SOME WORKPLACE INJURIES ARE MORE SERIOUS THAN OTHERS, BUT THAT DOESN'T MEAN MITIGATING THEM HAS TO BE MORE COMPLICATED.

According to the Bureau of Labor Statistics, there are roughly 150,000 injuries each year on construction sites. Many of these injuries can be avoided through more effective planning, communication, and training.

Struck-by incidents account for nearly 20% of all construction fatalities. These incidents include workers being backed over or

internal and external mirrors. These blind spots can vary with each make and model and are also affected by attachments being used and loads being carried. Larger equipment has larger blind spots.

Equipment operators have an appreciation for this, but workers on the ground often do not recognize the specifc locations of equipment blind spots. Each worker should know where the safe zones and no-go zones are for each piece of equipment onsite. New technologies are being introduced to manage this risk, such as cameras and proximity sensors. However, these technologies have challenges and limitations due to mounting positions, operating environment, and detection sensitivity.

TRAIN, TRAIN, TRAIN

It should be noted that while these technologies are useful, they do not replace the need for worker training. Greater communication is required between equipment operators and workers on the ground in identifying blind spots for each piece of equipment onsite.

Workers on the ground should not only understand where blind spots exist but also the equipment swing paths and the importance of staying out from under overhead loads. Contractors should also establish safe procedures for approaching heavy equipment that is in use. The most important action is to make eye contact with the operator and signal your intent to approach them.

Many accidents have happened because an equipment operator was unaware that a worker was behind them or beside them. Equipment operators should also make it safe for workers to approach by positioning the equipment so workers can safely climb steps or ladders to access the cab, lowering any attachments, and placing the machine in neutral/park and setting the brake.

SOUND IT OUT

Communication between workers is also affected by noise levels and distance from one another. In these situations, hand signals are often used to communicate. Workers should use standard hand signals as each signal is designed to be clear and distinctly different from other signals to avoid confusion. Where an operator's view is obstructed, workers may utilize two-way radios. Procedures should also be established for effective communication as it relates to equipment function, direction, speed, distance, and what to do when communication is lost or unclear.

Equipment and vehicle spotters should be required when backing vehicles with obstructed rear view and no back-up alarm, operating equipment in congested areas, or in areas with poor visibility. Operators, drivers, and spotters must be aware of their responsibilities when backing equipment to avoid incidents. They should inspect the travel area for obstructions and other obstacles, agree on hand signals, and discuss the vehicle movement plan.

It is critical that spotters have no other duties and remain visible to the operator while backing. Drivers or operators should stop the vehicle immediately upon losing sight of the spotter or if the spotter's signals are unclear.

Worker and operator distractions may also contribute to struck-by incidents on a construction site. Rules should be developed to minimize distractions that lead to better recognition and improved communication. Common distractions include or involve wearing earbuds, headphones, or other types of headsets that interfere with the user's ability to hear warnings or other sounds that may alert them to danger.

Operators should be prohibited from wearing earbuds, headphones, or headsets while operating equipment unless specifcally used for signal communications. The use of cellphones by other workers should be limited to designated areas where hazards are well controlled.

As we've discussed, the frequency of struck-by injuries and fatalities involving construction equipment have been consistent for many years. Traditional controls involving personal protective equipment, back-up alarms, and

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