

# Paving the way for greater environmental performance



Illustration of the *Color Hybrid*



The *Venture Joy* in Hamburg

**INNOVATIVE VESSELS** | The Nor-Shipping 2017 event in Oslo was the occasion for two vessels to win design awards – the Energy-Efficiency Award and the Next Generation Award, respectively.

For the Energy Efficiency Award, the judging panel chose *Venture Joy*, a 43,500 dwt, geared Handysize bulk carrier designed by Finland's Deltamarin for Hamburg Bulk Carriers (HBC), Germany, under project title HBC43. *Venture Joy* is of the specially tailored B.Delta43 design and is 190m long, 30m wide and was delivered in August 2016. Built at the Qingshan Shipyard in Wuhan, China, the Lloyd's Register-classed *Venture Joy* is equipped with an MAN B&W 5S50 ME-B9.3 Tier II, LNG-ready engine.

According to the jury at Nor-Shipping, the vessel has been assessed as meeting the highest

Energy Efficiency Design Index (EEDI) requirements, which will be demanded from 2025 onwards, with a CO<sub>2</sub> emission level 40% below the average for the Handysize fleet. But the ship's design is also intended for further upgrades to its environmental protection measures that will reduce CO<sub>2</sub> emissions by a further 20%.

Responsible for this result is a combination of hydrodynamic optimisation, including a broad use of CFD in ship design and trim optimisation, a larger propeller with higher propulsion efficiency, optimised main and auxiliary machinery and an operation trade optimisation, explained Captain Stefan Bülow, managing director of Hamburg Bulk Carriers GmbH & Co. KG.

The HBC43, which is 10m longer than Deltamarin's established B.Delta37 design, also features

improved manoeuvrability compared with standard class bulk carriers and very low vibration levels due to the optimised propulsion arrangements, the naval architecture and engineering firm Deltamarin states.

Also shortlisted for the award were the cruise vessel *Harmony of the Seas*, the LNG/hybrid-propulsion RoPax ferry *Seaspan Swift* and the MISC Berhad-owned LNG carrier *Seri Camellia*.

## Next Generation Ship Award for hybrid ferry

Also at Nor-Shipping, the design of a hybrid ferry with capacity for 2,000 passengers and 500 cars won the Next Generation Ship Award. The award was handed to Color Line CEO Trond Kleivdal to mark the most promising design of ship that will be in operation over the next decade.

Due for delivery in two years' time, the 120m-long *Color Hybrid* has been designed by Norway's Fosen Yard and is now under construction at Ulstein Verft. It is a plug-in hybrid with batteries that can be recharged via power cable with green electricity from shore, or by generators on board. The 5-MWh battery package will provide sufficient power for up to 60 minutes of manoeuvring and sailing speeds of up to 12 knots.

The ferry will be deployed on the service between Sandefjord and Strømstad and will operate solely on batteries while sailing in and out of the fjord near Sandefjord. The vessel will not emit any carbon dioxide, nitrogen or sulphur compounds during this time and will generate very little noise during battery operation and whilst berthed in port at night.



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