

## Welcome to SOROLLA and FORTUNY!



**MARIN is proud to have been a partner in the development of two new ferries SOROLLA and FORTUNY built by H.J. BARRERAS shipyard and Puerto Real yard of IZAR for the Spanish operator Cia Trasmediterranea.**

**After having met their first waves in Wageningen, SOROLLA and FORTUNY entered service this summer and are now sailing the Mediterranean.**

Guilhem Gaillarde &  
Martin van Hees  
G.Gaillarde@marin.nl

**M**ARIN carried out both calm water tests with stock propellers and calm water tests with three different propeller designs. Special attention was paid to the design of the fore and aft body to reduce bow, shoulder and stern waves as much as possible. The stock propeller test program subsequently performed showed a very favourable propulsive performance and the high speed requirement was fulfilled.

In the propeller designs, particular attention was paid to achieve a good balance between propulsive, cavitation and vibration performance given the comparatively high sailing speed of the vessels. Models of the designed propellers were manufactured and tests were conducted on their propulsive performance, design pitch, cavitation performance and the hull pressure pulses.

A complete operability study was undertaken and after obtaining the first impression of the vessel's motions through numerical work, the vessel was tested in the Seakeeping and Manoeuvring Basin.

The objective of the tests concentrated on providing the operational limits of the vessel in terms of comfort and safety in all wave conditions that these vessels will encounter during their service between the main land and Balearic islands. The sustained speed was also investigated in order to evaluate the expected mean crossing times for different periods of the year, different routes and to check the reliability of the service.