

# SIGNIFICANT SMALL SHIPS OF 2016

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Damen ASD Tug 2810 Hybrid 'Noordzee'



## EMBLA: Tough 'workhorse' RIB based on innovative ÖK Hull formula

Builder ..... **Rafnar**  
 Designer ..... **Össur Kristinsson/Páll Einarsson**  
 Vessel's name ..... **Embla**  
 Owner/operator ..... **Rafnar**  
 Country ..... **Iceland**  
 Flag ..... **Iceland**  
 Total number of sister ships  
 already completed ..... **3**  
 Total number of sister ships still on order ..... **4**  
 Contract date ..... **Classified**  
 Delivery date ..... **Classified**

*Embla* represents the debutante in Icelandic boatyard Rafnar's Leiftur 1100 Cabin Explorer RIB class, developed to achieve and maintain high operational speeds in the roughest of environments. Indeed, the 11.1m RIB's 1,307nm maiden voyage from Iceland to Gothenburg, Sweden, which took place in May 2016, saw her take all the North Atlantic had to throw at her in terms of wind, rain and even an outboard-wrecking log. However, a minor repair aside, *Embla* and her six-man complement made it to Sweden unscathed, justifying the Leiftur 1100 Cabin Explorer RIB's reputation as the 'workhorse' of the Rafnar range.

*Embla's* backbone is the ÖK Hull, which was designed and perfected in-house by Rafnar and debuted in 2015. Compared to similarly sized planing or semi-planing hulls, the ÖK Hull has been developed to provide unusually high levels of stability and comfort at high speeds (especially when travelling at 40knots or more) – considerations that are becoming increasingly scrutinised as naval, police and military customers look to combat fatigue and the likelihood of whole body vibration-related injuries.

Also, while being displacement-type hulls and remaining, for the most part, in the water, the ÖK

Hull concept enables the vessel to power forward without creating a displaced-water 'bow-wave', and simultaneously avoiding the formation of a 'hole' in the transom area behind the boat. Therefore, when powering forward at speed, or decreasing speed rapidly, the boat constantly retains an 'even-keel' aspect, not fighting to overcome the water ahead and attempting to 'climb over the hump', and likewise not falling back into the 'hole' when decelerating suddenly.

Although *Embla* is fitted with 184kW Evinrude outboards, developments have seen Rafnar approach Lloyd's Register for build certification for motors such as Mercury's 298kW Verado range, which could take the RIB type's speed up to more than 50knots. The vessel can be picked up and stowed aboard any mothership with room for a RIB of between 4-6tonnes, and, aside from her obvious advantages as a military/SAR craft, the boat could equally be used as an effective, safe and stable tender for superyacht and megayacht guests; if her cross-North Atlantic escapades couldn't daunt her, recreational life in the Mediterranean certainly won't.

### TECHNICAL PARTICULARS

Length, oa ..... 11.1m  
 Length, bp ..... 9.95m  
 Breadth, moulded ..... 2.6m  
 Depth, moulded ..... 0.8m  
 Gross tonnage ..... 11.02tonnes  
 Displacement ..... 4.3tonnes  
 Design, draught ..... 0.55m  
 Design, deadweight ..... 2.5tonnes  
 Lightweight ..... 3.8tonnes  
 Deck space ..... 22m<sup>2</sup> (total)  
 Max speed ..... 42knots  
 Range (nautical miles) ..... 230  
 International regulations complied with

Lloyd's Register SSC (hull and structure)  
 Icelandic Transport Authorities  
 (electrical/bilge systems)  
 Bollard pull ..... 4.95tonnes  
 Main engine(s)  
 Make ..... Evinrude  
 Model ..... E-TEC G2  
 Number ..... 2  
 Output of each engine ..... 184kW  
 Gearbox(es)  
 Make ..... Evinrude  
 Output ..... 0.54 ratio  
 Propeller(s)  
 Material ..... Stainless steel  
 Manufacturer ..... Evinrude  
 Number ..... 2  
 Fixed/controllable pitch ..... Fixed (20")  
 Diameter ..... 380mm  
 Open or nozzled ..... Open  
 Alternator(s)  
 Make ..... Evinrude  
 Number ..... 2  
 Output of each set ..... 50A for  
 battery charging  
 Bridge electronics  
 Radar(s) ..... Garmin HD18  
 Autopilot ..... Garmin GHC 20  
 GMDSS ..... Sailor 6215  
 Other communications systems  
 Handheld VHF  
 Iridium satellite mobile telephone  
 GPS ..... Garmin 7212  
 Chart plotter ..... Garmin 7212  
 Onboard capacities  
 Fuel oil ..... 600litres  
 Complement  
 Crew ..... 2  
 Passengers ..... 4  
 Number of cabins ..... 0

