



Cooperation Agreement between Becker Marine Systems and MAN Diesel & Turbo

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Manoeuvring specialists and propulsion specialists have agreed to cooperate, develop and optimise efficient aft ship solutions for the future ship designs.

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At a signing ceremony on 25 November in Augsburg, Germany a Cooperation Agreement was settled between Becker Marine Systems GmbH & Co. KG and MAN Diesel & Turbo SE.

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On an individual basis, both the manoeuvring and rudder specialists and the propeller and propulsion specialists of the marine industry have in parallel optimised their solutions in way of efficiency. And with great success efficiency gains have been exploited over time. The next step for further refinement and optimisation requires a more holistic approach to all the design parameters associated with integrated aft ship solutions. New possibilities, however, are offered by today's advanced flow and pressure simulation tools like e.g. CFD (Computational Fluid Dynamics). Becker and MAN agree that this is where further improvements can be obtained. A common target - with clear benefits for ship designers, operators and owners. A chase for new potentials within thrust management, propulsion efficiency, cavitation control and noise reduction – resulting in improved manoeuvrability, lower fuel consumption, reduced exhaust gas emissions and better onboard comfort.

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The aim of the Becker/MAN cooperation agreement is to further develop and optimise integrated propulsion and manoeuvring solutions related to:

- Complementary design for MDT propulsion bulb and BMS high performance rudders
- Combined optimisation of propellers and energy saving devices
- Steerable nozzles, high-efficient nozzle profiles and alignment with propellers

Klaus Deleroi, Senior Vice President and Head of MAN Diesel & Turbo's Business Unit Medium Speed, expresses his satisfaction with the agreement: *"Both parties, Becker and MAN, have unique engineering know how to offer each other, and we have great expectations to the combination and outcome of these key competences"*.



Until further, the cooperation agreement has duration of five years, and the practical implementation of the cooperation into the daily work – will mainly affect Becker's Hamburg department and MAN's Aft Ship Unit in Frederikshavn, Denmark.



25 November, ready to go – the cooperation agreement between Becker Marine Systems and MAN Diesel & Turbo signed and confirmed by Henning Kuhlmann, Becker Marine Systems (left) and Klaus Deleroi, MAN Diesel & Turbo.



The management team of the cooperation between Becker Marine Systems and MAN Diesel & Turbo - from left Karsten Borneman, Jens Ring-Nielsen, Peter Wagemann, Henning Kuhlmann, Jörg Mehltau, Klaus Deleroi, Heiko Schmidt and Karsten Suchier.



becker marine systems



MAN Diesel & Turbo

About Becker Marine Systems

The Hamburg/Germany-based Becker Marine Systems company is the market leader for high performance rudders and manoeuvring solutions for any type of ship. Becker's reliable rudder systems are the top choice for super tankers as well as mega container ships, passenger ferries, large cruise vessels and luxury yachts. Over 100 specialists are employed worldwide in Becker offices in Germany, China, Singapore, Korea and Norway. Additionally, a global network of agencies in almost every important centre of the shipbuilding industry ensures competent consultancy and service to customers around the globe. Becker Flap Rudders are known worldwide and they are famous for providing the highest manoeuvrability. The TLKSR® Twisted Full Spade Rudder for large and fast ships is today's successful solution in avoiding rudder erosion from cavitation and additionally saves fuel during ship operation. The Mewis Duct®, a new fuel saving and environmentally friendly device for vessels with high block coefficient, has had a very promising market launch since its introduction in 2008. Becker products have been installed on over 7,000 ships. In 2009 the company delivered over 300 rudder systems to 25 countries.

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About MAN Diesel & Turbo

MAN Diesel & Turbo SE, based in Augsburg, Germany, is the world's leading provider of large-bore diesel engines and turbomachinery for marine and stationary applications. It designs two-stroke and four-stroke engines that are manufactured both by the company and by its licensees. The engines have power outputs ranging from 450 kW to 87 MW. MAN Diesel & Turbo also designs and manufactures gas turbines of up to 50 MW, steam turbines of up to 150 MW and compressors with volume flows of up to 1.5 million m³/h and pressures of up to 1,000 bar. The product range is rounded off by turbochargers, CP propellers, gas engines and chemical reactors. MAN Diesel & Turbo's range of goods includes complete marine propulsion systems, turbomachinery units for the oil & gas as well as the process industries and turnkey power plants. Customers receive worldwide after-sales services marketed under the MAN PrimeServ brand. The company employs around 12,700 staff at more than 100 international sites, primarily in Germany, Denmark, France, Switzerland, the Czech Republic, Italy, India and China. MAN Diesel & Turbo is a company of the Power Engineering business area of MAN SE, which is listed on the DAX share index of the 30 leading companies in Germany.

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