

Struck-by Vehicle Hazards

Picture this scenario: A contractor is operating a backhoe when an employee attempts to walk between the swinging superstructure of the backhoe and a concrete wall. As the employee approaches from the operator's blind side, the superstructure hits the employee and crushes him against the wall.

You Are at Risk

The above situation can occur if you are not constantly alert on the job site. The Occupational Safety and Health Administration (OSHA) offers some ways in which you can reduce your risk of being struck while on the job:

- Always wear a safety belt when operating equipment, except when the vehicle does not have a rollover protection structure (ROPS) or when it is designed for standup operation only.
- Check vehicles before each shift to ensure that all parts and accessories are in safe working condition.
- Do not drive vehicles in reverse when you have an obstructed view unless a co-worker signals that the path is clear.
- Make sure that you and all other personnel are out of the way before using dumping or lifting devices.
- Lower or block bulldozer and scraper blades, end-loader buckets and dump bodies when they are not in use, and leave all controls in the neutral position.

- Set the parking brake when vehicles are parked and chock the wheels if they are on an incline.
- Never exceed a vehicle's rated load or lift capacity.
- Wear reflective clothing to get motorists' attention on construction sites.
 - To avoid getting struck by inattentive motorists, use traffic signs, barricades or flaggers to divert traffic.
- Never transport your co-workers unless there is a safe place to ride.
- Cranes, power shovels, loaders and other equipment that loads haulage vehicles must be equipped with a cap shield or canopy to protect the driver from falling materials.

Keep a constant lookout while you are working. By not fully knowing your surroundings, you are running the risk of being struck by a vehicle or piece of equipment.



This Safety Matters flyer is for general informational purposes only, and is not intended as medical or legal advice. © 2017-2011, 2014 Zywave, Inc. All rights reserved.



Reduce Your Risk of Back Injuries

Helpful tips for lifting properly at the site

Construction tasks require constantly working around heavy objects, machinery and many other situations that can cause serious injury. And lower back injuries caused by lifting heavy objects are one of the most common work-related injuries in the construction industry. Follow these simple guidelines to ensure that you're lifting properly.

Proper Lifting Techniques

- Wear gloves if you are lifting rough equipment.
- Clear away any potential obstacles before beginning to carry an object.
- Get a good grip and good footing.
 Use your hands, not your fingers, to
 grip the load, and position your feet
 so that one foot is next to the load
 and one is behind it.
- Get under the load by bending your knees, not your back. This is the most important lifting technique to remember, as bending over at the waist to reach for the object puts strain on your back, shoulder and neck muscles, and can cause serious injury.
- Keep the load close to your body.
- Never twist your body when you are lifting. Turn your entire body by using your feet.
- Do not lift above the shoulders or below waist level.

Size up the Load

Before lifting an object, check its weight. Decide if you can handle it alone or if you need assistance. When in doubt, ask for help. Moving an object that is too heavy or bulky can cause severe injury. Generally, most men should not lift more than 37 pounds, and most women should not lift more than 28 pounds. If a particular load is heavier than you can handle:

- · Get someone to help.
- Break it down into smaller loads if possible.
- Use lifts or other equipment as aids.
 These tools were made for heavy lifting.

Lifting as a Team

When others are helping you lift, teamwork is very important. If you're going to be carrying the load to another point, both of you should coordinate this prior to lifting the object. Check the route and clearance. One worker needs to be in a position to observe and direct the other. Lifting and lowering should be done in unison. Don't let the load drop suddenly without warning your partner.

Get Fit!

People who are in poor physical condition are at greater risk for back problems. A conditioning program that includes aerobics, weight training and stretching exercises will help you prepare your body for the rigors of lifting. If lifting is a regular part of your job, you may also want to consider wearing a back belt for added support.



Listen to Your Body

If you start to experience any back pain from a specific task, listen to your body. Ignoring even minor back pain can lead to more serious injuries. Ask your supervisor if you can trade tasks with another worker until the pain subsides.

This flyer is for informational purposes only and is not intended as medical or legal advice.

© 2010 Zywave, Inc. All rights reserved.



FLOOR OR WALL OPENINGS

Stairway Openings: Standard railings will be provided on all exposed sides except at the stairway entrance.

Stairway Railings and Guards: Every flight of stairs having **four or more** risers (steps) will be equipped with a standard stair railing as described below:

- On stairways less than 44 inches wide with both sides enclosed, at least one handrail on the right side descending;
- On stairways less than 44 inches wide having one side open, at least one stair railing on the open side;
- On stairways less than 44 inches wide but with both sides open, one stair railing on each side;
- On stairways more than 44 inches wide but less than 88 inches wide, one handrail on each enclosed side, one stair railing on each open side; and
- On stairways 88 inches or more wide, one handrail on each enclosed side, one stair railing on each open side and one intermediate stair railing located approximately midway of the width.

Stairway Railing and Handrail Specifications: The following provides guidance on how all railings and handrails will be constructed. When purchasing equipment, these requirements must be followed:

- A stair railing system must be of similar construction to a guardrail system except that the vertical height may not be more than 34 inches or less than 30 inches from the upper surface of the top rail to the surface of the tread; and
- The height of the handrails may not be more than 34 inches nor less than 30 inches from upper surface of the handrail to surface of the tread, with a clearance of not less than 3 inches between the handrail and wall.

Fixed Industrial Stairs: All fixed industrial stairs, purchased or installed, must meet the following requirements:

- Fixed stairs will be provided for access from one level to another where operations necessitate normal travel between levels and for access to operating platforms for any equipment that requires routine attention;
- Fixed stairs must be capable of carrying a load five times the normal live load anticipated with a minimum ability to safely carry a moving, concentrated load of 1.000 pounds:
- Fixed stairs must have a minimum width of 22 inches;
- Fixed stairs will be installed at angles to the horizontal of 30 to 50 degrees. Any uniform combination of tread width and rise height shall be in accordance with the chart in Appendix B. When pre-fabricated stairs are ordered, these requirements must be specified. Note: Appendix B contains the same requirements as outlined in the OSHA standard for fixed industrial stairs (29 CFR 1910.24(e) Table D-1);
- All stair treads must be slip-resistant;
- Stairway platforms may be no less than the width of the stairway and a minimum of 30 inches in length, measured in the direction of travel;
- Standard railings must be provided on the open sides of all exposed stairways and platforms, and handrails must be provided on at least one side of closed stairways;
 and
- The vertical clearance above any stair tread to an overhead obstruction must be at least 7 feet, measured from the leading edge of the tread.

Floor Opening or Hole: Every floor opening or hole must be guarded by either a railing system with toe boards along all exposed sides or a load-bearing cover. When the cover is not in place, the roof, floor opening or hole must be protected by a removable guard railing.

Protection of Wall Openings/Holes: Every wall opening from which there is a drop of more

than four feet will be guarded by a railing system. Where there is a potential of exposure to falling objects, a removable toe board will be provided.



Steel Work Safety Precautions

Hazard protection for structural iron and steel workers

Working at heights and handling heavy materials can leave you exposed to many dangers on the job site. Add in heavy machinery and electrical dangers, and steel contractors have one of the most hazardous jobs in any industry.

To reduce your risk of accidents while on the job, never take safety for granted, and keep the following tips in mind during your day-to-day activity.

- Follow the regulations outlined by 's fall protection program and use fall protection equipment correctly every time you work at dangerous heights as defined by the Occupational Safety and Health Administration (OSHA).
- 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 and every 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, lifting power is lost or 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 them while above the ground.
- 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 manner, 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.



Protect Your Body

Since you are exposed to the outdoor elements, proper protection is vital. Dress appropriately for the season, and alert your supervisor if you do not feel well because of extreme outdoor temperatures.

This flyer is for informational purposes only and is not intended as medical or legal advice.

© 2009-2010 Zywave, Inc. All rights reserved.

