

**Rigging Safety – 4 Hour**  
(API RP 2D Sixth Edition)  
Course Outline

**Prerequisites:** This course shall have no formal pre-requisite. The individual should have no history of a disabling medical condition, which may be sufficient reason for disqualification.

**Course Length:** 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 twenty four (24) 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) and exercises will be divided into groups.

**Course Objective**

- Provide delegates assigned to rigging duties the necessary skills to safely perform their jobs.
- Provide delegates with recommended practices and guidelines to perform safely while working with cranes.
- Delegates should be able to demonstrate these necessary skills during practical examination and demonstrate knowledge during written examination.

**Course Design**

- Power Point© / Lecture / Audio Video / Visual Aids
- Demonstrations
- 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 (of applicable)

**Course Outline****Rigging Requirements**

- Qualified Rigger – API RP 2D Definition
- Rigger Responsibilities
- Manufacturer Responsibilities
- Common Rigging Problems

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- Rigging Plan

**Rigging Equipment**

- Definition & Terminology
- Blocks & Sheaves
  - Inspection Criteria
  - Typical Block Components
- Wedge Sockets
  - Installations and Inspection
- Hooks, Latches
  - Different Types
  - Inspection Criteria
  - Proper/Improper Use
- Shackles
  - Different Types
  - Inspection Criteria
  - Proper/Improper Use
- Slings
  - Different Types
  - Inspection Criteria
  - Characteristics
  - Proper/Improper Use
- Rings, Links, Swivels
  - Different Types
  - Characteristics
- Turnbuckles
  - Different Types
  - Inspection Criteria
- Spreader and Equalizer Beams
- Cable Clips
- Pad eyes, Eyebolts, and Other Lifting Equipment
- Housekeeping and Storage

**Rigging Technique**

- 3 Basic Hitches
- Sling Configuration
- Sling Angles
- Rated Load
- Weight of a Load
- Center of Gravity
- Moving the Load
- Load Control
  - Tag Lines

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- Hands-Free Devices
  - Advantages
  - Why Hands-Free Devices
  - Device Types
- Unbinding Loads
- Pinch Points/Body Positions
- Load Stability
- Personnel Transfer
- Other Factors (Environmental/Electrical)

**Rigging Safety**

- Lift Planning
- Personal Protective Equipment
- Communication – Hand and Voice Signals

**Practical Session**

Practical training shall utilize a hydraulic crane, various slings, loads & rigging techniques.

Practical shall verify that the delegate is able to complete the following:

- Select and wear appropriate PPE during practical training.
- Inspect and identify damaged hardware/rigging gear.
- Select the appropriate hardware/rigging gear to complete required lifts.
- Communicate effectively with the crane operator using proper hand signals.
- Use tag lines properly to control loads.
- Select the appropriate rigging techniques to complete the required lifts.
- Use acceptable sling angles to determine safe lifting operations.
- Maintain hand/body position absent from hazards (pinch points).
- Prevent anyone from standing under a suspended load.
- Work safely with other riggers as a team.
- Store hardware/rigging gear properly following its use.

**Training Center Provided Material**

- PPE
- Crane with Operator
- Rigging Material

**Delegate Requirements**

- Must possess good physical health as the practical training is physically demanding.

**Reference Material / Documents**

API RP 2D Sixth Edition  
OSHA 29 CFR 1926.1421