Press release "The V-frame makes us extremely flexible"

- Installation of 165 tonne bridge using Wiesbauer's new Liebherr LR 11000
- Adjustable V-frame ballast system allows tolerances in load case forecast
- Wiesbauer GmbH increases its capacities with another LTM 1750-9.1
- New 800 tonne upgrade the main reason behind the purchase

The fourth generation of the owner family of crane and heavy haulage contractor Wiesbauer GmbH made their first trip to the Liebherr plant in Ehingen to take delivery of a crane. This traditional family-run company based in Bietigheim-Bissingen (Baden-Württemberg) has significantly upgraded its crane fleet. Not only did the Swabian company take delivery of another LTM 1750-9.1 mobile crane, but an LTR 1220 telescopic crawler crane and a new 1000 tonne crawler crane were also added to its fleet. This LR 11000 celebrated a fantastic premiere in summer by hoisting a bridge to the north-east of Stuttgart.

Ehingen / Donau (Germany), 9 October 2020 – When a major bridge construction project was started two years ago by Deutsche Bahn in southern Germany, Wiesbauer and its Liebherr LR 11000 crawler crane received the order to remove a 100 year old iron railway bridge. After two years operating with a temporary structure, the new bridge was finally installed at the site around 20 kilometres from Stuttgart at the beginning of September. However, the large crane used for the initial work was no longer available to conclude the construction project. Like many other models of this crawler crane operated by European crane contractors, that LR 11000 is now in long term use for "Buckner Heavylift Cranes" at a major wind power project in the USA.

Wiesbauer therefore used a brand new 1,000 tonne crawler crane to remove the temporary bridge and install the final bridge structure and also for subsequent projects. Although the LR 11000 had plenty of space for its crane operations two years previously to hoist the historic bridge, the conditions on site this time were significantly more restricted – there was very little space available for slewing operations, in particular, as a result of the assembly preparation areas for the new steel bridge and various prefabricated concrete components, containers and a great deal of other building material. However, using the adjustable V-frame, crane operator Thomas Kley was able to adapt to the lack of space and effortlessly

retracted the ballast pallet suspended from the derrick boom to a radius of 15 metres. After travelling around 20 metres on its crawler carriers, when the load was subsequently positioned with a radius of 61 metres, the total of 440 tonnes of suspended ballast was extended to a radius of 28 metres, in other words almost the maximum radius, using the V-frame.

Fluctuating load case forecasts - no problem for the V-frame

"The V-frame with VarioTray, with its wide radius range from 13 to 30 metres, delivers massive benefits on sites like this, it saves time and also often dispenses with additional ballasting work during the job", explained Marco Wilhelm, Authorised Signatory and Project Manager at Wiesbauer. "The calculations and forecasts for the bridge weight changed constantly during this job. But this ballasting system enables us to react very flexibly when necessary. We had to do so several times on this site as a wide range of loads from ten to 185 tonnes had to be hoisted using a very wide range of radii over the six weeks that the job lasted. For example, due to a change in the design, the largest load that required hoisting was in fact a 185 tonne prefabricated concrete component." For the jobs in the wind farm, which followed the bridge work, the crawler crane was once again operated exclusively with the V-frame and the VarioTray detachable ballast pallet. "We only need the full counterweight for erecting the crane. After that, we only use the undocked centre section of the suspended ballast on the wind turbines."

But Marco Wilhelm does not believe that the new crawler crane flagship of the Wiesbauer fleet will be restricted to wind power sites, he also thinks that the crane will be very useful for jobs in industry and bridge construction as well as large infrastructure projects. With around 80 cranes and a workforce of 160, Wiesbauer GmbH & Co.KG is a major provider of crane and heavy haulage logistics services based in southern Germany. The integration of what is now the fourth generation of family members in the company provides consistency and continuity at Wiesbauer. The LTM 1750-9.1 mobile crane mentioned above was collected from Liebherr in Ehingen by the great-grandchildren of company founder Franz Wiesbauer.

Upgrade to 800 tonne crane was the main criterion behind the purchase decision

This modern, power pack of a 9-axle crane is the third mobile crane of this type that Wiesbauer now has in its fleet. "One of the main reasons behind our purchase was the increase in crane performance delivered by the new 800 tonne kit for this crane", explained the three young entrepreneurs. With a luffing jib and Y guying, the company now has a full set of equipment for the LTM 1750-9.1. The fact that it has the complete set makes this crane unique in Baden-Württemberg. In addition to the erection of tower segments at wind farm sites, the new crane will also be used for industrial installation work and jobs on the "Filstal Bridge" project between Stuttgart and Ulm.

Photographs:



liebherr-Ir11000-wiesbauer-affalterbach-motive01.jpg

Finally – two years after the first LR 11000 from Wiesbauer removed the 100 year old iron railway bridge, its successor installed the permanent replacement structure.



liebherr-Ir11000-wiesbauer-affalterbach-motive02.jpg

Problem-solver – the Liebherr crawler crane responded to the lack of space for slewing by using its adjustable V-frame. The suspended ballast is set to almost the minimum radius.



liebherr-lr11000-wiesbauer-affalterbach-motive03.jpg Reach – the bridge, with a gross weight of 178 tonnes, is placed on its abutments at a radius of 61 metres. The V-frame pushes the suspended ballast to an impressive radius of 28 metres for this purpose.



liebherr-lr11000-wiesbauer-affalterbach-motive04.jpg

Adaptable – the V-frame in this case adjusts the 440 tonnes of suspended ballast to almost its maximum possible radius. Differences in the load cases can often be compensated easily using the infinitely adjustable folding frame.



liebherr-Ir11000-wiesbauer-handover.jpg

Handover in Ehingen – (from left to right) Thomas Wiesbauer, Jochen Wiesbauer (both from Wiesbauer GmbH), Christoph Kleiner (Liebherr-Werk Ehingen GmbH), Marco Wilhelm (Wiesbauer GmbH), Joachim Sommer (Liebherr-Werk Ehingen GmbH).



liebherr-ltm1750-9-1-wiesbauer-handover.jpg

Great-grandchildren – members of the fourth generation of the family-run company taking delivery of their third Liebherr LTM 1750-9.1 mobile crane. Florian, Sissy and Felix Wiesbauer flanked by Joachim Sommer and Alexander Schwald (both from Liebherr-Werk Ehingen GmbH, from left to right).

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