

Technical presentation

Measurement and Equipment inspections





What is needed to enter the championship?

2023 ORC International Certificate

- Issued no later than 23 July 2023
- CDL between 8.300 and 16.400
- Flotation date not earlier than 4 August 2013



What is needed to enter the championship?

All sails shall be measured

- All sails (mainsails, headsails set on the forestay, headsails set flying, symmetric and asymmetric spinnakers) shall be measured according to the IMS Rule.
- Storm & heavy weather sails shall be measured according to the WS Offshore Special Regulations (OSR).
- All sails shall have a measurement stamp or sticker with all required measurements clearly readable.
- Any sail without a measurement stamp or measurements clearly readable, will be needed to be measured at the venue. An appropriate measurement fees will be charged accordingly



Pre-race equipment inspection schedule

Friday, 4 August 2023 •09:00 – 13:00 •14:00 – 18:00

Saturday, 5 August 2023 •09:00 – 13:00 •14:00 – 18:00

Sunday, 6 August 2023 •09:00 – 13:00

Book your slot at: https://www.orcworlds2023.com/measurement/

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How to get prepared for the pre-race inspection?

- Be ready at the scheduled time with a responsible person on board (e.g., owner and/or skipper).
- Present all sails with the corner taken out from the bag showing the ORC measurement stamp.
- Make a clear decision which sails you want to use during the championship.
- Have all safety equipment ready for inspection.



What is checked during the pre-race inspection?

Sails

• The maximum number of sails to be used at the event excluding storm & heavy weather sails required by the OSR shall be as defined in ORC Rule 206.1

	Class A	Class B	Class C
Mainsail	2	2	2
Headsails	7	6	5
Spinnakers	5	5	4

- Each boat shall select sails to be used at the event up to the maximum numbers as defined above. Selected sails will be marked with an event sticker. Only sails marked with an event sticker may be on board during the event.
- Sails carried on board may vary from day to day, but shall remain the same for each race day, including days with multiple races even in the case of damage to sails. The race day begins when the boat leaves for the race course from its dock or mooring.
- Sails damaged during the event may be repaired. Sails beyond repair may be replaced with permission of the Technical Committee.



What is checked during the pre-race inspection?

Internal ballast

- If there is any, weight and position will be checked.
- An internal ballast shall be properly fixed below the cabin sole, or as low as possible fixed to the hull structure to prevent movement.



What is not checked during the pre-race inspection?

Crew weight

- Crew weight is **NOT** part of the pre-race equipment inspection
- Official scale is available for your own check
- Crew weight may be checked during the **post-race** equipment check and if it is found greater than the maximum or smaller than the minimum recorded on the certificate, TC will protest the boat
- Be sure to have your crew weight properly declared in the certificate.



What is checked during the pre-race inspection?

Safety equipment

- Download the safety equipment check list at the <u>link</u>.
- Be sure to have ALL equipment from that list, but please be aware that check list do not cover ALL rules of OSR.
- The full compliance with OSR Category 3 is the sole responsibility of the person in charge and it cannot be limited to the safety check list



Navigation lights

•mounted above sheerline and so that they will not be masked by sails or the heeling of the boat.

- Minimum 10 w (if incandescent) for LOA<12 m
- Minimum 25 w (if incandescent) for LOA≥12 m

•reserve lights having the same specifications as above, and that can be powered independently

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•spare bulbs (not required for LED)

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Marine VHF transceiver

•a marine radio transceiver with an emergency antenna when the regular antenna depends upon the mast

•If VHF: minimum rated output power of 25 W

•a masthead antenna and co-axial feeder cable with not more than 40% power loss

Hand-held VHF transceiver

•a hand-held marine VHF transceiver, watertight or with a waterproof cover. When not in use to be stowed in a grab bag or emergency container (see OSR 4.21)







AIS Transponder which either:

- a) shares the masthead VHF antenna via a low loss AIS antenna splitter; or
- b) has a dedicated AIS antenna not less than 38 cm (15") in length mounted with its base not less than 3 m (10') above the Waterline and co-axial feeder cable with not more than 40% power loss





Soft tapered wood plugs

• A tapered soft wood plug stowed adjacent to every through-hull opening



Fire extinguishers

- A fire blanket adjacent to every cooking device with an open flame
- 2 fire extinguishers, each with 2 kg of dry powder or equivalent, in different parts of the boat



Flashlight and Searching light

- a searchlight, suitable for searching for a person overboard at night and for collision avoidance
- a watertight flashlight shall be stowed in the grab bag or emergency container

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• Spare batteries and bulbs for both



First Aid Kit & Manual

• A First Aid Manual and First Aid Kit. The contents and storage of the First Aid Kit shall reflect the likely conditions and duration of the passage, and the number of crew



Foghorn, rigging cutter and knife

- A Foghorn
- An effective means to quickly disconnect or sever the standing rigging from the boat
- A knife stored in the Grab Bag



Radar reflector

- A passive radar reflector with:
 - a) octahedral circular plates of minimum diameter 30 cm (12"), or
 - b) octahedral rectangular plates of minimum diagonal dimension 40 cm (16"), or
 - c) a non-octahedral reflector with a documented Root Mean Square minimum Radar Cross Section (RCS) area of 2 m2 (22 ft2) from 0-360° of azimuth and ±20° of heel





Charts and Compass

- Navigational charts (not solely electronic), light list and chart plotting Equipment
- Marine magnetic compass capable of being used as a steering compass:
- Permanently installed marine magnetic steering compass, independent of any power supply, correctly adjusted with deviation card
- Second compass which may be hand-held and/or electronic



Pyrotechnics

- Pyrotechnic signals shall be provided conforming to SOLAS LSA Code Chapter III Visual Signals and not older than the stamped expiry date (if any) or if no expiry date stamped , not older than 4 years:
 - 4 Red Hand Flares
 - 2 Orange Smoke Flares



Bilge pump and buckets

- Two strong buckets, each with a lanyard and of at least 9 l (2.4 US Gal) capacity
- One permanently installed manual bilge pump
- All required permanently installed bilge pumps shall be operable with all cockpit seats, hatches and companionways shut and with permanently installed discharge pipe(s) of sufficient capacity
- All removable bilge pump handles retained by a lanyard



Anchors

 2 un-modified anchors that meet the anchor manufacturer's recommendation based on the boat's dimensions with suitable combination of chain and rope, ready for immediate assembly, and ready for deployment within 5 minutes



Lifejackets

- Each Crew Member shall have a lifejacket which shall:
- have an emergency position indicating light
- be clearly marked with the boat's or wearer's name
- have a sprayhood in accordance with ISO 12402-8
- A boat shall carry at least one gas inflatable lifejacket spare cylinder and, if appropriate, spare activation head for each type of lifejacket on board





Tethers

- Each Crew Member shall have a tether that shall:
 - not exceed 2 m (6'-6") including the length of the hooks
 - a tether not exceeding 1m(3'3") including the length of the hooks, or
- an intermediate self-closing hook on a 2 m (6'-6") tether
- have self-closing hooks
- have overload indicator flag embedded in the stitching
- be manufactured after 2000



Grab bag

Either a watertight compartment or a grab bag, readily accessible whether or not the boat is inverted, with the following minimum contents:

- •a watertight hand-held marine VHF transceiver with spare batteries
- •a watertight flashlight with spare batteries and bulb
- •3 red hand flares
- •a watertight strobe light with spare batteries
- •a knife

•If a grab bag is provided it shall have inherent flotation, at least 0.1 m² (1 ft²) area of fluorescent orange colour on the outside, shall be marked with the name of the boat, and shall have a lanyard and clip



Llfebuoy

- A lifebuoy with:
- •A self-igniting light
- •a whistle
- •a drogue

•within reach of the helmsman and ready for immediate use



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Heaving line

•A heaving line, no less than 6 mm (1/4")diameter, 15 - 25 m (50 - 75') long, readily accessible to cockpit



Recovery sling

•A recovery sling which includes a:

- buoyant line of length no less than the shorter of 4 times LOA or 36m (120')
- buoyancy section (horseshoe) with no less than 90 N (20#) buoyancy
- minimum strength capable to hoist a crewmember aboard





Lifelines

•Lifelines of stranded stainless steel wire (Min. 4 mm 8.5<LOA≤13; Min.5 mm LOA>13 m)

•When a deflecting force of 4 kg is applied to a lifeline at the mid-point of the longest span between supports that are aft of the mast, the deflection shall not exceed:

- 50 mm (2") for an upper or single lifeline
- 120 mm (4 ³/₄") for an intermediate lifeline
- Stainless steel lifelines shall be uncoated
- A lanyard of synthetic rope may be used to secure lifelines provided the gap it closes does not exceed 100 mm





Jackstays

•Jackstays shall:

- be independent on each side of the deck
- enable a crewmember to move readily between the working areas on deck and the cockpit(s) with the minimum of clipping and unclipping operations
- have a breaking strength of 2040 kg (4500#) and be uncoated and non sleeved stainless steel 1 x 19 wire of minimum diameter 5 mm (3/16"), webbing or HMPE rope







Clipping points

•Clipping points shall:

- be adjacent to stations such as the helm, sheet winches and masts, where crewmembers work
- enable a crewmember to clip on before coming on deck and unclip after going below



Storm and Heavy weather sails

- A Heavy Weather Jib with:
 - area not greater than 13.5% height of the foretriangle squared
 - readily available means, independent of a luff groove, to attach to the stay
- •Either a storm trysail as defined in OSR 4.26.2 d), or mainsail reefing to reduce the luff by at least 40%
- A storm trysail with:
 - area not greater than 17.5% mainsail hoist (P) x mainsail foot length (E)
 - no headboard, no battens
- The material of the body of a storm sail purchased after 2013 shall have a highly-visible color (e.g. dayglo pink, orange or yellow)
- Storm and Heavy weather sails shall be measured





Emergency tiller

An emergency tiller capable of being fitted to the rudder stock except when:

the principal method of steering is by means of an unbreakable metal tiller
there are two methods (e.g. tillers, wheels) of controlling a rudder, neither of which shares components with the other except for the rudder stock

A proven method of emergency steering with the rudder disabled



On the water

- •TC members will approach boats selected randomly
- •The following will be inspected after each inshore race:
 - \circ the presence of event stickers on the sails on board
 - the position of the items recorded in the measurement inventory
 - major OSR compliance (such as the tension of the lifelines).



Ashore – After the long offshore race

•Safety equipment and the presence of event stickers on the sails on board among randomly selected boats in each class.



Ashore – After inshore races

•**Flotation**: 1st boat overall in each class when selection is made. TC member will meet you at your mooring place to define details about the time and location of the check.

•Sails measurements check: 2nd boat overall in each class when selection is made. Please bring to the sails inspection area the largest of each: mainsail, headsail set on the forestay, symmetric spinnaker, asymmetric spinnaker, all headsails set flying and all asymmetric spinnaker with SHW/SFL < 85%.

•Crew weighing 3rd boat overall in each class when selection is made. The Crew shall be weighted in light street clothes with short trousers, a t-shirt, and flip-flops as a minimum..



Ashore – After inshore races

•These criteria shall be applied at the end of each racing day, except when the boat is supposed to be inspected for an item previously checked. In this case, a different check may be scheduled for that boat, and if needed, boats placed 4th, 5th, 6th etc. will be inspected.

•Independently from the results, any boat can be inspected upon a measurement protest or by the choice of the Technical Committee.



What can be the result of the post-race inspection?

•If the Technical Committee finds that boats do not comply with the ORC Rating Rules, it shall protest the boat and it may protest the boat for any infringement of the OSR.

•The flotation check will start with the freeboards measurement. A test certificate will be run with these measurements to calculate APH that will be compared with the one on your ORC International certificate. If the difference between the two APHs is less than 0.1%, a boat will be considered in compliance with her certificate. If the difference is greater, an inclining test will be performed to run a new test certificate. If the APH difference is still greater than 0.1%, TC will protest the boat and ORC Rule 305.2 will be applied.



What can be the result of the post-race inspection?

•If there is any difference in sail measurements, a test certificate will be run with these sails measurements for a comparison of the APH with the one on your ORC International certificate. If the APH difference is greater than 0.1%, TC will protest the boat and ORC Rule 305.2 will be applied.

- 305.2 When, as a result of any measurement protest by a boat or by the Technical Committee, it is determined that a boat does not comply with her certificate in accordance with 304.1(c)(i) and (ii), the non-compliance shall be calculated as a difference in percentage of APH:
 - a) If the difference is less than or equal to 0.1%, the original certificate will be maintained, the protest will be dismissed, and the protestor will have to cover any cost involved. RRS 64.4(a) will apply but no corrections are needed.
 - b) If the difference is more than 0.1% but less than or equal to 0.25%, no penalty shall apply, but a new certificate shall be issued based on the new measurement data and all races of the series shall be rescored using the new certificate data. The Protest will be considered accepted and the protestee will have to cover any cost involved.
 - c) If the difference is more than 0.25% but less than 0.40%, a boat shall receive a scoring penalty that shall be 50% of the score for Did not Finish, rounded to the nearest whole number (0.5 rounded upward) in any race in which her rating was incorrect. New certificate shall be issued based on the new measurement data and all races of the series shall be rescored using the new certificate data. The Protest will be considered accepted and the protestee will have to cover any cost involved.
 - d) If the difference is 0.40% or more, a boat shall be disqualified (DSQ) in any race in which her rating was incorrect. The Protest will be considered accepted and the protestee will have to cover any cost involved and the yacht shall not race again until all non-compliance issues are corrected to the limit defined in a) above.



What can be the result of the post-race inspection?

•If the crew weight is found greater than the maximum or smaller than the minimum recorded on the ORC International certificate, TC will protest the boat.

•Please note that ANY infringement related to the crew weight is <u>not</u> <u>considered as an issue of compliance with the certificate</u> and it is not subject to the APH comparison.

•ORC Rule 305.2 does not apply in this case, and the decision of the protest may be a disqualification in all races where crew weight was not in the range given in the certificate.



What can be modified during the championship?

•Crew changes: Once the entry is accepted, each boat shall submit the crew list that shall include all crew members who will be on board at the start of the first race

• After the first race, changes in crew (adding new crew members, replacing, or disembarking crew members) can be made only on request and with the permission of the Technical Committee.

•The substituted crew member shall not be aboard any other competing boat throughout the remainder of the series.

•The weight of all crew members on board after all crew changes shall neither be greater than the maximum nor smaller than the minimum crew weight as recorded in the certificate



What can be modified during the championship?

•Equipment changes: Substitution of damaged or lost equipment is not allowed unless authorized by the Technical Committee.

•Requests for substitution shall be made at the first reasonable opportunity.

•If this includes sails damaged beyond repair, please present the damaged sail to the Technical Committee.





Any questions?



