

## STARLING NATIONALS MEASURING EXPLANATIONS

National championship measuring is focused on areas where previous compliance difficulties have resulted in discontentment within the class. It has always been the aim of the class administrators to maintain a one-design philosophy for the performance critical areas of the boat. National championship measuring can only spot check a limited number of points on the boat. Listed below are explanations provided by the administrators for the measuring interpretations currently in use.

### **Mast.**

- Masts are not allowed lightening holes or tapering. Angled cut-offs at the top are interpreted as both tapering and lightening. The masthead must be squared off to comply.
- Mast bend within 10mm of straight is measured from top to base. The objective is to eliminate bent or damaged masts that may have compromised structural integrity.
- The overall length of 4480mm is measured from the base of the mast including plugs and bearing washers, to the top including halyard sleeves or masthead plugs. Any locating pins in the base or wind indicator locators on the top are not included. If a rotating mast base is permanently part of the mast step, an additional measurement is required. Find the thickness of this assembly and add it to the overall length of the mast. (As a guide, it should be remembered that if the mast step height of 20mm is added to the mast length of 4480mm, then by extension the mast must not stand more than 4500mm above the deck centreline.)
- The stay attachment point of 2875 +/- 75mm is taken from the bottom of the mast base plug and washers, to the point where the stay intersects with the mast. For practical purposes, if a saddle is riveted to the mast from inside the mast, then the inside bottom face of the saddle is the measurement point. i.e. the load face on the saddle. If a conventional tang or a through the mast hook is used, the measurement point is the tang or hook intersect point with the mast outer face.
- If masts are not completely sealed, a 10mm diameter drain hole must be provided at the base of the mast to drain water in the event of a capsize.
- The halyard must be able to be operated from deck level. While preferable, it does not mean the halyard must be able to be raised and lowered from within the boat.

### **Boom.**

- The sail track must be a minimum of 2m. Track trimming is the norm, so the 2m must be measured along the top of the track i.e. the bolt-rope bearing surface.
- Lightening holes or excessive tapering at the ends is not permitted.

### **Centreboard.**

- The maximum length is taken from the under side of the stopper pads or timbers on the top of the board. (1067 mm x 280 mm.)

### **Rudder.**

- The depth of the rudder can only be checked with the rudder down in the normal sailing position. The 840mm is taken from the centre of the deck line at the transom to the tip of the blade, sighting down the gudgeons.
- The centre line of the gudgeons must be no further aft from the transom than 38mm. Any spacers, carbon reinforcing sheets or plywood plates joining the gudgeons to the transom are not treated as the transom for the purposes of this measurement.
- The rudderstock and tiller must have retention systems to stop either parting company with the boat.

### **Sail.**

- Sail repairs are allowed; luff curve or seam alterations are not permitted. Sometimes during manufacture, the sewing machine runs out of thread, resulting in sewing puncture marks. The seam then requires re-sewing. Sewing puncture marks must line up on both sides of the sail. If not then this may indicate a sail alteration. The sail number must coincide with the boat number on the hull.

### **Hull.**

- A means of attaching a towing line to the bow must be provided. The conventional handle on wood boats and the stem head loop on the grp boats are suitable. If,

instead, a tang or chain plate is fixed to the bow, it is not suitable to use the forestay shackle as the towing point. A separate shackle or rope loop must be independently attached.

- No part of the boat bow can extend beyond the bow jig. This includes beadings, bow handle and handle screws. The screws must be rounded enough to have no sharp edges.
- The mast rule specifies the aft face of the mast circle to be 610mm +/- 6mm from the forward face of the cockpit. (This is the circular part of the mast extrusion and excludes the track). For rotating masts this requirement must be checked in the fore/aft as well as the fully rotated position. It is a very difficult measurement to check. Most boats have the mast rotation point in the centre of the mast. In this case measurement is simply 610mm plus 22mm (mast radius) to the centre of the pivot pin (or hole) located on the deck. If the mast as far aft as possible (604mm), a difficulty can occur if the rotation point used is not in the centre of the mast. If the pivot is aft of the centre, then when the mast is rotated to the downwind position the circle of the mast moves even further aft. If it was already as far aft as allowed when the mast was fore/aft, rotation moves the mast outside the tolerance.
- The mast step must be no higher than 20mm. This includes mounting plates but excludes locating pins and bearing washers.
- No cut out holes permitted in C frame. Forward and aft of the C frame must be separate watertight compartments.
- Centre case water fairings attached to the hull are not permitted. Mylar friction lining is permitted inside the centre case vertical face, if attached to the top of the centre case.
- The traveller location within 50mm of the transom is measured from the centreline of the traveller to the transom.
- Maximum hull weight 41 kg includes all fittings normally fastened to the hull. Corrector weights must be added to the aft cockpit bulkhead. Oversized timber on the forward side of C frame used as toe strap re-enforcing is deemed to be corrector weight and must be shifted to the aft cockpit bulkhead.

Brian Peet,  
Glendowie Boating Club,  
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