

## International 470 Class Rules Interpretations

### Question 1:

Is the pivot point of the centerboard required to be in a fixed position?

- Relevant Class Rules: (Effective Class Rules at the time: 15/01/2019)

### **Section D - Hull**

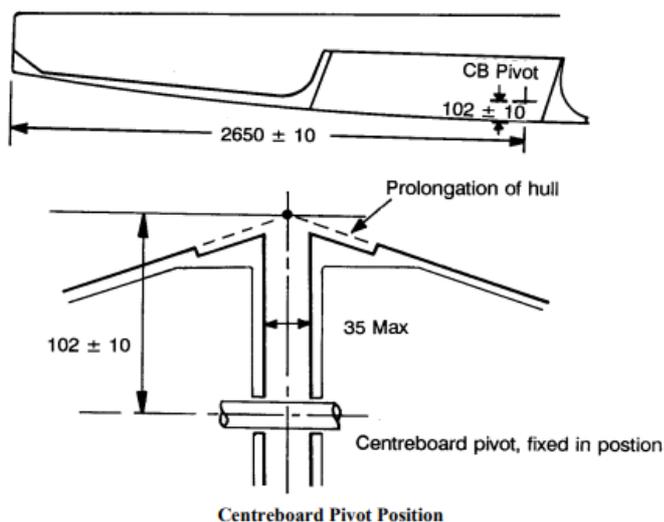
#### **D.4 MEASUREMENT DIAGRAMS**

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##### **D.4.4 CENTREBOARD PIVOT**

The position of the centre of the centreboard pivot shall be measured as in Figure "Centreboard Pivot Position". The distance of the centre of the centreboard pivot from the HDP shall be  $2650\text{mm} \pm 10\text{mm}$  and its height above the prolongation of the hull at the centreplane shall be  $102\text{mm} \pm 10\text{mm}$ .

The pivot pin shall pass through the centreboard case sides and be in a fixed position.



### **Section E – Hull Appendages**

#### **E.3 CENTREBOARD**

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##### **E.3.2 FITTINGS OPTIONAL**

- (1) Blocks and associated fittings for hoisting/lowering the **centreboard**.
- (2) A bushing round the pivot of the centreboard.

### **Section B – Boat Eligibility**

For a boat to be eligible for racing, it shall comply with rules in this section.

#### **B.1 CLASS RULES AND CERTIFICATION**

##### **B.1.1 The boat shall;**

- (a) Be in compliance with the **class rules**.
- (b) Have a valid **hull certificate** and **hull** measurement form.
- (c) have valid **certification marks** as required

## ERS

### A.2.2 Compliance with a Certificate

The **boat** shall comply with its **certificate**.

See also RRS rule 78 Compliance with Class Rules; Certificates.

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### C.3.3 Certificate

Documentary proof of successful **certification control** as required by the **class rules** or a **certification authority**.

For the **hull**: issued by World Sailing, the MNA of the owner, or their delegates.

For other items: issued by the **certification authority**.

### Interpretation 1:

Class rule D.4.4 states that the position of the centre of the centreboard pivot shall be measured as in Figure “Centreboard Pivot Position”. The image includes measurements to an axis defined in the image as “centerboard pivot, fixed in position”. The measurement description included in the rule confirms that the defined axis is the centre of the centerboard pivot position. The centerboard pivot is therefore defined as being in a fixed in position.

Class rule D.4.4 also requires the pivot pin to be in a fixed position.

In addition, the rules require boats to comply with their measurement form, which includes a recorded single fixed location for the ‘Centre of centerboard pivot’.

The following requirements transcend from the above:

1. Location of centerboard pivot shall comply with defined measurements,
2. The centerboard pivot shall be in a fixed position,
3. Pivot Pin shall be in a fixed position,
4. The centerboard pivot shall be located as defined in the measurement form.

For boats to comply with the rules, the center of rotation of the centerboard (centerboard pivot) must be in a fixed position, and therefore the bushing permitted by E.3.2 (2) must either be bonded (fixed) to the centerboard so that there is no relative movement between the two, or circular in section and concentric, as otherwise the centerboard pivot would not be in a fixed position. The center of the Pivot Pin and the centreboard pivot must coincide and the difference in diameter must not allow to achieve a different pivot position other than the recorded in the measurement form.

These measurement form values are recorded in mm. Considering them accurate to 1mm and with a degree of accuracy of half a unit of the measure (+-0.5mm) would account for differences in diameter of +-0.5mm between the pin diameter and the pivot hole and/or bushing internal diameter.