

MY Predator

Cutting-edge yacht design

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FEADSHIP recently answered a request for a motor yacht with an innovative reversed bow flare. It took up the challenge in the design and build of MY Predator. MARIN became the design consultant, carried out the model tests and monitored the initial trials.

In order to meet the owner's requirements for speed, comfort and safety, CFD calculations, model tests and full-scale trials were conducted by MARIN. Specifically, MARIN had to examine the sustained speed in seaway, global hull loads, the risk for green water and comfort onboard when in transit. MY Predator was tested at model scale in severe weather conditions, in waves up to a significant height of 5 m. In that way the maximum operational conditions in terms of comfort and safety could clearly be established.

Due to the increased waterline length, resulting in very small waterline entrance angles, a lower resistance was obtained compared to more traditional bow shaped (shorter waterline length) yachts. This particular (reverse) bow flare, in combination with the small waterline entrance angles drastically reduces bow flare slamming. This leads to high sustainable speeds - especially in steep waves - and increased comfort for the passengers thanks to reduction in slamming induced hull vibrations. As the installed power is sufficient to maintain a very high speed in severe wave conditions,

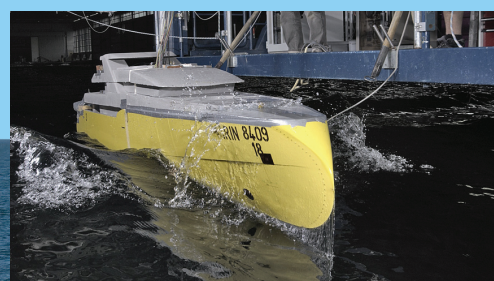
the sustained speed is mainly governed by the captain's decisions. These decisions will be made based on shipping of green water on the forward deck and onboard comfort.

Strong relationship

Ronno Schouten, Head of Naval Architecture of Feadship, stated: "FEADSHIP sees a trend into even faster yachts, whilst the requirements for onboard comfort are increasing as well. The hull lines of MY Predator are an answer to these demands. The vertical bow increases the waterline length and reduces the waterline entrance angle. This results in lower calm water resistance and improved seakeeping characteristics of the yacht, compared to a conventional hull form. In this way, the yacht's design has set the trend for the next generation of new designs with a vertical bow. Extensive model tests have been conducted at MARIN because of the new hull shape and the strict requirements of the owner with respect to speed, seakeeping behaviour and noise. For many years FEADSHIP has had an excellent relationship with MARIN which looks after all model tests for us. Hence they know very well the strong requirements FEADSHIP puts on the performance of its yachts and they can think actively in the design stage".

MARIN

Model tests in seakeeping and manoeuvring basin.



Courtesy Feadship

