

## KINGFISHER, 2000

**The image of offshore sailing in the UK went through a dramatic change as the press and public followed closely the daily exploits of Ellen MacArthur on board Kingfisher towards the end of the 2000-01 Vendée Globe, non-stop solo round the world race.**

Her winning of the preceding transatlantic race made people sit up and take notice, but would she continue this form for the duration of the Vendée? Much of the British public probably thinks she won the race, as was the case with Tracey Edwards on Maiden in the WRTWR in 1989/90. Although Ellen actually came second, the dramatic scenes of her arrival overshadowed the winner, Michel Desjoyeax on PRB.

In choosing the design team with Owen-Clarke and Rob Humphreys, Ellen took a departure from the French dominated norm for this race. In doing the composite structural engineering, Gurit also varied from the normal single skin bottom used for these boats by having a fully-cored hull. The boat was built using Gurit SE 84 prepreg carbon fibre to very high standards by Marten Yachts in New Zealand, and was sailed back by Ellen to Europe for the start of the race.

In the Vendée, Ellen led for part of the race and was close to winning, but eventually came a creditable second. It could have been much worse; not far from the finish she suffered a major collision with a semi-submerged container. Fortunately such an eventuality had been planned for, and could have been a script from a design team meeting.

As engineers of such structures, from the comfort of our office we often have to dream up a bad day for an offshore boat in some remote seas, but the ideas (thankfully) are rarely tested for real.

The boat's ability to survive this incident owed much to the seamanship of her co-designer Merfyn Owen. The twin lifting daggerboards were designed to withstand the



**Kingfisher during the Vendée Globe race. Photo: Thierry Martinez**

side loads required to stop the boat moving sideways, yet break off when hit by an immovable object. Although asymmetric in section they were also designed so that they could be swapped from port to starboard with the operating sheaves exchangeable end for end. Similarly the rudders were designed to have sacrificial tips, and to be exchangeable at sea.

Following on from the success of Kingfisher, the Owen-Clarke Design Group have a number of Open Class boats to design, for which Gurit are giving full engineering support. The design of two Open 50 boats are also underway, one in construction at FK Boats in Italy, the other at McConaghy Boats in Australia. In addition another Open 60 is now under construction at Southern Ocean Marine in New Zealand for Graham Dalton - the brother of Grant Dalton.

With other designs in the pipeline, the Owen-Clarke Design Group are becoming significant players in this market, and Gurit look forward to providing innovative and professional engineering services.