

PROCEDURE FOR EQUALIZING BOAT WEIGHT FOR CLASS RACING

- A. **Install Hull Floatation Marks.** Install contrasting 12mm x 75mm floatation marks on both sides of stem at the bow, and on both sides of aft end of rudder (long axis of marks parallel to waterline). The bottom of these marks shall be located as follows. Aft Floatation Mark: Locate aft hull point 170mm forward of transom along centerline of hull bottom. With the rudder fitted in its normal position, the bottom of the floatation mark shall be 60mm vertically below the aft hull point and shall be marked on both sides of the rudder at its trailing edge. Forward Floatation Mark: The bottom of the floatation mark shall be 1,260mm below the projection of the top of hull flange where it intersects the forward side of the stem head fitting measured down and around the forward face of the stem.

Note: A full diagram showing the placement of the float lines is available on the Class website (<http://j105.org>).

- B. **Measurement Afloat.** Boat shall include only the equipment and other items specified in Paragraph C for its initial measurement. With dry bilges, boat shall be trimmed level (floatation marks approximately equidistant from the floatation plane) by temporarily relocating equipment aboard as necessary (except for equipment that may not be moved, as noted). No further equipment or ballast need be placed aboard if both the forward and aft floatation marks are touching (or are below) the surface of the water ("*proper sink*").
- C. **Equipment and other Items Required for Measurement Trim.** All equipment and other items listed in paragraph II of the J/105 Class Floatation Worksheet & Certificate, Exhibit 7.3B to the J/105 Class Association Rules (the "*Class Rules*") are required to be on the boat. If any optional items are permanently installed on the boat, such items may be on the boat for measurement trim, but must be listed in paragraph III of the Floatation Worksheet & Certificate and may not be removed from the locations where they are installed.

To achieve proper sink, all items referenced in this paragraph C may be located anywhere on the boat on a temporary basis (except where a required location is noted herein or in paragraph II or III of the Floatation Worksheet & Certificate); for racing, those items may be relocated from their temporary locations to any other place on the boat except as prohibited in paragraph E.2 below.

- D. **Trim Equalization Procedure.** If the boat cannot be trimmed to proper sink with only the equipment and other items required in Paragraph C on board, the owner shall choose any combination of the following options to correct the trim to achieve proper sink:
1. Any optional items or standard factory installations not required to be on board by the Class Rules, such as dodger (in its standard location), cushions, or 2nd battery.
 2. Optional sailing gear such as spare sheets, blocks, winch handles, a second anchor with attached chain and/or rode, foul weather gear or other sailing related gear that is part of the yacht's permanent inventory, but not including daily provisions such as food, drink and personal crew bags.
 3. Second (spare) class spinnaker.
 4. Up to 20 gallons of water in the optional factory tank (in standard location).
 5. Lead corrector weight permanently installed (bolted, glassed or glued) inside a locker, settee, cabinet or space other than below or above the main cabin flooring or the flooring in the head compartment/changing area. Notwithstanding the foregoing, no more than 180kg (400 lbs) of corrector weights and water in water tanks (paragraph 4) shall be located between the forward bulkhead of the head compartment/changing area and the forward face of the cockpit floor. If more than 180kg (400lbs) of weight is required to achieve proper sink, such excess weight shall be in the form of lead corrector weights and 30% shall be located on the forward face of the forward bulkhead of the head compartment/changing area (above the floor boards under the V-berth and outboard of the opening to the storage under the V-berth), and 70% shall be located aft of the forward face of the cockpit floor (but not inside the engine room).

To achieve proper sink, all items listed in subparagraphs 1, 2 and 3 of this paragraph D may be located anywhere on the boat on a temporary basis (except where a required location is noted above or in paragraph IV of the Floatation Worksheet & Certificate); for racing, those items may be relocated from their temporary locations to any other place on the boat except as prohibited in paragraph E.2 below.

E. Required Equipment & Locations:

1. All equipment, ballast (water, fuel and lead) and other items referenced in paragraphs C and D must be located on the boat at all times and, if locations are specified herein or in the Floatation Worksheet & Certificate, must be located in their specified locations.
2. While racing, except for spinnakers and the standard cooler (in its standard location), the equipment and other items referenced under Paragraphs C and D may not be located either below or on top of the main cabin flooring or the flooring of the head compartment/changing area.

F. Floatation Worksheet & Floatation Worksheet & Certificate. All items referenced under Paragraphs C and D required aboard to achieve proper sink shall be listed on a J/105 CLASS FLOATATION WORKSHEET & CERTIFICATE substantially in the form of Exhibit 7.3B to the Class Rules, with its corresponding weight, gallons and location indicated, where applicable, which shall be duly completed and signed by an Owner of the boat and co-signed by the Chief Measurer or his or her designee or any Fleet Measurer or his or her designee. A copy of such Floatation Worksheet & Certificate shall be aboard at all times while racing.

J/105 CLASS FLOATATION WORKSHEET & CERTIFICATE

Date _____

Boat Name _____ Hull # _____

Owner(s) _____

Address _____

Email _____ Tel _____

I. 12mm x 75mm Floatation Marks Placed on Each Side of Bow and Rudder (Indicate If OK)

_____ Aft Floatation Mark: 60 mm Vertically Below Aft Hull Point, on Trailing Edge of Rudder.

_____ Forward Floatation Mark: 1260 mm Below Top of Hull Flange Down & Around Stem Face.

II. Checklist of Equipment and other Items Required for Measurement Trim (all items must be on board at all times)

_____ Anchor w/attached chain and/or rode

_____ USCG safety items (flares, foghorn, USCG approved life jackets for entire crew, and fire extinguishers)

_____ 1st aid kit, 1 bucket, 2 flashlights

_____ Standard running rigging including all sheets, halyards and control lines

_____ Class sails: mainsail, jib and spinnaker

_____ 2 main cabin berth cushions

_____ Standard companionway boards

_____ Lifesling, "man-overboard module" or horseshoe life ring (shall be on stern rail and not interfere with the operation of the swimming ladder)

_____ Basic nav gear (e.g., chart book, ruler, dividers, tide book & rulebook)

_____ Tool kit

_____ Handheld or installed VHF and GPS

_____ Radar reflector

_____ Emergency tiller (if wheel boat)

_____ Standard cooler, empty in standard location

_____ Fuel tank in standard location, with gauge reading at least 1/2 (Note Amount: _____)

_____ 1 standard – sized battery in standard location (for interior layout of the boat)

_____ Boat hook

_____ 2 dock lines and 2 fenders

_____ Bosun's chair

_____ Any other equipment required by the Class Rules (other than rule 5.2) and USCG rules (list): _____

NOTE: This list is NOT intended as a list of minimum safety equipment required aboard a J/105. For example, these items do not include all equipment that would be required for ORC category 4

rating, the category applicable to many J/105 regattas pursuant to the notice of race or sailing instructions. In any event, the responsibility for providing and maintaining a safe and seaworthy vessel rests entirely on the owner and skipper. Neither the establishment or use of this Checklist, nor the inspection of a boat for compliance with the Checklist in any way limits or reduces the complete and unlimited responsibility of the owner or skipper.

III. Permanently installed Optional Equipment on Board for Measurement Trim (check if applicable)

- Water tank, empty in standard location
- Cooker, in standard location
- Other Systems Group items: automatic bilge pump, vanity sink & water pump, drawers in galley and nav table (all in standard location)
- Genoa tracks
- Shore power installation (excluding cable)
- Autopilot on the wheel/in lazarette (circle one)
- Other (list item & location): _____

IV. Checklist of Optional Gear Required to Achieve Proper Sink (check if needed)

- Cushions (V-berth and/or cockpit; please circle)
- Dodger frame and dodger (in standard location)
- 2nd battery (in standard location for interior layout of the boat)
- Shore power cable
- Main cabin table
- Spare spinnaker
- A maximum of 20 gallons of water in tank in standard location under starboard settee - # of gallons _____
- Additional fuel in fuel tank in standard location under port settee (note reading of gauge): _____
- 2nd anchor w/attached chain & rode
- Lead weight secured in place: total weight _____ Location _____

_____ (must be permanently installed (bolted/glassed/glued) in the locations specified in paragraph D.5 of Exhibit 7.3A to the Class Rules)
- Other (list items): _____

Certified by:

Owner

Class Measurer or Designee/Fleet Measurer or Designee

PROCEDURE FOR WEIGHING BOATS

- A. Scale. The boat shall be weighed using a single point load cell cleared by the RORC's IRC rating office for weighing boats for purposes of obtaining an endorsed IRC measurement certificate.
- B. Boat Empty. When weighed, the boat must be absolutely empty, to determine the "Empty Weight" as defined in IRC rule 22, as follows:
1. Empty Weight is the weight of the boat in the following, dry condition, with a clean bottom:
 - Fully rigged with all spars, standing rigging, backstay, halyards, main sheet, and vang.
 - Standard battery and 2 cabin cushions on board in their standard positions (for interior layout of the boat). If any optional items (including second battery) or v-berth cushions are on board, these items must be in their standard positions and must be noted in paragraph 3 of the boat's Weight Certificate.
 - All permanent fixtures and fittings and items of accommodation whether detachable or not, including standard companionway boards, bunk and floorboards, on board in their normal positions
 - All optional items noted in section 3 of the boat's Weight Certificate on board (e.g. V-berth cushions, dodger, etc) – must be permanently installed except for V-Berth cushions
 2. The following items shall **not** be on board for weighing:
 - Sails, headsail and spinnaker sheets, spare standing and spare running rigging.
 - Water and the contents of any other tanks (including holding tank), except as provided below for the fuel tank.
 - dodger and v-berth cushions, unless noted on the boat's Weight Certificate
 - emergency tiller (if wheel boat), cockpit cushions, shore power cable, and main cabin table
 - Anchors, chains, warps, mooring lines and fenders.
 - All removable safety equipment (including lifesling).
 - any of the required items of equipment listed in paragraph II of Exhibit 7.3A (except for those listed in paragraph 1 above)
 - Food, cooking and catering utensils.
 - Clothing, bedding and personal effects.
 - Tools and spare parts.
 - Loose gear, down to the toilet paper and cleaning supplies.
 3. Bilges and other compartments must be dry.

C. Fuel tank. If the fuel tank contains any fuel, the following amounts shall be deducted from the gross weight of the boat:

Fuel Guage Reading	Deduction (kg)
0 to 1/3	5
greater than 1/3 and not more than 1/2	10
greater than 1/2 and not more than 3/4	15
greater than 3/4 but not full	25
full	35kg

D. Corrector weights. If any corrector weights are installed, they shall comply with the following:

- Corrector weights shall be permanently installed (bolted, glassed or glued) inside a locker, settee, cabinet or space other than below or above the main cabin flooring or the flooring in the head compartment/changing area.
- Notwithstanding the foregoing, no more than 180kg² of corrector weights shall be located between the forward bulkhead of the head compartment/changing area and the forward face of the cockpit floor. If more than 180kg of weight is required to achieve minimum Empty Weight, such excess weight shall be in the form of lead corrector weights and 30% shall be located on the forward face of the forward bulkhead of the head compartment/changing area (above the floor boards under the V-berth and outboard of the opening to the storage under the V-berth), and 70% shall be located aft of the forward face of the cockpit floor (but not inside the engine room).

E. Optional Equipment. All optional equipment that is permanently installed on the boat shall be noted on the Weight Certificate.

F. Tolerance. The Empty Weight shall be determined to the nearest 10kg.

G. Weight Adjustment. After a boat has been weighed, its Empty Weight may be adjusted without reweighing the entire boat by adding to or subtracting from the Empty Weight (1) the weight of corrector weights permanently installed on or removed from the boat after weighing and (2) the weight of optional equipment permanently installed on or removed from the boat after weighing. In such a case, a revised Weight Certificate, reflecting the changes, shall be prepared and duly signed as required by Class Rule 7.3.2.

² Equivalent of approximately 400 lbs.

J/105 CLASS WEIGHT CERTIFICATE

Date: _____

Boat Name _____ Hull # _____

Owner(s) _____

Address _____

Email _____ Tel _____

The undersigned hereby certify as follows:

- 1. The above boat weighs at least 3,890 kg
- 2. That weight was determined in accordance with J105 Class Rule 7.3.2. and Exhibit 7.3C to the Class Rules.
- 3. The following optional items were on board while the boat was weighed (or correction for such items was made in accordance with paragraph G of Exhibit 7.3C to the Class Rules); all (except for V-berth cushions) were permanently installed (please check)

- _____ V-berth cushions
- _____ Dodger frame and dodger (in standard location)
- _____ 2nd battery (in standard location for interior layout of the boat)
- _____ Lead weight secured in place: total weight _____ Location _____

_____ (must be permanently installed (bolted/glassed/glued) in the locations specified in paragraph D of Exhibit 7.3C to the Class Rules)

- _____ Water tank, empty in standard location
- _____ Cooker, in standard location
- _____ Other Systems Group items: automatic bilge pump, vanity sink & water pump, drawers in galley and nav table (all in standard location)
- _____ Genoa tracks
- _____ Shore power installation (excluding cable)
- _____ Autopilot on the wheel/in lazarette (circle one)
- _____ Other (list item & location; must be permanently installed): _____

Certified by:

Owner

Class Measurer or Designee/Fleet Measurer or Designee