



Mobile Crane Operation and Safe Lifting Training Course

7 – 11 June 2027
Singapore

Mobile Crane Operation and Safe Lifting Training Course

Ref: 1370_201230 **Date:** 7 – 11 June 2027 **Location:** Singapore **Fees:** 5700 Euro

Overview

Mobile Crane Operation and Safe Lifting Training Course is a one-week intermediate programme for crane operators and lift teams who must make disciplined decisions before and during a lift. Participants verify crane configuration, assess ground and outrigger conditions, read load charts, inspect operating systems, plan load paths, coordinate signals, control exclusion zones, respond to changing conditions, and stop unsafe work. Each participant leaves with a Mobile Crane Lift Control Plan. Agile Leaders Training Center presents mobile crane operation and safety through realistic lift decisions rather than generic awareness.

Who Should Attend

- Mobile crane operators working under employer authorisation
- Lifting supervisors and appointed lift coordinators
- Riggers and signal persons interfacing with crane operations
- Maintenance personnel supporting mobile crane readiness
- HSE staff reviewing mobile crane lift controls

The course assumes basic lifting knowledge. It does not provide operator certification, replace equipment-specific instruction, or qualify participants to inspect, engineer, or approve lifts beyond their assigned competence.

Departments and Industries

The course supports sectors that use mobile cranes for planned or non-routine lifting.

- Construction, infrastructure, and civil works
- Oil, gas, petrochemical, and energy operations
- Manufacturing, maintenance, and industrial shutdowns
- Ports, logistics, utilities, and heavy transport
- Mining, facilities, and equipment rental operations

Learning Objectives

By the end of this course, participants will be able to:



- Verify mobile crane configuration and setup conditions
- Use a mobile crane load chart for lift decisions
- Complete a mobile crane pre-use inspection
- Coordinate the operator, rigger, and signal person interface
- Control load paths, exclusion zones, and changing conditions
- Build a Mobile Crane Lift Control Plan

Course Agenda

Day 1: Crane Configuration and Setup

- Mobile Crane Type and Configuration Map
- Ground Condition and Bearing Review
- Outrigger Extension and Support Checklist
- Level, Radius, and Boom Configuration Check
- Setup Hazard and Power-Line Assessment

Day 2: Load Charts and Stability

- Load Weight and Centre-of-Gravity Record
- Operating Radius and Boom Length Worksheet
- Mobile Crane Load Chart Decision Exercise
- Rigging Weight and Capacity Allowance
- Stability Margin and Prohibited Condition Review

Day 3: Inspection and Lift Planning

- Mobile Crane Pre-Use Inspection Checklist
- Wire Rope, Hook, and Safety Device Review
- Lift Path and Landing Area Map
- Exclusion Zone and Swing-Radius Plan
- Weather, Visibility, and Stop-Work Limits

Day 4: Communication and Controlled Operation

- Operator, Rigger, and Signal Person Responsibility Matrix
- Standard Hand and Voice Signal Practice
- Blind-Lift Communication Protocol
- Trial Lift and Load-Balance Check
- Abnormal Condition and Emergency Response



Day 5: Safe Lifting Practice

- Exercise: Evaluate a Mobile Crane Setup
- Exercise: Read a Load Chart for a Planned Lift
- Exercise: Inspect the Crane and Review the Lift Plan
- Exercise: Coordinate Signals and Respond to Change
- Capstone Exercise: Mobile Crane Lift Control Plan

Practical Exercises

The course uses mobile crane scenarios involving setup, capacity, communication, and worksite change.

- Suggested activity: assess ground support, outrigger position, level, overhead hazards, and the proposed crane configuration.
- Suggested activity: calculate operating radius, include rigging weight, and use the applicable chart to test lift feasibility.
- Suggested activity: perform a structured pre-use review and decide which findings require correction or stop-work action.
- Suggested activity: coordinate a blind lift, manage the exclusion zone, and respond to wind, visibility, or communication loss.

FAQs

What does mobile crane operation and safety training cover?

It covers setup, stability, load-chart use, inspection, lift planning, team communication, exclusion zones, controlled execution, and stop-work decisions.

Does this course certify a mobile crane operator?

No. It provides professional training and does not replace jurisdictional certification, employer authorisation, or machine-specific practical competence.

Why does crane configuration matter to the load chart?

Rated capacity depends on the applicable configuration, boom arrangement, operating radius, support conditions, and other parameters stated by the manufacturer.

When should a crane lift stop?

A lift should stop when required information, communication, visibility, ground support, equipment condition, capacity, clearance, or environmental controls are not adequate.



Who controls communication during a mobile crane lift?

The lift plan defines responsibilities and the designated signal person, while any person who identifies an imminent hazard may communicate an emergency stop.

Conclusion

The course connects setup, load-chart interpretation, inspection, lift planning, communication, exclusion-zone control, and safe execution. Participants return with a Mobile Crane Lift Control Plan that defines configuration checks, roles, limits, decision points, and stop-work conditions for their operating environment.