



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**