



## General Requirements

### *Specific Requirements*

The requirements for two-point adjustable suspension scaffolds are as follows:

- A competent person must evaluate all direct connections prior to use to confirm that the supporting surfaces are able to support the imposed load;
- All suspended scaffolds must be tied or otherwise secured to prevent them from swaying, as determined by a competent person;
- A competent person must inspect the ropes for defects prior to each workshift and after every occurrence that could affect a rope's integrity;
- When **lanyards** are connected to horizontal lifelines or structural members on **two-point adjustable scaffolds**, the scaffold must have additional independent support lines equal in number and strength to the suspension lines and have automatic locking devices; and
- Emergency escape and rescue devices must not be used as working platforms, unless designed to function as suspension scaffolds and emergency systems.

### *Counterweights*

Counterweights used to balance adjustable suspension scaffolds must be able to resist at least 4 times the tipping movement imposed by the scaffold operating at either the rated load of the **hoist**, or one and one-half (minimum times) the tipping movement imposed by the scaffold operating at stall load of the hoist, whichever is greater.

Only items specifically designed as counterweights must be used. Counterweights used for suspended scaffolds must be made of materials that cannot be easily dislocated. Counterweights must be secured by mechanical means to the outrigger beams. Vertical lifelines must not be fastened to counterweights.

Flowable material either in an open or closed container, such as water, cannot be used. Materials such as sand, gravel or roofing felt shall not be used as counterweights.

### *Suspension Ropes*

Suspension ropes must be long enough to allow the scaffold to be lowered to the level below without the rope passing through the hoist. Drum hoists must contain no less than 4 wraps of the rope at the lowest point. Suspension Rope must:

- Be capable of supporting, without failure, at least 6 times the maximum intended load applied or transmitted to the rope. This includes connecting hardware used on **non-adjustable suspension scaffolds**; or
- Be capable of supporting 2 times (minimum) the **stall load** of the hoist, whichever is greater. The stall load of any scaffold shall not exceed 3 times its **rated load**.

Wire rope shall be replaced when one or more of the following conditions exist:

- Kinks;
- Six randomly broken wires in one strand;
- One third of the original diameter of the outside wires is lost;
- Heat damage;
- Evidence that the secondary brake has engaged the rope; and/or
- Any other physical damages that impair the function and strength of the rope.

Repaired wire rope shall not be used under any circumstance.

Suspension ropes supporting adjustable suspension scaffolds shall be a diameter large enough to provide sufficient surface area for the functioning of the brake and hoist mechanisms. When suspension ropes are near heat-processes, the ropes shall be shielded from the heat.

#### *Power-Operated Suspension Scaffold Hoists*

All **power-operated hoists** used to raise or lower a suspended scaffold must be tested and listed by a qualified testing laboratory. The stall load of any scaffold hoist must not exceed 3 times its rated load. The stall load is the load at which the motor engine of a power-operated hoist stalls or the power to which is automatically disconnected.

An automatic braking and locking device, in addition to the operating brake, must engage when a hoist makes an instantaneous change in movement or an accelerated overspeed.

#### *Manually Operated Suspension Scaffold Hoists*

Manually operated hoists used to raise or lower a suspended scaffold must be tested and listed by a qualified testing laboratory. These hoists require a positive crank force to descend.

#### *Welding from Suspension Scaffolds*

Welding can be performed from suspended scaffolds when:

- A grounding conductor is connected from the scaffold to the structure and is at least the size of the welding lead;
- The grounding conductor is not attached in series with the welding process or the work space;
- An insulating material covers the suspension wire rope and extends at least 4 feet above the hoist;
- Insulated protective covers cover the hoist;
- The tail line is guided, retained, or both, so that it does not become grounded;
- Each suspension rope is attached to an insulated thimble; and
- Each suspension rope and any other independent lines are insulated from grounding.

### *Increase Working Level Height on Suspended Scaffolds*

No materials or devices shall be used to increase the working height on a suspension scaffold.

### *Guardrails*

All scaffolds more than 6 feet above the lower level, must protect employees with guardrails on each open side of the scaffold. Guardrails shall be installed along the open sides and ends before releasing the scaffold for use by the employees, other than erection or dismantling crews.

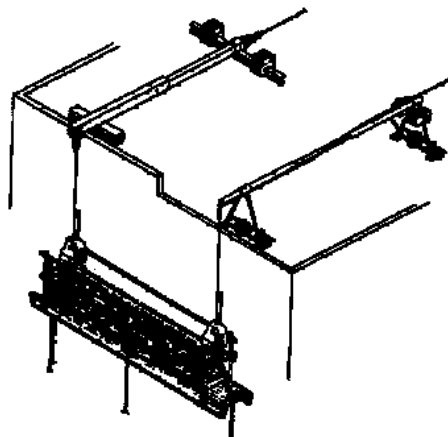
Guardrails are not required:

- When the front end of all platforms are less than 14 inches from the face of the work;
- When outrigger scaffolds are 3 inches or less from the front edge; and
- When employees are plastering and lathing 18 inches or less from the front edge.

Materials such as steel or plastic banding shall not be used for toprails or midrails.

### *Specific Requirements*

- The platforms shall not be more than 36 inches wide unless designed by a qualified person;
- The platform shall be securely fastened to hangers by u-bolts;
- The blocks for fiber or synthetic ropes shall consist of at least one double and one single block. The sheaves of all blocks shall fit the size of the rope used;
- Platforms shall be of the ladder-type, plank-type, or light-metal type. Light-metal type platforms having a rated capacity of 750 pounds or less and platforms 40 feet or less in length shall be tested and listed by a nationally recognized testing laboratory;
- Two-point scaffolds shall not be bridged or otherwise connected one to another during raising and lowering operations, unless the bridge connections are articulated (attached), and the hoists properly sized; and
- Passage may be made from one platform to another only when the platforms are at the same height, are abutting, and walk-through stirrups specifically designed for this purpose are used.



**Two-Point Suspension Scaffold**