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# Operator training

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Off-Highway Trucks

**LIEBHERR**

Mining





Well-trained specialists play a pivotal role in the success of any company. Liebherr aims to support its customers by offering a comprehensive range of training courses tailored to meet the specific needs of personnel, enabling them to enhance their skills in their respective applications. In an effort to continually improve training methodologies, Liebherr organises courses based on professional groups and prior experience levels. Experienced trainers from Liebherr deliver practical content, engage in discussions on real life challenges, and address questions relevant to everyday work scenarios. This ensures that operators acquire all of the necessary knowledge and skills.

The training courses involve diverse instructional methods tailored to all operator proficiency levels, ultimately enhancing their skill sets so they can operate Liebherr machines efficiently.



### **Productivity boost**

Increases the productivity and efficiency of both operators and machines.



### **Online training**

Enables operators to familiarise themselves with training materials beforehand, leading to improved engagement.



### **Practical machine experience**

Enhancing operators' confidence and skills through hands-on experience.



### **Expert guidance**

Provides operators with professional training directly from experts, ensuring optimal machine performance that upholds Liebherr's high safety standards.



### **Pre- and post-training evaluations**

Testing is conducted both before and after the training to evaluate trainees' knowledge and the effectiveness of the training program.



### **1:1 student-trainer ratio**

Personalised one-on-one training ensures that participants receive the trainer's full attention and support throughout the entire training session.



### **Safety assurance**

Enhances reliability and safety with proper machine operation.





## Off-Highway Trucks curriculum

The curriculum is designed to provide operators with the fundamental operational knowledge as well as advanced skills required to efficiently and safely operate Liebherr Off-Highway Trucks. By blending theoretical understanding with practical application, participants will emerge adept at handling diverse operational challenges with confidence and precision.



- 20-24 hours of training with simulator before commissioning is recommended
- Two operator trainings during the year after commissioning
- Between the initial training and advance training, the trainee has been mentored by a trainer who has been trained by a Liebherr Trainer

# Safety and familiarisation

## Course overview

This course offers a comprehensive introduction to the fundamental safety regulations, securing protocols, and emergency procedures essential for working with or near the Liebherr Off-Highway Trucks. Participants will gain insights into the necessary resources and guidelines required to ensure safe operations in proximity to the trucks.

The course also covers crucial aspects such as lockout-tagout procedures, proper parking techniques, and procedures for lifting or lowering the dump body. Additionally, attendees will learn about the function and location of emergency equipment installed on the Liebherr Off-Highway Trucks for quick and effective response in case of emergencies.

## Course objectives

- Recognise and categorise the four levels of hazards as per ISO (International Standard Organisation) standards.
- Identify the various types of visual safety alert devices installed on Liebherr Off-Highway Trucks.
- Determine the appropriate Personal Protective Equipment (PPE) necessary for tasks involving Liebherr Off-Highway Trucks.

# Components and general inspection

## Course overview

This training program focuses on the fundamental external components of Liebherr Off-Highway Trucks. Each participant will undergo a comprehensive introduction to the trucks, including a general inspection. The duration of the course is flexible, allowing students to complete it at their own pace to accommodate individual scheduling needs. Completion of this training is mandatory for all subsequent courses related to Off-Highway Trucks.

## Course objectives

- Independently check each section of the truck, identifying three items for inspection.
- Demonstrate the ability to describe one precaution to observe in each section of the equipment autonomously.

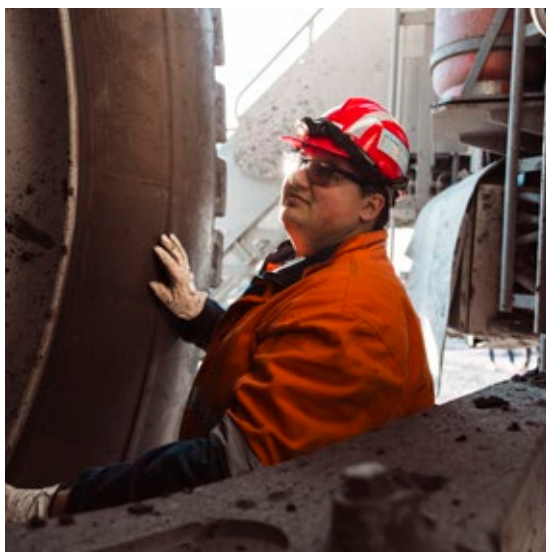
## Delivery options

Both courses have a duration of one hour and will be conducted online, utilising a combination of interactive demonstrations and performance-based instruction methods. Therefore, it is essential for participants to have access to a desktop computer with internet connectivity. Each participant will receive a downloadable student workbook in PDF format for reference.

## Assessment

The course evaluation includes both a pre-test and a post-test, with students needing to achieve 100 % proficiency to successfully pass the course.





# Principle of operations

## Course overview

In this course the students will gain comprehensive operational expertise regarding Liebherr Off-Highway Trucks braking systems. The curriculum encompasses safety protocols, familiarity with cab controls and switches, handling of faults, management of hazardous situations, detailed exploration of braking systems, as well as startup and shutdown procedures, along with practical operational applications.

## Course objectives

Upon completion of this course, students will be able to:

- Independently recognise the major systems of Off-Highway Trucks and their fundamental functions.
- Explain the principles of operation of the trucks' braking systems without assistance.
- Perform a pre-shift safety and preventative maintenance inspection following Liebherr guidelines.
- Execute correct start-up, operation, parking, and shutdown procedures based on the Liebherr operator's manual.
- Demonstrate proficiency in responding to hazardous situations and fault scenarios, assessed by the instructor.
- Safely operate equipment according to Liebherr evaluation standards.

## Delivery options

This course offers a comprehensive mix of lecture-based learning, practical hands-on instruction, and operational demonstrations. It is a rigorous, five-day program led by an instructor, comprising two days of classroom learning followed by three days of intensive hands-on training.

To ensure a conducive learning environment, the class size is limited to a maximum of eight students. Each participant will receive a student workbook to supplement their learning.

## Assessment

The course evaluation includes both a pre-test and a post-test, with students needing to achieve 85% or higher on the post-test to successfully complete the course.

# Train the Operator trainer

## Course overview

Liebherr recognises the unique needs of different mine sites and acknowledges that, given the scale of operations, some customers may prefer to train their own operators. To guarantee that training conducted by the customer's trainers meets Liebherr's standards, Liebherr offer specialised training programs for the customer's operator trainers.

## Course Objectives

- Develop clear and effective assessment rules to independently create solid objectives.
- Deliver a Liebherr module of instruction, including an overview, objectives, motivation, main content, re-motivation, and conclusion.
- Design and implement instructional activities, based on an assigned module, aimed at enhancing knowledge retention.
- Provide accurate guidance for overcoming lesson challenges during theoretical instruction on at least three occasions.
- Identify and explain hazards indicated by International Standards Organisation (ISO) safety symbols on Liebherr haul trucks without referencing materials.
- Justify appropriate braking applications for various scenarios using operator training manuals and industry standards.
- Recognise pre-failure indicators requiring the use of the HMI screen or course knowledge without assistance.
- Compare braking systems, outlining their benefits and limitations in mine operations, while adhering to OEM and industry standards.
- Describe a systematic inspection process and its rationale without needing assistance.
- Conduct competency assessments and evaluate others with the help of fellow trainers.
- Identify operational errors in operators and develop improvement plans with benchmark dates.
- Correct poor operational practices to prevent incidents on at least three occasions.
- Assess group learning behaviors and design activities, incorporating at least two kinaesthetic approaches, to enhance knowledge retention.

## Delivery options

This course spans an intensive 10-day period, led by an experienced instructor. It consists of 5 days of classroom-based learning followed by 5 days of a comprehensive mix of practical, hands-on training and theoretical instruction. It features a dynamic mix of lectures, practical exercises, assessments, and live demonstrations to enhance learning outcomes. Participants will receive a suite of training materials, including the student handbook, an instructor guide, presentations, and an assessment form, to support the learning journey.

## Assessment

The evaluation process consists of a written knowledge assessment and a lesson plan development project. Course delivery will be evaluated through on-the-job training and direct observation. Additionally, students will participate in a verbal Q&A session to demonstrate knowledge at levels 4–5. To successfully complete the course, students must achieve a competent rating in all assessments.





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