

OVERLOADING SUSPENDED SCAFFOLD HOISTS

Powered suspended platform hoists are intended to lift their rated loads at the recommended voltage ranges or air pressure specified by the manufacturer. In the US, hoists used on powered suspended platforms (swing stages) are generally not required to be fitted with an overload device that prohibits the hoist from lifting more than its rated load.

As a result, many hoists today may be able to lift more than the load rating found on their nameplate. Loading a hoist to its rated load when the voltage or air pressure delivered to the hoist is within the manufacturer's stated voltage range is perfectly acceptable. Overloading the hoist is unsafe, dangerous, and increases operating costs. In addition, overloading:

- Risks the workers' lives as they are relying on a smaller safety factor than the required 4:1 safety factor to protect them against movement in the rigging system or serious failure of these devices.
- Overtaxes the hoist – exposing it to sustained loads greater than it was designed for. It will draw higher amperage, risking electrical overheating and premature component failure.
- Puts the intended safety factor on the wire rope at risk, leaving less than the 6:1 safety factor required for temporary access applications in the USA or 10:1 for Canada.
- Accelerates wire rope deterioration causing earlier replacement

Know the weights of what your suspended platform is lifting. All items from the shackle down must be counted in the calculation of what the hoist is lifting. Any hoses, cords or materials that the platform is lifting must also be counted in the total weight. Use the following guide to calculate the total load the hoists will lift:

This Technical Bulletin was prepared by members of the Scaffold & Access Industry Association SSFI Committee.

SSFI is a committee comprising manufacturers of shoring, scaffolding, forming, and suspended scaffolding. The committee focuses on engineering and safety aspects of scope products.

This bulletin does not purport to be all-inclusive nor to supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If this bulletin conflicts in any way with a state, local, federal, or other government statute or regulation, said statute or regulation shall supersede this bulletin and it shall be the responsibility of each user to comply therewith. This bulletin has been developed as an aid to users of various types of scaffolding equipment. The Scaffold & Access Industry Association or their SSFI Committee members are not responsible for the use of this bulletin.

September 2021 | This Bulletin is reviewed periodically. | Check www.saiaonline.org for the latest version

Hoist	Unit weight (lbs) 72-250	Unit Weight (kgs) 34-114	Total Weight
External overspeed brake bolt-on	10-18	5-8	
Primary Wire Rope			
5/16 wire rope - per 100 feet	17	8	
2nd Wire Rope (if collected)			
5/16 wire rope - per 100 feet	17	8	
Weights to hold down wire ropes	50	823	
Wire winder	40-80	18-36	
Power Supply			
Power cord per 100 feet	33	15	
Yoke	30	14	
Transformer	75	34	
Remote Control or Pendant	1	0.5	
Air Hose – per 100 ft	41	19	
Platform/work cage/fly decks	55-3,800	25-1,727	
Stirrups	30-150	14-68	
Corner Sections	130	59	
Face Rollers	5-25	2-11	
Workers - each	250	114	
Fall protection/worker	20	9	
Typical items contractors carry			
5 gallons of water	40	18	
5 gallons of paint	45	40	
5-gallon bucket of debris/concrete	100	45	
5-gallon bucket of plaster/mud/stucco	75	34	
Sandblast hose or gunnite/concrete pumping hose – per 100 feet - EMPTY	50-1,000	19-455	
Note – weights are approximate. Refer to the manufacturer’s specification for exact weights.			

- Do know your total platform weights – everything from the shackle down.
- Do verify the rated load of the hoist. Hoists range from 750 to 5500 lbs.
- Do not keep adding materials until the hoist will no longer lift the load.
- Do not jump on a platform ever.
- Do remove debris regularly to avoid weight build-up.
- Do remove snow, garbage, sand, or other materials that build up on the platform.
- Do have a daily housekeeping procedure in place to exit debris and excess materials from the platform.
- Do take special care in managing loads if your work is masonry, glazing, demolition or abrasive blasting. Housekeeping may be needed many times during a work shift.
- Do remove ‘extras’ that add to weight – work plan tables, milk crates, radios.
- Do know the tool weights that workers will carry with them.

This Technical Bulletin was prepared by members of the Scaffold & Access Industry Association SSFI Committee.

SSFI is a committee comprising manufacturers of shoring, scaffolding, forming, and suspended scaffolding. The committee focuses on engineering and safety aspects of scope products.

This bulletin does not purport to be all-inclusive nor to supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If this bulletin conflicts in any way with a state, local, federal, or other government statute or regulation, said statute or regulation shall supersede this bulletin and it shall be the responsibility of each user to comply therewith. This bulletin has been developed as an aid to users of various types of scaffolding equipment. The Scaffold & Access Industry Association or their SSFI Committee members are not responsible for the use of this bulletin.

September 2021 | This Bulletin is reviewed periodically. | Check www.saiaonline.org for the latest version