

Heavy lifting capacity combined with low maintenance costs

Words: Torben Blaaholm, CEO, Blaaholm A/S



Torben Blaaholm

The new crane offers the following key features: a lifting capacity of 1000kg to 2000kg, automatic and manual overload protection systems and special features for easy access for the servicing. We also provide a special service through a partnership with Fanø Kran-Service, which provides great benefits for our customers.

We developed the Davit Crane in cooperation with our customers in the wind industry, due to the increased weight on future components used in wind turbines, which places greater demands on the current onsite crane capacity.

It's new to the market and the reduced service costs and competitive prices have

Blaaholm designed and manufactured the Davit Crane because of the increased weight of future wind turbine components, which puts greater demands on crane capacity and the demand for savings on service costs from their customers. PES sat down with Torben Blaaholm to find out more about this crane's innovative features.

secured early success. There are already signed contracts and we have been invited to tender on a significant number of offshore wind projects.

Located in Esbjerg, Denmark, Blaaholm has developed and produced lifting equipment for the wind industry since 2008. We supply solutions worldwide within 4 business areas: tower production, wind industry, automation & service.

Special attention to simple service and maintenance

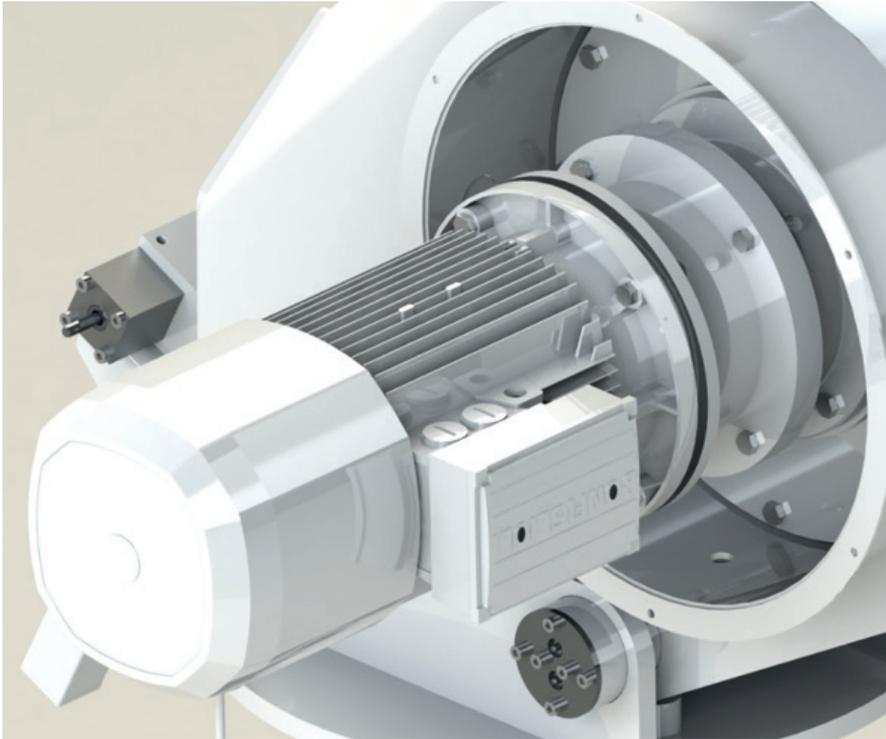
The purpose of our Davit Crane is to lift materials, from supply vessels onto the laydown area of the transition piece deck, during the operational and commissioning phase.

It has been designed with special attention to simple service and maintenance to ensure stable operation and minimal service costs on the crane.

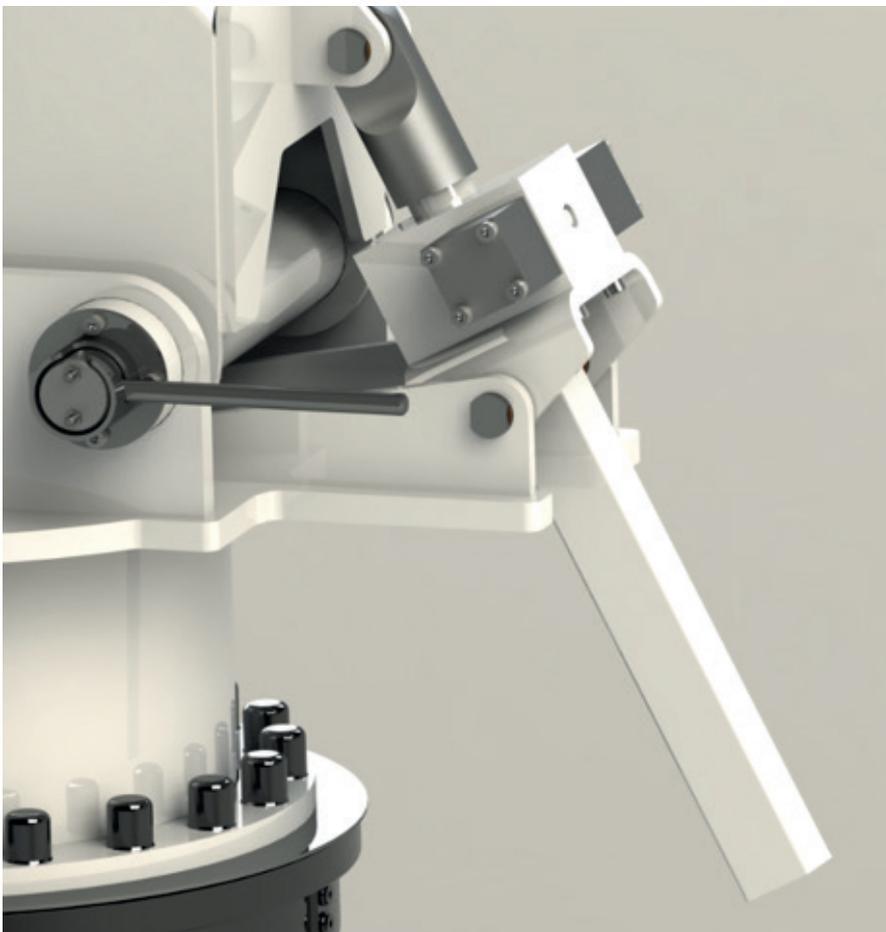
From start to finish, the development of the crane had the overall aim of creating a quality product, reducing overall service cost and keeping it at a competitive price. During the design phase we had numerous sessions with customers, users and service providers to incorporate expertise and requested features from the market

It is possible to tilt the boom by a mechanical actuator, which enables visual control of the entire boom without using scaffolding or other helping structures. This feature also allows access to the two 2 tons lifting eyes located at the end of the boom.





Centrifugal brake mounted between motor and gearbox. Mechanical friction clutch mounted between motor and gear box (option)



Mechanical screw jack allows the boom to be lowered for maintenance

One lifting eye is dedicated to emergency lowering; the other is for general use.

The crane's slewing function and tilt function are manual, which allows the use of the crane structure under the commissioning of wind turbines, with no electricity present.

The best corrosion protection

The structure is designed and manufactured according to relevant international crane standards, full traceability is ensured in the entire production. The Davit crane is corrosion protected according to EN/ISO 12944-2 class C5M-H, and all components have been chosen for the greatest possible resistance to wind and weather. This includes stainless steel shafts and bronze lining surfaces, so the corrosion protection is best available for these critical areas.

The Davit crane is produced with a lifting capacity ranging from 1000 kg to 2000 kg and can operate at SWH=2,0 (according to EN13852-1/DNVGL-ST-0378), similar to Sea State 4. A WLL of 3000 kg can be facilitated on the standard crane, with a purpose made driveline with downgraded SWH requirements.

The crane's working radius is ranging from 2,6 meters to 4,0 meters, and is customized to the customer's current need due to flexible design. The crane has a wire speed at min. 18m/min, but can be customized as well.

AOPS and MOPS systems

The crane has several overload protection systems, designed according to EN13852-1 (AOPS og MOPS). The systems prevent the crane from overloading when lifting to a floating vessel, where the load or the crane hook can get caught in the vessel.

The two step overload protection system stops the crane at 110% capacity. At 140% capacity the hoisting brake will be disengaged. If overload persists, the entire length of wire will be spooled off the drum (AOPS, Automatic Overload Protection System). At 150% capacity, a there is a mechanical friction clutch slip to protect the structure.

In addition to the automatic systems, there is an option to activate MOPS function (Manual Overload Protection System). If overload persists, the entire length of wire will be spooled off the drum

Maintenance by Fanø Kran-Service

Blaaholm offer service and maintenance on the Davit Crane in partnership with Fanø Kran-Service to provide our customers attractive solutions, Fanø Kran-Service has provided service and maintenance of all types of cranes since 1995. They perform service worldwide on all types of vessels, platforms and installations within the oil, gas



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and wind turbine industries and the maritime sector. Blaaholm and Fanø Kran-Service have worked together for several years, and are also located in Esbjerg, Denmark.

'We really appreciate the fact that the design of Blaaholm Davit Crane has had significant focus on lifetime services utilising field experience. This will ensure safe and optimal working conditions offshore and reduce maintenance costs significantly,' explains John Krogh, Assisting Service and Project Manager at Fanø Kran-Service. The service setup of the Blaaholm Davit Crane is illustrated in Figure 1.

The commissioning onshore at TP manufacturers is completed by Fanø Kran-Service at a specified location. There is also the option of Fanø Kran-Service training the customers' technicians or the TP manufacturers to handle the commissioning. The training course is held in Esbjerg or at the TP manufacturers.

The commissioning offshore includes electrical assembly and SAT performed by Fanø Kran-Service, who must carry out the maintenance at least during the first year's warranty period and the last year of that period. In between services can be provided by the customers' trained personnel. This is the same for after the warranty has expired.

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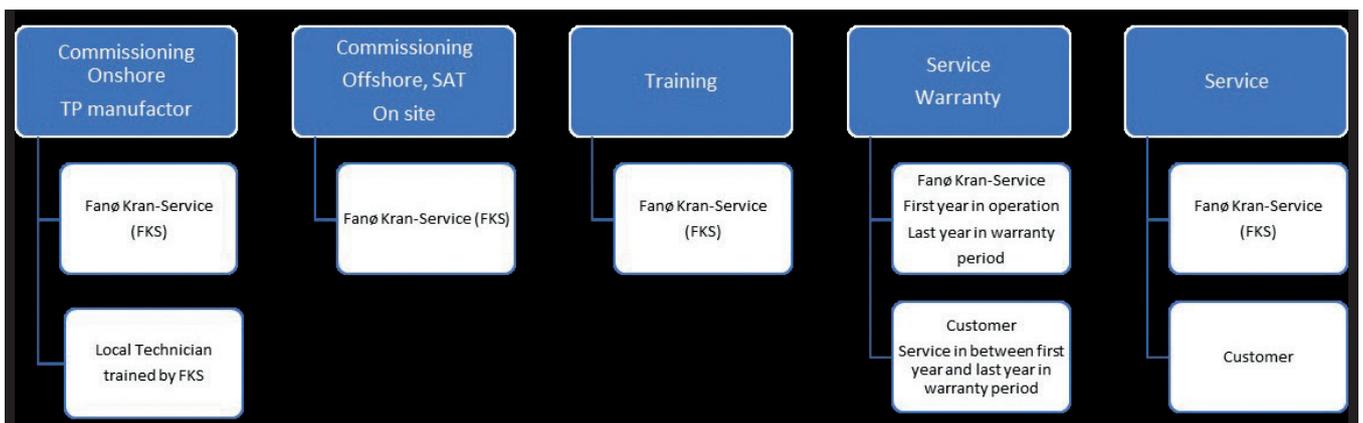


Figure 1 Blaaholm service setup