International Six Metre Yachts - Guidance for Build Surveyors

These notes are provided to ensure that as far as possible new boats are subject to the same level of inspection during build, to maintain consistency between practices in different build yards and in different countries. It is important to remember that the role of the Build Surveyor is to provide assurance, as far as possible, that the yacht has been built to the requirements of the Class Rule. The opportunity to monitor the build process can never be repeated, and if there is any doubt thereafter that cannot be resolved from the Build Surveyor's reports, the only verification will involve destructive inspection.

The Build Form Process

Before build starts, the builder will submit a 'Build Form' to ISMA to demonstrate how the planned construction will meet the construction weight distribution requirements set out in Class Rule 26. ISMA will be responsible for assessing the form. When these build proposals have been set out to the satisfaction of ISMA, the secretary to the technical committee will return a pdf copy of each sheet on which is superimposed his signature.

The Role of the Build Surveyor

The Build Surveyor may be a recognised class measurer, though this is not essential and the task has been satisfactorily completed by surveyors who are not measurers. The task of the Build Surveyor is to provide verification that the construction of the yacht has followed the specification set out in the build form. The Build Surveyor therefore needs to be familiar with the construction methods used for yachts of this type. Construction may be glass-fibre lay-up, moulded wood construction, or traditional wooden yacht construction techniques.

Verifying Construction

The construction can be verified by a number of means. For traditional wooden construction, validation can be achieved by visual inspection and measurement of component scantlings during and after construction, and weigh checks of the timber used. For glass-fibre construction, where the detail is not so easily verified after construction, it is expected that the surveyor will use most if not all of the following methods:

- Observation of lay-up for glass-fibre construction.
- Weight checks of samples of lay-up made before or during lay-up of the actual boat.
- Weight checks of components produced during construction.
- A weight check of the hull and deck mouldings when they are removed from the mould.
- Observation of the joining procedures for components as the hull is built, and when the deck is fitted.
- A final weight check of the assembled hull, before and after the keel is fitted.

It is clearly impractical for the Build Surveyor to be in attendance throughout the build process. The Class Rule requires at least four visits. The timing and nature of these visits will depend on the build process, and as an example might include:

1. A visit at the start of construction to observe initial lay-up and to check and weigh samples of lay-up.
2. A visit to check those components that are fabricated separately, such as floors and ring frames, and to check the weight of the rudder and stock.
3. A visit to observe the construction of the hull shell and deck moulding, and where possible to record the finished weight of each separately.
4. A final visit to record the completed assembly of hull and deck, and to record the weights of the hull and deck assembly with and without the keel.

The surveyor should use every opportunity to check and weigh samples, for instance where small parts are removed from completed mouldings such as the cut-outs for mast hole and rudder post.

Reporting Requirements

ISMA will expect to receive a detailed report from each visit, illustrated with photographs where appropriate, and tabulating the checks that were carried out. This should enable a detailed comparison with the predicted weights on the build form. A mere statement that the various components have met the weights specified in Class Rule 26 is not sufficient – the reports should contain enough data to justify this conclusion.

Build Surveyors should not hesitate to provide as much data as possible. Their reports will be held confidentially by ISMA, and will only be made available to authorised measurers and to the minimum extent necessary if required to verify rule compliance.