

Press release

Two LTM 1230-5.1 cranes lift pipe bridge over motorway

- **Complex tandem lift using two Liebherr LTM 1230-5.1 cranes from Hodel SHLK AG and Christen AG**
- **Precise diorama of the construction site serves as a key tool in site meetings**
- **Pipe and plant engineering firm Hodel SHLK AG with an impressive logistics concept**

In a spectacular night-time operation, a pipe bridge weighing around 60 tonnes was installed over the A41 motorway in Rotkreuz, Switzerland (Canton of Zug). The operation required an enormous logistical effort and was part of the construction of a new district heating network. Jörg Hodel, owner of Hodel SHLK AG, spent a year planning the complex project down to the last detail. Two Liebherr LTM 1230-5.1 mobile cranes were used for the final assembly, positioning the 47-metre-long pipe bridge across both carriageways of the motorway. The crane work was carried out at night due to the necessary partial and full closures of the busy motorway.

Ehingen (Danube) (Germany), 1 April 2026 – The successful tandem lift carried out by two Liebherr LTM 1230-5.1 mobile cranes marked the successful completion of a meticulously planned feat of engineering. Given the tight timeframe whilst the motorway was closed, the lift was simulated in advance under realistic conditions on the premises of Hodel SHLK AG: pre-assembly of the three-part pipe bridge, followed by lifting and setting it down on simulated supports using the original spacing parameters. The pipe bridge was then dismantled into its individual components for transport.

A total of four night-time operations were required to install the massive utility bridge on the motorway. Before the final tandem lift of the total load could take place, the pipe bridge was reassembled on an adjacent existing bridge over two night shifts and prepared for installation. In addition to the LTM 1230-5.1, another Hodel mobile crane, an LTM 1100-5.2, was deployed. Whilst this crane assisted with the precise positioning of the components alongside the bridge, the LTM 1230-5.1, positioned on the motorway, took on the main load.

The installation teams faced additional challenges due to two high-voltage power lines running on either side of the motorway in the immediate vicinity of the construction site. As this vital power line – which supplies the Swiss rail network and serves as a key link to Ticino and northern Italy – could only be partially de-energised, so-called pennant ropes were installed beneath the lines. These marked the maximum permissible working height for cranes and loads in that area, thereby ensuring the safe execution of the lifting operations.

Diorama as a planning tool

These high-voltage power lines were even incorporated into a diorama created in advance with great meticulousness. The detailed construction site model on a scale of 1:50 realistically depicted all relevant objects. In addition to the power lines, the cranes and construction machinery deployed, the pipe bridge and the motorway lanes were also precisely replicated. The vivid model proved to be a key planning tool for coordination between the numerous companies and authorities involved in the project.

Jörg Hodel's intensive preparation and precise planning paid off in every respect: during the crucial night-time operation, everything went smoothly, and the strict time constraints imposed by the full closure were adhered to exactly. At the start of the closure, the teams from all participating partners, as well as the mobile cranes, had taken up their positions at the access roads to the construction site. Everyone involved knew their role; the procedures were clearly defined and coordinated. After a good hour, a fully ballasted and securely supported LTM 1230-5.1 ready for operation stood on each carriageway. The attachment of the load to the pre-defined points, the lifting of the pipe bridge and its placement on the supports with millimetre precision all went as smoothly and precisely as clockwork. The cranes had already left the construction site before the morning rush hour began.

Hodel SHLK AG, based in Hochdorf, north of Lucerne, specialises in pipe and plant construction. The owner-managed company also offers the construction of heating and energy centres, as well as services in the fields of steel construction, transport, crane operations, civil engineering and surveying.

About Liebherr-Werk Ehingen GmbH

Liebherr-Werk Ehingen GmbH is a leading manufacturer of mobile and crawler cranes. Its range of mobile cranes extends from 2-axle 35 tonne cranes to heavy-duty cranes with a lifting capacity of 1,200 tonnes and a 9-axle chassis. Its lattice boom cranes on mobile or crawler travel gear deliver lifting capacities of up to 3,000 tonnes. With universal boom systems and extensive auxiliary equipment, they can be seen in action on construction sites throughout the world. The Ehingen site has a workforce of 5,000. An extensive, global service network guarantees the high availability of Liebherr mobile and crawler cranes. In 2024, the Liebherr plant in Ehingen recorded a revenue of 3.19 billion euros.

About the Liebherr Group

The Liebherr Group is a family-run technology company with a highly diversified product portfolio. The company is one of the largest manufacturers of construction equipment in the world. It also provides high-quality, user-oriented products and services in a wide range of other areas. The Liebherr Group includes over 150 companies across all continents. In 2024, it employed more than 50,000 staff and achieved combined revenues of over 14 billion euros. Liebherr was founded by Hans Liebherr in 1949 in the southern German town of Kirchdorf an der Iller. Since then, the staff have been pursuing the goal of achieving continuous technological innovation, and bringing industry-leading solutions to its customers.

Images:



liebherr-ltm-1230-5-1-hodel & christen-01.jpg

The two LTM 1230-5.1 cranes lift the 60-tonne load from the adjacent bridge in tandem.



liebherr-ltm-1230-5-1-hodel & christen-02.jpg

On the closed motorway, Jörg Hodel, project manager and owner of Hodel SHLK AG, precisely determines the crane positioning areas for the upcoming operation.



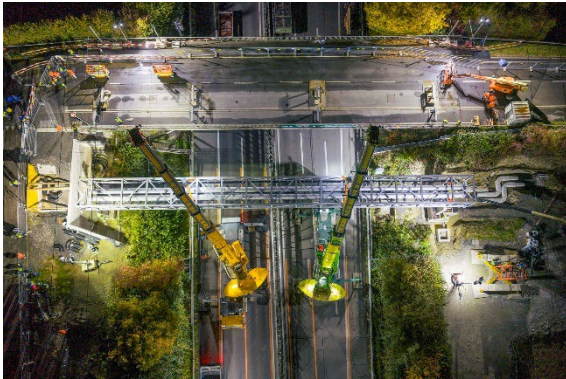
liebherr-ltm-1230-5-1-hodel & christen-03.jpg

It took the well-coordinated teams just about an hour to set up the mobile cranes...



liebherr-ltm-1230-5-1-hodel & christen-04.jpg

... after which the assembly of the pipe bridge went off without a hitch. Visible at the edge of each picture are the two power lines, which required the crane teams to exercise particular caution.



liebherr-ltm-1230-5-1-hodel & christen-05.jpg

A bird's-eye view of the superbly lit construction site.



liebherr-ltm-1230-5-1-hodel & christen-06.jpg

The diorama, measuring around four square metres and built to a scale of 1:50, proved very helpful during the planning and discussion of the complex operation. (Photo: Hodel SHLK AG)

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