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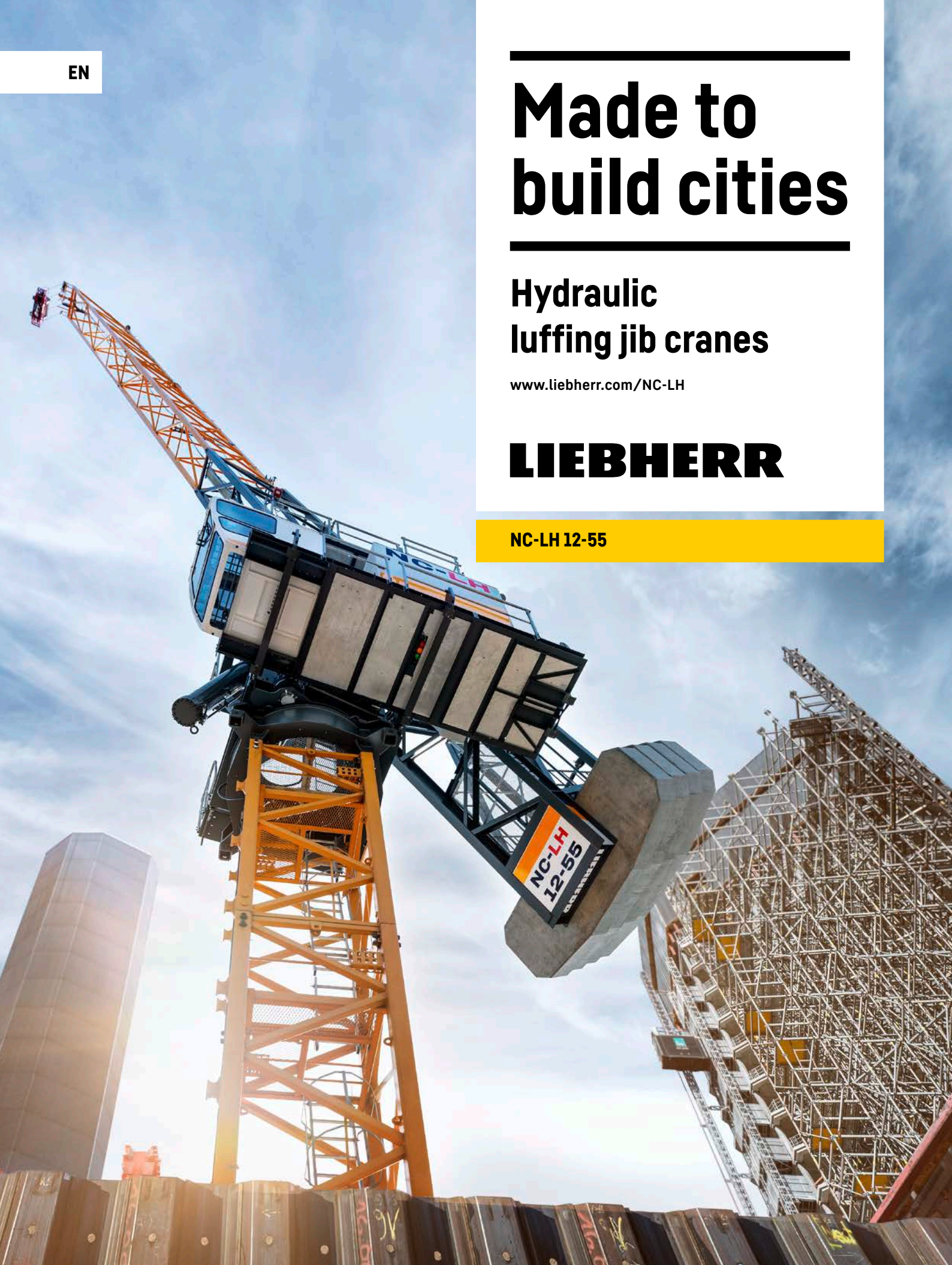
Made to build cities

Hydraulic
luffing jib cranes

www.liebherr.com/NC-LH

LIEBHERR

NC-LH 12-55



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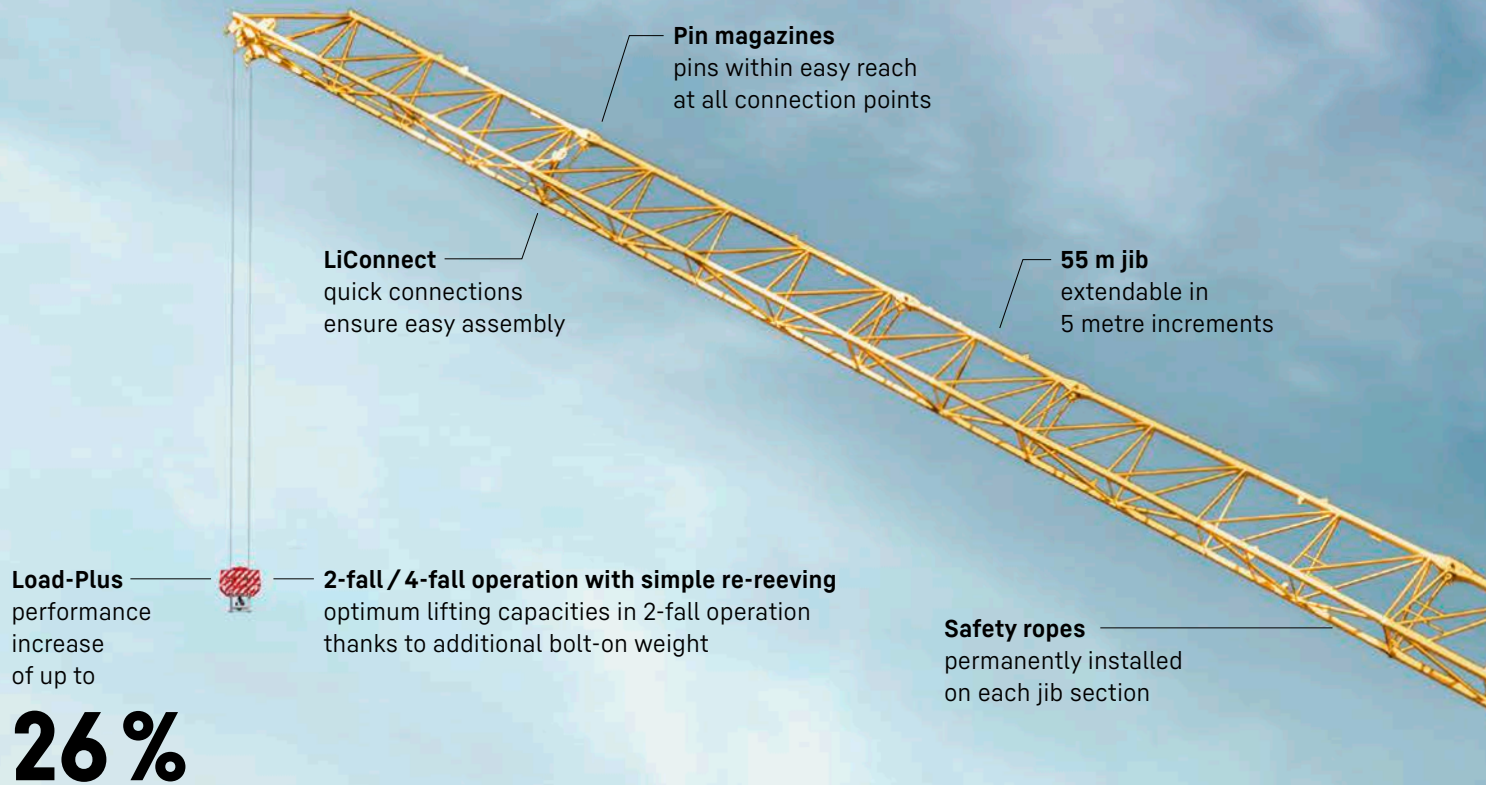


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The NC-LH 12-55 at a glance





Assembly optimisations

- clever connection solutions for the central unit
- electric and hydraulic quick connections

Slew locking

optional further optimised out-of-service position

High-performance hoist gears

- permanently installed on jib
- hook speeds of up to 169 m/min

Compact counter-jib

stacked design guarantees a minimal swing radius of 7.9 m

Hydraulic luffing system

complete luffing action in 90 seconds enables fast load handling

Minimal out-of-service position

9.5 m

Standardized ballast

with optional ballast frame

Litronic control system

Benefit from familiar assistance systems:

- level luffing
- Micromove precision positioning
- simple and quick scaling

Tower Crane OS

generous touch display with familiar user interface (UI) from top-slewing cranes

16 EC or 21 HC tower systems

choose one of the tower systems or combine both for impressive, cost-efficient hook heights

Tower width

1.6 m

21 HC towers

ready for EasyUp 200 crane driver elevator

Transport

The easy way from A to B

The NC-LH is made for city use. With just a few transport units needed, getting the crane into the city is simplicity itself. The entire NC-LH system is optimised with both the environment and your transport costs in mind. It's possible to transport the complete NC-LH 12-55 using four trucks or containers.

Jib width: 1.15 m

NC-LH crane jibs are extremely compact in size. This means that three long jib sections can be transported on the cargo bed of a standard truck or in one container. Carbon emissions and transport costs are reduced as a result.



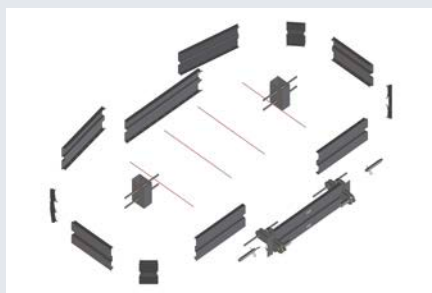
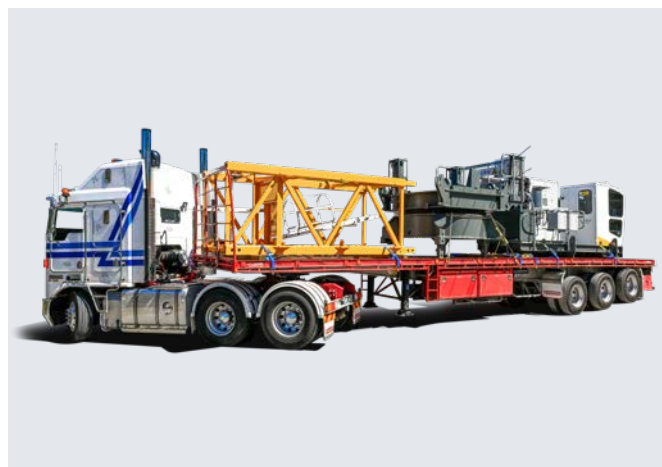
A fresh take on the piggyback concept

The NC-LH series features an optimised piggyback system for truck and container transport. The jib end section can be slid into the counter-jib to achieve the transport length required. This minimises the number of packages for each transport. Plus, the platforms and handrails on the counter-jib can stay attached indefinitely. The result is fewer trucks on the road, fewer trucks on site, and valuable time saved when transporting and assembling the crane.



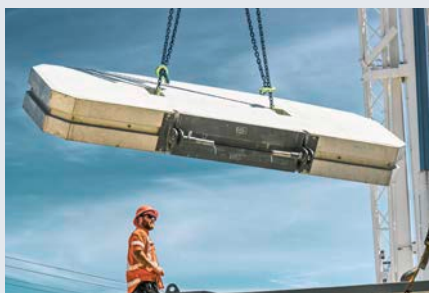
Slewing platform and central unit

NC-LH assembly groups are adaptable to the size of the mobile crane. The transport concept can be tailored to meet the requirements of different assembly variations. Trucks can be loaded as needed, depending on whether the central unit is to be lifted as a whole or in individual assembly steps. Pre-assemblies can be carried out at the storage location to save time or are no longer needed.



Ballast frames

The ballast frames are collapsible for transport and can then be simply filled with concrete on site. This reduces weight and space, which is particularly beneficial for transport in containers.



Useful all the way

The steel frame around the ballast provides protection during transport, and also increases safety once on site.



Hoist unit on jib

The hoist unit is permanently installed on the jib, meaning it can remain in place during transport. This ensures protection during transport and reduces assembly times.

Assembly Efficiency matters

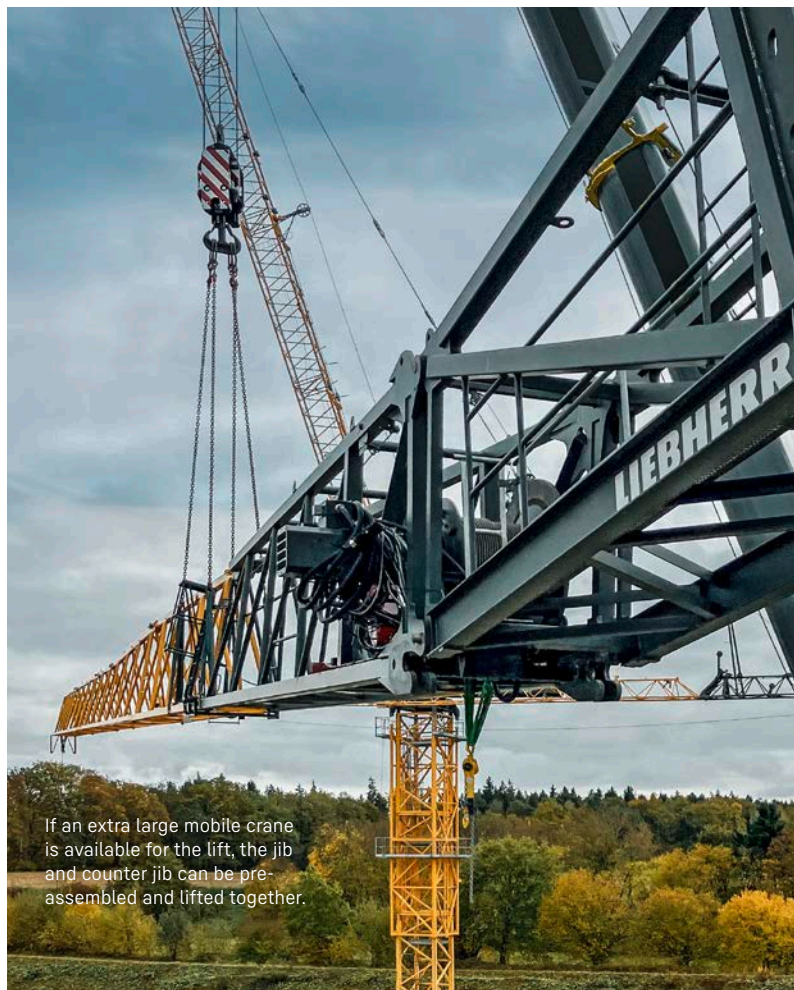
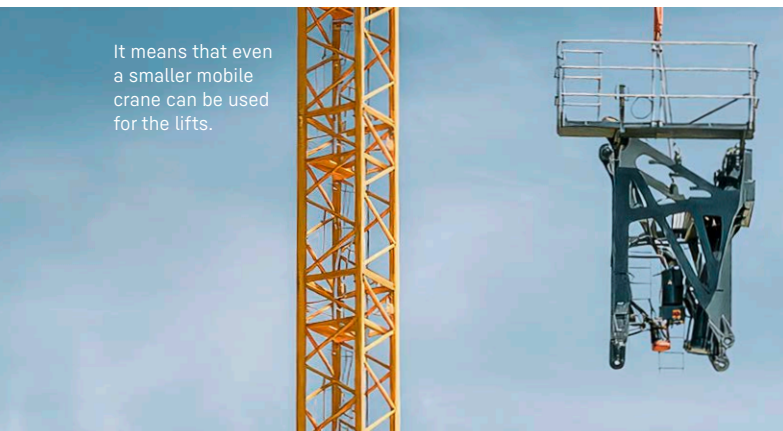
Before any crane can be put into operation, it has to be assembled as cost-efficiently as possible. The NC-LH is optimised for this. Firstly through its maximum component weight of eight tonnes and secondly through pre-assembled elements.

The central frame can either be lifted in one go to save time...

...or part by part. This option is especially useful if the weight of components is an issue.

It means that even a smaller mobile crane can be used for the lifts.

If an extra large mobile crane is available for the lift, the jib and counter jib can be pre-assembled and lifted together.



Cabin platform installation

Installing the cabin platform is a straightforward process. The factory-assembled unit consists of cabin, hydraulic drive and control cabinet. It can simply be lifted and hooked onto the central frame. The crane can be turned as soon as the cabin platform is installed. This ensures easy assembly.



Hydraulic system with quick connections

The use of coded quick connections for the hydraulic line saves valuable time and minimises errors. This simple connection system effectively prevents incorrect attachment, which increases both safety and efficiency.



Electrical quick connections

Electrical quick connections replace the work-intensive clamping process. The simple plugging in of coded connections speeds up the crane's start-up process and makes it safer.



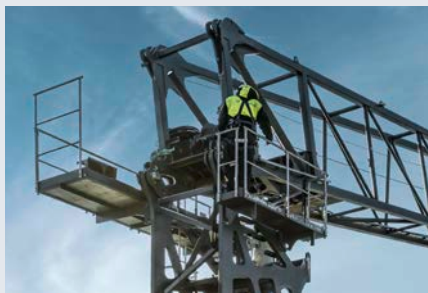
Assembly Concept highlights

The jib can be completely pre-assembled on the ground. Even the hoist rope and hook block can be reeved ready for use. This enables quick and safe assembly as working at great height isn't required.



Safety ropes on the jib

Safety is paramount: the factory-installed safety ropes are fitted to all jib sections. They provide permanent, continuous fall protection.



Hoist unit position

The hoist unit is located on the jib instead of the counter-jib, as is typically the case with luffing jib cranes. This design allows the jib to be assembled on the ground, including reeving of the hoist rope. Assembly is therefore much safer and quicker than working up high.



Maintenance cage (option)

The foldable maintenance cage on the jib enables safe access to the jib head and has an extremely small wind exposed surface area.

LiConnect

The crane features the proven LiConnect jib quick connection system known from trolley jib cranes. The jib elements themselves are quick, safe and easy to bolt together. Each pin has a groove which indicates the direction in which the locking pin is to be inserted. This is particularly useful for helicopter assembly.



Pin magazines

The required pins are stored within easy reach at all important connection points. They have their own designated magazines for secure storage.



Quick connections

Discover the innovative quick connections for the jib and counter-jib. Thanks to permanently installed axles that effortlessly handle large forces, they not only deliver impressive robustness, but also unrivalled speed. Once the components have been hooked in, a lightweight and easy-to-use locking pin ensures a reliable connection.



Horizontal ballast design

This ensures a consistent alignment for transport, assembly and operation. Quick connections with pins make securing easy, including fall protection. Standardised ballast blocks are used for all assembly variations, which simplifies storage and logistics.



Programmable logic control system (PLC)

Scaling is where the state-of-the-art Litronic control system delivers its biggest advantages. This is done via a wizard in just a few steps and with only one weight. The crane is put into operation much more effectively as a result and scaling is additionally verified through a logic check.




Hoist rope

The hoist rope comes already wound on the drum, which makes installation easier. This means that the drum is protected and doesn't require any extra transport packaging, thereby saving both costs and assembly work.

Performance

Hydraulic system boosts performance

Maximum performance for demanding projects: Hydraulic luffing jib cranes from Liebherr deliver outstanding performance, so they're ideal partners for sites involving heavy components and high hook heights. The hydraulic luffing jib also scores points with its powerful hydraulic power unit and hydraulic cylinder combination. Plus, the technology guarantees high precision for positioning loads.



The **powerful hydraulic luffing system** enables fast and precise luffing in under 90 seconds. Speed and precision ensure optimum safety throughout the entire construction process. An optimised 30 kW design makes it possible to reduce the connected load.

1 Load-holding valves

Load-holding valves ensure maximum safety for the hydraulic system. The jib can be adjusted safely and at controlled speed while carrying a load. The hydraulic cylinder is held securely in position without pressure from the hydraulic power unit. This enables complete control of the luffing action and maximum safety.

2 Hydraulic cylinder reliability

Liebherr cranes are known for their excellent quality and minimal downtimes. If the hydraulic cylinder needs replacing during the crane's life cycle, this can be done while the crane is set up. This minimises downtime.



3 Hydraulic system cooling

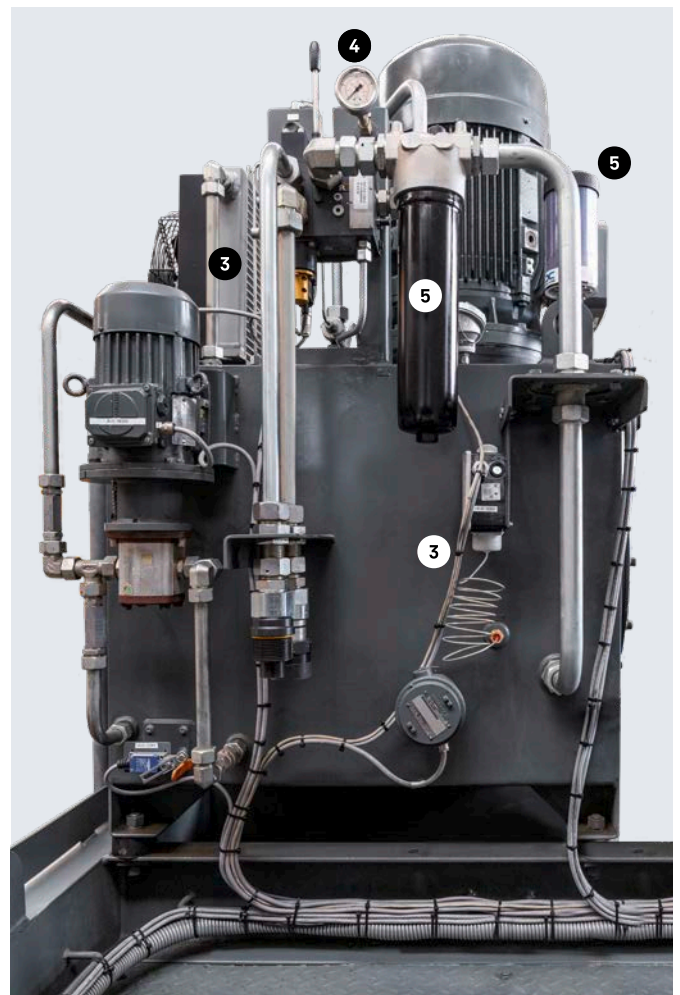
The hydraulic unit's heating and cooling system guarantees an optimum oil temperature for smooth operation at all times. An optional cooling system is available for particularly hot regions to ensure quick and safe load handling.

4 Hydraulic system monitoring

All key hydraulic data is easy to monitor via the in-cabin display or directly at the hydraulic unit itself. Automatic (preliminary) warnings concerning the oil's temperature and level increase safety and simplify servicing and diagnostics.

5 Hydraulic system maintenance

The hydraulic unit has filtration systems to ensure a long oil life, and includes filter wear indicators for visual monitoring.



Performance

Well set up

Two tower systems are available for the hydraulic luffing jib cranes; these are designed for flexible and cost-efficient use. Each system comes ready for climbing both inside and outside of buildings.

The widely used **21 HC 290 tower system** enables high tower heights and is known for its reliability.

The ultra-slim **16 EC 240 tower system** with external dimensions of just 1.6 x 1.6 metres is especially cost-efficient and space-saving.

Combining the 21 HC and 16 EC with a transition tower section brings together the strengths of both systems, enabling high tower heights to be achieved in a very cost-efficient way.



High-performance drives

The high-performance hoist gears, already familiar from the NC-B series, feature proven drives. Available as 45 kW and 65 kW models, and with an optional secondary brake, they offer high drum capacities and hook speeds. This simplifies servicing and the availability of spare parts and boosts productivity on site through high handling capacities.



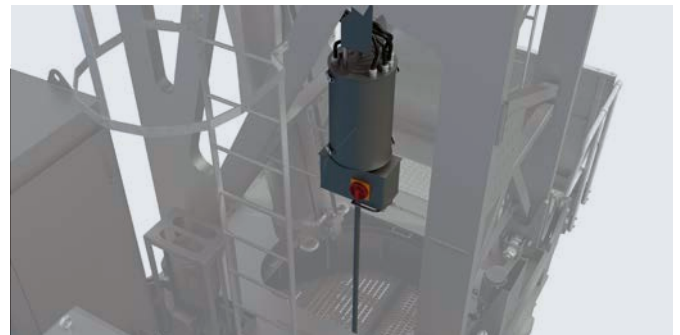
Flexible lifting capacities

A re-reevable 2-fall / 4-fall hook block increases flexibility. Reeving is conveniently carried out while on the ground. In 2-fall operation, the NC-LH enables a load increase of up to 300 kg. If a 6-tonne maximum lifting capacity is sufficient, pure 2-fall operation offers a further load increase of up to 200 kg. Both 2-fall operation modes naturally ensure optimum speeds.



Slip ring assembly

If a crane is out of operation, it has to be put into free slewing mode. The NC-LH is equipped with a slip ring assembly as standard to prevent damage from multiple rotations. This keeps maintenance costs low and prevents unexpected downtimes.



Radio remote control

A standardised radio remote control is available for all luffing jib cranes. A 3.5-inch display provides the crane operator with feedback, allowing them to move freely around the site with the best possible view of the load.



Centralised lubrication system

Easy maintenance of the ball slewing ring is ensured by a centralised lubrication system, designed to help extend the crane's service life. An electric centralised lubrication system, which provides automatic lubrication of the slewing ring, is also available.



Reach for the sky

The NC-LH also benefits from the EC tower system's multifunctional climbing system. The hydraulic climbing system makes internal climbing (with slim 1.6 x 1.6 external dimensions) and external climbing possible with the same unit. Using this versatile component from the flexible 16 EC tower system therefore streamlines storage.

Performance

Space matters

The NC-LH 12-55 is ideal for use in densely built-up inner-city areas. Its small working footprint means the crane can optimally adapt to urban construction project conditions.



Crane out of service

Secure locking of the jib for optimal adaptation to site conditions: the crane can be securely locked in place if space is really tight. This makes optimal adaptation to site conditions possible.

The choice is yours:
Work with the maximum tower height and a maximum out-of-service position of 14.6 m ...

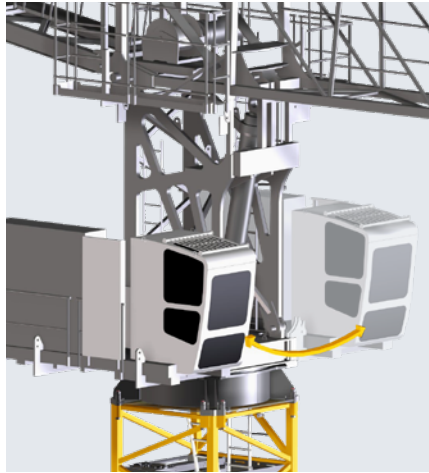
14.6 m
Optimized:
9.5 m

Slew locking optional further optimised out-of-service position

...or reduce the out-of-service position to 9.5 m for jib lengths longer than 45 m. This allows you to get the most out of the cranes on site.

Exceptional swing radius

The counter-jib block design gives the NC-LH a minimal swing radius of just 7.9 metres. The stacked arrangement of the ballast blocks reduces the swing radius even further. A shorter counter-jib offers optimal adaptation to tight construction site conditions in inner-city areas and optimises efficiency through flexible positioning of the crane.

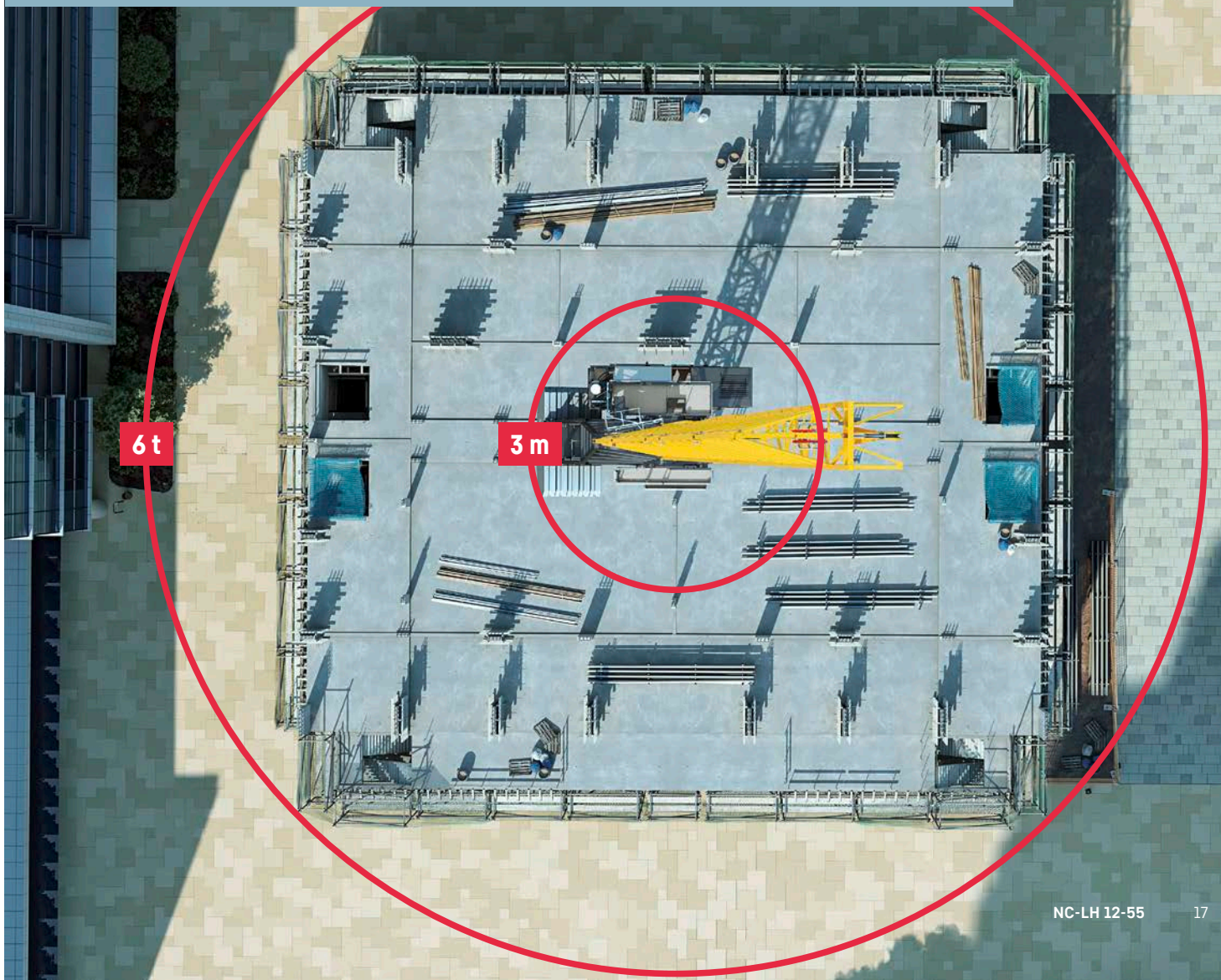


Cabin mountable on both sides

The cabin can be mounted on the left or right-hand side to suit site requirements, which means the crane can be positioned closer to buildings. This gives the crane operator a better view of the site and makes working more comfortable. Loads can be handled faster and more efficiently thanks to the adaptable cabin and the construction site can be better planned and organised.

Crane in service

A small crane in a central location on site instead of a large crane next to the building: the 16 EC tower system makes it possible to position the crane centrally within the building (e.g. in the lift shaft). And with a minimal working radius of just 3 metres. All areas of the site can therefore be covered efficiently from a central point.



Crane operation

Our smart assistants

Modern construction in the 21st century is above all characterised by increasing complexity, shortage of space, and time and cost pressures. The demands on construction machinery and its operators are growing, especially when it comes to tower cranes. Our control system offers a range of modern assistance features to support crane operators in their work as well as to increase handling performance, reliability, and safety.



Tower Crane OS user interface

The new tower crane operating system has been specifically optimised in terms of usability. Just a few taps lead to the desired setting. The always visible menu bar ensures easy navigation. Long training and familiarisation times are significantly reduced thanks to the simple user interface, which has been adapted for the needs of different users.



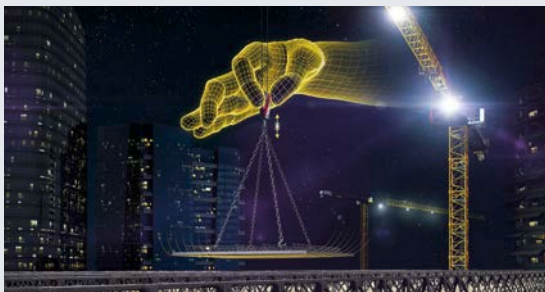
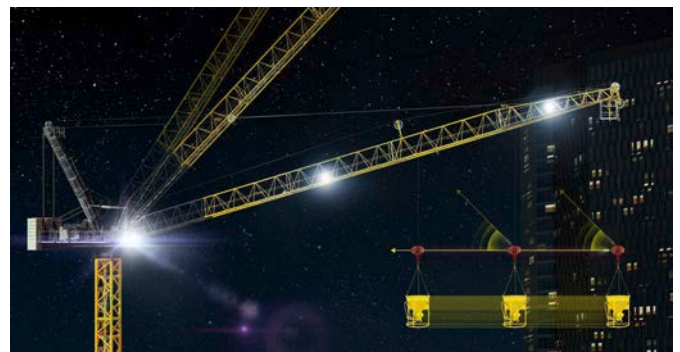
Load-Plus

Now available for luffing jibs, the innovative Load-Plus function enables an increase in performance of up to 26% at the touch of a button for those extra heavy one-off lifts. This is achieved through a targeted reduction in dynamics, which means that even challenging loads can be lifted safely.



Level luffing

The cranes have a level luffing function, which enables automatic levelling of the load at the touch of a button. This makes positioning much easier and eliminates the need for manual readjustments.



Micromove

The proven Liebherr Micromove assistant offers a fine positioning mode that reduces hoist speed and enables loads to be held suspended. Micromove allows particularly sensitive components to be positioned precisely without being damaged or causing damage.

Further functions:

- **Slewing limitation:** The graphic slewing limitation feature lets users quickly and precisely define areas that can't be worked in.
- **Wind load control:** Using high-resolution sensors, the control system detects jib movements and accurately compensates for wind influences. This reduces the impact of wind and thereby increases safety and precision during crane operation.
- **Load sway damping:** Quick swinging and braking manoeuvres can cause the load to sway. The integrated load sway damping feature automatically compensates for this – a significant step for safety on site, as the crane operator's control over the load is increased.
- **Sound function for drives:** Acoustic support for the crane operator if movement of the load isn't perfectly visible.
- **Load reduction** for the entire load curve or separately for constant and moment load ranges.





Appearance

Remote effect

What could be better publicity for your company than for people to see the outstanding work you're doing on buildings? And the best way to make that happen is to use the most exposed spot on site – the crane. The striking and unique appearance of the new NC-LH cranes makes it all possible.

Colour scheme

Choose the colours you want your crane to have. We offer various options for customising the crane with your company colours. The two-colour concept makes customisation really simple.

And tomorrow?

Ever since developing our first tower crane more than seven decades ago, we have been passionate about innovations that move people forward.

This includes fast, accommodating service and a broad network of competent partners.

Why not request a personalised, local consultation on the new hydraulic luffing jib cranes today?

www.liebherr.com/NC-LH





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