

Cranes with all the power you need

Crawler and lattice
boom cranes

LIEBHERR

Mobile and crawler cranes



Efficient operations with optimised crane concepts





Liebherr cranes are used all over the world, wherever very heavy loads need to be moved safely and economically. Our lattice boom cranes deliver outstanding lifting capacities and load torques as well as large hoisting heights and reaches.

- Extremely variable boom systems for a particularly wide range of applications
- The perfect boom combination to meet every challenge
- Maximum mobility and cost-effectiveness thanks to compact dimensions and the transport-optimised weight of the components
- Derrick systems with suspended ballast, V-Frame® or ballast wagons increase the cranes' capacity
- Special boom systems for efficient missions involving the assembly of wind turbines

Experts in crawler cranes

The very latest design and production



Many years of experience

Liebherr started designing crawler cranes and lattice boom cranes on crawler chassis in Ehingen at the end of the 1970s. Today, Liebherr develops and manufactures crawler cranes with load capacities of up to 3,000 tonnes at its Ehingen site. Liebherr builds crawler cranes with load capacities of up to 400 tonnes in Nenzing, Austria.

Practical crane design

Liebherr cranes are developed using the very latest design methods. Our engineers ensure that they are as practical as possible. Powerful, economical developments and efficient detail solutions make our crawler cranes functional tools. Liebherr also invests in research into even higher strength structural steel and new materials.

High production quality

The assembly hall for heavy-duty cranes is specially designed for the assembly of crawler and lattice boom cranes and their specific requirements. Modern production technologies and procedures enhance both quality and flexibility to meet rising customer expectations. Quality management takes place continuously throughout the production process. In addition, every single crane undergoes intense testing in the acceptance yard.



Reliable crane technology

Focussed on safety

Always top priority: whether it's the materials used, the crane equipment or the expertise that Liebherr is happy to share – safety comes from a variety of factors. We attach great importance to the highest possible level of safety during assembly and dismantling, during use, but also to security in the sense of reliability.

Fail-safe thanks to dual sensors

Always ready for use: all the relevant sensors on the load moment limitation have a redundant design to increase the availability of the crane. If a measuring cell fails, the sensor can continue to operate and the crane can continue working without any downtime.



The load cell has a dual-channel design (2 plugs).

Optimised radio remote control

Everything under control: our BTT-E wireless remote control also enables the crane to be completely set up from outside the crane cab. The crane operator can stand where the set-up process is taking place so that he can see every millimetre of movement. The BTT enables simple, fast and safe set-up and dismantling.



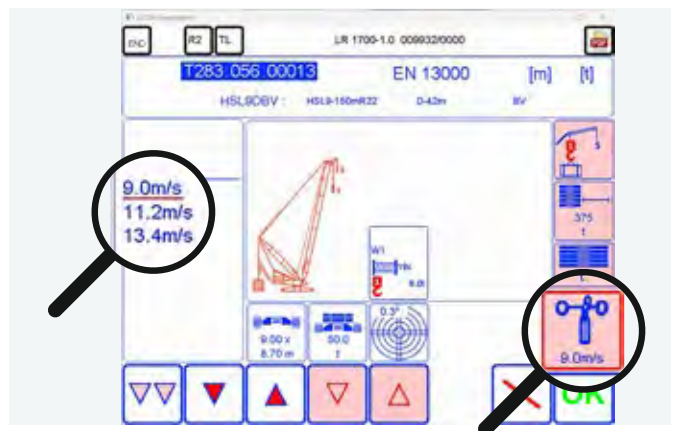
Safety on the construction site

Ergonomic ascents and descents, catwalks, fall protection and railings are already a focus during the development of each crane. The camera monitoring system transmits live images of the winches, the ballast and the surroundings behind the crane to the multifunctional displays in the crane cab.



Expert knowledge about wind influences

Liebherr is happy to pass on practical expertise on the dangers of wind influences on crane operation to crane operators and contractors via professional training documents and courses. Special load charts for different permissible wind speeds ensure additional safety during use.



Excellent service for maximum reliability in use

A well-developed global service network with competent technicians on site, fast spare parts supply, remote diagnostics and digital support – Liebherr creates trust and maximises crane availability.



Pioneering innovations

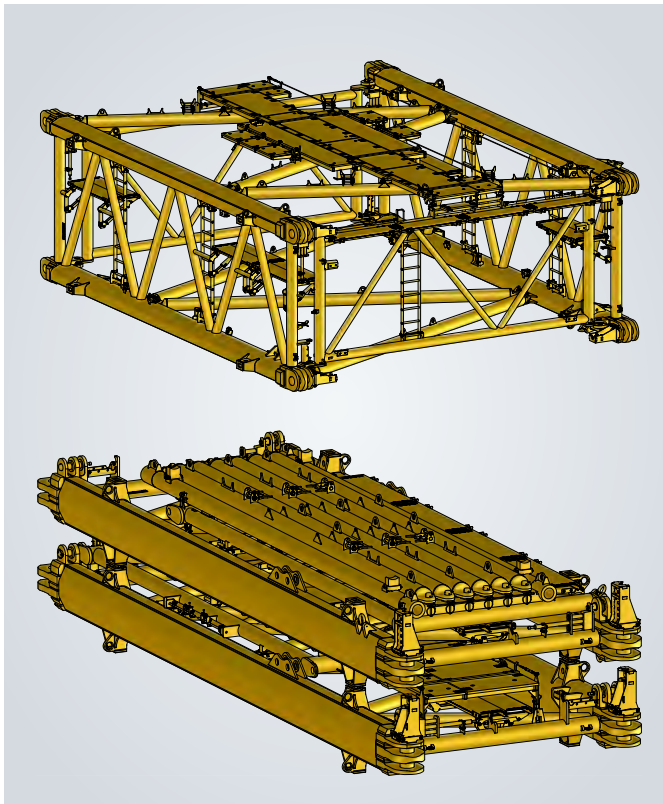
Powerful boom systems



Strength lies in breadth

Liebherr is always researching the limits of what is feasible in order to further improve the performance parameters of its cranes while at the same time making them more economical to use. Following the pioneering invention of the PowerBoom parallel boom, Liebherr engineers developed the HighPerformanceBoom for the LR 12500-1.0 and the X-System for the LG 1800-1.0. Both technologies are optimally adapted to the respective crane classes and impress with enormous increases in lifting capacity, especially with long boom systems, as well as functional efficiency.

The boom systems are mounted in the lower section of the lattice boom and are significantly wider than the standard dimensions. This results in significantly greater stability to the side and in the direction of the load. Both boom systems are also optimised for economical transport worldwide.



Transport-optimised thanks to folding mechanism

The 7.5-metre-wide boom of the LR 12500-1.0 is simply folded up for economical transport using an ingenious mechanism. This gives the HighPerformanceBoom transport dimensions of 3.5 metres wide and 10 metres long. The system is easy to assemble and dismantle in just a few steps.

Strong luffing jib thanks to Special Boom Systems

Considerable increases in load capacity are also achieved when operating with a luffing jib, as these Special Boom Systems increase the permissible torsional moment of the boom. This drastically extends the range of use of the crane.



Economical ballast systems

Weighing tonnes yet highly flexible

Efficient counterweight

For a typical crawler crane application in the heavy-duty sector with high load capacities and large working radii, large amounts of ballast are essential as counterweights. Efficient ballast systems are therefore of enormous importance. Depending on the crane type, the ballast systems can be flexibly selected so that the crane can be perfectly adapted to the respective conditions of the application. The flexibility and efficiency of the crawler cranes is increased thanks to Liebherr's innovative ballast systems. In addition to the slewing platform ballast and central ballast directly on the crane's chassis, there are different variants for the derrick ballast: these are primarily divided into suspended ballast and ballast wagons.

Suspended ballast, V-Frame® and VarioTray®

Technically, the suspended ballast works relatively simply: it has a hydraulic guide that can be telescoped continuously – even under load. This increases the crane's load capacity. With a small working radius, the suspended ballast is only telescoped out a short distance and thus adapts perfectly to confined operating conditions. If sufficient space is available or a larger working radius is required, the suspended ballast saves counterweight plates by telescoping out.

The modern V-Frame® system also belongs to the suspended ballast category. Its hydraulically adjustable folding frame enables enormous adjustment ranges up to very large ballast radii without a fixed guide. In addition to the flexible operational capability, ballast transport can be saved.

VarioTray® is an elegant solution to avoid time-consuming stacking and unstacking of counterweight plates. If only a small amount of ballast is required for an application, a large counterweight frame is still required to raise and lower the boom. Thanks to VarioTray®, a smaller counterweight frame can be quickly and easily bolted to the large frame if required.



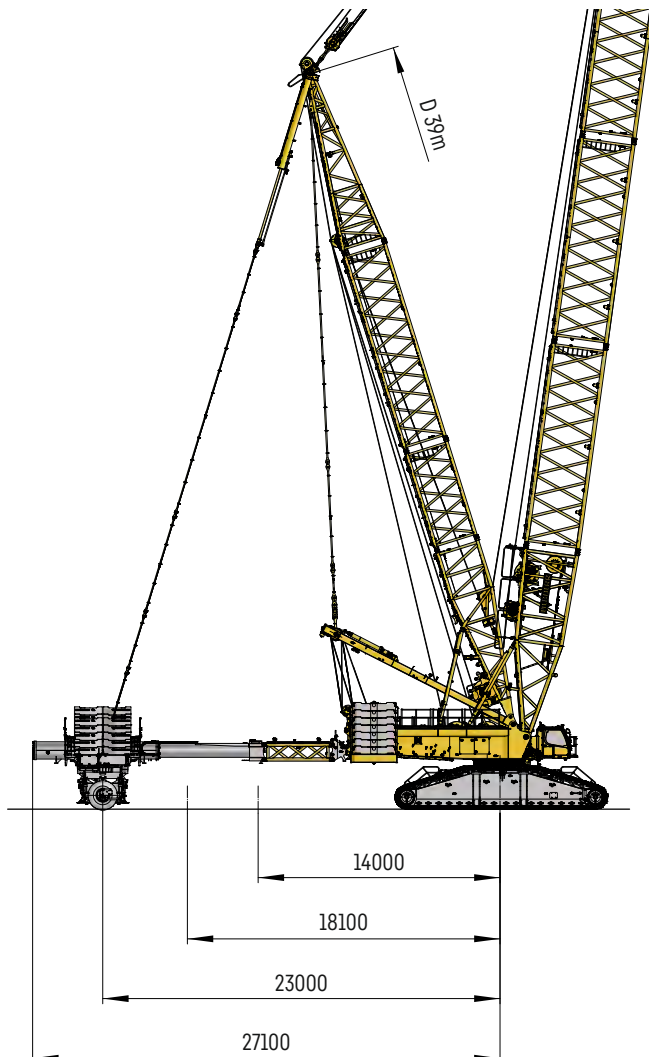
Ballast on wheels

An additional variant for the derrick ballast is the ballast wagon. It can be used to move the crawler crane around the construction site, both with and without a load on the hook. This is an advantage over suspended ballast, where the ballast weights always have to be adjusted to the weight of the load to allow it to move or turn. Modern Liebherr ballast wagons have their own drive and follow the crane sensitively when travelling in a circle, parallel or towing. They are compatible with several Liebherr crawler cranes.

The innovative M-Wagon® with LICCON2 control system can be used on the LR 1700-1.0, LR 1800-1.0 and LR 11000 crawler cranes, which represents a significant cost advantage. Depending on the crane type, the M-Wagon® is equipped with up to 450 tonnes of ballast and can reach a gigantic maximum radius of up to 30 metres with intermediate sections.

Modular vehicles with their own drive are also used as ballast wagons for selected crane types. These M-SPMTs can be moved with up to 1,400 tonnes of ballast.

For the LR 1800-1.0, the M-Wagon® is equipped with 400 tonnes of ballast.



M-SPMT on the LR 12500-1.0

On the move all over the world

Practical transport logistics

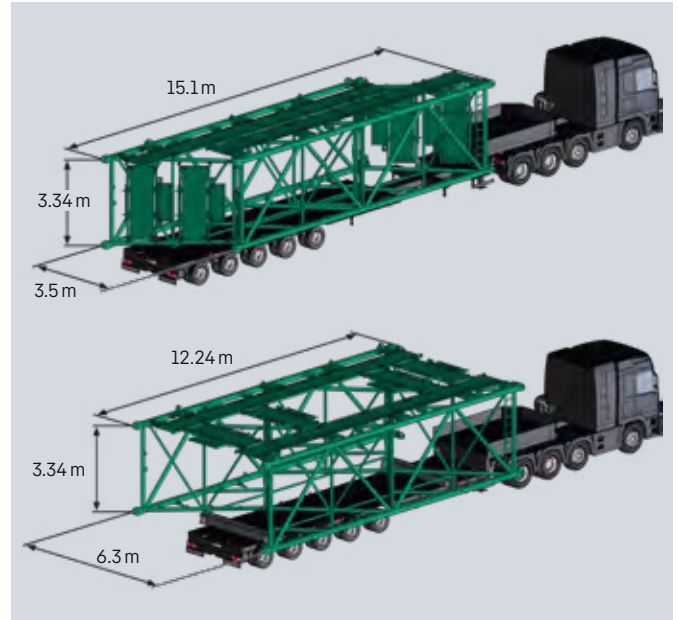


Through the eye of every needle

Building large cranes is easy – but making them transportable is an art that only a few have mastered. When dismantled into its individual parts, each lattice boom crane has a very compact design for the smallest possible transport width – even for countries with restrictive regulations. Thanks to new ideas from creative minds, each crane is equipped with a customised, safe and simple assembly concept for set-up and dismantling. Liebherr takes great care to comply with the transport dimensions of 3 metres or 3.5 metres and to achieve maximum weights of 45 tonnes or 60 tonnes.

Professional load securing

Liebherr's competence in international transport logistics is based on many years of experience and expertise in the industry. Contacts in the heavy goods transport industry and constructive collaboration with shipping companies ensure that Liebherr cranes are designed for safe transport. The components feature a whole host of rigging points. The appropriate documentation and suitable rigging devices can also be supplied. In addition, Liebherr can provide support for transport process planning.



X3 system as an example of a clever transport concept

The LG 1800-1.0 lattice boom mobile crane achieves enormous lifting capacities and lifting heights with the X3 jib system, as the jib is 6 metres wide in the lower section and therefore particularly stable. The approximately 12-metre-long X-shaped intermediate section is transported on a single lorry: the lattice sections can simply be pushed into one another and can therefore be transported at a width of just 3.5 metres.



Powerful, smart, compact.

LR 1500



500 t



164 m



144 m



190 t



55 t



280 t



7.6 m



330 kW
449 HP

Designed for simplicity and high efficiency in all areas – the characteristics of the LR 1500. At the same time, it scores with compact dimensions, simple processes, high lifting capacities and large lifting heights. The LR 1500 achieves the performance of a 500-tonne crane across the entire working range with the dimensions of a 400-tonne model.



Smart crane concept

Behind the LR 1500 is a smart crane concept that combines simplicity and strength. All lifts up to the crane's maximum lifting capacity can be performed with just one powerful main hoist unit. The central ballast can be quickly assembled from just two units per side. The upper section forms the safe catwalk.

Reduced variety of parts

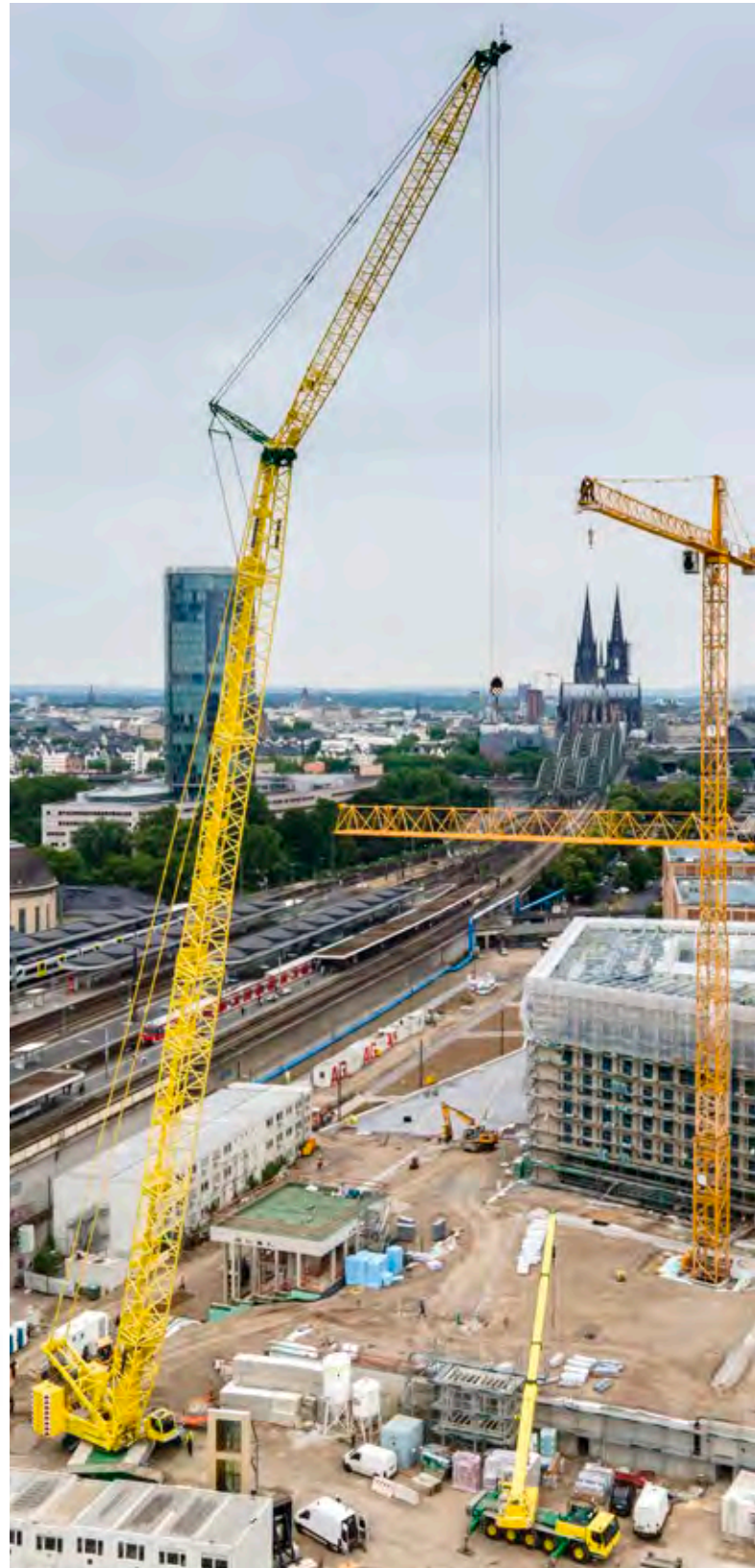
The LR 1500 achieves enormous lifting heights, as the luffing jib, which is up to 84 metres long, can be mounted on the main boom that is up to 84 metres long. The lattice system is also designed for simplicity: the number of parts and the variety of parts is reduced, making transport and assembly easier. All parts are weight-optimised and a maximum width of 3 metres ensures an easy and economical transport worldwide.

46.7 t



Transport-optimised

The weight of the slewing platform with the crawler centre section is 46.7 tonnes with a width of 3 metres, making it economical to transport worldwide. A Quick Connection is not necessary.



Blending worlds, merging types.

LR 1700-1.0



700 t



196 m



160 m



230 t



90 t



375 t

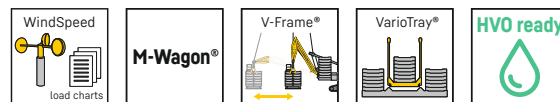


8.7 m



400 kW
544 HP

A real front runner: while the dimensions of the LR 1700-1.0 are based on cranes in the 600-tonne class, its performance matches or even exceeds that of lattice boom cranes in the 750-tonne class. As the successor to the extremely successful LR 1600/2, many tried and tested equipment components have been adopted.



Powerful and compact

The basis for the high performance of the LR 1700-1.0 is the statically optimised base machine with high rigidity. To minimise wear when moving the crawler travel gear, the steel structure of the crawler carriers was made particularly robust, and the track rollers were enlarged. The 4-way drive for the travel gear is standard. All the transport units for the base machine, including the pivot section, are no more than 3 metres in width.

Variable boom systems

The boom can be raised to a height of up to 204 metres, comprising the main boom at 108 metres and a luffing jib at 96 metres. These lattice type sections enable the crane to be used in purely main boom mode with a length of up to 165 metres. The LR 1700-1.0 is also perfectly suited for the installation of wind turbines: a fixed jib with a length of up to 18 metres is mounted on the maximum main boom length of 165 metres with additional H-pieces. The modern derrick system can be equipped with V-Frame®, VarioTray® or the new M-Wagon® modular ballast wagon. This is also compatible with the LR 1800-1.0 and the LR 11000.



Variable derrick ballast

Thanks to V-Frame® and VarioTray®, the derrick ballast is extremely flexible and economical to use. The V-frame® ballast design, a hydraulically adjustable folding frame, enables the ballast radius of the LR 1700-1.0 to be infinitely adjusted between 13 and 21 metres.



Big impact on narrow track.

LR 1700-1.0W



700 t



196 m



160 m



170 t
68 t



65 t



375 t



3.9 m



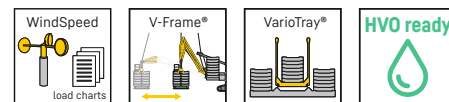
13.5 m x
13.5 m



400 kW
544 HP



Narrow footprint with high load-bearing capacities: the LR 1700-1.0W is ideally suited for the efficient installation of modern wind turbines on wind farms. The narrow-track crawler crane is equipped with state-of-the-art crawler crane technology such as a heavy-duty travel gear, the V-Frame® system and the VarioTray® divisible ballast system.



Special order – wind farm

Narrow-track crawler cranes are optimised for use on wind farms: they can travel from one turbine to the next along the existing routes and be deployed very quickly. Longer distances and inclines are no problem for the LR 1700-1.0W thanks to its powerful drive train that includes components from crawler cranes of higher load classes. The heavy-duty travel gear also ensures minimised wear.

As safety is always a top priority at Liebherr, the corresponding travel tables are available for each operating mode – and can be conveniently simulated in the LICCON work planner. Depending on the crane configuration, the LR 1700-1.0W can handle gradients of up to 18 per cent, which corresponds to an incline of 10°.

Unrivalled load capacities and lifting heights

The powerful base machine and the 3.5-metre-wide H lattice sections in the lower part of the main boom ensure strong lateral stability of the entire system and are the basis for the high lifting capacities and lifting heights. Modern wind turbines with hub heights of up to 165 metres are no problem for the LR 1700-1.0W.



Advantage in terms of crane outriggers

The narrow-track crane works on outriggers and can self-level perfectly even on slightly uneven crane sites.



Strong like a bull.

LR 1800-1.0



800 t



202 m



152 m



230 t



130 t



400 t



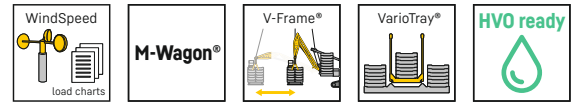
9.0 m



455 kW
619 HP



Outstanding lifting capacities – and optimised for cost-effective worldwide transport. The LR 1800-1.0 has been designed as a particularly powerful industrial crane for jobs with luffing jib and derrick system for industrial plants, power plant construction and the petrochemicals industry. This crane also has a number of benefits for the erection of wind turbines and for wind farm maintenance work, however.



A real power pack!

Our 800-tonner offers enormous strength with a base machine that is only 3 metres wide. It is particularly rigid as a result of its increased design height. With the multi-functional boom system and the flexible derrick systems, which also increase the load capacity, the LR 1800-1.0 can be used absolutely anywhere.

Economical transport around the world

Three lattice type sections of the LR 1800-1.0 can be slid into each other: this significantly reduces transport costs. The Quick Connection to raise the superstructure for transport is standard and also simplifies transport enormously. The base machine is designed for a transport width of 3 metres and a maximum transport weight of 45 tonnes. The weight of the crawler travel gear of 60 tonnes can be reduced to a transport weight of less than 45 tonnes by removing the tracks.

Flexible derrick ballast

Thanks to V-Frame®, the hydraulically adjustable folding frame, the suspended ballast can be infinitely adjusted up to a ballast radius of 23 metres. One advantage for operators of several large Liebherr crawler cranes is the modular M-Wagon® ballast wagon, which can be used for the LR 1700-1.0 and LR 11000 in addition to the LR 1800-1.0.



M-Wagon®

The sensitive LICCON2 control system controls the ballast wagon for circular, towing and parallel travel. The maximum ballast on the LR 1800-1.0 is 400 tonnes over a radius of 23 metres.



The legend grows.

LG 1800-1.0



800 t



204 m



156 m



270 t



400 t



13.0 m x
13.0 m



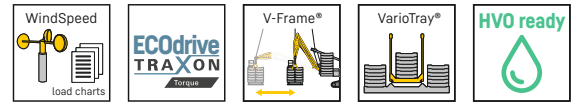
505 kW
686 HP



455 kW
619 HP



The LG 1800-1.0 combines the mobility of an all-terrain crane with the high lifting capacities of a lattice boom crane. The LG 1800-1.0 also features state-of-the-art crane technology such as V-Frame®, VarioTray®, the ZF TraXon Torque transmission with ECOdrive and the WindSpeed load charts. What's more, the equipment of the LR 1800-1.0 can also be used on the LG 1800-1.0.



Travelling worldwide

With its unique chassis, the 9-axle vehicle can be used anywhere in the world. With an axle load of just ten tonnes, the crane can drive on public roads with all four outriggers and a total weight of 90 tonnes, for example.

Optimised for the wind farm

Thanks to optimised wind power boom systems, for example, it is possible to work with a boom of 174 metres and an 18-metre-long lattice type fixed jib at hub heights of 180 metres. The X3 boom system with wider lattice type sections in the lower area is also ideal for the assembly of wind turbines. This system offers maximum performance and more lifting height. The load charts of the „WindSpeed Load Charts“ with different permissible wind speeds of up to 13.4 m/s also ensure increased flexibility and safety in gusty operating conditions.



Impressive parameters

Liebherr presented the LG 1800-1.0 at the customer days in Ehingen. The X3 boom system with a boom width of 6 metres provides a significant performance upgrade in terms of lifting height and load capacity. It is also optimised for economical transport. The all-terrain chassis drives within a width of 3 metres at max. 10 tonnes of axle load.

Stays strong when things get tight.

LR 11000



1,000 t



220 m



184 m



250 t



130 t



450 t



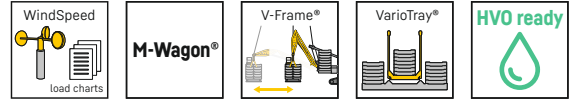
9.2 m



505 kW
686 HP



Whether infrastructure, wind power, industrial construction or harbour handling – with its wide range of boom variants, the LR 11000 is ideally suited for every application and impresses with excellent lifting capacities across the entire working range. It is ideally designed for a wide variety of construction sites and can be transported economically anywhere in the world. A successful combination of compactness, flexibility and strength.

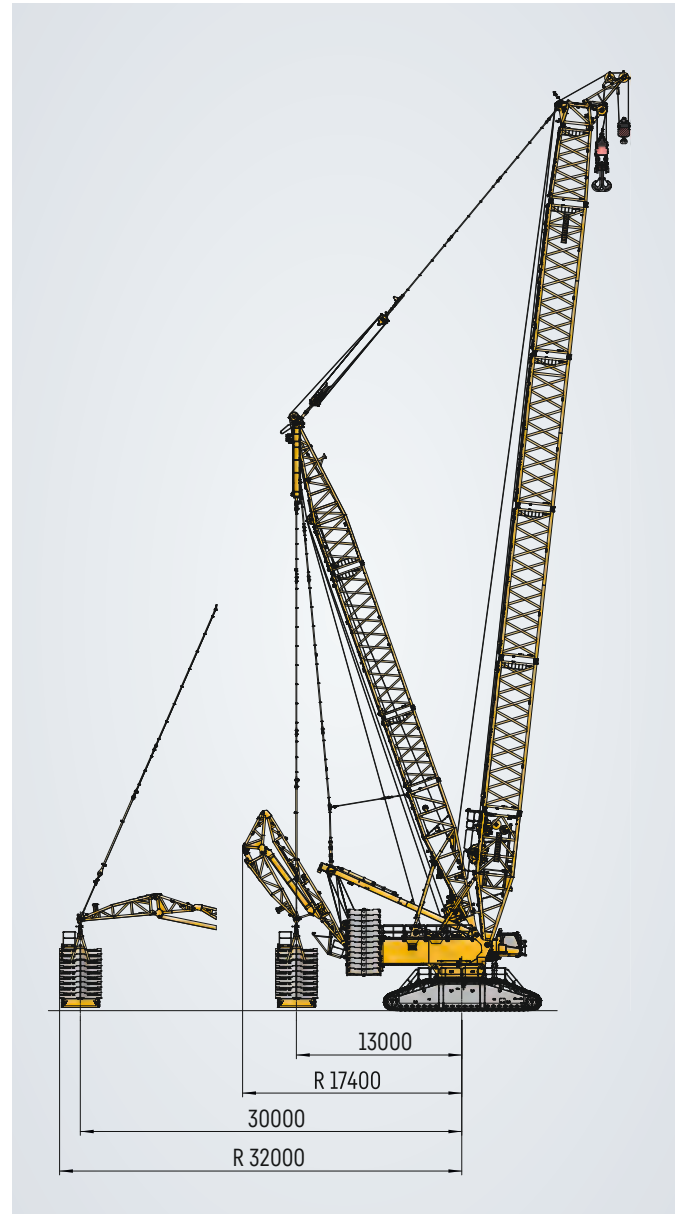


At home everywhere

The LR 11000 convinces with its impressive universality. The heaviest loads, great heights and radii: with its diverse equipment portfolio, the heavy-duty crane is extremely versatile. The PowerBoom ensures enormous increases in load-bearing capacity. Long luffing jibs allow enormously large working radii. Special wind power configurations with and without derrick for lifting turbines, rotor blades and tower segments achieve unique lifting capacities in this crane class.

Easy handling

With transport dimensions of 3.5 metres in width and a maximum weight of 45 tonnes, the heavy-duty crane is easy to transport – and can therefore be used profitably anywhere in the world. The LICCON2 control system provides support with monitored assembly operation and extended set-up options. The LR 11000 impresses with excellent assembly times thanks to its simple set-up concept. The derrick system with VarioTray®, V-Frame® and the modular M-Wagon® ballast wagon, which can also be used on the LR 1700-1.0 and LR 1800-1.0, ensures maximum flexibility in use.



The V-Frame® offers maximum flexibility with its infinitely adjustable ballast radii.

Versatility with high lifting capacity.

LR 11350



1,350 t



220 m



164 m



340 t



30 t



600 t



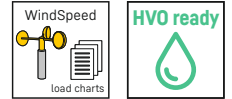
11 m



660 kW
898 HP



The LR 11350 is used with outstanding load capacities across the entire working range. This crane is particularly suitable for universal use in offshore handling as it can operate with and without PowerBoom, handling high part weights. It also reaches an enormous hook height of 220 metres.



Infinite power

With a maximum lifting capacity of 1,350 tonnes, the LR 11350 is a benchmark in the crane class over 1,000 tonnes. The variable boom construction kit enables versatile applications for a wide range of requirements. The focus was on a high degree of reusability of individual parts. For example, the rooster sheave fits all boom systems. The WV heavy-duty jib is assembled from parts of the luffing jib and offers enormous load-bearing capacities.

Another technology that impresses with its price-performance ratio is the PowerBoom parallel boom: the simple mechanical add-on system increases the load capacity of large crawler cranes by up to more than 50 per cent. The majority of the S main boom can be used, only two additional P-adapters are required.



By using a ballast wagon, the crawler crane can be moved around the construction site while the load is suspended from the hook – without having to change the entire ballast system.



Award-winning technology

The PowerBoom significantly increases the stability of the boom both in the direction of the load and to the side – a simple additional system for large increases in performance.

Game changer for tomorrow's energy.

LR 12500-1.0



2,500 t



200 m



180 m



320 t



100 t



1,400 t



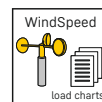
12.5 m



2x 400 kW
544 HP



A crawler crane with enormous capacity combined with a unique, practical concept for economical transport – that's the LR 12500-1.0. The powerful crane is mainly designed for loading heavyweight goods such as offshore wind power components at ports or for industrial applications.

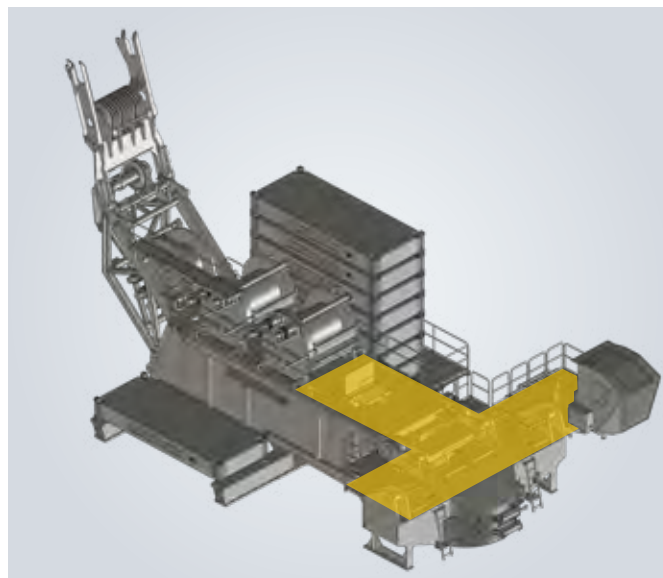


Maximum capacity with HighPerformanceBoom

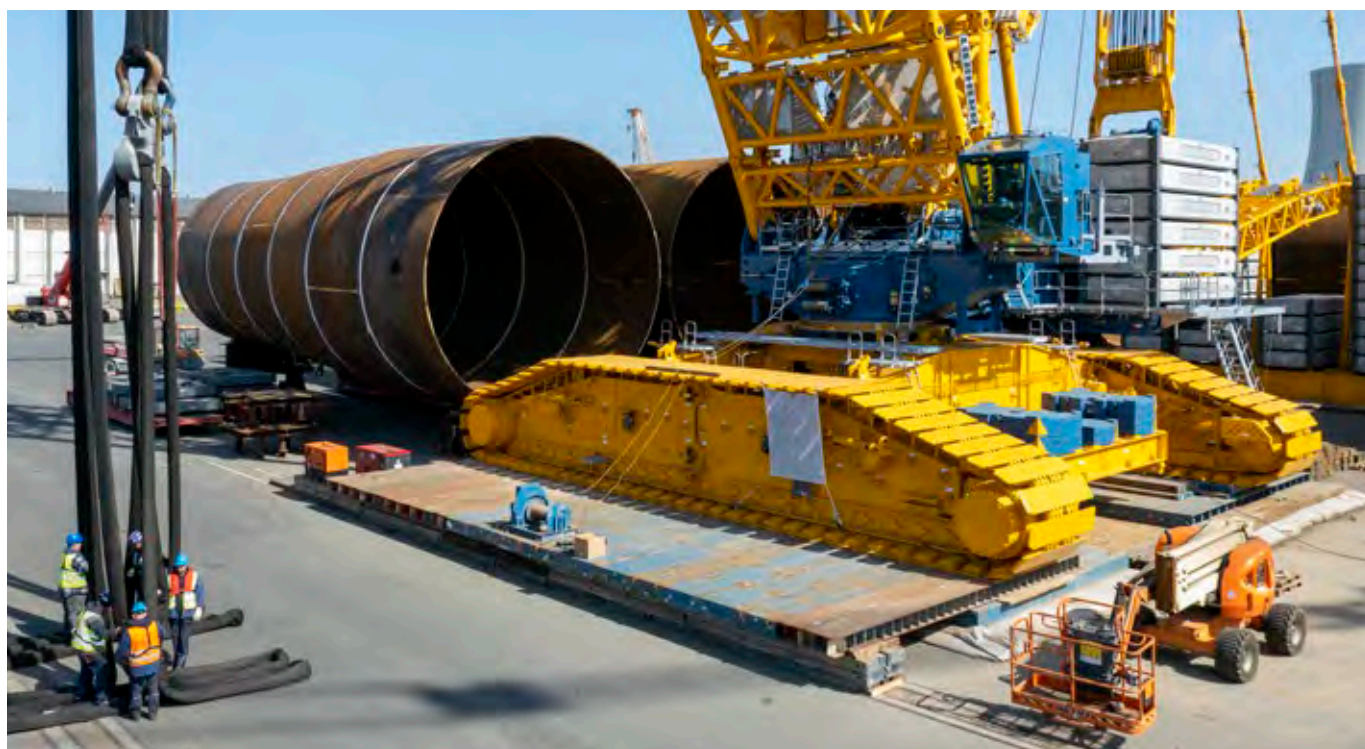
The powerful, 7.5-metre-wide HighPerformanceBoom is perfectly integrated into the slewing platform. It gives the crane the strength and stability of a PowerBoom and also saves weight. The maximum hook height of around 200 metres is achieved by the new LR 12500-1.0 using a 100-metre main boom and a 108-metre luffing jib. Installed with a short length, the luffing jib also acts as a particularly powerful WV jib. The “vessel lifter” is ideal for the erection of long columns in petrochemical plants.

Smart solutions for economical transport

The HighPerformanceBoom is transported using an ingenious mechanism that folds the boom sections to an economical transport size. The 25-tonne counterweight plates are identical to those used on the LR 13000. They have the same dimensions of a 20-foot container to ensure they can be transported particularly economically and can be loaded using a spreader.



The combination of the HighPerformanceBoom with the innovative T-Shape slewing platform gives the LR 12500-1.0 enormous lifting capacities.



The most powerful of its type.

LR 13000



3,000 t



236 m



200 m



750 t



150 t



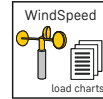
1,500 t



1,000 kW
1,360 HP



The LR 13000 is the most powerful conventional crawler crane in the world. One of its main areas of use is power plant construction. This requires the continuous hoisting of extreme component weights. These requirements apply in refineries, as well, where industrial columns weighing 1,500 tonnes and measuring 100 meters in length have to be erected. What's more, with individual maximum weights of 70 tonnes, this gigantic crane can be transported cost-effectively throughout the world despite its size.



Variable derrick system

The LR 13000 from Liebherr is the only crawler crane in this class which can also operate without derrick ballast. This is made possible by a slewing ring which Liebherr develops and manufactures in-house and which features an extreme load capacity. The standard slewing platform ballast is increased to 750 tonnes to achieve maximum load capacities without derrick ballast. This makes the heavy-duty crane even more flexible to use. The suspended ballast can be infinitely adjusted within a ballast radius of up to 30 meters without guides using the derrick boom. The standard range of suspended ballast is combined with SPMT heavy-duty modular transporters to form the ballast wagon.

Designed for economical transport

Despite its gigantic dimensions and performance, the LR 13000 is designed so that it can be transported economically anywhere in the world. All parts weigh a maximum of 70 tonnes and are 4 metres wide. The concrete ballast slabs can be transported easily and at low cost in the form of 20-foot containers with Twistlock.

Comfortable workplace

The spacious and ergonomically designed crane operator's cab offers excellent all-round visibility. Three LICCON monitors display the most important data. The camera surveillance system provides the crane operator with a constant view of the main areas on and around the crane. Live images of the winches, the ballast and the area behind the crane are transferred to the two multi-function colour displays in the crane cab. The modern heating and air conditioning system ensures a pleasant working environment.



The PowerBoom parallel boom increases the rigidity of the boom enormously, enabling the LR 13000 to achieve particularly high lifting capacities.

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Our MyLiebherr portal is the easy way for you to access Liebherr's digital service world.
Take advantage of extensive basic and additional services for your mobile and crawler cranes.



One portal, all services
MyLiebherr



Planning

Crane Finder



Operations

Performance



Planning

Crane Planner 2.0



Operations

Documents



Maintenance

Spare Parts Catalogue



Planning

LICCON Work Planner



Training

Digital Crane Operator



Maintenance

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