

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

**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 is added for the practical session once the participation exceeds twenty (20) and exercises will be divided into groups.

#### **Course Objective**

- Provide delegates assigned to operate industrial Man-Riding Winches the necessary skills to safely perform their jobs.
- Provide delegates with recommended industry practices to allow safe work with Man-Riding Winches.
- 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
- 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 (if applicable)

## **Course Outline**

### About Man-Riding Winch

- Why Training?
- Definitions
  - Operator
  - Qualified Person
  - Qualified Rigger
  - Boatswain's Chair
  - Red Zone
- Air Compressor Terms
  - Pounds Per Square Inch (PSI)
  - Absolute Pressure
  - Cubic Feet Per Minute (CFM)
  - Standard Cubic Feet Per Minute (SCFM)
- Common Applications
- Roles and Responsibilities
  - Facility Manager/Yard Manager/Offshore Manager
  - First Line Supervisor/Superintendent
  - Winch Operator
  - Personnel Working Near Equipment

### Hoisting Personnel

- Pre-lift Meeting
- Attachment and Rigging
- Rigging Hardware
- Lifting Personnel
- Using a Boatswain's/Bosun Chair

### Boatswain's/Bosun Chair

- Purpose
- Personnel Riding
- Fall Arrest
- Work Positioning
- Limitations
  - Capacity
  - Environmental Hazards
  - Swing Impacts
  - Free Fall
- Training
- Inspection
- Donning

#### Man-Riding Operational Requirements

- Harnesses and Associated Equipment
- Connecting Devices
- Secondary Independent - Connection Fall Protection
- Alternative Methods
- Qualified Person requirements
- Job Safety Analysis
- Pre-Job Safety Meeting
- Winches and Lifting System
- Pre-Lift Procedures
- Lifting Procedures
- Winch Operators
- Man-Riding Winch Storage

#### Man-Riding Winch Safety

- Safety Devices
- Personal Protective Equipment
- Barricading the Work Area
- Man-Riding Winch Installation
  - Pre-Installation Requirements
  - Securing Air Winch
  - Power Supplies
  - Calculating Air Flow
- Air Compressors
  - Installation
  - Requirements
  - Test Certificates
  - Air Supply Information
  - Calculating Air Flow
- Snatch Blocks
  - Requirements
  - Selection
- Proper Sheave/Wire Rope Requirements
  - Sheave Inspection
  - Wire Rope Spooling
  - Wire Rope Maintenance
  - Wire Rope End Fittings
- Pre-Use Inspection
  - Inspection Form Example



## Man-Riding Winch Safety Course Outline



### Man-Riding Winch Operation

- Winch Capacity
- Winch Speed
- Winch Operation
  - Pre-Operations
  - Post Operations
  - Winch Brake

### Hand Signals

- Signal Person Requirements
- Hand Signal Review

### Practical Session

Practical training shall utilize an air winch, Boatswain's/Bosun Chair, loads & rigging techniques.

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

- Select and wear appropriate PPE during practical training
- Inspect man-riding harness properly
- Inspect and identify damaged hardware/rigging gear
- Select the appropriate hardware/rigging gear to complete required lifts
- Communicate effectively with the operator using proper hand signals
- Select the appropriate rigging techniques to complete the required lifts
- Maintain hand/body position absent from hazards (pinch points)
- Prevent anyone from standing under a suspended load
- Work safely with others as a team
- Store hardware/rigging gear properly following its use

### Training Center Provided Material

- PPE
- Rigging Material
- Boatswain's/Bosun Chair
- Air Winch

### Delegate Requirements

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

### Reference Material / Documents

OSHA 1926.1431 Hoisting Personnel

ASME B.30.23 Personnel Lifting System

ANSI A10.22 Safety Requirements for Rope Guided and Non-Guided Workers' Hoist