
Mining Machinery Catalogue

LIEBHERR

Liebherr-Australia
2023



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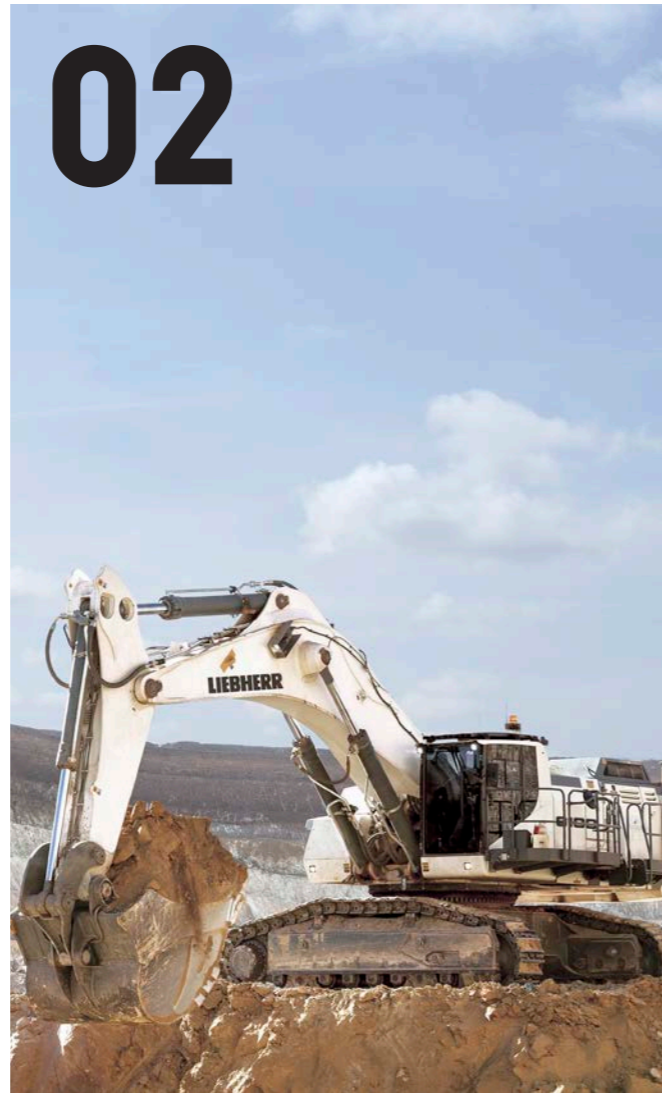
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Mining Training Catalogue



Introduction

To complement the range of Liebherr mining products, Liebherr-Australia offers our comprehensive and model-specific training packages to our valued customers. The training is designed to ensure that each Liebherr asset is operated and maintained safely and reliably, throughout its complete lifecycle, for maximum efficiency. All courses contained in this catalogue have been developed specifically for each machine and the advanced technologies used in our mining products. Training is delivered by highly experienced and factory-trained technical and operational trainers located nationally throughout Liebherr-Australia's regional network.

Training information

Books, supplies and student requirements
The participant will receive a digital copy of training textbooks and documentation associated with the relevant training course.

Any additional stationery will need to be provided by the participant.

Participants will need to present in the appropriate PPE for the duration of the training, this includes hi-vis long longs, steel toe safety boots and where applicable safety glasses.

Fees and terms of payment

Standard quotations are provided upon request. Contact the Liebherr-Australia training department for details at LAstraining@liebherr.com.

A purchase order for the full amount must be received and processed for payment 30 days prior to training commencement.

Our terms and conditions and cancellation policy applies.

Prerequisites

Some technical courses require students to complete prerequisite learning prior to attending the training course. Refer to the course description outlined below or contact the Liebherr-Australia training department for more information.

Course availability

Course availability is subject to trainer's availability and machine access on customer sites.

For more information regarding course availability contact the Liebherr-Australia training department.

Cancellation Policy

The Liebherr Australia Training Terms and Conditions deems the following [excerpt]

12. CANCELLING SERVICE / REFUNDS

12.1 Except as otherwise required by law, LIEBHERR Australia may decline your attendance to Technical or Operator training, change the enrolment process and other factors at any time in its sole discretion, without prior notice

12.2 Cancellation within 30+ Days prior to confirmed training dates will attract no fees

12.3 Cancellation within 30-14 Days prior to confirmed training dates will attract 50% of the confirmed fees above

12.4 Cancellation within 14 Days prior to confirmed training dates will attract 75% of the confirmed fees above

12.5 Cancellation on the day of training will attract 100% of the confirmed fees above. This includes incidents where a machine is required for training and was not provided on the day, as well as no shows.

Full policy will be made available upon request

Contact the Liebherr-Australia training department.

Contact Information

Mining

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Shannon Riley

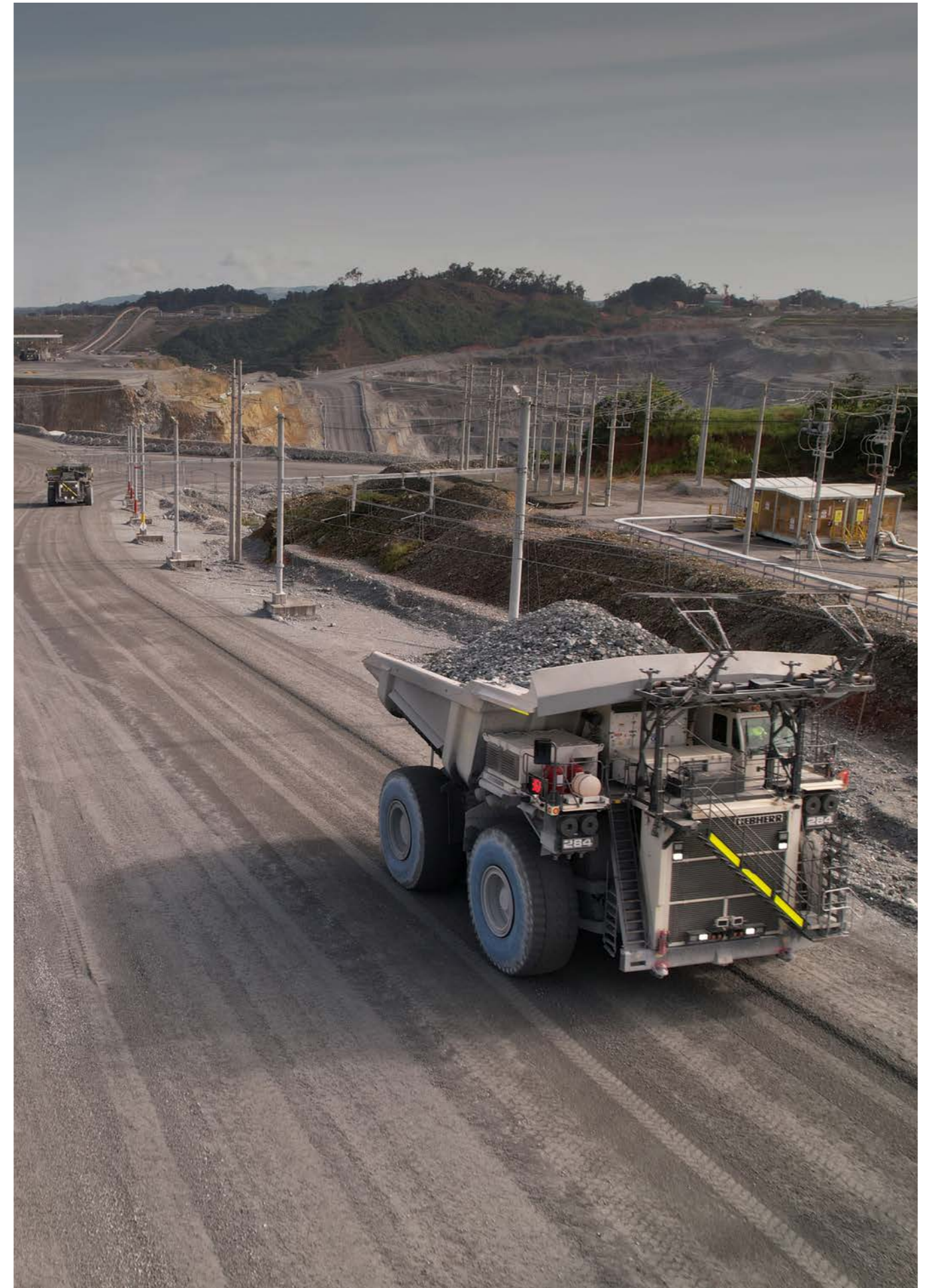
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R 9100, R 9150, R 9200

Small-size Excavator training courses



Product Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the Liebherr hydraulic excavator.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems

Other Info

- Duration 1 x 8-hour day (time on machine, if available)
- Maximum of 10 participants per class

Course Location

- Virtual training
- Liebherr branch

Course prerequisite

Nil.

Machine Access

Time on machine, ideal but not mandatory.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Principles of Operation & Maintenance

Course overview

This course is designed to provide the participants with knowledge of machine safety, maintenance, and systems of the Liebherr hydraulic excavator. Training includes instruction on machine safety, maintenance schedules, component location, principles of operation, hydraulic and electrical schematic use and basic troubleshooting accompanied by instructor facilitated lectures and training guides. Students will learn how the hydraulic and electrical components of the mining excavator operate and interact with other systems / components, as well as the operation of the grease system and its components. The class incorporates a blend of lecture and instructor lead discussions using animation, PowerPoint presentations, charts, videos, photos, and student guides.

Learning outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location,
- Function and operation of major hydraulic and electrical components and integrated systems,
- Access and interpret Liebherr fault code systems,
- CAN system component locations, function, and operation,
- Schematic symbols found on electrical and hydraulic drawings,
- Cylinder dampening system function and operation,
- Grease system components, function and operation and error code interpretation.

Course content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems
- Electrical and hydraulic schematics
- Engine overview

Other information

- Duration: 3 consecutive 8–10-hour days
- Machine access (time on machine required)
- Maximum of 10 participants per class

Course location

- On-site customer location
- Liebherr Australia National Training Centre, Adelaide

Course prerequisite

Attendance of Product Familiarisation (for this machine model) and have an advanced level of knowledge and understanding of electrical and hydraulic systems.

Machine Access

Machine access for minimum 4 hours throughout duration of course.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Test & Adjust

Course overview

This course is designed to provide the participants with knowledge of machine safety and ability to test, diagnose and adjust the Liebherr hydraulic excavator. Training includes instruction on hydraulic and electrical system component location, principles of testing, diagnosis and the adjustment of hydraulic components accompanied by the instructor. The class incorporates a blend of lecture and instructor lead discussions and physical system adjustments using animation, PowerPoint presentations, charts, videos, photos, machine, and student guides.

Learning outcomes

On completion of this training course, participants will be able to understand, test and adjust:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Electrical:
 - Checking solenoid circuit continuity and currents,
 - Cylinder dampening system,
- Hydraulic:
 - Servo pump and control circuit,
 - Work pump and control circuit,
 - Swing pump and control circuit,
 - Engine and hydraulic cooling and control circuits,
 - Track tensioning circuit,
 - Primary valves,
 - Secondary valves.

Course Content

- Classroom instruction
- How Liebherr hydraulic systems function
- Test and diagnose Liebherr hydraulic, electrical, and electronic systems
- Check and adjust Liebherr hydraulic systems

Other Information

- Duration: 2 x 8–10-hour days
- Machine access
- Maximum of 8 participants

Course Location

- Customer site
- Liebherr Adelaide

Course prerequisite

Completion of Product Familiarisation and Principles of Operation and Maintenance Training (for this machine model) and have an advanced level of knowledge and understanding of electrical and hydraulic systems.

Machine Access

Machine access for 6 hours uninterrupted is required to perform the practical testing and adjusting section of the training.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

R 9250, R 9350, R 9400

Medium-size Excavator training courses



Product Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the Liebherr hydraulic excavator.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems

Other Information

- Duration 1 x 8-hour day (time on machine, if available)
- A minimum of 4 to a maximum of 10 participants per class

Course Location

- Virtual training
- Liebherr branch

Course Prerequisite

Nil.

Machine Access

Time on machine, ideal but not mandatory.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Principles of Operation & Maintenance

Course overview

This course is designed to provide the participants with knowledge of machine safety, maintenance, and systems of the Liebherr hydraulic excavator. Training includes instruction on machine safety, maintenance schedules, component location, principles of operation, hydraulic and electrical schematic use and basic troubleshooting accompanied by instructor facilitated lectures and training guides. Students will learn how the hydraulic and electrical components of the mining excavator operate and interact with other systems / components, as well as the operation of the grease system and its components. The class incorporates a blend of lecture and instructor lead discussions using animation, PowerPoint presentations, charts, videos, photos, and student guides.

Learning outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location,
- Function and operation of major hydraulic and electrical components and integrated systems,
- Access and interpret Liebherr fault code systems,
- Schematic symbols found on electrical and hydraulic drawings,
- CAN system component locations, function, and operation,
- Cylinder dampening system function and operation,
- Hydraulic driven air conditioning system function and operation,
- Grease system components, function and operation and

Course content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems
- Electrical and hydraulic schematics
- Engine Overview

Other information

- Duration: 3 consecutive 8-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 10 participants per class

Course location

- On-site customer location
- Liebherr Australia National Training Centre, Adelaide

Course prerequisite

Attendance of Product Familiarisation (for this machine model) and have an advanced level of knowledge and understanding of electrical and hydraulic systems.

Machine Access

Machine access for minimum 4 hours throughout duration of course.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Test & Adjust

Course overview

This course is designed to provide the participants with knowledge of machine safety and ability to Test, Diagnose and Adjust the Liebherr hydraulic excavator. Training includes instruction on hydraulic and electrical system component location, principles of testing, diagnosis and the adjustment of hydraulic components accompanied by the instructor. The class incorporates a blend of lecture and instructor lead discussions and physical system adjustments using animation, PowerPoint presentations, charts, videos, photos, machine, and student guides. The participant is provided with a comprehensive training manual for notations during the training course.

Learning outcomes

On completion of this training course, participants will be able to understand, test and adjust:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Electrical:
- Checking solenoid circuit continuity and currents,
- Cylinder dampening system,
- Hydraulic:
- Servo pump and control circuit,
- Work pump and control circuit,
- Swing pump and control circuit,
- Engine and hydraulic cooling and control circuits,
- Track tensioning circuit,
- Primary valves,
- Secondary valves,
- Track tensioning circuit,
- A/C pump and control circuit.

Course Content

- Classroom instruction
- How Liebherr hydraulic systems function
- Test and diagnose Liebherr hydraulic, electrical, and electronic systems
- Check and adjust Liebherr hydraulic systems
- Check and adjust Liebherr cylinder dampening systems

Other Information

- Duration: 2 x consecutive 8-10-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 6 participants

Course Location

- Customer site
- Liebherr Adelaide

Course prerequisite

Attendance of Product Familiarisation and Principles of Operation and Maintenance (for this machine model) and have an advanced level of knowledge and understanding of electrical and hydraulic systems.

Machine Access

Machine access for minimum 6 hours throughout duration of course.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

R 996B, R 9600, R 9800

Large-size Excavator training courses



Product Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the Liebherr hydraulic excavator.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems

Other Information

- Duration 1 x 8-hour day (time on machine, if available)
- A minimum of 4 to a maximum of 10 participants per class

Course Location

- Virtual training
- Liebherr branch

Course Prerequisite

Nil.

Machine Access

Machine access ideal but not mandatory.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Principles of Operation & Maintenance

Course Overview

This course is designed to provide the participants with knowledge of machine safety, maintenance, and systems of the Liebherr hydraulic excavator. Training includes instruction on machine safety, maintenance schedules, component location, principles of operation, hydraulic and electrical schematic use and basic troubleshooting accompanied by instructor facilitated lectures and training guides. Students will learn how the hydraulic and electrical components of the mining excavator operate and interact with other systems / components, as well as the operation of the grease system and its components. The class incorporates a blend of lecture and instructor lead discussions using animation, PowerPoint presentations, charts, videos, photos, and student guides.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location,
- Function and operation of major hydraulic and electrical components and integrated systems,
- Access and interpret Liebherr fault code systems,
- CAN system component locations, function, and operation,
- Schematic symbols found on electrical and hydraulic drawings,
- Cylinder dampening system function and operation,
- Grease system components, function and operation and error code interpretation.

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems
- Electrical and hydraulic schematics
- Engine overview

Other Information

- Duration: 3 consecutive 8-10-hour days
- Machine access (time on machine required)
- Maximum of 10 participants per class

Course Location

- On-site customer location
- Liebherr Australia National Training Centre, Adelaide

Course Prerequisites

Attendance of Product Familiarisation (for this machine model) and have an advanced level of knowledge and understanding of electrical and hydraulic systems.

Machine Access

Machine access for minimum 4 hours throughout duration of course.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Test & Adjust

Course overview

This course is designed to provide the participants with knowledge of machine safety and ability to test, diagnose and adjust the hydraulic excavator. Training includes instruction on hydraulic and electrical system component location, principles of testing, diagnosis and the adjustment of hydraulic components accompanied by the instructor.

The class incorporates a blend of lecture and instructor lead discussions and physical system adjustments using animation, PowerPoint presentations, charts, videos, photos, machine, and student guides.

Learning outcomes

On completion of this training course, participants will be able to understand, test and adjust:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Electrical:
- Checking solenoid circuit continuity and currents,
- Cylinder dampening system,
- Hydraulic:
- Servo pump and control circuit,
- Work pump and control circuit,
- Swing pump and control circuit,
- Engine and hydraulic cooling and control circuits,
- Track tensioning circuit,
- Primary valves,
- Secondary valves,
- Track tensioning circuit,
- A/C pump and control circuit.

Course Content

- Classroom instruction
- How Liebherr hydraulic systems function
- Test and diagnose Liebherr hydraulic, electrical, and electronic systems
- Check and adjust Liebherr hydraulic systems
- Check and adjust Liebherr cylinder dampening systems

Other Information

- Duration: 2 x consecutive 8-10-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 6 participants

Course Location

- Customer site
- Liebherr Adelaide

Course prerequisite

Attendance of Product Familiarisation and Principles of Operation and Maintenance (for this machine model) and have an advanced level of knowledge and understanding of electrical and hydraulic systems.

Machine Access

Machine access for minimum 6 hours throughout duration of course.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

T 264, T 282C, T 284

Truck training courses



Product Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the Liebherr Electric Drive OHT.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems

Other Information

- Duration 1 x 8-hour day (time on machine, if available)
- A minimum of 4 to a maximum of 10 participants per class

Course Location

- Virtual
- Liebherr Branch

Course Prerequisite

Nil.

Machine Access

Machine access ideal but not mandatory.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

T 264 /T 282C /T 284 Litronic Plus AC Drive

Course Overview

This course is an intensive 2-day training session that focuses on the haul truck electrical system. The training includes instruction on component location, principles and theory of operation and basic troubleshooting accompanied by instructor facilitated lectures and training guide. The class incorporates a blend of lecture and instructor led discussions using animation, PowerPoints, charts, videos, photos, and student guides.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Identify major components, and describe the functionality of each component within the AC drive system,
- Interpret the AC drive system schematics,
- Identify the systems and sub systems that interface with the AC drive system,
- View the status of system faults of the AC drive system,
- Troubleshooting the controller area network (CAN).

Course Content

- AC drive system component location and identification, schematic identification for AC drive system
- Maintenance of AC drive system, fault code identification
- Specification and functional description of major components and systems

Other Information

- Duration: 2 x consecutive 8-10-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 10 participants per class

Course Location

- On-site customer location

Course Prerequisite

Nil.

Machine Access

Machine access is preferred for better learning outcomes.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

T 264 /T 282C /T 284 Litronic Plus AC Drive Advanced Troubleshooting

Course Overview

This course is an intensive 3-day training session that focuses on the haul truck electrical system. The training includes instruction on component location, principles and theory of operation and advanced troubleshooting accompanied by instructor facilitated lectures and training guide. The class incorporates a blend of lecture and instructor led discussions using animation, PowerPoints, charts, videos, photos, and student guides.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Identify major components, and describe the functionality of each component within the AC drive system,
- Interpret the AC drive system schematics,
- Identify the systems and sub systems that interface with the AC drive system,
- View the status of system faults of the AC drive system,
- Troubleshooting the controller area network (CAN).
- How to use MyLiebherr, Troubleshoot Advisor, Content Delivery Portal, Liebherr Mining Data, LMTD and advanced fault finding of power part components.

Course Content

- AC drive system component location and identification, schematic identification for AC drive system, how to use TSA, CDP, MyLiebherr, LMTD, LMD and WebVis
- Maintenance of AC drive system, fault code identification
- Specification, functional description, Fault finding and testing of major components and systems.

Other Information

- Duration: 3 x consecutive 8-10-hour days
- Minimum 4 hours required on machine on third day.
- A minimum of 4 to a maximum of 8 participants per class

Course Location

- On-site customer location
- Regional Liebherr Facility
- Liebherr Training Centre Adelaide

Course Prerequisite

Nil

Machine Access

Machine access is required. Minimum 4 hours required on the third day of training course.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

T 282C /T 284 Ultra-Class Haul Truck Electromechanical Fluid Power

Course overview

The Mechanical, Hydraulic and 24 VDC low voltage electrical training course is an intensive 2-day training session focuses on the haul truck mechanical, hydraulic and electrical (24V) systems. The training includes instruction on component location, principles of operation and basic troubleshooting accompanied by instructor facilitated lectures and training guide. Students will learn how the hydraulic and electrical components on the haul truck operate and interact with other systems/components. The class incorporates a blend of lecture and instructor led discussions using animation, PowerPoints, charts, videos, photos, and student guides as learning stimuli.

Learning outcomes

On completion of this training course, participants will be able to understand, test and adjust:

- Define the location of the mechanical and low voltage electrical haul truck components,
- Describe the inner connectivity between the mechanical, hydraulic, and low voltage systems,
- Describe the operation of each hydraulic system, brake and steering, hoist, and gear oil cooling,
- Carry out Liebherr hydraulic setup procedures,
- Troubleshooting the hydraulic and low voltage electrical systems on the truck using schematics and have a good understanding of hydraulic pressures throughout the system.

Course Content

- Mechanical and 24-volt components location and identification, schematic identification for steering, breaking and hoist circuits
- Maintenance servicing of mechanical systems
- Specification and functional description of major components and systems
- Simulator testing and troubleshooting

Other Information

- Duration: 2 x consecutive 8-10-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 10 participants per class

Course Prerequisite

Nil.

Machine Access

Machine access is preferred for better learning outcomes.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

T 264 Haul Truck Electromechanical Fluid Power

Course Overview

The Mechanical, Hydraulic and 24 VDC low voltage electrical training course is an intensive 2-day training session focuses on the haul truck mechanical, hydraulic and electrical (24V) Systems. The training includes instruction on component location, principles of operation and basic troubleshooting accompanied by instructor-facilitated lectures and training guide. Students will learn how the hydraulic and electrical components on the haul truck operate and interact with other systems/components. The class incorporates a blend of lecture and instructor led discussions using animation, PowerPoints, charts, videos, photos, and student guides as learning stimuli.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Define the location of the mechanical and low voltage electrical haul truck components,
- Describe the inner connectivity between the mechanical, hydraulic, and low voltage systems,
- Describe the operation of each hydraulic system, brake and steering, hoist, and gear oil cooling,
- Carry out Liebherr hydraulic setup procedures,
- Troubleshooting the hydraulic and low voltage electrical systems on the truck using schematics and have a good understanding of hydraulic pressures throughout the system.

Course Content

- Mechanical and 24-volt components location and identification, schematic identification for steering, breaking and hoist circuits
- Maintenance servicing of mechanical systems
- Specification and functional description of major components and systems
- Simulator testing and troubleshooting

Other Information

- Duration: 2 x consecutive 8-10-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 10 participants per class

Course Prerequisite

Nil.

Machine Access

Machine access is preferred for better learning outcomes.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

PR 776 Dozer training courses



PR 776 Principles of Operation and Maintenance

Course Overview

This course is designed to provide the participants with knowledge of machine safety, maintenance, and systems of the Liebherr PR 776 hydrostatic dozer. Training includes instruction on machine safety, maintenance schedules, component location, principles of operation, hydraulic and electrical schematic use and basic troubleshooting accompanied by instructor facilitated lectures and training guides. Students will learn how the hydraulic and electrical components of the PR 776 hydrostatic dozer operate and interact with other system / components, as well as the operation and of the grease system and its components. The class incorporates a blend of lecture and instructor lead discussions using animation, PowerPoint presentations, charts, videos, photos, and student guides.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Safe machine isolation when working on hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Routine maintenance, servicing, and inspections,
- Hydraulic and electrical system components and their location,
- Function and operation of major hydraulic and electrical components and integrated systems,
- Access and interpret Liebherr fault code systems,
- Schematic symbols found on electrical and hydraulic drawings,
- CAN system (PME Master) component locations, function, and operation,
- Air conditioning system function and operation,
- Grease system components, function, and operation.

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: symbols, bolt torques, basic welding, technical specifications, maintenance schedule, maintenance items, sample points, fluid types and quantities
- Specification and functional description of major machine components and systems
- Electrical and hydraulic schematics

Other Information

- Duration: 3 x consecutive 8-10-hour days
- (Time on machine required)
- A minimum of 4 to a maximum of 10 participants per class

Course Location

- On-site customer location.

Course Prerequisite

Nil.

Machine Access

Not required.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Specialised Technical Training

Technical training for aged Liebherr mining excavators

Machine safety, maintenance, and machine testing and adjusting training courses can be arranged for our reliable and aged machines i.e., R 984C, R 994 (100 and 200 series) R 994B, R 995 and R 996. Customers can contact their nearest Liebherr branch and enquire about training for these machines. Please note advanced bookings are required for any of the above-mentioned machine training course and are subject to trainer availability in the region.

Training for Liebherr special tooling

Liebherr -Australia offers a wide range of specialised tooling for purchase and hire, to assist in the safe and effective repaired of all Liebherr mining machines. Customers can contact their nearest Liebherr branch and inquire about purchase/hire and training for these tools.

Customised and non-technical training for Liebherr mining machines

While Liebherr-Australia offers a wide range of training, tailored training can also be requested. Tailored training courses can range from machine basics component identification to system specific training. Customers can enquire about tailored training options by contacting the training department.

Please note advanced bookings are required for any of the customised training course and are subject to trainer availability in the region.

Digital Learning Platform

Liebherr's online learning platform 'TELL' is available to access via yearly license purchase for all customers with a MyLiebherr account.

A wide range of foundational technical knowledge and records of on-the-job training and advanced training competency can also be maintained within the system.

- Email: LAstraining@liebherr.com

Mining Excavator Operator training



Excavator Operator Machine Safety and Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the respective Liebherr hydraulic mining excavator.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Machine technical specifications and dimensions,
- Safe machine isolation of hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Function, location and operation of major machine components and systems,
- Routine daily maintenance, servicing and walk around inspections,
- Machine start up and shutdown procedures,
- Machine operational functions and controls,
- Correct machine travelling procedures,
- Safe machine park up procedure.
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Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: technical specifications, maintenance schedule, maintenance items, fluid types and quantities
- Specification and functional description of major components and systems
- Safe operation of mining excavator

Other Information

- Duration: 1 x 7-10-hour day (time on machine required)
- A minimum of 4 to a maximum 8 participants per class

Course Prerequisite

Nil.

Machine Access

Machine access is required as part of all operator training.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Excavator Operator Technics and Efficiency

Course Overview

This course is designed to provide the participants with knowledge of machine safety, familiarisation, safe, efficient, and productive operation of the respective Liebherr hydraulic mining excavator. The participant is provided with a comprehensive training manual for notations during the training.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Correct machine setup,
- Correct machine travelling procedures,
- Correct bench walking procedure,
- Correct bench height and machine positioning to the work area,
- Correct swing angles for the haul truck,
- Correct undercarriage positioning relative to the working area,
- Correct bucket loading sequence for maximum production,
- Production study with each operator (see course requirements).

Course Content

- Safe operation of mining excavator
- Effective operation of Liebherr excavator
- Feedback to Quarry or Mining Manager

Other Information

- Duration: 1 x 7-10-hour day (time on machine required)
- 2 operators per day
- Can be changed to suite site requirements (contact National Operator Trainer)

Course Requirements

For the production study and training to be carried out accurate and effectively site must provide the machine with the same operator for 5 hours of uninterrupted operation. The machine must be set up on the correct size bench and must have an adequate number of trucks available to load. Unforeseen events such as breakdowns, weather, and emergency will be taken into consideration case by case.

Production study information required before training start date

- Machine model and configuration
- Machine fleet number and serial number
- Truck make and model to be used in study
- Material being loaded (waste / high-grade ore)
- Material weight loose

Course Prerequisite

Excavator Operator Machine Safety and Familiarisation Training

Machine Access

Machine access is required as part of all operator training.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Mining Truck Operator training



Truck Operator Technics and Efficiency

Course Overview

This course is designed to provide the participants with knowledge of machine safety, familiarisation, safe, efficient, and productive operation of the respective Liebherr mining truck.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Machine technical specifications and dimensions,
- Safe machine isolation of hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Function, location and operation of major machine components and systems,
- Routine daily maintenance, servicing and walk around inspections,
- Machine start up and shutdown procedures,
- Machine operational functions and controls,
- Correct machine travelling procedures,
- Safe machine park up procedure,
- Correct cornering technic in all-weather conditions,
- Correct ramp speed and braking technic,
- Correct reversing under excavators,
- Correct reversing to tip head.

Course Content

- Safety information and procedures, emergency stops, emergency exit and fire system operation
- General information: technical specifications, fluid quantities
- Specification and functional description of major components and systems
- Safe operation of mining truck
- Feedback to Quarry or Mining Manager

Other Information

- Duration: 1 x 7-10-hour day (time on machine required)
- 2 Operators per day

Course prerequisite

Truck Operator Machine Safety and Familiarisation Training

Machine Access

Machine access is required as part of all operator training.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Truck Operator Machine Safety and Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the respective Liebherr mining truck.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Machine technical specifications and dimensions,
- Safe machine isolation of hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Function, location and operation of major machine components and systems,
- Routine daily maintenance, servicing and walk around inspections,
- Machine start up and shutdown procedures,
- Machine operational functions and controls,
- Safe machine park up procedure.

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: technical specifications, fluid quantities
- Specification and functional description of major components and systems
- Safe operation of mining truck

Other Information

- Duration: 1 x 7-10-hour day (time on machine required)
- A minimum of 4 to a maximum of 8 participants per class

Course Prerequisite

Nil.

Machine Access

Machine access is required as part of all operator training.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.

Mining Dozer Operator training



Dozer Operator Machine Safety and Familiarisation

Course Overview

This course is designed to provide the participants with knowledge of machine safety and familiarisation of the respective Liebherr mining dozer.

Learning Outcomes

On completion of this training course, participants will be able to understand, identify and carry out:

- Machine technical specifications and dimensions,
- Safe machine isolation of hydraulic and electrical systems,
- Safe release of stored hydraulic energy,
- Emergency stop locations and system activation,
- Emergency exit locations and use,
- Function, location and operation of major machine components and systems,
- Routine daily maintenance, servicing and walk around inspections,
- Machine start up and shutdown procedures,
- Machine operational functions and controls,
- Safe machine park up procedure.

Course Content

- Safety information and procedures, emergency stops, emergency exit
- General information: technical specifications, fluid quantities
- Specification and functional description of major components and systems
- Safe operation of mining dozer

Other Information

- Duration: 1 x 7-10-hour day (time on machine if available)
- A minimum of 4 to a maximum of 8 participants per class

Course Prerequisite

Nil.

Machine Access

Machine access is required as part of all operator training.

Training Materials

Participants will receive a comprehensive training manual for notations during the training course, available via USB or file transfer. These materials are not for distribution outside of the course.

Printed materials can be requested, for an additional fee.