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Class Rules

International H-Boat Class Association



The H-Boat was designed in 1967 by Hans Groot (FIN) and was adopted as a World Sailing class in 1977





1. **General Principles**

1.1. One-Design

The H-Boat is a one-design class.

Except where variations are specifically permitted, boats of this class shall be alike in: hull, deck and keel form, construction, weight and weight distribution; shape of rudder and sails.

All boats shall be built in accordance with these class rules and the plans. Deviations from the plans are permitted for spars, standing and running rigging, sheeting arrangements, rudder stock bearings, tiller and tiller extension, lifting eyes, fittings on deck, details of hatches and certain parts of the accommodation. These items shall comply with the rules.

All boats, in respect of hull, deck, keel and rudder form and construction and spars, shall comply with either the current class rules, or the corresponding rules applying to them at the time the first measurement certificate was issued. Any alterations or replacements shall comply with the rules current at the time the alterations or replacements are made.

Sails shall comply with the current rules.

Interpretations of these rules shall be made by World Sailing which in coming to its decision may consult the International H-Boat Class Association and the original plans.

- 1.2. These rules are complementary to, and shall be read in conjunction with, the plans measurement form and measurement diagram.
- 1.3. In the event of discrepancy between these rules, the measurement form and/or the plans, the matter shall be referred to World Sailing.
- 1.4. Administering Authority
 - 1.4.1. The international authority for the class shall be World Sailing which shall co-operate with the International H-Boat Association in all matters regarding these rules.
 - 1.4.2. In countries where there is no National Authority or the National Authority does not wish to administer the class, its functions as stated in these rules shall be carried out by the International H-Boat Association or its delegated representative (National H-Boat Association).
- 1.5. Neither World Sailing nor the International H-Boat Association accept any legal responsibility in respect of these rules and/or the plans, or any claims arising therefrom.



2. Administration

- 2.1. English Language
 - 2.1.1. The official language of the class is English and in the event of dispute over interpretation the English text shall prevail.
 - 2.1.2. The word "shall" is mandatory and the word "may" is permissive.
- 2.2. Licensed Builders
- 2.3. The H-Boat shall be built only by builders licensed to do so by World Sailing. Applications for licences shall be made to World Sailing which may issue a licence to a builder considered to have appropriate production facilities, knowledge and experience and to be able to fulfil such other conditions as World Sailing may deem necessary. A licensed builder shall be required to bind himself to comply with the class rules, plans, specifications and measurements.

International class FEE.

An International Class Fee (ICF) shall be paid by the builder to World Sailing for each boat built. As evidence of payment of the International Class Fee World Sailing shall issue an official plaque.

- 2.4. Registration and Measurement Certificate
 - 2.4.1. No boat is permitted to race unless it has a valid measurement certificate.
 - 2.4.2. World Sailing Plaque. The World Sailing Plaque shall be obtained by the builder before the boat leaves his yard. The plaque will carry a World Sailing serial number. The builder shall insert on the plaque the builder's name, serial number of plug and mould. The plaque shall be fixed to the hull in a permanent manner in the position indicated in rule 2.7.1 (see also plan no. A.3.4)
 - 2.4.3. The certificate is obtained as follows: The owner applies to his National Authority for a sail number giving the World Sailing Plaque number and the builder's name. The National Authority shall issue a sail number only on receipt of these details as evidence that ICF has been paid. Each country shall start its numbering from "one", and each number shall be used once only. The boat shall be measured by an official measurer recognised by the National Authority of the country in which measurement takes place. The completed measurement form shall be supplied to the owner of the boat. The owner shall send the completed measurement form to his National Authority together with any registration fee that the National Authority requires. On receipt of this the National Authority may issue a Measurement Certificate to the owner.
 - 2.4.4. Change of ownership invalidates the Measurement Certificate but shall not necessitate remeasurement. The owner may apply to his National Authority for a new certificate, returning the old certificate with any re-registration fee that may be required and stating the necessary particulars. The National Authority may then issue a certificate to the new owner.
 - 2.4.5. It is the owner's responsibility to ensure that his boat, spars, sails and equipment comply with the class rules at all times.



- 2.4.6. Changes and major repairs to the boat, its spars, or equipment invalidate the certificate and require partial remeasurement as the official measurer may determine.
- 2.4.7. Notwithstanding anything in these rules, World Sailing or the National Authority shall have the power to withdraw or to refuse to grant a certificate to any boat.

2.5. Measurement

- 2.5.1. Only a measurer officially recognised by the builder's or the owner's National Authority shall measure a boat, its spars, sails and equipment and sign the declaration on the measurement form.
- 2.5.2. Tolerances are given in these rules and corresponding drawings to permit minor building errors or distortion through age.
- 2.5.3. The measurer may take supplementary measurements in order to satisfy himself that the boat is in accordance with the class rules. If the measurer considers that there is a departure from the one design construction or these rules in any detail the National Authority shall be informed. In such a case the National Authority shall not issue a Measurement Certificate until the case has been investigated and any necessary corrections have been made.
- 2.5.4. All boats shall be measured using the official templates supplied by World Sailing
- 2.5.5. New or substantially altered sails shall be measured by an official measurer who shall stamp affix a licensed button or sign and date the sails near the tack.
- 2.5.6. A measurer shall not measure a boat, its spars or equipment owned or built by himself, or in which he is an interested party or has a vested interest. Sails may be measured by sailmakers licensed by their National Authority.
- 2.6. World Sailing Measurement Instructions
 - Except where other methods of measurement are specifically indicated all measurements shall be carried out in accordance with the World Sailing Measurement Instructions.
- 2.7. Identification Marks
 - 2.7.1. The World Sailing plaque shall be permanently fixed to the bulkhead at the forward end of the starboard side cockpit locker so that it can be clearly seen through the cockpit hatch.
 - 2.7.2. Sail numbers shall be carried on the mainsail and spinnaker in accordance with rule 3.6.1.3.



3. Construction and measurement rules

3.1. Mould

A master mould owned by the Finnish Yachting Association is available for obtaining plugs. This master mould shall be used unless permission not so to do has been given by World Sailing.

In such a case a plug shall be made which shall be within tolerances which are one half of those for a completed boat and it shall be approved by the World Sailing Chief Measurer before manufacture of moulds is commenced.

Before production is started at the builder's premises the production moulds shall be checked and approved by an official measurer recognised by the builder's National Authority.

3.2. Hull

- 3.2.1. The hull, including the deck, cabin, cockpit, hatches and inner hull moulding shall, unless otherwise stated, be for glass reinforced plastic (grp) and shall be built according to the plans and the laminate specification in Appendix 1.
- 3.2.2. The deck moulding without fittings or hatches shall not weigh less than 180kg. It shall be laminated to be of uniform thickness.
- 3.2.3. Hull measurements shall be taken in accordance with and shall be within the limits shown on the measurement diagram and the measurement form.
- 3.2.4. The accommodation shown on the plan is the minimum that is required.

 Two shelves above the aft berths, galley and locker, hatches in the cabin sole are compulsory.

Material for the accommodation would be free and the fiddles around the berths are not compulsory.

Additional accommodation may be installed but the centre of gravity of the complete hull shall not be lowered as a result of this.

The design and location of the galley and locker may be changed subject to prior written approval being obtained from World Sailing.

A full bulkhead with a hatch or a semi-bulkhead may be fitted forward of station 9.5. The minimum thickness shall be 6mm for plywood or 4mm for GRP.

- 3.2.5. The forecastle hatch and a cabin companionway hatch, hatches in the cockpit seats and a hatch for the aft stowage space are compulsory.
- 3.2.6. A well for an outboard motor may be fitted in the aft stowage space.
- 3.2.7. Lifting eyes may be permanently fastened to two keel bolts. The total weight of the eyes shall not exceed 4kg.

3.3. Keel

- 3.3.1. The keel shall be of cast iron.
- 3.3.2. The keel may be galvanised and/or covered with any synthetic material.
- 3.3.3. The weight of the keel shall be 725kg +/- 10kg including any coating.
- 3.3.4. The keel shall be fastened to the hull by seven 16mm diameter stainless steel or galvanised steel bolts.



- 3.3.5. The shape of the keel including any coating shall be controlled using the official templates.
- 3.3.6. The aft end of the keel shall have a square edge. The minimum width shall be 5mm, the maximum 8mm (see plan A1.3).

3.4. Rudder

- 3.4.1. The rudder shall be of grp and constructed in accordance with the plans and the specification.
- 3.4.2. The rudder stock shall be of 25mm diameter solid stainless steel.
- 3.4.3. A bearing of phenolic laminate (such as Tufnol) or equivalent material shall be fitted to the rudder stock trunk at deck level.
- 3.4.4. A bearing of bronze or of stainless steel shall be fitted to the lower part of the skeg.
- 3.4.5. The rudder stock shall be in the position indicated on the measurement diagram and shall be vertical.
- 3.4.6. The tiller and tiller extension are not controlled by these rules.
- 3.4.7. The aft end of the rudder shall have a square edge. The minimum width shall be 4mm (see plan A3.3).

3.5. Spars

3.5.1. Materials

The mast, boom and spinnaker boom shall be of aluminium alloy containing not less than 90% aluminium.

- 3.5.2. Mast and Standing Rigging
 - 3.5.2.1. The mast shall be stepped on the cabin top on the centreline of the boat.
 - 3.5.2.2. The forward face of the mast shall be 843mm +/- 40mm aft of station 8.
 - 3.5.2.3. Two easily discernible marks, each not less than 50mm x 20mm, shall be painted on the deck so that the forward edge of the aft mark and the aft edge of the forward mark indicate the permitted limits for the location of the forward face of the mast.
 - 3.5.2.4. The mast shall be an aluminium alloy extrusion. The section shall have the following dimensions:

fore and aft: 125mm +/- 10mm including the groove for the luff rope athwartships: 90mm +/- 10mm

The radius of the leading edge shall not be less than 20mm and the point of maximum width of the section shall not be less than 40mm from the forward or aft edge of the mast.

The wall thickness of the extrusion shall not be less than 1.5mm nor more than 5,0 mm.

- 3.5.2.5. The weight of the plain extrusion shall not be less than 2.20kg/m.
- 3.5.2.6. The mast shall be straight and of constant section except as permitted below:

 Above the attachment point of the forestay the mast may be tapered in
 accordance with the plan; The luff groove may be cut away to provide entry for
 the mainsail bolt rope; The mast may be reinforced with an internal sleeve below
 measurement band number 1.



- A permanent set, due to distortion not exceeding 50mm between the upper and lower measurement bands shall be permitted.
- 3.5.2.7. Measurement bands, not less than 10mm wide, which shall be clearly discernible while racing shall be painted or otherwise permanently marked on the mast as follows:
 - No 1 With its upper edge 550mm +/- 5mm above the reference surface on the cabin top.
 - No 2 With its lower edge not less than 7040mm and not more than 7050mm above the upper edge of band No 1.
 - No 3 With its lower edge 8700mm maximum above the upper edge of band No 1.
- 3.5.2.8. The standing rigging shall consist of: upper (main) shrouds, lower shrouds, forestay and backstay They shall be made of stainless steel of circular cross-section.
- 3.5.2.9. The diameter of the backstay shall be 3mm minimum. The diameter of the other standing rigging shall be 4mm minimum.
 - The length of the backstay wire is a minimum of 9500 mm including terminals.
- 3.5.2.10. The attachment point on the mast of the upper shrouds shall not be more than 100mm from the lower edge of band No 2.

 Note: For the purpose of this and subsequent rules the "attachment point" or "rigging point" is defined as shown in the ERS due to different kinds of fixing the forestay, the shrouds and the backstay.
- 3.5.2.11. The attachment point on the mast of the lower shrouds shall be not less than 3320mm and not more than 3620mm above the upper edge of band No 1.
- 3.5.2.12. The attachment point of the forestay on the mast shall not be above the lower edge of band No 2 nor more than 100mm below it.
- 3.5.2.13. The backstay shall be attached to the mast as indicated on the plan. A backstay tensioning system is permitted.
- 3.5.2.14. The forestay shall intersect the deck 1580mm +/- 5mm forward of station 8. If the jib is attached to furling gear this measurement shall be taken to the line of the forward edge of the jib in its most forward position.
- 3.5.2.15. The main and lower shrouds shall intersect the deck not more than 75mm inboard from the sheerline. The attachment points shall each be not more than 3250mm nor less than 2850mm from the intersection of the centreline of the forestay with the deck, measured radially.
- 3.5.2.16. The bearing surface of the sheave for the spinnaker halyard shall not be more than 100mm above the lower edge of band No 2.

 The spinnaker halyard shall not be supported more than 60mm forward of the forward face of the mast.
- 3.5.2.17. Spreaders as shown on the plan shall be fitted. The spreaders shall be not less than 700mm long measured from the face of the mast to the bearing surface of the shroud. The centreline of the attachment point of the spreaders



shall be above and not more than 200mm from the attachment point of the lower shrouds.

- 3.5.2.18. A stop shall be fitted to the mast to prevent the line of upper edge of the boom from being below band No 1.
- 3.5.2.19. The mast, complete with all standing and running rigging and supported at band No 1, shall not weigh less than 12kg when it is weighed at band No 3. For the purpose of this measurement the halyards shall be fully hoisted and the standing rigging secured along the mast. The ends of the rigging below band No 1 may rest on the ground.

3.5.3. Boom

- 3.5.3.1. The main boom shall be an aluminium extrusion of continuous section and shall have a continuous groove for a boltrope. The dimensions shall be: depth 90mm +/- 15mm and width 75mm +/- 15mm. The weight of the extrusion shall not be less than 1.25kg/m. Tapered or permanently bent booms are prohibited. However, a set due to distortion not exceeding 30mm between inner edge of the measurement band and the inner end of the boom is permitted.
- 3.5.3.2. measurement band, clearly discernible while racing, shall be painted or otherwise permanently marked on the boom with its inner edge not more than 3000mm from the mast measured with the boom in its lowest position and perpendicular to the mast. The measurement shall be taken from the line of the aft edge of the mast (shown on the diagram of the mast section) projected downwards excluding any local curvature due to the sail entry.

3.5.4. Spinnaker Boom

When attached to the mast the outer end of the spinnaker boom shall not be capable of extending more than 2415mm from the face of the mast. It shall be attached to the mast 950mm +/- 30mm above band No 1.

3.6. Sails

3.6.1. General

- 3.6.1.1. The **sails** shall be made and measured in accordance with Section G of the World Sailing Equipment Rules of Sailing (ERS) except where otherwise specified. When a term used in the **class rules** is the same, or in similar words, as one defined in the Equipment Rules of Sailing the ERS definition shall be used.
- 3.6.1.2. The **sails** shall be made of synthetic woven material. The cloth weight of the mainsail and jib shall not be less than 200g/m², and of the spinnaker not less than 35g/m². **Window ply area** not exceeding 0.3m² are permitted both in mainsail and jib. **Windows** shall be less than 150mm from any **sail edge**.
- 3.6.1.3. RRS appendix G has been modified. The class insignia, national letter(s) and the yacht's **sail** number shall appear on both sides of the mainsail. National letter(s) and sail-number(s) shall be on one side of the spinnaker, touching a horizontal centreline created by folding the spinnaker in half horizontally at the half height of the **leeches** and at the half of the vertical centre fold.

 Letters and numbers shall be of the following minimum dimensions:

 Height 380mm



Width (excluding number one and letter I) 250mm

Thickness 55mm

Space between adjacent letters and numbers 75mm

The class emblem shall be of a colour clearly discernible and contrasting with the **sail** or be of two colours in accordance with the plan and shall be of the following minimum dimensions:

Height 300mm

Width 440mm overall

Thickness 50mm

3.6.1.4. Each **sail** measured after 1st of January 2001 shall have permanently fixed near its **tack** an official red IHA button or IHA sticker. No **sail** shall be accepted for its initial measurement without this button or sticker. The measurer shall sign next to the button or sticker. The button or sticker shall be available from the IHA.

3.6.2. Mainsail

- 3.6.2.1. The mainsail shall not extend above the lower **edge** of band No 3 nor beyond the inner **edge** of the band on the boom. The upper **edge** of the boom shall not be below the upper **edge** of band No 1.
- 3.6.2.2. The length of the **leech**, taken between the **aft head point** and the **clew point**, shall not exceed 9190mm.
- 3.6.2.3. The total width of the mainsail (including the **luff** rope) between points on the **luff** and **leech** at half and three-quarter heights shall not exceed 1910mm and 1110mm respectively. Any **hollow** in the **leech** shall be bridged.
- 3.6.2.4. The horizontal and vertical measurements of the headboard shall not exceed 120mm.
- 3.6.2.5. The total width of the mainsail (including the **luff** rope) measured at right angles to the **luff** 400mm from the **head** shall not exceed 320mm.
- 3.6.2.6. Not more than four **batten**s are permitted in the mainsail. The **batten pockets** shall divide the **leech** into equal parts +/- 100mm, measured to the lower edge of each pocket. The length of the lower three pockets shall not exceed 850mm measured from the aft edge of the **sail**. The upper **batten pocket** may extend to the mast.

The inside width of the pockets, excluding local widening for the purpose of inserting the **batten**s, shall not exceed 60mm.

The **leech** parts shall be taken as:

The distance from the **clew** point to the intersection of the **leech** and the centreline of the lower **batten pocket**.

The distance between the intersections of the centrelines of two adjacent **batten pockets** and the leech. The distance from the aft **head** point to the intersection of the leech and the centreline of the upper **batten pocket**.

3.6.2.7. Reefing gear, Cunningham and other tensioning devices are optional. 3.6.3. Jib



The jib shall be made and measured in accordance with the ERS except were varied herein.

3.6.3.1. Construction

The construction shall be: Soft **sail**, single **ply sail**. The **sail** shall have 3 **batten pockets** in the **leech**.

The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, hanks, **batten pockets** elastic, **batten pocket** end caps, **leech** line with cleat, two **windows**, sailmaker label, royalty label, **sail** button, tell tails.

3.6.3.2. Dimensions (maximum)

Luff length: 7,580 mm Leech length: 7,130 mm Foot length: 2,830 mm Foot median: 7,445 mm Top width: 45 mm

Foot irregularity: 45 mm

Head Point to point on **foot** 750mm from **Tack** Point: 7,580 mm **Head** Point to point on **foot** 750mm from **Clew** Point: 7,360 mm

Upper width between points on **luff** and **leech** respectively 2450mm and

2300mm from the **Head** Point: 935 mm

Lower width between points on **luff** and **leech** respectively 5020mm and

4720mm from the **Head** Point: 1,870 mm

Primary **reinforcement** from corner measurement points: 380 mm Secondary **reinforcement** from corner measurement points: 1,140 mm

for flutter patches: 115 mm

for **batten pocket** patches; 200 mm

Top **batten pocket** inside length: 300 mm Middle **batten pocket** inside length: 350 mm Bottom **batten pocket** inside length: 450 mm

Aft "**Head** Point to Point on **Foot**": In the diagram the point on the **foot** shall be 750 mm from a point on the **foot** below the **clew** cringle while in the CR text the point shall be 750 mm from the **clew** point. The CR text shall be taken to be correct.

- 3.6.3.3. The top of the jib shall be straight at an angle of 90° to the **luff**.

 The **sail** shall be taken to comply with this rule if the top is approximately straight and at approximately 90° to the **luff**.
- 3.6.3.4. Jib furling gear is optional and can be installed with its mechanism below or above the deck. When installed below deck the forestay shall have a sealed radial bearing system at the intersection point of the deck. If a tube is used on the forestay, it shall be enclosed in the **luff** of the **sail**.
- 3.6.4. Spinnaker



- 3.6.4.1. The spinnaker shall be a three-cornered **sail** symmetrical about its centreline. It shall not embody any device capable of altering its shape.

 The **sail** shall be taken to be symmetrical about its centreline if, when folded in half, the halves look to be approximately of the same shape. These interpretations should be superseded by **class rules** amendments as soon as possible.
- 3.6.4.2. The lengths of the **luff**s shall not exceed 7300mm. The half width of the **foot** shall not exceed 2400mm. The half width measured between points on the **luff**s and the centrefold 3500mm from the **head** shall be 2650 +/- 50mm. The total distance from the **head** to the centre of the **foot** shall not exceed 9000mm. This measurement shall be taken with the **sail** opened out, laid on a flat surface and with sufficient tension applied at the **head** and the centre of the **foot** just to remove the wrinkles across the line of the measurement.

3.7. Weight of Boat

- 3.7.1. The total weight of the boat shall not be less than 1450kg. Corrector weights, if any of lead shall be laminated to the lower surface of the deck, evenly divided, at stations two and eight.
- 3.7.2. The following parts and equipment shall be included in the total weight:

Keel, rudder, tiller and tiller extension,

minimum accommodation according to the plan

mast and standing rigging, all halyards

and the spinnaker boom guys,

main boom (without mainsheet, kicking strap and other loose equipment),

all hatches and fixed fittings including fairleads and tracks with sliders,

winches and cleats.

3.7.3. The following equipment shall not be included in the weight:

all non-fixed equipment such as spinnaker

pole, life vests, anchor and anchor line,

paddle, bucket, pump etc., all blocks,

sheets and lines for trimming of sails,

mattresses and personal effects.

3.7.4. The following parts shall, if they are permanently fixed to the boat, either be removed before weighing or their weight shall be estimated and deducted:

compasses,

fixed pumps with hoses,

tightening devices for backstay

and kicking strap, jib furling

gear, stove, toilet, lifting eyes.

A list of estimated weights shall be included in the measurement certificate.

- 3.8. General and Prohibitions
 - 3.8.1. Loose Ballast

Loose ballast or ballast carried by the crew is prohibited.

3.8.2. Rigging Adjustment



- 3.8.2.1. The position of the attachment points of shrouds and stays shall not be adjustable.
- 3.8.2.2. The length of shrouds and stays shall be altered only by turnbuckles, which shall be above the deck.

It is permitted to adjust these while racing.

3.8.2.3. **Sail** trimming devices, except the jib **luff** adjustment (Cunningham) and the backstay, shall not pass-through holes in the deck.

3.8.3. Mast Adjustment

The position of the foot of the mast shall not be altered while racing.

3.8.4. Support for crew

When hiking the crew may use only handles and/or footstraps.

All footstraps shall be designed so as to come completely off the feet in the normal act of tacking.

Footstraps shall be open and capable of accommodating both feet at one time. Handholds of any type are permitted on the deck and cabin only.

3.8.5. Electronic Equipment

Devices transmitting and correlating data relative to wind direction or speed or boat speed and location by means such as, but not limited to electronic, mechanical, hydraulic or pneumatic are prohibited from use whilst racing. Any boats fitted with this type of equipment shall have the display and the master units disabled to the satisfaction of the race committee.

The use of an electronic digital compass with chronograph (timer and/or clock) is permitted. The compass must be entirely self-contained with either an internal battery or solar power. The compass shall have no external connections. This includes power supply and data inputs.

3.8.6. Advertising

For advertising on the H-Boat Category C is valid with following restrictions: Advertising on the jib is prohibited. Advertising on the main is allowed in an area between the boom and a line parallel to the boom in a distances of 1800 mm.

A competitor's clothing and equipment shall not weigh more than 10kg, excluding clothing (including footwear) worn only below the knee.



4. Additional rules applicable while racing

- 4.1. Unless otherwise specified in the notice of race there shall be at least two and not more than four persons on board. The crew shall consist of the same number of persons during an event of less than 7 consecutive days. In a World Championships the total weight of the crew in underwear shall be a maximum of 300 kg.
- 4.2. The following equipment shall be carried on board:

anchor of minimum weight 7kg, 30 metres of 12mm minimum diameter synthetic fibre rope, one paddle, one bucket, personal buoyancy for each member of the crew.

- 4.3. An outboard motor may be carried on board while racing.
- 4.4. Wind speed limits
 - 4.4.1. Races will not be started in less than an average of 4 knots of wind.
 - 4.4.2. Races will not be started in more than an average of 24 knots of wind.
 - 4.4.3. Wind will be measured from drifting boats established over the entire course area.
 - 4.4.4. Average wind speed will be determined several times over a five-minute period.



OFFICIAL PLANS

- A 1.1 Lines drawing
- A 1.2 Sectional drawing
- A 1.3 Keel
- A 2.1 General arrangement
- A 3.1 Lamination drawing
- A 3.2 Spars
- A 3.3 Rudder
- A 3.4 Details
- A 3.5 Alternative main bulkhead
- A 4.1 Sail Plan
- A 4.1 Sail Plan Jib
- A 5.1 Measurement Plan



APPENDIX 1 - LAMINATE SPECIFICATION

1. **Hull** (see also plan 3.1)

- 1.1. Gelcoat.
- 1.2. 300 g/m² surface mat over whole moulding.
- 1.3. 2 x 450 g/m² CSM (chopped strand mat), over whole moulding.
- 1.4. 600 g/m² WR (woven roving), over whole moulding.
- 1.5. 450 g/m² CSM, over whole moulding.
- 1.6. 600 g/m² WR, over whole moulding.
 1.200mm below the sheerline there shall be a 150mm wide overlapping joint.
- 1.7. 450 g/m² CSM below the joint.
- 1.8.
 - 1.8.1. 600 g/m² WR below the joint.
 - 1.8.2. 300g/m² CSM below the joint
- 1.9. 450 g/m² CSM over the keel 400-500mm wide according to plan.
- 1.10.600 g/m² WR as 1.9 above.
- 1.11.450 g/m² CSM as 1.9 above.
 - One 100mm wide strip of 450g/m² CSM shall be laid between floors or bulkheads and the hull.
- 1.12. The layers shall be in the above given sequence. No layers shall be omitted, nor their weight reduced.
- 1.13. The pocket formed by the skeg and rudder may be filled with plastic or equivalent material.
- 1.14. Visible inner surfaces to be painted.
- 1.15. For assembling of the berths to the hull a support can be used which is laminated to the hull. This support shall consist of one fibre-glass matt $450g/m^2$ and shall have a maximum extension of $70 \times 70mm$ alongside of the hull.

2. Floors

2.1. 5 x 450g/m² CSM. Construction according to plan. Flange 30mm wide.

Deck

- 3.1. Gelcoat.
- 3.2. 300 g/m² surface mat over whole moulding.
- 3.3. 450 g/m² CSM over whole moulding.
- 3.4. 600 g/m² WR over whole moulding.
- 3.5. 450 g/m² CSM over whole moulding.
- 3.6. 15 mm Airex, Divinycell or equivalent material as indicated on plan.
- 3.7. 450 g/m² CSM over whole moulding.
- 3.8. 600 g/m² WR over whole moulding.
- 3.9. 450 g/m² CSM over whole moulding.
- 3.10. Deck beams to be covered with 3 \times 450 g/m² mat with 50 mm overlap on both sides of beam.
- 3.11. Sandwich construction may be substituted by a construction with deck beams in accordance with the plan and paragraph 3.10.
- 3.12. Visible inner surfaces are to be painted.



4. Accommodation moulding

- 4.1. Gelcoat.
- 4.2. 4 x 450 g/m² CSM over whole moulding.
- 4.3. $2 \times 450 \text{ g/m}^2$ over the section which forms a bulkhead.

5. Forward accommodation moulding

- 5.1. Gelcoat.
- 5.2. 4 x 450 g/m² CSM over whole moulding.

6. Aft moulding and bulkhead

- 6.1. Gelcoat.
- 6.2. $3 \times 450 \text{ g/m}^2 \text{ CSM over whole moulding.}$
- 6.3. $2 \times 450 \text{ g/m}^2 \text{ CSM over bulkhead.}$
- 6.4. Bulkhead may be made of marine plywood.

7. **Joining of parts**

- 7.1. Plywood bulkheads attached to hull with $3 \times 450 \text{ g/m}^2$ mat on both sides.
- 7.2. GRP bulkheads as in paragraph 7.1
- 7.3. Accommodation mouldings attached to hull with $2 \times 450 \text{ g/m}^2 \text{ mat.}$
- 7.4. Deck to hull joint to be according to detail on plan.
- 7.5. Attachment of floors to hull to be as in paragraph 7.1 above.

8. Hatches

- 8.1. Gelcoat (can be omitted).
- 8.2. 300 g/m² surface mat.
- 8.3. $5 \times 450 \text{ g/m}^2 \text{ CSM}$.

9. Rudder

- 9.1. Gelcoat.
- 9.2. $4 \times 450 \text{ g/m}^2 \text{ CSM}$ on both halves.
- 9.3. To be filled with Airex, Divinycel, Epoxy foam or equivalent material.

10. Materials

Glassfibre of E-type glass. Resin shall be polyester or vinylester suitable for marine use. All fillers are prohibited.

11. General:

Hulls built after August 17th, 2022 shall comply with the new building specification 2022. All other hulls shall comply with the class rules, specifications and official plans in force at the time of initial certification. All fittings shall comply with the current rules.

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