

Dear SeaHorse Editor,

Several time you have called for a simple box rule which fit on an “A4 sheet of paper”. Since all the Authorities running our sport seems to be glued into VPP derived rules (having been Councilor to the ORC in the IOR days I understand the difficulties for Authorities to move out of the establishment's mould), I think that it is up to us private sailors to put something on the table and push forward.

The proposed rule is derived from the best part of the IOR without the finesses which drove it to the ground. It is aimed at grand prix racing and does not intend to provide compensation for cruising facilities or for shapes or other devices perceived to be slowing down boats. The rule is open to all size of boat to encourage the development of “small” boat which provide a cheaper testing ground for young sailors and designers. In order to encourage stiff and fast boat, there is no boat stability factor in the rule. Clearly such rule will allow some “horse for the course” design, so what ? Nothing wrong with having a boat with plenty of sail area on The Great Lakes and a boat with less sail more length and mass for the windy sailing area. The encouragement for innovation has to come from freedom to choose the style of boat the owner want and not the type of boat some Committee or designer think is “right”.

The attached drawing give the hull key dimensions. Measurements are taken ashore and afloat. The units of measurement are kilogramme, meter, second. Length shall be measured to an accuracy better than 0.1%. Sail area shall be measured to an accuracy better than 0.5%. Mass shall be measured to an accuracy better than 0.5%. A boat configuration shall be fixed for 10 month minimum (no change of certificat during the season) and photos from multiple points of view shall be taken to document the certified configuration.

#### Hull:

The hull shall have a convex cross section. A single fixed keel and two single axis rotating appendages are allowed (either double rudder or one rudder and one trim tab or one rudder and one canard).

The plan view of the boat (excluding rudders and bowsprit) shall fit in the following template:

- a plan box defined by a rectangle which fits around the stern and maximum beam width BM of the boat, extended forward by a triangle of length equal to BM which fits around the bow.
- LOA is measured from the tip of the forward triangle to the end of the rectangle surrounding the stern of the hull.

The rated length L shall be the greater of  $L = LOA$  or  $L = 4*(BM - 0.5)$  and BM shall be greater than  $BM = 0.2*L$ .

The side view of the boat shall fit the following template:

- Any point of the deck shall be higher than  $FB = 0.5 + 0.05*LOA$  above the water line.
- Keel maximum draft shall be less than  $DM = 0.5 + 0.15*LOA$ . No part of the keel shall protrude from the edges of the plan box.
- Rotating appendages draft shall be less than  $DR = 0.8*DM$ . No part of the rotating appendage shall protrude from the edge of the plan box.

The weight DW of the dry boat (no fuel, no water, toilet empty) with racing sails, rig and sheets on board shall be measured.

The rated displacement D of the boat is defined as  $D = (DW + 50*L) / 1020$ .

#### Rig and Sails:

- There shall be a single mast on the boat. The mast shall be of uniform cross section from base to tip (maximum area to be controlled at some stage)
- The height HM of tip of the mast (excluding navigation light wind vane and antenna) shall be measured above the water line and shall be less than  $HM = 1.5 L$ .
- Sail may not protrude above the tip of the mast.
- The reference sail area SM is defined as  $SM = 0.5*L*(HM - FB - 1)$
- The area of the largest mainsail MA and the mast area shall be measured and the total shall be less than  $MA = SM/2$
- The area of the fore triangle FA defined by the forestay, the horizontal plane at forestay deck fitting and the vertical from the top of the forestay shall be measured and shall be less than  $FA = SM/2$ .
- The area of the largest foresail shall be measured and shall be smaller than  $SG = 1.5*FA$ .
- The area of the largest spinnaker shall be measured and shall be less than  $SA = SM$ .

The rated sail area is defined as  $S = (MA + FA + SA) / 2$

#### Crew:

The crew shall be limited to  $1 + 0.6 L$  with an aggregate crew weight CW not exceeding  $CW = 50 L$

#### Rating:

The rated length RL is calculated as follows :

$$RL = 0.25*L + 0.125*L*(S^{1/2}) / (D^{1/3}) + 0.2*(S^{1/2})$$

The time correction factor is calculated as follows:

$$TCF = 0.215 + 0.25 *RL$$

#### Additional design constraints:

The design of the boat shall meet the EU stability required for the sailing area.

The boat shall meet the ORC special regulations.

In order to avoid the development of “surf boards” the following is proposed:

The boat shall have a motor capable of driving it at speed higher than  $V = 0.8 L^{1/2}$ .

The Cockpit is defined as the open area which is below the level of the deck. The length of the cockpit shall be more than  $L/4$  and less than  $L/2$ , the width of the cockpit shall be less than  $BM/2$  and the cockpit floor shall be higher than  $0.1+BM/10$  above the waterline.

The Cabine is defined as the rectangular box volume protected from the outside where the inner distance between floor and roof is more than  $HCAB = 1.5 + 0.04 L$ , the inner width is more  $WCAB = BM / 3$  and the inner length is more than  $LCAB = L / 4$ .

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Robert Lainé (robert.laine@sailcut.com)

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