



TRAINING OUTLINE

COURSE TITLE: _____ **DATE:** _____ **INSTRUCTOR:** _____

LOCATION: _____ **TIME:** _____ **COMPANY:** _____

Safety training was conducted on the above date by the instructor indicated. The following line items identify the topics covered during the training session.

SUMMARY OF TRAINING

1) Introduction

- a) What is Rigging?
- b) Standards
- c) Why Training

2) Definitions

- a) Center of Gravity
- b) Side Loading
- c) Sling Angle
- d) Sling Hitch
- e) Load Control
- f) North-South Control
- g) East-West Control
- h) Capacity
- i) Deduction
- j) Hitch

3) Sling Types

- a) Synthetic Slings
 - i. Synthetic Flat Slings
 - ii. Inspecting Flat Slings
 - iii. Synthetic Round Slings
 - iv. Inspecting Round Slings
 - v. Synthetic Fiber Rope Slings
 - vi. Types of Fiber Rope Slings
 - vii. Safe Working Load
 - viii. Inspecting Rope Slings
- b) Wire Rope Slings
 - i. Inspection
- c) Chain Slings
 - i. Chain Sling Inspection
 - ii. Record Keeping



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4) Hardware

- a) Rigging Card
- b) Shackles
- c) Anchor Shackles
- d) Synthetic Sling Shackle
- e) Chain Sling Shackle
- f) Shackle Components
- g) Shackle Identification
- h) Rigging Practices
- i) Screw Pin Shackles
- j) Applying a Load
- k) Shackle Inspection
- l) Heat Damage
- m) Load Pins
- n) Eye Bolt Identification
- o) Angles
- p) Placement
- q) Swivel Hoist Rings
- r) Inspection
- s) Hooks
- t) Lift Type Weld-On Lugs

5) Lifting Devices

- a) Lifting Beams & Spreader Bars
- b) Plate Clamps & Lifters
- c) Lifting Magnets
- d) I-Beams & Lifters
- e) Pipe Lifters
- f) Drum Clamps & Lifters
- g) Pallet Forks
- h) Lever Hoists
- i) Portable Chain Hoists
- j) Inspection
- k) Load Initiating Devices

6) Weight

- a) Weigh it
- b) Volume of a Cube
- c) Area of a Circle
- d) Volume of a Cylinder



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- e) Volume of a Pipe
- f) Lifting out of Water

7) Angles & Stresses

- a) Single-Vertical Sling Stress
- b) Double-Vertical Sling Stress
- c) Double-Vertical Sling Stress Reduced
- d) Load Angle Factors
- e) Slings of Equal Length
- f) Slings of Unequal Length

8) Sling Hitches

- a) Capacity Tags
- b) Vertical Hitches
 - i. Single Vertical
- c) Bridle Hitches
 - i. 2-Leg Bridle
 - ii. 3-Leg Bridle
 - iii. 4-Leg Bridle
- d) Choker Hitch
 - i. Alternative to Cinching
 - ii. Single-Wrap Choker
 - iii. Double-Wrap Choker
 - iv. Double-Choker
- e) Basket Hitches
 - i. Single Basket Hitch
 - ii. Double Basket Hitch
 - iii. Basket Hitch Variations
 - iv. Basket Hitch Reductions

9) Center of Gravity

- a) The Trial and Error Method
- b) Inverse Proportion to Distance Formula
- c) Center of Gravity in the Vertical
- d) Pick Points & the COG

10) Communication

- a) Communication Devices
- b) Voice Signals
- c) Hand Signals
- d) General Hand Signals
 - i. Wire Down; Hoist Down; Lower Load



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- ii. Wire Down; Hoist Down; Lower Load Slowly
- iii. Wire Up; Hoist Up; Raise Load
- iv. Wire Up; Hoist Up; Raise Load Slowly
- v. Boom Up
- vi. Boom Down
- vii. Boom Up & Wire Down (Float Load In)
- viii. Boom Down & Wire Up (Float Load Out)
- ix. Swing; Slew; Rotate Crane
- x. Telescope In; Retract Boom
- xi. Telescope Out; Extend Boom
- xii. Knuckle Boom Hand Signal
- xiii. One Hand, Load Out/Load In
- xiv. Whip Line and Main Block
- xv. Dog Everything
- xvi. Stop
- xvii. Emergency Stop
- e) Crawler Crane Signals
- f) Overhead & Tower Crane Hand Signals

11) Conclusion