

HUISMAN INTEGRATES SYSTEM FOR CONTROLLED BLADE INSTALLATION INTO CRANES FOR HAVERAM

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Huisman has received an order for the delivery of a Travelling Load Stabilising System, which will be integrated into both 3,000+mt Leg Encircling Cranes for Havfram's two new NG-20000X-HF Wind Turbine Installation Vessels.

The Travelling Load Stabilising System enables Havfram to stabilise wind turbine components during installation, particularly blades, but also nacelles and tower segments.

In 2023, Huisman and Siemens Gamesa combined their engineering and operational expertise to launch the patented Travelling Load Stabilising System, designed to mitigate safety risks, reduce the cycle time and increase workability during the installation of components. The system is now being adopted by other turbine manufacturers as well, further advancing sustainability across the wind industry.

The system consists of a combination of two pairs of tuggers working in unison to control to position of the load. One pair is fitted on independent trolleys that can travel along an integrated rail along the crane's stiff boom. Thanks to the rigid connection between the rail and the crane boom, the system as a whole becomes more stable, resulting in more reliable and effective control.



The trolleys automatically follow the main block to maintain an optimal tugger line configuration. The second pair of tugger lines is deployed from the crane tip providing a force perpendicular to the first pair of tuggers. By approaching the load from two different directions, the system provides significantly more control than a conventional single pair of tuggers.



A specially designed control system holds the actual position of the load, resulting in a much stiffer restraint, and therefore a higher position accuracy compared to conventional tugger systems that rely on constant tension. In case of an unexpected overload, the system will give way but will return to its position setpoint when the force drops below the threshold again.

The Travelling Load Stabilising System will function as an integral part of the cranes and will be operated from the crane cabins as well from an optional walk around box (WAB).

The Leg Encircling Cranes and Auxiliary Crane packages are currently under construction at Huisman's production facility in Zhangzhou, China. Upon completion, they will be delivered to Yantai CIMC Raffles Offshore Ltd., where they will be installed on the NG-20000X-HF Wind Turbine Installation Vessels being built for Havfram.

Features & benefits of the Travelling Load Stabilising System

- Effective load control because tuggers are always at the optimal elevation.
- The boom trolleys have a much higher stiffness compared to flexible tagline increasing control and workability.
- The winches operate in position control which is much stiffer compared to constant tension mode
- Operation of the tuggers is fully integrated with the crane's control system.
- Suitable for lifting operations.
 - o Time consuming boom luffing is not required.
 - Suitable for man riding.
- On request tuggers can be automated for specific tasks with all other crane parameters as input.

ABOUT HUISMAN

Huisman is a worldwide supplier of step changing technical solutions to the world's leading companies in renewable energy, oil and gas, civil, naval and entertainment markets. Projects vary from standalone components to highly engineered integrated systems, from concept to installation and life time support. Huisman operations are divided between offices in The Netherlands, Brazil, China, Czech Republic, Norway, Singapore and the USA and facilities in The Netherlands, Brazil, Czech Republic and China.

ADDITIONAL INFORMATION

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