

Ship Cranes

Types CBW, CBB and Special Cranes



LIEBHERR

Liebherr Ship Cranes



Liebherr looks back on a long tradition of ship cranes. The family business has been supplying the shipping industry with a broad variety of crane types since 1958. The philosophy has remained unchanged since then – mastering key technologies and keeping core competencies in-house.

Competence

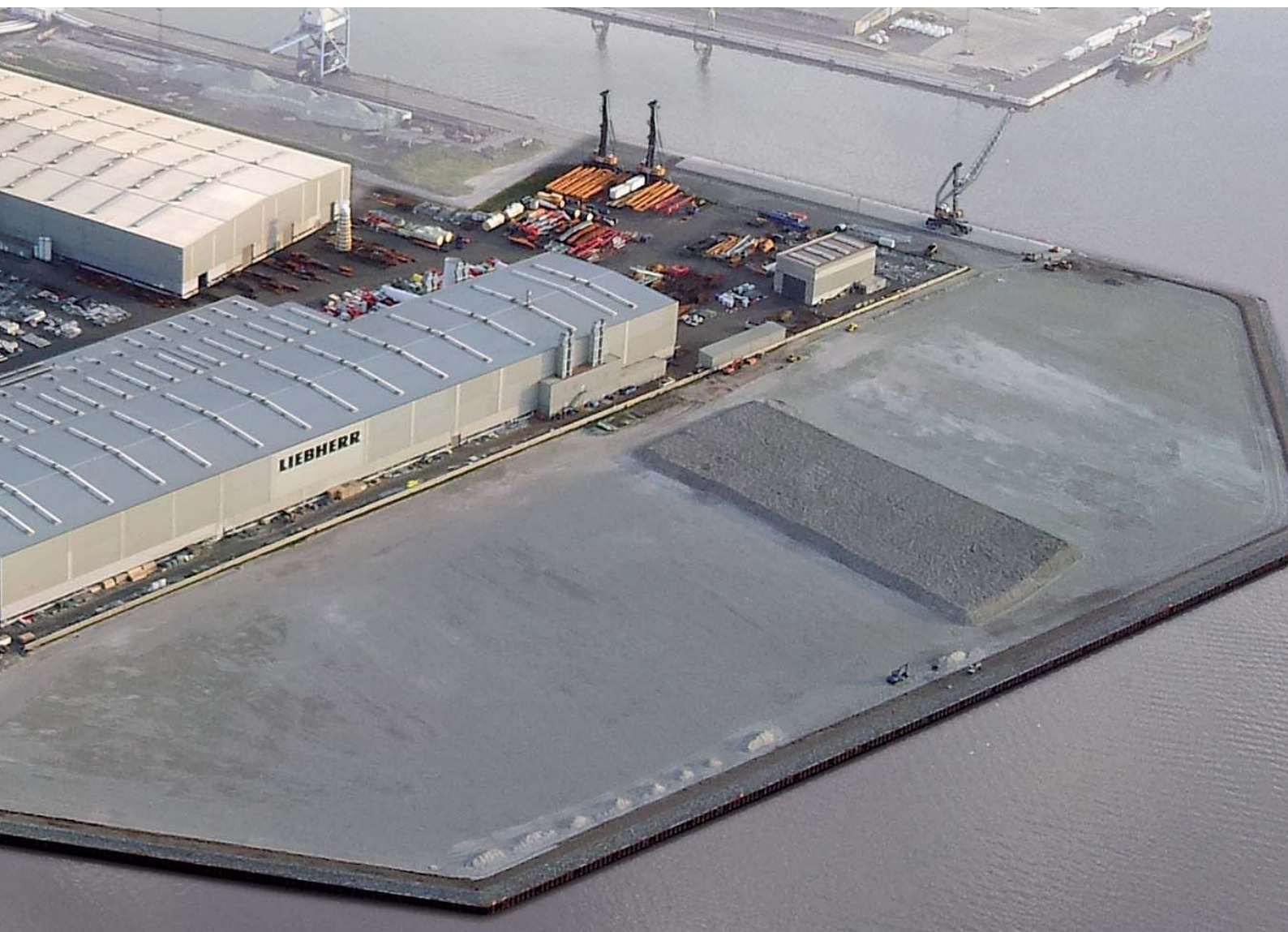
Liebherr's vertical range of manufacture is unique in the ship crane business. Thanks to an unrivalled high level of in-house production, modern manufacturing facilities and highest quality standards Liebherr is more than adequately equipped to meet customer requirements in the future.

Quality

Full traceability from the first steel plate up to the fully assembled unit – what is a vision for others, is Liebherr's standard. Thanks to clearly defined working processes and Liebherr's dedication to quality, the cranes not only meet but also exceed the requirements of customers and certification authorities.

CBW Series

With over 1000 units in the market Liebherr offers a large and complete pallet of products for the multipurpose and container segments. The low and robust design of the CBW series has an especially positive impact on the stability of the vessel as well as safety during cargo handling.



CBB Series

The heavy lift cranes in the CBB series excel through their superior control system Litronic®. This system uniquely masters the most important criteria of modern cargo handling – precision, speed and safety.

Special Cranes

Tailor-made solutions for special requirements. The combination of outstanding engineering and comprehensive knowledge enables the manufacture of highly specialized cranes for dredgers, reefer and dedicated vessels.

Customer Service

The Liebherr service philosophy is based on local contact and global availability of service engineers. Guaranteed spare parts availability for the lifetime of a crane is essential for Liebherr's understanding of long-term partnerships.

CBW Series

Multipurpose and container handling vessels require space-saving and reliable cranes. Liebherr's cylinder luffing CBW cranes are the successful combination of economic and performance-orientated criteria. The product range covers lifting capacities of up to 90t SWL and outreaches of more than 40m.

Due to the compact design and low height of the crane, a minimum of container space is lost for positioning the crane whereby optimal view of the deck is ensured. The CBW crane is very easy to maintain thanks to the hydraulic and electronic components used. Furthermore, the crane operates without direct influence on the on-board electronics therefore producing no reverse current whatsoever.

CBW Ship Cranes

- container / multipurpose
- SWL up to 90 t
- outreach up to 43 m

Features and benefits

- low construction height
- compact design
- high level of operational safety
- easy maintenance
- no reverse power





CBB Series

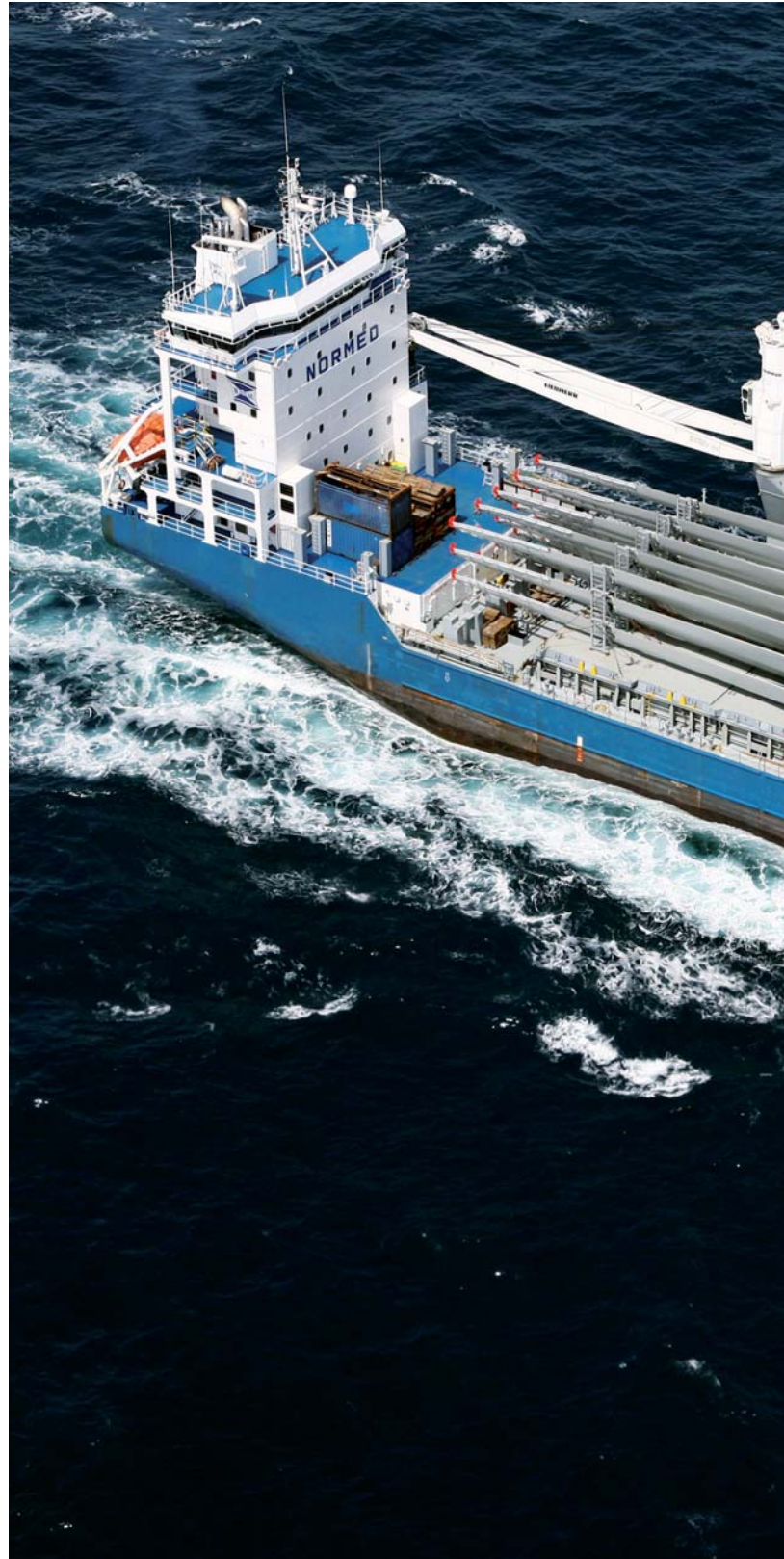
The CBB series distinguishes itself through its advanced wire-luffing reeving concept. CBB cranes are suitable for all ship crane segments, ranging from simple container and multipurpose vessels up to highly specialized heavy lift carriers.

CBB Ship Cranes

- container / multipurpose
- SWL up to 85 t
- outreach up to 36 m

Features and benefits

- totally closed crane column
- all components well-protected against harsh environments
- high level of precision for quick and easy positioning
- reduced maintenance costs through advanced reeving concept
- no reverse power







CBB - Heavy Lift Series

Based on the CBB series Liebherr has designed a high performance heavy lift crane. With capacities ranging from 120 t to 450 t, CBB cranes cover the main area of the heavy lift segment. Above that range the delivery program includes new developments with lifting capacities up to 1000 t SWL. One of the main advantages of CBB cranes is their low self-weight. This has a positive effect on the stability of the vessel as well as cargo handling – simultaneously increasing safety and performance.

CBB Heavy Lift Cranes

- heavy lift
- SWL up to 1000 t
- outreach up to 42 m

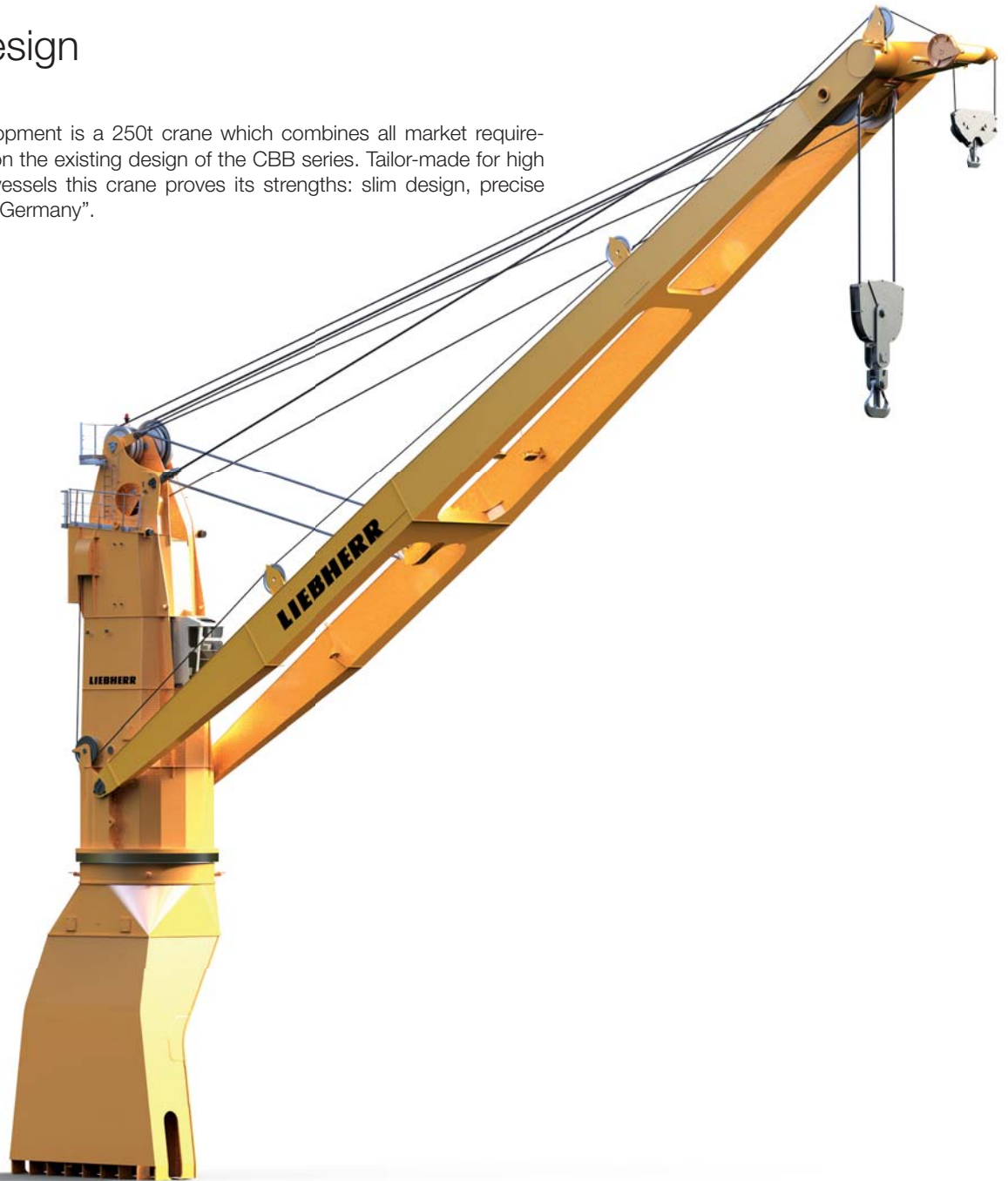
Features and benefits

- low self-weight and lower CoG (Centre of Gravity) for higher ship stability
- advanced reeving concept
- no hydraulic components outside crane column
- Litronic® installed in all heavy lift cranes as a standard



New Crane Design

The latest ship crane development is a 250t crane which combines all market requirements. The crane is based on the existing design of the CBB series. Tailor-made for high performance multipurpose vessels this crane proves its strengths: slim design, precise control and quality "Made in Germany".



Design

The crane fulfils the St. Lawrence regulations with its low height. Thanks to an improved boom design three further objectives have been achieved:

1. Enhancement of the clearance height
2. Increased lifting height and
3. Reduction of the minimum radius.

Performance

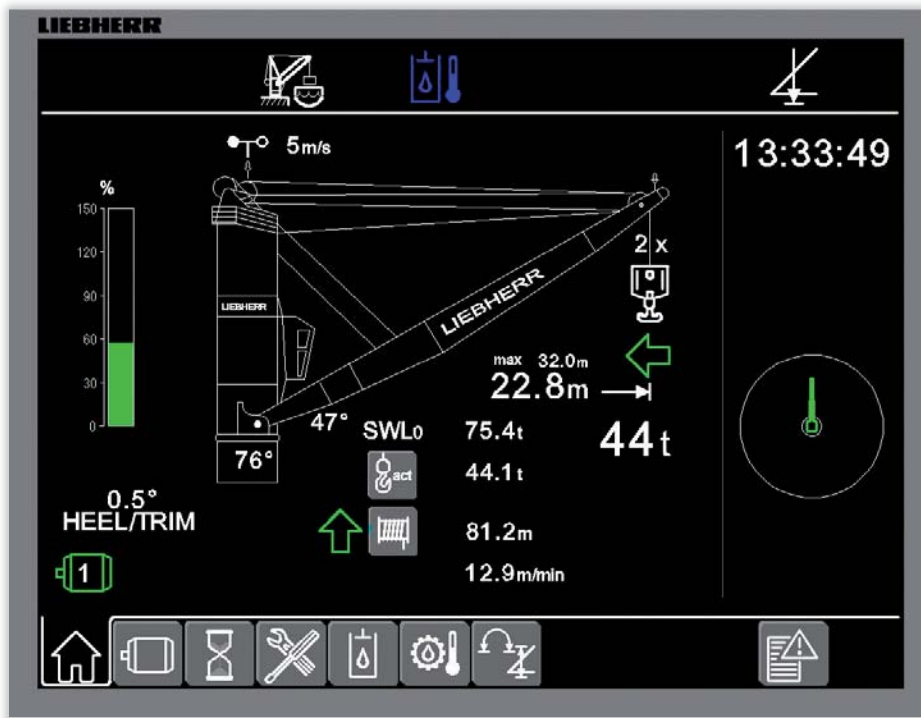
Thanks to an intelligent control system the crane always achieves the maximum speed depending on the respective load. Adjustment occurs automatically – no manual switching is required.

Quality

Proven technology in optimum exterior form – that is the formula for success for a new development from Liebherr. All components used have already proven their market maturity and come exclusively from in-house production or first-class suppliers.

Litronic®

This software, developed in-house by Liebherr, automatically covers all crane movements and load cycles and therefore actively supports the crane driver in controlling the crane. Thanks to the real-time monitoring of important machine parameters the crane driver is constantly informed in detail about the actual operation of the crane.



Litronic® Control

- stepless load curve through automatic load moment control
- improved loading speeds through intelligent crane control
- quick troubleshooting through detailed error codes – either on crane monitor or via remote service
- Sycratronic® – Automatic Tandem Control
- DACS® – Dynamic Anti-Collision System

Additional Equipment

With a wide spectrum of optional retrofit packages Liebherr is in a position to adapt its products to meet with both individual customer requirements as well as external conditions in the area of operation. The range of optional components and installations is continuously enhanced and extended.

Amongst others, the important retrofit packages include:

- air-conditioning
- automatic slew bearing greasing
- auxiliary hoist
- boom rest
- DACS® – Dynamic Anti Collision System
- halogen or high pressure sodium floodlights
- hook garage
- load recorder
- man-riding
- monitor on bridge deck
- power request system
- PTT radio system
- radio remote control
- reverse power reduction
- sector limitation
- Sycratronic® – Automatic Tandem Control
- vertical boom for sea voyage
- video control

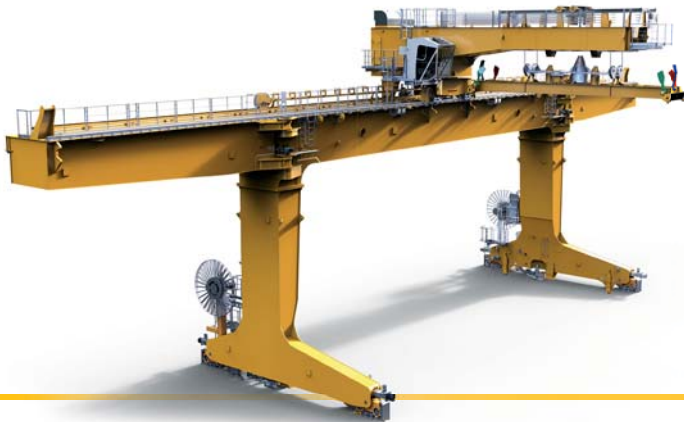
Special Cranes

Liebherr CCB

The C-design developed by Liebherr offers a lower weight than the usual gantry solution. Additionally, the CCB installation is more compact than the equivalent U-shape solution. Therefore, the C-design is capable of handling 50 containers per hour. Two parallel independent hydraulic power packs for hoisting, trolley travelling and gantry travelling systems optimize the power consumption and offer maximum operational safety.

Features and benefits

- container / multipurpose
- SWL up to 40 t
- up to 50 containers / hour





Custom-made Applications



Dredger Cranes

Liebherr also has sound knowledge of custom-made cranes for cutting dredgers. The operational area of the crane stretches over the whole length of the vessel thanks to a travelling gantry. The arc jib allows an extended working area down to the deck making the crane also suitable for internal refitting on board the vessel. The extremely short crane rope minimizes swing so increasing safety as well as reducing wear and tear of the equipment.



Arctic Temperature Packages

Remote working and living environments in cold and polar regions present a tough challenge for man and machine. Environmental ambient temperatures of down to -50°C demand a special stability from components and their materials. In order to guarantee smooth operation Liebherr supplies the ideal solution for extreme climatic conditions with special Arctic Temperature Packages.

Customer Service



Testing

Ship cranes go through an extensive testing programme. Prior to delivery all electrical and hydraulic installations undergo detailed examination. After assembly at the shipyard Liebherr service engineers conduct final adjustments of limit switches and proof the crane's functions through to an overload test.

Assembly

Crane parts are transported in maximum pieces and assembled and commissioned by a team of experienced engineers. In addition to training at Liebherr facilities prior to erection, Liebherr offers comprehensive on-site training covering all technical aspects of the crane, during and after installation.

Training

Liebherr offers a range of flexible, high quality training solutions to fulfil specific customer training needs. Thereby, the main focus lies on creating a sustainable awareness for efficient and safe crane operations. In addition, it has always been Liebherr's philosophy to train customers' engineers in all aspects of crane maintenance, repair and operation. Where necessary, customer personnel are then able to ensure that crane downtime is reduced to a minimum.



Technical Service & Maintenance

A team of more than 600 experienced, multi-skilled and factory-trained service engineers is based in more than 50 service centres around the globe. They are available ad hoc or on a contractual basis. The continuous expansion of our worldwide sales and service network is part of Liebherr's commitment to offer the maritime industry the best possible support.



Upgrades & Retrofits

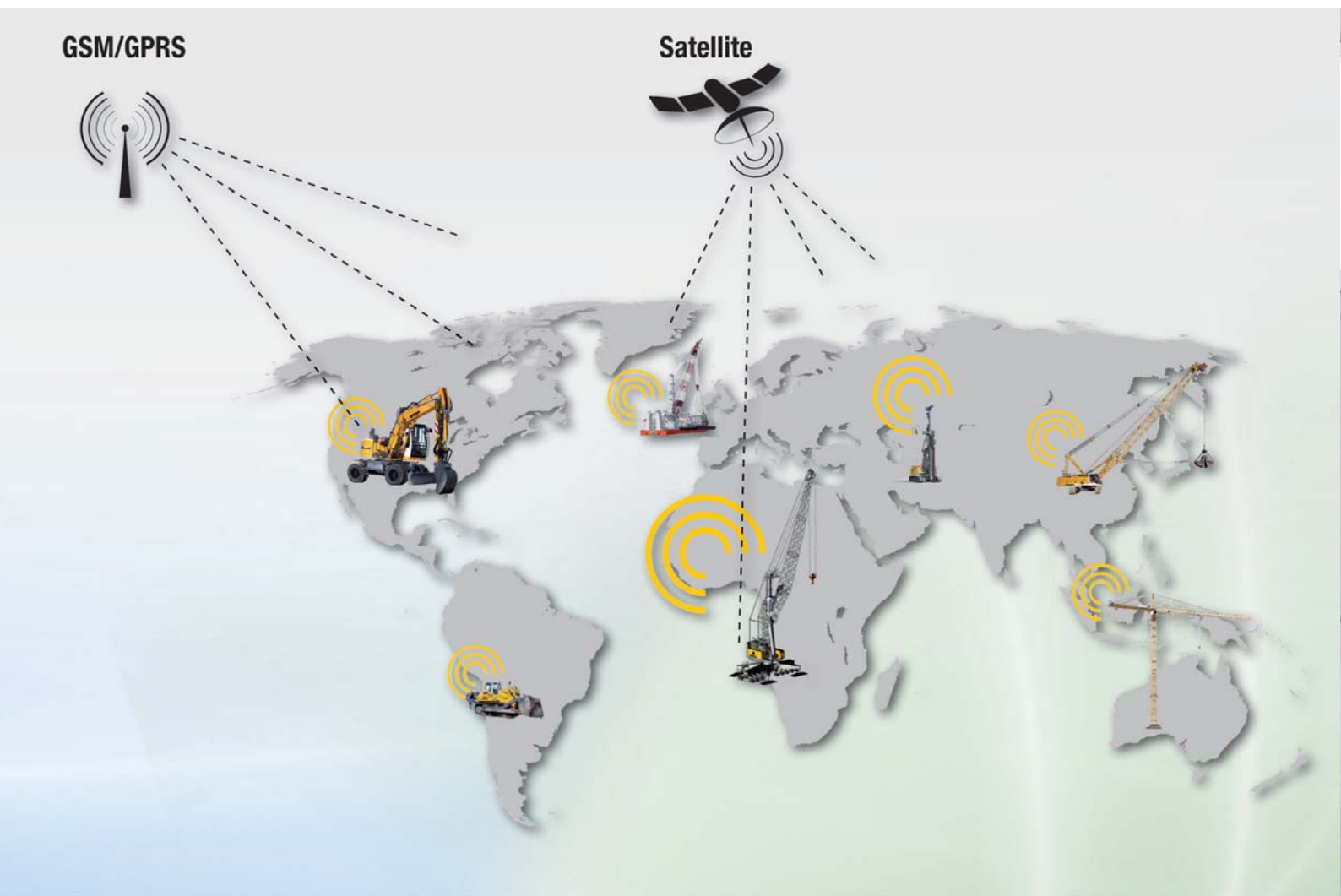
It might be required to upgrade cranes due to changes in the installation layout, changes in rules and regulations, operational requirements or just to extend the service life of an older crane. In consideration of new conditions Liebherr offers retrofits of existing drive systems and structural inspections.



Spare parts

Every operational hour is vital if cranes are to function effectively. Liebherr original spare parts (OEM) and service staff are at our customers' disposal 24/7. Availability of components over the whole service life of the crane is guaranteed. Liebherr also recommends a steady supply of critical spare parts on-site. In combination with Liebherr training on technical specifics, this allows for minimal downtime of cranes.

LiDAT® - Remote Service



LiDAT® is a data transmission and positioning system for Liebherr ship cranes. Based on state-of-the-art data transmission technology, LiDAT® provides information on the location and operation of your cranes, enabling ad hoc troubleshooting, optimal operation scheduling and remote supervision.

With LiDAT®, all the most important machine data can be viewed at any time. Depending on the type of subscription selected, data are updated several times a day and can be accessed at any time using a web browser. Particularly important items of information, such as utilization of the crane, or communications on specific operating conditions and parameters, can also be accessed.

LiSIM® - Liebherr Simulations



The installation of original Liebherr drive systems, software and hardware guarantees a realistic training experience. The drive systems reproduce all crane movements exactly both in space and in real time.

Trainees benefit from the real operator's chair set-up, including joysticks and control panels as well as a keyboard and touchscreen for the control of the simulations.

Full HD flat screens and surround loud speakers provide typical conditions in the cabin. Each simulator is equipped with a multifunctional instructor station which has complete control over the simulation.

The Liebherr Group of Companies



Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.com