

Record-breaking transport of turbine tower section

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Mammoet Wind, the turnkey solution provider for the wind energy industry, successfully completed the offloading and transport of four wind turbine components for the Østerild wind turbine test field in Denmark. The components included one nacelle and three tower sections. This was an exceptionally heavy wind turbine transport, with more than 700 tons of components moved. It was also unusual as the base tower section was moved in a vertical position. OCTRA and COORDINADORA, the two companies in charge of the transport, needed a specialist transport company to carry out this delicate operation.

Mammoet successfully completes challenging vertical transport of wind turbine base tower

The tower's electrical components were pre-installed at the factory. As a consequence the 29-meter-high T1 base tower could not be transported in the conventional way – in a horizontal position. COORDINADORA and OCTRA shipped all four wind turbine components from the factory to the port of Hanstholm. Here the transport vessel's cranes lifted the 228-ton base tower, in its upright position, onto Self-Propelled Modular Transporters (SPMTs) for onward transport.

The 22-kilometer-long route from port to installation site was closed by local police to ensure a clear and safe route. Using SPMTs for the transport ensured the stability, integrity and safety of the upright load over uneven roads and inclinations. Measures were taken to minimize traffic disruption and to ensure a bridge on the route could withstand the weight of the load. Close coordination with the authorities for this operation enabled Mammoet to swiftly transport the T1 base tower to site in Østerild, arriving two hours ahead of schedule.

The other two tower sections T2 and T3, weighing 104 tons each, were transported separately, in the more usual horizontal position, using trucks and conventional trailers. The 420-ton nacelle was also transported by Mammoet Wind on conventional trailers with two trucks at the front to pull and steer and one truck at the back to push. The entire operation included a total of more than 700 tons of transport weight – constituting a worldwide record for a wind turbine transport. At site, all stools were prepared for Mammoet Wind to lift and lower the components onto them. Mammoet Wind executed all four transports smoothly and safely enabling the client to start operation of the turbine right on time.

