
Mobile Cranes Training programme 2024

for customers of Liebherr-Australia and New Zealand

LIEBHERR

Liebherr-Australia Pty Ltd



Liebherr-Australia Pty Ltd

Courses offered in Australia and New Zealand

Our offer for you

To our valued customers,

Liebherr Mobile and Crawler Cranes in Australia and New Zealand has been providing high quality sales service and spare parts support since 2007.

At Liebherr Mobile Cranes, we are experiencing a steady increase of requests for training on our crane technology. We understand the success of your business highly relies on the skills and knowledge of your staff and crane operators. The requirements placed on employers in regard to the competence of employees continues to grow due to technical innovations, market development, crane operations and very high standards in the area of occupational safety.

This is why we are investing in the Liebherr Mobile Cranes training department, specifically for our Australian and New Zealand customers.

We have a purpose-built training centre at our Sydney Erskine Park facility, allowing us to provide practical and hands-on experience whilst learning the important theory behind the mechanics of the machine. We can facilitate the practical aspect of learning, using your crane for familiarity, or one of our new cranes, where they are available to suit the topic. We can also train at your site where suitable facilities are available.

The Australian Liebherr Mobile Cranes training department is supported and backed by our Liebherr-Werk Ehingen GmbH training centre with courses and materials being produced at the factory in Germany and delivered in Australia and New Zealand to the same exact standards.

We are able to impart knowledge and skills to your staff through our fully qualified Technical Trainer who has the ongoing back-up and support from the training department at Liebherr-Werk Ehingen GmbH. Our Technical Trainers' skills and advancements in new technology are continuously updated at our training centre in Germany, to ensure we pass on the latest information.

We would like to welcome you to the Australian Liebherr Mobile Cranes training department by presenting you with this programme of available training courses in Australia and New Zealand, as well as an additional selection of courses offered by Liebherr-Werk Ehingen GmbH.

We look forward to working together with you to train your staff on how to maximise performance and reduce wear and tear on your investment by using the equipment correctly and understanding the technology of your Liebherr Mobile Crane.

If you have any questions, or would like a quote, please email LAS-MCTraining@liebherr.com or call +61 2 9852 1830.



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Crane Service and Maintenance including an Introduction to Diagnostics

Target group

Mobile Crane maintenance staff.

Requirements

- Protective clothing
- Enclosed footwear
- Laptop for each participant is required

Seminar goals

Upon completion of this course, participants should be able to:

- Identify and locate all major components
- Source service information from relevant documentation
- Carry out general maintenance and service work in accordance to relevant documentation
- Interpret LICCON error codes
- Display basic interpretation skills of Liebherr schematic diagrams

Seminar topics

Course content will be delivered in accordance with Operating instructions chapters "Service and Maintenance", and "Inspections of Cranes".

Information provided will be specific to the Liebherr Mobile Crane used during the course. This includes:

- 7.01 Maintenance and service -General
- 7.02 Maintenance intervals - Crane chassis
- 7.03 Maintenance intervals - Crane superstructure
- 7.04 Maintenance guidelines - Crane chassis
- 7.05 Maintenance guidelines - Crane superstructure
- 7.06 Fill quantities, lubrication chart
- 7.07 Service fluids and lubricants
- 7.15 Procedure in case of problems
- 8.01 Periodic crane inspections
- 8.04 Inspection of pneumatic system for brakes
- Understanding LICCON error codes
- Introduction to Liebherr schematic diagrams

Note: Framework is subject to change depending on crane model

Duration

2 days

Investment per person (Exc. GST)

\$ 1,950.00 AUD / \$ 2,145.00 NZD

Teaching methods

Classroom based learning, practical activities and demonstrations carried out on crane

Classroom training

21.02.24 - 22.02.24	Perth WA
08.04.24 - 09.04.24	Auckland NZ
07.05.24 - 08.05.24	Sydney NSW
11.06.24 - 12.06.24	Brisbane QLD
20.06.24 - 21.06.24	Perth WA
24.06.24 - 25.06.24	Sydney NSW
02.07.24 - 03.07.24	Melbourne VIC
26.09.24 - 27.09.24	Auckland NZ

LICCON I & II with data bus

Target group

Workshop foremen and experienced mechanics who are already familiar with the general functions of the crane. Sound knowledge of electricians is an advantage.

Requirements

- Protective clothing
- Enclosed footwear
- Laptop for each participant is required

Seminar goals

Participants become familiar with the LICCON I & LICCON II control system. After the course, participants are able to systematically localise faults and to carry out minor repairs independently.

Seminar topics

- Handling and working with the operating instruction
- LICCON I & II control system:
 - Differences between LICCON I & LICCON II
 - Design and function of the individual components
 - Operation of the Blue-Tooth Terminal (BTT)
- Design and function of the Liebherr data bus
 - Telematics Overview of the various LSB busses
- Diagnostic options
 - Reading out faults from the error memory system
 - Emergency stop system
 - Exchange and addressing of LSB sensors

Duration

3 days

Investment per person (Exc. GST)

\$ 2,750,00 AUD / \$ 3,025 NZD

Teaching methods

Classroom based learning, practical activities and demonstrations carried out on crane

Classroom training

20.03.24 - 22.03.24	Perth WA
10.04.24 - 12.04.24	Auckland NZ
26.06.24 - 28.06.24	Sydney NSW
21.08.24 - 23.08.24	Brisbane QLD
16.09.24 - 18.09.24	Perth WA
02.10.24 - 04.10.24	Auckland NZ
23.10.24 - 25.10.24	Perth WA

Influence of Wind including LICCON Work Planner

Target group

All personnel involved in lift planning and crane operation.

Requirements

- Laptop for each participant is required

Seminar goals

- Gain knowledge in the influence of wind on crane operation
- Ability to calculate the maximum permissible wind speed for crane operation in various configurations
- Understanding and usage of the Work Planner program

Seminar topics

- General knowledge of wind thematic
- Wind power turbine schematic
- Physical factors of wind force calculation
- Determination of maximum allowed wind gust speed
- Practical examples
- Navigation and usage of the three program menus
- Determination of ideal/optimal crane configuration
- Explanations to ground pressure, tipping edge and center of gravity

Duration

2 days

Investment per person (Exc. GST)

\$ 1,950.00 AUD / \$ 2,145.00 NZD

Teaching methods

Classroom based learning, practical activities with laptop and Work Planner software

Classroom training

15.04.24 - 16.04.24	Auckland NZ
09.05.24 - 10.05.24	Sydney NSW
13.06.24 - 14.06.24	Brisbane QLD
04.07.24 - 05.07.24	Melbourne VIC
10.10.24 - 11.10.24	Perth WA

Active rear axle steering

Target group

Mechanics who are already familiar with the general functions of the crane.

Requirements

- Protective clothing
- Enclosed footwear

Seminar goals

The participants learn about the interplay of the single components of the active rear axle steering on the basis of LICCON I and LICCON II. After this course, they will be able to:

- Diagnose an error/fault systematically
- Make correct measurements in a targeted manner
- Carry out repairs

The participants are shown the possibilities for the repair/maintenance of the single components

Seminar topics

- General design of the mechanical steering system
- General design of the active rear axle steering system
- Operation of the active rear axle steering
 - Driving programs 1-5
 - Direct selection of driving mode
 - Indirect selection of driving mode
- Task, design and function of single components
 - I/O module
 - CAN valve
 - Angle sensor
- Procedure when replacing an angle sensor
- Procedure when replacing a centering cylinder
- Task, design and function of single hydraulic components
- Maintenance instructions
- Measuring possibilities on the crane

Duration

2 days

Investment per person (Exc. GST)

\$ 1,950.00 AUD / \$ 2,145.00 NZD

Teaching methods

Classroom based learning, practical activities and demonstrations carried out on crane

Classroom training

17.04.24 - 18.04.24	Auckland NZ
16.05.24 - 17.05.24	Perth WA
14.10.24 - 15.10.24	Sydney NSW
28.10.24 - 29.10.24	Perth WA

Crane Operator Familiarisation

Target group

Mobile Crane operators. Previous Liebherr Mobile Crane knowledge is an advantage, but not compulsory.

Requirements

- Protective clothing / overalls
- Hard hat, protective footwear
- Crane operator licence / High Risk Work licence

Seminar goals

Upon completion of this course, participants will be familiar with the documentation, controls, operating systems, procedures and safety precautions associated with the Liebherr Mobile Crane. Participants will be instructed in the safe handling of a Liebherr Mobile Crane, and will have displayed the skills and knowledge required for safe operation.

Participants will have demonstrated:

- Knowledge and ability to safely operate the Liebherr Mobile Crane
- Knowledge and utilization of controls in both chassis and superstructure operation
- Knowledge and ability to safely install auxiliary equipment (if applicable)

Seminar topics

Course content will be delivered in accordance with chapters of the "Operating Instructions" specific to the Liebherr Mobile Crane used during the course.

This includes:

- 1.00 Description of crane
- 2.00 Safety
- 3.00 Crane chassis operation
- 4.00 Operation of crane superstructure
- 5.00 Equipment
- 6.00 Additional Equipment
- 7.00 Service and maintenance
- 8.00 Inspection of cranes
- 9.00 General Notes

Note: Framework is subject to additional content depending on crane model and equipment.

Duration

2 - 5 days

Participants

Max. 3 per crane

Teaching methods

Classroom based learning, practical activities and demonstrations carried out on crane

Classroom training

on request

Emergency Operation

Target group

Workshop foremen and experienced mechanics who are already familiar with the general functions of the crane. Sound knowledge of LICCON control system is of advantage.

Requirements

- Protective clothing / overalls
- Hard hat, protective footwear
- Crane operator licence / High Risk Work licence

Seminar goals

Participants learn about the various possibilities of emergency operation. After the course, participants are able to apply the various emergency operations and are sensitised to the risks of emergency operation.

Seminar topics

Overview of the various emergency operation possibilities:

- Introduction of the tools used for the corresponding emergency operation
- Emergency operation of the undercarriage:
 - Support
 - ZF-Ergopower automatic gearbox/Allidon
 - Start engine in case of BTB failure
- Emergency operation in superstructure without LICCON (X-Not):
 - General
 - Slewing gear
 - Hoisting gear
 - Luffing gear
- Emergency operation of the superstructure using LICCON
- Emergency operation crane control.

Duration

2 days

Investment per person (Exc. GST)

\$ 1,950.00 AUD / \$ 2,145.00 NZD

Teaching methods

Classroom based learning, practical activities and demonstrations carried out on crane

Classroom training

12.09.24 - 13.09.24
30.09.24 - 01.10.24
16.10.24 - 17.10.24

Perth WA
Auckland NZ
Sydney NSW

Liebherr-Australia Pty Ltd

Terms and Conditions

This is an agreement between you (the participant) and Liebherr Mobile Cranes training department 1-15 James Erskine Drive, Erskine Park, NSW 2759, Australia.

Upon receipt of your quote acceptance, your registration for a training course will be processed and you will receive an email confirming your seat. One month before the training starts, we will issue an invoice and further information like timings, location, etc.

1. Course delivery and attendance

All participants are required to attend a location where an instructor delivers the training. The participant is required to be active and present for the whole duration of the course. If the participant only attends part of the course, there will be no confirmation of participation issued and any payments will be forfeited.

2. Course materials

The participant may receive training materials and documentation associated with the relevant training course at the commencement of the course. These materials are for the use of the participants during the course, as well as a record of information for the participants. Course materials should not be copied except where copying is necessary for the purposes of completing the relevant training course.

3. Fees and Terms of Payment

Full payment must be made before start of the training.

4. Cancellation of training courses

All cancellations must be made no later than 1 month prior to the start of the training course. Cancellations must be made in writing. If a cancellation is sought within 1 month prior to the start of the course, a 50% cancellation fee will incur. No refund will be given if you do not attend the course on the day. In circumstances where Liebherr needs to cancel a course, we will offer alternative dates or a full refund.

5. Rental of Equipment

Liebherr has access to a wide variety of modern equipment that can be hired for the purposes of training and assessments. This is issued to supplement our customers' equipment or to provide equipment for the practical part of the training and assessments. If required, rental expenses of equipment will be passed on at cost.

Liebherr-Australia Pty Ltd

Terms and Conditions – Responsibilities of the participant

Whilst in attendance at Liebherr, the participant is responsible to adhere to all policies and procedures.

- The participant is to recognise other people's human worth and dignity.
- The participant has a right to learn in an appropriate environment and training participants have a right to be free from any form of harassment and/or discrimination.
- The participant should attend the courses sober, drug free, in good health, and smoke only in outside designated areas away from other people.
- The participant has a right to his/her individual learning needs known and addressed by the trainer.
- The participant will be made aware of the learning outcomes of each course and the associated assessment program. Competencies are assessed throughout the course and each course will consist of an assessment. If a competency is not achieved at the initial assessment, trainees are given the opportunities to be re-assessed at a time that is mutually convenient to both the assessor and trainee and relevant to any regulatory requirements.
- Refunds will only be granted in accordance with our refund policy (see cancellation of training courses).
- The participant is responsible for all personal possessions whilst attending courses.
- All people will be afforded the right to normal privacy in relation to personal matters. The individual participant will divulge no personal information to third parties without written consent. All trainee and staff information will be kept confidential except where a legal obligation exists such as a court order.
- The participant has the right to access all his/her personal training records when requested.
- There is no provision for child minding and children are not permitted in class.
- Occupational Health and Safety is important to Liebherr. Our policy is practicable to ensure the health, safety and welfare of all employees and trainees. Employees and trainees have a responsibility for their own health and safety and the health and safety of other employees and trainees for whom they may have a responsibility. Due care should be exercised at all times. Health and safety of all is not affected by anything occurring or not occurring in the course, as part of our duty of care.
- The participant will be made aware of all safety provisions and location of the First Aid equipment.
- The participant is required to report all injuries or any incidents of harassment by another trainee or trainer promptly to the training manager, and ensure that a written report is kept. This record is kept in the office and all incidents are to be reported giving time, date, location and description of the incident.
- The participant is required to turn off mobile phones during classes to avoid disruption to fellow trainees and the class in general.
- The participant is required to advise Liebherr immediately of any changes to contact details.
- The management of Liebherr reserves the right to ask any trainee to leave a class if in the opinion of the trainer, that trainee is disruptive and interrupts the flow of the lesson.
- Liebherr retains the right to refuse enrolment as permitted by law. Liebherr also retains the right to remove a trainee from a class if the trainee disrupts the learning experience of other trainees, and/or does not behave in an acceptable and appropriate manner towards staff or trainees, and/or fails to respect Liebherr's property, staff, other trainees, or the premises in which courses are conducted.

Liebherr-Werk Ehingen GmbH Training Centre Courses offered in Germany

"There is only one thing more expensive in the long run than education: no education."

John .F .Kennedy

With this quote we would like to invite you this year to take over our claim to education also in your company.

Through our multimedia training concepts, we offer you the opportunity to continuously educate and train your employees, from beginners to experts. In doing so, we continue to focus on the three well-known core areas of qualified training for mobile crane operators, comprehensive familiarization with the world of cranes for dispatchers, and the transfer of essential know-how to your workshop personnel. In order to achieve optimum learning success with minimum effort, we offer our training courses as face-to-face, live online and e-learning courses.

Our training courses are now offered on five continents by qualified and certified personnel. These international training centers make it even easier for you to access our courses.

It is a pleasure for us to share our knowledge with you. We would be happy to support you and your employees in their training and further development with suitable and appropriate qualification opportunities. Because together with you, we want to take on the challenges of the future and implement them professionally and responsibly.

We look forward to welcoming you to our events.



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Head of training department



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Uwe Laitenberger
Technische Beratung
Technical advice

1. User training



One portal, all services
MyLiebherr

MyLiebherr - Registration process

So that your training registration can be processed by our staff in the system, you and/or your company must register once on MyLiebherr. Employees who take part in our training courses, must be created in the portal by you.

Visit www.myliebherr.com and register.

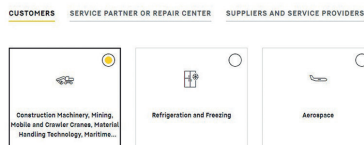


In the next step, select "Liebherr Business Account" and enter the required data.

Select the section "customers" and then the SECTION "mobile cranes and crawler cranes".

Create a Liebherr account

Please select an area of interest which you need access to



After entering the code, you received by e-mail, you can track your registration status. Your company administrator will be shown on the right side. He has to confirm the registration, too.

Registration status

Your company data for "Test Company" will be checked

01

Your company data has been successfully submitted

02

Your company data has been checked by our colleagues

03

Your company data has been processed by your company administrator

04

Your account has been added to your company

You will also be notified of your status by e-mail

MyLiebherr

Target group

Basically all groups of personnel involved in crane operation, repair and operation planning.

Requirements

- Laptop/PC with Internet access
- MyLiebherr account

Seminar goals

Finding one's way around the MyLiebherr user interface, recognizing the possibilities and their benefits for daily work and increasing the efficiency of processes

Seminar topics

- Getting to know the MyLiebherr interface
- Differences between the available user licenses
- Colleagues on MyLiebherr
- Managing business relationships
- Data maintenance of the vehicle fleet
- Managing orders and invoices
- Viewing and handling retrievable crane documentation
- Use and advantages of the offered apps

Learning method

Online training



Be mobile

Click in quickly and easily, whether on a PC, tablet or smartphone.

Duration

12 minutes

Investment per person

free of charge

2. Mobile Crane Operator Training



eLearning: Mobile Crane Operator

Qualified theory training

Mobile cranes are getting more complex while building sites are becoming more cramped, the terrain more difficult and safety and accident prevention requirements more comprehensive.

In the qualified training “Mobile Crane Operator”, the crane driver learns how to safely operate a mobile crane. The training units and test questions in this online course are varied and interactive. In this e-learning, the crane operator will be shown how to plan and carry out quality-assured and efficient jobs - without putting anyone in danger.

Professionally prepared content

- Structured content with 15 individual modules
- Approx. 18 hours of training
- Varied and entertaining set-up with learning units and test questions
- Final test with certificate
- Available online: learn whenever, wherever
- Regular content updates

Training content

- Introduction
- European and national law
- Tasks and duties
- Crane types according to EN 13000
- Load handling devices
- Components on the crane
- Physical basics & crane physics
- Activities before starting to drive
- Driving and maneuvering
- Preparations on the construction site
- Wind influences during crane operation
- Safety devices for crane operation
- Load lift
- Behavior in the event of malfunctions
- Final activities

Learning method

eLearning

Duration

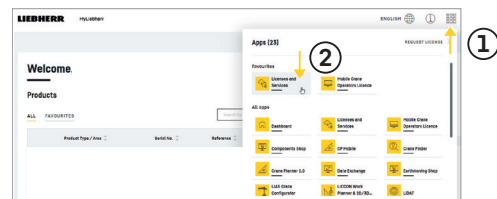
approx. 18 hours

Online

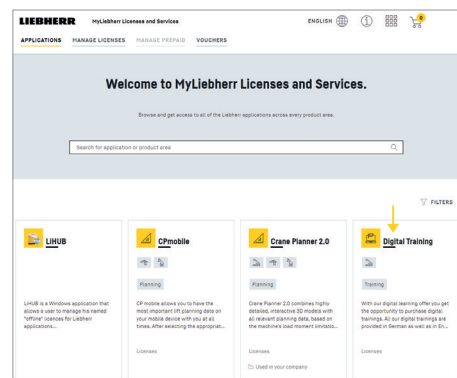
Can be booked via the license portal in MyLiebherr.

eLearning purchase process

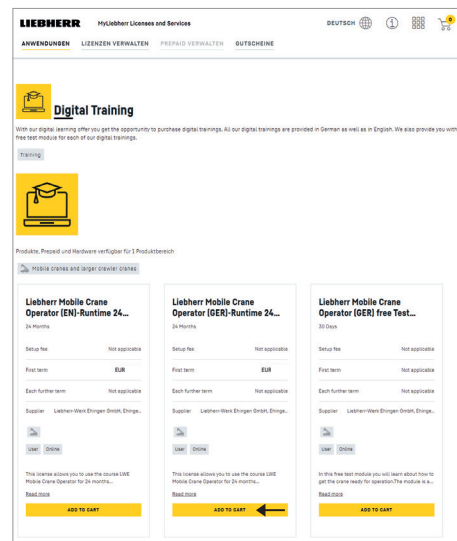
In order to be able to purchase an eLearning in the license portal, you need the administrator or licence manager role in MyLiebherr. Go to the menu at the top right overview (1) to open the app selection. Then click Licenses and Services (2).



You will then be redirected to the license portal. Then select the “Digital Training” area.



Here you can decide on the desired eLearning.



After the purchase process, you can assign the license to the desired person.

Basics of crane operation (up to 250t)

Target group

New employees of crane companies who have had no/little contact with mobile cranes to date and are to be introduced to the basics of operating a crane with the help of this course. The knowledge acquired will form the basis for later employment as a crane operator.

Requirements

- Minimum age of 18 years
- Technical understanding

Seminar goals

The participants learn the ABCs of crane driving and are familiarized with the basic driving and operation of a mobile crane under supervision. Due to the high practical part, the participants get increasingly confident in handling small equipment.

Seminar topics

- Handling and working with the operating manual and the load table
- Overview of terminology, the main components of the crane and the operating elements in the driver's cab and the crane cab
- Driving operation
 - Checking before starting to drive
 - Operation of manual transmission (maneuvering, manual/automatic shifting)
 - Operation of rear axle steering and axle suspension
 - Off-road driving (activation of off-road gear + differentials)
- Correct support of the crane considering the environment
- LICCON programs
- Structure and function of the outriggers
 - Rope outrigger
 - Telematics
- Overview of boom accessories (tele extension, mast nose, folding tip, double folding tip).
- Crane operation
 - Establish operational readiness
 - Unhook hook and reeve correctly
 - Ballasting (manual/automatic)
 - Correct setup of the crane in the setup screen
 - Telescoping (manual/automatic)
 - Crane operation with/without load on hook
 - Crane operation with remote control
- Equipment
 - Assembly folding tip/double folding tip

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

10 days

Investment per person

2.600,00 Euro plus VAT

Classroom training

on request

Basics of crane operation (over 250t)

Target group

New employees of crane companies who have had no/little contact with mobile cranes and who are to be introduced to the basics of operating a crane with the help of this course. The knowledge acquired will form the basis for later employment as a crane operator.

Requirements

- Minimum age of 18 years
- Technical understanding
- Basics of crane operation (up to 250 t)

Seminar goals

The participants learn the ABCs of crane operation and are familiarized with the basic operation and driving of a mobile crane under supervision. Due to the high proportion of practical experience, the participants will gain increasing confidence in handling large equipment.

Seminar topics

- Handling and working with the operating manual and the load table
- Overview of the terminology, the main components of the crane as well as the operating elements in the driver's cab and the crane cab
- Driving operation
 - Checking before starting to drive
 - Operation of manual transmission (maneuvering, manual/automatic shifting)
 - Operation of rear axle steering and axle suspension
 - Off-road driving (activation of off-road gear + differentials)
- Correct support of the crane taking into account the environment
- LICCON programs
- Structure and function of the boom
 - Telematics
 - Removal of the boom
 - Teletransparency/extension
- Overview of boom accessories (Y-rigging, eccentric, fixed tip, pin)
- Crane operation
 - Prepare for operation
 - Unhook hook and reeve correctly
 - Ballasting
 - Correct setup of the crane in the setup screen
 - Telescoping (manual/automatic)
 - Crane operation with/without load on hook
 - Crane operation with remote control
- Equipment
 - Assembly/operation TY guying
 - Assembly/operation luffing jib (needle)

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

10 days

Investment per person

2.600,00 Euro plus VAT

Classroom training

on request

Liebherr Mobile Crane Operator course 2-weeks

Target group

Employees of crane companies.

Requirements

- Minimum age 18 years
- Minimum six months experience as a mobile crane operator
- Physical aptitude must be verified by means of a preventative medical check-up (no more than 3 years old)
- Truck driver's licence (class C)

Seminar goals

The participants are instructed on the safe handling of mobile cranes, in accordance with the professional trade association guidelines. The training concludes with a theoretical and practical final examination in front of a testing committee.

Seminar topics

- Handling of the operating manual and the load chart table
- Practice: Driving, set up and operation of a crane
- Physical basics
 - Identify support pressure and surface
 - Weight and balance of loads
 - Stability
- Safety devices of cranes
- Crane checks and maintenance
- Detection of defects
- Behavior in case of faults
- Professional handling of load handling equipment
- Cooperation with slingers/instructors
- Special operating conditions
 - Lifting loads out of water
 - Salvage operations
 - Cooperation of several cranes
 - Crane operation without sight
 - Driving with load/equipment
- Theoretical and practical final examination

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

10 days
Beginning: 1st day at 1 pm
End: 10th day at 12 pm

Investment per person

2.600,00 Euro plus VAT

Classroom training

Only in German

Liebherr Mobile Crane Operator course 1-week

Target group

Employees of crane companies who can prove sufficient experience in driving Liebherr mobile cranes.

Requirements

- Minimum age of 18 years
- At least 1 year of work experience as a mobile crane operator
- Completed elearning "Mobile crane operator"
- Physical fitness must be proven by a "G25 health check" (not older than 3 years)
- Truck driver's license (class C)

Seminar goals

The participants will be instructed in the safe handling of mobile cranes in accordance with the guidelines of the employers' liability insurance association. Due to the existing experience in driving mobile cranes, the practical part is correspondingly reduced compared to the 2-week training. However, the seminar topics are selected in such a way that, in conjunction with the completed e-learning "Mobile Crane Operator", all relevant and required topics are covered. The training ends with a theoretical and practical final examination before an examination board.

Seminar topics

- Entrance test (proof of completed elearning)
- Handling and working with the operating manual and the load table
- Physical fundamentals
 - Determining support pressure and support area
 - Lifting load, weight and center of gravity of loads
 - Stability
- Safety devices of cranes
- Crane inspections and maintenance
- Proper handling of load handling equipment
- Cooperation with slingers/directors
- Special operating conditions
 - Lifting loads out of the water
 - Salvage operations
 - Cooperation of several cranes
 - Crane operation without sight
 - Driving with load/equipment
- Theoretical and practical final examination

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

5 days
Beginning: 1st day at 8 am
End: 5th day at 4 pm

Investment per person

1.300,00 Euro plus VAT

Classroom training

Only in German

European Crane Operators Licence (ECOL) 1 week

Target group

Very experienced crane drivers.

Requirements

- Minimum age 18 years
- Work experience according to EQF 3
- 8 years (96 months) professional experience as a crane driver
- Physical and mental fitness to operate a crane
- Driving licence class C
- English (fluent in spoken and written)
- 2-week mobile crane operator training course provided by Liebherr (90h)

Seminar goals

The participants will be trained in the safe use of mobile cranes according to ESTA guidelines. The training ends with a theoretical and practical final examination in english in front of a testing committee.

Seminar topics

- Roles, rules, standards and responsibilities
 - Responsibility of the crane operator and the company
 - Applicable national regulations
- Preparatory work, crane measures
 - Resource planning
 - Departure control
- Safe driving and manoeuvring
 - Route planning
 - Safe handling and safe operation
- Preparatory work at the construction site
 - Selection and inspection of the crane location
 - Setup of the crane
- Safe crane operation
 - Configuration of the safe load indicator
 - Inspection of the safety devices
 - Work interruptions
- Final work at the construction site
 - Disassembly of the crane
 - Renewed departure control

Learning method

Multimedia technology
Practical exercises
eLearning
Seminar documents

Duration

5 days
Beginning: 1st day at 8 am
End: 5th day at 4 pm

Investment per person

2.600,00 Euro plus VAT

Classroom training

on request

European Crane Operators Licence (ECOL) 3 weeks

Target group

Experienced crane drivers.

Requirements

- Minimum age 18 years
- Work experience according to EQF 3
- 4 years (48 months) professional experience as crane driver
- Physical and mental fitness to operate a crane
- Driving licence class C
- English (fluent in spoken and written)

Seminar goals

The participants will be trained in the safe use of mobile cranes according to ESTA guidelines. The training ends with a theoretical and practical final examination in english in front of a testing committee.

Seminar topics

- Roles, rules, standards and responsibilities
 - Responsibility of the crane operator and the company
 - Applicable national regulations
- Preparatory work, crane measures
 - Resource planning
 - Departure control
- Safe driving and manoeuvring
 - Route planning
 - Safe handling and safe operation
- Preparatory work at the construction site
 - Selection and inspection of the crane location
 - Setting up the crane
- Safe crane operation
 - Configuration of the safe load indicator
 - Inspection of the safety devices
 - Work interruptions
- Final work on the construction site
 - Disassembly of the crane
 - Renewed departure control

Learning method

Multimedia technology
Practical exercises
eLearning
Seminar documents

Duration

15 days
Beginning: 1st day at 1 pm
End: 15th day at 12 pm

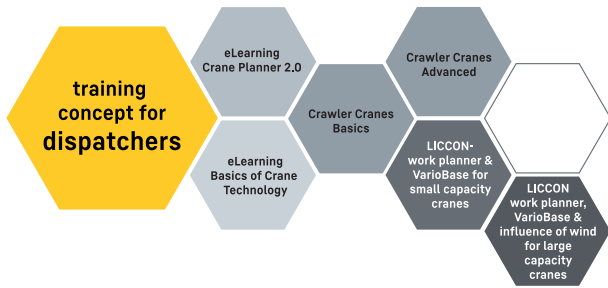
Investment per person

9.660,00 Euro plus VAT

Classroom training

on request

3. Courses for dispatchers



eLearning: Basics of Crane Technology for Dispatchers

Target group

New employees of crane companies who – also as career changers – are active in the area of dispatching and deployment planning.

Seminar goals

Participants are taught the basics of crane technology in a simple and understandable form. In addition to focusing on the general structure and function of components and assemblies of a Liebherr mobile crane, topics will be addressed that provide the basis for planning and safely performing a crane operation.

Seminar topics

- Introduction
 - Cranes in general and Liebherr product range
- Crane technology in the undercarriage
 - Arrangement of undercarriage components
 - Driver's cab
 - Drive train (diesel engine/exhaust aftertreatment/transmission/transfer case/axles)
 - Braking systems
 - Steering and active rear axle steering
 - outrigger
- Crane technology in the superstructure
 - Arrangement of superstructure components
 - Crane cab
 - Slewing ring
 - Superstructure drive
 - Crane hydraulics
 - slewing gear/hoisting gear/luffing gear/telescoping
 - Ballasting
 - LICCON 2 crane control
- Equipment
 - Variable boom systems (mast nose/auxiliary jib/folding jib/telescopic extension/fixed jib/luffing jib)
 - Telescopic boom rigging
- Planning/crane deployment
 - Site selection
 - Support pressure and ground pressure
 - Function and benefits of VarioBase
 - Wind influences

Learning method

eLearning

Duration

6 hours

Online

Can be booked via the license portal in MyLiebherr.

eLearning: Crane Planner 2.0 (Level 1)

Target group

Dispatchers and operations planners

Seminar goals

Participants will gain comprehensive basic knowledge on the topic of "Safe Crane Operation". The main focus is on the individual operation planning with the help of Crane Planner 2.0.

Seminar topics

- Introduction and first steps in the software
- Machine selection
- Machine control
- Machine information (LTM)
- Machine information (LR)
- Quick and new configuration
- Objects, loads and slings
- Project management
- Work steps
- Distance, dimensioning and collision
- Snapshots & Renderings
- Report Designer
- Import and Export Objects

Learning method

eLearning

Duration

1 hour

Investment per person

Free of charge

Online

Can be booked via the license portal in MyLiebherr.

LICCON work planner and VarioBase® for small capacity cranes

Target group

Staff of crane job planning, foreman and crane operators with experience in telescopic and crawler cranes.

Requirements

- Windows laptop (beneficial)
- Newest version of work planner software installed and ready to use
- USB stick with customer crane datas for download or already loaded/ installed in the work planner

Seminar goals

The participants get basic knowledge in safe crane operation. The focus hereby is job planning with help of the work planner.

Seminar topics

- Work planner
 - Installing the work planner on computer/laptop
 - Use of the supplied documentation
 - New features
- Operating and handling within the 3 programs (load-chart, planner and automatic crane selection)
- Differences in application (LICCON 1 and LICCON 2)
- Advantage of planning with VarioBase (reducing of ballast with concurrent load-increase)
- Determination of ideal/optimal equipment
- Explanations of support and surface pressure
- Explanation to core-area, tipping edge and indication of center of gravity
- Application with set-up 2 (VarioBase, load-chart, capacity preview)

Learning method

Multimedia technology
PC animations
Seminar documents

Duration

1 day
8 am to 4 pm

Investment per person

300,00 Euro plus VAT

Online

on request

LICCON work planner, VarioBase® and influence of wind for large capacity cranes

Target group

Staff of crane job planning, foreman and crane operators with experience in telescopic and crawler cranes.

Requirements

- Windows laptop (beneficial)
- Newest version of work planner software installed and ready to use
- USB stick with customer crane datas for download or already loaded/ installed in the work planner

Seminar goals

The participants get basic knowledge in safe crane operation. The focus hereby is job planning with the help of the work planner and the problems caused by wind influences during crane operation.

Seminar topics

- Work planner
 - Installing the work planner on computer/laptop
 - Use off the supplied documentation
 - New features
 - Operating and handling within the 3 programs (load-chart, planner and automatic crane selection)
 - Differences in application (LICCON 1 und LICCON 2)
 - Advantage of planning with VarioBase (reducing of ballast with concurrent load-increase)
 - Determination of ideal/optimal equipment
 - Explanations of support and surface pressure
 - Explanation to core-area, tipping edge and indication of center of gravity
 - Application with set-up 2 (VarioBase, load-chart, capacity preview)
- Influence of wind
 - Introduction and presentation of problems
 - Basics about wind
 - Physical factors of wind calculation
 - Explanation of projected area and area exposed to wind
 - Sensors to investigation and displaying actual wind
 - Determination of max. allowed wind gust speed
 - Explanation of different calculation modes
 -
 -

Learning method

Multimedia technology
PC animations
Seminar documents

Duration

2,5 days
Beginning: 1st day at 1 pm
End: 3rd day 4 pm

Investment per person

600,00 Euro plus VAT

Online

on request

Crawler Cranes (Basics)

Target group

Staff of crane job planning, foreman and crane operators with experience in telescopic and crawler cranes.

Seminar goals

After the course, the participants are able to:

- Differentiate between the current and past LR/LG crane portfolio
- Deepening the basic-knowledge of crane technology and equipment
- Understand and handle the delivered crane documentation correctly
- Operate the crawler crane specific work-planner simulations

Seminar topics

- Overview of the individual cranes and their differences
- Overview of the different operating-modes and their boom-systems
- Explanation of both LICCON monitor-displays (winch, master-switch and measurement-point Assignment)
- Explanation of basics in electric, hydraulic, mechanics and control
- Correct handling of the rod-plans during mounting a boom-system
- Introduction of the "erecting and lay down charts"
- Explanation of the "load handling chart book"
- Explanation of the "wind speed charts"
- Operate the crawler crane specific work-planner
- Simulations (influence of wind/surface pressure/center of gravity/suspended-ballast)

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

5 days
Beginning: 1st day at 1 pm
End: 5th day at 12 pm

Investment per person

1.900,00 Euro plus VAT

Classroom training

on request

Crawler Cranes (Advanced)

Target group

Staff of crane job planning, supervisor and operators with experience in crawler cranes.

Requirements

- Crawler Cranes (Basics)

Seminar goals

After the course, the participants are able to:

- Differentiate between current operating modes, crane technology and equipment
- Use the delivered crane documentation correctly
- Set up and operate the crawler cranes correctly in the LICCON work planner
- Determine the maximum permissible wind speeds for setting up, lifting loads and taking the crane out of operation

Seminar topics

- Get to know the current operation modes, their boom systems and their equipment
- Set up and operate the crawler crane correctly (understanding set up 2, master switch assignment, buttons, switches and the LICCON monitor displays)
- Get to know the electrical controls and modules (read circuit diagram)
- Exchange and address LSB sensors (without day code on the crane and with customer adapter)
- Hydraulic circuit diagram:
 - Get to know the closed hydraulic circuit and the control of the fallback cylinders
- Carry out an example of job planning with the aid of the supplied crane documentation and the LICCON work planner

Learning method

Multimedia technology
PC animations
Seminar documents

Duration

5 days
Beginning: 1st day at 1 pm
End: 5th day at 12 pm

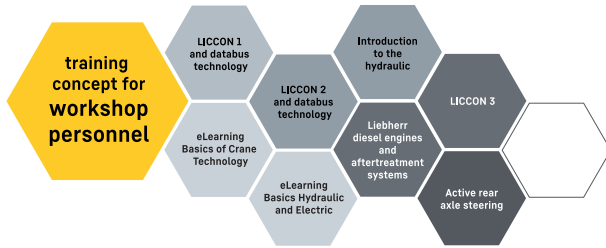
Investment per person

1.900,00 Euro plus VAT

Classroom training

on request

4. Courses for workshop staff



eLearning: Basics of Crane Technology for Workshop Personnel

Target group

New employees of crane companies who – also as career changers – work in the field of maintenance and repair of mobile cranes.

Seminar goals

Participants will learn the basics of crane technology in a simple and understandable way. The focus is not on technical details, but on the general structure and function of components and assemblies of a Liebherr mobile crane.

Seminar topics

- Introduction
 - Cranes in general and Liebherr product range
- Crane technology in the undercarriage
 - Arrangement of undercarriage components
 - Driver's cab
 - Drive train (diesel engine/exhaust aftertreatment/transmission/transfer case/axles)
 - Braking systems
 - Steering and active rear axle steering
 - Outrigger
- Crane technology in the superstructure
 - Arrangement of superstructure components
 - Crane cab
 - Slewing ring
 - Superstructure drive
 - Crane hydraulics
 - slewing gear/hoisting gear/luffing gear/telescoping
 - Ballasting
 - LICCON 2 crane control
- Equipment
 - Variable boom systems (mast nose/auxiliary jib/folding jib/tele extension/fixed jib/luffing jib)

Learning method

eLearning

Duration

6 hours

Online

Can be booked via the license portal in MyLiebherr.

eLearning: Basics hydraulic and electric

Target group

New employees of crane companies who – also as career changers – work in the field of maintenance and repair of mobile cranes.

Seminar goals

Participants will learn the basics of hydraulic and electric based on Liebherr technology.

Seminar topics

- Basics hydraulic, hydraulic construction, proportional hydraulic
- Basics of electronic, electronic circuits, digital and analog technique, electric motors and generators
- Power parameter, measuring technique
- Combination of hydraulic and electric in practice

Learning method

eLearning

Duration

9 hours

Investment per person

Free of charge

Online

Can be booked via the license portal in MyLiebherr.

LICCON 1 and databus technology

Target group

Workshop foremen and experienced mechanics who are already familiar with the general functions of the crane. Sound knowledge of electrics is an advantage.

Seminar goals

Participants become familiar with the LICCON 1 control system. After the course, participants are able to systematically localise faults and to carry out minor repairs independently.

Seminar topics

- Setup and function of LICCON 1 hardware:
 - Overview of main components
 - Setup and function of power pack unit / central unit / monitor
 - Error determination of basic group
- Setup and function of LICCON 1 software:
 - Explanation of application programs (configuration screen / operating screen / telescoping etc.)
- Setup and function of LICCON test system:
 - Use of test system
- Setup and function of Liebherr-system-bus (LSB):
 - Overview of various Bus-systems
 - Navigation in the test system
 - Different ways of addressing LSB-bus users
- Setup and function of error memory system:
 - Indication and reading out Liebherr error codes (LEC)
 - Procedure to erase error codes in different control units
- Exchange and addressing of sensors
- I/O module exchange and software download

Learning method

Multimedia technology
PC animations
Practical exercises
Seminar documents

Duration

5 days
Beginning: 1st day at 1 pm
End: 5th day at 12 pm

Investment per person

1.750,00 Euro plus VAT

Classroom training

15.04.24 - 19.04.24 LWE / Training centre

LICCON 2 and databus technology

Target group

Workshop foremen and experienced mechanics who are already familiar with the general functions of the crane. Sound knowledge of electrics is an advantage.

Seminar goals

Participants become familiar with the LICCON 2 control system. After the course, participants are able to systematically localise faults and to carry out minor repairs independently.

Seminar topics

- Handling and working with the operating instruction (databusbinder)
- LICCON 2 control system
 - Differences between LICCON 1 and LICCON 2
 - Design and function of the individual components
- Design and function of the Liebherr databus
 - Overview of the various LSB busses
- Diagnostics options
 - Reading out faults from the error memory system
 - Emergency stop system
 - Exchange and addressing of LSB sensors
- Practical Part
 - Procedure module exchange
 - LSB sensor addressing and exchange
 - Analogue sensors check at the BSE

Learning method

Multimedia technology
PC animations
Practical exercises
Seminar documents

Duration

5 days
Beginning: 1st day at 1 pm
End: 5th day at 12 pm

Investment per person

1.750,00 Euro plus VAT

Classroom training

05.02.24 - 09.02.24 LWE / Training centre
23.09.24 - 27.09.24 LWE / Training centre

LICCON 3

Target group

Workshop managers and experienced mechanics who are already familiar with the general functions of the crane. Sound knowledge of electrical engineering and LICCON 2 is an advantage.

Seminar goals

The participants get to know the LICCON 3 control. After this course, they are able to systematically isolate errors and carry out minor repairs independently.

Seminar topics

- LICCON 3 control
 - Difference LICCON 2 – LICCON 3
 - Structure and function of the individual components
- User interface
- Structure and function of the Liebherr data buses
 - Overview of the different types of communication
- Diagnostic options
 - Diagnostic system
 - Reading errors from the error storage system
 - Emergency stop system
 - Exchange and addressing of bus transmitters
- Practice:
 - Module replacement procedure
 - Deleting and learning tire pressure sensors
 - Replacement of LSB sensors
 - Camera addressing

Learning method

Multimedia technology
PC animations
Practical exercises
Seminar documents

Duration

5 days
Beginning: 1st day at 1 pm
End: 5th day at 12 pm

Investment per person

1.750,00 Euro plus VAT

Classroom training

22.04.24 – 26.04.24
07.10.24 – 11.10.24

LWE / Training centre
LWE / Training centre

Introduction to hydraulics

Target group

Mechanics who are already familiar with the general functions of the crane.

Seminar goals

The participants obtain a basic knowledge in the field of Liebherr hydraulics. After the course, participants are able to read Liebherr hydraulic plans and independently diagnose simple faults in the hydraulic system.

Seminar topics

- Fundamentals of hydraulics
- Working with hydraulic plans
- Open / closed circuit
 - Design
 - Function
 - Advantages and disadvantages
- Hydraulic systems / components in the undercarriage
 - Supporting
 - Steering
 - Axle suspension
- Hydraulic systems / components in the superstructure
 - Load sensing overview
 - Hoist gear
 - Luffing gear
 - Telematics
- Measurement exercises on the crane

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

5 days
Beginning 1st day at 1 pm
End 5th day at 12 pm

Investment per person

1.750,00 Euro plus VAT

Classroom training

21.10.24 – 25.10.24

LWE / Training centre

Active rear axle steering

Target group

Mechanics who are already familiar with the general functions of the crane.

Seminar goals

The participants learn about the interplay of the single components of the active rear axle steering on basis of LICCON 1 and LICCON 2. After this course, they will be able to:

- Diagnose an error/fault systematically
- Make correct measurements in a targeted manner
- Adjust pressure relief valves
- Carry out repairs

The participants are shown the possibilities for the repair/maintenance of the single components.

Seminar topics

- General design of the mechanical steering system
- General design of the active rear axle steering system
- Operation of the active rear axle steering
 - Driving programs 1-5
 - Direct selection of driving mode
 - Indirect selection of driving mode
- Task, design and function of single components
 - I/O module
 - CAN valve
 - Angle sensor
- Procedure when replacing an angle sensor
- Procedure when replacing a centering cylinder
- Task, design and function of single hydraulic components
- Use of the undercarriage test program
- Maintenance instructions
- Troubleshooting using measuring equipment
- Measuring possibilities on the crane

Learning method

Multimedia technology
Practical exercises
Seminar documents

Duration

5 days
Beginning: 1st day at 1 pm
End: 5th day at 12 pm

Investment per person

1.750,00 Euro plus VAT

Classroom training

16.09.24 - 20.09.24 LWE / Training centre

Liebherr diesel engines and aftertreatment systems

Target group

Mechanics who are already familiar with the general functions of the crane.

Seminar goals

The participants obtain a basic knowledge in the field of Liebherr diesel engines and aftertreatment systems. After the course, participants are able to understand the function of the Liebherr diesel engines and aftertreatment system and independently diagnose simple faults.

Seminar topics

- Explanation of the structure of a diesel engine
- Explanation of the various diesel engine systems
- Introduction to the topic "exhaust aftertreatment"
- Overview of the components (SCR)
- Layout and function (SCR)

Learning method

Multimedia technology
PC animations
Practical exercises
Seminar documents

Duration

3 days
Beginning: 1st day at 8 am
End: 3rd day at 4 pm

Investment per person

1.050,00 Euro plus VAT

Classroom training

14.05.24 - 16.05.24 LWE / Training centre
29.10.24 - 31.10.24

Liebherr-Werk Ehingen GmbH Training Centre

General Information

Participants' prerequisites

In order to ensure that the seminar is of use to the participants, consider the defined target groups and their prerequisites in the corresponding seminar information. Beginners are participants with little or no experience in the subject, whereas advanced learners possess extensive experience.

Registration and date confirmation

The registration cut-off date is 4 weeks prior to the start of the seminar. We can only accept two registrations per company for each date. In the event of over-booking, we reserve the right to re-book the last registered participant to another date with your approval. You will receive a written confirmation of your registration.

Training times

We generally begin at 1 pm on the first day of the seminar and each seminar day ends at approx. 4 pm. Please also note the timetable information in the corresponding seminar description.

Investment

The investment for training includes training documents, beverages during breaks and lunch in the company canteen at Liebherr-Werk Ehingen. All prices are exclusive of VAT. We will be happy to provide you with a quote for special training courses.

Hotel reservations

Upon request we will arrange your hotel reservations for you. To do this we require firm arrival and departure dates from you. Participants must pay their hotel bills themselves on the day of departure. The contractual relationship pertaining to the hotel services is strictly between you and the hotel.

You should bring the following with you:

- Work clothes (weather-proof if required)
- Safety footwear

Spezialschulungen / Special trainings

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