

CHAPTER OVERVIEW

13: Crane and Hoists Safety

[13.1: Introduction to Cranes and Hoists](#)

[13.2: Personnel Platforms](#)

[13.3: Helicopters](#)

[13.4: Material Hoists and Elevators](#)

[13.A: Review Questions](#)

“You don’t need to know the whole alphabet of Safety. The A, B, C of it will save you if you follow it: Always Be Careful.” – Colorado School of Mines Magazine

Overview

Cranes and hoists continue the discussion on materials handling. As equipment goes, they are the heavy lifters and very versatile. Cranes are typically used to lift loads that are critical for some important application, expensive, and needing to be placed in unique or hard to reach locations. Hoists like cranes can be mobile or fixed. There are hoists that lift people although mostly today they are often referred to as aerial or man lifts.

Much of the focus on crane safety targets equipment inspection and maintenance. Crane operators must also be qualified having received extensive training and certification of competency. Crane operators are competent persons. Together the material rigger and crane operator bear the ultimate responsibility for a safe lift.

Lastly, a special type of crane, the derrick, is often associated with oil drilling on land and in the ocean. They typically resemble a tripod with the lift or hoist mechanism in the center of the equipment. Many of the standards discussed in this chapter apply to both crane and derrick although the focus will be on cranes in construction environments.

Chapter Objective:

1. Identify the acceptable approach distances for cranes and derricks working in the vicinity of electrical transmission and distribution.
2. Review the requirements for the hoisting of personnel platforms from cranes or derricks.
3. Discuss the various systems and practices that ensure crane, hoist, and aerial lift safety.

Learning Outcome:

1. Describe the proper implementation of safety requirements for cranes and derricks under 1926.550
2. Describe conformance requirements of Subpart N for aerial lifts used to elevate personnel to jobsites above-ground.
3. Summarize the major safety concerns for material and personnel hoists and jobsite elevators.

Standards: 1926 Subpart CC-Cranes and Derricks in Construction, 1926 Subpart N Helicopters, Hoists, Elevators, and Conveyors, 1910 Subpart F Powered Platforms, Man lifts, Vehicle-Mounted Work Platforms, 1910 Subpart N Materials Handling and Storage

Key Terms:

Clearance, gauge, proof test, sling, tag line

Mini-Lecture: Crane Safety

Topic Required Time: 2 hrs; Independent Study and reflection 1 3/4 hour.

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