

YOU ARE HERE: HOME / FEATURES / A NEW BREED

Jan 30, 2015

## A new breed

Andrew Johansson



*Forbjörg (all images by Andrew Johansson)*

ICELAND, Reykjavík. Established in 2005, Rafnar has developed a new hull design called the OK Hull. The hull promises to be more efficient and provide superior performance when compared to competitors, especially in bad weather. *SuperyachtDesign* headed to the shipyard's headquarters in Reykjavík to learn more about the platform and its two fibreglass boats.

"The first boat I built was a canoe at the age of 15," began Össur Kristinsson, founder of Rafnar. "It fuelled a passion within me and drove an interest in the design and construction of boats. I started designing the OK Hull in 1993 but got side tracked during its development. I didn't look at the designs until 2005 when I came across an old backup disk with my original drawings on it."



*Össur Kristinsson*

Inspired by Swedish engineer Fredrik Ljungström's circular arc hull design, Kristinsson dedicated six years to the development of a hull that would break the rules and behaviour of today's boats. The process involved tank testing over 100 different one-metre models before building a six-metre prototype.

"It's a new scalable concept that has never been tested before," said Kristinsson. "It is a very efficient hull, which has the added benefit of being very comfortable and performs differently to any other boat we've experienced."

"It's a new scalable concept that has never been tested before," said Kristinsson. "It is a very efficient hull, which has the added benefit of being very comfortable and performs differently to any other boat we've experienced."



*A selection of the models used in tank testing hang on the walls in the office*

Following extensive studies on the six-metre, the yard began to construct larger prototypes before settling on Leiftur, a 10m RIB and Þorbjörg, an experimental 12m. We were invited on a sea trial in ever-changing weather conditions to highlight the qualities of the boats promised by Rafnar, and they didn't disappoint.

Unlike a traditional RIB hull form, the OK Hull does not rise up and plane, nor does it plough through the sea like a displacement boat. And yet when we opened up the throttle of the two 250hp engines (Leiftur is fitted with outboards while Þorbjörg has inboard), the boats increased speed and reached in excess of 30 knots. This is thanks to its special hull shape, which directs water under the boat in a more efficient way to reduce drag.



*Leiftur*

"These boats don't behave in the same way as others," explained captain Mike Hasted, who worked together with the team on the project. "When you come alongside a boat in a traditional RIB, you have to maintain a certain speed to keep it on the plane. With Leiftur, you have much better control over the speed and the boat behaves much better."

While there are differences in performance between the models, they delivered a comfortable ride in open water. Manoeuvring at speed was also impressive with tight turns achieved without sliding and a high level of grip at the stern. It is this overall performance that grabbed the attention of the Icelandic Coast Guard, which will take delivery of its first custom Leiftur in mid May this year.

"It has been proven that this craft works extremely well for us in our operations in Icelandic waters," said Georg Larusson, CEO of the Icelandic Coast Guard, which has aided the shipyard in testing the 10m over the past 18 months after it was approached by Rafnar CEO Björn Jónsson.

"These boats don't behave in the same way as others," explained captain Mike Hasted, who worked together with the team on the project. "When you come alongside a boat in a traditional RIB, you have to maintain a certain speed to keep it on the plane. With Leiftur, you have much better control over the speed and the boat behaves much better."

While there are differences in performance between the models, they delivered a comfortable ride in open water. Manoeuvring at speed was also impressive with tight turns achieved without sliding and a high level of grip at the stern. It is this overall performance that grabbed the attention of the Icelandic Coast Guard, which will take delivery of its first custom Leiftur in mid May this year.

"It has been proven that this craft works extremely well for us in our operations in Icelandic waters," said Georg Larusson, CEO of the Icelandic Coast Guard, which has aided the shipyard in testing the 10m over the past 18 months after it was approached by Rafnar CEO Björn Jónsson.



*The Icelandic Coast Guard's Leiftur under construction*

At the time of writing there were no confirmed plans to develop a superyacht tender but Kristinsson is not apposed to the idea and stressed that his goal is to prove his concept will work at any size, while work continues on the development of a new 15.5m and 24m.

Related Links:

[Rafnar](#)