



Appendix A - Mandatory Equipment Requirements

1. Preamble

- 1.1 Skipper's responsibility: The safety of a yacht and her crew is the sole and inescapable responsibility of the skipper who must do his best to ensure that the yacht is fully found, thoroughly seaworthy and manned by an experienced crew who are physically fit to face bad weather. He must be satisfied as to the soundness of hull, spars, rigging, sails and all gear. He must ensure that all safety equipment is properly maintained and stowed and that the crew knows where it is kept and how it is to be used.
- 1.2 Neither the establishment of this mandatory equipment list, nor the inspection of a yacht for compliance with the list in any way limits the complete and unlimited responsibility of the skipper to ensure that both the crew and the yacht are fully prepared to compete in the race and to face the potentially severe weather conditions which can be encountered on Lake Ontario.
- 1.3 Fundamental Rule B of the International Yacht Racing Rules states: "It shall be the sole responsibility of each yacht to decide whether or not to start or to continue to race."
- 1.4 It shall be the responsibility of the skipper and crew to ensure that the yacht has been inspected and found to be in compliance with these requirements prior to the start of the race.
- 1.5 In addition to the mandatory pre-race inspection, a yacht may be inspected at any time from 0700 hrs on Thursday, June 13th, until 2 hours after her finish time. Any yacht found not to be in compliance with the requirements of Appendix A may have her entry rescinded or be subject to a Protest and possible disqualification.
- 1.6 All required equipment shall: a) function properly; b) be readily accessible; and c) be of a type, size and capacity suitable and adequate for the intended use and for the size of the yacht.
- 1.7 All yachts shall comply with the requirements of governmental authority in the country of entry.



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Yacht Name: _____ Sail No.: _____

Country: _____ L.O.A.: _____

Skipper's Name: _____

This form is to be completed by the safety inspector and skipper/crew member, then handed in to the Race Registration Committee prior to the Skippers' Meeting on June 12, 2002.

	Item/Description	Inspector's Initials
1	Basic Requirements	
1.1	All required equipment shall: a) function properly; b) be readily accessible; and c) be of a type, size and capacity suitable and adequate for the intended use and for the size of the yacht.	
1.2	Yachts shall be self-righting. They shall be strongly built, watertight and particularly with regard to hulls, decks and cabin trunks, capable of withstanding solid water and knockdowns. They must be properly rigged and ballasted, be fully seaworthy and must meet the standards set forth herein.	
1.3	Means of exit: All yachts shall have two escape exits, one of which shall be located in the forward ½ of the cabin.	
1.4	Inboard or outboard auxiliary engine shall be carried.	
1.5	Inboard engine installations shall be such that the engine, when running, can be securely covered and that the exhaust and fuel supply systems are securely installed and protected from the effects of heavy weather. When an electric starter is the only provision for starting the engine, at least two batteries shall be carried, the primary purpose of the second battery being to start the engine. N.B. <i>Where only one battery is carried, the Inspector will require a demonstration that the engine can be started without the use of the battery. There should be a means of recharging the batteries, however, if the yacht is dependent upon shore power for recharging, it will be acceptable to start the race with two fully charged marine type batteries.</i>	
1.6	Fuel: a) Yachts with inboard engines – 20 imperial gallons or full tank of 10 imperial gallons, whichever is less; b) Yachts with outboard engines – not less than 10 imperial gallons.	
1.7	Ballast and Heavy Equipment including internal fittings (batteries, stoves, gas bottles, tanks, engines, outboard motors, etc.) and anchors and chains shall be securely fastened so as to remain in position in the event of capsize.	
1.8	Yacht equipment and fittings shall be securely fastened.	

2	Structural Features	
2.1	Watertight integrity of hull: The hull including deck, coach roof, windows, hatches and all other parts shall form an integral, essentially watertight unit, and any openings in it shall be capable of being immediately secured to maintain this integrity. Centreboard and daggerboard trunks shall not open into the interior of the hull.	
2.2	Hatches: No hatches forward of the point of maximum beam shall open inwards. All hatches shall be permanently installed so they can be closed immediately, and will remain firmly shut in a 180 degree capsized.	
2.3	Main hatches and companionways: If extended below the sheerline, companionways shall be capable of being blocked off up to the level of the sheerline at that point. The companionway shall provide access to the interior of the hull when so blocked. The main companionway hatch shall be fitted with a strong securing arrangement, operable from above and below. All blocking arrangements (e.g. washboards) shall be capable of being secured in position with the hatch open or shut.	
2.4	Cockpits: Cockpits shall be structurally strong, self-draining quickly by gravity at all angles of heel and permanently incorporated as an integral part of the hull. They must be essentially watertight, that is, all openings to the hull (e.g. lockers) must be capable of being strongly and rigidly secured. Cockpit soles must be not less than 2% of LOA, above the waterline.	
2.5	Sea cocks or valves on all openings below the waterline, except for integral deck scuppers, shaft logs, speed indicators, depth sounders, etc. A means of closing such openings when necessary shall be provided.	
2.6	Soft wood plugs tapered and of sizes appropriate to close all through-hull fittings, and attached or adjacent to the appropriate fitting.	
2.7	Stanchions, lifelines and pulpits and/or a longitudinal system of jackstays if possible fitted in such a way that a crew member can clip on and move the full length of the yacht. Such a system should have a breaking strain of at least 2000 kg (4400 lbs). (See ORC Spc. Regs. For specific recommendations.)	
2.8	Stanchions and pulpits shall be securely fastened. <i>Where there are sockets or studs, they shall be through-bolted, bonded or welded. The pulpit(s) and/or stanchions fitted to these shall be mechanically retained without the help of the lifelines. Without sockets or studs, pulpits and/or stanchions shall be through-bolted, bonded or welded.</i>	
3	Accommodation	
3.1	Bunks securely installed.	
3.2	Galley facilities adequate for food storage and preparation.	
3.3	Cooking stove securely mounted and with an adequate supply of fuel.	
3.4	Propane tanks, if carried, shall be securely fastened and vented overboard.	
3.5	Water tanks or containers adequate to carry five (5) days' supply of potable water.	
3.6	Toilet: Permanently installed marine type.	
3.7	Hand-holds: Adequate hand-holds shall be fitted below deck so that crew members may move about safely at sea.	
4	General Equipment	
4.1	Fire extinguishers, axes, hoses, etc., to comply with regulations in either the USA or Canada.	
4.2	Bilge pumps and buckets.	
4.3	One manual bilge pump securely fitted to the yacht's structure, which can be operated with all cockpit seats, hatches and companionways shut.	

4.4	No bilge pump shall discharge into the cockpit unless that cockpit opens aft to the sea. Bilge pumps shall not discharge through cockpit drains.	
4.5	Bilge pump handles shall be equipped with a lanyard to prevent accidental loss.	
4.6	Two (2) buckets of stout construction, each with at least 2 gallons capacity and fitted with a lanyard.	
4.7	Anchors: a) All yachts shall carry at least one anchor with 200 feet of rode, rigged for immediate use. b) Yachts 30 ft or over shall carry a second anchor with 200 feet of rode.	
4.8	Flashlights: Three (3) waterproof flashlights equipped with lanyards and operating on "D" size batteries, one of which shall have at least a 3-inch lens and be suitable for signaling. Spare batteries and bulbs must be carried.	
4.9	First aid kit: Reasonably equipped (there are many sources of information, or ask your doctor).	
4.10	Blankets, warm clothing, sleeping bags (2). Survival suits are highly recommended.	
4.11	Sound signaling device: Air horn, bell or equivalent.	
4.12	Radar reflector: Assembled and mounted no lower than the height of the lower spreaders or 13 feet above the deck, whichever is lower.	
5	Navigation equipment and publications	
5.1	Compass: Marine type properly installed and adjusted.	
5.2	Hand-bearing compass.	
5.3	Current charts, light list, piloting equipment, 2001-2004 Racing Rules, 2002 Lake Ontario 300 Challenge Sailing Instructions (to be issued at the Skippers' Meeting).	
5.4	Loran and/or GPS unit.	
5.5	Lead line or depth sounder, speedometer, distance log.	
5.6	Navigation lights in compliance with government regulations, and a set of spare bulbs.	
5.7	Self-steering equipment is highly recommended.	
5.8	Radio: a) Marine VHF radio, permanently mounted, capable of at least 25W power, provided with masthead antenna and coaxial feeder cable rated at not more than 50% of signal loss per 66 ft. b) Handheld VHF radio, either inherently waterproof or in a proper sealed waterproof bag. c) Cellular phone.	
5.9	Marine grade binoculars	
6	Emergency Equipment	
6.1	Emergency navigation lights	
6.2	Sails: a) One storm jib (ORC recommends area not greater than 5% of the height of the foretriangle squared, and luff maximum length not more than 65% of the height of the foretriangle. b) Reefing: an adequate means to reef the mainsail by at least 40% of the luff. c) Any storm or heavy weather jib, if designed for a luff groove device, or seastay, shall have an alternate method of attachment to the stay, or shall be fitted with a wire luff rope.	
6.3	No mast shall be equipped with less than two halyards, each capable of hoisting a sail.	

6.4	Emergency steering: a) Emergency tiller capable of being fitted to the rudderstock. b) An effective alternative means of steering the yacht in the event of rudder loss. Inspectors may require a demonstration.	
6.5	Tools and spare parts including either hacksaw or rigging cutters capable of severing the largest diameter of standing rigging from the hull in case of dismasting.	
6.6	Yacht's name on miscellaneous buoyant equipment (e.g. lifejackets, foam cushions, life buoys, etc.).	
6.7	Marine grade reflective material shall be applied to life buoys, life slings and lifejackets.	
7	Safety equipment	
7.1	Lifejackets: One for each crew member equipped with a whistle and waterproof light.	
7.2	Safety harnesses: one for each crew member. Harnesses should have a snap hook and the harness end. Crew members should carry a knife at all times to free them from the yacht in an emergency. ORC recommends that all safety harnesses should be fitted with a crotch strap.	
7.3	Life rafts: While not mandatory for this race, a life raft is highly recommended. If carried, they shall be stowed a) on the working deck OR b) in compartments opening immediately onto the working deck and containing only the life raft(s) and which are either watertight or self-draining. The cover of any such compartment must be easily opened under water pressure. OR c) packed in valise(s) each not exceeding 40 kg securely stowed below deck adjacent to the companionway.	
7.4	Life buoy with a drogue, whistle, self-igniting light, pole and flag. The pole shall be fully extended and attached to the life buoy by not less than 20 ft. of floating line (polypropylene). This system shall be rigged for instant deployment and shall be within easy reach of the helmsman. In addition to the above, a life sling is a highly recommended addition to the safety equipment.	
7.5	Buoyant heaving line: at least 50 ft. long, carried on deck close to the helmsman, ready for instant use.	
7.6	Boarding ladder or other means of retrieving crew from the water. N.B. Even the fittest crew are usually totally incapable of climbing a boarding ladder after only a relatively short time in the water, thus provision must be made to assist them.	
7.7	Pyrotechnic distress signals in compliance with the government regulations of the country of registration are to be considered a minimum requirement. ORC requirements for a Category 2 race are: a) Red parachute flares – 4 b) Red hand flares – 4 c) White hand flares – 4 d) Orange smoke flares – 2 <i>While not mandatory, the organizers strongly recommend that yachts adopt these standards.</i>	
7.8	Grab bag: A small bag rigged so as to float (e.g. attached to a fender) containing equipment for use in the event of abandoning ship (dye markers, flares, waterproof VHF, mirror, knife, etc.)	

I certify that all items were on board the vessel and fully functioning at the time of inspection.

Signature of Inspector

Date

Signature of Skipper/Representative

Date