

Overhead Crane Operators Training Course

HOOSIER CRANE SERVICE COMPANY



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24 HOUR EMERGENCY SERVICE

Introduction to Hoosier Crane Service Company

- Hoosier Crane is a relatively new company run by people with over 50 years experience in the overhead crane market.
- Our goals are to maintain a strong customer base by fully dedicating ourselves to our customers needs on a 24 hour basis.
- To fully train crane operators in a manner that will make their workplace a safer environment and that they make it home to their families safely.

What we will cover in this training:

- OSHA Compliant Operator Requirements
 - Training
 - Testing
 - Qualifications to be an operator
 - Conduct of an operator
 - Crane Terminology- Definitions
 - Parts of the crane
 - Inspection Requirements
 - Visual Inspection
 - Checking the pendant
 - Daily Inspection Form
 - Frequent and Periodic Inspections
 - Safe Operating Practices
 - Pre Planning
 - House Keeping
 - Lifting the load
 - Moving and Setting the load
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Training:



- A person's employer shall train a prospective operator before their assignment as an operator of an overhead crane and shall include:
 - Capabilities of the crane and attachments
 - How to properly use the controls
 - How to perform daily checks
 - Practice in operations assigned to equipment through its functions necessary to perform the job.
 - A review of the state and federal standards.

Testing:



- An employer shall test the knowledge & ability of an employee before authorizing him or her to operate a crane.
- The test shall determine the following:
 - Operator ability
 - Knowledge of equipment
 - Knowledge of daily checks
 - Knowledge of state and federal standards

Important words from OSHA

- SHALL

- ❑ MANDATED BY LAW
- ❑ VIOLATIONS PUNISHABLE BY FINE/PRISON



- SHOULD

- ❑ STRONG SUGGESTION,
SHOULD BE FOLLOWED,
HOWEVER NO LEGAL PENALTY

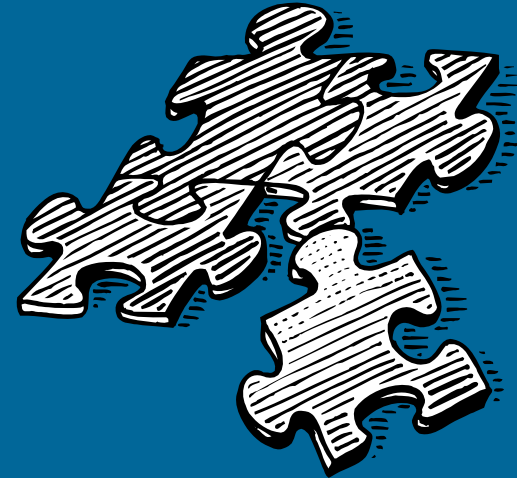
Crane Terminology

- Definitions:
 - To assure that the crane operators can communicate with the other operators or maintenance personnel using proper terminology.



Parts of a Crane

- Bridge
- Trolley
- Hoist
- Hoist Drum
- Block
- Safety Latch



NEXT SECTION



Inspection Requirements-

Pre-Operational Safety Inspection

- 1. Visual Inspection
 - 2. Checking the pendant control
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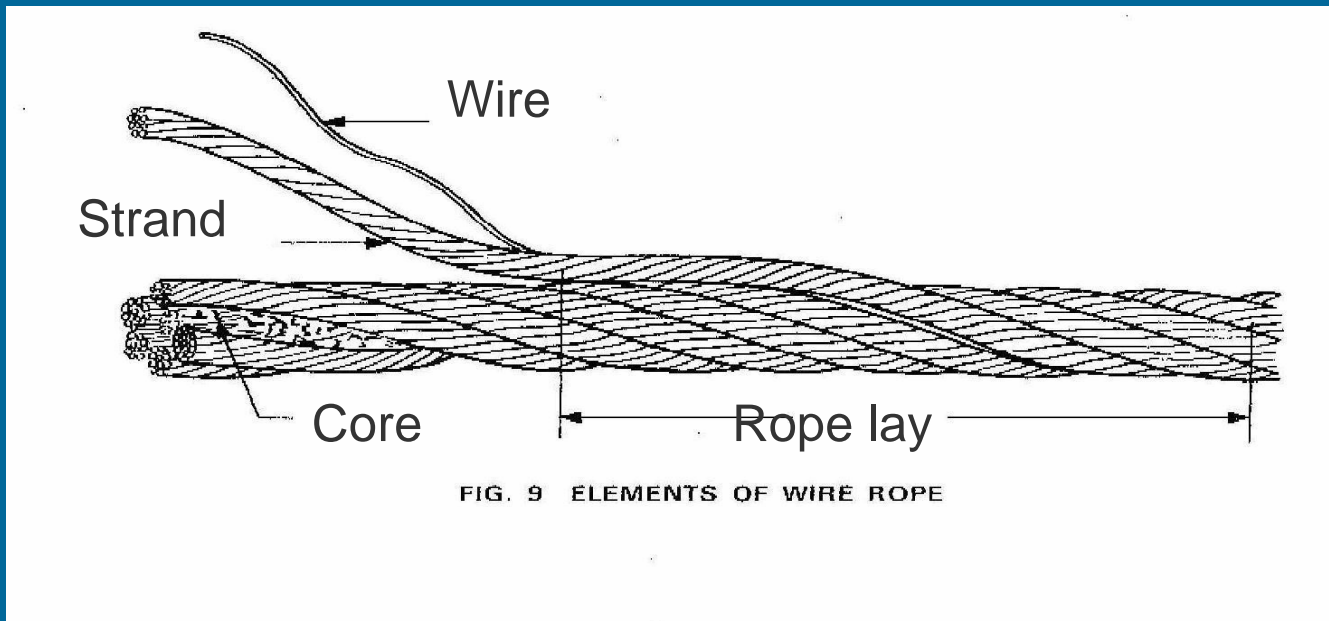


FIG. 9 ELEMENTS OF WIRE ROPE

ROPE REPLACEMENT- ASME B30.2-2.4.2

Conditions such as the following should be sufficient reason to question the continued use of a wire rope:

- 1) in running ropes 12 randomly distributed broken wires in one lay or 4 broken wires in one strand in one lay.
- 2) 1 outer wire broken at the contact point with the core of the rope
- 3) wear of $\frac{1}{3}$ the original diameter of the outside individual wires
- 4) kinking, crushing, bird caging, or any other damage distorting the rope



Daily inspection Form:

- See Daily Inspection Sheet



Frequent and Periodic Inspections:

- **1910.179(j)(1)(ii)(a)**
Frequent inspection - Daily to monthly intervals.
 - **1910.179(j)(1)(ii)(b)**
Periodic inspection - 1 to 12-month intervals.
 - **1910.179(j)(2)**
Frequent inspection. The following items shall be inspected for defects at intervals as defined in paragraph (j)(1)(ii) of this section or as specifically indicated, including observation during operation for any defects which might appear between regular inspections. All deficiencies such as listed shall be carefully examined and determination made as to whether they constitute a safety hazard:
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Frequent Inspections - OSHA 1910.179

- **1910.179(j)(2)(i)**
All functional operating mechanisms for maladjustment interfering with proper operation. Daily.
- **..1910.179(j)(2)(ii)**
- **1910.179(j)(2)(ii)**
Deterioration or leakage in lines, tanks, valves, drain pumps, and other parts of air or hydraulic systems. Daily.
- **1910.179(j)(2)(iii)**
Hooks with deformation or cracks. Visual inspection daily; monthly inspection with a certification record which includes the date of inspection, the signature of the person who performed the inspection and the serial number, or other identifier, of the hook inspected. For hooks with cracks or having more than 15 percent in excess of normal throat opening or more than 10° twist from the plane of the unbent hook refer to paragraph (l)(3)(iii)(a) of this section.

Frequent Inspections - OSHA 1910.179

- **1910.179(j)(2)(iv)**

Hoist chains, including end connections, for excessive wear, twist, distorted links interfering with proper function, or stretch beyond manufacturer's recommendations. Visual inspection daily; monthly inspection with a certification record which includes the date of inspection, the signature of the person who performed the inspection and an identifier of the chain which was inspected.

- **1910.179(j)(2)(v)**

[Reserved]

- **1910.179(j)(2)(vi)**

All functional operating mechanisms for excessive wear of components.

- **1910.179(j)(2)(vii)**

Rope reeving for noncompliance with manufacturer's recommendations.

Periodic Inspections

- Periodic or annual crane inspections are usually performed by an outside contractor such as Hoosier Crane Service Company.
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Safe Operating Practices

- Pre-Planning
 - Housekeeping
 - Lifting the load
 - Moving and Setting the load
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Moving and setting the load

- Moving the load
 - Setting the load
 - When the crane is not being used
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Video- Sling Video

