
General purpose offshore cranes

Product range

LIEBHERR

Maritime cranes



Offshore crane technology



Liebherr offshore cranes are modern, sophisticated machines benefitting from experience gained during many years of design, development and operation under most severe of environmental conditions. Over 1,000 cranes have been brought into field over the course of years state-of-the-art technology and excellent workmanship guarantee the high quality standards Liebherr offshore cranes are known for. The combination of continuous research and input from various design disciplines together with the customer feedback establish Liebherr cranes as benchmark for today's offshore industry.

Liebherr is in the unique position to develop many key components in-house. The provided Liebherr warranty is unique in the offshore industry and covers, without any limitation, the complete crane package, including all deployed parts and components. Due to the comprehensive product portfolio and manufacturing capabilities of the Liebherr company, it is possible to provide the cranes from a single source.

The combination of continuous research and lessons learned in other divisions together with the feedback from more than 1,000 cranes in the field provides Liebherr a huge wealth of experience our customers benefit from. Innovative and reliable products as well as a comprehensive customer service result from this and make our offshore cranes a benchmark for today's industry.

RL-Series

The Liebherr ram luffing offshore crane (RL) is the result of more than 30 years of experience in the offshore industry. The product development is a continuous process and is based on actual feedback from customers all over the world. The compact RL offshore cranes offer medium lifting capacities and working outreaches as well as exemplary reliability and availability.

BOS-Series

The range of Liebherr board offshore cranes (BOS) includes rope luffing offshore pedestal cranes with an open A-frame design and various drives. The BOS cranes of the latest generation stands for the highest manufacturing standards and modern, innovative offshore crane technology. This makes the BOS crane a leader in its class.

RL-K-Series

The Ram luffing jib cranes (RL-K) were developed by Liebherr for the high specific requirements of the offshore market. The application range of the RL-K cranes includes onboard, offboard and subsea lifts. Modular lifting equipment specially developed by Liebherr for the RL-K series, such as pipe grabs and various load manipulators for handling pipes and risers on drilling vessels, extend the portfolio.

Customer Service

Benefit through partnership – our philosophy is based on reliability and long-term, trustworthy relationships. We offer prompt and high-quality solutions for offshore cranes, but also provide an unrivalled service.

Offshore crane philosophy



Competence

Liebherr offshore cranes are sophisticated machines which are developed and manufactured in-house and are perfectly suited to the nature of their intended use. Modern, well-organised workshops reflect Liebherr's commitment to high quality workmanship. All our offshore cranes are produced in our own facilities. No part of the manufacturing process is subcontracted – unusual in this sector.

Crane design philosophy

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Experience

Today, the Liebherr group incorporates more than 51,321 employees in more than 140 companies throughout the world. From the beginning Liebherr has been improving its products and services to meet the requirements of this demanding and steadily developing market.

Quality

Liebherr cranes are the result of continuous quality assurance and quality control at all stages of design, production and customer service. Our quality management system within our business unit "MCCtec" is certified by Det Norske Veritas (DNV) according to quality standard ISO 9001:2015, energy management standard ISO 50001:2018 and occupational health and safety management system ISO 45001:2018.

Crane design codes

All cranes are designed and certified in accordance to international rules and regulations, like API 2C, EN 13852 and various classification rules and regulations:



Ram luffing crane series (RL)

The RL is the most compact crane in the Liebherr offshore crane range. For use in confined spaces, the electro-hydraulic drive is situated inside the slewing column. This is an optimal solution for operations with restricted space conditions and results in a small tail radius. Despite the compact design, the RL series convinces with a high level of maintenance comfort and ease of access.

To increase safety and fulfil the requirements of operations on oil and gas platforms, the ram luffing crane series can be outfitted with a hazardous area rating.

The ram luffing crane series is ideal for providing reliable and trouble-free operation on unmanned platforms or installations requiring autonomous crane operation.

Technical data:

- Boom configuration up to 58 m
- Lifting capacity up to 100 t
- Various crane sizes available from RL 900 up to RL 4600

Product details at a glance:

- Light weight crane design
- Space saving (crane installation) due to short minimum working and tail swing radius
- Modular design with standardised components for maximum reliability and availability of spare parts across the complete offshore product range
- Liebherr Litronic crane control system for highly efficient, smooth and accurate operation
- Applicable in hazardous areas (ATEX & IECEx)
- Crane service intervals of 12 month or more without manned service
- Prepared for remote or unmanned crane operation



LiMain – Intelligent maintenance

Liebherr Intelligent Maintenance (LiMain) is a new level of independence for manned and unmanned platforms, that offers increased crane availability at lower costs. LiMain is a fully digital, remote and semi-automatic maintenance system, which saves investments and resources for the platform operator. The key element of LiMain is the modular system architecture. Platform operators can choose from various modules and so determine the degree of autonomy and scope of intelligent maintenance for the crane.



Module 1: Automatic Greasing

Functionally critical components are continuously checked and automatically lubricated. The aim is to ensure automatic, need-based lubrication at all relevant lubrication points. The prerequisite is that the bearing points must be in motion during lubrication.



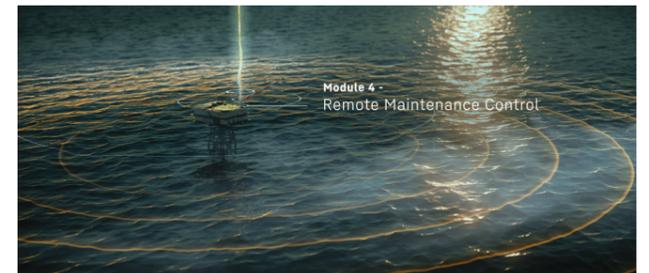
Module 2: Condition Monitoring

State-of-the-art sensor technology provides detailed data on relevant components and systems of the crane. All of the following conditions can be recorded electronically and accessed remotely using data cable connection, gsm or satellite. These are available in the control system and can be queried via a user interface. Transmission of the data to a web portal is done cyclically.



Module 3: Predictive Maintenance

Detailed data based on decades of experience and know-how of more than 1,000 offshore cranes can be used to forecast the remaining lifetime of selected components. Based on a comprehensive condition evaluation in module 2, Condition Monitoring, a remaining life-time or probability of failure can be determined through comprehensive analyses and calculations. The results are visualised in a web portal in numerical or graphical form.



Module 4: Remote Maintenance Cycle

Module 4 allows semi-automatic maintenance of the crane. It connects all the modules in order to achieve the best possible maintenance: protected, completely remote, based on digital data. Maintenance can be carried out remotely, from land. Manned service visits on site at the crane can thus be reduced to a minimum. LiMain is contemporary because it reduces costs, protects the environment by significantly reducing travel expenses and ensures a sustainable use of the unit.

Ram luffing knuckle boom crane (RL-K)

The ram luffing knuckle boom crane series (RL-K) from Liebherr was developed especially for the oil and gas industry. Applications include supply and maintenance work as well as pipe handling. The design of the luffing boom reduces the free hanging height of the load and thus increases the flexibility of the crane. With a tail swing radius of less than 3 metres the RL-K 2600 is the most compact crane of this series.

Equipped with a deep-sea winch and an active heave compensation system (Heavetronic), the RL-K can be used as a deep sea crane as well. Both are developments from Liebherr and fully integrated in the Litronic control system.

Technical data:

- Boom configuration up to 50 m
- Lifting capacity of up to 250 t
- Various crane sizes available from RL-K 2600 up to RL-K 7500

Product details at a glance:

- Light weight crane design
- Space saving (crane installation) due to short minimum working and tail swing radius
- Modular design with standardised components for maximum reliability and availability of spare parts across the complete offshore product range
- Liebherr Litronic crane control system for highly efficient, smooth and accurate operation
- Usage of additional pipe handling equipment
- Stowing of boom without additional boom rest located on deck
- Applicable in hazardous areas (ATEX & IECEx)



Board offshore crane series (BOS)

The BOS rope luffing type offshore crane is the right choice for applications requiring high lifting capacities at medium or high outreaches. Its design supports appropriate access to all inspection and service areas, as well as maximum reliability and minimum downtime. Being an offshore crane of the latest generation, the Liebherr BOS crane represents state-of-the-art technology. The cranes are available with either electro-, diesel-hydraulic and fully electric drive prime mover and can be designed for safe or hazardous operation.

Technical data:

- Boom configuration up to 102 m
- Lifting capacity up to 1,200 t
- Various crane sizes available from BOS 2600 up to BOS 45000 and even beyond upon request

Product details at a glance:

- Proven crane technology since 1975
- Modular design with standardised components for maximum reliability and availability of spare parts across the complete offshore product range
- Liebherr Litronic crane control system for highly efficient, smooth and accurate operation
- Specialised maintenance functions tailored to the specific needs of our customers
- Applicable in hazardous areas (ATEX & IECEx)

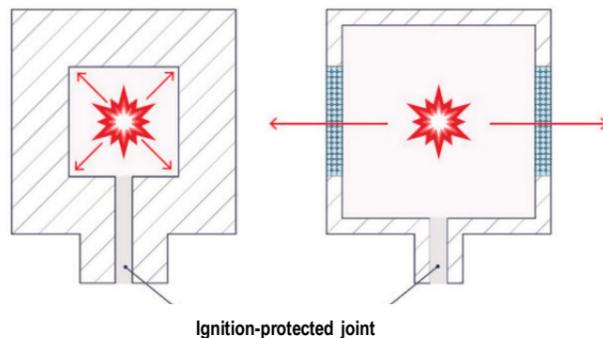


EXpressure® enclosure technology



The new innovative EXpressure cabinets are equipped with stainless steel wire mesh in the walls, through which the pressure can escape in the event of an explosion. The wire mesh absorbs the heat energy and the pressure is released. This reduces the pressure inside the enclosure to less than 1 bar. With wall thicknesses of 2 mm, the EXpressure Ex d enclosures are significantly lighter than conventional Ex enclosures. The space-saving EXpressure enclosure has a significantly smaller footprint. This enables a more compact and lighter crane design, available with ATEX and IECEx approval.

To increase safety and fulfil the requirements of operations on oil and gas platforms, the Liebherr offshore crane series can be outfitted with a hazardous area rating.



Replacement

After decades of continuous operation, the existing Liebherr offshore cranes now need to be renewed. Liebherr accepts this challenge and will completely replace the offshore cranes. Liebherr scope expertise contains planning, logistics, technology and craftsmanship. These are extraordinarily demanding conversion project. Several Liebherr companies cooperate with each other to implement these projects. The customer can choose two revision option: Refurbishment or Retrofitting/ Replacement of the complete crane.



Reman programme

Within the framework of our Reman programme we transform your used components into new parts in accordance with industry standards. It includes important components such as diesel engines, hydraulic components, gearboxes and lots more. The continuously expanding range of Reman products offers you reconditioned components that are as good as new in terms of reliability and performance. Thus, we help both your budget and the environment – a win-win situation for everyone.



Liebherr Transform

Liebherr Transform maintains your machine in its original top form through complete or partial machine overhauls. This helps you to keep ahead of changing demands in respect of the environment, work applications or performance. At the same time, a wide range of retrofit kits bring the latest technologies to your existing Liebherr machines.

Whether to

- extend the service life of your machine
- increase performance or flexibility
- keep ahead of environmental stipulations, or improve operational safety

Liebherr Transform provides you with the most suitable and economic answer.

Worldwide at your service

Our worldwide network of highly qualified and experienced engineers and technical consultants are at your disposal, providing rapid response times and highest levels of expert service. This ensures you keep your machines running at an optimum level delivering exceptional productivity and reliable performance.

● Customer service centre



Use the QR code and find your contact person.

Based on many years of experience, Liebherr provides effective assistance through specially trained technical advisors and service engineers stationed worldwide. Professional field engineers carry out inspections and recommend customised maintenance programmes to suit all operational requirements. In training courses at the company's own training centres and at the customer's site, ex-

perts pass on their detailed specialist knowledge on request and help to make daily operations more efficient and reliable. Whether it is regular maintenance work, repairs, remote support, or customised solutions – competent support makes a significant contribution to the maximum availability and reliability of Liebherr's maritime products.



Assembly & commissioning

During the assembly and commissioning of all cranes, a team of experienced engineers ensures that parts are already at the maximum possible size for transport. In addition to training at our facilities, we offer on-site training on request, covering all technical aspects of the crane during and after installation.



Testing

Every single offshore crane goes through an extensive testing programme. Prior to delivery all electrical and hydraulic installations undergo detailed examination. After assembly at the shipyard our service engineers conduct final adjustments of limit switches and prove the crane's functions through to an overload test.



Training

We offer training solutions on demand at our facilities as well as on-site to fulfil your specific training needs. The focus is on creating a sustainable awareness of efficient and safe crane operations. Our philosophy includes training your engineers in all aspects of crane maintenance, repair and operation.



Technical service & maintenance

Our experienced, multi-skilled and factory-trained service engineers are based around the globe. They are available ad hoc or on a contractual basis. By continuously expanding our worldwide sales and service network, we offer the maritime industry the best possible support.



Maritime technology

Complex jobs require efficient solutions. Our digital services support you at various tasks from simulated training over remote support or fault analysis. With our economical, time-saving and sustainable offering, we supply you with suitable solution for your needs.



Spare parts

We recommend and supply critical and strategic parts throughout the whole service life of your machines to keep them running efficiently. With a selection of necessary spare parts, we fulfil highest quality standards and requirements on cost-effectiveness and availability.

From Rostock to the world



Our maritime production site in Rostock (Germany) offers optimal conditions and comprehensive service for shipping your crane around the world. Rostock site is the largest manufacturing plant of the maritime crane division. Due to its direct link to the Baltic Sea it has optimal logistic conditions. Equipped with a Liebherr TCC 78000, one of the world's most powerful gantry cranes, Liebherr provides a high degree of flexibility for handling goods with a weight of up to 1,600 tonnes.

Customer benefits

- Heavy duty crane with 1,600 mt lifting capacity
- Optimal flexibility along the gantry track
- Efficient transloading operations in one work step
- Ideal hinterland connection via road and rail
- Storage area available on Liebherr yard
- High permissible ground bearing capacities on adjacent storage areas



Innovative lifting technology and state-of-the-art expertise make it possible to realise your project efficiently and safely:

- Optimal accessibility in the Port of Rostock
- No shipping obstacles, locks, bridges etc.
- For ships with a draught of 13 metres, length of 300 metres and a width of 45 metres (special permissions possible)
- Connection to the hinterland via German rail network and to the A19 and A20 motorways



More information:



Liebherr-MCCtec Rostock GmbH · Liebherrstraße 1 · 18147 Rostock, Germany · Phone +49 381 6006 5020
mobile.harbour.crane@liebherr.com · www.liebherr.com · www.linkedin.com/company/liebherr-maritime-cranes