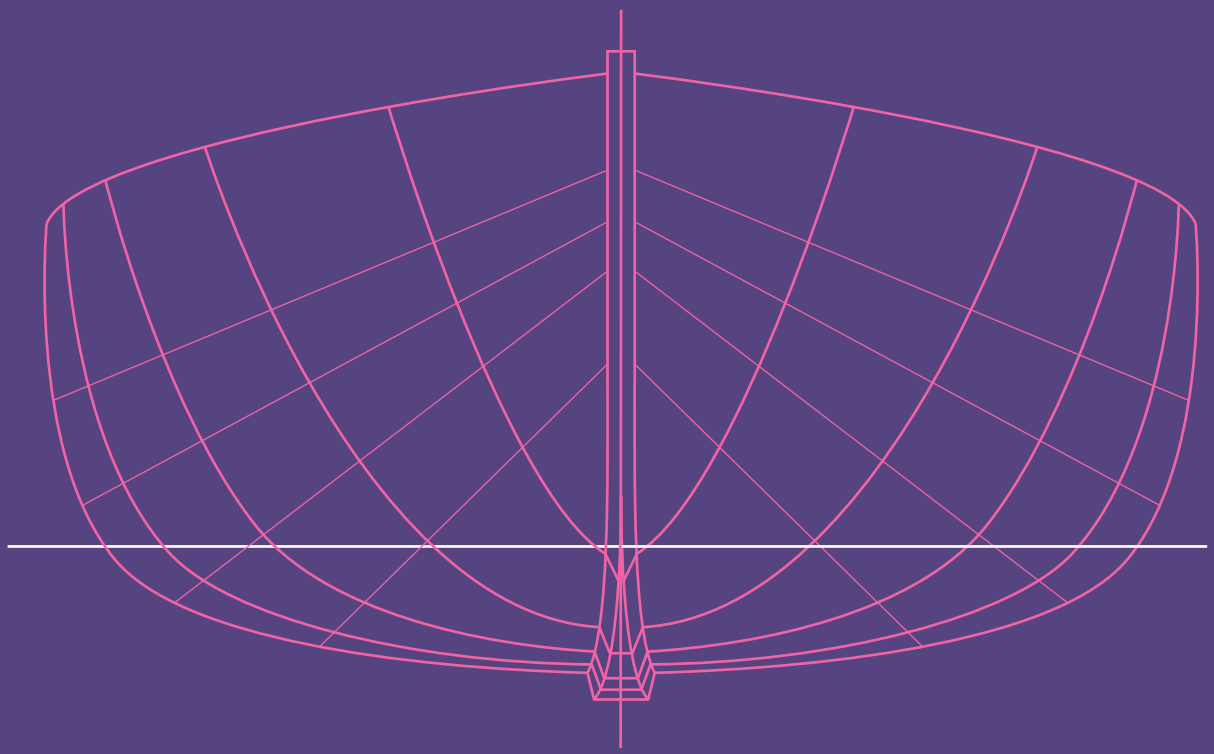
SHANNON ONE DESIGN ASSOCIATION

GENERAL RULES / SPECIFICATIONS

ISSUED : MAY 2022



Shannon One Design Association

General Rules and Specification

PREAMBLE

The rules and specifications contained herein are those in force by the Shannon One Design Association (SODA) as of May 2022. This publication supersedes all previous publications of the rules and specifications of SODA.

I wish to thank all those members who proposed amendments, those who worked hard to bring these rule changes forward and those who participated in the discussions and in the ballot.

As we move forward into our second 100 years, it is essential that we uphold the vision that Francis Morgan Giles and those who have gone before us had of this one design class. We must ensure that we are all familiar with the Rules and Specifications and that we compete on equal terms, at least with respect to our boats, sails and equipment.

Philip D Mayne

Chairman

The Shannon One Design Association

PROTECTION OF ONE-DESIGN: OVERRIDING PRINCIPLES

The Shannon One Design is a one-design dinghy sailed by amateurs. Accordingly all boats should be as similar as possible and in any event should comply with the Rules. It is incumbent on boat owners to be aware of and to ensure that their boats comply with both the letter and the spirit of the rules and specifications of the Class.

For example, boats should not be altered purely so as to reach minimum or maximum tolerances as this is outside the spirit of the class. It is impossible to foresee and forestall every idea and innovation that may come forward in future. It is therefore a key principle of the one-design nature of the Class that any change(s) or addition(s) to the hull, spars, rigging, centreboard, rudder, equipment or otherwise, which deviate from the build specification of a boat, is not permitted unless specifically allowed under these Rules.

Any 'improvements' to boats, which are designed or considered by the Governing Body to be designed to improve boat speed, are specifically forbidden.

GENERAL RULES

1. The name of the Association is "The Shannon One Design Association."

2. The objects for which the Association is established are (a) to assume the functions of the "Governing Council" (now dissolved) of the Shannon One Design Class of open 18-footer sailing boats designed by F.C. Morgan Giles in 1920; (b) to exercise full and exclusive control over the boats of that class in so far as such control may be necessary to ensure uniformity in their design, build, rig, sail plan and specifications and (c) to promote the racing of boats of the class.

3. All owners of boats of the class, including part owners, shall be eligible for membership of the Association on payment of the Annual Subscription, which shall be fixed each year at the Annual General Meeting and due on May 1st each year. No member whose subscription is in arrears shall be entitled to take part in or vote at any proceeding of the Association and his boat or boats shall be disqualified from taking part in any race confined to boats of the class. In the case of part owners only one shall be entitled to vote at any proceedings of the Association, and in the case of a member owning more than one boat of the class, he shall have a vote for each boat so owned.

   Honorary Membership: Nominations for honorary membership, from five members of the Association, shall be submitted to the Honorary Secretary, in writing, three months prior to the next Annual General Meeting for consideration by the Governing Body. The Governing Body shall, after consideration, decide whether or not to put such a proposal to the membership for approval.

Associate Membership: Applications for associate membership shall be submitted to the Honorary Secretary who shall table the applications for consideration at the next meeting of the Governing Body. Applicants shall be informed in writing of the decision of the Governing Body with regard to their application as soon as possible thereafter. In the event of a successful application the applicant shall be eligible for associate membership of the Association on payment of the annual subscription, which shall be fixed at the Annual General Meeting and due on May 1st each year. Associate members may attend and speak at the Annual General Meeting but shall not be entitled to a vote at any proceeding of the Association.

4. The affairs of the Association shall be managed by a Governing Body consisting of five ordinary members, an Honorary Secretary who shall not vote and, if not already a member of the Association, shall be deemed to be an associate member of the Association during their term of office and an Honorary Treasurer who shall not vote and, if not already a member of the Association, shall be deemed to be an associate member of the Association during their term of office. The members of the Governing Body shall select a Chairman from amongst the ordinary members, who shall have a vote, and in the event of an equal division, a second or casting vote.

5. The Association shall hold an Annual General Meeting once every calendar year to alternate annually between Lough Ree Yacht Club ("LRYC") and Lough Derg Yacht Club ("LDYC") during regatta week, to transact the following business (a) to elect the ordinary members of the Governing Body and the Honorary Secretary and the Honorary Treasurer for the ensuing calendar year; (b) to consider on every fifth year and, if approved, to refer to a postal ballot of the members any proposed alteration of the design, rig, build, sail plan, or specification of the class; (c) to consider and, if approved, to sanction any proposed alteration of these rules, other than rule 21; and (d) to deal with any other matters which may be brought before the meeting. The Honorary Secretary or his nominated substitute chosen from the ordinary members of the Governing Body, shall act as Secretary at the General Meetings of the Association.

6. Resolutions proposing the holding of a postal ballot under Rule 21, or proposing the alteration of these Rules, other than Rule 21, must be submitted, duly proposed and seconded, in writing to the Honorary Secretary, not later than thirty days before the date of the Annual General Meeting or of a Special General Meeting convened under Rule 22.

7. At each Annual General Meeting, one ordinary member of the Governing Body shall retire, and shall not be eligible for re-election until the Annual General Meeting of the following year. The ordinary member to retire shall be that ordinary member who has been longest in office. As between persons who became ordinary members on the same day the ordinary member to retire shall be determined such that where an ordinary member representing one of the two yacht clubs, LRYC or LDYC, retired in the preceding year then the ordinary member to retire shall be from the other club.

8. Election to the Governing Body (including the of offices of Honorary Secretary and Honorary Treasurer) shall be by ballot of the members present at the Annual General Meeting, and in electing members the meeting shall ensure that each of LDYC and LRYC are represented by at least two members.

9. The Chairman of the Governing Body shall take the chair at General Meetings of the Association, except that the outgoing chairman shall continue to chair the meeting at which he/she completes their term of office. In his/her absence a meeting may select one of the ordinary members of the Governing Body to preside.

10. The quorum at all General Meetings shall be ten members, and in the case of equality of votes, the Chairman shall have a second or casting vote.

11. The Governing Body shall meet for the purpose of managing the class, having regard for the rules, resolutions passed at Annual General Meetings or Special General Meetings and more generally in the best interests of the class. Three ordinary members shall form a quorum. Meetings shall be summoned by the Honorary Secretary, but an emergency meeting, consisting of any three ordinary members of the Governing Body, may be summoned by any member of the Governing Body, to discuss matters of urgency which they believe will have a negative impact on the class. Any decision of an emergency meeting must be reported to the next full meeting of the Governing Body.

    An emergency meeting may not make any decision which alters the rules of the class while a class regatta is in progress.

12. The Governing Body shall have the power to co-opt persons to act as technical advisers (who need not be members of the Association), provided that no persons so co-opted shall vote at the Meetings of the Governing Body. They shall also have power to co-opt an ordinary member to fill a casual vacancy in their number until the next Annual General Meeting of the Association.

13. The Official plans and specifications of the class shall be held by the Honorary Secretary, and persons desirous of having boats built to the class design may obtain copies of the same from him, on payment of a fee to be determined by the Governing Body. A person intending to build or have built a Shannon One Design shall inform the Honorary Secretary in writing, including the name and contact details of the builder. On receipt of this information the Honorary Secretary shall inform the builder and the purchaser of the method and standard of measurement.

    It is mandatory that new boats are measured at two stages during construction:
    1. When keel, keelson, stem and transom are completed with frames in position before any further work is done; and
    2. When the boat is completed but before it leaves the builders premises and before the timber is treated, painted or varnished.

    If requested by the builder all frames can be measured before stage 1 above. At both measurements not less than two boat measurers shall be present.

14. The official plans and specifications to be used in building boats of the class are the ones in force at the time of final measurement of the boat and such boats (but not its spars, equipment and sails) shall continue to be measured by reference to those official plans and specifications.

    14A. Pursuant to its objective, as set forth in Rule 2, of exercising full and exclusive control over the boats of the Class and for the avoidance of any doubt the Governing Body shall have authority, at such time as is deemed appropriate and at the sole discretion of the Governing Body acting directly or through an emergency meeting to

require the measurement or inspect of any boat and/or sails and/or equipment by two Class measurers. Such measurements or inspections by the Association will not be performed during an event.

14B. Prior to undertaking any work of a substantial nature to any boat, its gear or its equipment the owner shall notify the Measurers which shall inform him/her of its measurement requirements (if any) and thus the extent of the application of Rule 14 in the circumstances. Subject always to the foregoing:

(i) All repair work shall be carried out using materials and constructions that are in compliance with the current specifications; and
(ii) Where an existing boat does not comply with the specifications any opportunity shall be taken to remedy such non-compliance during any such work of a substantial nature.

Examples of 'any work of a substantial nature' include but are not limited to, work on gunwales, mast step, centreboard casing, thwarts, transom, keel & keelson.

15. The Governing Body shall from time to time prescribe the standard method of measurement in accordance with current best practice. The Governing Body shall appoint one or more class sail measurers who shall have the authority to measure and pass sails. A sail that has not been measured and passed for competition by an appointed sail measurer as being in accordance with the specifications, and registered by the Honorary Secretary shall not be eligible for competition in any regatta governed by the rules of the Association. Any expenses incurred by the measurer in the performance of his duties shall be paid by the boat owner. The onus of presenting a sail for measurement in time for regattas or other events shall be on the owner and not on the Association.

15A. The Governing Body in association with the organising authority of a regatta shall appoint competent class measurers/ inspectors who will take the role of the regatta Technical Committee under the Racing Rules of Sailing. The Technical Committee will decide all matters relating to compliance with the class rules and specifications at that regatta, perform measurements or inspections of boats and/or equipment and if appropriate lodge protests. The Protest Committee will thereafter determine whether a boat should be penalised (based on the evidence before it).

16. It shall be the duty of the Honorary Secretary to compile and keep up to date a register of all class boats and owners. Boats whose numbers appear on that register are deemed to hold a measurement certificate, subject to any actions taken or qualifications made by the Governing Body under these rules in respect of the validity of a boat's measurement certificate.

17. Application for registration of a new boat of the class shall be made to the Honorary Secretary giving him/her at least fourteen days' notice in writing and he/she shall arrange that two boat measurers acting together appointed by the Governing Body, shall examine the hull, plate, spars rudder and equipment of such new boat to determine whether the same shall be in compliance with the class regulations. This inspection may, if appropriate, be carried out at the same time as the second stage measurement required pursuant to Rule 13 above. Upon such new boat, being deemed to be in

compliance with the class regulations, the Honorary Secretary shall allot a sail number to that new boat, with all boats to be numbered in chronological order. For the avoidance of doubt, any measurement of a boat or any part thereof other than of a new boat pursuant to this Rule and/or Rule 13 shall be sufficient if conducted by one boat measurer appointed by the Governing Body although such boat measurer may require that a second such boat measurer accompanies him.

18. The mark and logo of the Association shall be a green shamrock. This will be incorporated on an all-weather label to be applied to a hull, spar, centreplate, and/ or rudder when that part has been measured and passed. The label shall also carry the boat number and date of inspection and will be signed by either the Honorary Secretary or one of the boat measurers appointed by the Governing Body.

19. The Governing Body, acting on its own or following advice from a class measurer or regatta Technical Committee, may, in exceptional circumstances, suspend a boat's measurement certificate for significant breach of a rule or specification of the class, until such time as the Governing Body is satisfied that the breach has been rectified or it has waived the breach.

    The Honorary Secretary shall promptly communicate the fact of a suspension or restoration of a boat's measurement certificate to the boat owner(s) and the relevant regatta organising authorities.

20. No alteration in the build, design, rig, sail plan, or specifications of the class shall be made except on the result of a postal ballot by all the members of the Association, held pursuant to a resolution passed at a General Meeting, and a two thirds majority of the members voting in such ballot shall suffice to effect such alteration. Such a postal ballot shall take place no more frequently than every five years unless such proposed alteration is required in order to comply with a requirement of law or regulation having the force of law, made or that has become applicable to all boats of the Class since the preceding postal ballot.

21 These Rules (other than Rule 21) may be altered and amended by resolution at an Annual or Special General Meeting convened for that purpose, by a majority of two thirds of the members present and voting on such resolutions.

22. A Special General Meeting may be convened at any time and shall be summoned within thirty days from the receipt by the Honorary Secretary, of a requisition in writing signed by not less than ten members and specifying the object of the meeting. Notice of such meeting shall be sent to every member no less than fourteen days before the Meeting and shall specify the matters to be dealt with thereat.

23. Every Shannon One Design shall sail with a crew of three when taking part in a race confined to boats of the class except where otherwise permitted under the sailing instructions governing that race.

24. The racing weight of a Shannon One Design shall be the boat's weight measured when fully equipped with all necessary racing equipment (including spars and sail) in accordance with the Rules and Specifications of the Class.

HULL, RIG AND SAIL SPECIFICATIONS

ANYTHING NOT SPECIFICALLY PERMITTED UNDER THESE RULES & SPECIFICATIONS SHALL BE DEEMED NOT PERMISSABLE

HULL and SPARS

L.O.A.
5486mm (+/-10mm) from outside of stem to outside of transom.

L.W.L.
5182mm (+/-10mm). In both cases at the waterline as shown on the class plans.

INSIDE DEPTH AMIDSHIPS
538mm (+/-6mm)

HULL DRAFT
181mm (+/-3mm)

CENTERBOARD DRAUGHT
1219mm

ROCKER TOLERANCE
+/-10mm. Rocker to be measured at each station.

MOULDED BEAM (to inside of top strake)
Station 1 = 578mm (+/-10mm)
Station 2 = 1046mm (+/-10mm)
Station 3 = 1286mm (+/-10mm)
Station 4 = 1400mm (+/-10mm)
Station 5 = 1431mm (+/-10mm)
Station 6 = 1388mm (+/-10mm)
Station 7 = 1290mm (+/-10mm)
Station 8 = 1136mm (+/-10mm)
At Transom (top) = 856mm (+/-10mm)

OVERALL BEAM (to outside of top strake)
Station 1 = 610mm (+/-18mm)
Station 2 = 1076mm (+/-18mm)
Station 3 = 1314mm (+/-18mm)
Station 4 = 1429mm (+/-18mm)
Station 5 = 1454mm (+/-6mm)
Station 6 = 1421mm (+/-10mm)
Station 7 = 1319mm (+/-18mm)
Station 8 = 1167mm (+/-18mm)
Transom = 888mm (+/-6mm)

MAIN KEEL
Oak, larch, iroko, Colombian pine or mahogany 48mm x 121mm amidships tapering to 38mm forward and 32mm aft. Rebated 19mm X 35mm deep for garboard alternate keel of 83mm x 35mm amidships tapering to 38mm forward to 32mm aft. Keelson 121mm x 13mm screwed and glued to top of keel. Tolerances on above dimensions +/-2mm except depth of keelson +/-1mm.

STEM
Stem to be made from oak, mahogany or iroko and either:
(a) cut from grown crooks; or
(b) lap jointed from two pieces and reinforced by a third piece bolted and glued.
(c) may be built from a laminate.

RIBS
All steam bent Irish oak or American white oak 13mm (+/-1mm) x 19mm (+/-2mm) faces to be well rounded. Ribs to be spaced 152mm (+/-2mm) as shown on plans. 2 riveted copper nails between each rib. 34 ribs in total.

FLOORS
Sawn oak, mahogany or iroko 60mm X 22mm max, cut from rectangular piece 60 X 22mm (+/-2mm)

AFT THWART
318mm (+/-3mm) X 19mm (+/-1mm). or 229mm (+/-3mm) X 19 (+/-1mm). Mahogany or iroko.

STRINGERS
Larch, Douglas fir or pitch pine 12.5 mm x 22 mm (+/-1mm).
Moulded and fastened to each rib below the thwarts. Lower stringer optional.

MAST THWART
216mm (+/-3mm) X 22mm (+/-1mm). Mahogany or iroko.
Hole for mast to pass through mast thwart to be of diameter of 80mm (+/- 2 mm). Hole for mast shall be round and it shall have its centre 10mm (+/- 1 mm) aft of the mid-point of the thwart

MIDSHIP THWARTS
Mahogany or iroko 229mm (+/-3mm) X 19 (+/-1mm).

BRACES
Oak, mahogany or iroko. Maximum 25.4mm (+/-1mm) X 62mm (+/-2mm) wide and tapered through. Fastened at each rib with heavy gauge rooved copper nails.

QUARTER AND THWART KNEES
Knees cut from grown crooks or radially laminated or solid or half lapped of oak, mahogany, iroko or suitable hardwood 22mm thick (+/-1mm) to profile.

SIDE BENCHES
Mahogany, larch or iroko. 38mm x 22mm moulded. 4 pieces per side.

RUDDER
Mahogany, iroko or other suitable hardwood. 16mm (+/-1mm) with two cheeks of the same material fared down from 75mm to the trailing edge. Brass, bronze or other suitable metal fittings

as per plan. Half round brass strip permitted to blade edge. Blade profile to be as shown on full scale plans (+/-3mm)

TILLER
Oak, ash or laminated from 3 pieces of hard wood. Fashioned as shown on plans. Extension optional.

CHAIN PLATE
Position 3987mm (+/-6mm) from outside of transom to centre of chain plates. Fore chain plate fitted as shown on plans. Port, Starboard and Fore chain plates brass, bronze or other suitable metal as per plan. All chain plates to be of the same material.

CENTRE BURDEN BOARDS
10mm (+/-1mm) spruce or larch to be positively fixed to boat for occasional removal. Bow and stern burden boards spruce or larch 12mm (+/-1mm) thick.

BREAST HOOK
Mahogany, oak or iroko or radially laminated 25mm +/- 2 mm.

TRANSOM
Transom constructed from one piece if possible 22mm (+/-1mm) thick. Two piece construction to be joined & edge glued. Mahogany, iroko, or Douglas fir.

STERN KNEE
Oak, mahogany or iroko or radially laminated to profile 35mm (+/-1mm).

PLANKING
Norway spruce or other suitable spruce.
10 planks and a top strake per side. Planks to be 8mm (+/-1mm) and strake 16mm (+/-1mm). Planks to be spaced evenly around transom (+/-13mm). Scarphs to be a minimum 38mm long (+/-5mm), and may be glued and worked in way of a rib. Maximum 1 scarph per plank with a shift of at least 1.83 metres in the case of scarphs in adjoining strakes and of 1.22 metres with one strake for new boats.
Scarphs for repairs at builder's discretion.

TOP STRAKE
1 top strake per side of mahogany or iroko.
10mm (+/-1mm) cove line moulded in - but boats constructed with a top strake of 16mm (+/-1mm) when that was the required dimension may retain top strakes of that size until their replacement is necessitated by repairs.

GUNWHALES
Larch, Douglas fir, Columbian pine or pitch pine. 45mm (+/-2mm) x 32mm (+/-2mm) amidships, tapered at ends through fastened at the spacing of each rib. A glued scarph is allowed within 1200mm from stern. Scotch gunwhales are permitted. A second scarph is allowed on each side for repairs only.

RUBBING STRAKE
Mahogany or iroko 25mm x 20mm (+/-1mm) moulded.

CENTREBOARD CASE
Two sides of mahogany or iroko 19mm (+/-1mm) worked if possible in one width, carried forward to form mast step with a 16mm filler piece under mast. Mast step increased to width of keelson from point ‘a’ to point ‘b’. Glue is permitted in assembly of centreboard case, but not between keelson top and bottom of case. Height of step under mast must be a minimum of 65mm to a maximum of 100mm measured off keelson top bolt hole of 12mm positioned as per plan 2992mm (+/-10mm) from inside of transom base.

A reinforcing timber or metal strut permanently attached to the front of the centreboard box and to the kelson or maststep, is permitted when a boat does not have timber reinforcement between the centreboard box and the mast step (optional).

CENTREBOARD CASE SPACER
16mm x 32mm (+/-1mm) thick of oak to project into keel slot.

CENTREBOARD
Made from mild steel, e.g. Boiler Plate, of 6.4mm (+/-0.8mm) shaped to plan with all round tolerance of 3mm. It may be tapered up to and not more than 35mm from the edge. Maximum weight 25.4kgs, minimum 21.8kgs. Bolt hole or slot of 12.5mm diameter.

FILLER RIBS
Maximum length equal to width of keelson 12.7mm (+/-1mm) x 19mm (+/-2mm) to allow for fixing of step and centreboard case from point ‘a’ to point ‘c’ as required.

MAST
4700mm (+/-25mm) from shoulder of tenon to centre of pin in sheave. Maximum diameter 76mm at thwart tapering to 52mm (+/-2mm) at sheave. Taper to start minimum 2000mm from sheave. Sheave is approximately 50mm diameter. Mast to be made from solid piece of spruce, Douglas fir or Colombian pine. Alternatively, the mast may be laminated, using glue or epoxy, with up to 5 layers of timber of Spruce, Douglas fir, Colombian pine or White deal, with the layers of timber laid in parallel to each other. All layers must be of the same type of timber with the laminate ends facing fore and aft. All tapering to be on the outside of the spar. No additional fibres or particles are permitted within the construction.

Protective bands of grp or epoxy resin tape maximum thickness 1.5mm (i.e. a total thickness on both sides of the spar of 3mm) may be applied to the mast at:

a) where yard jaws bear on mast for full sail position 300mm max length;
b) where boom bears on mast 450mm maximum length; and
c) at thwart 50mm maximum length.

Leather or metal protective bands may also be used on mast where boom bears.

The slot for the pulley/sheave may be protected by a suitable metal or synthetic material.

Mast to be 4274mm (+/- 25mm) when used with old style steps.

A plastic or any other suitable metal ring may be fitted over the tenon at the top of the mast so as to prevent the chaffing of the shoulders of the mast. It shall not have a thickness of greater than 10mm and shall not project more than 5mm outside the diameter of the mast measured at the centre of the sheave point.

A metal cup may be fixed to the foot of the mast onto which the bottom block of the halyard, halyard purchase, downhaul purchase and kicking strap purchase may be attached. The cup must

be fitted in such a way that the mast is not permitted to rotate. The mast must be measured with the cup fitted.

A hardwood spud is permitted (optional).

Up to two masts may be used per Regatta and a replacement if a breakage arises.

YARD

Yard to be made from a solid piece of spruce, Douglas fir or Colombian pine. Alternatively, the yard may be laminated, using glue or epoxy, with up to 4 layers of timber of Spruce, Douglas fir, Colombian pine or White deal, with the layers of timber laid in parallel to each other. All laminations must be of the same type of timber. All tapering to be on the outside of the spar. No additional fibres or particles are permitted within the construction.

Length 4367mm (+/-13mm) from top lacing hole to the lower jaws end. Jaws to hold the bottom of yard to mast and be made of brass, bronze or other suitable metal. Diameter of yard to be 60mm (+/-3mm) at centre, tapered to 45mm (+/-2mm) at each end. The taper to start a minimum of 1200mm from each end.

Up to two yards may be used per Regatta and a replacement if a breakage arises.

BOOM

To be made from a solid piece of spruce, Douglas fir or Colombian pine. Alternatively, the boom may be laminated, using glue or epoxy, with up to 4 layers of timber of Spruce, Douglas fir, Colombian pine or White deal, with the layers of timber laid in parallel to each other. All laminations must be of the same type of timber. All tapering to be on the outside of the spar. No additional fibres or particles are permitted within the construction.

Length 4367mm (+/-13mm) from inside edge of jaws to either outer lacing hole or inside edge of a black band. Jaws to be made from Mahogany, iroko or other hardwood.

Diameter of boom to be 60mm (+/-3mm) at the centre and tapered to 45mm (+/-2mm) at both ends, taper to start a minimum of 1200mm from each end.

Repairs may be done following the same principles.

Up to two booms may be used per Regatta and a replacement if a breakage arises.

Each laminated mast, yard and boom shall have a marker to identify it, e.g. (boat number/year built).

When a new laminated spar is built, the owner shall provide the Governing Body with a Certificate (in the form approved by the Governing Body from time to time), signed by the builder of the mast, yard or boom, that the spar has been built in accordance with the specifications at the time of the build.

YARD & BOOM PROTECTION

A protective band 150mm maximum length and 1.5mm maximum thickness (i.e. a total thickness on both sides of the spar of 3mm) of grp or epoxy resin tape may be used to repair damage where the kicking strap bears on the boom and where the halyard bears on the yard in the full sail position.

FASTENINGS

Copper nails & rooves, gripfast nails, brass or stainless steel screws, nuts and bolts.

THE USE OF GLUE AND SEALANT

The use of glues and flexible sealants in the construction of Shannon One Design boats is forbidden except where specified in the rules, specification or plans as follows: stem, centreboard case, gunwhale scarphing, tiller, plank scarphing, strake scarphing, knees, rudder and spar repairs. For new builds, the use of flexible sealants is permitted under the guidance and supervision of a boat measurer. Glue may be used for minor repairs with approval from a boat measurer.

WOOD LAMINATION

The lamination of wood in the construction of Shannon One Design boats is forbidden except where specified in the rules, specifications or plans.

STEMBAND & KEELBAND

Brass strips or other suitable metal may be fitted as a keel band to the Keel to prevent damage and chafe to the keel.

COATINGS

Only single pack varnish/paint, water based varnish/paint or oil coatings may be used.

RIGGING & EQUIPMENT

RUNNING RIGGING

a) Halyard, mainsheet and all purchases to be positioned / roved as per plan.
b) The purchases for the halyard (if any), downhaul and kicking strap may be applied before or after fixing point on mast step / foot of mast.
c) The blocks for the purchases of halyard (if any), downhaul or kicking strap to owner's choice.
d) A drum-winch is allowed as an option for the kicking strap or downhaul or centreboard purchase.
e) The halyard may be stainless steel, galvanised wire rope, pre-stretched synthetic rope or any combination of these.
f) Lead rings may be used for routing wire-ties and hauling ends.
g) Main sheet block shackled to fixed eye on centre of thwart (ratchet block optional). Thumb cleat at aft end of centreboard case is permitted.
h) A metal or synthetic plate or strips may be installed on the mast step around the slot.
i) An outhaul may be rigged so as to be adjustable while racing.

STANDING RIGGING

a) Forestay and shrouds: stainless steel or galvanised wire rope or grey pre-stretched rope. Bottlescrews, shackles, chains, pre-stretched rope are permitted (optional). They must not be adjusted during a race.
b) Horse: either of rope or made up of 12 mm diameter hard brass, stainless steel or galvanised rod worked over top of transom.

EQUIPMENT

Painter: minimum length 8,000 mm and minimum 10 mm diameter.

Bucket: 9 litre minimum capacity tied to boat.

Buoyancy: Minimum of 362.9 kg (800 lbs) total of positive buoyancy to be fitted to each boat distributed the length of the hull. Must be firmly secured by adequate straps.

Fenders:

a) All boats to carry 8 fenders to minimum size 200 mm x 75 mm or 4 of 225 mm x 150 mm.
b) All boats to carry a CE Marked (or equivalent standard) V-shaped bow fender of 75mm in diameter at apex properly fixed to the outside of the stem at all times while racing.

Oars: one pair of spoon bladed oars of length 2438 mm ($\pm$10 mm) to be carried in such a manner so as to be readily and freely available for use.

Self-bailers: maximum of 4 may be fitted.

Toe-straps: may be fitted for all the crew.

Racing Flag: optional.

Compass: one analogue compass without any bearing retention is permitted.

Hiking Rope: a hiking rope attached at a point along the centreline of the boat for use by the 3rd hand is permitted.

SAIL SPECIFICATION

GENERAL SPECIFICATIONS

1. Only the sail measurers appointed by the Governing Body shall have the authority to measure and pass sails.
2. When a new sail is ordered the boat owner shall notify the Honorary Secretary in writing immediately, indicating the name of the sail maker and hull number
3. When a sail is repaired or altered in any way, the owner shall inform the Honorary Secretary detailing the nature of the repairs or alterations. If in the repair or alteration the shape of the sail has been altered the sail shall be removed from the register. It shall be restored when a subsequent measurement certificate has been issued by a class sail measurer and the sail signed accordingly.
4. A sail measurer on passing a sail shall clearly mark the sail with the boat number followed by the last two digits of the year, e.g.148/89. The sail measurer shall also sign the sail. A copy of the sail measurement certificate shall be given to the Honorary Secretary who will then register the sail on receipt of a registration fee to be determined at the Annual General Meeting. A copy of the certificate will be given to the owner by the sail measurer.
5. Sails shall NOT normally be measured immediately before or during the class championships except by prior arrangement with a sail measurer.
6. A boat may purchase a new sail no more frequently than every other year, e.g. a boat getting a new sail in July 1988 may not get a new sail until July 1990. The Governing Body may in exceptional circumstances grant an exception.
7. An expense incurred or claimed by the measurer in the performance of his duties shall be borne by the owner. The onus shall be on the owner of a new sail to present it for measurement sufficiently in time for the class championship or other event.
8. Each boat shall nominate NOT more than two sails to be used at a regatta or race series. The Governing Body may in exceptional circumstances grant an exception.

SPECIFICATIONS

1. Sails shall be measured in accordance with RRS World Sailing rules except as stated herein.
2. Cloth: sails shall be made from woven polyester with a minimum weight of 150g/mm^2 except that there shall be two rectangular transparent panels (windows). Laminate or film type sail cloth may not be used. All panels of a sail shall be made of cloth of the same specification. Size of windows: 730mm $\pm$20 mm x 180 mm $\pm$20 mm. Both windows shall be the same size $\pm$20 mm. Position of windows: the lower window shall be placed between the first and second row of reef eyelets. The forward edge of each window shall be between 500mm and 1000 mm from the luff and both windows shall be the same distance from the luff $\pm$50 mm. The windows shall be parallel to each other $\pm$10 degrees and no part of the upper window shall be more than 700 mm above the top of the lower window. Any sail presented for measurement after 31st December 2007 shall have two windows.
3. Except for the top and bottom-most panels, panels to be of 750 mm minimum width.
4. Four battens shall divide the leech into five equal parts ($\pm$75 mm). The top batten shall be a maximum of 540 mm in length. The remainder shall be a maximum of 690 mm. Battens to be at right angles to the leech and must be readily removable.

5. Two rows of reefs shall be fitted. The tack cringles and eyelets must not be less than 320 mm and 610 mm above the tack and the clew cringles and eyelets must not be less than 410 mm and 850 mm above the clew, in respect of the first and second reef points respectively. (Measurements to be taken in a straight line along the side of the sail to the bearing face of the reef cringle.) Eyelets will be used.
6. Distance between eyelets along the foot and luff to be 350 mm ± 50 mm.
7. Distance between eyelets on reefing line to be 450mm ± 50mm
8. Existing sails which have been measured may be cut down for use when reefing (one reef and/or two reefs). The (cut down) foot of the sail shall be along the line of the (original) eyelets. Cut down sails must be checked by a measurer before use. When presenting a cut down sail for measurement, the cut off piece must be produced to identify the sail which was cut down.
   Reefed and Cut down sails may only be used on standard spars.

9. The following measurements to be observed:

1. Lower Luff	maximum 1960 mm
2. Upper Luff	maximum 4220 mm
3. Leech	maximum 6950 mm
4. Foot	maximum 4250 mm
5. Half Leech Point	maximum 2290 mm
6. Quarter Leech Point	maximum 1210 mm
7. Three Quarter Leech Point	maximum 3320 mm
8. Peak to Centre of Foot	maximum 6400 mm

10. Definitions:

1	Corners	the intersection of the two sides bordering it. e.g. imaginary point where the projections of the foot and leech intersect.
2	Throat	is the forward most part of the sail including rope opposite the centre of the throat cringle.

11. Sail numbers shall be of the following dimensions:

Height	300 mm
Width	230 mm except numeral 1
Thickness	40 mm

12. Sail numbers shall be placed centrally in the upper half of the sail and shall be positioned higher on the starboard side than on the port side in such a manner that the numbers on each side of the sail do not overlap so as to obscure reading of the sail number. The forward edge of the first number and the trailing edge of the last number shall be approximately the same distance from the luff and the leech respectively.
13. A rope shall be fitted in the luff and may be fitted in the foot. It shall be fixed at the head and the clew, passing the throat and around the tack as shown
14. Tell tales are allowed on the sail and/or on the shrouds.
15. Allow the use of a loose footed sail with no cringles and no mandatory use of sail ties on the boom.
16. Allow an adjustable leech line in the sail (optional).
17. Anything not specifically permitted under these rules and measurements shall be deemed not permissible.

PLANS

The official plans of the class, as held by the Honorary Secretary under Rule 13 above, are listed below and are intended to be read in conjunction with and form part of the rules and specifications:

SOD-01-2004 Sheer, half breadth and body plan with construction

SOD-02-2004 Body Plan

SOD-03-2004 Stem, Transom and Rudder detail

SOD-04-2004 Centreboard Profile

General Specifications

REPAIRS AND REBUILDS

Subject always to Rule 14, full or partial rebuilds or repair work shall be carried out using materials and constructions that are in compliance with the specifications.

Where an existing boat does not comply with the specifications the opportunity shall be taken to remedy such non-compliance during any full or partial rebuild or any repair work. If achieving full compliance is not reasonably practical at this time every effort shall be made to achieve as near to full compliance as practical.