

Press release

Night shift in Luxembourg: Liebherr crane duo lifts 92-tonne motorway bridge

- Tandem lift by LTM 1650-8.1 and LTM 1300-6.3
- ATS/Steil lift five bridge girders weighing 87 to 92 tonnes in Luxembourg for new motorway bridge construction
- Crane drivers praise the sensitive control of the Liebherr cranes

The A3 is a very busy motorway that links Luxembourg and France. In the course of its six-lane expansion, several bridges need to be widened – the Pont Berchem is one of them. ATS Cranes from Luxembourg, a branch of Steil Kranarbeiten based in Trier, together with other business partners, was awarded the contract and lifted the five bridge sections with its Liebherr LTM 1650-8.1 and LTM 1300-6.3 crane duo at the end of September 2023.

Ehingen (Donau) (Germany), 19 October 2023 – Motorway bridges have a finite life, either due to the loads they endure or planned road expansion measures. This is also the case in Luxembourg. The new bridge was necessary due to the widening of the A3 to six lanes, including a hard shoulder and an exit lane leading to the Aire de Berchem Quest service area. The bridge spans a remarkable 85 metres without supporting pillars. A difficult task for Frederic Kleinhans, Operations Manager at ATS Cranes in Frisange, Luxembourg. "Using our cranes, we had to turn the five girders weighing 87 and 92 tonnes by 90° before installation and then set them down on the abutments. For this purpose, the positions of the two mobile cranes were planned to the centimetre, because the 90° slewing and placement on the abutments had to be done in one operation."

The LTM 1650-8.1, which is only around 15 months old, was the star of the night-time work on the construction site. With a boom length of 45.3 metres, a 17.5-metre radius and 180 tonnes of ballast, it carried the main load. The LTM 1300-6.3 was ballasted with 94 tonnes and its boom was extended to 29.4 metres with a radius of 15.3 metres. Both telescopic cranes were operated by experienced professionals who know "their" equipment inside out. The slewing process in particular, during which the 87 and 92-tonne steel girders were "swung through" only centimetres from the cranes' luffing cylinders, demanded concentration and precision work. The crane driver teams – Nuno de Almeida, Michael Monzel and Rui Lopez (LTM 1300-6.3) and Johannes Schmit, Christopher Steil and Rene Perlich (LTM 1650-8.1) – unanimously praised the extremely sensitive hydraulics on the heavy Liebherr telescopic cranes. With good weather and almost no wind, the girders were lifted in an operation lasting several hours over a weekend.

Tandem lifts are not only spectacular, but also complex to plan. For this job, ATS/Steil used its own CAD software, which takes into account the footprint, overhangs, payloads, start and end radius and the

ground pressure. Based on this data, options for different set-up configurations and boom combinations were calculated and visualised. The 3D drawings thus provided a basis for decision-making to ensure exactly the right set-up on the construction site. "We can't afford to do any measurement work on site at night due to the narrow time windows," explains Frederic Kleinhans. "It has to run smoothly, because our client Eiffage Perrard may only close the A3 completely for as short a time as possible, so everything has to run meticulously." The LTM 1300-6.3 was positioned on the construction site a few days before the lift. The experienced and well-coordinated team had to erect and ballast the LTM 1650-8.1 on site on the evening of the first lift. A Herculean task that was completed in two hours.

Frederic Kleinhans praised the enormous commitment of his highly motivated and well-trained team, which lifted the last girder into position at 3 am on Sunday morning.

About Steil Kranarbeiten

Steil Kranarbeiten is a sought-after specialist for crane work in the greater Trier area, in nearby France and in Luxembourg. The company was founded in 1924 by Michael Steil. Today, the family business employs around 230 people and operates a fleet of 100 cranes with lifting capacities of up to 800 tonnes. The Liebherr LM1650-8.1 has been its most powerful telescopic crane since February 2022. In addition to the company's headquarters in Trier, it also operates six branch offices. Steil Kranarbeiten has been represented in Frisange/Luxembourg since 2002. The traditional company is an innovative business partner that specialises in lifting and moving heavy loads, heavy transport, industrial relocations and salvage work. Customers in the construction, energy and chemical industries as well as plant manufacturers rely on its characteristic yellow/black cranes. ATS was founded in 2002 by Ms Birgit Steil, Arendt Cary and Karl Trippel. It has 15 mobile cranes, the latest being the LTM1300-6.3. ATS and Steil share a large crane fleet and are able to offer the most powerful cranes in Luxembourg.

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 1200 tonnes and a 9-axle chassis. Its lattice boom cranes on mobile or crawler travel gear deliver lifting capacities of up to 3000 tonnes. With universal boom systems and extensive additional equipment, they can be seen in action on construction sites throughout the world. The Ehingen site has a workforce of 4,300. An extensive, global service network guarantees the high availability of Liebherr mobile and crawler cranes. In 2022, the Liebherr plant in Ehingen recorded a turnover of 2.37 billion euros.

About the Liebherr Group

The Liebherr Group is a family-run technology company with a widely diversified product range. The company is one of the largest manufacturers of construction machines in the world. However, it also supplies high quality, user-focused products and services in many other sectors. The group currently comprises more than 140 companies based in every continent of the world. In 2022, it had a workforce of over 50,000 and recorded a consolidated total turnover of more than 12.5 billion euros. The company was founded in 1949 in Kirchdorf an der Iller in southern Germany. Since then, its aim has been to win customers by supplying high quality solutions and to contribute to technological progress.

Images:



liebherr-ltm1650-ltm1300-ats-steil-01.jpg

Crane duo: the Liebherr LTM-1300-6.3 and Liebherr LTM1650.8.1 lift the 92-tonne middle bridge girders on the A3 near Berchem/Luxembourg.



liebherr-ltm1650-ltm1300-ats-steil-02.jpg

Classic tandem lift: The Steil/ATS cranes set the huge girders down on the abutments with millimetre precision.



liebherr-ltm1650-ltm1300-ats-steil-03.jpg

Frederic Kleinhans (left) planned the operation in Luxembourg, Christoph Steil from the management team arrived with the LTM 1650-8.1 and supervised the work.

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