight check, equipment substitution check, repair check (including haul-out if approved)
Guideline:	2.4mR ICA World and Continental Regatta Management Manual
Reference:	World Sailing (WS) Guide to Equipment Inspection World Sailing (WS) Equipment Rules of Sailing (ERS) World Sailing (WS) Racing Rules of Sailing (RRS) World Sailing (WS) Regulations
Class Rules:	2.4mR Class Rules 2.4 NOD Class Rules The Organising Authority Technical Committee shall be aware of any recent class rule changes (CRCs) and apply the current class rules when inspecting equipment – for example if a mainsail has been certified before foot median mainsail rules were added then the mainsail will require measurement to ensure compliance with the current class rules.
Technical Committee:	Technical Committee (TC) including an International Class Measurer (IM) or a measurer approved by World Sailing to be appointed by Organising Authority National Technical Officer (NTO) to be provided by Organising Authority 7 Equipment Inspectors to be provided by Organising Authority <i>All equipment inspectors shall be trained in event measurement procedures by the National Technical Officer prior to the event</i>
Equipment Inspectors:	Registration Inspections Station 1 HULL Two (2) Equipment Inspectors are required for certificate and safety equipment inspection/marking, may be same equipment inspectors as for station 4 weight Station 2 SPARS Two (2) Equipment Inspectors are required for spar inspection/marking Station 3 SAILS Three (3) Equipment Inspectors are required for sail inspection/marking Station 4 WEIGHT Two (2) Equipment Inspectors are required for weight inspection Regatta Inspections Two (2) Equipment Inspectors are required to assist IM with post-race inspections
Event Forms:	Event Registration/Measurement Form Haul-out Form Substitution Form Templates for event forms are available from the ICA.
Event Limitation Mark:	Event limitation mark (stickers or stamp) for certification of boat equipment to be provided by Organising Authority. Event limitation marks shall be fixed as follows: Hull: on rear transom Spars: on starboard side near gooseneck Sails: on starboard side at mainsail/jib tack Eight (8) stickers are required per boat. We suggest that stickers be trialled before the event to ensure that they are not transferable to alternative equipment and that they stay fixed to boat/spars/sails for the duration of the event.

Stamps signed by Technical Committee with permanent ink will also work. Again, we suggest that stamps be trialled before the event to ensure that they stay fixed to hull/spars/sails for the duration of the event.

Inspection Stations:

Station 1 HULL can be open adjacent to station 4

Station 2 SPARS is required to be protected from the elements (building or tent) of minimum dimensions to accommodate inspection templates for a mast with boom fitted (6m x 2.4m)

Station 3 SAILS is required to be protected from the elements (building or tent) of minimum dimensions to accommodate two sail measurement tables 4.8m x 2.4m – one table for inspection, second table for boat owner sail packing.

Station 4 WEIGHT can be open (mast is fitted), wind protection may be required to ensure correct scale reading.

Equipment:

Inspection equipment to be provided by Organising Authority includes:

- 2 x certified scales (copy of certification to be displayed with scales)
- 2 x sail measurement tables
- Templates
- Markers
- 2 x certified tape measures
- 35kg lead (buoyancy check)
- Pump (buoyancy check)
- Measurement marks (spare)
- Lockable storage for substituted equipment

Certificates:

The 2.4mR class has three different certificates:

2.4mR Rating Certificate

A valid **certificate** is required; this is not a measurement form. The WS/ISAF plaque number should be recorded and checked that it matches the boat plaque.

2.4mR Buoyancy Certificate

A valid buoyancy certificate is required; the date of the certificate should be checked to ensure that it is not more than five (5) years from the issue date). The WS/ISAF plaque number should be recorded and checked that it matches the boat plaque.

Norlin 2.4 One Design Certificate

A valid Norlin One Design certificate is required for the boat to be registered in the One design category. The Norlin One Design plaque number should be recorded and checked that it matches the boat plaque.

Weight:

The Organising Authority shall provide a weight inspection station with certified scales and two (2) Equipment Inspectors for weight inspection. Instructions on required boat equipment to be included in weight check shall be posted at the weight inspection station.

The boat weight for 2.4mR boats is in accordance with the **certificate** weight, and the boat weight for 2.4 NOD boats is 253-254kg.

Regatta Inspections:

Regatta spot check inspections shall be carried out by the TC.

Post-Race Checks

Post-race checks shall be carried out by the TC with the assistance of 2-4 Equipment Inspectors.

After each day of racing 2-4 boats will be selected at random and instructed to proceed to the post-race check dock area. Selected boats shall be escorted to the post-race dock check dock area to ensure that boats are in as raced condition – no equipment substitution is permitted, competitors may only remove personal equipment. Equipment inspectors are required to assist the TC with each boat. Boats may be hauled out to check weight. Masts may be removed to check dimensions. Ballast of OD boats may be removed. Only the TC, Equipment Inspectors, ICA Technical Committee, Jury and the boat owner are permitted in the post-race check dock area. Boat owners, when instructed by an Equipment Inspector, are required to assist with any required unrigging/rigging, removing/adding ballast.

Station 1 – HULL

Measurement Check	Measurement Rule	Method
Rating Certificate	<i>B.1 CERTIFICATE</i> <i>B.1.1 (b) The boat shall have a valid certificate.</i>	Check certificate is a valid certificate signed by the issuing Authority Check certificate plaque number matches plaque in boat
Buoyancy Certificate	<i>B.1 CERTIFICATE</i> <i>B.1.1 (c) The boat shall have a valid ICA buoyancy certificate.</i>	Check buoyancy certificate is current (valid for 5 years only)
Norlin 2.4 One Design Certificate	<i>B.1 CLASS RULES AND CERTIFICATION</i> <i>B.1.1 (b) The boat shall have a valid 2.4 Norlin One Design certificate.</i>	Check OD certificate Check OD certificate plaque number matches plaque in boat
Safety Equipment	D.9 ASSEMBLED HULL D.9.1 FITTINGS AND EQUIPMENT (a) MANDATORY The following fittings and equipment shall be installed: (1) A suitable fitting or system in the bow area of minimum 12mm internal diameter to enable a towing rope to be passed through the fitting/system for securing at the mast or equivalent to guide the boat when under tow. The fitting/system shall be easy to access from a rescue craft. (2) One manual <i>fixed</i> bilge pump with a minimum capacity of 0.5 litre/stroke. C.4 PORTABLE EQUIPMENT C.4.2 NOT FOR USE (a) MANDATORY (1) Towing rope minimum 9m long of not less than 5mm in diameter and of material that floats.	Visually check manual pump installed Visually check towing rope installed Visually check towing fitting for rescue access and ability to handle towing rope STAMP REGISTERED HULL WITH EVENT LIMITATION MARK

Station 2 – SPARS

Measurement Check	Measurement Rule	Method
Spars	C.8.2 MAST (a) DIMENSIONS minimum maximum Limit mark width 10mm Upper Distance Point 5000mm Lower Distance Mark to certificate P C.8.3 BOOM (a) DIMENSIONS minimum maximum Limit mark width 10mm Outer distance Point to certificate E	Check only one mast and one boom per boat Check mast upper point distance and lower point distance limit marks installed Check boom outer point distance limit mark installed Check mast datum point is marked with a punch STAMP REGISTERED MAST AND BOOM WITH EVENT LIMITATION MARK

Station 3 - SAILS

Measurement Check	Measurement Rule	Method
Sails	B.2 CERTIFICATION MARKS B.2.1 Items that require certification marks shall be so marked. G.2.2 CERTIFICATION (c) On the certification mark it shall be stated what design the sail is made for: (1) Main sail: The measure E according to G.3.3 (2) Head sail: The measure J according to G.4.2	Check maximum of 3 headsails and 2 mainsails per boat. Check certification marks on all sails Check E on mainsail certification mark is in accordance with rating certificate dimension Check J on headsail certification mark is in accordance with rating certificate dimension Check national letters and sail numbers are in accordance with rating certificate STAMP AND SIGN REGISTERED SAILS WITH EVENT LIMITATION MARK

Station 4 - WEIGHT

Measurement Check	Measurement Rule	Method
Boat Weight	C.5 BOAT C.5.1 WEIGHT The weight of the boat in dry condition shall comply with that as stated in the measurement certificate.	CERTIFIED SCALES REQUIRED Check boat weight is in accordance with certificate weight. ERS C.6.1 Boat <i>It includes hull, ballast, rig, sails, fittings, boat corrector weights (OD only) and all other items of equipment used but excludes consumables, personal equipment and portable equipment.</i> Ensure that boat is dry Ensure the following equipment is on board: ▪ Bow towing fitting or system ▪ Manual bilge pump / electric bilge pump ▪ J restrictor ▪ Towing rope The following equipment may be removed when measuring: ▪ Removable seat ▪ Headsail boom

Regatta Inspections

Measurement Check	Measurement Rule	Method
Spot Checks	2.4mR class rules	TC boat equipment inspections at designated moorings pre-race and post-race*
Post Race Checks	2.4mR class rules	Equipment inspections at controlled inspection mooring of 2-4 boats selected at random by Organising Authority after each racing session. Equipment inspection may include haul-out to check weight.
Haul-out Control	2.4mR class rules	IM control of boat haul-out for authorised repairs. REFER 2.4mR HAUL OUT FORM
Equipment Substitution	2.4mR class rules	IM control of authorised equipment substitution. REFER 2.4mR EQUIPMENT SUBSTITUTION FORM