Wood Chipper Safety Meeting Kit

WHAT’S AT STAKE

A woodchipper, as its name implies, is a machine that transforms tree limbs, branches, and trunks into chips. A powerful engine turns a rotating drum set with blades or “knives” that cut the wood. The combination of speed and torque allows commercial woodchippers to pull in branches at 20 inches per second. As an operator manually pushes brush and tree limbs through the infeed chute or hopper collar into the hopper, the feed mechanism and drum blades grab anything within reach.

WHAT’S THE DANGER

DANGERS OF WOODCHIPPER MACHINES

- Two-thirds of woodchipper-related fatalities occur when workers get caught and crushed by the chipper feed mechanism and/or get pulled into the cutting knives. Some of the ways this happens include a worker getting entangled in tree branches, trying to push short branches and debris into the hopper, or clearing jams when the machine is still operating.
- The remaining one-third of chipper fatalities occur when workers get struck by chipper hood guards, which can fly off forcefully if they are opened or closed while the chipper knives are rotating. It’s important to remember that the machine’s knives should come to a complete stop before anyone opens the chipper hood.
- In addition to the fatality causes, injuries can result from flying wood chips and the noise generated by the machine.

COMMON INJURIES CAUSED BY DEFECTIVE WOOD CHIPPERS

- Injuries to the eyes or face. This occurs when debris passes through or past a defective safety guard. These injuries can be devastating, resulting in permanent disfigurement or

blindness.

- Loss of limb or digits. Woodchipper defects can result in the loss of an arm or leg, or one or more fingers when the victim’s hand is caught in the device.
- Traumatic brain injuries. If the chipper launches debris at a high velocity and the worker is struck in the head, it may cause long term and permanent brain damage. Sometimes it can take time for symptoms of a traumatic brain injury to surface and by this time, the damage is usually irreversible.
- Emotional anguish. The nature of these injuries is often so severe that survivors suffer mental and emotional suffering long after the events have occurred.
- Lacerations. Deep lacerations suffered from woodchipper accidents can be very serious. In addition to the need for immediate medical attention, these wounds can become infected by the bacteria commonly found in the wood and debris that has been processed.

HOW TO PROTECT YOURSELF

HOW WORKERS AVOID INJURY WHEN USING A WOODCHIPPER

Before use, inspect the chipper hood for missing pins or cracked, worn hinges. Ensure the hood is properly latched closed and completely covers the knives. Start the chipper at the lowest speed and listen for sounds of loose or broken parts.

Keep the work area around the woodchipper machine clear and free from tripping hazards to avoid falls into the hopper. Rake up small debris like twigs and leaves and place them directly into the trailer or a bag for disposal. Follow the chipper manufacturer’s recommendations for the safest position to stand when feeding limbs into the hopper. Other steps include:

- Feed the trunk or “butt end” of branches into the hopper first.
- Lay short branches on top of longer branches or use a long branch to push materials into the hopper.

- Avoid reaching into the feed area to push small debris into the hopper. Once the feed mechanism has grabbed the materials, let go and allow the feed mechanism to draw the materials into the cutting knives.

BEST PRACTICES FOR WORKERS TO STAY SAFE

1. **Wear the right safety gear.** Anyone working near a wood chipper should wear eye and hearing protection, close-fitting clothing and a hard hat or helmet. Wear pants and gloves that don't have cuffs. Steel-toed work boots with skid-resistant soles can prevent slips near the infeed chute and protect your feet. Leave the jewelry and anything dangly at home. If you have long hair or a beard, tie it up or tuck it away.
2. **Know the machine.** Before using a wood chipper, read the operating manual. Familiarize yourself with the machine, its safety controls and proper start-up and shut-down procedures. Know how to stop or reverse the machine in case of an emergency before you turn it on.
3. **Inspect it before each use or at the start of each shift.** The disc hood should be closed and latched. Check the infeed chute for foreign objects. Make sure bolts and pins are tight. Inspect the knives for wear or damage. Running the chipper with worn or damaged knives can cause the feed to clog and eventually kick debris back through the infeed chute.
4. **Check the guards.** Make sure they're not missing. Many chipper accident reports cite the absence of guards or malfunctioning safety devices. OSHA's general machine guarding standard requires that chippers have one or more guards to protect workers from rotating parts and flying debris.
5. **Point the discharge chute away from people and traffic.**
6. **Designate someone to stand near the emergency shut-off switch when the machine is in operation.** A worker caught in a commercial wood chipper can't reach a safety device. Never work alone with a wood chipper.
7. **Check tree debris before feeding it into the chipper to make**

sure it doesn’t contain foreign objects. Never throw other materials into the machine.

8. **Stay free and clear as you feed.** OSHA recommends standing to the side of the infeed chute, pushing materials in with a wooden push tool or long branch, feeding branches in butt-end first and placing shorter branches on top of longer ones.
9. **Limit the size of the pieces you insert.** Don’t feed the machine material that’s larger than it’s rated for. Industrial chippers are capable of cutting wood from 6 inches in diameter to 12 inches in diameter, so study your worksite before choosing your machine. Put small debris in the trash, not in the chipper.
10. **Immobilize the disc or roller.** Do this before clearing a chute or changing the chipper blades.

FINAL WORD

Woodchippers have the ability to turn large tree limbs into small chips is truly impressive. But accidents are common. The pull of a chipper can cause serious injury and even death. Woodchipper safety best practices can help you keep all your fingers and limbs intact.