LTM 11200-9.1 mobile crane assembles special Liebherr construction crane for Max Bögl energy storage project

- Liebherr mobile crane assembles 630 EC-H on foundations 40 metres high
- LTM 11200-9.1 also positions the lower concrete segments of the system tower
- The highest wind turbines in the world will be erected by the end of the year
- The water battery combines wind turbines with a pumped-storage power plant

Ehingen / Donau (Germany) 24 November 2017 – Tower cranes were assembled in September on the natural electricity storage site at Gaildorf, an innovative energy storage project being completed by the Max Bögl Group in southern Germany. The contractor erected the highest wind turbines in the world there. Max Bögl is combining the wind turbines with a pumped-storage power plant. A Liebherr mobile crane was used to assemble the 630 EC-H top-slewing cranes from the same manufacturer. On the site near Schwäbisch Hall, the LTM 11200-9.1 assembled the three massive construction cranes on the 40-metre high foundations of the wind turbines which are also used as water storage basins.

The assembly of each of these large special cranes for wind turbines, with which Max Bögl has erected a large number of wind turbines over the last five years, took around two days. On the current site the cranes reach hook heights of 190 metres above the ground. One of the four LTM 11200-9.1 cranes operated by the construction group placed the construction cranes on the 40-metre storage towers for the system. The heaviest component of the tower crane was the main jib which weighed around 23 tonnes.

The mobile crane had to manage significantly larger load cases, namely up to 90 tonnes, during the construction of the lower system tower. A radius of 26 metres was required for this work as a result of the large storage basin around it. As from a height of 76 metres above the ground, the construction crane then took over the assembly of the remainder of the tower.

These systems, which are currently under construction in Gaildorf and are due to come online by the end of the year, are being erected by Max Bögl, a construction,

technology and service company based in Sengenthal in Bavaria, and will be the highest wind turbines in the world. The rotor blades will catch the wind at an altitude of 246.5 metres. The special feature of the wind turbines built on a mountain ridge is their positioning on giant storage basins. At a later date, these will be connected to a modern hydroelectric power plant and a water storage basin in Kocher Valley. This will enable the system to compensate for the fluctuating power generation capacity of the wind turbines. In high winds, when more electricity is generated than can be fed into the network, water will be pumped from the lake at the bottom into the high storage basins. When there is little wind, electricity can still be generated in the pumped-storage power plant.

In addition to mobile and tower cranes, Liebherr machines supplied by the Special Foundations and Earth Moving Divisions are also in action at the energy storage project in Gaildorf.

Captions:

liebherr-ltm-11200-max-boegl-tower-crane-1.jpg
An LTM 11200-9.1 operated by the Max Bögl Group assembles a Liebherr top-slewing crane on the energy storage project site at Gaildorf.

liebherr-ltm-11200-max-boegl-tower-crane-2.jpg
The maximum support base of 13x13 metres provides the LTM 11200-9.1 with the stability it needs. In the background you can see an LTM 1130-5.1 acting as an auxiliary crane.

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Published by

Liebherr-Werk Ehingen GmbH
Ehingen / Donau, Germany
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