

Liebherr tower crane enables a completely pre-assembled rotor to be installed

- Precise lift of a pre-assembled rotor weighing 70t to a height of 142.5 m
- Crane integrated in the system's foundation
- Logistic benefit for transporting and erecting the large crane

Biberach / Riss (Germany), 26 May 2015 – World premiere - The largest Liebherr tower crane model the 1000 EC-B 125 Litronic made it possible to lift a completely pre-assembled rotor, with a diameter of 113m, for a new wind turbine in Deining, Bavaria. The flat-top crane with a hook height of 155.5 m hoisted the assembly weighing almost 70 tonnes to a height of 142.5 m.

The wind farm in Deining in the Rural District of Neumarkt in Upper Palatinate is one of the leading producers of wind energy in Bavaria. In March of 2015, the hybrid tower at the Deining wind farm was fitted with a new turbine wheel. The job was carried out using a Liebherr 1000 EC-B 125 Litronic tower crane (load capacity: 125 tonnes) the most powerful tower crane that Liebherr has in its portfolio. The 1000 EC-B 125 Litronic, was specially designed for the erection of wind turbines. Even with strong winds the performance of the Liebherr crane allowed for the safe, fast and precise installation of the pre-assembled rotor. One of the advantages was that the Liebherr EC-B 125 Litronic with its variable crane drive and with the MICROMOVE function allowed for the precise and pin point positioning of the heavy load.

To minimise the required crane surface at the construction site, the flat-top crane was integrated in the foundation of the wind turbine. As a result less forest area had to be cleared.

To achieve the required maximum lifting height of 155.5 meters, simple bracing of the crane to the tower of the wind turbine was all that was required. The installed foundation can also be used for future service and maintenance work by smaller cranes. As the machine does not require oversize hauling equipment, transport is comparatively easy, which represents an additional key advantage of this huge crane.

In project discussions this advantage played a key role in the decision, as the Deining wind farm is located in a difficult-to-access section of the forest.

The area required to erect the Liebherr 1000 EC-B 125 Litronic is also only approximately half the size of the area required to erect conventional crane systems. "The wind energy experts at Max Bögl Wind AG worked closely with our expert 'Tower Crane Solutions' team on this project", said Thorsten Hesselbein, Manager of Tower Crane Solutions at Liebherr-Werk Biberach GmbH. "It is particularly important for new challenges like this unique installation job that customers can rely on the wide-ranging expertise at Liebherr".

Captions

liebherr-tower-crane-1000ecb-rotor.jpg

Liebherr 1000 EC-B 125 Litronic lifting rotor star (diameter: 113 m/ weight:~ 70 tons) to the tower of the wind turbine (height of 142.5 m).

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