

Press release

Tight location, tight schedule: Thömen performs bridge dismantling work in Hamburg

- Thömen is dismantling major railway overpasses in the centre of Hamburg using four Liebherr mobile cranes
- Limited space and a defined time frame require detailed planning and professional, meticulous work

The two railway overpasses “Ferdinandstor” and “An der Alster” are currently the scene of a major construction site directly on the Alster river in the Hanseatic city of Hamburg. Crane service provider Thömen is on site with an LTM 1350-6.1 and an LTM 1650-8.1, among others, to replace the two bridges under challenging conditions. The work has been meticulously planned to ensure that the railway lines can continue to operate as smoothly as possible while the construction work is being carried out. The flyovers connect the nearby main railway station with Hamburg-Altona via five major railway lines.

Ehingen (Donau) (Germany), 30 April 2024 – Every day, an impressive 900 regional and long-distance trains cross the two ageing railway bridges “Ferdinandstor” and “An der Alster”. Deutsche Bahn has set itself the goal of minimising the impact of the reconstruction work on its ongoing railway operations. The planning and coordination work before and during the construction phase is intensive; the time window for crane deployment is precisely defined and the work on site needs to be highly focussed. Crane and heavy haulage contractor Thömen, part of the Hüffermann Group, is in charge of the operation with four Liebherr mobile cranes on site: an LTM 1650-8.1 with its LTM 1160-5.2 auxiliary crane and an LTM 1350-6.1 with a 130-tonne crane serving as an auxiliary crane. The LTM 1350-6.1 belongs to the company Eisele, which is also part of the Hüffermann Group. “Our job here is to excavate the existing bridges. Due to the tight time window, we also work at night. The cranes are in operation 24 hours a day, seven days a week,” explains Steffen Wilken, a sales representative at Thömen.

Cramped working conditions require precise planning

One of the biggest challenges the team faced was the lack of space for the four heavyweights near the main railway station in the busy heart of Hamburg – there wasn't enough turning radius available for the 650-tonne crane. Creative solutions were required, as Steffen Wilken reports: “Due to the tight space conditions, we had to jack up the LTM 1650-8.1 very high. We supported it with excavator mats and base plates, so the ballast of the crane could swing over an existing bridge foundation 3.5 metres high.” His colleague Marc Kuebart, who was responsible for the CAD planning and project management for the job, adds: “An auxiliary cable bridge, which had to be erected in advance, was the biggest challenge in

terms of deploying the crane. It also significantly restricted the crane's possible working area." Therefore, maximum concentration and careful work were at the top of the agenda. The LTM 1130-5.1 had already been tasked with lifting the crane parts over the auxiliary cable bridge during assembly of the LTM 1350-6.1. However, this proved to be no problem for the crane drivers, who completed all the lifting work carefully and professionally.

The existing railway bridges were then excavated in 60-tonne sections and unloaded onto a designated, prepared site. On steel plates protecting the ground, the workers cut the bridge sections into manageable pieces for removal.

Currently, in the second construction phase, six divided auxiliary track bridges are now being installed, each weighing 50 tonnes. "The first challenge is to convert the 650-tonne crane with the luffing lattice jib under these extremely cramped conditions. The 350-tonner is serving as an auxiliary crane to assemble the 21-metre-long lattice jib," explains Marc Kuebart, who knows the details of the work processes inside out. According to Deutsche Bahn's plans for the project, the new auxiliary bridges will be situated above the existing abutments, which need to be dismantled. This will allow for the demolition of these abutments below the rolling railway traffic, and for the construction of substructures for the new railway bridges.

About Thömen – a member of the Hüffermann Group

Thömen Hamburg belongs to the Hüffermann Group, together with the other branches of the Thömen Group in Leipzig, Brunsbüttel / Dithmarschen and Potsdam/Berlin. With its partners throughout Germany, the group is a full-service provider in the field of crane and heavy-duty logistics, implementing projects both nationwide and throughout Europe. Thanks to the continuous acquisition of the latest technologies and state-of-the-art equipment, the Hüffermann Group is strongly positioned and guarantees services from a single source, including in the areas of customised solutions and heavy-duty engineering. The full-service provider's product range includes over 1,200 machines, subdivided into cranes and working platforms (up to 103 meters), a forwarding agency for heavy loads and special transport, as well as heavy-load assembly and project engineering divisions.

As an SCCP-certified company with over 800 employees, the Hüffermann Group operates in all sectors and specialises in the chemical, oil and gas, wind power, industrial, construction and infrastructure / bridge construction sectors. The group includes the crane service providers Hüffermann Krandienst, the Thömen Group and Knaack-Krane in the North, as well as Autodienst West and the Eisele AG – Crane & Engineering Group in Maintal / Frankfurt a.M. The group also includes velsycon GmbH, a manufacturer of silo handling systems and vehicle builder based in Wildeshausen. The Hüffermann Group operates 12 locations in seven German federal states.

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 5,000. An extensive, global service network guarantees the high availability of Liebherr mobile and crawler cranes. In 2023, the Liebherr plant in Ehingen recorded a turnover of 2.81 billion euros.

About the Liebherr Group – 75 years of moving forward

The Liebherr Group is a family-run technology company with a highly diversified product programme. The company is one of the largest construction equipment manufacturers 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 2023, 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 employees have been pursuing the goal of achieving continuous technological innovation, and bringing industry-leading solutions to its customers. Under the slogan '75 years of moving forward', the Group celebrates its 75th anniversary in 2024.

Images



lwe-ltm1650-8-1-ltm-1350-6-1-thömen-01.jpg

Deployment on the Alster river: the crane service provider Thömen is dismantling two railway overpasses near Hamburg's main railway station. Work is being carried out around the clock due to the tight schedule.



lwe-ltm1650-8-1-ltm-1350-6-1-thömen-02.jpg

The auxiliary cable bridge, which can be seen in the foreground, restricted the working range of the Liebherr LTM 1650-8.1 and LTM 1350-6.1 mobile cranes enormously.



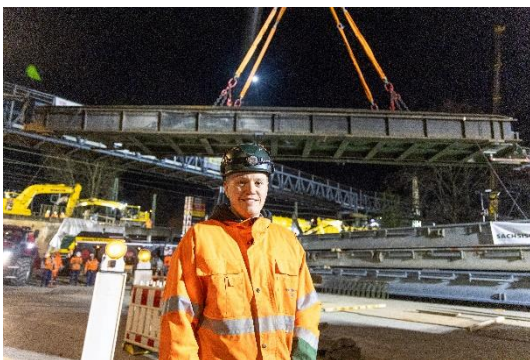
lwe-ltm1650-8-1-ltm-1350-6-1-thömen-03.jpg

The bridge sections are cut into more manageable pieces at a designated site for removal.



lwe-ltm1650-8-1-ltm-1350-6-1-thömen-04.jpg

Creating space where there is none: the LTM 1650-8.1 climbed upwards with the help of excavator mats and support plates to allow the ballast to swing over an existing bridge foundation with a height of 3.5 metres.



lwe-ltm1650-8-1-ltm-1350-6-1-thömen-05.jpg

Tight schedule and limited space: Together with Steffen Wilken, Marc Kuebart (pictured), project manager at Thömen, was responsible for the meticulous planning of the assignment.

Contact

Wolfgang Beringer
Marketing and Communication
Phone: +49 7391/502 - 3663
Email: wolfgang.beringer@liebherr.com

Published by

Liebherr-Werk Ehingen GmbH
Ehingen (Donau) / Germany
www.liebherr.com