



Heavy Equipment Hazards in the construction field account for nearly 75% of all “struck-by” accidents. Other accidents involving heavy equipment include vehicles operating unexpectedly, equipment tipping over and crushing workers, workers falling off the equipment, and more.

Signs, Signals, and Barricades

Pay attention to the signs, signals, and barricades present at the construction site. These will alert you to hazards, advise you of safety precautions, and keep you from entering dangerous areas.

General Safety Rules

- Always keep at least 10 feet from power lines or energized transmitters.
- Use care when working on tires.
- Always use safety glass in the cab; it should create no visible distortion.
- Always set the parking brake. If you are on a hill, chock the wheels, too.
- Equipment unattended overnight where others might be driving or working near it must have lights or reflectors or must be surrounded with barricades that include lights or reflectors.
- When holding heavy equipment up in the air, block or crib the equipment so that it cannot fall.
- Fully lower or block bulldozer and scraper blades, end-loader buckets, dump bodies, or similar equipment.

Motor Vehicles

- Many accidents can be prevented with simple, routine safety inspections.
- All riders, including the driver, must wear a seat belt.
- Make sure the rear view is unobstructed or use a signaler or reverse signal alarm.

Vehicles Used to Haul and Dump Materials

- Use a cab shield or canopy.
- Any mechanism for dumping or hoisting should have a latch so it can't be triggered accidentally.
- If the dump body is raised for maintenance or inspection, use a positive means of support to keep it from accidentally lowering.

Earthmoving Equipment

- Required equipment includes seat belts unless designed for operation while standing, a horn or reverse alarm signal (or a spotter) for going in reverse, or a bidirectional alarm if the machine is a bidirectional machine, braking systems that can handle the equipment even when it is fully loaded, ROPS and fenders, and guards on scissor points of front-end loaders.
- Only travel on access roads and grades able to handle the equipment.

Excavating Equipment

When in tractor mode, the operator will sit in a seat and use a seatbelt.

Lifting and Hauling Equipment

The rated capacity must:

- Be clearly posted on the vehicle
- Be clearly visible to the operator

- Not be exceeded.

In addition, lifting and hauling equipment cannot be modified (except with permission from the manufacturer).

Powered Industrial Trucks

- Unauthorized persons are not allowed to ride on powered industrial trucks.
- Authorized passengers must ride in a safe place within the truck.
- If the truck has controls for lifting personnel, a safety platform must be secured to the lifting carriage or forks. The platform should provide protection from falling objects, and there must be a way for people on the platform to shut off the power to the truck.
- Training is required for forklift operators.

Pile-Driving Equipment

- Pile-driving equipment presents many unique hazards to those who work near it. Many of the safety tips for working with pile-driving equipment involve using blocking, guarding, or stabilizing.
- Operators of pile-driving equipment should accept signals only from designated signalers.

Site-Clearing Operations

Often, heavy equipment is used to clear the construction site. This equipment should have rollover guards and overhead and rear canopy guards. In addition, during site-clearing activities:

- Use personal protective equipment (PPE) if irritating or toxic plants are present
- Have someone available who has first aid instruction.

Roll-Overprotective Structures (ROPS)

Whenever there's a risk that a vehicle may tip over or that materials may fall on the operator, the equipment should have a roll-overprotective structure.

ROPS is the most effective when the vehicle includes a seat belt and when the operator uses the seat belt.