

Lesson: Scaffolds Part II

- Lesson Objectives:**
- Define supported, suspended, and special use scaffolds and define aerial and scissor lifts.
 - State specific safety requirements of various types of supported scaffolds.
 - Describe specific safety requirements of various types of suspended scaffolds.
 - Apply specific safety requirements for various types of special use scaffolds in your work.
 - State specific safety requirements of aerial and scissor lifts.

- Topics:**
- Overview
 - Supported Scaffolds
 - Suspended Scaffolds
 - Special Use Scaffolds
 - Aerial Work Platforms

Topic: Overview

In this overview you will learn about three major types of scaffolds and two types of lifts. In addition, you learned about the most frequently cited serious violations in scaffold standards. Having completed this topic, you should be able to:

- Define supported, suspended, and special use scaffolds
- Define aerial and scissor lifts
- Identify the most frequently cited serious violations in scaffold standards

Topic summary:

Please take a moment to review these points before you continue with the next topic.

- The three major categories of scaffolds are supported scaffolds, suspension scaffolds, and special use scaffolds.
- The two types of lifts that provide quick and safe access to work areas are aerial lifts and scissor lifts.
- The largest number of violations issued by OSHA occurred in scaffolds more than 10 feet above the ground.

Topic: Supported Scaffolds

You have learned about the general requirements for supported scaffolds in the Scaffolds Part I lesson. Here you learned about the specific safety requirements for various types of supported scaffolds. Having completed this topic, you should be able to:

- Describe safety requirements of fabricated frame scaffolds
- Describe safety requirements of tube and coupler scaffolds
- Describe safety requirements of mobile scaffolds
- Describe safety requirements of pole scaffolds

Topic summary:

Please take a moment to review these points before you continue with the next topic.

- The types of supported scaffolds include:
 - Fabricated frame scaffolds
 - Tube and coupler scaffolds
 - Mobile scaffolds
 - Pole scaffolds
- In order to prevent fall hazards when moving platforms to the next level on fabricated frame scaffolds, the existing platform must be left in place until the new end frames have been set in place and braced.
- All frames and panels on fabricated frame scaffolds have to be braced by cross, horizontal, or diagonal braces, or a combination of these that secures the vertical members together laterally.
- A registered professional engineer must design fabricated frame scaffolds that are higher than 125 feet above their base plates. These scaffolds must be constructed and loaded in accordance with such design.
- Scaffold casters and wheels must be locked to prevent movement of the mobile scaffold while the scaffold is used in a stationary manner. This can be accomplished with positive wheel and/or wheel and swivel locks.

Topic: Suspended Scaffolds

You have learned about the general requirements for suspended scaffolds in the scaffold Part I lesson. Here you learned about the specific safety requirements for various types of suspended scaffolds. Having completed this topic, you should be able to:

- Describe safety requirements of single-point adjustable suspension scaffolds (boatswain's chair)
- Describe safety requirements of two-point adjustable suspension scaffolds (swing stages)
- Describe safety requirements of multi-point adjustable suspension scaffolds
- Describe safety requirements of multi-level suspended scaffolds
- Describe safety requirements of catenary scaffolds
- Describe safety requirements of float (ship) scaffolds
- Describe safety requirements of interior hung scaffolds
- Describe safety requirements of needle beam scaffolds

Topic summary:

Please take a moment to review these points before you continue with the next topic.

A suspension scaffold contains one or more platforms supported by ropes or other non-rigid means from an overhead structure. Following are different types of suspended scaffolds:

- Single-point adjustable suspension scaffolds (boatswain's chair)
- Two-point adjustable suspension scaffolds (swing stages)
- Multi-point adjustable suspension scaffolds
- Multi-level suspended scaffolds
- Catenary scaffolds
- Float (ship) scaffolds
- Interior hung scaffolds
- Needle beam scaffolds

Topic: Special Use Scaffolds

In this topic, you learned about various types of special use scaffolds. A special use scaffold is an assembly designed for a specific purpose where other scaffold systems might be more difficult to use. Having completed this topic, you should be able to:

- Describe specific safety requirements of form scaffolds and carpenter's bracket scaffolds
- Describe specific safety requirements of roof bracket scaffolds
- Describe specific safety requirements of outrigger scaffolds
- Describe specific safety requirements of pump jack scaffolds
- Describe specific safety requirements of ladder jack scaffolds
- Describe specific safety requirements of window jack scaffolds
- Describe specific safety requirements of horse scaffolds
- Describe specific safety requirements of crawling boards (chicken ladders)
- Describe specific safety requirements of step, platform, and trestle ladder scaffolds

Topic summary:

Please take a moment to review these points before you continue with the next topic.

- Various types of special use scaffolds discussed in this topic were:
 - Form scaffolds and carpenter's bracket scaffolds
 - Roof bracket scaffolds
 - Outrigger scaffolds
 - Pump jack scaffolds
 - Ladder jack scaffolds
 - Window jack scaffolds
 - Horse scaffolds
 - Crawling boards (chicken ladders)
 - Step, platform, and trestle ladder scaffolds
- When you use roof bracket scaffolds, the scaffold brackets must be constructed to fit the pitch of the roof and must provide a level support for the platform.
- When you use pump jack scaffolds, each pump jack bracket must have two positive gripping mechanisms to prevent any failure or slippage.

Topic: Aerial Work Platforms

Lifts, collectively called *aerial work platforms*, provide quick and safe access to work areas that could only be reached from scaffolding or a crane's manbasket. In this topic you learned about two types of lifts: aerial lifts and scissor lifts.

Having completed this topic, you should be able to:

- Identify different types of aerial lifts
- List unique hazards for aerial lifts
- Describe safety requirements for scissor lifts
- State safe operating procedures for aerial and scissor lifts

Topic summary:

Please take a moment to review these points before you continue with the next topic.

- Whenever working out of an aerial lift, a full-body harness must be worn and be properly attached to the basket.
- Never drive the aerial lift when it is elevated above the limit the manufacturer considers safe.
- A worker in a scissor lift needs be protected from falling only by a properly designed and maintained guardrail system. However, if the guardrail system is less than adequate, or the worker leaves the safety of the work platform, an additional fall protection device would be required.
- Only trained and authorized people should operate the lift. A qualified instructor must make sure that every operator reads and/or understands the equipment's safety and operating instructions. This includes all of the warning decals and labels mounted on the machine.