

Euroyards in the FASST lane...

The FASST (Fast Advanced Short Sea Transportation) project emerged when four major European shipyards, Chantiers de l'Atlantique (France), Fincantieri (Italy), IZAR (Spain) and HDW (Germany), all part of the Euroyards Consortium, decided to co-operate in developing a high-speed ferry.



Courtesy NEOMONDE.

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FASST ferry in Seakeeping
and Manoeuvring Basin.

The goal of the project was to design a new type of Ro-Ro ferry capable of carrying a relatively high payload, combined with high service speed of around 35 knots. Fundamentally, the main purpose of the study was to investigate the vessel's global behaviour under any type of wave climate in an effort to determine its performance in different operating areas. Supported by calculations to determine the most relevant conditions to be tested, the model tests were conducted in medium-to-severe sea states. Attention was paid to sustained speed in waves, the comfort level of passengers and the efficiency of fin stabilisers. Special attention was given to the latter, with tests being conducted for two different types of appendages. Tests in high stern quartering seas were performed to judge efficiency under the

most unfavourable circumstances with respect to roll and related transverse accelerations.

A satisfactory conclusion

Measurements of the forces acting on the active stabilising devices permitted investigation of the risks of stalling in this high speed range. The best configuration and control strategy was then selected in order to draw the final operational limits of the vessel. Tests in medium sea states showed very good behaviour of the slender hull and also relatively low slamming pressures at the bow. Sustained speed in waves was also very satisfactory with low speed loss. The analysis made clear that the available power could still drive the vessel at high speed in more than 5.0 metre waves. However, criteria based on comfort, or risk of green water, will become the leading parameters for the sustained speed by voluntary speed loss. The results also showed a very satisfactory course-keeping ability in high stern quartering and following waves. All technical data of the behaviour of the FASST ferry in waves is now available so checks can be made on its position and potential in the market with respect to its competitors. A detailed investigation of the ferry's reliability and performance on given routes can be performed based on the measurements made during this test campaign.

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