

# **PHANTOM CLASS ASSOCIATION**

## **THE RULE & MEASUREMENT FORM FOR THE PHANTOM CLASS**

Name of Owner..... Club.....

Address.....

.....

.....

Post Code..... Phone No.....

Phantom Built From : Plans/Kit/Professionally

Has the Royalty been paid? **Yes/No**

Sail Number..... Date Built.....

Boat Name..... Builders Name.....

Is the European Directive label prominently displayed on the boat? **Yes/No**

(This is only required on boats built after 1<sup>st</sup> January 1997)

I.....Official Measurer of the Phantom Class Association,  
certify that Phantom, Sail Number.....was measured by me on the.....day of  
..... 20..... and was found to conform to the Phantom Class Rules.

Signed.....

I.....certify that I carried out a Buoyancy Test on  
Phantom, Sail Number ..... on the .....day of .....20.....  
And it was found to conform with the Phantom Class Rules.

Signed.....

**PLEASE FORWARD COMPLETED MEASUREMENT FORM TO  
THE PHANTOM CLASS ASSOCIATION SECRETARY SO THAT  
RECORDS CAN BE KEPT UP TO DATE. A RACING  
CERTIFICATE WILL THEN BE ISSUED.**

**PLEASE COMPLETE MEASUREMENTS WHERE APPLICABLE**

- RULE 1            OBJECTS**  
The objects of these rules are to establish the Phantom Class as a strict one design in all respects affecting the hull shape, deck layout, deck plan and sail plan, yet allow sufficient latitude in cockpit design and other matters in order to promote interest in the fitting out, maintaining and racing of the boats themselves.
- RULE 2            COPYRIGHT OF DESIGN**  
The copyright of the Phantom design is vested in the 2 designers, Brian Taylor and Paul Wright, and no alteration may be made to this design of these rules without their prior permission.
- RULE 3            MEASUREMENT ELIGIBILITY**  
A Phantom may only be eligible for measurement provided that the Design Royalty has been paid to the designers.
- RULE 4            CONSTRUCTION MATERIAL**
- 4.1            All plywood used to be B.S.1088 or better.
  - 4.2            GRP boats and boats built from other materials except wood to be from licensed moulds. -----
  - 4.3            The bilge panels, topside panels, transom and centreboard case sides to be Plywood not less than 6mm nominal thickness. -----
  - 4.4            The deck, bulkhead, tanksides and false floor panels (if fitted) to be plywood, not less than 4mm nominal thickness. -----
  - 4.5            Kevlar and Carbon Fibre or their equivalents are not permitted for the construction of hulls. It is the builders and owners responsibility to ensure that all materials have the approval of the Phantom Class Association. -----
- RULE 5            HULL LENGTH**
- 5.1            The length of the hull overall, excluding rudder hangings, measured along the centre line from a point where the line of the stem meets the line of the deck at the centre line of the aft face of the transom shall be 4420mm plus or minus 20mm. -----
- RULE 6            GUNWHALE RUBBER**
- 6.1            The gunwhale rubbers should follow a fair convex curve from the bow to the Stern. The overall boat width shall not exceed at any point the present width or beam tolerances. -----
  - 6.2            The inner edge of the side deck shall have a fair curve and the deck shall be of such a width that at any point it is within its tolerances. The inner face of the buoyancy tanks (or floor in the case of boats with a curved continuous moulded double floor incorporating side tanks) must meet the deck on the same fair curve, except that this need not apply within 350mm of the bulkhead. -----
- RULE 7            FOREDECK AND SIDE TANKS**
- 7.1            The length of the foredeck, measured along the centre line from the point at which the centre line of the deck meets the line of the stem head to the aft face of the bulkhead shall be 1340mm plus or minus 30mm. -----
  - 7.1a            The foredeck camber, excluding gunwhales and rubbers, shall not exceed 65mm anywhere -----

- 7.2 When checked against a straight edge held at right angles to the centre line, the side decks should be flat between their respective inner and outer edges at any point, plus or minus 15mm. -----
  - 7.2a The width of the side tanks at a point 250mm from the transom including gunwhale rubbers, shall be between 120mm and 215mm. -----
  - 7.2b At a point 1000mm from the aft face of the transom, the overall beam, including gunwhale rubbers, shall be 1580mm plus or minus 40mm. -----
  - 7.2c At this point, width of the side decks, including rubbers shall be between 130mm and 240mm. -----
  - 7.2d Measurement from the underside of a straight edge placed across the decks at this 1000mm point must be no more than 10mm from the deck at any point. -----
  - 7.3 At a point 2000mm from the aft face of the transom, the overall beam, including gunwhale rubbers, shall be 1600mm, plus or minus 40mm. -----
  - 7.3a At this point, width of the side decks, including gunwhale rubbers shall be between 130mm and 270mm. -----
  - 7.3b Measurement from the underside of a straight edge placed across the decks at this 2000mm point must be no more the 10mm from the deck at any point. -----
  - 7.4 At a point 3000mm from the aft face of the transom, the overall beam, including gunwhale rubbers, shall be 1295mm, plus or minus 40mm. -----
  - 7.4a At a point 2700mm from the aft face of the transom, the width of the side decks, including gunwhale rubbers, shall be between 132mm and 292mm. -----
  - 7.5 If a partial or false floor is fitted, it shall provide either a fair curve or a flat surface when viewed in section. Anchorage points for blocks and toe straps plus heel and kick bars, the centre board case and thwart may protrude above the false floor.
- The floor must be below the following measurements when measured within 100mm of the centre line:
- a. Measurement from a straight edge place across the decks at the transom to a minimum of 215mm. -----
  - b. Measurement from a straight edge place across the decks at the point 1000mm from the transom to be a minimum of 230mm. -----
  - c. Measurement from a straight edge placed across the decks at the point 2000mm from the transom to be a minimum of 225mm. -----
  - d. Measurement from a straight edge placed across the decks at the point 2900mm from the transom to be a minimum of 270mm. -----

**RULE 8**

**SECTIONS**

Measurement of the hull are at the after surface of the transom and at transverse sections at 1300mm and 2900mm from the after surface of the transom, measured along the outer surface of the keel.

**8.1 AT AFTER SURFACE OF TRANSOM**

- 8.1a At chine height skin above bottom of keel shall be 60mm plus or minus 5mm -----
- 8.1b Overall beam to outside skin 1284mm plus or minus 5mm. -----
- 8.1c The height of transom shall be 255mm plus or minus 10mm. -----
- 8.1d Width of bottom panel, keel to chine 560mm plus or minus 5mm. -----
- 8.1e Maximum round on bottom panel shall be 10mm. -----
- 8.1f Width of topside panel to underside of gunwhale rubber, 190mm plus or minus 5mm. -----

**8.2 AT 1300MM FROM AFTER SURFACE OF TRANSOM**

- 8.2a At chine, height of skin above bottom of keel shall be 185mm plus or minus 10mm. -----
- 8.2b Width of bottom panel, keel to chine, 682mm plus or minus 5mm. -----
- 8.2c Maximum round on bottom panel shall be 12mm. -----
- 8.2d Width of topside panel to underside of gunwhale rubbers, 235mm plus or minus 5mm. -----

**8.3 AT 2900MM FROM AFTER SURFACE OF TRANSOM**

- 8.3a AT chine, height of skin above bottom of keel shall be 295mm plus or minus 5mm. -----
- 8.3b Width of bottom panel, keel to chine, 595mm plus or minus 5mm. -----
- 8.3c Width of topside panel to underside of gunwhale rubber, 222mm plus or minus 5mm. -----

**RULE 9**

**KEEL ROCKER AND RAKE OF STEM**

A line shall be attached to a point 300mm below the keel at the after surface of the transom and stretched forward towards the bow, so that it makes contact with the keel (approx. 2900mm from the after surface of the transom). With the line maintained in this positioned, measurements are taken perpendicular to the line, from the line to the keel (excluding keel band).

- 9.1 At 1300mm from the after surface of the transom, base line to underside of keel (excluding keel band) 115mm plus or minus 10mm. -----
- 9.2 At 2900mm from the after surface of the transom, base line to underside of keel (excluding keel band) Zero mm plus or minus 5mm. -----
- 9.3 At 4000mm from the after surface of the transom, base line to underside of keel (excluding keel band) 50mm plus or minus 5mm. -----

|                |   |                    |
|----------------|---|--------------------|
| 9.4            | Rake of stem – minimum of 112 degrees.  | -----              |
| 9.5            | The profile of the stem and curved bow must be retained as per the original design. This rule to take effect from 1.1.89 with a dispensation give to all boats built until that date.   |                    |
| <b>RULE 10</b> | <b>CENTREBOARD SLOT</b>   |                    |
| 10.1           | Measured along the keel, the respective distances from the forward and aft side of the centreboard slot to the point of intersection between the keel and the aft face of the transom shall be:-<br>1370mm plus or minus 15mm and<br><br>2465mm plus or minus 15mm.   | -----<br><br>----- |
| 10.2           | The internal width of the centreboard slot shall not exceed 30mm at any point/position along the length of the slot except where the centreboard pivots on a stirrup. In such a case, local widening in the area of the stirrup is permitted, such that the stirrup may be used.  |                    |
| <b>RULE 11</b> | <b>CENTREBOARD</b>  |                    |
| 11.1           | When housed, no part of the centreboard shall extend below the keel line.   | -----              |
| 11.2           | The complete centreboard shall float in water.  | -----              |
| <b>RULE 12</b> | <b>THE CLASS NUMBER</b>   |                    |
| 12.1           | The Class registration number shall be carved on the hog in 25mm minimum height, behind the centreboard housing.  | -----              |
| 12.2           | In the case of partial or full false floors, displayed on prominently on the inner transom or centreboard case.   | -----              |
| <b>RULE 13</b> | <b>BUOYANCY</b>   |                    |
|                | A minimum of three separate, built in buoyancy chambers shall be provided, so positioned and of sufficient volume that when the cockpit is flooded the boat will float upright and reasonably level fore and aft supported solely by the aforesaid buoyancy chambers for not less than 30 minutes with the owner on board.  |                    |
|                | This test shall be carried out when the boat is measured (1 <sup>st</sup> ) and then be subject to annual inspection. Alternatively, a dry test shall be carried out. The owner shall be responsible for ensuring that the boat shall always be able to pass the test prescribed above.   | -----              |
| <b>RULE 14</b> | <b>HULL WEIGHT &amp; WEIGHING</b>   |                    |
|                | All boats shall be officially weighed in a dry condition. The intention of this clause is to define the condition in which boats (old and new) shall be weighed; and such condition shall be that in which a boat would normally be sailed in races save that the mast, boom, sail, rigging and loose cordage shall be removed; rudder shall be unshipped; ancillary gear, such as paddles, warps and anchors etc, shall be unshipped; and the term boat(s), for the purpose of this clause means a boat in the condition prescribed above. |                    |
|                | The weight of the boat including centre-board shall not be less than 61Kg   | -----              |
|                | If required, corrector weights totalling not more than 3 Kg shall be permanently fastened to the underside of the thwart or as close as possible to the centre of the boat.   | -----              |

If after a boat is found to weigh more than 61 Kg she may be officially re-weighed and if corrector weights had previously been fitted (weight in excess of 61 Kg) shall be removed by reducing or removing such corrector weights. If after removal the boat still weighs more than 61 Kg then the owner may, in his discretion, choose to lighten her by removing fittings, but weight shall not be further reduced by removing or lightening any constructed materials. After re-weighing, an owner shall apply for a new Racing Certificate.

**RULE 15 MAST AND BOOM BANDS**

**MAST:** The mast shall carry two painted or taped bands of a colour strongly contrasting with the colour of the mast and each shall be approx 15mm in width thus:

15.1 The top edge of the lower band shall be 535mm plus or minus 10mm above the deck at the centre line. -----

When rigged, the projection of the line of the top of the boom shall not cut the mast below the top edge of this band.

15.2 The bottom edge of the upper band shall be a maximum of 5626mm above the top edge of the lower band. No part of the mainsail shall be set above the bottom edge of this band. -----

15.3 **BOOM:** The boom shall carry one painted or taped band of a colour strongly contrasting with the colour of the boom and the band shall be approx. 15mm in width. -----

With the boom fitted to the gooseneck on the mast, and at right-angles to the aft side of the mast in the fore and aft position, the distance from the aft side of the mast to the forward edge of the boom band shall not exceed 2820mm and the clew of the sail shall not be set beyond the forward edge of this band.

15.4 Both the mast and boom sections shall pass through a ring of 100mm diameter. -----

15.5 The centre of the mast which shall be deck-stepped shall be 1000mm from the stem, plus or minus 100mm. -----

15.6 The main side shrouds must not adjustable whilst sailing. It is permissible to adjust lower shrouds whilst sailing. -----

**RULE 16 CREW**

The crew whilst racing shall consist of helmsman only.

**RULE 17 PROHIBITIONS**

Apart from the toestraps constrained within the cockpit area, no apparatus or contrivance shall extend outboard from the hull, spars or rigging shall be attached to, or used by the crew where the effect of such equipment is to support the crew wholly or partially outboard. No projections shall be allowed from the underside of the hull, except for one bilge keel on either side which shall not exceed 1200mm in length, 25mm wide and 10mm depth. -----

Sitting out pads may be fitted provided the extension beyond the hull is not in excess of 7mm on either side. -----