

Highly complex: BKL completes a breathtaking five-crane lift.

BKL Frankfurt realises crane solution with five mobile cranes to assemble a gantry crane at Industriepark Höchst.

Munich, 22 July 2025 – BKL Baukran Logistik GmbH rolled out its fleet of powerhouses to assemble the new trimodal gantry crane used for container transshipment in the west of Frankfurt. The crane specialist devised an ingenious lift concept involving five mobile cranes ranging from 230 to 450 tonnes. The special placement of the cranes allowed port and rail operations to continue without restriction during the project to the complete satisfaction of the customer.

As part of the expansion of its container terminal, Contargo Industriepark Frankfurt-Höchst GmbH had commissioned a new single-beam bridge gantry crane. Austrian manufacturer Künz GmbH contracted BKL's crane experts to carry out the lift of the individual components of the enormous gantry crane, weighing a total of 360 tonnes. Altogether, the dramatic heavy lift project required five telescopic cranes of different classes: a 230-tonne LTM 1230-5.1 mobile crane, a 250-tonne GMK5250XL-1 all-terrain crane, a 300-tonne LTM 1300-6.2 and two 450-tonne all-terrain cranes – one LTM 1450-8.1 and one GMK6450-1.

A complex crane configuration for an extraordinary crane project.

As the container terminal plays a major role in handling cargo for ship, rail and road transport, managing the project to ensure that logistics operations could continue during the lift was a huge challenge. Therefore, the BKL Frankfurt team turned to CAD planning to develop the crane solution. They set up the cranes to guarantee access for delivery trucks at all times, while avoiding any interruptions in the rail transport to the terminal. Meanwhile, on the river side of the terminal, BKL's crane specialists took the stability of the quay wall into account, ensuring its structural integrity and safeguarding the assembly, as the force had to be directed straight through the wall. Accordingly, they positioned the mobile cranes in such a way that the load distribution plates were placed on a few, specifically selected points above the tracks. However, it was not just the crane installation that was highly complex, the extremely limited space required meticulous timing for the approach and setup of the five mobile cranes.

Five mobile cranes carry out lifts during ongoing logistics operations.

For this ambitious project, BKL Frankfurt deployed state-of-the-art, powerful cranes from BKL's fleet of over 130 mobile cranes. As a first step, three cranes lifted the 140-tonne main girder at its three anchor points to a height of 40 metres: an LTM 1450-8.1 with luffing jib on one side, paired with a GMK6450-1 and an LTM 1230-5.1 on the other.

At the same time, an LTM 1300-6.2 and a GMK5250XL-1 placed the 17-tonne supports for the gantry crane in the designated position on the water side. One highlight of the crane concept: the LTM 1300-6.2 stood directly behind the LTM 1450-8.1 during the lift, manoeuvring the support into its final position by reaching past the 450-tonne mobile crane. To position the two supports on the shore side, the BKL team then moved the 250-tonne and 300-tonne cranes within the construction area.

Thanks to thorough advance planning and BKL Frankfurt's perfect teamwork on site, the breathtaking crane operation went like clockwork and Künz GmbH was able to install the gantry crane within the schedule dictated by terminal operations.

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CRANE DATA:

	Radius	Telescopic boom	Lifting height	Maximum load capacity
<u>LTM 1230-5.1</u> with 72 t ballast	10.00 m	44.90 m	40.00 m	39.00 t
<u>GMK5250XL-1</u> with 70 t ballast	18.00 m	53.60 m	29.00 m	17.50 t
<u>LTM 1300-6.2</u> with 96 t ballast	30.00 m	53.60 m	29.00 m	17.50 t
<u>GMK6450-1</u> with 135 t ballast and MegaWingLift System	14.00 m	54.59 m	40.00 m	60.00 t
<u>LTM 1450-8.1</u> with 134 t ballast and 28-metre luffing jib	18.00 m	16.1 m + 4 m	42.00 m	69.00 t

Photographs:

Source: Boris Golz / BKL / www.bkl.de



Photo 1: A complex crane solution using full mobile crane power.

Not only did BKL Frankfurt make allowance for the structural challenges posed by the proximity to the river, most importantly, it also met the customer's specifications fully as regards timing and execution.



Photo 2: Perfect teamwork – BKL's mobile cranes.

BKL's crane operators worked in close coordination to position the 140-tonne main girder of the gantry crane securely.



Photo 3: The tricky part: lifting the first support beam.

With consummate skill and precise control, the operator of the LTM 1300-6.2 mobile crane reaching past the LTM 1450-8.1, which was holding the main beam with its 28-metre luffing jib, and placed the support precisely in its designated position.

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Photo 4: A quintet of mobile cranes – perfectly orchestrated.

The BKL Frankfurt team set up the mobile cranes so that the components of the gantry crane did not obstruct the lift and the all-terrain cranes did not disrupt terminal operations.



Photo 5: Relocating the cranes to ensure maximum efficiency.

Once BKL's crane specialists had repositioned the LTM 1300-6.2 and the GMK5250XL-1 ready to lift the shore-based supports, the project was completed according to the logistics plan and to the highest satisfaction of the customer.



Photo 6: Precise CAD-based planning.

Using CAD, the crane experts simulated the conditions on site and planned the complete lift concept, including the positioning of the cranes and the space required for the components of the gantry crane (in red).

Indications of weight in tonnes refer to metric tons

About BKL.

BKL Baukran Logistik GmbH specialises in crane rental, sales and service. With over 55 years of experience, 1,000 machine units and more than 400 employees in Munich, Ingolstadt, Rosenheim, Frankfurt, Aschaffenburg, Nuremberg, Ansbach, Hannover and Hildesheim, the company is one of Europe's largest manufacturer-independent, full-service providers of crane solutions. BKL's crane fleet alone offers over 500 tower cranes, with a radius from 22 to 90 metres, plus over 130 all terrain mobile cranes from 30 up to 700 tonne giants and 30 mobile construction cranes with a radius of up to 65 metres. Moreover, BKL customers benefit from the bespoke turnkey package, certified according to DIN EN ISO 9001 and SCC^P, including planning, logistics and transportation, container and industrial assembly, as well as the 24-hour emergency service. BKL's reference projects include the Allianz Arena, BMW Welt, the European Central Bank and Terminal 3 at Frankfurt Airport. For further information, please see <https://www.bkl.de/en/>.

About Contargo.

Handling an annual volume of 2 million TEUs, Contargo is one of Europe's leading container logistics networks. Contargo integrates container transport between the western ports, Germany's North Sea ports and the European hinterland. Contargo has 25 container terminals in Germany, France, and Switzerland, as well as other locations in Germany, the Netherlands, Belgium and Poland. In addition, it operates its own vessel and railway lines. With a workforce of almost 1,500 employees, Contargo generated an annual turnover of €654 million in 2023.

www.contargo.net.

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