



Conway One Design Class Specifications

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The Boat, its Sails and Equipment shall be made available to and be approved by the Hon. Measurer in accordance with the Rules before that yacht is eligible for points.

Boats shall be made to the Class Specification – Timber Construction, as below
OR

The hull and deck shall be made of Glassfibre Reinforced Plastic moulded in the approved moulds of the Conway Yacht Club to the specified weight with immovable corrector weights and shall otherwise conform in every respect with the Class Specification – Timber Construction, as below.

All specified timbers may be replaced with suitable alternative timbers. No other alteration shall be made to either materials, shape or structure without the prior agreement of the Class.

Class Specification – Timber Construction

Dimensions	L.O.A. 20ft 0ins Beam 6ft 7ins Draught 2ft 11½ ins To be built to the design and template of the Conway Yacht Club
Generally	<ol style="list-style-type: none">1. All timbers to be used to be the best of their respective kinds, free from sap, shakes, large knots and other defects, and all scantlings not to be less than specified herewith.2. The Official Measurer to have access at all reasonable times during the building.3. All boats must conform strictly to the design, with not more than ¼in variation from template to be allowed.
Keel	Canadian Rock Elm or Oak, 8ins x 2 ins. Outside of rabbit ½in from bottom of keel.
Stem	Natural crook, British Oak, 3ins sided, moulded to plan.
Stern knee	Natural crook, British Oak, 2ins sided.
Transom	Oak or Mahogany 1¼ ins thick.
Floors	Natural crook oak, ten in number, sided 1½ ins, moulded 2¼ ins. Spaced as plan. Limber holes to be cut.

Steamed Timbers	American Elm, 5/8in x 1in (or equal sectional area), 39 in number, spaced approximately 6ins centres. Timber to cross the Keel as far forward as Bollard and to be fitted with wedge tipping piece, leaving space for limber.
Stringers	Two beam stringers, 2 ½ ins x 1 in, of pitch pine or American Elm, and two bilge stingers 2 ½ ins x 1 in, Pitch Pine or American Elm, the latter not less than 14 feet in length.
Beams	Three Main beams of oak, one each end of the cockpit, and one at mooring bollard, sided 1½ ins, moulded 2½ ins. Remaining beams of Larch, Pitch Pine or Oak, sided 1½ ins, moulded 2 ins. Not less than 2 under after deck, five under forward deck (making 10 in all).
Side Beams	9 side beams in wake of cock-pit not less than 1¼ ins x 2 ins (or equal sectional area). Larch, Pitch pine or Oak.
Carlings	Cock-pit carlings 2 ins x 1½ ins, Oak or Elm.
Knees	3 hanging knees on each side, one on each main beam. Natural crook Oak, sided 1 in.
Quarter Knees & Breast Hook	British Oak, 1in sided.
Planking	Mahogany, 11/16 ins, not less than 14 planks on each side. Note: Garboard and next two planks may be of elm.
Fastenings	Planking may be fastened with No. 12 flat head counter sunk copper nails, roved on timbers. Floor and Knees fastenings to planking to be either through fastened or brass screwed. Floors over deadwood to be fastened to keel with Yellow Metal or galvanised Iron spikes. Remainder of floors to be through fastened to Keel with Copper or Yellow Metal.
Deck	Thickness of deck 5/8 ins Wood if laid, or not less than 9mm marine plywood covered with canvas, Plastic or GRP, or painted. Canvas to be turned down and covered with half-round hardwood rubber. Small foot rail to be fitted (optional).
Coaming	Teak 5/8 ins as plan, 4 ½ ins above deck forward, 3/1/2 ins above deck aft.
Deadwood	Pitch Pine as per plan. Sided 5½ ins in widest part. Facing pieces of Oak as plan, on forward and after end.
Bollard	Oak, 2½ ins x 2½ ins, as plan.
Rudder Post	Post 1 3/8 ins diameter, Steel as plan.
Rudder Blade	Forward part of Oak, through fastened as shown.
Rudder Trunk	Galvanised Iron pipe, (1 3/8 ins gas) screwed into Keel and strengthening piece as plan.
Metalwork	All metalwork may be replaced by Gunmetal, Brass, Bronze or Stainless Steel.
Cock-pit Sole	Pine, laid on floors

Kelson	Oak or Elm, 8 ins x 1¾ ins, bedded on floors 10 ft long as plan, with Mast step cut at forward end.
Lead Keel	To be cast from pattern supplied by Club. Approximate weight 6cwt. To be fastened with 5 Yellow Metal bolts not less than ¾ ins diameter, set up with nuts and washers on top of Kelson.
Tiller	Of solid or laminated wood as per plan (max. length 3ft 6in, measured from the centre of the Rudder Post to the end of the tiller), fitted with metal cheeks and bolted to Rudder Post. An optional tiller extension (wooden) measuring no more than 2 ft, fitted to the tiller with the usual universal tiller extension fitting, is permitted
Ironwork	<p>4 Chain Plates, 2 Runner Plates and 1 Stem Plate of Galvanised iron or Yellow Metal. One Horse or Traveller 5/8 ins Galvanised Iron as plan, 2ft 6ins wide.</p> <p>Two Eye Bolts for Quarter Blocks. Fairlead with optional Roller (of Galvanised Iron or Yellow Metal) to be fitted to Stem or foredeck.</p> <p>1 Mast Clamp (1/2 round) at fore end of Cock-pit through bolted to beam. Mast Band and Gooseneck. Heel Plate or Shoe and Rudder Brace as per plan (of Galvanised Iron).</p> <p>All ironwork may be replaced by Gunmetal, Brass, Bronze or Stainless Steel.</p>
Cleats and Leads	All necessary Cleats and Jib Sheet Leads to be fitted.
Spars	<p>Mast – Solid Wood of circular section, 25ft from Deck to Main Halyard Sheave. Diameter at deck 4½ ins. Diameter 8ft above deck 4ins. Diameter at Hounds 16ft 6ins from deck) 3ins, tapering to 2 ins at Sheave. Mast Head 6 ins above sheave, fitted with Truck.</p> <p>Boom – Solid Wood of circular section, 14ft 7 ins from mast to sheave. Diameter in middle 2¾ ins, forward 1¾ ins and aft 2ins, to be fitted with cleats.</p> <p>Mast and Boom – to be fitted with brass or aluminium track fastened on hardwood strip 3/4ins x 5/16ins (hardwood strip optional).</p> <p>Spinnaker Boom – Solid Wood 9ft long from Mast (minimum diameter 1¾ ins) tapered to min 1in at the ends, to be fitted with Oak Jaws, Gooseneck or into Cup. Sliding track on mast optional.</p>
Caulking	Boat to be caulked with best Cotton Wick. Seams and nail holes stopped with White Lead Putty or an appropriate marine grade sealant.
Painting and Varnish	Hull and spars to be painted and/or varnished as necessary.

(Based on 1937 specification reprinted by R M M Smith 1983)

Class Specification – Glassfibre Construction

General	<ol style="list-style-type: none"> 1. The Boat shall resemble as closely as possible the wooden versions of the vessel. 2. The Official Measurer to have access at all reasonable times during the building. 3. All boats must originate from the official mould. 																						
Keel	Moulded Keel filled internally with 1010lbs of Lead counterweight, bonded with 38lbs resin. Distribution 3 ins below floor at front, 6 ins below floor at rear.																						
Bulkheads	2 Bulkheads of 9mm marine grade Plywood, positioned as shown and bonded all round. Teak capping to be applied to raw edges.																						
Beams	1 Beam of 3in x 2 in timber with GRP reinforcement placed below mainsheet horse and picking up quarter eye bolts.																						
Hull	<p>Layup to be 3.4lb/sq ft. chopped strand mat and polyester resin. Local weight adjustments to be made as specified. Gelcoat weight 46lb. Immoveable Hull correction weights to be placed in accordance with the following chart:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> </tr> </thead> <tbody> <tr> <td>Weight lbs</td> <td>9.4</td> <td>11.7</td> <td>1.3</td> <td>0</td> <td>1.1</td> <td>0</td> <td>2.3</td> <td>5.3</td> <td>13.1</td> <td>23.5</td> </tr> </tbody> </table> <p>Total correction 67.7lb Based on layup as above</p>	Station	1	2	3	4	5	6	7	8	9	10	Weight lbs	9.4	11.7	1.3	0	1.1	0	2.3	5.3	13.1	23.5
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Weight lbs	9.4	11.7	1.3	0	1.1	0	2.3	5.3	13.1	23.5													
Deck	Layup to be 2.5lb/sq ft chopped strand mat including 2 x 1 1/8 ins foam core. Gelcoat weight 18lb.																						
Combing	Teak 5/8 ins as plan 1in at rear. 4 ½ ins above deck forward, 3 ½ ins above deck aft.																						
Rubbing Strake	1 ¾ ins x ¾ ins Teak moulding to cover Hull/Deck joint.																						
Bollard	Oak or Teak, 2 ½ ins x 2 ½ ins as plan. Bonded below deck and to Hull. Through bolted at bottom.																						
Rudder Stock	1in diameter Stainless Steel as drawing																						
Rudder Blade	GRP moulding encapsulating rudder stock and resin filled.																						
Rudder Bearings	Bottom Bearing and Heel Fitting – Bronze Casting. Upper and middle bearings of Acetal.																						
Rudder Tube	Nominal 2ins diameter GRP tube laid up on 2ins diameter Polyethylene tube.																						
Cock-pit sole	Pine, laid on floors																						
Floors	9mm marine grade Plywood with 2ins x 1 ins Pine top pieces.																						
Tiller	Solid Wood to drawing. Bronze lift-up tiller fitting clamped to rudder stock. An optional tiller extension (wooden) measuring no more than 2 ft, fitted to the tiller with the usual universal tiller extension fitting, is permitted.																						

Ironwork	<p>4 Chain Plate angled "A" bolts, 2 Runner Eye Bolts, 2 Quarter Block Eye Bolts and 1 jib Tack Eye Bolt of Stainless Steel.</p> <p>1 Stem Plate of cast Gunmetal.</p> <p>1 Mainsheet Horse 5/8 ins diameter Stainless Steel as plan, 2ft 6ins wide</p> <p>1 Stemhead Roller and Fairlead of cast Bronze.</p> <p>1 Mast Clamp (1/2 round) at fore end of cockpit through bolted to Beam. Heel fitting as plan (of cast Bronze).</p>
Cleats and Leads	<p>Jib Track and Fairlead to be positioned as shown on sketch. Jib Cam cleats and Blocks to be positioned as shown.</p> <p>Mainsheet Leads through rear combing as shown. Cam Cleats mounted on blocks as shown.</p> <p>8ins Horn Cleats fitted inboard on combing.</p>
Painting and Finish	<p>All Teak to be Waxed or Varnished. All other woods to have three coats of Yacht Varnish. Deck to be painted in Non-slip Deck Paint (New boats only)</p>

(Based on Conway One Design fibre glass version specification produced by Ferry Boatyard 1988).

Sails. (Including Sailmakers)

All sails must be ordered through the Class Association Secretary.

No boat may renew a sail within three years except in the case of a bona-fide accident, except that jibs may be replaced each year.

Sails shall only be manufactured and supplied by the Association's Official Sailmaker at the time.

Official Sailmakers are appointed by the class, currently Sanders Sails of Lymington are the only appointed sailmaker.

Each suit of sails shall be made in accordance with the sail plan and specification issued to the sailmaker by the Class Association. The sailmaker's identification label must be stamped with date of manufacture along with weight of cloth indelibly marked near the tack of each sail.

Before a sail is used for racing it must be measured, signed and dated by, either the Club Measurer, or, by prior arrangement, the Official Sailmaker in accordance with the current "World Sailing, Equipment Rules of Sailing".

Mainsails & Jibs can only be made from woven, impregnated polyester (i.e. no laminates or coated fabrics) with a weight of not less than 280grms per square metre.

Spinnakers must be manufactured from nylon with a weight of not less than 48grms per square metre.

Windows are permitted in the mainsail. The precise location can be determined by the Sailmaker but must not exceed 0.3sq metres.

Sail numbers shall be not less than 375mm high, positioned between the two middle battens on the mainsail.

The Class insignia shall be positioned on the mainsail between the top two battens and shall be the same colour and height as the numbers.

Sail Measurement:

(Refer to: World Sailing, Equipment Rules of Sailing, Section G, Sail definitions)

Mainsail

Dimensions (maximum) in metres

Foot (Tack to Clew)	4.25
Luff (Tack to Head)	7.00
Leech (Clew to Head)	7.45
Head width	0.12
Three quarter luff to three quarter leech	1.39

Half luff to half leech 2.52

Quarter luff to quarter leech 3.47

There shall be 4 battens that divide the leech into approximately equal parts.

Top & bottom battens, length 750 mm +/- 10 mm

Middle two battens, length 1000 mm +/- 10 mm

Two reefs in the main (optional): Height of reefs to be measured on the Luff from the Tack.

First reef 610mm

Second reef 1220mm

Mainsail shall be crosscut not vertical or radial.

Jib Headsail

Dimensions (Maximum) in metres.

Foot 2.28

Luff 4.90

Leech 4.06

Foot Median 4.47 (Head to mid foot)

Head width 0.03

Jib to be crosscut,

Luff wire to be 3mm stainless steel wire.

Spinnaker

Dimensions (Maximum) in metres.

Luff 4.95

Leech 4.65

Foot 3.81

Foot Median 4.75 (Head to mid Foot)

Half Width 2.18

Setting The clew of the Mainsail shall not extend beyond the sheave hole.

The tack of the jib shall be attached directly to the stemhead fitting, independent of the forestay.

Reefing shall be made using the cringles and reef points on the sails.

Roller reefing systems are not permitted.

Slab reefing with ramshorn hooks at the mast end of the boom and comb cleats at the outer end of the boom are permitted.

Cunninghams

are not permitted.

Sheets

All sheets shall be led in accordance with the Sail Plan.

The Spinnaker sheet shall not be passed to leeward of the forestay.

Jib fairleads shall be positioned or may slide in any direction within a 6 ins radius of the point shown on the original sail plan.

No winch or other mechanical advantage may be used.

Standing Rigging

As Sail Plan, except in that Backstays may be tensioned in slides on the deck, slides on a wire fixed at both ends, by Highfield levers, multiple purchase, or a combination of these. In no case may the backstay be adjustable aft of the position on the sail plan.

All to be secured to the deck fittings with lanyards. Bottlescrews are not permitted.

Rigging to be of 4mm 7x19 wire or Dyneema [diameter to be consistent with load bearing of 4mm wire. **The inner forestay must be of wire and not Dyneema.**

Running Rigging

Jib Halliard – (Rope or Wire) (may be double purchase) to run through a block below the forestay at the hounds. Jib halliard tensioning permitted but the tensioning may be no more than 4-1

Spinnaker Halliard – Of rope, single or double-ended. The hoist of the spinnaker shall be below the foresail halliard. Spinnaker pole up and downhauls are permitted.

Main Halliard – (Rope or Wire) to run through the masthead sheave. Main halliard may be double purchase and tensioning permitted but the tensioning may be no more than 4-1

Downhaul (vertical from gooseneck) (may be multiple purchase) for mainsail luff tensioning.

Topping lift – from the end of the boom through a sheave at the hounds to the Cockpit.

ALL RUNNING RIGGING ABOVE SHALL BE CLEATED IN THE COCKPIT WITH NO OTHER PROVISION FOR TENSIONING ADJUSTMENT

Clew Outhaul (may be multiple purchase) – from the clew of the mainsail through the boom end sheave, cleated on the boom.

Kicking straps, preventers, etc are not permitted.

Bilge pumps

any form or number of bilge pump(s) (including electric bilge pumps with automatic operation) may be fitted and may be used at any time including while racing