



Overhead Crane Safety Course Outline



Prerequisites: This course shall have no formal pre-requisite.

Course Length: 3-4 hours – Course length shall vary depending on the number of delegates.
Total course time includes breaks.

Class Size: The maximum number of delegates that may be trained and tested per instructor shall be thirty-five (35) in the classroom session and twenty (20) in the practical session. A second instructor shall be added for the practical session once the participation exceeds twenty (20).

Course Objective

- Provide delegates assigned to work with or around overhead cranes with the necessary skills to safely perform their jobs.
- Provide delegates with recommended practices and overhead crane regulations.
- Delegates should be able to demonstrate the necessary skills during practical examination and demonstrate knowledge during written examination.

Course Design

- Power Point© / Lecture / Audio Video / Visual Aids
- Practical Exercises

Successful Course Completion

- Requires a minimum score of 75% or better.
- Grades shall be calculated by dividing the number of questions answered correctly by the total number of exam questions.
- Delegates will have no more than thirty (30) minutes to complete the exam.
- Successful completion of practical session is mandatory.

Course Content Summary

- Classroom
- Practicals

Breaks: 10 minutes (approximately every hour)

Lunch: 1 Hour (if applicable)

Course Outline

About Overhead Cranes

- Requirements
- Types



Overhead Crane Safety

Course Outline



- Video “Overhead Cranes”
- Responsibilities
 - Management
 - Employees
- Common Crane Hazards
- Overhead Crane Capacity
- Warnings
- Clearance from Obstruction
- Crane Components
 - Trolley Stops
 - Trolley Bumpers

Overhead Crane Inspection Requirements

- Initial
- Daily or Pre-use Inspection
- Inspection Checklist Example
- Preventative Maintenance
- Hoist Control
- Inspection Classifications
 - Frequent
 - Periodic
- Running Rope Inspection
- Rope Replacement
- Maintenance

Overhead Crane Operations

- General Operating Requirements
- Attaching the Load
- Moving the Load
- Hoist Safety
- Signals/Communications
 - Review Hand Signals

Rigging Equipment Summary

- Common Types of Slings
- Sling Inspection/Characteristics
 - Wire Rope
 - Synthetic Web
 - Polyester Round
 - Chain



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Rigging Technique Summary

- 3 Basic Hitches
 - Vertical Leg
 - Choker
 - Vertical Basket
- Sling Lifting Capacities (Working Load Limits)

Practical Session

Practical training shall utilize an overhead crane, various slings, loads & rigging techniques.

Practical shall verify the following:

- Conduct proper pre-use inspection of crane and rigging gear
- Select the appropriate hardware/rigging gear to complete required lifts
- Effectively control the crane operations and uses operating indicators
- Accelerate and decelerate crane in a smooth safe manner
- Verify the load is not swinging prior to landing the load
- Respond to standardized hand signals from signal person
- Verify slings are properly connected/free before continuing operations
- Keep the hook clear of riggers while the slings are disconnected
- Ensure overall safety of personnel during crane operations
- Properly store hardware/rigging gear following its use

Training Center Provided Material

- PPE

Delegate Requirements

- Must possess good physical health as the practical training is physical demanding.
- Overhead Crane with Rigging Gear

Reference Material / Documents

OSHA 29 CFR 1910.179