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## WE PROVIDE BASIC LIFTING AND RIGGING TRAINING ON-SITE OR ONLINE!

If you require a specific training course for OSHA compliance, Mazzella can assist you in creating a safe and reliable workplace. We qualify our trainers by requiring them to complete an internal train the trainer program (which trains to applicable OSHA and ASME standards and training technique), extensive field experience, and additional training from third-party entities, such as Crosby, CM, Harrington, Gorbel, and Industrial Training International (ITI).



#### 1 TERMS, RISK, AND RIGGING TECHNIQUE

- Common terms
- What types of "risk" will be encountered?
- Identification and how to manage risk
- Common rigging problems
- Regulations and standards
- Creation of a basic rigging plan

### **PLAN EVERY LIFT**

- Who is responsible (competent) for the rigging?
- Is equipment in acceptable condition?
- Is working load limit (WLL) adequate?
- Evaluating the load
- Sling protection types and techniques

## <sup>3</sup> RIGGING TECHNIQUE

- Sling angles and their effect on working load limit
- Sling capacity charts
- Will the load be under control center of gravity (COG)?
- Appropriate hitch and taglines
- Fouling and keeping clear of the load –
  "The Fall Zone" where not to stand –
  "45 Degree Rule of Thumb"
- Suspended Loads and how to unhook safely
- Environmental conditions to consider

#### 4 GENERAL RIGGING: CARE, USE, AND INSPECTION

- Inspection frequency
- Causes for removal of hardware during inspection
- Fittings and wire rope terminations
- Class participation on sample inspections

#### MORE MODULES ON REVERSE SIDE >>



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#### WIRE ROPE SLINGS: CARE, USE, AND INSPECTION

Components of wire rope

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- Causes for wire rope sling removal during inspection
- ASME B30.9 Wire Rope Sling removal criteria
- Reverse and severe bending of wire rope slings
- Securing unused legs of slings

#### 7 SYNTHETIC SLINGS: CARE, USE, AND INSPECTION

- Common types of synthetic slings
- Web sling tags
- Benefits of the duraKlear tag (referencing ASME B30.9)
- Causes for web sling removal during inspection
- Causes for roundsling removal during inspection
- Twin-Path<sup>®</sup> sling and benefits
- Visual examples of out of service synthetic slings

## 9 LOAD Control

- Consideration of controlled loads
- Center of gravity (COG) and load stability
- Selecting slings and hitches for load control
- Discuss proper and poor load control with examples

### CHAIN SLINGS: CARE, USE, AND INSPECTION

- Causes for chain sling removal during inspection
- Identification tags

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Typical abuses of chain slings

#### HOOKS, SHACKLES, EYE BOLTS, AND HOIST RINGS

- Types of hooks, shackles, eye bolts, and shackles
- Proper rigging practices
- Inspection, care, and use
- Effect of loads
- Proper installation / loading

#### <sup>10</sup> SAFE DESIGN AND USE OF BELOW-THE-HOOK LIFTING DEVICES

- What is a below-the-hook (BTH) lifting device (referencing ASME B30.20)
- Types of below-the-hook lifting devices
- Examples of "traditional / homemade devices"
- Components and definitions of ASME B30.20 and ASME BTH-1 standards
- Inspection of below-the-hook lifting devices
- Maintenance of below-the-hook lifting devices
- Training of below-the-hook lifting device operators

#### 11 OVERHEAD CRANES / HOISTS: SAFE LIFTING OPERATIONS

- Leading causes of accidents
- Common types of overhead cranes
- Pre-operation inspection / daily ASME inspection
- What to do if crane fails pre-operation or daily inspection?
- Vertical lifts and side pulling
- Lifting and moving of a load
- When crane is not in use?
- The "Don'ts" of overhead crane operation



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