

# TerranearPMC Safety Share

Robert Brounstein

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Yellow Iron: a term used to describe various types of heavy equipment found in construction. Typical yellow iron includes earth moving equipment, quarrying equipment, and fork lift trucks. The term is also used to describe agricultural equipment, such as tractors. Using heavy equipment can be challenging as their operation is associated with numerous safety considerations. When workers regularly operate heavy equipment and machinery, inherently, their tasks have an increased level of risk.

One of the major keys to effective construction safety is effective communications between heavy equipment operators and those working around them. And when operators and nearby persons get “comfortable” when working around each other, that’s when complacency can set in. The result can be operators and other crew members making assumptions as to determining what the operator movement will be: and that’s a recipe for disaster.

A two-way radio can be very useful to establish communication between operators and nearby workers. Verbatim compliance to procedures as well as maintaining visual communication - like ensuring you make eye contact before moving or giving a simple all-clear hand signal - are important. This can easily be reinforced through toolbox or tailgate meetings where improved communications can be discussed before the beginning of each shift and directly addressing problems witnessed on site.

Operating heavy equipment is often stressful, even for an experienced operator. It’s important that employees receive the training they require as well as updates to training when necessary—like when a new model of piece of equipment is introduced. Regular safety meetings will ensure that operators are informed of all up-to-date procedures and while being aware of any changes to the equipment or hazards on the job.

It’s also imperative to keep all maintenance and inspection records with the equipment and ensure checks are conducted after every use (and don’t *pencil-whip* these checklists!). Familiarize yourself with applicable regulations on heavy equipment safety and develop a clear and simple system for equipment checks. This involves walking around with a checklist of components to be inspected for good working order. Hydraulic hoses, undercarriage, oil levels, stress points, etc., are all areas that need to be inspected and reported to the maintenance/safety department before machine start-up.

Blind spots are common when operating some heavy machinery. Whenever an operator identifies a situation where there is a risk of reduced visibility, then it is imperative that a spotter is available to safely direct the operator. In addition, all workers should be wearing high-visibility clothing for easy identification. Blind spots are not just the responsibility of the equipment operator. It’s also important to make everyone aware of heavy equipment’s blind spots and the need to give the equipment a lot of space as well as making eye contact before moving around it. Appropriate postings will also help employees to steer clear of potential threats. Reminders such as safety posters can be useful as they can prevent employees from becoming complacent. And to help workers to keep noticing safety posters, they should be replaced every few weeks.



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Heavy equipment operators must be 100 percent sure that no one is behind them or in their blind spots when moving, even if this involves getting out of the machine and checking. If vision is limited, have a spotter stand in a safe, visible position to guide and provide direction. Persons in the immediate area need to be informed of blind spots as well as being required to make eye contact with the operator before coming in the equipment's vicinity. High-visibility vests can help operators readily identify nearby workers.

Falls and stepping on and off equipment are some of the biggest causes of injury. A good rule of thumb is to always maintain three points of contact when getting on or off heavy equipment. Use the three-point rule. This requires three of four points of contact to be maintained with the vehicle at all times: two hands and one foot, or both feet and one hand. If handholds or steps are damaged, replace them; it could prevent a major injury.

Always be sure to be on level ground when loading or unloading your equipment. This greatly reduces the risk of rollovers or sliding off low-bed ramps. When unloading on a busy job site or high traffic area, people in the area need to stand clear of the unloading area. This may require the use of a spotter.

Overhead obstructions such as power lines and low clearances need to be identified and flagged prior to work start-up. In addition, contact with underground utilities such as water, sewer, gas, and electrical lines represent serious consequences. Contacting the appropriate municipal department so that underground utilities are properly marked (with color-coded paint and flags) is an important aspect for controlling risks. And, when leaving holes that workers or the public can fall into, be sure to set up barriers such as snow fencing.

Before any employee performs servicing or maintenance on a machine where unexpected start-up or release of stored energy could occur and cause injury, the machine or energy source must be rendered inoperative: a practice commonly referred to as "Lock-out/Tagout" and is an OSHA requirement per 29 CFR 1910.147. This includes hazards such as pinch points, attachments, and raised loads. Easily identifiable warnings, locks, and tags are to be used to prevent any incidents.

Be aware of the load limits of equipment when operating different machines throughout the day. Depending on the equipment set-up and size, load limits can change drastically. When lifting objects with a machine, make sure that loads are secure with the proper rigging attachments. And always inspect to ensure the materials being transported are in good condition, as items can drop on the work surface and pathways, creating obstructions for other operations. As with most equipment operations, confirm all workers are at a safe distance when lifting and moving loads.

Heavy equipment operators need to be objective when they identify a scenario that doesn't feel right - regardless of instructions. An operator should be ready to get out of the cab and look around when there is a question about working on a slope or around hazards.

Accidents can happen, but by being diligent and recognizing hazards, serious consequences can be prevented. Having regularly scheduled safety meetings, up-to-date procedures, and training will keep hazards controlled. A strong safety culture will also encourage employees to step up and request help if they need it.

**We don't want an America that is closed to the world. What we want is a world that is open to America** - George H. W. Bush

