Overhead Hazards – Safety Checklist



PREAMBLE

The focus for all objects at heights should always be on preventing objects from falling rather than a catching object, or on limiting the damage after they fall.

Fewer than 25% of construction workers think that all accidents are preventable. What is clearer that workers often view themselves as victims of accidents and not as the cause of accidents.

Expect workers at height to wear a fall protection harness and be tied off because we're trying to prevent people from falling.

But we need to stop things from falling in the same way we have worked diligently towards preventing people from falling.

To determine what kind of force an object falling from a certain height generates, calculations can be done around the physics of gravity. For example, an eight-pound wrench dropped 200 feet would hit with a force of 2,833 pounds per square inch – the equivalent of a small car hitting a one-square-inch area.

Most organizations have deployed a fall protection program for workers but have not deployed a drop prevention program for tools and equipment. Expanding a fall protection program to include tools and equipment is far easier for companies and employees than creating a new program for drop prevention.

The difference between a fall protection program for humans and fall protection program for tools is only a matter of perspective: The first saves you; the second saves others.

While the most obvious person at risk when objects are dropped is the one underneath, the worker using the tool also can be at risk, as his knee-jerk reaction may be to catch or go after the falling object, which could cause him/her to lose balance and fall.

People are not designed to work at height. That's why they wear a fall protection harness. Tools are not designed for use at height either. That's why we also need to provide a fall protection harness and connection point for tools – so they easily can be tied off.

A harness for a person acts as the primary component of a personal fall protection system. However, for tools, we typically rely on secondary, passive systems, such as

debris nets. We rarely deploy a primary system for tools and equipment.

Countless companies in the manufacturing and construction industries rely on overhead cranes to lift and transport materials. When installed and used properly, these systems make operations easier and safer. But, overhead crane accidents cause severe injuries and fatalities every year. Preventing these disasters requires workers to recognize certain hazards that occur during operation and follow safety procedures to avoid them.

There are multiple hazards that can arise regarding cranes in general. Many accidents involve large lift systems like tower cranes and mobile cranes. But hazards do exist with all types of cranes—including overhead cranes—and in all facets of crane operation. (Overhead cranes are defined by OSHA 1910.179(a)(8) as a crane with a movable bridge carrying a movable or fixed hoisting mechanism, and traveling on an overhead fixed runway structure.)

Analysis of overhead crane accidents reveals three common safety hazards that every company using overhead lift systems should be aware of to keep their workers safe. It’s important to be familiar with these hazards and learn to recognize them in the workplace in order to avoid them. The three most common hazards involving overhead cranes include **electrical hazards, overloading, and materials falling/slipping from overhead hoists.**

One commonality that all three hazards share is the qualifications of crane operators. It is the responsibility of the crane owner and job supervisor to ensure that crane operators are competent and qualified to do the job.