



# Equipment Inspection Checklist

YACHT \_\_\_\_\_

SKIPPER \_\_\_\_\_

INSPECTOR #1 \_\_\_\_\_

INSPECTOR #2 \_\_\_\_\_

*Second Inspection (if required)*

SIGNATURE \_\_\_\_\_

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## Overall

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| 1.4 | <u>Equipment and Knowledge:</u> All equipment required shall function properly, be regularly checked, cleaned and serviced, and be of a type, size and capacity suitable for the intended use and size of the boat and the size of the crew. This equipment shall be readily accessible while underway and, when not in use, stored in such a way that deterioration is minimized.       | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <i>Skipper</i><br/> <input type="checkbox"/> </div> <div style="text-align: center;"> <i>Inspector #1</i><br/> <input type="checkbox"/> </div> <div style="text-align: center;"> <i>Inspector #2</i><br/> <input type="checkbox"/> </div> </div> |
| 1.5 | <u>Secure Storage:</u> A boat's heavy items such as batteries, stoves, toolboxes, anchors, chain and internal ballast shall be secured.  | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |
| 1.6 | <u>Strength of Build:</u> A boat shall be strongly built, watertight and, particularly with regard to hulls, decks and cabin trunks, capable of withstanding solid water and knockdowns. A boat shall be properly rigged and ballasted, be fully seaworthy and shall meet the standards set forth herein. A boat's shrouds and at least one forestay shall remain attached at all times. | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |
| 1.7 | <u>Watertight Integrity:</u> A boat's hull, including, deck, coach roof, windows, hatches and all other parts, shall form an integral watertight unit, and any openings in it shall be capable of being immediately secured to maintain this integrity.  | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |

## Hull and Structure

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| 2.1.1 | <u>Hull Openings:</u> A boat's companionway(s) shall be capable of being blocked off to main deck level (sheerline). The method of blocking should be solid, watertight, and rigidly secured, if not permanent.  | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <i>Skipper</i><br/> <input type="checkbox"/> </div> <div style="text-align: center;"> <i>Inspector #1</i><br/> <input type="checkbox"/> </div> <div style="text-align: center;"> <i>Inspector #2</i><br/> <input type="checkbox"/> </div> </div> |
| 2.1.2 | <u>Hull Openings:</u> A boat's hatch boards, whether or not in position in the hatchway, shall be secured in a way that prevents their being lost overboard.   | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |
| 2.1.3 | <u>Cockpit:</u> A boat's entire cockpit shall be solid, watertight, strongly fastened and/or sealed. Weather-tight seat hatches are acceptable only if capable of being secured when closed.   | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |
| 2.1.4 | <u>Cockpit:</u> <b><i>It is strongly recommended that a boat's cockpit drains be capable of draining six inches of water in 5 minutes. One square inch (645mm<sup>2</sup>) of effective drain per eight square feet (0.743m<sup>2</sup>) of cockpit sole will meet this requirement.</i></b> | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |
| 2.1.6 | <u>Through Hulls:</u> A boat's through-hull openings below the waterline shall be equipped with sea cocks or valves, except for integral deck scuppers, speed transducers, depth finder transducers and the like; however a means of closing such openings shall be provided.                | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |
| 2.2.1 | <u>Stability:</u> The boat must have a stability index greater than or equal to 115, or meet the requirements of ISO 12217-2A  | <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div>  |

- 2.2.3 Stability: **A boat with a lifting keel must keep it in the fully down position throughout the race.**
- 2.3.1 Accommodations: **A boat shall be equipped with an enclosed head.**
- 2.3.2 Accommodations: A boat shall have bunks sufficient to accommodate the off watch crew.
- 2.3.3 Accommodations: A boat shall have a stove with a fuel shutoff.
- 2.3.4 Accommodations: **A boat shall have an installed water tank and delivery system.**
- 2.3.5 Accommodations: A boat shall have adequate hand holds below decks.
- 2.4.1 Lifelines: A boat's deck including the headstay shall be surrounded by a suitably strong enclosure, typically consisting of lifelines and pulpits, meeting the requirements in 2.4.2 to 2.4.8.
- 2.4.2 Lifelines: A boat's stanchion and pulpit bases shall be within the working deck.
- 2.4.3 Lifelines: Bow pulpits may be open, but the opening between the vertical portion of stanchion pulpit and any part of the boat shall not exceed 14.2" (360mm).
- 2.4.4 Lifelines: **Lifelines shall be stainless steel wire. A multipart-lashing segment not to exceed 4" per end termination for the purpose of attaching lifelines to pulpits is allowed. Any such lashing shall be replaced annually. Lifelines shall be taut.**
- 2.4.5 Lifelines: The maximum spacing between lifeline supports (e.g. stanchions and pulpits) shall be 87" (2.2m).
- 2.4.7 Lifelines: Boats 30' and over (9.14m) shall have at least two lifelines with 24" (762mm) minimum height above deck, and a maximum vertical gap of 15" (381mm). The minimum diameter will be 5/32" (4mm) for boats to 43' (13.1m) and 3/16" (5mm) for boats over 43' (13.1m).
- 2.4.8 Lifelines: Toe rails shall be fitted around the foredeck from the base of the mast with a minimum height of 3/4" (18mm) for boats under 30' (9.14m) and 1" (25mm) for boats over 30'. An additional installed lifeline that is 1-2" (25-51mm) above the deck will satisfy this requirement for boats without toerails.
- 2.5.1 Dewatering pumps: A boat shall have a permanently installed manual bilge pump of at least a 10 GPM (37.8 liter per minute) capacity and which is operable from on deck with the cabin closed with the discharge not dependent on an open hatch. Unless permanently attached to the pump, the bilge pump handle shall be securely attached to the boat in its vicinity via a lanyard or catch. A bilge pump discharge shall not be connected to a cockpit drain. The bilge pump shall not discharge into a cockpit unless that cockpit opens aft to the sea.
- 2.5.2 Dewatering pumps: **A boat shall have a second manual bilge pump of at least 10 GPM capacity, operable from below deck, meeting the same criteria as above. The pump may be mounted on a board.**
- 2.6 Mast and Rigging: **It is strongly recommended that a boat have the heel of a keel-stepped mast securely fastened to the mast step or adjoining structure.**
- 2.7.1 Mechanical Propulsion: **A boat shall have a mechanical propulsion system that is quickly available and capable of driving the boat at a minimum speed in knots equivalent to the square root of LWL in feet (1.81 times the square root of the waterline in meters) and a boat must carry enough fuel to motor for the distance specified in the NoR.**

2.7.3 Mechanical Propulsion: ***It is recommended that the boat's engine and generator installation (if so equipped) must conform to ABYC, ISO and/or U.S. Coast Guard standards.***

2.7.4 Batteries: ***A boat's onboard rechargeable batteries shall be of the sealed type or be installed in such a way that electrolyte cannot escape in the event of inversion.***

**Safety Equipment**

3.1.1 Personal: Each crewmember shall have a life jacket that provides at least 33.7lbs (150N) of buoyancy, intended to be worn over the shoulders (no belt pack), meeting either U.S. Coast Guard or ISO specifications. Alternatively, each crewmember shall have an inherently buoyant off-shore life jacket that provides at least 22lbs (100N) of buoyancy meeting either U.S. Coast Guard or ISO specifications.

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3.1.2 Personal: Life jackets shall be equipped with crotch or leg straps, a whistle, a waterproof light, be fitted with marine-grade retro-reflective material, and be clearly marked with the boat's or wearer's name, and be compatible with the wearer's safety harness. If the life jacket is inflatable, it shall be regularly checked for air retention. ***It is strongly recommended that each life jacket intended for regular use while racing (one per crew member) shall be equipped with an AIS personal crew overboard beacon.***

3.1.4 Personal: Each crewmember shall have a safety harness and compatible safety tether not more than 6'7" (2m) long with a minimum tensile strength of 4500 lb. (20kN). The tether shall have a snap hook at its far end and a means to quickly disconnect the tether at the chest end.

3.2.1 Deck Safety: ***A boat shall carry at least two jacklines, one on each side of the deck, that are independent, that have a breaking strength of at least 4500 lb. (20kN) and which allow the crew to reach all points on deck, connected to similarly strong attachment points, in place while racing.***

3.2.2 Deck Safety: A boat shall have adequate clipping points or jacklines that allow the crew to clip on before coming on deck and unclip after going below.

3.3.1 Navigation Lights: A boat racing between sunset and sunrise shall carry navigation lights that meet U. S. Coast Guard or applicable government requirements mounted so that they will not be obscured by the sails nor be located below deck level.

3.3.2 Navigation Lights: A boat shall have a second set of navigation lights that comply with US Coast Guard or applicable government requirements and which can be connected to a different power source than the primary lights.

3.4 Fire Extinguishers: A boat shall carry fire extinguisher(s) that meets U.S. Coast Guard or applicable government requirements, when applicable.

3.5 Sound Producing Equipment: A boat shall carry sound-making devices that meets U.S. Coast Guard or applicable government requirements, when applicable.

3.6.1 Visual Distress Signals: A boat shall carry two SOLAS orange smoke flares not older than the expiration date.

3.6.5 Visual Distress Signals: A boat shall carry four SOLAS red hand flares not older than the expiration date.

3.7.1 Man Overboard: A boat shall carry a Lifesling or equivalent man overboard rescue device equipped with a self igniting light stored on deck and ready for immediate use.

- 3.7.2 Man Overboard: A boat shall have a man overboard pole and flag, with a lifebuoy, a self-igniting light, a whistle, and a drogue attached. A self-inflating Man Overboard Module, Dan Buoy or similar device will satisfy this requirement. Self-inflating apparatus shall be tested and serviced in accordance with the manufacturer's specifications. These items shall be stored on deck, ready for immediate use, and affixed in a manner that allows for a "quick release".
- 3.7.3 Man Overboard: A boat shall have a throwing sock-type heaving line of 50' (15m) or greater of floating polypropylene line readily accessible to the cockpit.
- 3.7.4 Man Overboard: A boat shall carry a Coast Guard or applicable government approved "throwable device". If the device carried under 3.7.1 or 3.7.2 satisfies this requirement, then no additional device is needed.
- 3.8.1 Emergency Communications: A boat shall have a permanently installed 25-watt VHF radio connected to a masthead antenna by a co-axial feeder cable with no more than a 40% power loss. ***It is recommended that all radios shall have DSC capability, have an antenna of at least 15" (381mm) in length, be connected to or have an internal GPS, and have the assigned MMSI number (unique to the boat) programmed into the VHF.***
- 3.8.2 Emergency Communications: A boat shall have a watertight handheld VHF radio or a handheld VHF radio with waterproof cover. ***It is highly recommended that this radio have DSC/GPS capability with an MMSI number properly registered to the vessel.***
- 3.8.4 Emergency Communications: ***It is recommended that a boat have an emergency VHF antenna. The emergency antenna shall be equipped with sufficient coax to reach the deck, and have a minimum antenna length of 15" (381mm).***
- 3.8.5 Emergency Communications: ***A boat shall be equipped with VHF transceivers that are operational in International and USA channel mode.***
- 3.9 Emergency Communications: All boats shall have an AIS Transponder, sharing a masthead VHF antenna via a low loss AIS antenna splitter. An acceptable alternative is a dedicated AIS antenna that is a minimum of 0.9 meters long, mounted with its base at least 3 meters above the water, and fed with coax that has a maximum 40% power loss. ***The AIS signal transmitted shall use the boat name provided on the boat's entry form rather than just an MMSI number.***
- 3.10 Emergency Communications: ***A boat shall carry a cellular phone in a waterproof container. Its number should be recorded as part of the boat's registration.***
- 3.11 Emergency Communications: ***A boat shall carry a satellite voice and text communication system, with critical components in a waterproof container(s). The satellite voice and text communication system shall be operable from below decks (if needed via external antenna). The system shall be on, capable of receiving incoming communication for the duration of the race. Its number shall be recorded as part of the boat's registration.***
- 3.13 Emergency Communications: A boat shall have a method of receiving weather information in addition to the fixed mount and hand held VHF radio.
- 3.14 Emergency Communications: A boat shall carry a GPS receiver.
- 3.15 Emergency Communications: A boat shall carry an electronic means to record the position of a man overboard within ten seconds. This may be the same instrument listed in 3.14.

- 3.16.1 Emergency Communications: A boat shall carry a 406MHz EPIRB that is properly registered to the boat. This device shall be equipped with an internal GPS.
- 3.17 Navigation: A boat shall have a knotmeter and/or distance-measuring instrument.
- 3.18 Navigation: A boat shall have a permanently installed depth sounder that can measure to depths of at least 200 ft. (61m).
- 3.19.1 Navigation: A boat shall have a permanently mounted magnetic compass independent of the boat's electrical system suitable for steering at sea.
- 3.19.2 Navigation: A boat shall have a second magnetic compass suitable for steering at sea which may be handheld.
- 3.20 Navigation: A boat shall have non-electronic charts that are appropriate for the race area.
- 3.21 Damage Control: A boat shall have the ability to display sail numbers and letters of the size carried on the mainsail by an alternative means when none of the numbered sails is set.
- 3.22 Damage Control: A boat shall carry soft plugs of an appropriate material, tapered and of the appropriate size, attached or stowed adjacent to every through-hull opening.

**Gear**

- 3.23 Anchoring: A boat shall carry one anchor, meeting the anchor manufacturer's recommendations based on the yacht's size, with a suitable combination of chain and line.
- 3.24.1 Lights: A boat shall carry a watertight, high-powered searchlight, suitable for searching for a person overboard at night or for collision avoidance.
- 3.24.2 Lights: A boat shall carry a watertight flashlight for each crewmember with spare batteries in addition to the above.
- 3.25 Medical Kits: A boat shall carry a first aid kit and first aid manual suitable for the likely conditions of the passage and the number of crew aboard.
- 3.26 Radar Reflectors: A boat shall carry an 11.5" (292mm) diameter or greater octahedral radar reflector or one of equivalent performance.
- 3.27.1 Buckets: A boat shall carry two sturdy buckets of at least two gallons (8 liters) capacity with lanyards attached.
- 3.28 Safety Diagram: A boat shall post a durable, waterproof diagram or chart locating the principal items of safety equipment and through hulls in the main accommodation area where it can be easily seen.
- 3.29.1 Emergency Steering: A boat shall have an emergency tiller, capable of being fitted to the rudder stock.
- 3.30 Spare Parts: A boat shall carry tools and spare parts, including an effective means to quickly disconnect or sever the standing rigging from the hull.
- 3.31 Identification: All lifesaving equipment shall bear retro-reflective material and be marked with the yacht's or wearer's name. The exception would be for new equipment or rented equipment (e.g. life rafts) that would require the unpacking of sealed equipment in order to meet this requirement. The boat name shall be added during the first servicing of any new equipment.
- 3.32 Cockpit Knife: A boat shall carry a strong, sharp knife, sheathed and securely restrained which is readily accessible from the deck and/or cockpit.

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**Sails**

- 3.33.1 Mainsail Reefing: A boat shall have a mainsail reefing capable of reducing the luff length by at least 10%. Skipper  Inspector #1  Inspector #2
- 3.33.2 Trysail: ***It is strongly recommended that a boat carry a try sail, with the boat's sail number displayed on both sides, which can be set independently of the main boom, has an area less than 17.5% of E x P, and which is capable of being attached to the mast. Storm sails manufactured after 01/01/2014 shall be constructed from a highly visible material.*** Skipper  Inspector #1  Inspector #2
- 3.33.3 Headsails: A boat shall carry a heavy-weather jib (or heavy-weather sail in a yacht with no forestay) of area not greater than 13.5% height of the foretriangle squared. Skipper  Inspector #1  Inspector #2
- 3.33.4 Headsails: A boat shall carry a storm jib not exceeding 5% of the yacht's I dimension squared, an equipped with an alternative means of attachment to the headstay in the event of a failure of the head foil. Storm sails manufactured after 01/01/2014 shall be constructed from a highly visible material. Skipper  Inspector #1  Inspector #2

**Rigging**

- 3.35 Halyards: A boat shall not be rigged with any halyard that requires a person to go aloft in order to lower a sail. Skipper  Inspector #1  Inspector #2
- 3.36 Boom Support: A boat over 30' LOA (9.14m) shall have a means to prevent the boom from dropping if support from the mainsail or halyard fails. Skipper  Inspector #1  Inspector #2
- 3.36.1 Boom Preventer: ***A yacht shall have a preventer or boom restraining device, shall practice rigging it and shall be prepared to demonstrate its use to the satisfaction of the MBR OA.*** Skipper  Inspector #1  Inspector #2

**Supplies**

- 3.37 Water: ***A boat that carries water such that a single failure of a tank or delivery system will not allow the loss of more than half the water shall carry 1 gallon (3.785 liters) per crewmember of emergency drinking water. A boat that has a single water tank or delivery system such that a single failure could result in the loss of more than half the water shall carry 2 gallons (7.57 liters) per crew member of emergency drinking water. This emergency drinking water shall be in sealed containers in addition to any other water carried aboard the boat and it shall be aboard after finishing.*** Skipper  Inspector #1  Inspector #2

**Gear**

- 3.39 Life Rafts: A boat shall carry adequate inflatable life raft(s) designed for saving life at sea with designed capacity for containing the entire crew. The raft shall be SOLAS, ISAF, ISO 9650-1 or ORC approved. The raft shall be stored in such a way that it is capable of being launched within 15 seconds. Boats built after 01/06/2001 shall have the life raft stowed in a deck mounted rigid container or stowed in watertight or self-draining purpose built rigid compartment(s) opening adjacent to the cockpit or the working deck. Boats built prior to 01/06/2001 may alternatively stow the life raft in a valise not weighing over 88 lbs. securely below deck and adjacent to the companionway. The life raft(s) shall hold current certificate(s) of inspection. Skipper  Inspector #1  Inspector #2
- 3.40 Life Rafts: A boat shall have a grab bag with a lanyard and clip for each life raft. The grab bag shall have inherent flotation and be of a bright fluorescent color containing at least an EPIRB, and a watertight handheld VHF radio. The VHF radio and EPIRB need not be in addition to Skipper  Inspector #1  Inspector #2

the prior requirements.

**Skills**

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- 4.1.1 Emergency Steering: A boat's crew shall be aware of multiple methods of steering the boat with the rudder disabled, and shall have chosen and practiced one method of steering the boat with the rudder disabled and be prepared to demonstrate said method of steering both upwind and downwind.
  
- 4.2 Person Overboard: Annually, two-thirds of the boat's racing crew shall practice person-overboard procedures appropriate for the boat's size and speed. The practice shall consist of marking and returning to a position on the water, and demonstrating a method of hoisting a crewmember back on deck, or other consistent means of reboarding the crewmember.
  
- 4.3.1 Safety At Sea Seminar Attendance: ***At least 30% but not fewer than two members of the crew, including the Person-In-Charge and Navigator or a Watch Captain shall have attended a one-day or two- day US Sailing Offshore Safety at Sea Seminar. Any certificate obtained more than five (5) years prior to the start of the race or as a result of exclusively internet-based training will not be acceptable for the purposes of this paragraph.***
  
- 4.3.1.1 International Certificate: ***At least two members of the crew must hold a US Sailing Sanctioned International Offshore Safety at Sea Certificate. Any certificate shall be obtained within five (5) years prior to the start of the race.***
  
- 4.4 Crew Training: As required in 1.2 above the person in charge shall ensure that all crew members know where all emergency equipment is located and how to operate the equipment. In addition, the person in charge and crew should discuss how to handle various emergency situations including Crew Overboard, Grounding, Loss of steering, Flooding, Fire, Dismasting, and Abandon Ship.
  
- 4.5 CPR and First Aid: ***It is recommended that at least two crew members have current CPR and First Aid certifications.***

# Notice of Race Equipment Checklist

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| 6.1  | <p><u>Equipment</u> The following additional equipment is required to be on board: copy of the 2017 - 2020 RRS; copy of the Marion Bermuda Race Safety Requirements (A Classic Yacht should have a copy of the Safety Regulations of her country or World Sailing OSR 1 if she is not sailing under MBRSR); copy of the Navigation Rules International - Inland (72 COLREGS); federal VHF radio license, which is mandatory for international travel; docking equipment for use in Bermuda including at least five (5) fenders, four (4) dock lines and a marine power cord(s) totaling at least 75 feet long.</p> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6.2  | <p><u>Equipment</u> The following consumables must be on board at the start: Sufficient fuel to motor at least 250 miles; At least 10 gallons of fresh water per person; Sufficient provisions for the crew for at least 14 days.</p>  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 6.3  | <p><u>Equipment</u> All ordinary cruising gear, such as cabin tables and galley equipment, shall be on board and in its usual cruising position during the race.</p>   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 14.1 | <p><u>Navigation, Communication and AiS</u> Each yacht must keep a log in a logbook and make entries at least once each watch. The log should show courses, distance made good and dead-reckoning (DR) positions. The logbook must be on paper and have a traditional format. The logbook must remain on board and be available for inspection in Bermuda by the Compliance Committee.</p>   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| 14.2 | <p><u>Navigation, Communication and AiS</u> Each yacht shall carry a satellite voice and text communication device operable from below decks (if needed via external antenna). The system shall be left on during the race and a communications watch shall be kept and logged that shows the device was checked at least every two hours.</p>   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |