

Liebherr cranes make expensive floating crane use superfluous

- Mammoet completes job in Berlin with tandem hoist over a canal next to the River Spree
- LTM 11200-9.1 and LTM 1750-9.1 position 80-tonne supports
- Major benefits from completing the job from one bank

Ehingen / Donau (Germany), 23 November 2018 – The Mammoet outlet in Leuna made quite an impression with a smart solution and the use of two large Liebherr mobile cranes on a site in Berlin. The positioning of lattice supports weighing around 80 tonnes for a future municipal railway bridge from just one side of the river made both financial and logistic sense compared to the use of a floating crane, which was also considered.

The installation of three lattice supports for the substructure of a bridge over a side channel of the River Spree proved to be a complicated logistical challenge as a result of the space available. One bank near the site could not be used for a crane as it was already home to a construction crane. Therefore, the contractor initially planned to erect the supports using a floating crane. However, as a floating crane was not available for some considerable time, the managers had to seek an alternative solution. The decision was made to adopt a suggestion by the crane specialists at Mammoet based in Leuna which plan to install the 40 metre lattice constructions from just one bank of the river. Furthermore, the crane job would not only be completed more quickly, the cost would also be significantly lower than the original floating crane version.

Because the company's own mobile crane with a 1200 tonne lifting capacity was not available in the short term for the hoist, Mammoet planning staff René Xyländer and Tom Schladitz obtained a machine from Megalift based in Bremen to complete the demanding job in the German capital. This powerful Liebherr LTM 11200-9.1 mobile crane was fitted with a 48-metre luffing jib. This made it responsible for the hoists to the opposite bank and therefore for the large radii. The modern crane had to handle a gross load of 40 tonnes with a distance of around 50 metres. An LTM 1750-9.1 was assembled very close to it to take hold of the other end of the supports. Due to its

significantly smaller radius, this mobile crane managed to operate with a smaller support base of ten by ten metres. In fact, there was no more space available at the extremely restricted assembly site.

The ends of the supports had to be placed under the existing structure

The steel lattice constructions were then swung over the water by the two Liebherr cranes with great care. The main difficulty involved the end phase of the hoists, as the ends of the supports had to be placed several metres under the existing bridge connection on the opposite side of the canal. However, Heiko Bischoff, at the controls of the more powerful crane, and the crane operators in the Mammoet machine, Rainer Schmidt and Daniel König, precisely followed the commands issued by the marshalling fitters and move the components accurately into their final positions.

The site on the River Spree is part of Berlin's S21 municipal railway project, an undertaking costing around 900 million euros, is aimed at improving links to the central railway station by creating a second north-south in Berlin's municipal railway system (S-Bahn). This is not the first time that Mammoet cranes have worked on one of the sites of this major infrastructure project.

Mammoet's German outlet based in Leuna (Saxony-Anhalt) has around 50 mobile cranes, the majority of which are Liebherr machines. The most powerful crane in the fleet is also a Liebherr product in the form of an LTM 11200-9.1.

Captions

liebherr-ltm-11200-9-1-megalift-1750-9-1-mammoet-a.jpg

Imposing – with its 48-metre luffing jib, the LTM 11200-9.1 hoists one end of the support over the canal.

liebherr-ltm-11200-9-1-megalift-1750-9-1-mammoet-b.jpg

Tricky – part of the lattice support is positioned under the existing bridge connection.

liebherr-ltm-11200-9-1-megalift-1750-9-1-mammoet-c.jpg

Precise – the structural steel workers move the construction into its final position with centimetre precision.

liebherr-ltm-11200-9-1-megalift-1750-9-1-mammoet-d.jpg

All finished – the last of the three lattice supports is in its final position and the hoisting equipment is removed.

liebherr-ltm-11200-9-1-megalift-1750-9-1-mammoet-e.jpg

Teamwork – satisfied crane operators after hoisting the final support. Rainer Schmidt from Mammoet (left) and Heiko Bischoff who controlled the LTM 11200-9.1 from Megalift.

Contact person

Wolfgang Beringer

Telephone: +49 7391 502-3663

Email: wolfgang.beringer@liebherr.com

Published by

Liebherr-Werk Ehingen GmbH

Ehingen / Donau, Germany

www.liebherr.com