Working and Traveling on Skeleton Steel

WHAT’S AT STAKE

A structural steel worker is a metal worker who is engaged in building metal structures, esp. in high-rise buildings, where a worker joins together steel beams, columns, and surfaces, and creates a metal skeleton. Structural steel workers could also perform other tasks involving metal construction building sites.

WHAT’S THE DANGER

DANGERS OF WORKING/TRAVELLING ON SKELETON STEEL

- Hazard of falling from considerable heights, while joining metal components of a building; and/or when the work is done while standing on a ladder or at an elevated surface.
- Being hit by falling objects (falls of heavy loads on the feet or on other parts of the body.
- Eye injury, because of flying metal splinters, while working with a chisel and hammer, or when doing sharpening, cutting, or welding works.
- Back and spinal column injury caused by lifting and moving heavy loads.
- Exposure to very high noise levels.
- Electrocution, because of touching live electric wires, or while working with portable power tools the isolation of which is defective.

COMMON CAUSES OF SKELETON STEEL ACCIDENTS

1. Structural collapses that occur while workers are connecting joists or building trusses. The bulk of these accidents occur because workers disconnect the crane from the steel member before it’s secured in place.
2. Collapses that happen when workers are landing or placing a load. These happen mainly when workers place the loads on unsecured or un-bridged joists.
3. Workers that fall after being struck by objects. Many workers get struck when they’re landing a load or connecting a structural member. Sometimes a tool slips or a piece of decking gets blown off of a pile and if sufficient fall protection is not provided or utilized, the worker suffers a fatal fall.

4. Unsecured or unstable decking that slips out of place when a worker steps onto it. When that worker doesn’t have or doesn’t use proper fall protection gear, a fatal fall can result.
5. A worker fails to use fall protection gear or fails to use it correctly. In these cases, the worker might be wearing a safety belt and even have rigged the lifelines, but the rigging was done improperly.
6. Slipping or falling while walking or standing on structural beams or joists without proper fall protection gear.
7. Workers not tied off at workstations during plumbing, bolting, welding, or cutting operations.

HOW TO PROTECT YOURSELF

SAFETY PRECAUTIONS FOR SKELETON STEEL WORKERS

- Follow the regulations outlined by ’s fall protection program and use fall protection equipment correctly every time you work at dangerous heights.
- Before getting off the ground, make sure you have the correct anchoring and positioning equipment available.
- Inspect your fall protection gear before using it each day, and do not use materials beyond the manufacturer’s recommendations for the life of the product.
- Never try and hoist materials or loads without the proper training. Once trained, ensure that the load is properly secured before attempting to move it.
- Do not attempt to operate a hoist if it is unsafe to do so. If loads shift, if lifting power is lost or if a cable snaps, you run the risk of a crush injury or even death.
- When moving loads, do so slowly and watch out for potential obstacles.
- Be aware of the danger for vibration injuries from power tools in your work. If you experience tingling and numbness in your hands, you may be suffering an injury that could become worse without medical attention. To reduce your risks, use low-vibration tools, wear protective gloves, and hold tools with a light grip.
- Take short breaks every 30 minutes to give your body a rest and time to rejuvenate between tasks, especially when lifting particularly heavy loads or engaging in other draining tasks.
- Protect against falling objects by securing materials to loading equipment before removing support cables. Use tool lanyards in case you accidentally drop tools from heights.
- To protect yourself from falling objects, always wear a hard hat and remember that even light objects falling from great heights can cause serious damage.
- In addition to a hard hat, wear all other required personal protective equipment (PPE) in its intended manor, including safety shoes, glasses, work gloves and a life jacket when working over water. Wear hearing protection (ear plugs or muffs) to protect your ears against damaging noises on the site.

SKELETON STEEL WORKER SAFETY TAKEAWAYS

1. **WEAR GLOVES.** When loading steel channel onto or into a vehicle, moving it around the project site or installing it, you should always wear a good set of leather work gloves.

2. **WEAR STEEL-TOE BOOTS.** Steel can be extremely heavy and cumbersome, and it is not uncommon to drop a piece while lifting, moving or installing it. A good set of steel-toe work boots can protect your toes from harm.
3. **USE EYE PROTECTION.** Wear safety goggles and wear safety glasses with good coverage when handling or moving metals when welding or using a torch.
4. **WEAR EAR PROTECTION.** When cutting steel use ear protection (such as ear plugs) to prevent damage.
5. **USE WELDING GLOVES.** Wear welding gloves and fire-resistant clothing as a full mask when welding.
6. **WEAR A RESPIRATOR**. Use a full respirator when welding or using the torch.
7. **CHECK THE GROUND.** When welding, always make sure that you have a good ground connection.
8. **KEEP A FIRE EXTINGUISHER HANDY.** Welding, cutting, grinding or using a torch on steel or other metals will produce extremely hot sparks. Keep a fire extinguisher handy in case of emergencies.

FINAL WORD

Simple steps can increase your safety and avoid serious injuries while working with steel channel and other metals. While some of these steps may seem cumbersome or inconvenient, trips to a doctor or a hospital will likely be a far greater inconvenience and can be quite expensive.