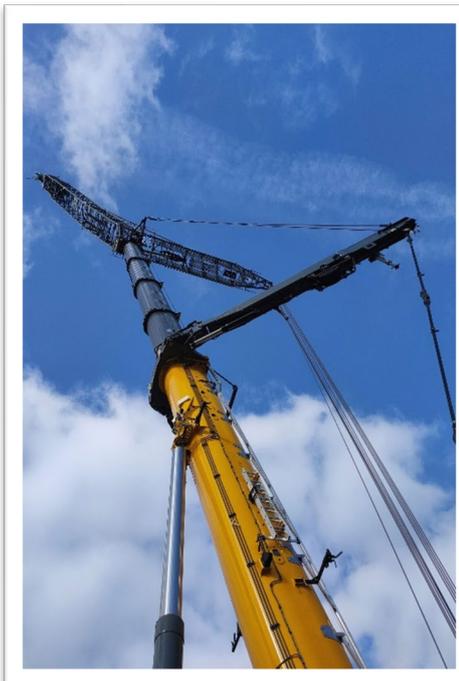


## TRAINING 2026

### Course catalog

Wilhelmshaven - Germany



# Foreword

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We have expanded our offerings to the new technologies. More cranes are build with cameras and adaptive driving assistance systems, these systems will be trained by us. Highvoltage courses are added to work on our hybrid technology and on the GMK5150XL-e. The upcoming system CCS 2.0 will be supported from the middle of 2026.

Furthermore, we would like to introduce our E-Academy learning platform, where you can book all training courses directly online. You can find more information about this learning management system on page 49.

If you have any questions or special wishes, please contact us.

Best regards,

The Teams from  
Grove Training Center Wilhelmshaven, Germany

# Contact and Trainers



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# Overview

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## Location

- A strategic location for All Terrain (GMK) cranes in Wilhelmshaven, Germany.

## Languages spoken

- English, German
- Other languages with translators
- Other languages, if available by local subsidiaries

## Our Certifications

- Operator training courses in cooperation with BG Verkehr (German Employers Liability Insurance Association)
- Operator training corresponding BSK regulations
- MTU & TÜV certified trainers
- An “in Factory” Training Center
- Development of the operating training courses according to ISO9001 requirements
- High voltage 3E qualification for hybrid technology

## Our profile

- More than 1.000 trainees and visitors from around the globe annually
- Bilingual instructors (English & German)

## Our global offer

- 34 modules from 1 day to 2 weeks covering crane operation, crane technology, crane diagnostics, crane erection, crane maintenance, crane safety or any other specific course according to your needs.

## Our equipment

- Training on various GMK Cranes
- 4 training rooms with state-of-the-art smart boards
- Practical lessons on simulators and cranes

## Find our brochure on our website

<https://www.manitowoc.com/support/training>



# Practical Information

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## Costs

- Refer to schedule
- Please inform all trainees, that hotel rooms, meals, telephone, bar, weekend trips, taxi etc. are not included in the course fee

## Travel arrangements

- We will support you in booking hotel rooms & airport pickup if necessary (extra costs)

## Registration

**You will find enclosed “registration purchase order” forms which must be filled out and returned to the Training Center for confirmation, or you can directly register via E-Academy, then follow up on page 49.**

- Trainees must be over 18 years old and must be declared fit to work at heights
- Manitowoc denies responsibility for accidents and/or illnesses that might occur during the training courses. We therefore request, that you cover your trainees against any kind of risks and provide them with the necessary insurance certificates and forms

## Clothing

- Most of our training programs involve numerous practical exercises outside. Please inform the trainees that they must bring their **PPE** and weatherproof clothing. **Safety shoes are mandatory.** We can support with safety glasses and helmets.

## Cancelation

- In case of cancellation, please inform the Training Center immediately in order to avoid extra charges

## Laptop PC

- Please refer to page **48**

## Contact us

Email address [TrainingGMK@manitowoc.com](mailto:TrainingGMK@manitowoc.com)

# Course summary

|                  |  |                     |
|------------------|--|---------------------|
| <b>Section 1</b> | Crane Introduction / Customer courses              | <b>Page 07 - 11</b> |
| <b>Section 2</b> | Technician Development Program                     | <b>Page 12 - 25</b> |
| <b>Section 3</b> | Advanced Technician Development                    | <b>Page 26 - 33</b> |
| <b>Section 4</b> | Highvoltage Specialist Technician Development      | <b>Page 34 - 44</b> |
| <b>Section 5</b> | RT and Crawler Training                            | <b>Page 45 - 47</b> |
| <b>Section 6</b> | Laptop requirements<br>Registration, Address & Map | <b>Page 48 - 52</b> |

## GENERAL TERMS

- Every training course requires a minimum of 3 participants
- All trainings can be performed on a weekly fee basis  
Example: If you have more than 3 participants per training, we will offer a week or group fee in Wilhelmshaven  
weekly fee in Wilhelmshaven → 7.500€
- All trainings can be performed as an “on-site” course in your facility. Special offer on-site fee consists weekly fee, without flight, hotel and expenses → 8.500€

**If you have any questions or special wishes, please do not hesitate to contact us.**

# Crane Introduction / Customer Courses

| Course   | Page | Course name  |
|----------|------|--|
| GMK 1.1C | 8    | GMK Technical Introduction<br>First steps into the technology of GMK |
| GMK 2.1C | 9    | GMK Electric and Hydraulics  |
| GMK 3.1C | 10   | GMK ECOS / EKS Customer  |
| GMK 5.1C | 11   | GMK CCS Technology and Diagnostics                                   |



## **Aim of training course**

This course provides an initial overview of the GMK types and the technology of these cranes.

You will get basic information about the drive and power train of the carrier, the operation of the MegaTrak system and the different steering systems. As you progress, you will learn about the various components of the super-structure such as the drive, boom, telescoping systems and jibs.

The both chapters of crane controls and load moment limitation will also be explained. All components are shown by means of models and graphics and are demonstrated directly on the cranes during the factory tour.

## **Program**

- GMK crane types
- Driveline, suspension and steering
- Boom and superstructure technology
- RCL system from past to present
- Control systems from past to present

## **Teaching methods**

- Detailed theoretical training
- Models, factory tour

### **Prerequisites**

- Trainees must be over 18 years old
- Trainees have to bring their PPE

### **Duration**

- 3 days
- Tuesday 08:00 am to Thursday 04:00 pm

### **Number of participants**

- 8 participants



## **Equipment**

- Training room
- Technical documents
- Various models of components

## **Validation of knowledge**

- Handover of certificate

## **Dates**

- Dates on request

## **Cost**

- Training fee 990€

### Aim of training course

Designed as a guideline through the technology of GMK cranes. The student will gain a deeper knowledge of the electric and hydraulic system of the crane and get instructions for logic troubleshooting of these systems.

### Program

- Overview of the electrical function groups, navigating through the electrical schematics (ELAN and SEE), connections between electric, hydraulic and pneumatic schematics, tasks of troubleshooting in electrical systems.
- Overview of hydraulic components and their schematic symbols. Navigation through the hydraulic schematics. Overview of the carrier hydraulic and pneumatic systems. Overview of the superstructure hydraulic system.

### Teaching methods

- 5 days theory and practice in electrical and hydraulic schematics and systems



### Equipment

- Training room
- Technical documents
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 8 participants

### Dates

- Dates on request

### Cost

- Training fee 2.190 €

### Aim of training course

Introduction to the ECOS (Electronic Crane Operation System), EKS (RCL system) of the GMK crane.

### Program

#### ECOS / EKS

- History of crane control & RCL systems
- Sensors and actuators in the hydraulic system
- ESX modules, I/O boards / GVIOM, displays, MMI & level sensor, AMG / AMM, joystick, precision length sensor
- ECOS and EKS diagnostic with software tools
- CAN-Bus systems
- Introduction of logical troubleshooting and error code diagnostics

### Teaching methods

- Pretest
- Detailed theory
- Simulator

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Trainees must have a minimum of 6 months experience of crane operation

✓ GMK 2.1 C

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- Dates on request

### Cost

- Training fee 2.190 €

### Aim of training course

This course will show the technology (design and function) and the diagnostic troubleshooting of CCS "Crane Control System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble-shooting with the help of service software.

### Program

- CCS modules, display, joysticks, jog dial, HMI, level sensor, precision length sensor
- Digital outputs, PWM outputs
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Diagnostics of inputs and outputs with service software CST or via CCS display

### Teaching methods

- Theoretical training
- Practical tasks on simulator and crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop
- Successfully passed
- ✓ GMK 2.1C & GMK 3.1C

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- Dates on request

### Cost

- Training fee 2.190 €

# Technician Development 2026

| Course  | Page | Course name                                    |
|---------|------|--|
| GMK 1.1 | 13   | GMK Technical Introduction                     |
| GMK 2.1 | 14   | GMK Electric & Hydraulic                       |
| GMK 3.1 | 15   | GMK ECOS Technology & Diagnostics              |
| GMK 4.1 | 16   | GMK EKS 4 & 5 Technology & Diagnostics         |
| GMK 5.1 | 17   | GMK CCS Technology & Diagnostics               |
| GMK 5.2 | 18   | GMK CCS 2.0 Technology & Diagnostics           |
| GMK 6.1 | 19   | GMK Engines & Transmissions MB/MTU             |
| GMK 6.2 | 20   | GMK Cummins, ZF-TraXon, Allison Tech. & Diagn. |
| GMK 7.1 | 21   | GMK Steer by Wire – MTW SBW                    |
| GMK 7.2 | 22   | GMK Steer by Wire – ME 1 Gen.                  |
| GMK 7.3 | 23   | GMK Steer by Wire – ME 2 Gen.                  |
| GMK TC  | 24   | GMK Technician Certification                   |



## Aim of training course

This course provides an initial overview of the GMK types and the technology of these cranes.

You will get basic information about the drive and power train of the carrier, the operation of the MegaTrak system and the different steering systems. As you progress, you will learn about the various components of the super-structure such as the drive, boom, telescoping systems and jibs.

The both chapters of crane controls and load moment limitation will also be explained. All components are shown by means of models and graphics and are demonstrated directly on the cranes during the factory tour.

## Program

- GMK crane types
- Driveline, suspension and steering
- Boom and superstructure technology
- RCL system from past to present
- Control systems from past to present

## Teaching methods

- Detailed theoretical training
- Models, factory tour



## Equipment

- Training room
- Technical documents
- Various models of components

## Validation of knowledge

- Handover of certificate

### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE

### Duration

- 3 days
- Tuesday 08:00 am to Thursday 04:00 pm

### Number of participants

- 8 participants

## Dates

- 22.09.2026 – 24.09.2026
- Dates on request

## Cost

- Training fee 990€

### Aim of training course

Designed as a guideline through the technology of GMK cranes. The student will gain a deeper knowledge of the electric and hydraulic system of the crane and get instructions for logic troubleshooting of this systems.

### Program

- Overview of the electrical function groups, navigating through the electrical schematics (ELAN and SEE), connections between electric, hydraulic and pneumatic schematics, tasks of troubleshooting in electrical systems.
- Overview of hydraulic components and their schematic symbols. Navigation through the hydraulic schematics.
- Overview of the carrier hydraulic and pneumatic systems. Overview of the superstructure hydraulic system.

### Teaching methods

- 5 days theory and practice in electrical and hydraulic schematics and systems

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 05.01.2026 – 09.01.2026
- 13.04.2026 – 17.04.2026
- 06.07.2026 – 10.07.2026
- 23.11.2026 – 27.11.2026
- More dates on request

### Cost

- Training fee 2.190€

### Aim of training course

This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment, flashing) of ECOS "Electronic Crane Operating System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble-shooting with help of the service SW for adjustment, flashing and configuring.

### Program

- ESX modules, I/O boards, GVIOM, display, HMI, AMG/AMM, joysticks, level sensor, precision length sensor
- Digital outputs, PWM outputs
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software
- Flashing / updating of displays and ESX
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Theoretical training
- Practical tasks on simulator and crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed

✓ **GMK 2.1**

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 09.02.2026 – 13.02.2026
- 18.05.2026 – 22.05.2026
- 03.08.2026 – 07.08.2026
- More dates on request

### Cost

- Training fee 2.190 €

### Aim of training course

This training will show the RCL systems EKS4 and EKS5, the principles and technology.

In this training course the participants will attain the diagnostic level of EKS4 and EKS5.

### Program

- History of EKS systems
- Crane physics, RCL technology
- EKS4 & EKS5, bus node cards, Tilt I/O boards, pressure transducers, slewing sensors, standard display / graphic display
- CAN-Bus system for sensors
- Communication to ECOS
- Error codes diagnostics & diagnostic tools
- Addressing of sensors and Tilt I/O boards
- Flashing of graphic display, flashing of EKS5
- Adjustment of RCL system with service software
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on simulator

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ GMK 2.1 & GMK 3.1

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 23.02.2026 – 27.02.2026
- 22.07.2026 – 26.07.2026
- 05.10.2026 – 09.10.2026
- 30.11.2026 – 04.12.2026
- More dates on request

### Cost

- Training fee 2.190 €

## Aim of training course

This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment, flashing) of CCS "Crane Control System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble shooting with the help of service software for calibrations, flashing and configuring.



## Program

- CCS modules, display, joysticks, jog dial, HMI, level sensor, precision length sensor
- Digital outputs, PWM outputs
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software or via CCS display
- Flashing / updating of CCS modules and displays
- GroveConnect (Telematic system)
- SUMS Software Management Systems ECE-R 156

## Teaching methods

- Theoretical training
- Practical tasks on simulator and crane

### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop
- Successfully passed
- ✓ **GMK 2.1 - GMK 4.1**

### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 6 participants

## Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

## Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

## Dates

- 23.03.2026 – 27.03.2026
- 24.08.2026 – 28.08.2026
- 02.11.2026 – 06.11.2026
  
- More dates on request

## Cost

- Training fee 2.190 €

### Aim of training course

This course provides knowledge about the components, operation, functionality, system structure, settings, and configurations of CCS 2.0 "Crane Control System 2.0."

### Program

- Overview of the control elements
- Compliance with EN 13849
- Overview of sensors and actuators
- Structure of the control system
- ECUs and their inputs and outputs
- Operation of the crane control system
- Functionality of the RCL
- Crane Service Interface
- Settings and Adjustments
- Saving settings data
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Theoretical training
- Practical tasks on crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop
- Successfully passed
- ✓ **GMK 2.1 - GMK 5.1**
- ✓ **Not needed for certification in 2026**

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 19.10.2026 – 23.10.2026
- 23.11.2026 – 27.11.2026
- 30.11.2026 – 04.12.2026
- Dates on request

### Cost

- Training fee 2.390 €

### Aim of training course

In this course you will attain the technology of the current MB/MTU engines including exhaust after treatment systems. The MB gearbox G280-16 and G230-12 is also explained.

The electronic brake system EBS is another part of this course. Finally, the network of all electronic modules (driveline and cabin) will be diagnosed and parameterized with the XENTRY tool.

### Program

- Current engines (OM47x and OM936)
- Exhaust after treatment systems
- Gearbox G280-16, G230-12
- Retarder & VIAB
- ECU network system / cabin systems
- XENTRY diagnostic tool
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with XENTRY
- Successfully passed
- ✓ GMK 2.1 - GMK 5.1
- ✓ Laptop required

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- Simulator
- GMK crane
- XENTRY

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 19.01.2026 – 23.01.2026
- 04.05.2026 – 08.05.2026
- 08.06.2026 – 12.06.2026
- 31.08.2026 – 04.09.2026
- More dates on request

### Cost

- Training fee 2.290€

## Aim of training course

Technology and diagnostic of the Cummins engine QSL 9 in TIER3, TIER4final and EUROMOT5 emission standards by using "Cummins INSITE" software tool.

Introduction of ZF TraXon transmission. During this training, the use of the test tools and error codes will be explained including read out of values, errors and conditions.

Overview of the Allison 4000 family

## Program

- Cummins QSL9 engine
- Exhaust after treatment systems
- ZF TraXon gearbox
- Connection of engines and transmission to CCS
- Allison 4000 family transmission
- SUMS Software Management Systems ECE-R 156

## Teaching methods

- Detailed theoretical training
- Practical tasks on crane

### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with Cummins Inside
- Successfully passed
- ✓ GMK 2.1 - GMK 6.1
- ✓ Laptop required

### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 6 participants



## Equipment

- Training room
- Technical documents
- GMK crane

## Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

## Dates

- 23.02.2026 – 27.02.2026
- 01.06.2026 – 05.06.2026
- 17.08.2026 – 21.08.2026
- More dates on request

## Cost

- Training fee 2.190 €

### Aim of training course

The “Steer by Wire” course will provide detailed knowledge of this specific system.

**Due to legal regulations work and/or repair on SBW systems is only authorized to those, who have successfully completed this course.**

### Program

- Steer by Wire control units ESX 4 and 5
- Introduction of sensors
- Laptop computer as a service tool with applied Steer by Wire – software
- Flashing of units
- Calibration and adjustment of the MTW SBW system
- Logical troubleshooting
- Error codes diagnostics and diagnostic tools
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on simulator
- Practical tasks on crane

#### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ **GMK 2.1 - GMK 6.1**

#### Duration

- 3 days
- Tuesday 12:30 pm to Thursday 04:00 pm

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- Simulator
- GMK crane

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 29.06.2026 – 03.07.2026
- 28.09.2026 – 02.10.2026
- 09.11.2026 – 13.11.2026
- More dates on request

### Cost

- Training fee 1.950€

### Aim of training course

The “Steer by Wire ME 1 Gen” course will provide detailed knowledge of this specific system.

**Due to legal regulations work and/or repair on SBW systems is only authorized to those, who have successfully completed this course.**

### Program

- Mobil Elektronik SLC's
- Introduction of sensors
- Laptop computer as a service tool with applied Steer by Wire – software
- Flashing of units
- Calibration and adjustment of the Mobil Elektronik SBW 1 Gen. system
- Logical troubleshooting
- Error codes diagnostics and diagnostic tools
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on simulator
- Practical tasks on crane

#### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ **GMK 2.1 - GMK 6.2**
- ✓ **Only in combination with GMK 7.3**

#### Duration

- 2,5 days
- Monday 12:30 pm to Wednesday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- Simulator
- GMK crane

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 02.02.2026 – 04.02.2026
- 09.03.2026 – 11.03.2026
- 27.04.2026 – 28.04.2026
- 22.06.2026 – 24.06.2026
- 02.11.2026 – 04.11.2026
- More dates on request

### Cost

- Training fee 1.095 €

### Cost total (with GMK 7.3)

- Training fee 2.190 €

### Aim of training course

The “Steer by Wire ME 2 Gen” course will provide detailed knowledge of this specific system.

**Due to legal regulations work and/or repair on SBW systems is only authorized to those, who have successfully completed this course.**

### Program

- Mobil Elektronik SLC's
- Introduction of sensors
- Laptop computer as a service tool with applied Steer by Wire – software
- Flashing of units
- Calibration and adjustment of the Mobil Elektronik SBW 2 Gen. system
- Logical troubleshooting
- Error codes diagnostics and diagnostic tools
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on simulator
- Practical tasks on crane

#### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ **GMK 2.1 - GMK 6.2**
- ✓ **Only in combination with GMK 7.2**

#### Duration

- 2,5 days
- Wednesday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- Simulator
- GMK crane

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 04.02.2026 – 06.02.2026
- 11.03.2026 – 13.03.2026
- 29.04.2026 – 30.04.2026
- 24.06.2026 – 26.06.2026
- 04.11.2026 – 06.11.2026
- More dates on request

### Cost

- Training fee 1.095 €

### Cost total (with GMK 7.2)

- Training fee 2.190 €

### Aim of training course

Test of qualifications.

### Program

- Entry test
- Handling of documents and service software tools
- Examination about procedures and faults on
  - ECOS
  - EKS
  - CCS
  - SBW ECOS
  - SBW Mobil Elektronik 1 Gen
  - SBW Mobil Elektronik 2 Gen

### Teaching methods

- Practical tasks on simulator
- Practical tasks on crane

#### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Successfully passed
- ✓ Technician Development Program 2026

#### Duration

- 3 days
- 08:00 am to 16:00 pm

#### Number of participants

- 2 participants



### Equipment

- Training room
- Simulator
- GMK crane

### Validation of knowledge

- Certification Card

### Dates

- 17.08.2026 – 19.08.2026
- 14.09.2026 – 16.09.2026
- 05.10.2026 – 07.10.2026
- More dates on request

### Cost

- Training fee 1.200 €

# Technician Development

## Minimum requirements to certification

|              | <b>Manitowoc or Dealer Technician ONLY</b>              | <b>Laptop</b> | <b>Rates/<br/>net<br/>EURO</b> |
|--------------|---|---------------|--------------------------------|
| GMK 1.1      | GMK Technical Introduction                              | no            | 990                            |
| GMK 2.1      | GMK Electric & Hydraulics                               | no            | 2.190                          |
| GMK 3.1      | GMK ECOS Technology & Diagnostics                       | required      | 2.190                          |
| GMK 4.1      | GMK EKS 4 + 5 Technology & Diagnostics                  | required      | 2.190                          |
| GMK 5.1      | GMK CCS Technology & Diagnostics                        | required      | 2.190                          |
| GMK 5.2      | GMK CCS 2.0 Technology & Diagnostics                    | required      | 2.390                          |
| GMK 6.1      | GMK MTU/MB Engines & Transmissions,<br>MB cabin systems | required      | 2.290                          |
| GMK 6.2      | Cummins, ZF and Allison Technology and<br>Diagnostics   | required      | 2.190                          |
| GMK 7.1      | GMK Steer by Wire MTW                                   | required      | 1.950                          |
| GMK 7.2      | GMK Steer by Wire ME 1 Gen                              | required      | 1.095                          |
| GMK 7.3      | GMK Steer by Wire ME 2 Gen                              | required      | 1.095                          |
| TC           | GMK Technician Certification                            | required      | 1.200                          |
| <b>Total</b> |   |               | <b>21.960</b>                  |

# Advanced Technician Development

Renews expired certification

| Course  | Page | Course name                               |
|---------|------|---|
| GMK 3.3 | 27   | GMK ECOS EST control systems              |
| GMK 3.9 | 28   | GMk ECOS Refresh                          |
| GMK 4.9 | 29   | GMK EKS Refresh                           |
| GMK 5.3 | 30   | GMK Crane Adjustment & Setup              |
| GMK 5.9 | 31   | GMK CCS Refresh                           |
| GMK 6.6 | 32   | GMK Camera and Driving Assistance Systems |
| GMK 8.1 | 33   | GMK 6400-1 Technology and Diagnostic      |
|         |      |   |



### Aim of training course

This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment) of ECOS "Electronic Crane Operating System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical troubleshooting with the help of the service software for adjustment and configuring

### Program

- EST modules, display, joysticks, precision length sensor
- Digital outputs, PWM outputs
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software

### Teaching methods

- Theoretical training
- Practical tasks on simulator

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ **GMK 2.1 & 3.1**

#### Duration

- 2 days
- 08:00 am to 16:00 pm

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- Dates on request

### Cost

- Training fee 1.290€

### Aim of training course

This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment, flashing) of ECOS "Electronic Crane Operating System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble-shooting with help of the service SW for adjustment, flashing and configuring.

### Program

- ESX modules, I/O boards, GVIOM, display, HMI, AMG/AMM, joysticks, level sensor, precision length sensor
- Digital outputs, PWM outputs
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software
- Flashing / updating of displays and ESX
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Theoretical training
- Practical tasks on simulator and crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ Only for certified technician
- ✓ In combination with GMK 4.9

#### Duration

- 2,5 days
- Monday 12:30 pm to Wednesday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 09.03.2026 – 11.03.2026
- More dates on request

### Cost

- Training fee 1.095 €

### Cost total (with GMK 4.9)

- Training fee 2.190 €

### Aim of training course

This training will show the RCL systems EKS4 and EKS5, the principles and technology.

In this training course the participants will attain the diagnostic level of EKS4 and EKS5.

### Program

- History of EKS systems
- Crane physics, RCL technology
- EKS4 & EKS5, bus node cards, Tilt I/O boards, pressure transducers, slewing sensors, standard display / graphic display
- CAN-Bus system for sensors
- Communication to ECOS
- Error codes diagnostics & diagnostic tools
- Addressing of sensors and Tilt I/O boards
- Flashing of graphic display, flashing of EKS5
- Adjustment of RCL system with service software
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on simulator

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed
- ✓ Only for certified technician
- ✓ In combination with GMK 3.9

#### Duration

- 2,5 days
- Wednesday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 11.03.2026 – 13.03.2026
- More dates on request

### Cost

- Training fee 1.095 €

### Cost total (with GMK 3.9)

- Training fee 2.190 €

### Aim of training course

The participant will get experience in calibration of the hydraulic system and the CCS

Provide professionalism in trouble-shooting

Experiences to update the different control units of the crane

### Program

- Complete setup of the following systems on a GMK crane
- Hydraulic setup
- CCS setup
- Crane adjustment
- SBW ECOS or SBW Mobil Elektronik
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Practical tasks on crane



### Equipment

- GMK crane

### Validation of knowledge

- Handover of certificate
- This course renews also your expired certification card

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Successfully passed GMK 5.1
- ✓ Present their own diagnostic equipment

### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 2 participants

### Dates

- 23.03.2026 – 27.03.2026
- 20.04.2026 – 24.04.2026
- 18.05.2026 – 21.05.2026
- 24.08.2026 – 28.08.2026
- 12.10.2026 – 16.10.2026
- More dates on request

### Cost

- Training fee 2.400 €

### Aim of training course

This course will show the technology (design and function) and the diagnostic (troubleshooting, adjustment, flashing) of CCS "Crane Control System". This training shows the detailed theory of the operating system and its control application for particular functions and in the practical part the logical trouble shooting with the help of service software for calibrations, flashing and configuring.



### Program

- CCS modules, display, joysticks, jog dial, HMI, level sensor, precision length sensor
- Digital outputs, PWM outputs
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Adjustment of inputs and outputs with service software or via CCS display
- Flashing / updating of CCS modules and displays
- GroveConnect (Telematic system)
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Theoretical training
- Practical tasks on simulator and crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop
- Successfully passed
- ✓ Only for certified technician

#### Duration

- 4 days
- Monday 12:30 pm to Thursday 16:00 am

#### Number of participants

- 6 participants

### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 27.04.2026 – 30.04.2026
- More dates on request

### Cost

- Training fee 2.190 €

## Aim of training course

The course will provide a general overview of installed camera systems on GMK cranes.

Additionally, you will get information about the coming driving assistance system mandatory for Europe.



## Program

- Motec boom head camera
- BCS boom head camera
- Bird view system
- Luis driving assistance system
- SUMS Software Management Systems  
ECE-R 156

## Equipment

- Simulator

## Validation of knowledge

- Handover of certificate

## Teaching methods

- Theoretical training
- Practical tasks on simulator
- Calibration procedures
- Configuring modules

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Successfully passed
- ✓ **GMK Technician Certification**
- ✓ **Laptop required**

### Duration

- 4 days
- Tuesday 08:00 am to Friday 11:30 am

### Number of participants

- 6 participants

## Dates

- 10.03.2026 – 13.03.2026
- 18.08.2026 – 21.08.2026
- 26.10.2026 – 30.10.2026
- 16.11.2026 – 20.11.2026
  
- More dates on request

## Cost

- Training fee 2.190 €

### Aim of training course

Introduction of the GMK6400-1. Introduction of the GMK6400-1 CCS system including RCL sensors. Introduction of the powertrain and MegaDrive control system.

### Program

- CCS and RCL sensors
- Adjustment of crane via CCS screens
- MobilElektronik SBW
- Functions and Equipment
- Explanation of MegaDrive
- MegaWingLift technology of GMK6400-1
- SUMS Software Management Systems ECE-R 156

### Teaching methods

- Detailed theoretical training
- Practical tasks on crane

#### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Successfully passed
- ✓ **GMK Certified Technician**
- ✓ **Laptop required**

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

- 09.02.2026 – 13.02.2026
- 31.08.2026 – 04-09-2026
- More dates on request

### Cost

- Training fee 2.290 €

# Highvoltage Specialist **TECHNICIAN DEVELOPMENT**

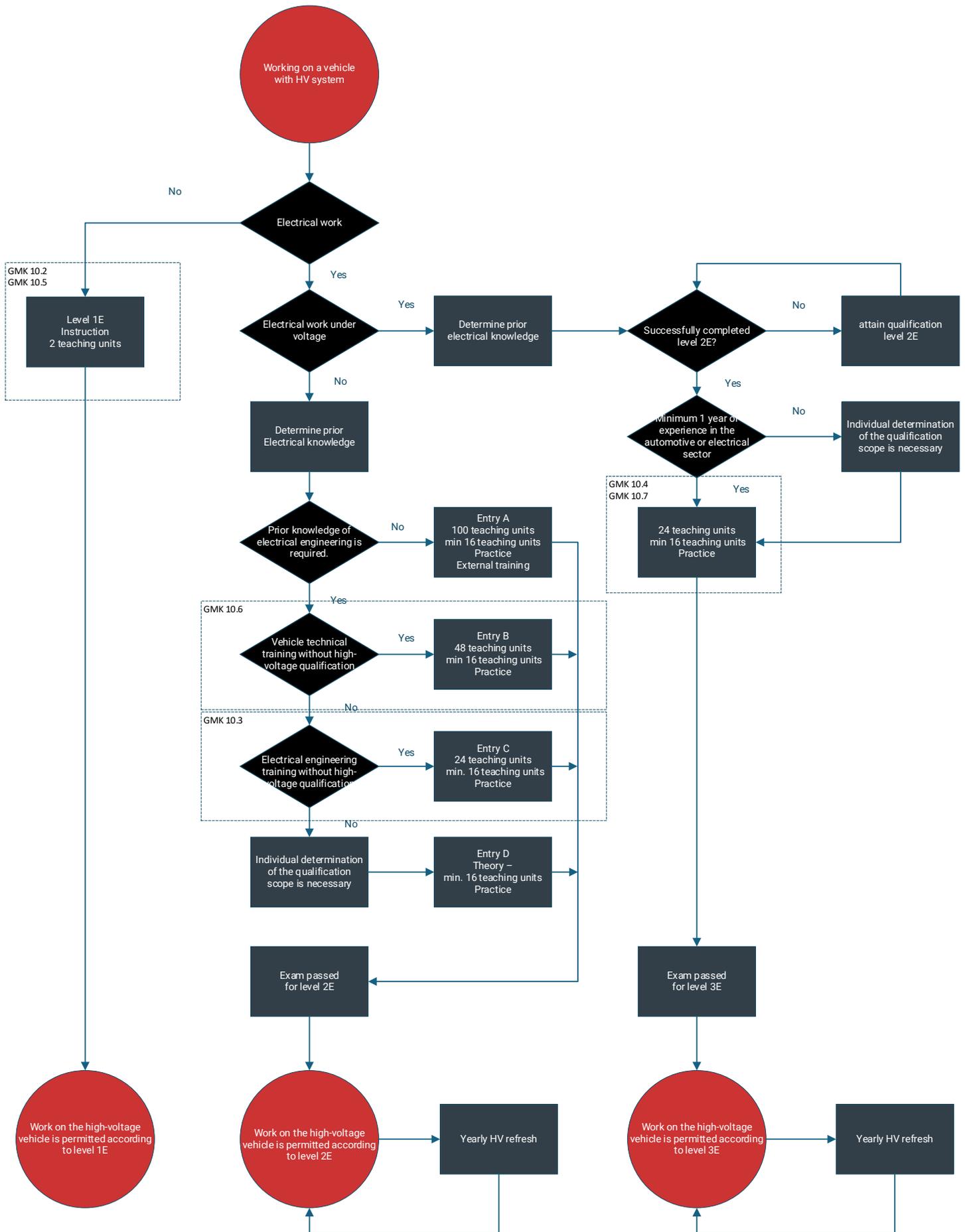
Hybridtechnologie

| Course   | Page | Course name                  |
|----------|------|------------------------------|
|          | 35   | Way of Education Highvoltage |
| GMK 10.1 | 36   | HV-sensitization             |
| GMK 10.2 | 37   | 1E for electricians          |
| GMK 10.3 | 38   | 2E for electricians          |
| GMK 10.4 | 39   | 3E for electricians          |
| GMK 10.5 | 40   | 1E for mechanics             |
| GMK 10.6 | 41   | 2E for mechanics             |
| GMK 10.7 | 42   | 3E for mechanics             |
| GMK 10.8 | 43   | GMK Hybrid Technology        |
| GMK 10.9 | 44   | GMK HV Refresh               |
|          |      |                              |



# Highvoltage Specialist DEVELOPMENT

## Way of Education Highvoltage based on DGUV 209-093



### Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system

### Program

- Specifications  
Charging systems
- Necessary safety rules
- Which work is allowed

### Teaching methods

- Theoretical training



### Equipment

- Presentation in classroom

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE

### Duration

- 0,5 days

### Number of participants

- 8 participants

### Dates

- Dates on request

### Cost

- Training fee 290 €

## Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system

## Program

- Specifications Charging systems
- Necessary safety rules
- Which work is allowed
- GMK 10.1 is included

## Teaching methods

- Theoretical training



## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate level 1E

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- **Apprenticeship as an electrician**
- **GMK 10.1 is included**

### Duration

- 1 day
- Tuesday 08:00 until 16:00

### Number of participants

- 8 participants

## Dates

- 13.04.2026
- 11.05.2026
- 14.09.2026
  
- Dates on request

## Cost

- Training fee 2.390 €

## Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system



## Program

- Specifications Charging systems
- Necessary safety rules
- Which work is allowed
- GMK 10.1/10.2 is included

## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate level 2E

## Teaching methods

- Theoretical training
- Practical tasks on simulators

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE for HV
- **Apprenticeship as an electrician**
- **GMK 10.1/10.2 is included**

### Duration

- 4 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 6 participants

## Dates

- 13.04.2026 – 17.04.2026
- 11.05.2026 – 13.05.2026
- 14.09.2026 – 18.09.2026
  
- Dates on request

## Cost

- Training fee 2.390 €

## Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system

## Program

- Specifications Charging systems
- Necessary safety rules
- Which work is allowed

## Teaching methods

- Theoretical training
- Practical tasks on simulators

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE for HV
- **Apprenticeship as an electrician**
- ✓ **GMK 10.3**

### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 6 participants



## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate level 3E

## Dates

- 20.04.2026 – 24.04.2026
- 08.06.2026 – 12.06.2026
- 21.09.2026 – 25.09.2026
  
- Dates on request

## Cost

- Training fee 2.290 €

## Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system



## Program

- Specifications Charging systems
- Necessary safety rules
- Which work is allowed
- GMK 10.1 is included

## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate level 1E

## Teaching methods

- Theoretical training

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- **Apprenticeship as a mechanic**
- **GMK 10.1 is included**

### Duration

- 1 day
- Tuesday 08:00 until 16:00

### Number of participants

- 8 participants

## Dates

- 13.04.2026
- 11.05.2026
- 14.09.2026
  
- Dates on request

## Cost

- Training fee 490 €

## Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system

## Program

- Specifications  
Charging systems
- Necessary safety rules
- Which work is allowed
- GMK 10.1/10.5 is included

## Teaching methods

- Theoretical training
- Practical tasks on simulators

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE for HV
- **Apprenticeship as a mechanic**
- **GMK 10.5 is included**

### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 6 participants



## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate level 2E

## Dates

- 13.04.2026 – 17.04.2026
- 11.05.2026 – 13.05.2026
- 14.09.2026 – 18.09.2026
- Dates on request

## Cost

- Training fee 2.390 €

## Aim of training course

The course will get you an overview about the electric and hybrid

Safe handling of the hybrid crane

Safety regulations for working on High Voltage system

## Program

- Specifications Charging systems
- Necessary safety rules
- Which work is allowed



## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate level 3E

## Teaching methods

- Theoretical training
- Practical tasks on simulators

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE for HV
- **Apprenticeship as a mechanic**
- ✓ **GMK 10.6**

### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

### Number of participants

- 6 participants

## Dates

- 20.04.2026 – 24.04.2026
- 08.06.2026 – 12.06.2026
- 21.09.2026 – 25.09.2026

- Dates on request

## Cost

- Training fee 2.290 €

## Aim of training course

The course will get you an overview about the functionality of electric driven superstructure.

Safe handling of the crane for operators

Safety regulations for working on High Voltage system

Diagnostic options

## Program

- The function of the electric superstructure drive
- Specifications  
Charging systems
- Necessary safety rules
- Qualification 2E or 3E to work on High Voltage system

## Teaching methods

- Theoretical training



## Equipment

- Presentation in classroom

## Validation of knowledge

- Handover of certificate

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Successfully passed
- ✓ GMK 10.3 or GMK 10.4
- ✓ GMK 10.6 or GMK 10.7

### Duration

- 3 days
- Tuesday 08:00 until Wednesday 16:00

### Number of participants

- 6 participants

## Dates

- 07.04.2026 – 10.04.2026
- 30.06.2026 – 02.07.2026
- 29.09.2026 – 01.10.2026
- Dates on request

## Cost

- Training fee 1.490 €

## Aim of training course

The course will get you an overview about the functionality of electric driven superstructure.

Safe handling of the crane for operators

Safety regulations for working on High Voltage system

Diagnostic options



## Program

- The function of the electric superstructure drive
- Specifications  
Charging systems
- Necessary safety rules

## Teaching methods

- Theoretical training

## Equipment

- Presentation in classroom

### Prerequisites

- **Manitowoc/Dealer Technician ONLY**
- Trainees must be over 18 years old
- Trainees have to bring their PPE

### Duration

- 1 day
- Tuesday 08:00 until 16:00

### Number of participants

- 6 participants

## Dates

- Dates on request

## Cost

- Training fee 490 €

# Technician Development

## Non GMK Training Opportunities

| Course   | Page | Course name                                   |
|----------|------|---|
| Grove RT | 46   | Grove Rough-terrain Introduction to CCS       |
| MTW      | 47   | Manitowoc Lattice Boom Crawler Crane Training |



### Aim of training course

This course will walk the students through overall setup and navigation of new components such as the displays and all other cabin related CCS system setup. After the system itself is thoroughly understood, students will be walked through the entire crane electrically and hydraulically with the aid of schematics.

### Program

- CCS modules, display, joysticks, jog dial
- Digital and analog inputs
- CAN-Bus systems
- Sensors and actuators
- Introduction of logical troubleshooting and error code diagnostics
- Calibrations and adjustment with service software
- Flashing / updating of CCS modules and displays
- EEPROM downloads and uploads
- RCL troubleshooting

### Teaching methods

- Theoretical training
- Practical tasks on simulator and crane

#### Prerequisites

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Successfully passed

✓ **GMK 2.1**

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants



### Equipment

- Training room
- Technical documents
- PC with service software
- Simulator
- Grove Rough-terrain crane

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

### Dates

On request

### Location

- Manitowoc Crane Group, Niella Tanaro (CN), Italy

### Cost

- Training fee 1.990€

### Aim of training courses

Manitowoc lattice boom crawler crane training courses cover the fundamentals of the crawler crane control systems, onboard diagnostic usage, design and operation of various crane functions, as well as operation of the crane RCL.

The control system, functions, and attachments discussed will vary as appropriate from class to class.

### Courses Available

- EPIC control system courses
- CANBUS control system courses
- CCS control system courses
- Model specific training courses

### Languages Available

- English
- Portuguese
- Spanish

### Teaching methods

- Theoretical training
- Practical tasks on simulator



### Equipment

- Training room
- Technical documents
- PC with service software
- Electric and hydraulic simulator

### Validation of knowledge

- Final test at the end of the training course
- Handover of certificate

#### Prerequisites for Introductory Classes

- Trainees must be over 18 years old
- Trainees have to bring their PPE
- Laptop with RS232 serial port or USB to serial converter
- Basic electrical and hydraulic knowledge
- Experience working with cranes

#### Duration

- 5 days
- Monday 12:30 pm to Friday 11:30 am

#### Number of participants

- 6 participants

### Dates

- Available by request

### Location Options

*(not all courses can be offered at all locations)*

- Porto, Portugal
- Dubai, UAE
- Shady Grove, WI, USA
- Manitowoc, WI, USA
- Sao Paulo, Brazil

### Cost

- Training fee varies depending on course requested

# Administration

## Laptop requirements

### Laptops required for GMK training courses should be configured as follows

Must be of a "PC" type. Apple/Macintosh/I-book, Linux and Android based computers are not currently compatible with any training material and/or service software.

Windows 10 or 11 is acceptable in a 32-bit or 64-bit version, any existing Microsoft Office must be installed in the 32-bit version. For older Windows versions we don't give any support.

The PC and/or username must have only Latin letters and/or numbers (ASCII codes 48-57, 65-90, 97-172). **No special characters like ä, ö, ü, ß, é, è etc. are allowed.**

For PC's outside Latin characters' countries there could be some problems occur with the software tools. Here it is recommended to install the Windows as an English version and add after your local version.

It is also recommended that the laptop has the following specifications

- ✓ 1280 x 720 or higher display resolution
- ✓ x86 compatible processor
- ✓ minimum of 4GB RAM
- ✓ minimum of 150GB free HDD space
- ✓ 2 USB port type A or adapter to type A
- ✓ Integrated RS232 port or USB to RS232 adapter, configured to COM1

In addition to Windows 10 or 11, the laptop should have the following software installed

- current Adobe Reader,
- current Microsoft Access or Microsoft AccessDatabaseEngine, if MS Office is installed, it must be the **32bit** version
- 7-zip or other ZIP program,
- Media player configured to play the following types of video files and audio files  
wmv, .avi, .mpeg, .mp3, etc., and Quicktime

The user should also have full "**Administrative rights**" to add/install various software programs and software drivers used during and after training, especially the folders **c:\Temp\** and **c:\Manitowoc\** must be accessible without any restrictions.

It is highly recommended that most of Grove/GMK service programs utilize a DB-9 serial port connection to the crane configured as "**COM1**". If the laptop does not have a DB-9 serial port the recommended alternative is a PCMCIA Adapter Serial card (DB-9), configured as **COM1**. This is preferred over a USB to serial adapter. Any serial adapters may work but are not 100% reliable to work with all Grove/GMK service programs. For a better satisfaction, we recommend serial adapter with FTDI chip set. If USB serial adapters are used, the laptop must have a minimum of two (2) standard USB A ports available or an adapter to USB type A.

**Manitowoc - Training is not responsible for providing or configuring any non-Manitowoc software and/or serial adapters of any type necessary for use with any service programs.**

# Manitowoc E- Academy

## How to get access

### Manitowoc Training Center Virtual Access

What will you find...

- Selection of all training courses
- Online registration in the LMS
- Dates of the training courses
- E- Learning Modules



#### Request an Account:

To register to attend a training class, students must have a Manitowoc Direct account with access to the Manitowoc e-Academy application. Please visit this website and complete the required fields:

<http://www.manitowoccranes.com/en/manitowoc-direct/manitowoc-direct-request-access>

Once registered, users should login to Manitowoc Direct, click to expand My Applications, then select e-Academy to enter our website.

#### Manitowoc e-Academy:

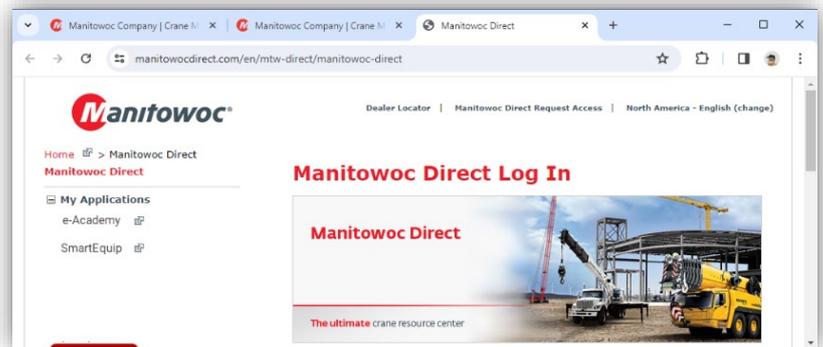
Once logged in, you will see a Catalogue section where you will find our available courses, with upcoming dates listed.



Dashboard

Catalogue

My courses



For further instruction follow links below:

Requesting Access (Dealer) - <https://youtu.be/MEwqi2FwD1I>

Enrolling in Instructor-Led Training - <https://youtu.be/awTQyvR4wtE>

Enrolling in e-Learning - <https://youtu.be/U5Lo0ZJphkM>



# Administration

## Registration – Purchase order

return to  
MANITOWOC CRANE GROUP Germany GmbH  
GMK Training Center  
Industriegelände West  
26389 Wilhelmshaven  
Email: [TrainingGMK@manitowoc.com](mailto:TrainingGMK@manitowoc.com)

Date of registration \_\_\_\_\_

Course name \_\_\_\_\_

Course date \_\_\_\_\_

Course location \_\_\_\_\_

Costs \_\_\_\_\_

Company \_\_\_\_\_

Contact \_\_\_\_\_

Address \_\_\_\_\_

Contact phone \_\_\_\_\_

Contact email \_\_\_\_\_

Purchase number \_\_\_\_\_

Participants 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

Hotel booking  no  yes  
Arrival date \_\_\_\_\_ leaving date \_\_\_\_\_

Flight details Flight No. \_\_\_\_\_ Arrival \_\_\_\_\_

Transfer needed  no  yes  Airport transfer  daily from / to hotel

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**With immediate effect we no longer accept taking over hotel costs for later invoicing! Please settle your bills yourself.  
PPE is mandatory Safety shoes, proper outfit (no shorts), gloves, helmet and goggles.**

# Administration

## Address & Location map

MANITOWOC CRANE GROUP Germany GmbH

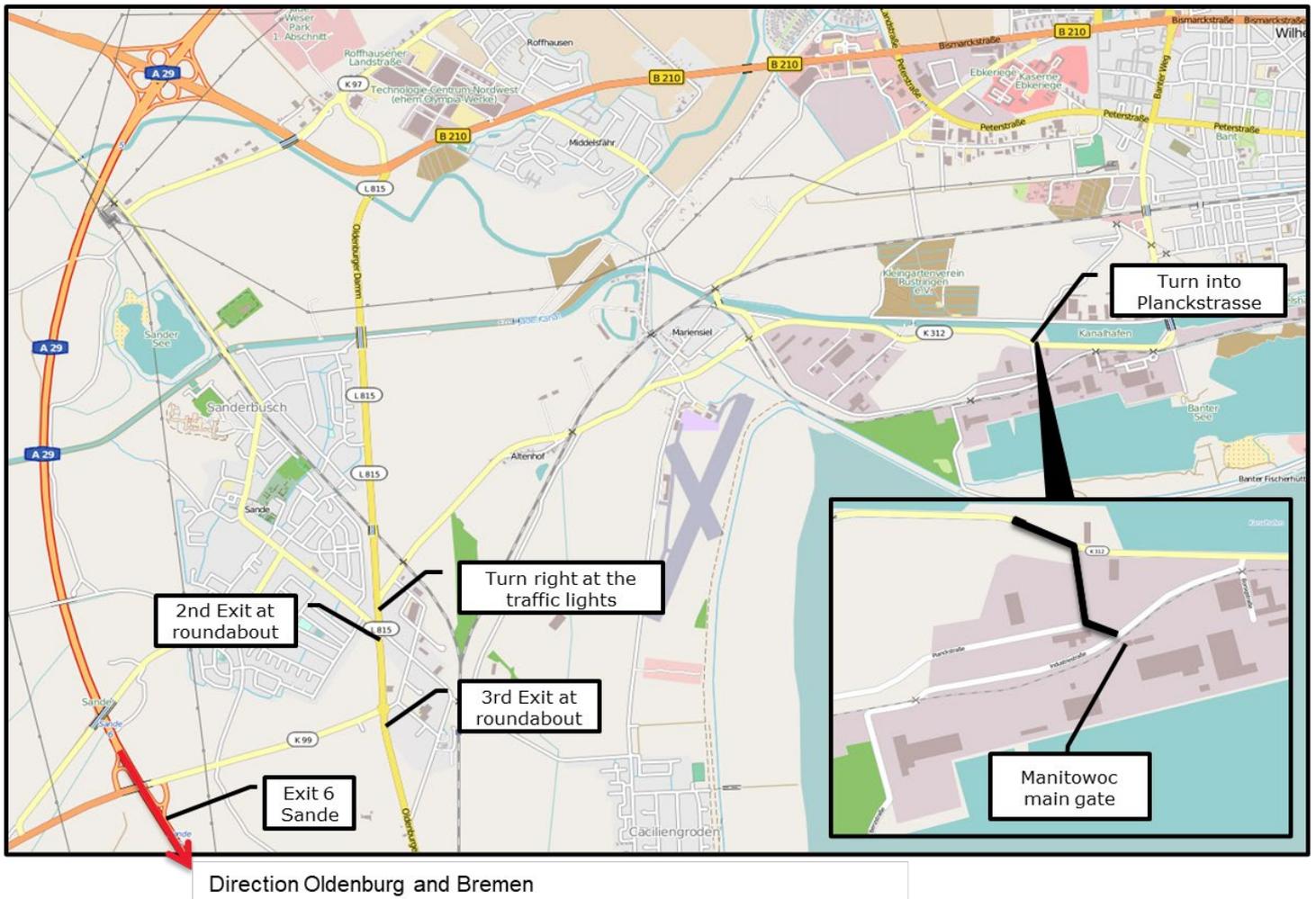
Training Center

Industriegelände West

26389 Wilhelmshaven, Germany

GPS 53°30'34"N 8°4'56"E

E-mail [TrainingGMK@manitowoc.com](mailto:TrainingGMK@manitowoc.com)



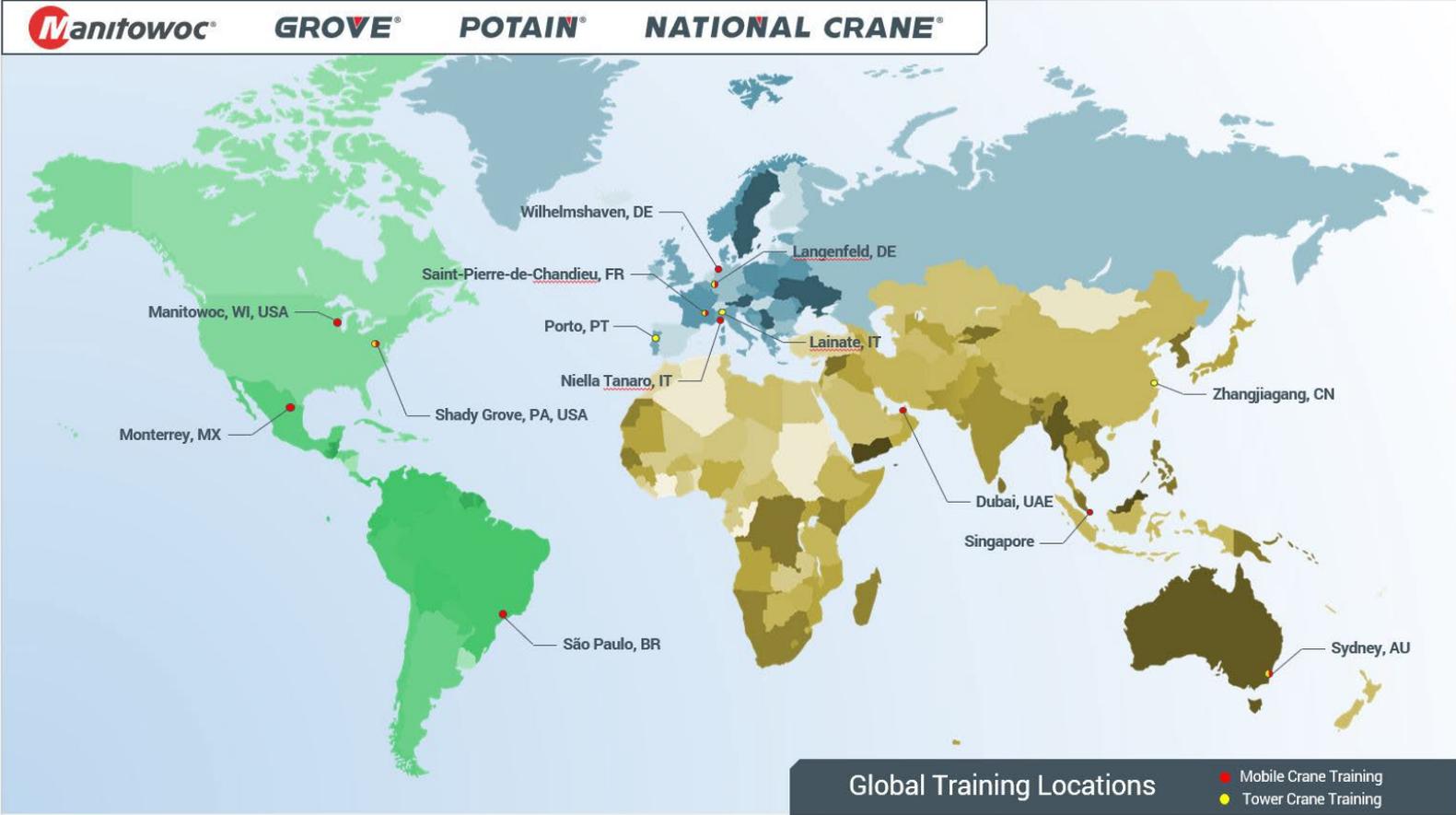
## Manitowoc Training Centers

### Americas

Shady Grove, Pennsylvania, USA  
Manitowoc, Wisconsin, USA  
Monterrey, Mexico

### Europe, Middle East, Africa

Wilhelmshaven, Germany  
Dubai, United Arab Emirates



<https://www.manitowoc.com/support/training>



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