

Safety Toolbox Talks

BACKING UP

Reversing vehicles and equipment on construction projects poses a serious problem for Brieser personnel on foot.

Fatal accidents resulting from workers being backed over by dump trucks and other equipment occur all too frequently.

Anyone on foot in the vicinity of reversing vehicles and equipment is at risk. More than 20 deaths have occurred on construction sites over a 10 year period as a result of reversing vehicles.

BLIND SPOTS

The main problem with reversing vehicles and equipment is the driver or operator's restricted view.

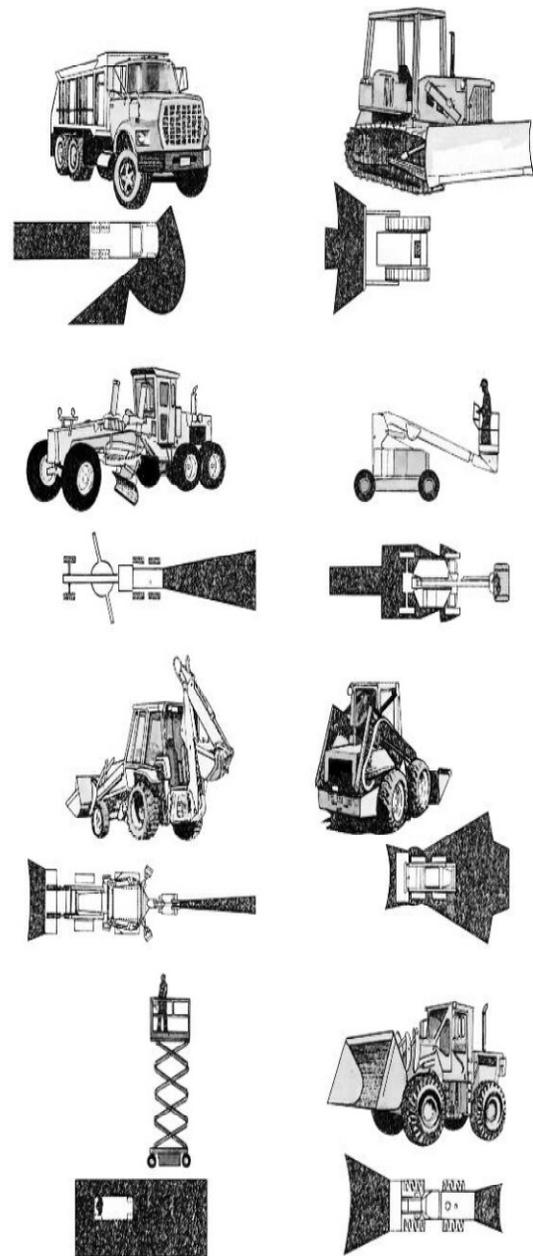
Around dump trucks and heavy equipment such as bulldozers and graders there are blind spots where the operator has no view or only a very limited view.

The operator may not see someone standing in these blind spots. Anyone kneeling or bending over in these Areas would be even harder to see.

Consequently the driver or operator must rely on mirrors or signalers to backup without running over someone or into something. **(Figure 1)** shows

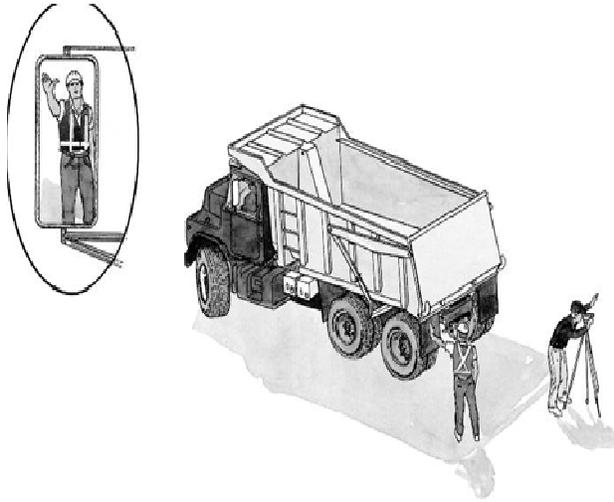
the blind spot for common types of construction equipment. (Figure 1 – Dark Areas Indicate Operator Blind Spots)

Dump trucks and cranes are the kinds of equipment that hit overhead power lines most often. Beware of power line contact whenever a crane, dump truck, or other vehicle is going to be operated near an overhead electrical conductor. If equipment operates within reach of the minimum permitted distance from an overhead power line, the constructor is required to have written procedures in place to prevent the equipment from encroaching on the minimum distance.



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SIGNALLERS



(Figure 2)

On some projects, you cannot avoid having reversing vehicles or equipment on site. Often, they must share an area with other vehicles and operating equipment-as well as workers on foot.

You must have a signaler or spotter when:

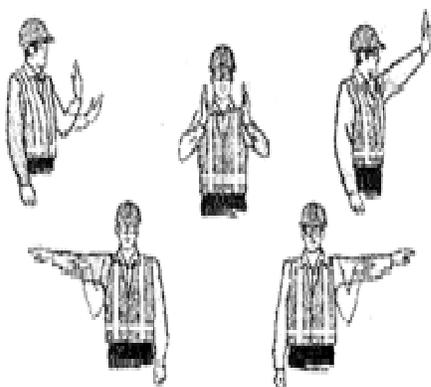
- a. A vehicle or equipment operator's view of the intended path of travel is obstructed.
- b. A person could be endangered by the operation of the vehicle equipment, or by its load.
- c. Any part of the equipment could encroach on the minimum distance to an overhead power line.

A signaler must be a competent worker and must not have any other duties to fulfill while acting as a signaler.

Before a worker can act as a signaler, Brieser Safety Department must ensure that the worker has been given adequate oral and written instruction in a language that he or she understands.

The signaler must wear a garment-usually a nylon vest that is fluorescent or bright orange, with 2 vertical 5 – centimeter-wide yellow stripes on the front and 2 similar stripes forming a diagonal “X” pattern on the back. These stripes must be retro reflective and fluorescent. Vest should be adjustable fit and have a front and side tear away feature.

(Figure 3-Change Direction)



If our signaler has to work during the night, He or she must wear retro-reflective silver stripes around each arm and leg. Brieser's spotter/signaler must maintain clear view of the path that the truck, load or machine will be traveling and must be able to watch those paths of the vehicle, equipment or load that the operator cannot see. The spotter must maintain clear and continuous visual contact with the operator at all times while the vehicle or equipment is moving (**See Top Left Figure-2**) and be able to communicate with the operator using clearly

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understood hand signals. He/she must warn other workers on foot of the approaching vehicle or equipment and must alert the operator to any hazards along the route.



(Figure 4 – This illustration shows how some personnel on foot are visible to the driver while others are not. The driver cannot see the dark figure because they are passing through blind spots at the front and rear of the truck.)

TRAINING

Instruction for our drivers, operators, signalers and workers on foot is essential to reduce the hazards created by reversing our vehicles and equipment>

For example, all construction personnel must be made familiar with blind spots – the areas around every vehicle that are partly or completely invisible to the operator or driver, even with the help of mirrors (Figure 1).

This specific training can then focus on the following points.

WORKERS ON FOOT

- Know how to work safely around trucks and equipment.
- Understand the effects on blind spots (**Figure 4**).
- Avoid entering or standing in blind spots.
- Make eye contact with the driver or operator **before** approaching equipment.
- Signal intentions to the driver or operator.
- When possible, use separate access rather than vehicle ramps to enter or exit the sites.
- Avoid standing and talking near vehicle paths, grading operations, and other activities where heavy equipment is moving back and forth.

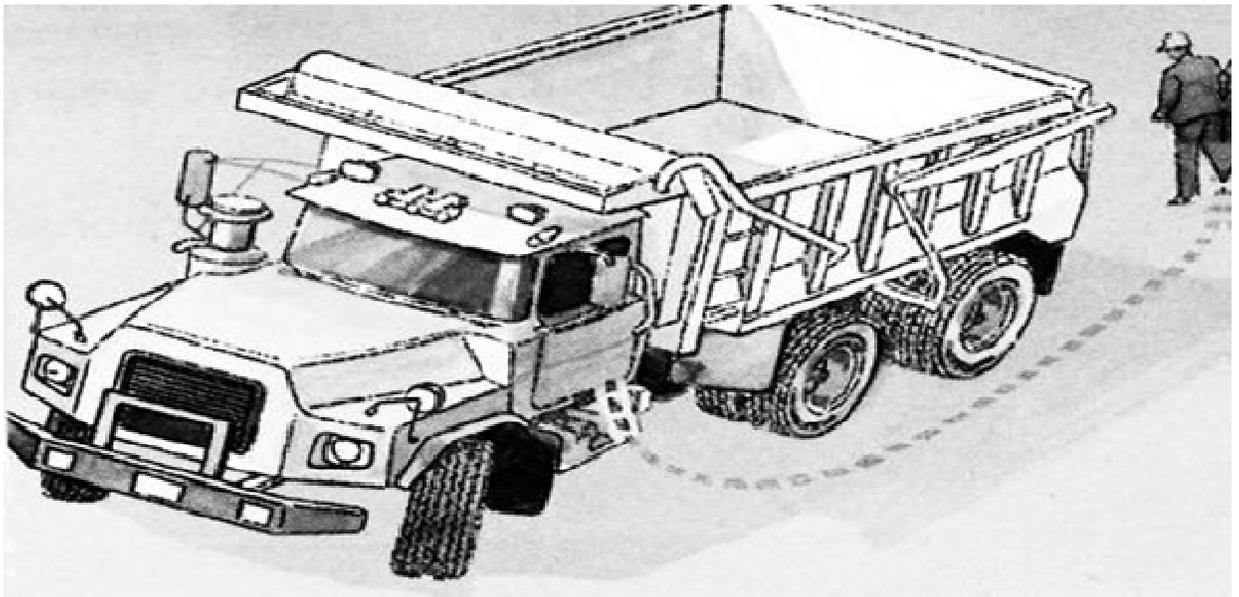
DRIVER & OPERATORS

- Always obey the signaler and spotter. If we have more than 1 person signaling, stop your vehicle and determine which one to obey.

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- If possible, remain in the cab area where other equipment is likely to be backing up.
- Make sure that all mirrors are in tack, functional, and properly adjusted for the best view.
- Blow your horn twice before backing up.
- When no spotter is present, get out and quickly walk around your vehicle. If the way is clear, back up at once (**Figure 5**).
- Stop the vehicle when a spotter, worker, or anyone else disappears from view.

(Figure 5)



SIGNALLERS

- Stay alert to recognize and deal with dangerous situations.
- Know and use the standard signals for on-site traffic (Figure 3).
- Wear a reflective fluorescent or brite orange vest and a bright hard hat for high visibility.
- Use a signal device such as a bullhorn in congested excavation areas.
- Understand the maneuvering limitations of vehicles and equipment.
- Know driver and operator blind spots.
- Stand where you can see and be seen by the driver/operator.
- Make eye contact with the driver/operator before signaling or changing location.

It would be great if all workers were looking after their own safety. But you can't take it for granted that everyone else is on the lookout. When you are behind the wheel of several tons of heavy machinery, you have the responsibility to use that power carefully and safely to prevent accidents. **REMEMBER** never assume that the path is clear behind you, unless you or your guide can actually see it.

