Crawler and lattice boom cranes from Liebherr

Cranes with all the power you need
Efficient operations
with outstanding crane designs
Liebherr cranes are used all over the world, wherever very heavy loads need to be moved safely and economically. The cranes offer outstanding lifting capacities and load moments as well as enormous hoist heights and radii.

- Extremely variable boom systems for a particular wide range of applications
- The perfect boom combination to meet every challenge
- Maximum mobility and economy due to compact dimensions and optimised component weights for easy transportation
- Derrick systems with suspended counterweight tray or ballast wagon increase the cranes’ capacity
- Special boom systems for the efficient assembly of wind turbines
Crawler crane specialists
The very latest design and production
**Long term experience**

Liebherr started designing lattice boom cranes on crawler chassis in Ehingen at the end of the seventies. Today Liebherr develops and manufactures crawler cranes with lifting capacities of over 300 tonnes/360 US-tons at its Ehingen site. Liebherr builds crawler cranes with lifting capacities up to 300 tonnes/360 US-tons in Nenzing, Austria.

**Practical crane design**

Liebherr cranes are developed using the very latest design methods. Our engineers ensure that the design is 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. The company also focuses its design on ensuring maximum safety during crane operation.

**High production quality**

The assembly shop for heavy duty cranes is specially designed for the assembly of crawler 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 test yard.
Pioneering innovation
Increasing lifting capacity with PowerBoom
Enormous increase in lifting capacity
The parallel “PowerBoom” increases the lifting capacity of large crawler cranes by up to more than 50 percent. The award-winning technology delivers excellent value for money. The bottom sections of the lattice boom feature lattice sections mounted parallel next to each other. This massively increases stability both in the direction of the load and also to the side. The PowerBoom increases lifting capacity enormously, particularly on long boom systems.

Economic, flexible solution
The system is simple to retrofit – all crane owners require are two additional adapters. Standard intermediate lattice sections are used to form the parallel boom. The lattice sections installed in parallel are merged near the turntable using the lower P adapter and bolted to the crane. The upper P adapter reconnects the parallel boom. This enables the crane to achieve extremely efficient lifting capacities in the next higher crane class.

Powerful luffing jib with PowerBoom
Operating with a luffing jib also allows massive lifting capacity increases to be achieved since the maximum permitted torsional moment is increased by the PowerBoom. This drastically extends the range of use of the crane. The increase in lifting capacity has proved to be extremely effective on the LR 11000 and LR 13000 cranes. Components from the luffing jib are used for the PowerBoom in this case. This enables sections of the main boom to be used to form a particularly powerful luffing jib.
On the move all over the world
Practical transport logistics
**Compact dimensions and optimised weights**
During the design phase Liebherr engineers focus on variable possible means of transport for the crane components. The dimensions and weights of crawler cranes are designed to allow them to be transported practically and economically. Short set-up times can be achieved with designed erection procedures. A wide range of transport versions provide scope for adjusting to a wide range of requirements for using the cranes in other countries and continents. This ensures low cost transportation even in countries with restricted weight stipulations.

**Professional load securing**
Liebherr’s competence for international transport logistics is based on many years of experience and expertise in the industry. Contacts in the heavy haulage industry and constructive collaboration with shipping companies ensure that Liebherr cranes are designed for safe transport. The components feature a whole host of lashing points. The appropriate documentation and suitable lashing equipment can also be supplied. In addition, Liebherr can provide support for transport process planning.
LR 1350/1
Compact and powerful
Top lifting capacities in all working ranges
The LR 1350/1 delivers high lifting capacities in all working ranges due to its standard reinforced S2 main boom. A special S3HS boom system is available for wind turbines with a tower height of up to 100 m / 330 ft.

Compact design
The LR 1350/1 is the most compact crane in its class and delivers great flexibility in constricted working environments. It can also be transported at low cost. Its dimensions and weights are perfect for transportation. The whole basic machine weighs just 40 tonnes / 88,185 lbs.

Lightweight version
The 350-tonne/400 US-ton crawler crane is also available in a lightweight LN version. The complete set of equipment can be transported in standard trucks.

Self-erection
- The entire crane can be self-erected
- Ballasting device is also available as an option

Efficient transport
- The whole basic machine weighs just 40 tonnes / 88,185 lbs
- Width: 3 m / 9.8 ft

LR 1350/1

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. lifting capacity</td>
<td>350 t / 400 US-t</td>
</tr>
<tr>
<td>Max. torque</td>
<td>4,272 tm / 31,012,150 lbs-ft</td>
</tr>
<tr>
<td>Max. boom length</td>
<td>156 m / 512 ft</td>
</tr>
<tr>
<td>Engine power</td>
<td>270 kW / 367 HP</td>
</tr>
<tr>
<td>Max. outreach</td>
<td>7.2 m / 24 ft</td>
</tr>
<tr>
<td>Max. hoist capacity</td>
<td>125 t / 276,000 lbs</td>
</tr>
<tr>
<td>Max. counterweight capacity</td>
<td>38 t / 84,000 lbs</td>
</tr>
<tr>
<td>Max. load x max. outreach</td>
<td>max. 210 t x 15 m / max. 463,000 lbs x 49 ft</td>
</tr>
</tbody>
</table>
LR 1400/2
The most successful crane in its class
Flexible boom system
The multi-functional boom system on the LR 1400/2 is suitable for a wide range of applications. It can be chosen both for industrial work and for erecting wind turbines. Special configurations make the crawler crane ideal for erecting wind turbines with a hub height of up to 100 m / 330 ft.

Variable derrick system
A variable derrick system is available for the LR 1400/2. The derrick ballast weighing up to 260 tonnes / 573,000 lbs can be used as suspended counterweight tray or as ballast wagon to achieve a maximum radius of 15 m / 49 ft. The counterweight tray is adjustable by using a hydraulically telescoping guide.

Highly manoeuvrable
As an option the LR 1400/2 can be fitted with 1.5 m / 4.9 ft crawler plates to reduce its ground pressure. The four-way crawler drive unit ensures excellent manoeuvring and steering.
LR 1600/2
Flexible crawler crane for all types of use
High lifting capacities and reinforced boom systems
A wide range of boom systems makes the LR 1600/2 suitable for any type of use. Reinforced boom configurations with H-kit enable it to achieve high load capacities. Extended boom systems can be used to erect wind turbines efficiently. The SL13DFB system enables the LR 1600/2 to achieve unrivalled lifting capacities in the 600-tonne/660 US-ton class with a hook height of 187 m/614 ft.

Variable derrick system
Variable derrick systems are available for the LR 1600/2. The derrick ballast weighing up to 350 tonnes/771,600 pounds can be adjusted when fully loaded up to a radius of 18 m/59 feet using either the suspended counterweight tray without guidance or a ballast wagon. With the B2 guiding frame the suspended ballast can achieve radii of 15 m, 17.5 m and 20 m/49.2 ft, 57.4 ft and 65.6 ft.

Low cost transport logistics
The weights and dimensions of the LR 1600/2 have been perfected to ensure low cost transport. The weight of the basic machine can be reduced to 57 tonnes/125,665 lbs by removing the SA frame. The SA frame is a transport unit which is easy to remove.

High safety standards
Safety ropes, a number of ladders and walkways are available for working at height.

Powerful SL13 boom system
- Long main boom systems with a fixed jib are perfect for the wind mill erection
- Using the same lattice sections and the S head section the main boom can be used with very high loads as the SL14 heavy duty boom.

Increased load capacity with ballast trailer
- Max. 350 tonnes/771,600 pounds of derrick ballast on the ballast wagon
- Infinitely variable radii between 13 m and 18 m/42.7 ft and 59 ft possible
LR 1600/2-W
Efficient operations in wind farms
On narrow tracks through wind farms
The LR 1600/2-W narrow track crawler crane is particularly efficient for use in wind farms since it can travel over narrow paths whilst fully equipped. The overall width of the crawler chassis is just 5.8 m / 19 ft.
The LR 1600/2-W is fitted as standard with 2 m / 6.6 ft crawler plates to reduce its ground pressure. The four-way crawler drive unit ensures excellent manoeuvring and steering.

Safety for travelling and operations
The support plates are carried close to the ground during travelling and can be tailored individually to the available track width. They thus provide a high level of safety. The crane supports deliver high stability for hoisting work.

Enhanced for wind turbine erection
The boom systems for the LR 1600/2-W are designed for erecting wind turbines. Without a derrick system the crawler crane is ideal for use on turbines with a tower height of up to 105 m / 345 ft, with the derrick system for heights of up to 140 m / 460 ft.

Travelling by remote control
The travel and support functions can be controlled particularly conveniently and safely using a remote control.
LR 1750/2
Sequel of the success story
**Wide range of equipment**
With its multi-functional boom system, the lifting capacity increasing derrick system, and various support versions, the LR 1750/2 is suitable for universal use. The 750-tonne/825 US-ton crane can be used both with a mobile crawler chassis and with swing-out supports as a stationary "pedestal crane".

**High lifting capacities**
Without a derrick system the LR 1750/2 can achieve massive increases in lifting capacity using the superstructure extension and crane supports.

**With „H boom“: LR 1750/2**
With a reinforced main boom and modified derrick system the lifting capacities can be increased by up to 30% compared to the LR 1750.

---

**Upgrade to the LR 1750/2**
- Equipment of LR 1750 can be used, extended derrick and reinforced main boom
- Enhanced crawler chassis, ballast trailer with power unit, walkways and railings

**Stationary „pedestal crane“**
- Increase support base measuring 12 m x 16 m / 39 ft x 52.5 ft
- Up to 50% higher load capacity compared to mobile crawler chassis model
LG 1750
Maximum mobility and enormous lifting capacity
The **most powerful lattice boom mobile crane in the world**

The LG 1750 combines the benefits of the high mobility of an all-terrain crane with the enormous lifting capacity of a lattice boom crane. It is the most powerful lattice boom mobile crane in the world.

**Functional boom systems**

A wide range of boom systems for the most diverse applications is available for the LG 1750. The S6 main boom is perfect for use with a luffing jib. Without a derrick system the LG 1750 can achieve massive increases in lifting capacity using the superstructure extension. With the derrick system it can achieve maximum hoist heights and lifting capacities.

Most of the equipment for the LG 1750 is compatible with the LR 1750 crawler crane.

**Special solutions for wind power**

There is a large selection of boom configurations for the LG 1750 which have been specially enhanced for use in the wind industry. The latest generation of wind turbines with hub heights of up to 150 m / 490 ft can be erected using the SL12D2FB system.

**Design perfected for transport**

The basic machine travels on the road with an axle load of up to 12 tonnes / 26,400 pounds. The folding beams can be removed as standard to achieve a reduced transport weight of 48 tonnes / 105,600 pounds.

**High safety standards**

Safety ropes, a number of ladders and walkways are available for working at height.

---

**All-terrain chassis**

- Latest travel gear technology
- Active rear wheel steering
- Variable steering programs

---

**SL12-boom**

- 150 m / 490 ft
LR 11000
Powerful, flexible and compact
Outstanding lifting capacity values
The powerful LR 11000 features outstanding lifting capacities over its entire working range. The heavy duty crane can achieve enormous increases in lifting capacity using the parallel “PowerBoom” system.

Extensive boom systems
With a variety of boom versions, including derrick systems and special wind power equipment, this Liebherr crawler crane flexibly covers a wide range of applications. The standard equipment comprising the S main boom and W luffing jib enables the crane to achieve various boom systems, including a powerful PowerBoom with a heavy duty luffing jib.

Compact dimensions
The LR 11000 has been designed so that it can be used in constricted areas, for example in refineries. The basic crane is extremely compact and has a track width of just 9.2 m/30 ft. The suspended counterweight tray can be placed within 12 m/20 ft of the basic machine.

Enhanced transport and erection concept
The LR 11000 is designed for a transport width of 3.5 m/12 ft and a transport height of 3.2 m/10.5 ft. Individual weights can be reduced to 45 t/99,200 lbs. The central crawler section including the slewing ring and bottom section of the slewing platform forms one transport unit only and can be connected to the slewing platform quickly using just four bolts.

High safety standards
Safety access ladders, railings and walkways are available for working at height. The 360° platform provides convenient, safe access to the turntable and crane cabine.

Derrick ballast
• Infinitely adjustable radius from 12 m to 20 m/39 ft to 66 ft, up to 30 m/82 ft with guide frame
• Safe access ladders and railings

Compact dimensions

<table>
<thead>
<tr>
<th>LR 11000</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max.</td>
<td>1,000 t/1,200 US-tons</td>
</tr>
<tr>
<td>tm</td>
<td>15,171 tm/112,000,000 lbs-ft</td>
</tr>
<tr>
<td>B</td>
<td>222 m/728 ft</td>
</tr>
<tr>
<td>A</td>
<td>500 kW/680 HP</td>
</tr>
<tr>
<td>C</td>
<td>9.2 m/30 ft</td>
</tr>
<tr>
<td>D</td>
<td>250 t/551,250 lbs</td>
</tr>
<tr>
<td>E</td>
<td>90 t/198,450 lbs</td>
</tr>
<tr>
<td>F</td>
<td>max. 450 t x 30 m/992,000 lbs x 82 ft</td>
</tr>
</tbody>
</table>

R = 12 m/39’4”
R = 20 m/65’7”
**LR 11350**

The standard in the heavy duty crane class
**Excellent lifting capacity values – variable boom systems**
The LR 11350 features excellent lifting capacity values over its entire working range. The PowerBoom enables it to achieve enormous increases in lifting capacity.

**Enhanced for transport**
A thoroughly thought-out transport concept ensures maximum economy. Not a single component of the LR 11350 exceeds a transport width of 3.5 m / 12 ft or a transport weight of 45 tonnes / 99,200 pounds. The bottom section of the turntable, the slewing platform and the central crawler section form one transport unit only. This means that there is no need for a quick connection which drastically reduces the erection time.

**Compact dimensions**
The LR 11350 features compact dimensions. The suspended counterweight tray can be placed within 15 m / 49 ft of the basic machine.

**Variable derrick system**
The crane can be operated with and without a derrick boom. The derrick system can be infinitely adjusted between 15 m and 25 m / 49 ft and 82 ft under load. The suspended counterweight tray radius can be extended to 30 m / 98 ft with a guide frame.

**High safety standards**
Safe access ladders, railings and walkways area available for working at height. The 360° platform provides convenient, safe access to the turntable and crane cab.

**Ballast trailer**
- Various travel programs such as circling and haul drive
- 15 m to 30 m / 49 ft to 98 ft radius

**Crane cabine**
- Large and clearly designed, excellent all-round visibility
- Three LICCON monitors with work planner
- Monitors for monitoring the winches
- Air-conditioning system with external power pack

---

<table>
<thead>
<tr>
<th>LR 11350</th>
</tr>
</thead>
<tbody>
<tr>
<td>max</td>
</tr>
<tr>
<td>US-tons</td>
</tr>
<tr>
<td>tm</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th></th>
<th>1,350 t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,500</td>
</tr>
<tr>
<td></td>
<td>22,748</td>
</tr>
<tr>
<td></td>
<td>167,780</td>
</tr>
<tr>
<td></td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>lb</td>
</tr>
<tr>
<td></td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>t x</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>m /</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>m x</td>
</tr>
<tr>
<td></td>
<td>1,322</td>
</tr>
<tr>
<td></td>
<td>700</td>
</tr>
<tr>
<td></td>
<td>1,322</td>
</tr>
<tr>
<td></td>
<td>700</td>
</tr>
</tbody>
</table>
LR 13000
The largest conventional crawler crane in the world
Universal boom system
The boom system on the LR 13000 delivers maximum flexibility. Various boom systems can be combined from the main boom and luffing jib depending on the requirements for the specific job.

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 features an extreme lifting capacity. The standard turntable ballast is increased to 750 tonnes/1,653,400 pounds to achieve maximum lifting capacities without derrick ballast.

The suspended ballast can be infinitely adjusted by the derrick boom within a ballast radius of up to 30 m/98 ft without guidance. The standard range of suspended ballast is combined with heavy duty self-propelled modular transporters (SPMTs) to form the ballast wagon.

Practical transport logistics
During the design of this large crane a great deal of value was attached to ensuring practical transport logistics. No single part exceeds a transport weight of 70 tonnes/154,300 pounds. Most of the components can be transported with a height of 3.6 m/12 ft and a width of 4 m/13 ft.

Powerful drive units
The LR 13000 is powered by two Liebherr V8 diesel engines which develop a combined power output of 1,000 kW/1,360 HP. They have a redundant design to increase the crane’s availability.

Maximum lifting capacities
With derrick ballast and 400 tonnes/881,850 pounds of superstructure ballast

Flexible in use
- Without derrick ballast for constricted working environments
- 750 tonne/1,653,400 pounds turntable ballast
Mobile and crawler cranes from Liebherr-Werk Ehingen GmbH

Liebherr-Werk Ehingen GmbH develops and manufactures highly modern telescopic and lattice boom cranes on mobile and crawler chassis. Its services also include the design and project completion of large parasols. The company is the global market leader in mobile cranes. The keys to this success are its innovative products, high quality and committed workforce. As the company attaches a great deal of value to high technological standards, Liebherr-Werk Ehingen GmbH invests heavily in research and development. The needs of the customer are the primary focus from development to service. The objective is to set standards in quality, functionality and safety and ensure that the machines are highly reliable in use. Liebherr-Werk Ehingen GmbH is part of the global Liebherr Group of Companies. This family-run company is one of the largest manufacturers of construction machinery in the world and is also renowned as a supplier of technically advanced, user-focused products and services in many other industries.

LTM mobile cranes
The range of LTM cranes extends from the twin-axle 35-tonne model to a heavy duty crane with a load capacity of 1,200 tonnes. The all-terrain chassis is ideal for combined on-road and off-road use. The powerful, long telescopic booms can reach great working heights quickly and easily.

LT compact cranes
Compact cranes are all-terrain cranes with a particularly compact design. They are ideal for use on extremely constricted sites.

LTF telescopic truck-mounted cranes
LTF truck-mounted cranes are a low cost alternative in the taxi crane class. Mounted on standard truck chassis, they cost very little to drive around to jobs.

LG lattice boom mobile cranes
LG mobile cranes with lattice booms can handle particularly heavy loads, enormous working heights and radii.

LTR telescopic crawler cranes
Telescopic cranes on crawler chassis deliver short set-up times and excellent off-road manoeuvrability. They are particularly flexible to use.

LR crawler cranes
LR crawler cranes are used all over the world, wherever very heavy loads need to be moved safely and economically. With extremely variable boom systems and lifting capacities of up to 3,000 tonnes they can cover a particularly wide range of uses.

www.liebherr.com