

Dear Measurers,

I have had a number of enquires over the past few weeks as to how we should be addressing the requirements of Rule E2.1 & E.5 a & c which relate to the rudder assembly and the distance from back of hull. We are now seeing various designs of adjustable rudder assemblies allowing adjustment of rake whilst sailing. With our open design nature there is no hard and fast design of the rudder assembly so we need to look at what fits within the rules and what doesn't.

Firstly E2.1 clearly defines the rudder assembly. The rudder blades and stocks/cases to date are basically the same for all boats. The only measurement rule that relates to this is Rule D.4.1(b), which limits the width of the rudder stock/case within 153mm of the bottom of the hull to 76mm. To date I have not come across any rudder cases that have not met this rule. The rudder hangings/gudgeons is the one causing concern and it is this area we are seeing many variations. The ERS has no definition of a gudgeon so anything that holds the rudder case to the back of the boat fits our rules. With the push to get greater distance between the rudders and daggerboards many are extending the rudder gudgeons out to take full advantage of Rule E.5 (a) that allows a maximum of .3m from aftermost point of the hull. The way I assess each gudgeon design is to ask the following question: What is the design purpose and does it do anything else other than hold the rudder case and in need allow rudder rake to be adjusted and fit within .3m from the stern? If the answer is no then I deem ok.

Now for some overriding restrictions to all of this.

The rudder assembly cannot be part of the hull construction. The DNA F1x gives the impression this is the case however this is only due to the impressive finish by the manufacturer. The box type gudgeons used to extend the rudder stock/case further out are additions to the actual hull, not included in the hull mold and glued and faired to the back of the hull. The fairing into the back of the hull has not extended the hull length. Rule E.5(c)



The rudder assembly cannot form an extension of the hull length, so there must be a clear separation from the sides, top & bottom of the hull to the gudgeon assembly. The new Exploder assembly clearly shows this. Rule E.5(c)



Attachments to the hull whose only purpose is to restrict the sideways movement of the gudgeon are allowed, however in this case the outside block is flush with the side of the hull and would not be allowed under Rule E.5(c).



Any attachment to the actual hull whose only use is to anchor control systems or to strengthen the stern in a particular area is not considered part of the rudder assembly and is to be included in the overall hull length. Rule D.4.1(a).



Hopefully the above may assist, if not please contact the Technical Committee or myself at [gharbour@bigpond.com](mailto:gharbour@bigpond.com)

Regards  
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