

Dangers in loading, unloading heavy equipment

Loading bulldozers and other heavy equipment on and off flatbed trucks and trailers is so common that it's easy not to give it a second's thought. But a recent report on the number of fatalities suffered in performing these tasks should alert workers to give the job at the very least a second thought.

According to data collected between 1992-2003 from the Census of Fatal Occupational Injuries Research File, a U.S. Bureau of Labor Statistics database, an average of nine construction workers were killed each year while loading and unloading mobile equipment from flatbed trucks and trailers. Loading appears to be more dangerous than unloading, as 70 percent of the all deaths occurred while loading mobile equipment. Bulldozers were the piece of equipment most often involved in a fatality.

Of the 63 deaths examined in the survey, the highest number of worker deaths occurred among heavy equipment operators: nine excavator and loader operators, seven grader, dozer and scraper operators, and five miscellaneous equipment operators. This group formed 35 percent of all deaths. The remaining groups to suffer fatalities were managers/administrators, construction laborers, truck drivers, and construction supervisors, all in far less numbers than operators.

The main cause of death was overturns of the equipment while being driven on or off the trailer, which accounted for 75 percent of all fatalities. Most of those deaths – 70 percent – occurred during loading. Twenty percent of workers died from being struck by the mobile equipment or trailer. Less than 10 percent of deaths occurred from having a worker caught between the equipment and trailer.

The report identified several reasons that fatalities happened. Parking the trailer on a slope or unstable ground and using a trailer or ramp that was too small for the mobile equipment were contributing factors to many of the deaths.

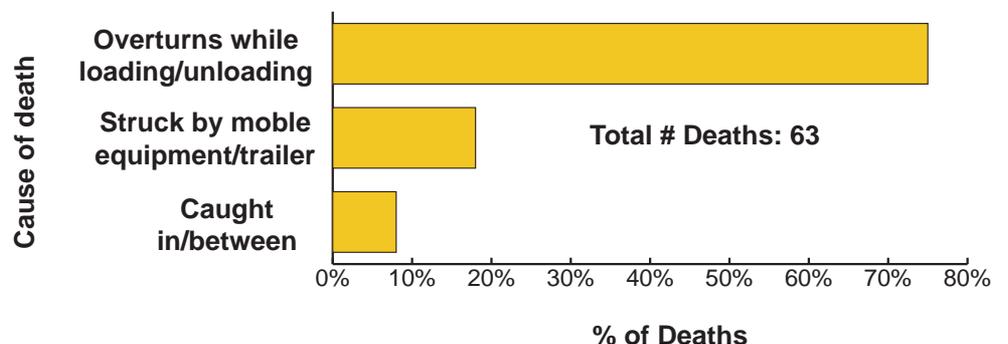
Of all the types of heavy equipment being loaded or unloaded, 40 percent involved bulldozers. Front-end loaders were identified in 16 percent of deaths, as were backhoes and other excavating equipment.

Taking precautionary safety measures

1. Have the flatbed truck or trailer parked on level, stable ground.
2. Make sure the trailer and ramp is wide enough for the mobile equipment being loaded.
3. Make sure the trailer ramp is long enough to avoid steep angles when loading or unloading the equipment.
4. The mobile equipment operator should be experienced in operating the equipment being loaded or unloaded, and should be trained in how to safely load or unload the equipment off trailers.
5. Workers on foot around equipment being loaded and unloaded should be alert to the movement of both the equipment being loaded or unloaded.
6. Have a spotter to provide directions to the operator in positioning the equipment while loading/unloading.
7. The flatbed truck should have brakes set and motor turned off.



Figure 1. Causes of construction worker deaths while loading and unloading mobile equipment, 1992-2003.



Source: U.S. Bureau of Labor Statistics CFOI Research File