

**Class Rules for Bantry Bay Gigs competing in Atlantic Challenge  
International Competitions  
Version 1.0**

Boats are to be built closely to official Atlantic Challenge International (ACI ) or DEFI plans, and these class rules. **Boats not complying with these rules will not be allowed to compete in ACI competitions.** The plans and rules are aimed at capturing the spirit of the original vessel, and only a few changes from the original artefact have been made on the plans or in the rules. These are mostly in the interest of safety of operation, structural integrity of the boats, and availability of materials. The official ACI plans are those are those produced by Steve Killing(1991).

**HULL CONSTRUCTION**

**1) GENERAL CONFORMANCE**

All parts of the boat, such as stem, inwhale, structure around and supporting the oar ports, thwarts(seats), thwart knees, seat pads, stern sheets(seats), risers, height of floorboard , etc.,etc, must conform to the plans. Minor variations may be overlooked, but any changes which the ACI rules committee feels may alter the character of the boat may prevent the boat from participating in international competition. Builders contemplating changes should contact the rules committee for a ruling before proceeding.

**2) FRAMES**

Frames may be steam bent as in the ACI plans, or laminated, or sawn, as in the DEFI plans and the original artefact.

**3) PLANKING**

Gigs must be carvel planked (smooth outer skin) except for the top two planks, which must be lapstrake (lapped over the plank below). The heights of these two planks must be as in the plans. Hulls are to be a single layer of planking, individually and mechanically fastened to the frames, with traditional caulking and/or flexible seam compound between the planks. Hulls are not to be cold molded (multiple layers of thin wood glued together), strip planked (square or rectangular strips of wood fastened to each other and to frames), lapstrake (except for the top two planks) nor built to any other modern composite construction. Planking is not to be covered with epoxy inside or out. Planks may be glue/scarfed to make full-length planks.

**4) SCANTLINGS**

Wooden parts in the boat may not be of less dimension than that shown in the official ACI plans. In areas where increased strength is desired, such as the keel and mast step, dimensions may be increased. A keelson (longitudinal strengthening piece on top of the keel) may be added. Solid wood, as opposed to laminations, must be used where possible. So although it would be reasonable to laminate an oar or mast, most parts should be of solid wood, including keel, stem, transom, inwhales, thwarts, etc., etc.

**5) HULL MEASUREMENTS**

Overall Length	between 37' 11" and 38' 5" (11.557M and 11.710M)
Beam at mainmast	between 81-1/2" and 84-1/2" (2.070M and 2.146M)
Hull depth at mainmast (top of rowing strake to inside of planking near centerline)	25-3/4" and 28-3/4" (654mm and 730mm)
Keel depth (outside, below planking) -	between 2-1/2" and 4" (64mm and 102mm)
Transom - Width - at top of transom,	between 41" and 43" (1.041M and 1.092M)
Transom -shape of outside - to conform to within 5/8" (16mm) at all points to a pattern applied to the transom by the measurer.	

#### 6) MAST STEP AND PARTNERS(THE MAST HOLE IN THE THWART, OR SEAT)

No structure is required here, as in the original artefact. A supporting structure between the mast step and partners may be built. This is to be a 3 sided box, with the aft side open (see ACI plans) The sides of the box must be wood, but metal may be used to reinforce the corners.

#### 7) HULL PROJECTIONS

No centreboards, bilge keels, leeboards, or any other appendages are permitted on the outside of the hull other than the keel, except that a small appendage of maximum depth 3/4" (19mm) and length 12" (305mm) may be fastened to the bottom of the keel aft to cover the gap between the keel and the rudder for the purpose of preventing debris from lodging there.

#### 8) FLOORBOARDS

Complete floorboards must be securely fastened into the boat for all ACI contest events. They must provide a safe stable platform for the crew to walk in the boat. Their outer edge as viewed from above must approximate a fair curve (although individual floorboards may be cut off square or at an angle). Maximum space allowed between floorboards is 1 inch. Floorboards must be at least:

29 inches (737mm) wide at the forward thwart

48 inches (1219mm) wide at the mainmast

39 inches (991mm) wide at the aft thwart

They must extend at least 4 inches (102mm) forward of the forward thwart and to within 24 inches (610mm) of the transom.

Floorboard sections at the ends of the boat may be on a higher level than those in the middle.

#### 9) FOOT BRACES

Foot braces affixed to the floorboards or anywhere else to brace the rower's feet are NOT allowed.

#### 10) MIZZEN BOOM BRACING

The inboard end of the mizzen sprit may be held by a vertical bronze post, or by a vertical wood post. Athwart ship bracing above the stern sheet (seat) level which blocks access to the transom is not allowed.

#### 11) RUDDER

The maximum fore and aft dimension of the rudder is to be 20-1/2" (521mm) at the bottom.

### OARS AND RIG

#### 12) OARS

Oars are to be made of solid or laminated wood. Hollow shafts or blades are not allowed, nor are spoon blades. The maximum width of the oar blades at the outboard end is to be 5-3/4" (146mm). Oars are to be symmetrical about the centreline of the shaft when looking at the face of the blade. The plans show an example of a set of oars but variations that do not contradict this paragraph are permitted.

#### 13) MASTS and YARDS

Masts and yards are to be made of solid or laminated wood. They may not be reinforced longitudinally with any other material, such as carbon fibre. They may not be hollow. Only one set of masts may be used during a competition, except in the case of damage or breakage, when a spare may be used if approved by the event committee. Masts may be of greater or lesser diameter than the plans.

The lengths of the masts must be:

Mainmast: no more than 21' 6" (6.553M) between the center of sheave (or bee hole) at the top, and the bottom of the mast (not including tenon)  
Foremast: no more than 20' (6.096M) between center of sheave (or bee hole) at the top, and the bottom of the mast (not including tenon)  
Mizzen: no more than 10' 3" (3.124) between the center of sheave (or bee hole) at the top, and a mark on the mizzen equal in height to the height of sheer at the location of the mizzen mast.

#### 14) RIG

The rig is to consist of a dipping lug foresail of no more than 163 square feet (15.14 square meters), a dipping lug mainsail of no more than 208 square feet (19.32 square meters), and a lug or sprit rigged mizzen of no more than 54 square feet (5.02 square meters). All sails are to have only one halyard and one sheet. Except for the halyards, which are made fast to weather, the masts are otherwise unstayed. A mizzen peak tacking line is allowed.

#### 15) SAILS

Sails are to be cut to dimensions on the official ACI sail plan (except that the mizzen may be a lug sail if desired). Natural fibre sailcloth (as would have originally been used) is recommended. Hand sewn boltropes and other handwork is encouraged. Polyester (Dacron) is permitted, but products incorporating Kevlar, Mylar, or Carbon Fibre may not be used. All sails must be vertically cut (seams basically parallel to the leach). Battens are not allowed. The weight of the sail cloth may not be less than 6 oz. per square yard. Sails may be white, off-white (cream or tan), or tanbark (dark red) in colour. Other colours are not allowed. Only one set of sails may be used in a competition (excepting in case of damage and approval by the event committee), and must be aboard during the initial inspection.

#### 16) HARDWARE

The following hardware is to be allowed

- one wood shell block (pulley) for each of main and fore halyards (minimum shell length 3-1/8" (80mm))
- one sheave (pulley) mounted in the top of each mast (total 3)
- 2 purchases for tightening the luffs of the sails or other use. These are to be wood shell blocks (minimum shell length 3-1/8" (80mm)) with a maximum purchase of 4 to 1
- any number of cleats or belaying pins are allowed on the shelf (just inside the sheerstrake) for the purpose of tying up the boats, and making off the sheets (lines which pull the sails in and out).
- one cleat on the mizzen mast for the halyard
- lines (ropes) may be used as desired to adjust the clews of the sails.
- 1 small sheave or block at aft end of boomkin to control mizzen sheet

The following is specifically not allowed

- stainless steel showing anywhere on the boat (this shiny metal is modern, and not in keeping with the era of the boats)
- modern devices for cleating or controlling lines, such as cam cleats or winches, stainless steel carabineers, lightweight modern blocks of any size, plastic fairleads, etc. etc.
- other blocks than those specified above.
- ball bearings or roller bearings for blocks

17) Lines (ropes). Lines, which are brown, white, tan, or grey, may be used. Manila, hemp, polyester, or nylon, may be used. Kevlar or carbon fibre lines may not. Lines which have bright colours (solid or flecked) such as blue, red, green or yellow are prohibited.

### BOATS WHOSE KEELS WERE LAID BEFORE AUGUST, 2005

#### HULLS

The hull of any boat begun before August 2005 is allowed to compete in ACI contests, if the rules committee approves them for ACI competition, and if their measurements fall within 1" (25mm) + or - of hull measurements in rule 5.\* Any such boats which are felt to be in violation of rule 1 through 5 may apply for a variance to allow them to compete.

*\*Thus length must be between 37' 10" (11.532M) and 38' 6" (11.735M), beam between 80 ½" (2045mm) and 85 ½"(2172mm), etc. The keel, however, may not be more than 4" (102mm) deep on the outside of the hull.*

RULE 6 is "grand fathered" (conformance not required) for boats begun before August, 2005.

#### ALL BOATS COMPETING IN ACI CONTESTS

RULES 7 THROUGH 17 All boats must conform to rules 7 through 17.

Hull measurements (all except for shape of transom, see rule #5 above) must be submitted to the rules committee, along with one good picture of the boat sailing (taken from abeam) one picture showing interior arrangements forward, and one picture showing interior arrangements aft. To compete, you must send your information to the chair of the rules committee by Jan. 15<sup>th</sup> of the year during which the contest will take place. This only needs to be done for the first ACI contest in which a boat takes part.

These rules were passed at the ACI trustees meeting held in Genoa, November 2005.

The class rules committee are  
Diarmaid Murphy (Ireland) , Lee Scarborough (US), Misha Plekanov (Russia), Julian Whiteright (UK), David Cockey (US), Paul Le JonCour(France), Steve Killing(Canada)