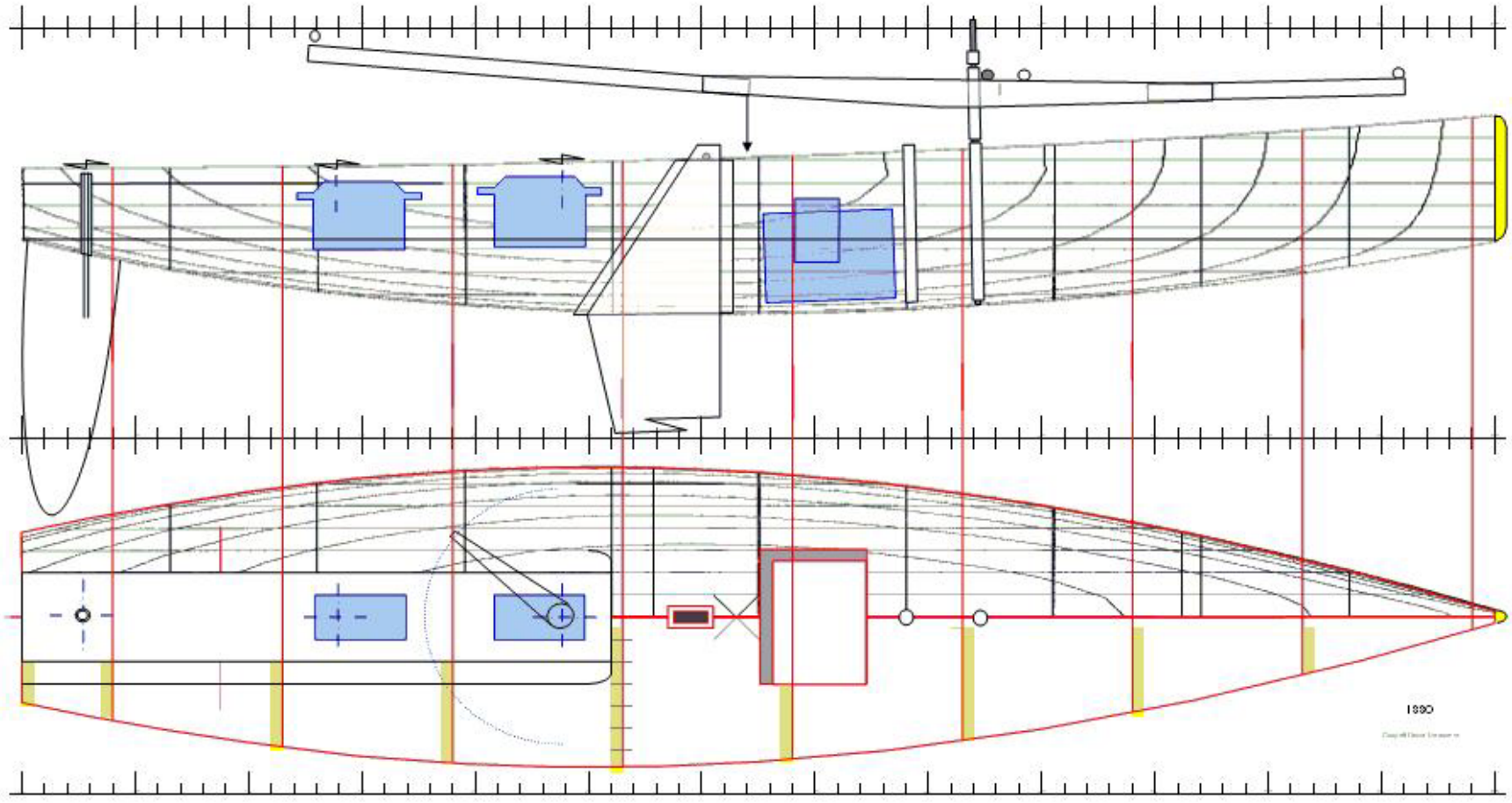
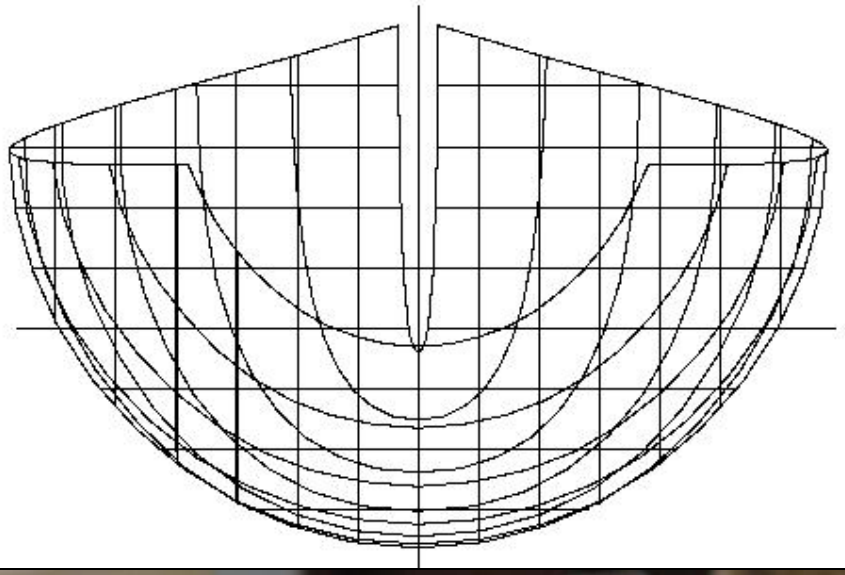
Fra-14

De RG65WIKI, la enciclopedia libre.

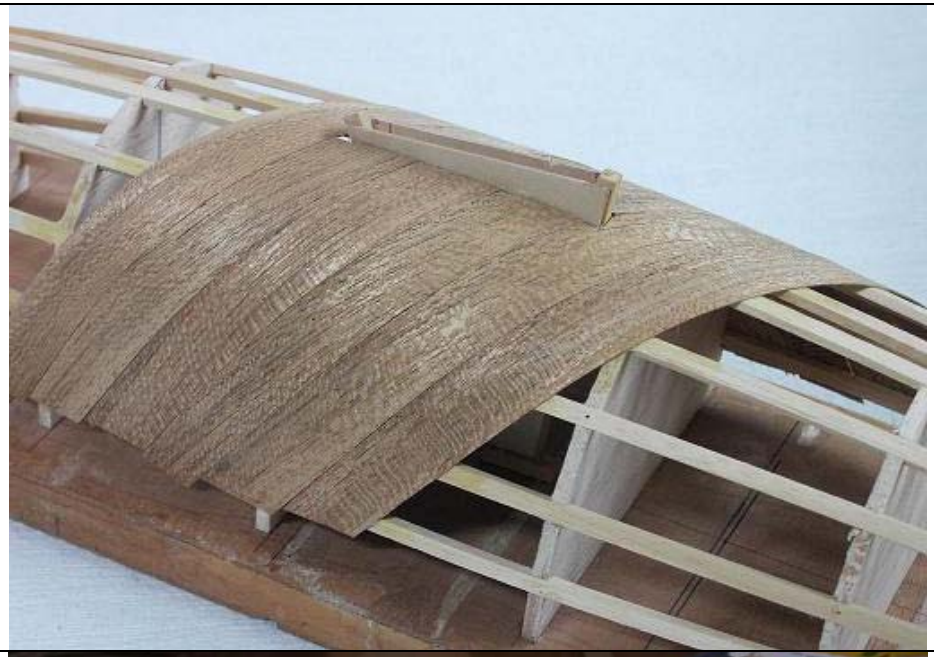
Construction report of the RG-65 Isso, sail Number 14 (FRA).





This model called Isso is a reasonably narrow hull with circular sections.

The main section data measured after construction are : Max breadth 135mm, breadth waterline 120mm, hull depth 34mm. The drawings were finalized end-2003, and the model was built early in 2004 in moulded wood (bois moulé) :

	First wood layer
	Second wood layer

For more details about this construction method, refer to http://navi.modelisme.com/article189.html and http://navi.modelisme.com/article215.html

The longitudinal battens and frames were kept inside the hull, and a layer of fiberglass cloth was added on the outside. This made for a strong hull and an easy deck construction, but penalized the weight somewhat. The general arrangement was based on servos laid on deck, allowing a simpler installation and ensuring optimal watertightness of the deck. Everything is under reach at all times, a hatch is required only for the batteries ; it is closed with a wide plastic tape.

la Vache Sacree, FRA13 (left) and Isso, FRA14 (right)

The 6mm diameter carbon mast is not stayed, but inserted in a tube into the hull. Two mast tube locations are provided as the mast position for rig A is further forward.

The weight breakdown is as follows :
Hull.....270g
RC.....210g
Ballast and keel....520g
Rig.....50g
Rudder.....10g
Total.....1060g

Four sails were cut, three mail sails and a jib, to be used in three rig arrangements. Rig A is a max height una-rig, the purpose of which is to seek wing high up, rig B a low aspect ratio sail and rig C dedicated to strong winds. These sails are all installed on the same mast and swing rig boom.

Rig.....A.....B
Main sail height (cm)...106.0...85.0
Main sail max width.....26.0...28.0
Main sail area (dm2).....22.5...16.5
Jib height (cm).....55.0
Jib max width.....17.0
Jib area (dm2).....0.....5.0

The model was immediately tested in strong conditions with rig C. The servos never failed despite a number of severe submersions, the tightness of the standard servos along the shaft is safe.

Only the rig A and B were since used in regatta

Rig B

Rig A

The only weak point is a tendency to nosedive downwind. Rather than reduce sail while the upwind sailing is still fine, the plan is to build a GRP hull using the original model as a mould, and increase the bow height to 70mm. Some 100g of hull weight could be saved as well in re-building the hull in fibre. A second keel with 600 or 650g of ballast is considered.