

## Lemwerder, 20. December 2019

Abeking & Rasmussen has been awarded today a new contract by the Federal Waterways Engineering and Research Institute (BAW) to design and deliver two multi-purpose vessels. Both new vessels are to serve as replacements for the seasoned multi-purpose vessels "Mellum" and "Scharhörn". The operational area for the globally authorized vessels is the German Bight. Home ports are the Waterways and Shipping Offices in Wilhelmshaven and Cuxhaven.

The new vessels are to be considerably larger than their predecessors, measuring 95 m in length and 25 m in width with a maximum draught of 6.1 m. Both vessels will be equipped with engines providing over 12,000 kW output in order to reach speeds of over 15 kn and bollard pull of at least 145 t. A helipad will be located on the bow and a winch system at the stern. This enables a swift and safe boarding of specialised task forces while in operation.

The operational area of the multi-purpose vessels is manifold, ranging from work on sea marks, Waterway Police missions to contaminant control and firefighting operations, providing assistance in case of emergency as part of the International Convention for the Safety of Life at Sea as well as deployment of hydro acoustic facilities. In addition to 16 crew members, the vessels can accommodate up to 34 armed forces personnel.

Both vessels are outfitted with extensive towing equipment in order to successfully execute emergency towing missions. The main tow winch carries 1,000 m tow wire with a diameter of 64 mm. In addition, emergency grapnel equipment is able to stop floating shipwrecks or disabled vessels in case the towline cannot be used.

One of the technical special features of both multi-purpose vessels is the exclusive use of the liquid natural gas (LNG). In order to safely carry out firefighting missions in toxic or explosive environments, we have further developed the already tried and tested technologies.

We have taken all safety measures, together with out partners, to ensure no methane gas leakage occurs, which is of vital importance during firefighting operations. The entire LNG- and piping systems are double coated and encased in protective gas. In the unlikely instance of gas leakage, methane stays trapped in the protective casing.

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We have, furthermore, agreed with our engine suppliers, the Rolls-Royce Power Systems AG (RRPS), that the B36:45L6AG LNG-engines will be specifically designed to be safely used in explosive environments. The engine manufacturer Bergen Engines, which is part of the RRPS Corporation, will be supported in this enterprise by its sister company MTU Friedrichshafen. Whereas the Norwegian engine manufacturer capitalizes on its longstanding experience and competence in designing and manufacturing LNG-engines, the MTU has been developing engines used in exactly such special missions since 1986.

The first multi-purpose vessel will be delivered in 39 months, the second following nine months later. We will face and master the challenges of constructing such specialized and complex vessels in such a short time together.

I would like to express my deepest thanks to all those involved with this successful tender. Together we will make sure this contract is a triumph for our shipyard and our customers.

Hans Schaedla

**ABEKING & RASMUSSEN**