Working around heavy equipment toolbox talk

29 CFR 1926.602, 1926.651, 1926.600, 1926.20, 1926.601

Date _____ Trainer _____ Location _____

Opening question

Where are the blind spots on the machines working on this site today, and could you point to them right now?

Why it matters

Heavy equipment is big, loud and hard to see around. Operators deal with blind spots, mirrors, dust and noise, and a backing loader or a swinging excavator can hit someone who is busy with their own work nearby. Operators and people on foot share the same ground, so both sides have to follow the same simple rules to stay out of each other's way.

Key points

1. **Make eye contact before you get close**
   If you cannot see the operator's eyes, assume the operator cannot see you. Before you walk near a machine, get the operator's attention, make eye contact and wait for a clear signal that they know where you are. Never walk behind or beside a moving machine, and never stand in a spot you could not get out of if it moved.

2. **Backing needs an alarm or a spotter**
   Loaders, dozers, rollers and other earthmoving or compacting machines often have an obstructed view to the rear. When they do, they may not be used in reverse unless a reverse signal alarm is working and stands out from the surrounding noise, or an employee signals that it is safe. Treat every backup alarm as a warning meant for you. If you are the spotter, stay where the operator can see you, use the signals you agreed on, and never walk backward in the machine's path.
   29 CFR 1926.602(a)(9)(ii)

3. **Stay out of the swing zone**
   Excavators and cranes rotate, and the back end can pin you against a wall, a truck or another machine. Stay outside the swing radius unless the operator knows you are there and has stopped. On excavation work, no employee may be underneath loads handled by lifting or digging equipment, and workers must stand away from any vehicle being loaded or unloaded.
   29 CFR 1926.651(e)

ToolboxKits by ALC Media LLC. Not affiliated with OSHA or the U.S. Department of Labor. Not legal advice.

4 **Lower it or block it**

When a machine is being repaired or is not in use, blades, buckets and dump bodies must be fully lowered or blocked. The controls go in neutral, with the motor stopped and the brakes set, unless the work requires otherwise. Never work under or between machinery or parts held up by slings, hoists or jacks until they are substantially blocked or cribbed. A raised bucket or bed is never a safe roof.

29 CFR 1926.600(a)(3)(i)

5 **Look up for power lines**

Booms, buckets and raised dump beds can reach overhead lines. Treat every overhead wire as energized unless the line owner or the electric utility says it is not and it has been visibly grounded. Find the lines before work starts, and use a spotter whenever the operator cannot easily judge the clearance.

29 CFR 1926.600(a)(6)(vi)

6 **Only qualified operators, and check before you start**

The employer may permit only employees qualified by training or experience to operate equipment and machinery. If you have not been trained on a machine, do not start it, even just to move it. Operators should walk around the machine before starting, check that the horn and backup alarm work, and buckle the seat belt.

29 CFR 1926.20(b)(4)

Scenario

Picture this: A loader is backing up to dump a bucket of gravel. Its backup alarm quit yesterday, but the job is almost done, so nobody reported it. A laborer is setting grade stakes behind the loader with his back to it, and a compactor running nearby drowns out other sounds. The operator checks one mirror, sees only dust, and keeps backing. What should the operator, the laborer and the foreman have done differently?

Crew discussion

1. Which machines on this site have the biggest blind spots, and where are they?
2. What hand signals do we use with operators, and who is the spotter today?
3. What do you do if a backup alarm or horn is not working?
4. Where are the overhead power lines on this site?

Bottom line **Make eye contact before you get close, stay out of blind spots and swing zones, and never work under anything raised that is not blocked.**

Free to share and adapt for non-commercial use under the CC BY-NC-SA 4.0 license (creativecommons.org/licenses/by-nc-sa/4.0). Credit: ToolboxKits, toolboxkits.com/topics/heavy-equipment/

Sign-in sheet / Hoja de asistencia

Topic / Tema: Working around heavy equipment / Trabajo cerca de maquinaria pesada

Date / Fecha: _____

Trainer / Instructor: _____ Location / Lugar: _____ Company / Empresa: _____

#	Name Nombre	Signature Firma	Company Empresa	Date Fecha
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Trainer signature / Firma del instructor: _____ Time / Hora: _____

ToolboxKits by ALC Media LLC. Not affiliated with OSHA or the U.S. Department of Labor. Not legal advice.