

Liebherr erects tower crane at an altitude of 225 metres

- Complicated erection of an 85 EC-B 5 FR.tronic Flat-Top crane on Baden-Württemberg's tallest building
- Liebherr 280 EC-H 12 Litronic and 85 EC-B 5 FR.tronic top-slewing cranes increase material handling capacity
- 245 metre elevator tower and two Liebherr tower cranes dominate the landscape in Rottweil

Biberach / Riss (Germany) February 2016 – A Liebherr tower crane was erected on Baden-Württemberg's tallest building, the elevator test tower in Rottweil, with the aid of a 280 EC-H 12 Litronic. The 280 EC-H 12 Litronic with a hook height of 265 metres will now be supported by an 85 EC-B 5 FR.tronic. Together the two Liebherr cranes will ensure excellent load handling on the site.

The two Liebherr tower cranes are currently working on the interior fittings, the facade and on the surrounding construction work for the test tower in Rottweil. The 280 EC-H 12 Litronic was operating during the carcass phase and climbed to a final hook height of 265 metres as the elevator test tower grew into the air. An 85 EC-B 5 FR.tronic Flat-Top crane has now been erected on the top of the building for the interior fittings work. A demanding erection process on Baden-Württemberg's tallest building.

Using Micromove fine positioning mode, the 280 EC-H 12 was able to position the crane components for the 85 EC-B 5 with maximum precision even at an altitude of 225 metres. The 85 EC-B 5 FR.tronic was bolted to a steel structure specially manufactured for this purpose. "This steel structure had to be permanently connected to the building, assembled with millimetre precision and must not bend even when loaded to ensure the stability of the crane at this altitude when it is both operating and shut down", says Project Manager from Liebherr Tower Crane Solutions, Michael Weiss Schädel. "The base tower section is directly secured to the steel structure. That means economical installation using standard Liebherr tower sections".

The 85 EC-B 5 was erected with a special short jib with a radius of just 12.5 metres so that the two cranes can work together easily in a small space without hindering each

other. That ensures that both cranes can provide outstanding handling capacity. As a result of its special configuration, the 85 EC-B 5 FR.tronic is capable of reaching the required 260-metre hoist height even with the high performance standard hoist gear. With its short jib the 85 EC-B 5 can hoist 4.2 tonnes despite the enormous hoist height. In addition, the crane has been fitted with an additional resistor cabinet to provide high-speed, long-term lowering.

The 280 EC-H 12 Litronic was fitted with a 110 kW high performance hoist gear to enable it to handle loads at high speed at great altitude. In combination with the second tower crane, the 85 EC-B 5 FR.tronic, this saves a good amount of time for the general contractor, Züblin.

Liebherr-Werk Biberach GmbH, the Nagel Group of Companies and Züblin AG worked closely together on planning the job. Together they were able to prepare the perfect plan for the site and ensure the high-speed erection of the crane.

Thyssen-Krupp has invested around 40 million euros in the construction of the tower. The tower has a total of twelve shafts for testing elevators – including the first cable-less elevator in the world. This will significantly increase personnel transport capacity. The elevator tower will also have a visitor platform open to the public. This will be the highest in Germany.

Captions

liebherr-elevator-test-tower-280-ec-h-rottweil-1.jpg

Two Liebherr tower cranes working on the construction of the elevator test tower in Rottweil

liebherr-elevator-test-tower-280-ec-h-rottweil-2.jpg

Liebherr 280 EC-H 12 Litronic and 85 EC-B 5 FR.tronic top-slewing cranes increase material handling capacity

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