

THE INTERNATIONAL E-BOAT CLASS ASSOCIATION

E BOAT OFFSHORE ONE DESIGN CLASS RULES (Mar 1995 edn.)*

1. OBJECT OF THE CLASS RULES The E Boat is a one-design IOR type offshore yacht designed by Julian Everitt. These Class Rules and the Official Plans form a specification which is intended to ensure that the boats of the Class are as nearly alike as possible as regards the shape and weight of the hull and interior structure, the shape and weight of the keel, the shape of the rudder, the area of the sail plan, and other items which affect performance. All E Boats shall be built in accordance with the Official Plans and the One-Design Class Rules. The main design dimensions of the boat are:

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|------------------|------------------|
| Length overall | 6.68 metres |
| Length waterline | 5.50 metres |
| Beam overall | 2.77 metres |
| Draft | 1.37 metres |
| Displacement | 976.10 kilograms |
| Ballast | 295.10 kilograms |

2. PROTECTION OF THE ONE DESIGN

2.1 The Class is administered by the International E Boat Class Association with whom all builders shall be licensed. Application for a licence to build shall be made to the Class Association who will obtain consent from the designer before granting such a licence. In the case of professional builders, a licence will only be issued to a builder who possesses the necessary production facilities for the method of construction proposed. A licensed professional builder shall, in writing, bind himself to comply with the Official Plans, Specifications, and Class Rules. Before production is started the moulds shall be measured and approved by an official measurer appointed by the Class Association. In the event that an official measurer has not been appointed in his country, a builder shall until a measurer is appointed provide a guarantee that the moulds will produce completed E Boats that comply with the Official Plans. All rights to the E Boat design are retained by Everitt Design, to whom the royalties shall be paid. Notwithstanding the terms of this rule, Everitt Design may appoint builders.

2.2 The design is intended to allow construction in glass reinforced plastic (GRP), plywood, aluminium, or composite. Professional, amateur, and kit built boats shall be built in accordance with the Official Plans for the chosen form of construction.

2.3 Tolerances are specified to permit minor building errors or distortion due to age. Supplementary measurements may be required to ensure that the construction has been in accordance with the Official Plans and Class Rules. If it is established that attempts have been made to depart from the intention of the one-design Construction, the Class Association shall be informed. In such cases the Class Association may postpone the issuing of a measurement Certificate until the case is investigated and any necessary corrections have been made.

2.4 The Class Association issues measurement certificates without which no boat may take part in one-design E Boat events. A fee shall be charged for issuing a certificate to any person who is not a full member of the Class Association. No boat shall be described as an E Boat unless it has a valid measurement certificate, a registered sail number, and has been built by a licensed builder. Sail number shall not be issued until the royalties on the boat have been paid to the designer.

3. HULL, DECK, AND SAILING WEIGHT

3.1 The hull, deck, cockpit, hatches, and interior structure shall be built in accordance with the Official Plans. Timber sizes, alloy plate thickness and GRP laminate thickness shall be strictly adhered to.

3.2 Two deck versions are permitted: the Mark 1 (flush deck) and the Mark 2 (coachroof deck). Both versions shall comply with the dimensions and requirements of the Official Plans.

3.3 A toe rail, not less than 26 millimetres high, shall be fitted from bow to stern on both sides of the deck. The toe rail shall at no point be more than 76 millimetres inboard the sheerline. Reasonable provision for scuppers may be made.

3.4 Stanchions shall be fitted and throughout their length shall not be angled from the point of their attachment to the hull by more than ten degrees from the vertical. A permanently fixed bow pulpit shall be fitted. The pulpit shall be no less height above the deck than the lifeline.

3.5 Taught single wire lifelines, one on each side of the boat, shall be fitted at a height of not less than 0.455 metre above the sheer level and shall be permanently supported by stanchions at intervals along their length of not more than 2.14 metres. If the life-line is at any point more than 0.560 metre above the toe rail, a second lower lifeline on the same vertical plane shall be fitted and if fitted shall not be more than 0.300 metre above the toe rail.

3.5.1 A taught lanyard of synthetic rope may be used to secure each lifeline but if used the distance between the bearing surfaces of the lifeline eye and the attachment point shall not be more than 0.102 metre in length.

3.5.2 Lifelines shall be fixed to the bow pulpit.

3.6 The total sailing weight of the boat shall be not more than 1169 kilograms. If appropriate, corrector weights of lead shall be attached to the lower surface of the deck, evenly divided at stations 3 and 7.

3.6.1 The following parts and equipment shall be included in the total sailing weight required by rule 3.6: keel, rudder, tiller, minimum structural accommodation in accordance with the Official Plans and these Class Rules, mast, boom, spinnaker pole, standing rigging, running rigging, the six one-design sails as specified in rules 8.2 to 8.7.1 inclusive, all fixed fittings such as fairleads, tracks, sliders, winches, cleats, and all deck gear specified in the Official Plans. An outboard engine and fuel or a weight of 18.16 kilograms in lieu, and all safety and other equipment as required.

3.6.2 The following parts and equipment may be included in the total sailing weight required by rule 3.6. Additional and wooden trim, interior lining, deck covering, one twelve volt battery.

3.6.3 The stowage position of the engine shall be such that no part of the engine is more than 0.305 metre ahead of the aft cabin bulkhead or, in the case of the alternative weight, no part of such weight shall be ahead of the aft cabin bulkhead.

3.6.4 It is not the intention of the Class Association's measurement procedures that all boats shall be weighed to verify the total sailing weight required by rule 3.6 except that at major events a Race Committee may require that the boat shall be weighed. However all Race Committees may check the total sailing weight of boats by taking two freeboard measurements, such boats to be taken with the boat in sailing trim as specified in rules 3.6 and 3.6.2, with no persons on board. The vertical distance from the water to the point of the stem at the deck shall be not more than 0.975 metre and the vertical distance from the water to the point where the transom meets the side deck at the side shall be not more than 0.975 metre. The average of these measurements shall be not more than 0.902 metre.

3.6.5 Subject to rule 15.8 not more than two windows per side may be fitted into the hull topsides, and if fitted shall be not more than 0.300 metre x 0.120 metre in size.

4. KEEL The keel shall be cast iron and shall be constructed strictly in accordance with the Official Plans. The shape of the keel shall be in accordance with the Official Plans and the weight shall be 295.10 kilograms plus or minus 4.54 kilograms.

4.1 Boats shall be fitted with an effective seal to prevent water ingress into the keelbox with the keel in the locked down position.

5. RUDDER The rudder shall be constructed strictly in accordance with the Official Plans. It shall be of constant section below the waterline and have a maximum immersed depth of 1.135 metres and a maximum chord of 0.306 metre. The rudder shall be of the lifting type but shall be maintained in the full down position while racing.

5.1 Above the waterline, a cut out in the leading edge of the rudder of not more than 76 millimetres in the fore and aft dimension is permitted, to allow the leading edge to be moved forward of the rudder hangings with the rudder in the fully lowered position.

5.2 The weight of the rudder blade including the tiller and tiller head fitting shall be not less than 11.30 kilograms.

6 SAIL PLAN

6.1 The following shall be the maximum dimensions of the sail plan: I=8.20 metres J=2.56 metres P=7.26 metres E=1.98 metres For the purposes of these rules:

6.2 I shall be taken as the distance from the bearing point of the genoa halyard sheave to the top of the deck at the mast step, plus 90 millimetres for the mark I version, or plus 0.235 metre for the mark II coachroof version.

6.3 J shall be taken as the horizontal distance from the lower forward face of the mast to the point at which the forestay intersects the sheerline.

6.4 P shall be taken as the distance from the lower edge of the top mast measurement band to the upper edge of the bottom mast measurement band.

6.5 E shall be taken as the distance from the aft face of the mast (measured from the inside of the internal luff groove) to the fore edge of the mainsail boom measurement band.

7. RIG

7.1 Only the following spars are permitted: One mast; One mainsail boom; One spinnaker boom;

7.2 MAST

7.2.1 The mast shall be made of aluminium alloy extrusion (not less than 90% aluminium content) with a continuous luff groove which shall be an integral part of the extrusion.

7.2.2 Subject to Rule 7.2.3 the cross section of the mast in the horizontal plane shall be constants throughout its length.

7.2.3 Within a distance of 1.68 metres of its top end the cross section of the mast may be tapered.

7.2.4 The untapered fore and aft cross section of the mast shall be not less than 0.105 metre.

7.2.5 Any external cross section of the mast in the horizontal plane shall be not more than 0.121 metre and not less than 70 millimetres.

7.2.6 The external radius of the leading edge of the mast shall be not less than 19 millimetres.

7.2.7 The external section of the mast shall nowhere be concave with the exception of the groove for the mainsail bolt rope.

7.2.8 The wall thickness of the mast shall not be less than 2.38 millimetres.

7.2.9 The weight of the plain extrusion shall not be less than 1.10 kilograms/metre.

7.2.10 Distinctive colour measurement bands of not less than 20 millimetres in width shall be painted on the mast to define the limits of P as defined in Rule 6.1.

7.2.11 The lower edge of the top band shall not be above the upper limit of I as defined in Rule 6.2.

7.2.12 Permanently bent masts and rotating masts are not permitted.

7.2.13 The mast shall be stepped on deck such that the maximum dimension for J as defined in Rule 6.3 is not exceeded. The mast heel shall not be moved whilst racing. The bearing point of tube or sheave that supports the spinnaker halyard shall not be more than 61 millimetres above the upper limit of I and shall not project forward of the forward face of the mast by more than 92 millimetres. The spinnaker pole attachment point on the mast shall be no more than 1.96 metres above the deck. A band may be required to define this limit.

7.3 STANDING RIGGING The standing rigging shall consist only of two main shrouds, connected to one pair of spreaders, which may be of aerofoil section, located 3.96 metres plus or minus 0.152 metre above the deck, two lower shrouds, one forestay and one backstay. All standing rigging shall be made from 1 x 19 stainless steel wire of not less than 4 millimetres diameter. The horizontal distance from the centreline of the boat to the point of intersection of the shrouds with the deck shall not be less than 0.702 metre. No other permanently fixed mast support device is allowed, and other than adjustment of the backstay, no part of the specified standing riggings shall be removed or adjusted whilst racing.

7.3.1 A non hydraulic back stay tensioning device is allowed between the masthead crane and backstay adjustment point on the deck.

7.4 MAIN BOOM The main boom shall be made of aluminium alloy extrusion (not less than 90% aluminium content) and shall have a groove for a bolt rope. The diameter of the boom shall not be less than 60 millimetres nor more than 90 millimetres.

7.4.1 Flexible or permanently bent booms are prohibited.

7.4.2 A distinctive coloured band of not less than 20 millimetres in width shall be placed on the boom such that the maximum dimension for E as defined in Rule 6.5 is not exceeded.

8 SAILS

8.1 General

8.1.1 Only sails endorsed in accordance with Rule 8 shall be used when racing.

8.1.2 Sails shall be made of woven materials so that if the material is torn it shall be possible to separate the fibres without leaving evidence of a film.

8.1.3 Kevlar or similar materials are not permitted.

8.1.4 One or more unwoven window is permitted in each of the sails. Such window(s) is fitted shall not be more than 1.00 square metre in total area in any one sail.

8.1.5 Sails shall be measured in accordance with the IYRU and IOR sail measurement instructions except where varied herein.

8.1.6 The Class Emblem, sail letters, and numbers as issued shall be shown on both sides of the mainsail except that where a boat is rated under IOR rules or is registered with a national or other recognised yachting authority and is in consequence required to display some other registration number, the Class Emblem and number need not be shown. In all such cases the Class Association shall be informed. Letters and numbers shall be of the following minimum dimensions: Height 300 millimetres Width 200 millimetres Thickness 45 millimetres Space between adjoining letters or number 60 millimetres

8.1.7 Double luff sails are not permitted.

8.1.8 Multi-ply sails are not permitted.

8.1.9 The six sails measured at the start of any meeting shall be used for the duration of that event. In the case of extreme damage, replacements may be allowed at the discretion of the Race Committee only. Only the following sails may be on board and used by an E Boat when racing as a one-design:

8.2 MAINSAIL One mainsail which shall be set within the band limits of P and E as defined in Rules 6.4 and 6.5. Four battens shall divide the leech into approximately equal portions except that the distance from the headboard to the top batten shall not be less than 1.45 metres. The lengths of the top and bottom battens shall not exceed 0.502 metre and the lengths of the middle two battens shall not exceed 0.534 metre. The width of the headboard shall not exceed 0.152 metre. Three rows of reef points shall be fitted. Luff and leech Cunningham devices are allowed.

8.3 NO 1 GENOA One Number 1 Genoa which may be of any size or shape except that the LP measurement shall not be more than 3.84 metres. For the purpose of this rule LP shall be taken as the distance from the luff to the clew measured along a line drawn at right angles to the luff and passing through the clew. If a luff groove headfoil device is fitted, twice the maximum cross sectional dimension shall be added to this distance to give a correct LP of not more than 3.84 metres. A Cunningham device or reef is allowed. No luff cringle is allowed more than 1.22 metres above the tack.

8.4 NO 2 GENOA One Number 2 Genoa having the following dimension all plus or minus 0.152 metre: Luff 8.08 metres Leech 7.55 metres Foot 3.30 metres Two rows of reef points may be fitted. Cunningham devices are allowed.

8.5 NO 3 JIB One Number 3 Jib not exceeding the following dimensions: Luff 6.86 metres Leech 5.73 metres Foot 2.74 metres

8.6 STORM JIB One storm jib, which may be of any shape or size, except that the length of the luff shall not be more than 5.33 metres and the maximum measured area shall not be more than 3.36 square metres. An alternative method of fastening this sail to the forestay shall be provided if the boat is fitted with a luff groove device. The sail must be capable of taking the boat to windward in extreme weather conditions.

8.7 SPINNAKER One spinnaker not exceeding the following dimensions: Luffs 8.16 metres Width 4.61 metres Half Height Width 4.61 metres The angles of the reinforcing patches between luffs and foot and between luff and luff shall not be more than 110 degrees. The spinnaker shall be a symmetrical three cornered sail.

8.7.1 The overall length of the spinnaker pole measured from outside either end fitting to the centre line of the bearing pin on the mast carriage shall not be more than 2.56 metres.

8.8 A single or twin groove luff headfoil device is allowed.

9. EQUIPMENT AND ACCOMMODATION Rules 9.1.2 to 14.5 inclusive specify the minimum standard of equipment and accommodation that shall be carried on board an E Boat when racing as a one-design.

9.1.1 Class racing shall conform to Category 4 daylight racing only. The Race Committee shall be permitted to shorten the course to avoid racing during the hours of darkness.

9.1.2 When competing in major events that include offshore courses boats may be required by the Race Committee to carry additional safety equipment up to the standard required for Category 3 races as specified in the RORC Special Regulations. Six months notice of such requirements shall be given.

10. REQUIRED EQUIPMENT - HATCHES AND WASHBOARDS

10.1 The main hatch and hatch garage shall be in accordance with the Official Plans.

10.2 The hatch and hatch garage shall be fitted whilst racing.

10.3 Washboards shall be capable of being secured in position and the lower washboard shall remain secured in position during racing.

11. REQUIRED EQUIPMENT - ACCOMMODATION

11.1 Any alteration to the interior layout as shown on the Official Plans shall only be allowed if approved by the Class Association.

11.2 Securely installed toilet or bucket.

11.3 Four securely installed bunks with at least two full length bunk mattresses.

11.4 Galley facilities.

11.5 A minimum of one gallon of water in suitable containers.

12. REQUIRED EQUIPMENT - GENERAL

12.1 At least one readily accessible fire extinguisher.

12.2 One manual bilge pump operable with all cockpit lockers and main hatches closed.

12.3 One anchor and cable.

12.4 At least one water resistant flashlight with spare batteries and bulbs.

12.5 First aid kit and manual.

12.6 Foghorn.

12.7 Radar reflector.

13. REQUIRED EQUIPMENT - NAVIGATION

13.1 Marine type compass, properly installed and adjusted.

13.2 Lead line or echo sounder.

13.2 Navigation lights, to be displayed as required by the International Regulations for Preventing Collisions at Sea, mounted so that they shall not be obscured by sails or the heeling of the yacht.

14. REQUIRED EQUIPMENT - EMERGENCY

14.1 Tools and spare parts including adequate means to disconnect the rigging.

14.2 Radio receiver capable of receiving weather bulletins.

15. REQUIRED EQUIPMENT - SAFETY

15.1 Lifejackets, one for each person on board.

15.2 At least one horseshoe type life ring equipped with waterproof light and drogue, within easy reach of the helmsman and ready for instant use.

15.3 Distress signals stowed in a waterproof container and meeting the following minimum requirements: 4 red flares 2 white flares 2 orange smoke flares

15.4 At least one safety harness.

15.5 A floating type heaving line of minimum length 16.7 metres readily accessible to the cockpit.

16. PROHIBITIONS

- 16.1 Loose ballast or ballast carried by the crew.
- 16.2 Trimming ballast necessary to bring the weight of the boat into the correct fore and aft trim not fixed to the under surface of the deck at stations of 3 and 7.
- 16.3 Holes for sail trimming devices through the deck or bulkhead or sole of foredeck well.
- 16.4 More than two winches. If extra winches are fitted they shall be removed or rendered inoperable whilst racing.
- 16.5 Self-tailing winches.
- 16.6 Hydraulic devices.
- 16.7 Windows in the hull below the top chine.
- 16.8 Wire or Kevlar cored sheets or ropes with the exception of the halyards.
- 16.9 Re-shaping of the keel, rudder, or hull lines.
- 16.10 Use of non-sailing items as ballast such as excess number of tools, anchor chain, or the high density materials. If a second twelve volt battery is carried it shall be stowed forward of station 3 or aft of station 7.
- 16.11 Any item not otherwise specifically allowed by these rules shall be assumed to be prohibited until a ruling has been obtained from the E Boat Class Association.

17. CREW

- 17.1 When racing there shall be not less than two and not more than four persons on board unless specifically allowed in the sailing instructions.
- 17.2 For the purposes of a Championship Event the number of crew on board shall be the same throughout the series.
- 17.3 IYRU racing rule 66 shall apply.

18. REGISTRATION AND MEASUREMENT CERTIFICATE

- 18.1 A registration number shall be obtained from the Class Association. Measurement certificates are issued by the Class Association for E Boats that have been built by a licensed builder and that comply with the Official Plans, Specifications, and Class Rules, and the rig and sails of which have been approved by an appointed measurer. In the case of boats built by non-professional builders, complete measurement of the boat shall be required before a measurement certificate is issued. Certificates of origin stating weight of keel, mast, and boom shall be available to the Class Association.

18.2 The measurement certificate is valid until change of ownership or until major repairs are undertaken. A copy of each certificate shall be kept by the Class Association.

19. APPLICATION OF CLASS RULES

19.1 These Class Rules shall supersede all Class Rules previously published and shall be binding upon all E Boats when racing as a One-Design Class.

19.2 The Class Association may grant dispensation to any rule to an E Boat built prior to the publication of these Rules. Application for a dispensation shall be made to the Class Association and such dispensation shall be valid for a period of two years.

20. NOTES ON RESPONSIBILITY

20.1 The E Boat Association, its officers, and its appointed measurers do not accept any legal responsibility in respect of these rules, or in respect of measurement procedures, and no claims arising therefrom can be entertained.

20.2 It is the responsibility of the owner to ensure that suitable safety equipment is carried aboard when racing and that where specified in the sailing instructions such safety equipment complies with the requirements of those instructions.

20.3 With respect to measurement it is the responsibility of the owner to contact appropriate measurers and to arrange with the measurers the time and place of measurement, and to make arrangements with the measurers as to the measurement fees.

21. DEFINITIONS

21.1 Aft Measurement Point (AMP). The Aft Measurement Point is the point on the fore and aft centreline where the extrusion of the transom intersects the extension of the underside of the hull shell.

21.2 Sheerline The sheerline is the intersection of the line of the top of the deck and the outside of the hull shell, projected where necessary.

21.3 Sheerlevel The sheerlevel is the surface generated by projecting athwartships all points of the sheerline.

Webmaster's Note:

* From the copy in the possession of the Treasurer of the Association, 18 September 2003. Some paragraph / indenting formatting changes may be apparent as the text was converted into an html format. Rennie 19-09-2003.

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