TRAINING 2020

Tower Cranes - European Range

Saint Pierre de Chandieu - France

Yes! We Care

09/2019

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Tools available

Equipment available:

- 5 cranes: IGO 50, IGO T 85, HUP32-27, MDT 269 on traveling gear, MDT 219,
- 2 lifts: TCL/Cab'IN,
- 1 showroom with 10 technical training benches,
- 1 tower crane driving simulator,
- 5 dedicated classrooms.

Languages spoken:

- French, English.
- Other languages with interpreters.
- Other languages available on local subsidiaries.

Find our brochure on our website:

-> Manitowoccranes.com
-> Parts_Services
-> Training
-> Technical Learning Center

Certifications:

- A training center listed in DATA DOCK
- ISQ-OPQF Approved
- Member of ASSOCA (Association des organismes certifiés CACES, French legal certificate)

Costs:

Training costs are noted on each program. Hotels and transport are not included and remain your full responsibility. We can help you with reservations if needed. Each trainee will have to pay their invoice before leaving.

Equipment:

All our training involves outdoor exercises. Please inform your trainees that they must bring their PPE (personal protective equipment).

Contact us:

Email address: cdf@manitowoc.com

Address:

Parc d'activités des Portes du Dauphiné
5 rue Lavoisier
69780 Saint Pierre de Chandieu (close to the airport in Lyon)
04 69 85 92 20

Meet the team

The permanent team in Saint Pierre de Chandieu (Center of Excellence for Training):

Technical / Driving


Antonio


Christophe

Technical / Fitting


Didier


Fabrice

Management / Planning


Emmanuel


Sophie

Technical / Repair


Peter


Olivier

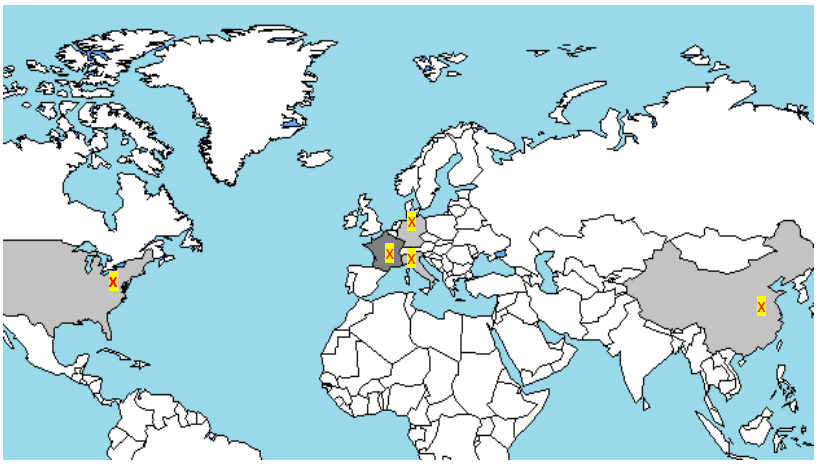
Some of our training can be done on the customer site, if the number of trainees and the means permit.

Feel free to ask for further information if you are interested.

Regional training centers:

- Shady Grove (US/Pennsylvania)
- Langenfeld (Germany)
- Zhangjiagang (China)
- Niella (Italy)

A team of satellite-operation trainers is available to meet your needs in the different regions.



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Technologies

RECOMMENDED TRAINING COURSES FOR TOWER CRANES

GMA courses

FITTER

Level 0 Crane bases

- Tower crane bases - G1
- Safety
- Slinging and signaling - E.S. GAT

Level 1 Basic training

- Potain 1
  - *GTMR Fitting (contact us)*
  - IGO Fitting
  - IGO T Fitting
  - HUP Fitting
  - HUP M Fitting

Level 2 Specialization

- Anti-collision
- *Potain Radio (coming soon)*
- *Variable frequency drives (coming soon)*
- CCS Update & HPL
- CraneSTAR Diag
- Stability and reactions

Level 3 Expertise

Dealers only

POTAIN Certification

- *Participation in training levels 0 and 1, as well as at least one level 2 training*
- *Knowledge + Practice Tests*
- *Supervisor recognition of skills*

E-Learning Maintenance (contact us)

GMA courses

SERVICEMAN

Level 0 Crane bases

- Tower crane bases - G1
- Safety
- Slinging and signaling - E.S. GAT

Level 1 Basic training

- Potain 1
  - *GTMR Fitting (contact us)*
  - IGO Fitting
  - IGO T Fitting
  - HUP Fitting
  - HUP M Fitting

Level 2 Detailed Training

- Potain 2
  - IGO Repair
  - IGO T Repair
  - HUP Repair
  - HUP M Repair

Level 3 Specialization

- Anti-collision
- *Potain Radio (coming soon)*
- *Variable frequency drives (coming soon)*
- CCS Update & HPL
- CraneSTAR Diag
- Stability and reactions

Level 4 Expertise

Dealers only

POTAIN Certification

- *Participation in training levels 0 and 1, as well as at least one level 2 training*
- *Knowledge + Practice Tests*
- *Supervisor recognition of skills*

E-Learning Maintenance (contact us)

GME courses

FITTER

Level 0 Crane bases

- Tower crane bases - G1
- Safety
- Slinging and signaling - E.S. GAT

Level 1 Basic training

- Potain 1
- GME Fitting MD / MDT

Level 2 Detailed Training

- Cab'IN/TCL
- CCS Technology
- GME Fitting MR

Level 3 Specialization

- GME Telescoping
  - *Climbing inside the building telescoping (contact us)*
  - *Mast section R telescoping (contact us)*
  - *Anchorage (contact us)*
  - *MDT809 (contact us)*

Level 4 Expertise

Dealers only

POTAIN Certification

- *Participation in training levels 0 and 1, as well as at least one level 2 training*
- *Knowledge + Practice Tests*
- *Supervisor recognition of skills*

E-Learning Maintenance (contact us)

GME courses

SERVICEMAN

Level 0 Crane bases

- Tower crane bases - G1
- Safety
- Slinging and signaling - E.S. GAT

Level 1 Basic training

- Potain 1
- Potain 2
- CCS 1 technology

Level 2 Detailed Training

- GME "8" non V3
- GME "8" V3
  - Cab'IN/TCL
  - CCS Repair
  - MRH
  - *Potain MR (contact us)*
  - *Potain MR CCT (coming soon)*

Level 3 Specialization

- Anti-collision
- *Potain Radio (coming soon)*
- *Variable frequency drives (coming soon)*
- CCS Update & HPL
- CraneSTAR Diag
- Stability and reactions

Level 4 Expertise

Dealers only

POTAIN Certification

- *Participation in training levels 0 and 1, as well as at least one level 2 training*
- *Knowledge + Practice Tests*
- *Supervisor recognition of skills*

E-Learning Maintenance (contact us)

Descriptions and names

Training	Description	No. hrs	No. days
Crane bases			
0 - Product introduction – TP1	Introduction to the range for non-technical support services	8	1
0.1 - Tower crane bases - G1 range Europe	Introduction, operation and installation - GMA and GME cranes	28	4
0.2 - Safety	Safety, working at heights operations	14	2
0.3 - Slinging and signaling – ES GAT	Load sling, guide and drive the load	7	1
Fitting			
GMA Fitter			
1.1 - Potain 1	Fitting, commissioning - GME "8" and GMA "T" cranes	28	4
1.1.a - GTMR fitting	Fitting, commissioning - GMA GTMR cranes	21	3
1.1.b - IGO fitting (m2)	Fitting, commissioning - GMA IGO cranes	21	3
1.1.c - IGO T fitting (m7)	Fitting, commissioning - GMA IGO T cranes	28	4
1.1.d - HUP fitting (m1)	Fitting, commissioning - GMA HUP cranes	21	3
1.1.e – HUP M fitting	Fitting, commissioning - GMA HUP M cranes	21	3
GME Fitter			
1.1 - Potain 1	Fitting, commissioning - GME "8" and GMA "T" cranes	28	4
1.2 - GME fitting MD/MDT	Fitting, commissioning - MD/MDT type cranes	35	5
2.1 - Cab'IN / TCL	Fitting, commissioning, repair - POTAIN internal or external lift	21	3
2.2 - CCS Technology	Commissioning - GMA and GME CCS cranes	21	3
2.3 - GME fitting MR	Fitting, commissioning - MR/MRH type cranes	35	5
3.1 - Telescoping (m5)	Telescoping GME cranes - MD/MDT cranes	28	4
3.1.a - Climbing inside the building	*Telescoping GME cranes on a building*	*Depending on case*	-
3.1.b - Telescoping mast section R	*Telescoping GME cranes equipped with mast section Rs*	*Depending on case*	-
3.1.c - Anchorage	*Telescoping GME cranes with anchorage*	*Depending on case*	-
3.1.d - MDT809	*Telescoping MDT809 cranes*	*Depending on case*	-
Repair			
GMA serviceman			
2.1 - Potain 2	GME/GMA wiring and repair	28	4
2.1.a - IGO Repair	Diagnostics, repair - GMA IGO cranes	21	3
2.1.b - IGO T repair	Diagnostics, repair - GMA IGO T cranes	28	4
2.1.c - HUP repair	Diagnostics, repair - GMA HUP cranes	21	3
2.1.d - HUP M repair	Diagnostics, repair - GMA HUP M cranes	21	3
GME serviceman			
2.1 - GME "8" non V3	Corrective Maintenance, mechanisms, frequency converters, brakes, repair - MD and MDT98 to MDT218 cranes	28	4
2.2 - GME "8" V3	Corrective Maintenance, mechanisms, frequency converters, brakes, repair - MDT268 to 368 cranes	28	4
2.2.a - Cab'IN / TCL	Fitting, commissioning, repair - POTAIN internal or external lift	21	3
2.2.b - CCS repair	Diagnostics, repair - GMA and GME CCS cranes	21	3
2.2.c – Potain MRH	Fitting, commissioning - GME MRH type cranes	28	4
2.2.d – Potain MR	*Fitting, commissioning - Potain MR GME cranes equipped with Visu II (MR90C to MR298)*	*28*	*4*
2.2.e – Potain MR CCT (coming soon)	*Fitting, commissioning - Potain MR GME cranes equipped with CCT (MR418/608/618)*	*28*	*4*
Technical points			
3.1 - Anti-collision	Commissioning - GME cranes	21	3
3.2 - CCS Update & HPL	CCS update, HPL winch teach-in programming - GME cranes	14	2
3.3 – Stability and reactions	Stability and reactions of tower cranes	21	3
3.4 - CraneStar Diag	Remote diagnostics - GME cranes	7	1
3.5 - Potain Radio (coming soon)	*Installation, adjustment and repair of radio controls*	*14*	*2*
3.6 - Variable frequency drives (coming soon)	*Installation, adjustment and repair of the variable frequency drives*	*14*	*2*
4.1 – Potain Certification	Technical adviser certification	4	0.5
4.2 – E-Learning Maintenance	*Potain cranes maintenance*	*21*	*3*

Training at our centers given in Germany and the USA

Training in St Pierre de Chandieu	Similar training in Langenfeld (Germany)	Similar training in Shady Grove
0 - Product introduction – TP1		
0.1 - Tower crane bases - G1	DC 2 - Einführung turmdrehkrane	
0.2 - Safety		
1.1 - Potain 1	DT1 Potain 1+2	
1.1.a - GTMR fitting		
1.1.b - IGO fitting (m2)	DM IGO - Fitting/Inbetriebnahme IGO	
1.1.c - IGO T fitting (m7)	DM IGO T - Fitting/Inbetriebnahme IGO T	IGO T 70/85A EOD/IGO T 130 EOD
1.1.d - HUP fitting (m1)	DM HUP - Fitting/Inbetriebnahme HUP	
1.1.e – HUP M fitting	DM HUP M - Fitting/Inbetriebnahme HUP M	HUP 32-27 EOD/HUP 40-30 EOD
1.2 - GME fitting MD/MDT	DM MDT CCS - Fitting/Inbetriebnahme MDT CCS	GME Fitting and Dismantling MDT 219
2.1 - Cab'IN / TCL		
2.1 - GME "8" non V3	DT1 Potain 1+2	
2.1 - Potain 2	DT1 Potain 1+2	
2.1.a - IGO Repair	DTVF IGO - Einstellung und Fehlersuche IGO	
2.1.b - IGO T repair	DTVF IGO T - Einstellung und Fehlersuche IGO T	
2.1.c - HUP repair	DTVF HUP - Einstellung und Fehlersuche HUP Kran	
2.1.d - HUP M repair	DTVF HUP M - Einstellung und Fehlersuche HUP M	
2.2 - GME "8" V3	GME V3 - Steuerung, FU, Fehlersuche	
2.2 - CCS Technology	CCS 1+2 – Einstellung und Fehlersuche	CCS 1&2 – Setup/commission
2.2.b - CCS repair	CCS 1+2 – Einstellung und Fehlersuche	CCS 1&2 – Setup/commission
2.2.c - MRH		
2.2.d – Potain MR V3		
2.2.e – Potain MR CCT (coming soon)		
2.3 - GME fitting MR		
3.1 - Telescoping (m5)		GME Telescoping MDT 219
3.1.a - Climbing inside the building		
3.1.b - Telescoping mast section R		
3.1.c - Anchorage		
3.1.d - MDT809		
3.1 - Anti-collision	Arbeitsbereichsbegrenzung Top Tracing	
3.2 - CCS Update & HPL		CCS 3 – Program SCM, CCT, thumb drive
3.3 – Stability and reactions		
3.4 - CraneStar Diag		
3.5 - Potain Radio (coming soon)	DT Radio, Potain Funk (Radio)	
3.6 - Variable frequency drives (coming soon)		
4.1 – Potain Certification		
4.2 – E-Learning Maintenance		

CRANE BASES

Introduction to the
TP1 tower crane– Introduction for support services

POTAIN by Manitowoc

Objectives:

- Acquiring general knowledge regarding tower crane technology,
- Describe the operation of a tower crane,
- Use the technical vocabulary for cranes,
- Identify a crane in the Manitowoc range.

Program:

THEORY

- Overview of the GME & GMA tower crane product, history, changes,
- The range,
- The conditions of use,
- Safety devices,
- Mechanisms,
- Peripherals,
- New technologies.

PRACTICE

- Driving a GME from the cab (subject to medical fitness),
- Driving a GMA with a radio control on the ground.

Teaching methods:

- Detailed presentations,
- Studies and practical exercises,
- Audiovisual and teaching materials,
- Documentation supplied.

Trainers/contacts:

- D. FOREST — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269,
- Training accessories,
- Mechanisms in the workshop.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- For personnel needing knowledge of products to carry out their professional missions, in the role of support service
- Be declared fit by the occupational health doctor

Duration:

1 Day – 7 hours

Number of participants:

8 participants

Cost:

- Price of the course per person: €368 excl. VAT
- Meals: €15 excl. VAT

MANITOWOC Crane Group - P.A. Les portes du Dauphiné - 5 rue Lavoisier - 69780 Saint Pierre de Chandieu
cdf@manitowoc.com - 04 69 85 92 20 - www.Manitowoccranes.com/formations

Tower crane bases – G1
European range

POTAIN by Manitowoc

Objectives:

- Operate the tower crane product: Understanding tower crane technology, observing the safety rules for the installation and operation of the GME and GMA crane types.
- Updating knowledge of technical innovations related to tower crane mechanisms and structures and knowledge related to "tower crane" regulations.

Program:

THEORY

- Tower crane range: GME/GMA.
- Stability,
- Load curves,
- Safety features,
- Driving aids,
- Mechanisms,
- Anti-collision.

PRACTICE

- Installation and operation of a crane,
- Presentation of new products,
- Technical tour of a GMA and/or GME,
- Tour of POTAIN production units.

Teaching methods:

- Detailed presentations,
- Studies and practical exercises,
- Audiovisual and teaching materials,
- Documentation supplied.

Prerequisite:

- Persons responsible for the equipment, prevention managers, job manager, and site foremen.

Duration:

4 days - 28 hours

Number of participants:

8 participants

Trainers/contacts:

- C. PRELY — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269,
- Training accessories,
- Mechanisms in the workshop.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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SAFETY

Working-at-heights accreditation - French obligation

POTAIN by Manitowoc

Objectives:

- Acquiring the theoretical knowledge needed to intervene safely on tower cranes,
- Safely apply the operation procedure.

Program:

THEORY

- Characteristics of ranges, names and vocabulary, installations, fitting principles, access,
- Load curves: Principles, rope reeving, diagrams, etc.
- Stability: Concept of moment, reaction in and out of service,
- Safety devices: Recognition, situation, operation,
- Wind legislation, checking, training.

PRACTICE

- Driver's stand, driving aids, environment, commissioning and out-of-service procedures,
- Rules and techniques for slinging, gestures and sound signals for guiding maneuvers,
- Working safely: Risk analysis and accident statistics, PPE, checks, use a safety harness, practical exercises for movement and postures at height for personal protection,
- Use of technical manuals, online access and consultation, routine maintenance and frequency.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Trainers/contacts:

- D. FOREST Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269,
- Training accessories,
- Mechanisms in the workshop.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of capacity.

Prerequisite:

- Persons who intervene on tower cranes (fitters, technicians, checkers).
- Be declared fit to work at heights by the occupational health doctor.

Duration:

2 Days - 14 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €736 excl. VAT
- Meals: €30 excl. VAT

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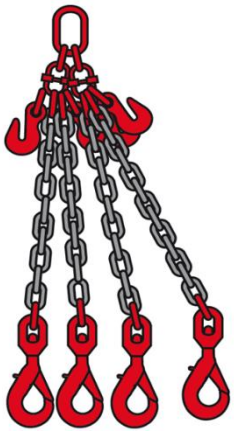
E.S. GAT

Slinging and signaling of tower cranes

POTAIN by Manitowoc

Objectives :

- To be able to carry out the slinging of loads,
- To be able to guide a suspended charge.



Program :

THEORY

- Knowledge of tower cranes,
- Technology: GMA / GME - Specific designations and vocabulary of tower cranes,
- Use of cranes: external signs, environment and restrictions,
- Rules and techniques of slinging,
- Individual protections.

PRACTICE

- Slings: WLL and influence of the sling angle, types of slings,
- Load: center of gravity, choice of handling accessories,
- Slinging: procedure and precautions,
- Maneuvering charges,
- Command gestures and sound signals,
- Precautions and procedures for safe maneuvering: before the maneuver, at the beginning of the maneuver, during the movement, at the removal, after the maneuver,
- Practical exercises of slinging and guiding with the means of the building site.

Teaching methods:

- Pedagogical face to face,
- Multimedia support and delivery of documentation,
- Practical exercises with the means of the building site.

Trainers/contacts:

- C. PRELY Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of capacity.

Prerequisite:

- Persons responsible for slinging and maneuvering loads under cranes, with first experience of handling.

Duration:

2 Days - 14 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €368 excl. VAT
- Meals: €15 excl. VAT

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ERECTION

Potain 1
GME/GMA Commissioning

Objective:

- Acquiring the theoretical and practical knowledge necessary for commissioning GME tower cranes in "8" and GMA "T".

Program:

THEORY

- Operating principle of tower cranes,
- Function principle of the safety devices, mechanisms and devices on a tower crane,
- Study the technical documentation of a tower crane (load curves, stability, reactions, etc.),
- Reading Potain wiring diagrams
- Overview and adjustment of the safety devices on tower cranes,
- Overview and use of VISU II and V3 processing unit,
- Use of the variable frequency drive ACS 880.

PRACTICE

- Safety and limit switch adjustments on a GME and GMA crane in the training fleet.

Trainers/contacts:

- F. NAUMOWICZ Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- MDT 269 and IGO T 85,
- Mechanisms in the workshop.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Personnel performing the commissioning of tower cranes (fitters/technicians).
- Have low-voltage electrical and working-at-heights accreditation.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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Fitting GTMR (contact us)

Fitting, commissioning GMA GTMR cranes

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting and commissioning GTMR cranes.

Program:

THEORY

- Characteristics of self-fitting cranes equipped with extension masts,
- Study the technical documentation (load curves, stability, reactions, etc.),
- Fitting principle,
- Practical application: Fitting a GTMR (chassis support, unfolding of the mast, unfolding the jib in all working configurations, telescoping, 6-meter mast, installation of the transport axle, use of the radio control).

PRACTICE

- Suitability,
- Adjustment of safety devices, brakes, and indicators,
- Principles of electrotechnical operation,
- Preventive maintenance principle.

Teaching methods:

- Theory using the crane manual,
- Practice on a crane.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- GTMR crane made available by customer

Accreditation of learning:

- Delivery of a certificate of participation in course.

Prerequisite:

- Principal persons responsible for the installation and maintenance of self-fitting cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,474 excl. VAT
- Meals: €75 excl. VAT

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cdf@manitowoc.com - 04 69 85 92 20 - www.Manitowoccranes.com/formations

IGO fitting

Fitting, commissioning - GMA IGO cranes

POTAIN by Manitowoc

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting and commissioning IGO cranes.

Program:

THEORY

- Characteristics of self-fitting cranes,
- Study the technical documentation (load curves, stability, reactions, etc.),
- Fitting safely principles,
- Practical application: Fitting and unfolding of a GMA IGO crane,
- Transport rules.

PRACTICE

- Suitability,
- Adjustment of safety devices and indicators,
- Mechanical, electrical, and hydraulic functioning principles.
- Preventive maintenance principle,

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Trainers/contacts:

- C. PRELY Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- IGO 50 crane

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Principal persons responsible for the installation and maintenance of self-fitting cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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IGO T fitting

Fitting, commissioning - GMA IGO T cranes

POTAIN by Manitowoc

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting and commissioning GMA IGO T cranes.

Program:

THEORY

- Characteristics of self-fitting cranes equipped with extension masts,
- Study the technical documentation (load curves, stability, reactions, etc.),
- Fitting safely principles,
- Practical application: Fitting an IGO T (chassis support, unfolding of the mast, unfolding the jib in all working configurations, telescoping, 6-meter mast, installation of the transport axle, use of the radio control).

PRACTICE

- Suitability,
- Adjustment of safety devices, brakes, and indicators,
- Principles of electrotechnical and hydraulic operation of the IGO T,
- Preventive maintenance principle.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Trainers/contacts:

- D. FOREST Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- IGO T 85 crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Principal persons responsible for the installation and maintenance of self-fitting cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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HUP fitting

Fitting, commissioning of GMA HUP cranes

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting and commissioning HUP cranes.

Program:

THEORY

- Characteristics of self-fitting cranes,
- Range of HUP cranes,
- Study the technical documentation (load curves, stability, reactions, etc.),
- Fitting safely principles,
- Practical application: Fitting an HUP (chassis support, ballasting with derrick, mast unfolding, jib unfolding in all working and maintenance configurations, complete folding of the crane and installation of the transport axle, etc.).

PRACTICE

- Suitability,
- Adjustment of safety devices and indicators,
- Use of the computer and radio control,
- Principles of electrotechnical and hydraulic operation of the HUP cranes,

Trainers/contacts:

- D. FOREST Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- HUP32-27 crane.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Principal persons responsible for the installation and maintenance of self-fitting cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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HUP M fitting

Fitting, commissioning of GMA HUP M cranes

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting and commissioning GMA HUP M cranes.

Program:

THEORY

- Characteristics of self-fitting cranes,
- Range of HUP M cranes,
- Study the technical documentation (load curves, stability, reactions, etc.),
- Fitting safely principles,
- Practical application: Fitting a HUP M (set up with directional axle, crane support, addition of extra ballast, mast unfolding, jib unfolding in all working configurations, complete folding of the crane, passage into maintenance position).

PRACTICE

- Suitability,
- Adjustment of safety devices and indicators,
- Use of the computer and radio control,
- Principles of electrotechnical and hydraulic operation of the HUP M cranes,
- Use of the generating set.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Trainers/contacts:

- F. NAUMOWICZ Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- HUP M 28-22 crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Principal persons responsible for the installation and maintenance of self-fitting cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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GME MD/MDT fitting
Fitting of MD/MDT type cranes

Objectives:

- Acquire the theoretical and practical skills needed for safely fitting the Potain MD/MDT tower cranes.

Program:

THEORY

- Overview of the Potain GME range,
- Notion of the stability of tower cranes,
- Fitting sequences for the different types of MD/MDT Potain tower cranes,
- Using the technical manuals for tower cranes,
- MDT 219 Fitting E-Learning.

PREPARATION AND ORGANIZATION OF FITTING

- Presentation of assembling techniques with auxiliary lifting equipment, choice of crane truck, slinging instructions,
- Special precautions during the dismantling sequences of the sub-assemblies.

PRACTICE

- Fitting crane,
- Hydraulic notions: units and cylinders, principles, adjustments,
- Notions of electricity,
- Application of functioning of mechanisms, power supply to cranes, and various connections to be carried out.
- Checking compliance with fitting.
- Checks (wire ropes and slings, maintenance, wear criteria),
- Safety devices and driving aids (indicators),
- Brakes: principle, practical adjustments,
- Erection report.

Trainers/contacts:

- D. FOREST Technical Trainer
- E. KIRCHNER Training center manager

Teaching methods:

- In-person teaching,
- Multimedia tools,
- E Learning,
- Documentation supplied,
- Practical presentations, fitting and adjustments applied to the various technologies.

Equipment:

- At customer's site.

Accreditation of learning:

- Delivery of a certificate of capacity.

Prerequisite:

- Principal persons responsible for the installation and maintenance of top-slewing cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

5 days - 35 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,840 excl. VAT
- Meals: €90 excl. VAT

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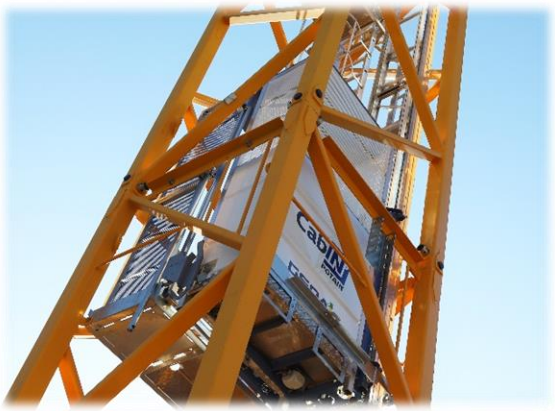
Cab'IN

Fitting, commissioning and repairing interior lift

POTAIN by Manitowoc

Objective:

- Acquiring the knowledge needed for fitting, commissioning and using the POTAIN tower crane interior lift.
- Acquire the theoretical and practical knowledge needed to diagnose and repair the POTAIN internal lift.



Program:

THEORY

- French Recommendation R495 for improving working conditions in tower cranes,
- Overview of the Cab'IN internal lift,
- Study the equipment: masts/chassis/cab,
- Fitting and dismantling stages of masts for a crane equipped with a Cab'IN lift,
- Commissioning the lift, checking the operation and testing,
- Safety and evacuation procedure,
- Required checks,
- Preventive maintenance procedure.

PRACTICE

- Partial fitting and dismantling of training fleet,
- Retrofit study,
- Study electric equipment,
- Commissioning the lift, checking the operation, testing,
- Safety and evacuation procedure,
- Preventive maintenance procedure,
- Curative maintenance procedure.

Trainers/contacts:

- P. DARJINOFF Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Cab'IN lift and dedicated chassis.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on dedicated Cab'IN lift.

Prerequisite:

- For fitters an serviceman of tower cranes and lifts.
- Be declared fit to work at heights by the occupational health doctor.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

As of January 2019, motorized access is mandatory in France if the crane cab requires an ascent of more than 30 m. This type of access reduces difficulty during access and improves the hygiene conditions of crane drivers by allowing them to go up and down according to their needs and to obtain water easily.

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TCL

Fitting & maintenance of the exterior lift

POTAIN by Manitowoc

Objective:

- Acquiring the knowledge needed for fitting, commissioning, using and maintenance of the POTAIN tower crane exterior lift.

Program:

THEORY

- French Recommendation R495 for improving working conditions in tower cranes,
- Overview of the Cab'IN external lift,
- Study the lift and equipment,
- Commissioning the lift, checking the operation and testing to perform,
- Fitting and dismantling phases of a TCL lift,
- Safety and evacuation procedure,
- Packing precautions,
- Required check,
- Preventive maintenance procedure,
- Corrective maintenance procedure.

PRACTICE

- Partial fitting and dismantling of training fleet.

Trainers/contacts:

- C. PRELY Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Dedicated TCL lift.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on dedicated lift.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- For fitters of tower cranes and lifts.
- Be declared fit to work at heights by the occupational health doctor.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

As of January 2019, motorized access is mandatory in France if the crane cab requires an ascent of more than 30 m. This type of access reduces difficulty during access and improves the hygiene conditions of crane drivers by allowing them to go up and down according to their needs and to obtain water easily.

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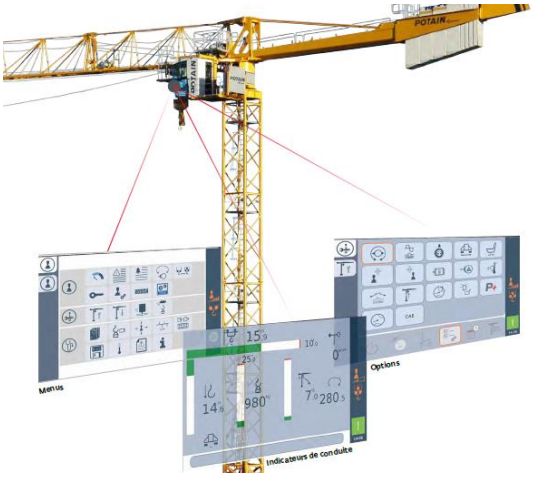
CCS Technology

Technology and commissioning of the tower cranes CCS fitters/servicemen

Objective:

- Acquiring the theoretical and practical knowledge necessary for commissioning GME CCS tower cranes.



Program:

THEORY

- Introduction to the CCS command control,
- Functioning of the CCS safety devices for tower cranes,
- Introduction to CAN technology,
- Presentation of the driving aids,
- Procedure for commissioning a CCS crane (adjustment of limit switches, safety devices, etc.).

PRACTICE

- Commissioning on a training bench in classroom and commissioning of a CCS crane at training site.

Trainers/contacts:

- F. NAUMOWICZ Technical Trainer
- E. KIRCHNER Training center manager

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on test bench and on crane.

Equipment:

- Dedicated classrooms,
- Dedicated training bench,
- MDT 219, MDT 269 crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Persons needing knowledge of the commissioning of tower cranes (fitters/technicians/checkers).
- Have low-voltage electrical and working-at-heights accreditation.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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GME MR fitting

Fitting of MR/MRH type cranes

POTAIN by Manitowoc

Objectives:

- Acquire the theoretical and practical skills needed for safely fitting the Potain MR tower cranes.

Program:

THEORY

- Overview of the Potain GME range,
- Notion of the stability of tower cranes,
- Fitting sequences for the different types of MR Potain tower cranes,
- Using the technical manuals for tower cranes.

PREPARATION AND ORGANIZATION OF FITTING

- Presentation of assembling techniques with auxiliary lifting equipment, choice of crane truck, slinging instructions,
- Special precautions during the dismantling sequences of the sub-assemblies.

PRACTICE

- Fitting crane,
- Notions of electricity,
- Application of functioning of mechanisms, power supply to cranes, and various connections to be carried out.
- Checking compliance with fitting.
- Checks (wire ropes and slings, maintenance, wear criteria),
- Safety devices and driving aids (indicators),
- Brakes: principle, practical adjustments,
- Erection report.

Trainers/contacts:

- D. FOREST Technical Trainer
- E. KIRCHNER Training center manager

Teaching methods:

- In-person teaching,
- Multimedia tools,
- Documentation supplied,
- Practical presentations, fitting and adjustments applied to the various technologies.

Equipment:

- At customer's site.

Accreditation of learning:

- Delivery of a certificate of capacity.

Prerequisite:

- Principal persons responsible for the installation and maintenance of top-slewing cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

5 days - 35 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,840 excl. VAT
- Meals: €90 excl. VAT

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GME Telescoping

Telescoping - GME cranes

POTAIN by Manitowoc

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting GME cranes by telescoping.

Program:

THEORY

- Overview of telescoping systems,
- Principle of telescoping a GME crane,
- Overview of telescoping phases of a GME crane,
- Mechanical, electrical and hydraulic principle of the telescoping system,
- Fundamental knowledge to carry out telescoping safely (balance, stability of the crane, etc.),
- E-Learning training about telescoping on a MDT219.

PRACTICE

- Telescoping of a crane in the training fleet.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on a crane.

Trainers/contacts:

- C. PRELY — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- Dedicated classrooms,
- MDT 219 crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Principal persons responsible for the installation and maintenance of top-slewing cranes.
- Be declared fit to work at heights by the occupational health doctor.
- Understand concepts of mechanics and electricity.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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REPAIR

Potain 2
GME/GMA wiring and repair

POTAIN by Manitowoc

Objective:

- Acquire the theoretical and basic practical knowledge needed to perform simple diagnostics of the tower crane – wiring.

Program:

THEORY

- Operating principle of a tower crane,
- Principle of the operation of a variable frequency drive, a three-phase motor and a transformer,
- Basic knowledge of electrical diagram reading,
- Able to read electric diagrams for a three-phase motor and wiring on plates.

PRACTICE

- Failure diagnostics methods,
- Adjustment of the weathervaning.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Wiring plates and mechanisms in workshop.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on training bench

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Personnel performing the commissioning of tower cranes (fitters/technicians).
- Have low-voltage electrical accreditation.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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Igo Repair

Repairing GMA IGO-type cranes

POTAIN by Manitowoc

Objective:

- Carry out the commissioning and corrective maintenance of IGO and IGOM tower cranes .
- Update knowledge of mechanisms for tower cranes equipped with frequency converters.

Program:

THEORY

- Study the variable frequency mechanisms used on cranes and IGOM,
- Application to classic LVF hoisting winches,
- Application to RVF slewing mechanisms,
- Application to DVF trolleying mechanisms,
- Application to IGO cranes mechanisms (LVF Optima, RVF, DVF),
- Study integrated radio control equipment (transmitter/receiver, "Crane teach-in programming" and study menus.

PRACTICE

- Studies and exercises on training benches and dedicated cranes (repair, adjustments, commissioning).

Trainers/contacts:

• O. GOLLION	Technical Trainer
• E. KIRCHNER	Training manager

Equipment:

- Dedicated classrooms,
- Dedicated IGO 50
- Mechanisms in the workshop.

Teaching methods:

- In-person teaching,
- Dedicated support.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Personnel performing the commissioning of GMA tower cranes (fitters/technicians).
- Have low-voltage electrical and working-at-heights accreditation.
- Have taken the pre-requisite IGO fitting course

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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IGO T Repair

Repairing IGO T cranes

POTAIN by Manitowoc

Objectives:

- Performing corrective maintenance for the IGO T tower cranes (Level 3 NF 60010),
- Updating knowledge of mechanisms for tower cranes equipped with frequency converters and radio controls.

Program:

THEORY

- Specific details for the fitting of IGO T cranes,
- Analysis of the specific sequences for fitting the IGO T cranes and studies of the electrotechnical and hydraulic operational diagrams according to the fitting phases,
- Commissioning of the driving aid systems,
- Details of commissioning procedures, practical exercises for checking parameters,
- Application to the commissioning of indicators,
- Study the radio control equipment/Smartcom V3.

PRACTICE

- Practical methods and exercises for looking for malfunctions,
- Commissioning and maintenance of cranes equipped with slave mechanisms,
- Overview of operating principles, commissioning procedures,
- Application to commissioning of cranes equipped with LVF Optima and 33 LVF 20 Optima winches (MCG 71).
- Application to commissioning of cranes equipped with RVF+51 and RVF 161 Optima + mechanisms (ABB).
- Application to commissioning of cranes equipped with DVF and 5DVF 5 winches (MCG 71).

Teaching methods:

- In-person teaching with multimedia materials and documentation.
- Personal studies and exercises (repair, adjustments, commissioning).

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training manager

Equipment:

- Dedicated classrooms,
- IGO T 85 tower crane,
- Mechanisms in the workshop.

Accreditation of learning:

- Delivery of a certificate of capacity.

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

Prerequisite:

- Tower crane servicemen having validated POTAIN 1 & 2
- Have low-voltage electrical accreditation.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

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HUP repair

Repairing HUP cranes

Objective:

- Acquiring the theoretical and practical knowledge needed to diagnose and repair a GMA HUP crane.

Program:

THEORY

- Overview of the CCS system for GMA cranes,
- Overview of the safety components for the GMA HUP cranes,
- Introduction to CAN technology,
- Study the electrical architecture,
- Overview of mechanisms.

PRACTICE

- Ergonomics and feedback from the radio control: target positions/messages,
- Diagnostics methodology and failures.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on test bench and on crane.

Trainers/contacts:

- P. DARJINOFF — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- Dedicated classrooms,
- HUP32-27 crane,
- Training bench.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Tower crane servicemen having validated HUP fitting.
- Have low-voltage electrical and working-at-heights accreditation.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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HUP M repair

Repairing HUP M cranes

Objective:

- Acquiring the theoretical and practical knowledge needed to diagnose and repair a GMA HUP M crane.

Program:

THEORY

- Overview of the CCS system for GMA cranes,
- Overview of the safety components for the GMA HUP M cranes,
- Introduction to CAN technology,
- Study the electrical architecture,
- Overview of mechanisms.

PRESENTATION

- Ergonomics and feedback from the radio control: target positions/messages,
- Diagnostics methodology and failures.

Trainers/contacts:

- P. DARJINOFF — Technical Trainer
- E. KIRCHNER — Training center manager

Teaching methods:

- Theory with dedicated training materials,
- Practice on training benches,
- Practice on a crane.

Equipment:

- Dedicated classrooms,
- HUP M 28-22,
- Training bench.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Tower crane servicemen having validated HUP M fitting.
- Have low-voltage electrical and working-at-heights accreditation.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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GME in "8" non V3

Commissioning and repairing MDT98 to 218 cranes

POTAIN by Manitowoc

Objectives:

- Performing corrective maintenance of the tower cranes in the MD range and the MDT98 to MDT218 A range.
- Update knowledge of mechanisms for tower cranes equipped with frequency converters.
- Repairing tower cranes equipped with frequency converters.
- Carry out brake adjustments of the various mechanisms.
- Acquiring a methodology for repairing.

Program:

THEORY

- Study the variable frequency mechanisms used on MD-MDT cranes: LVF hoisting (KEB), RVF slewing (ABB), DVF trolleying (KEB):
  - *Study operations, adjustment, configuration, special functions.*
  - *Study the parameters, search for failures.*
- Study wiring diagrams
- Study the working principle and adjustment of the brakes for each mechanism.

PRACTICE

- Practical work for finding failures.
- Calibration of the VISU indicators.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on test bench.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Mechanisms in the workshop.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

Prerequisite:

- Tower crane servicemen who have validated courses: commissioning GME/GMA and tower crane wiring.
- Have low-voltage electrical accreditation.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

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GME in "8" V3

Commissioning and repairing MDT268 to 368 cranes

Objectives:

- Performing maintenance of tower cranes in the MDT268 to 368 range,
- Update knowledge of mechanisms for tower cranes equipped with frequency converters,
- Carry out repair of cranes and brake adjustments of the various mechanisms.
- Acquiring a methodology for repairing.

Program:

THEORY

- Study the V3 processing unit and the variable frequency mechanisms used on MD-MDT cranes: LVF hoisting (KEB), RVF slewing (ABB), DVF trolleying (KEB):
  - *Study operations, adjustment, configuration, special functions.*
  - *Study the parameters, search for failures.*
- Study wiring diagrams
- Study the working principle and adjustment of the brakes for each mechanism.

PRACTICE

- Practical work for finding failures.
- Calibration of the VISU II indicators.
- Study the radio control option.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on test bench.

Trainers/contacts:

- P. DARJINOFF Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Mechanisms in the workshop.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Tower crane servicemen who have validated courses: commissioning GME/GMA and tower crane wiring.
- Have low-voltage electrical accreditation.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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CCS repair

Study systems and repair of the CCS Tower cranes

Objective:

- Acquiring the theoretical and practical knowledge needed to diagnose a GME CCS crane.

Program:

THEORY

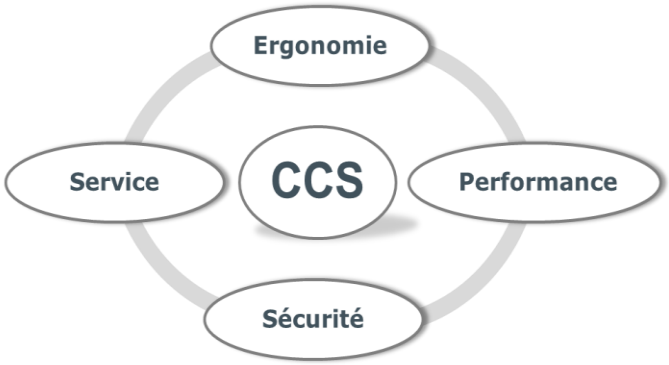
- Review of commissioning a CCS crane,
- Study the CAN Network on the GME CCS range,
- Method for diagnosing a GME CCS crane,
- Overview of diagnostics aid for the CCS system,
- Overview of data recorded by the CCS system,
- Working principle of the CraneSTAR DIAG system for remote diagnostics,
- Procedure for updating the computer software and the CCS screen.

PRACTICE

- Diagnostics exercise on the training bench.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on training bench.



Trainers/contacts:

- O. GOLLION — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- Dedicated classrooms,
- Dedicated training bench,
- MDT 219, MDT 269 crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Have taken and validated the CCS technology module.
- Have low-voltage electrical accreditation.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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Potain MRH

Commissioning and repair of MR cranes

Objective:

- Acquiring the theoretical and practical knowledge necessary for fitting and dismantling MRH cranes.

Program:

THEORY

- Provide basic knowledge about fitting, balancing and commissioning the MRH cranes,
- Load curves,
- Study the hydraulic and electrical components,

PRACTICE

- On-site installation,
- Fitting the mast section,
- Balancing the crane,
- Installing the upper slewing crane part,
- Adjusting safety devices,
- Using the technical documentation,
- Study the wiring diagram,
- Preventative maintenance of the crane.

Trainers/contacts:

- O. GOLLION — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- MRH125

Teaching methods:

- Detailed presentations, specific materials,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on the crane for fitting and adjusting the MRH crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Have taken and validated the modules: commissioning GME/GMA and tower crane wiring.
- Have low-voltage electrical accreditation.

Duration:

4 days - 28 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,473 excl. VAT
- Meals: €75 excl. VAT

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POTAIN MR *(contact us)*

Commissioning and repair of MR 90 C to MR 298 cranes

Objective:

- Acquiring the theoretical and practical knowledge needed to carry out repair of a GME MR (MR 90 C to MR 298) tower crane.
- Acquire and supplement knowledge of mechanisms for MR tower cranes equipped with frequency converters.

Program:

THEORY

- Fitting kinematics,
- Adjustments and working principle of the safety devices,
- Mechanisms:
  - 33 to 150 LVF,
  - RVF 152 to 172,
  - 50 to 100 VVF.

PRACTICE

- Practical cases:
  - Variable frequency drive inputs outputs
  - Adjusting the slewing parameters,
  - Adjusting the VISU II indicators,
  - Maintenance and adjustment of the emergency brake.
- Diagnostics exercise on the training bench or crane.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Training bench or MR type crane (according to availability)

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on training bench or crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Have taken and validated the modules: commissioning GME/GMA and tower crane wiring.
- Have low-voltage electrical accreditation.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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Potain MR CCT *(coming soon)*

Commissioning and repair of MR 418/608/618 cranes

Objective:

- Acquiring the theoretical and practical knowledge needed to carry out repair of a GME MR (MR 418/608/618) tower crane.
- Acquire and supplement knowledge of mechanisms for MR tower cranes equipped with frequency converters.

Program:

THEORY

- Fitting kinematics,
- Adjustments and working principle of the safety devices,
- Mechanisms:
  - 150 and 270 LVF,
  - RVF 152 and 173,
  - 150 VVF.

PRACTICE

- Practical cases:
  - Variable frequency drive inputs outputs
  - Adjusting the slewing parameters,
  - Adjusting the CCT indicators,
  - Maintenance and adjustment of the emergency brake.
- Diagnostics exercise on the training bench or crane.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Training bench or MR type crane (according to availability).

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on training bench or crane.

Prerequisite:

- Have taken and validated the modules: commissioning GME/GMA and tower crane wiring.
- Have low-voltage electrical accreditation.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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TECHNICAL POINTS

Anti-Collision

Installation and adjustments of interference systems

POTAIN by Manitowoc

Objectives:

- Train tower crane technicians about the installation and commissioning of the interference systems at job sites.
- Carry out the installation, adjustments, maintenance, and programming of the interference control equipment TT2, MC602, MC603 and TT3.

Program:

THEORY

- Overview of the anti-collision standard,
- Interference between cranes and prohibited zones,
- Principles of interference between cranes.

PRACTICE

- Fitting and maintenance of the TT2, MC602, MC603 and TT3 systems,
- Programming and calibration of these systems,
- Adjustment of prohibited zones,
- Calibration of the TT2, MC602, MC603 and TT3 systems by participants on interfering cranes.
- Making adjustments,
- Practical evaluation on the different systems.

Teaching methods:

- In-person teaching,
- Multimedia tools,
- Documentation supplied,
- Overview and details of the TT2, MC602, MC603 and TT3 systems.
- Programming, calibration and adjustments of the systems on training benches and interfering cranes.

Trainers/contacts:

- P. DARJINOFF Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269,
- Training benches in classrooms.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- For Level 3 technicians and/or experienced servicemen.
- Have low-voltage electrical accreditation.
- Have followed and validated the Level 2 training.

Duration:

3 days - 21 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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CCS Update & HPL

New CCS versions - Specifics details and HPL winch

POTAIN by Manitowoc

Objective:

- Reminder of the functions of the CCS system and understand the new functions in the latest version,
- Specific questions,
- Teach-in programming of the HPL winch.

Program:

THEORY

- CCS system functions
- Procedure for commissioning a CCS crane,
- Driving aids,
- Diagnostics aids,
- Overview of new functions,
- Procedure for updating the computer software and the CCS screen,
- Overview of HPL range and the winch 75HPL30,
- CCS and non-CCS Architecture (control switch chart),
- Specific functions (optimized power, power control, maximum speed limit, etc.).

PRACTICE

- Resistor box, reduction gear, and motor temperature monitoring,
- Service brake control,
- Control panel layout,
- Variable frequency drive adjustment
- Use of downgraded and local modes.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Documentation supplied,
- Practice on test bench and on crane.

Trainers/contacts:

- P. DARJINOFF Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Dedicated HPL training bench,
- MDT 219, MDT 269 crane.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Cost:

- Price of the course per person: €736 excl. VAT
- Meals: €30 excl. VAT

Prerequisite:

- Have validated the CCS technology and CCS repair modules.
- Have low-voltage electrical and working-at-heights accreditation.

Duration:

2 Days - 14 hours

Number of participants:

6 participants maximum

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Stability and reactions

Stability and reactions of tower cranes

POTAIN by Manitowoc

Objective:

- Study tower crane standards
- Understand the stability and forces of tower cranes
- Understand the reactions of tower cranes

Program:

THEORY

- Standard and legislation,
- EN 14439:
  - The new European standard
  - Modification of the calculation of the conditions for putting out of service,
  - On-site installation of crane,
  - Consequence of crane configuration,
- Load curve calculations:
  - The xx8 generation cranes,
  - Transition to CCS generation cranes.
- Balancing the tower crane,
- Forces:
  - Loads on the tower cranes,
  - Load combinations,
  - Determining forces + example,
  - Concept of static, elastic buckling, fatigue.
- Stability,
- Reaction calculations, database and technical data,
- Special cases: Cranes with anchorage, elevated cranes, equipped with lifts.

Teaching methods:

- In-person teaching with materials,
- Practical case studies and use of specific documents.

Trainers/Contacts:

- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- Presentation materials.

Accreditation of learning:

- Delivery of a certificate of participation in course.

Prerequisite:

- For highly experienced Level 3 technicians or people with engineering degrees.

Duration:

3 days - 21 hours

Number of participants:

8 participants maximum

Cost:

- Price of the course per person: €1,104 excl. VAT
- Meals: €45 excl. VAT

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CraneSTAR Diag

Use and understand the CraneSTAR system

POTAIN by Manitowoc

Objectives:

- Acquire a methodology to carry out remote diagnostics on GME CCS cranes using the CraneSTAR Diag system.

Program:

THEORY

- Overview of the CraneStar Diag system,
- Overview of diagnostic menus proposed by the CCS system,
- Use of the system in real time.

Teaching methods:

- Detailed presentations,
- Audiovisual and teaching materials,
- Practice on test bench.
- Connection to cranes for real time diagnostics.

Trainers/contacts:

- P. DARJINOFF Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- CraneSTAR Diag System on test bench.

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course.

Prerequisite:

- Have low-voltage electrical accreditation,
- Have taken the CCS technology course.

Duration:

1 Day – 7 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €368 excl. VAT
- Meals: €15 excl. VAT

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POTAIN RADIO *(coming soon)*

Installation, adjustment and repair of the RADIO controls

Objectives:

- Carry out the installation, adjustments and maintenance of the tower crane radio controls

Program:

THEORY

- Conventional radio controls,
- Technical characteristics,
- Current legislation,
- Transmitter – receiver,
- Crane interface, management box,
- Electrical installation.

PRACTICE

- Transmitter–receiver frequency adjustments,
- Test points,
- Available adjustment frequencies,
- Operational tests.

Teaching methods:

- In-person teaching with materials,
- Practical case studies (measures, adjustments, check).
- Exercises for looking for malfunctions.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269,
- Mechanisms in the workshop.

Accreditation of learning:

- Delivery of a certificate of participation in course.

Prerequisite:

- Tower crane servicemen having validated POTAIN 1 & 2.
- Have experience in industrial equipment.
- Have low-voltage electrical accreditation.

Duration:

2 Days - 14 hours

Number of participants:

6 participants maximum

Cost:

- Price of the course per person: €736 excl. VAT
- Meals: €30 excl. VAT

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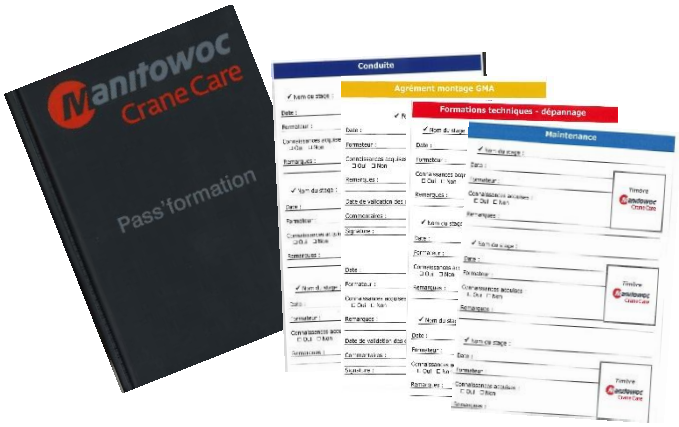
POTAIN Certification

Technical adviser certification

Dealers only

Objectives:

- The certification process makes it possible to differentiate technicians with extensive practical experience in repairing and diagnostics from other technicians.
- This test is an accreditation of learning about: mechanical adjustments, frequency drives, maintenance, resolving failures and interference.



Program:

THEORY

- MDT CCS technology and repair,
- HUP technology and repair,

PRACTICE

- Adjustment of the weathervaning,
- Finding failures,
- Slewing variable frequency drive configuration,
- Visual + limit switch adjustment,
- Special functions hoisting variable frequency drive: downgraded mode, speed adjustment, keyboard control, etc.
- Preventive maintenance,
- Interference adjustment,

Teaching methods:

- The technical adviser certification consists of a practical test carried out over two days.
- The evaluation will be carried out by a trainer; the technician must be able to carry out the exercises using the appropriate tools and the Manitowoc technical manuals within a given time.

Prerequisite

- Highly experienced technicians.
- Be up to date with the latest technologies.

Duration

0.5 days - 4 hours

Number of participants

2 participants maximum

Trainers/contacts:

- O. GOLLION — Technical Trainer
- E. KIRCHNER — Training center manager

Equipment:

- Dedicated classrooms,
- 5 tower cranes, 2 GME and 3 GMA: IGO 50, IGO T 85, HUP32-27, MDT 219 and MDT 269,
- Mechanisms in the workshop.

Accreditation of learning:

- The grading for this test is 100 points; technicians must get a result greater than or equal to 70 points in order to validate their certification.
- If a technician passes, they will be provided with the Crane Care booklet® and a certified technician card that is valid for 3 years.
- Recognition by the employee's superiors of their skills.

Cost:

- Price of the course per person: €210 excl. VAT
- Meals: €15 excl. VAT

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E-Learning Maintenance

(contact us) Maintenance of Potain cranes

POTAIN by Manitowoc

Dealers only

Objectives:

- Carry out preventive and quarterly maintenance of tower cranes,
- Explain regulatory knowledge needed to check the completion of the detailed maintenance procedure.

Program:

THEORY

- Acquire the knowledge needed for the preventive maintenance technique:
  - Understand how to define maintenance operations,
  - Carry out the technical visit,
  - Check the different crane elements,
  - How to use a visit report,
  - Using the technical manuals for tower cranes.
- Carry out in-situ preventive maintenance:
  - Visually check the condition,
  - Check wear, measure, adjust, replace, lubricate.
  - Record observations in a visit report.
- Regulations:
  - Explain the role of the regulatory bodies,
  - Use the maintenance logbook,
  - Explain the content of the detailed exam,
  - Understand the manufacturer information,
  - Explain a schedule for maintenance.

Prerequisite

- Technicians experienced in fitting and maintenance of tower cranes (minimum 3 years of experience).
- Have already carried out fitting of tower cranes, standard replacements and commissioning of tower crane mechanisms.
- Have electrical accreditation and be declared fit to work at heights by the occupational health doctor.

Duration:
Contact us

Teaching methods:

- In-person teaching.
- Multimedia materials and documentation supplied.
- Practical cases of in-situ checks, dismantling of mechanisms and control of reduction gear.
- Technical visit with check list.

Trainers/contacts:

- O. GOLLION Technical Trainer
- E. KIRCHNER Training center manager

Equipment:

- E-Learning

Accreditation of learning:

- Checking of knowledge through multimedia testing,
- Delivery of a certificate of participation in course. This is not a certification.
- PLEASE NOTE: The certificate does not validate the ability to carry out detailed maintenance on POTAIN cranes.

Cost:

- Price per person: Contact us

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Registration, address

Terms:

- In 2019, registration will be done online. (see terms page 4)

Prerequisites and PPE:

- The authorization to "work on cranes" given the occupational health doctor is imperative.
- Electrical accreditation is mandatory for all "fitting" and "technical" courses.
- Accreditation for working at heights is required for most of our courses.
- PPE is mandatory: Safety shoes, harness, proper outfit (no shorts), gloves, helmet and goggles. Plugs for the GME telescoping course.

Summonses:

- Three weeks before the start of the class, we will send:
  - A summons,
  - A list of local accommodations with negotiated prices.

Invoicing:

- At the end of the course, we will give you:
  - A training invoice,
  - A training certificate,
  - Attendance certificate.

➢ *Prices are for information only: valid as of October 2019. They can be modified according to the economic conditions, within the limits authorized by current legislation or by unilateral decision by Manitowoc Crane Group SAS.*

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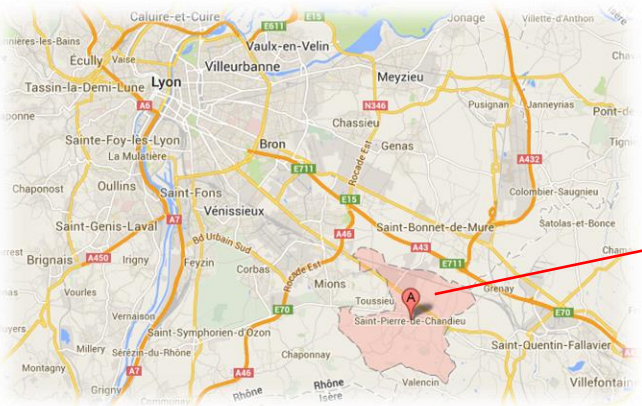

GPS Coordinates:

Latitude: 45° 38' 47" N

Longitude: 05° 00' 53" E

Notes

Notes

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