The K series

Time-tested with a new twist
Long tradition …

The first K series crane was delivered in 1961. Since then the world of construction has changed drastically but the basic idea of the fast-erecting crane has remained. Your construction sites require special flexibility, high lifting capacities and a crane which requires little maintenance and can also be transported and erected quickly and easily.
… with a modern interpretation.

Ever since they were launched, Liebherr’s K cranes have provided you with the perfect solution for your hoisting work – from single houses to large industrial projects.
Equipped with modern driving units and an intelligent control system with a wide range of assistance systems, the current K series is still based on the time-tested principle of the fast-erecting crane. Their smart erection process and lots of different ways of adjusting the hook height and jib length make them easy to use. And thanks to their improved external dimensions, they will fit in almost any gap.
K cranes at a glance

- **External cabin**
  for optional use, can be installed without additional equipment

- **Insertable tower sections**

- **Play-free tower connection**
  fully automatic, rigid connection of the inserted tower sections

- **Intelligent control system**
  PLC system, graphic display, remote diagnostic, etc.

- **Integrated intermediate hook heights**

- **Ballast with centring device**

- **Variable slewing radii**

- **Quick connection**
  for play-free tower connection to the slewing platform
Reduce time and costs whilst receiving the level of quality you require – this is a constant challenge for building contractors. The K series of fast-erecting cranes, which really do deserve their name, will help you to meet this challenge.

The cranes are transported to the site as a ready-to-erect unit and can then be erected quickly using the smart erection concept. Low personnel and logistics requirements ensure that your costs and time plans can be met.
Compact and fast from A to B

Lifting capacity, hook height and jib length are the key features which at first glance are essential for the success of a building site. But your crane must also be able to get to where it is needed. To ensure that your trip does not end early, all K series cranes have been enhanced for transport. That is not restricted to transport to the site, but also extends to manoeuvring on the site itself. Long journeys are just as little a problem as constricted sites with lots of unevenness, which are very common.
**The choice is yours**
The modular axle portfolio of high-speed and low-speed axles or in the form of a semi-trailer has the perfect transport system for every site. Existing axles can also be used.

**For uneven sites**
The K series features high embankment angles. That means you can drive them on narrow roads and constricted sites.

**Tower sections on truck**
The external dimensions have been perfected for transport by truck.

**Twin tyres**
If the road does not go as far as the site – the twin tyres prevent the axle sinking into the ground.

**Crane transport on a semi-trailer**
For short transport lengths.

**Mobile crane attachment points**
If it is not possible to drive onto the site.
The new LiTRAX axle system is suitable for extremely modular use in various combinations. All sizes of Liebherr fast-erecting cranes can be transported using a semi-trailer or a truck and trailer combination.

Furthermore, cranes can get to the site particularly quickly at a maximum speed of 80 km/h.

LiTRAX axles also feature lots of practical functions for everyday use.
When faced with major unevenness

Height differences on sites are often large and must be levelled for removing the crane from the axles. The special air suspension levels the axles by up to 30 cm. That allows the crane to be removed from the axles without having to improvise.

Into the smallest gap

LITRAX makes manoeuvring on site even more comfortable. The LiTRAX HS-123 controllable rear axle enables you to position your crane even in small gaps. That applies to their use as a twin axle for large cranes and as a single axle for smaller machines.

Always safe on the road

Truck and trailer combinations with fast-erecting cranes are generally long and therefore difficult to control. Newly developed driver assistance systems for more stable cornering and braking help drivers and make the crane’s journey to the site safe. That means that your crane is always safe on the road on LiTRAX axles.

Long-term companions

The corrosion-free construction made of hot-galvanised steel and aluminium ensures a long service life.

LED lamps

The axle lights contain powerful and durable LED lamps.

Low design

Enough distance between the crane and axle allows the axle to be installed easily.

For tight corners

The 180° angle lock of the steering axle ensures outstanding manoeuvrability on site.
Erection

Make the crane ready for use

The low-maintenance rope kinematics mean that the crane can be erected without additional equipment. Benefit from various erection curves which enable you to tailor the erection process to the site situation. That enables you to put the largest possible K crane into the smallest gaps. And if the space on the site is simply too small, all the cranes can be erected using mobile cranes.
Jib tie bars
Guying the jib using tie bars for safe erection and high stability in operation.

Without additional equipment
The interplay between the hoist and erection winches allows fast and easy self-ballasting.

Quick-Connection
Simple interlock between the tower and slewing platform with just one blow of a hammer.

Climbing
K cranes allow tower sections to be inserted. Together with various telescoping steps, this means that each crane has up to eleven intermediate hook heights. That allows the crane to be used on lots of different sites and grow as the building rises.

To use the full length
Thanks to their short overhang, K cranes can be positioned close to existing obstructions on sites. This means that the full reach can be used after erection.
Cabin
Maintain a good overview

Not every site needs a cabin. But the external cabin developed for all modern K cranes can be used whenever it is required. The cabin can be installed without additional equipment. Thanks to the integral control stand and display, it provides an excellent overview of the working area.

Safety at a great height
Climbing into the cabin is easy and safe thanks to the internal access ladder and the standard opening. Furthermore, installing it on the outside of the tower means that the crane operator can be rescued easily in an emergency situation.

Clear view
The new cabin with its ergonomic controls provides the crane operator with space and enables him to work efficiently without fatigue. The external cabin provides the crane operator with a great view of the site. The cabin will fit all recent models of our K series.

Cabin installation
Safely and easily by the crane itself.

Ergonomically arranged operating elements
For working without fatigue.
The areas of use of K cranes extend from building single houses to major industrial projects. Their enormous adaptability with finely graduated hook heights and the jib luffing positions and positions to avoid obstacles make fast-erecting cranes perfect for any building site. Jobs under high-voltage cables or inside buildings are also possible due to the telescoping tower. Ensure the success of your site yourself!
Obstacles or high destinations
If there are obstacles near the site, they can be avoided using the obstacle avoidance position. The jib can also be luffed on the K crane series. Its great flexibility enables your crane to adapt to different uses at any time.

Range with carry
The jib on the K series can be adjusted to various lengths, providing the flexibility you require for a very wide range of different site sizes. The lifting capacity curves adjusted to the jib lengths make the crane a versatile construction machine.

Variable slewing radius
By reducing the slewing radius, the crane’s footprint can be reduced by more than 35%. This enables the crane to be assembled closer to the building and tackle jobs on constricted sites. Choose between a reduced footprint or less ballast.

Extreme situations
Working under obstacles such as high-voltage cables with the tower retracted.

Control stand
Operation from the raised control stand.

*Using the example of the 81 K.1
Litronic – The Smart Assistant

The same technology as on large cranes

The K series features the modern assistance systems you are familiar with from top-slewing crane series. This makes work productive and safe.
Modern construction in the 21st century is characterised by ever greater complexity in less space, coupled with time and cost pressure. The demands on construction machinery and its operators are growing, especially for tower cranes. To support crane operators in their work while boosting handling capacity, reliability and safety, our control system features a series of modern assistance systems.

The programmable logic control system enhances safety during crane operation. The central computer unit compares the values received from the sensors with the calculated values. If the discrepancies are too large, crane operations are stopped.
Control system

Load Plus
A tower crane works at the limit of its lifting capacity for very little time. The Litronic also enables additional power for certain individual hoisting operations involving heavy loads. The hoisting load can be increased by up to 20% – at the press of a button.

Micromove
Brick after brick – this is fast becoming a thing of the past on today’s construction site. Prefabricated components, such as filigree concrete covers, have long been part of everyday routine. Both cost and time pressure along with increasing safety requirements mean loads have to be handled with particular care.

ABB
Above all in inner cities, sites are often small in terms of space and adjoining buildings that you need to avoid when slewing with loads on the hook. In particular traffic routes such as rail tracks and motorways as well as public facilities such as nurseries have to be kept out of the working range. As every metre counts for you, the Litronic ABB operating-range limiting system now offers even more teaching points. This means you can define your working range with special precision.

SPEED2LIFT
Re-reeving from 2- to 4-line requires time and effort but is not required by your K crane. The cranes operate exclusively in two-line mode and therefore always deliver maximum performance at full speed. Since the hoisting speed adjusts to the attached load, it always moves at maximum speed.
Wind force moment control and oscillation-damping system
The wind and suspended loads play a major role in crane operation. Litronic cranes feature the appropriate equipment to deliver maximum safety. The control system uses high resolution sensors to register the movement of the jib and automatically adjusts for it.

Slewing gear modes
Every manufacturer has its own philosophy for the crane control system. That’s especially noticeable when a crane operator changes the type and requires a longer familiarisation time. The Litronic consigns this problem to the past. Every crane operator can opt for one of three slewing modes and adjust these to his situation, without requiring a service technician. That allows crane operators to adapt the slewing behaviour of the cranes to personal preferences.

Sensible operation
The Liebherr remote control ensures you have the crane under complete control from anywhere on the site. Two displays provide feedback on the current operating data. The remote control therefore enables you to be close to the action whilst at the same time being able to monitor everything. This makes work on the site safer and more convenient.

Simple scaling
With just one weight you can scale the crane in a matter of minutes. That saves time and money.

Full control lever distance available at all times
The modern control system on K cranes ensures that you always have the full control lever distance so that you can position heavy loads with millimetre precision.

Adjustable power connection
Operating voltage adjusts to the situation in individual countries.
Quality in detail
Fast, powerful and particularly precise control
The driving units installed in the K series are manufactured in-house by Liebherr. This guarantees uniform high quality. Infinitely variable thanks to a frequency converter, an intelligent ventilation system and low maintenance – these are all features of the drive components used.

A simple rule of thumb is that the longer a product can be used, the more cost-effective it is. This is why Liebherr is absolutely uncompromising when it comes to durability. In addition to high-quality materials, processing work is also subject to the highest possible standards. This is why all exposed components on K series cranes are tight-welded. This prevents the ingress of water, reducing the risk of corrosion. Our cranes are renowned for their long service life and operating time.

If the crane is out of operation, free jib slewing must be activated. K cranes are fitted with current collectors as standard to ensure that multiple rotations do not cause any damage. That minimises maintenance costs and prevents unexpected down times.

Play-free tower connection
Automatic tower locking ensures a play-free connection during the extension cycle.

Designed with the erection engineer in mind
Easily accessible power connection on the undercarriage.
Superbly equipped

Site lighting
The use of up to four 154 W LED spotlights means you can decide when to finish your working day. They are immediately ready for use, extremely reliable, very durable and remain on the crane during transport.

Rail travel gear
If you have a large project, the crane can also be used with rail travel gear. This even allows the crane to be moved with a load.

Special paintwork
You can finish the crane in your own corporate livery for publicity purposes and to raise awareness of your company.

Control desk
As an alternative to the remote control, the crane can also be controlled using the small control desk with a 10 metre cable.
Central lubrication system
Easy maintenance of the slewing ring using the central lubrication system to ensure a long crane life. And if you really do not want to be bothered about the crane’s lubrication, we can also supply an electric central lubrication system. This ensures that the slewing ring is lubricated automatically.

Anemometer
To enable you to see when stormy weather is approaching.

Aircraft warning control light
If, for example, your crane is near an airport, you need an aircraft warning control light. The aircraft warning control light can stay on the crane at all times and is always ready for use.

LiDAT
The data transfer and location system from Liebherr ensures that you always have the latest operating data for the crane in view. That enables you to manage the crane efficiently and plan its jobs and servicing perfectly. The LiTEL teleservice also makes remote maintenance possible to minimise downtime on site.
Max. lifting capacity at the jib head
1100 kg

Load Plus
1350 kg

Max. lifting capacity 8000 kg

Max. lifting capacity at the jib head
1000 kg

Load Plus
1300 kg

The K series
And tomorrow?

Since the development of the first tower crane more than six decades ago, we have been working with passion on innovations to bring people further. These include fast, accommodating service and a broad network of competent partners.

Contact your local dealer for personal advice about the K series.

www.liebherr.com/tc/K