

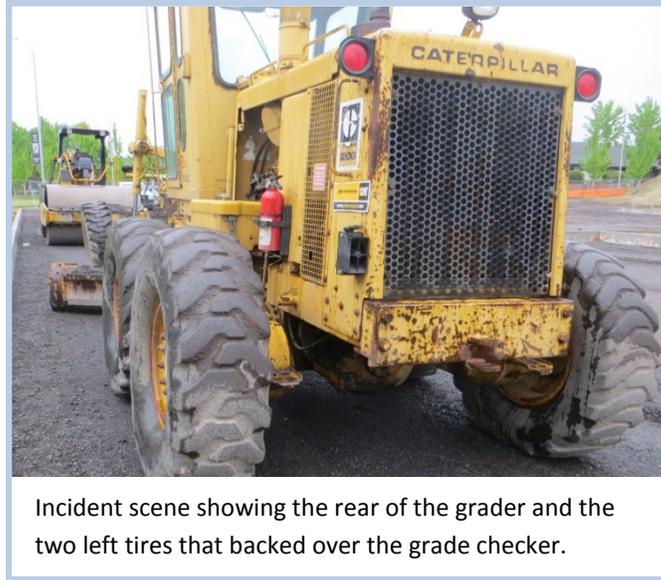
INJURY NARRATIVE

Grade Checker Severely Injured When Backed Over by Grader

Industry: Excavation and Grading Contractor
Task: Attempting to replace feathers on a hub
Occupation: Grade checker
Type of Incident: Run over by equipment

Incident Date: May 11, 2015
Release Date: November 25, 2015
SHARP Report No.: 71-142-2015

In May 2015, a 38-year-old grade checker suffered multiple serious injuries when a motor grader backed over him. He had worked for the employer, a construction contractor that does excavation and grading work, for about 10 years. The employer had been contracted to build a parking lot. On the day of the incident, the grade checker was working at the job site along with the operator of a Caterpillar motor grader 120G. The operator was using



the grader to level gravel for the parking lot surface. The grade checker – wearing a high-visibility vest, hard hat and ear plugs – was performing his normal job duties. These duties included ensuring that the grade of the parking lot was correct. As he was cleaning gravel off a curb, he noticed that a grade hub, a stake in the ground used as a visual marker for the grader operator after gravel has been poured, was missing its strips of plastic known as feathers. He started walking toward the hub, which was located behind the grader, to replace the feathers. The grader which had been moving forward stopped and then began backing up. The operator checked his mirrors as he backed up. He did not see the grade checker who was

approaching the grader from its left rear. As the grader and grade checker moved towards each other, the grade checker stopped at the hub and knelt down. When he knelt down, he was in a blind spot of the grader's mirrors; the operator was unable to see him. The grade checker was so focused on his task that he did not notice the grader. The grader's two left tires then ran over the left side of his body. He suffered multiple serious injuries. An investigation found that the grader's back-up alarm was working. The employer was not cited for any safety violations.

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Requirements

- Employers must make sure that earthmoving or compacting equipment with an obstructed view to the rear in reverse is not operated unless:
 - A reverse signal alarm distinguishable from the surrounding noise level is used; or
 - An observer signals that it is safe to back up.

If the surrounding noise level is of such amplitude that reverse signal alarms are not effective, then amber strobe lights must be used.

See [WAC 296-155-615\(1\)\(g\)](#).

Recommendations

- Develop, implement, and enforce standard operating procedures that address worker safety and minimize work to be performed near vehicles and equipment.
- Develop, implement, and test methods of communication between equipment operators and workers on foot.
- Consider installation of collision avoidance or proximity warning systems (radar and sonar devices, or tag based systems that use personal electronic tags to detect a marker field generated by a transmitter on the vehicle) or monitoring technologies (video cameras and additional mirrors) on construction vehicles and equipment to increase the likelihood that equipment operators will detect workers on foot around their equipment.

Resources

Preventing Backovers
<https://www.osha.gov/doc/topics/backover/>

This narrative was developed to alert employers and employees of a serious traumatic injury to a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the injury.

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