

# Power Equipment Safety

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Accidents involving power equipment are all too common with landscapers. These injuries are often debilitating and expensive. Preventing these is no easy task, but having proactive safety program policies and procedures in place will reduce the frequency of these accidents.



Here, you can see the chains and sprockets are properly guarded, yet the spinner shaft shield on the mower head is broken and is no longer protecting workers from entanglement.  
*Photo by Jary Winstead.*

Let's take a look at the root causes of accidents involving equipment that are common in the industry, and how they can be reduced. In my experience, injuries related to power equipment can most often be separated into the following root causes.

Training inadequacies

Equipment operation and safety training is the most important component in your safety program. Employers spend untold hours and dollars advertising, recruiting, interviewing, checking references and screening. Then, once hired, too many take their new employee out to the job site and just turn them loose. No employee should ever use a piece of equipment without documented operational and safety training.

Make an equipment training form that will cover most equipment, which include specific information such as maximum and minimum speeds, pressures, settings, weights, limitations, gear selection, attachments, personal protective equipment requirements, hazardous areas, conditions to avoid, lock-out/tag-out procedures and preoperation inspections. It should also include the date, employee names, the type of equipment, a checklist of the training components, an area for notes and a place for signatures.

For operational information, utilize the manufacturer's operation manual. Add all pertinent safety program policies and procedures related to the equipment. All training should include demonstrations, testing employees on their knowledge and monitoring their operation. Always include forms and handouts.

#### Guarding absent or rendered ineffective

All sprockets, shafts, blades, gears, belts, pulleys, catch points and pinch points must be properly guarded. It is quite common to see equipment guarding that has been modified, or has been removed. An example would be mower guards, such as discharge covers. Removal of the discharge cover, or tying the discharge cover up to prevent clogging, is the wrong approach. Other examples would include spinner shaft shielding on PTO shafts and the master shield on the output shaft of a tractor. All drive shafts, belts, gears, chains and sprockets for attachments, implements and mower decks must be guarded.

#### Poor maintenance

Having a reliable maintenance department is crucial in assuring employee safety and the continued operation of equipment. Poorly maintained equipment is dangerous to operate. Each piece of equipment should be inspected prior to operation, and any defects, damage or safety concerns should be addressed prior to the equipment being used. An inspection sheet for each piece of equipment will help get problems reported to the maintenance personnel before repairs get costly or someone gets injured. One form, if made correctly, should cover most all equipment inspections. Having employees make preoperation inspections on your equipment will make a better working relationship with your equipment maintenance personnel and your operators.

#### Operating unsafe equipment

If preoperation inspections are completed and the equipment is properly maintained, equipment should be safe to operate. Unsafe equipment should never be operated, and production must never be placed before safety. Well-trained operators know when there are problems with equipment, and when it is

unsafe to operate.

#### Inadequate supervision

Supervisors must guide by the company's policies and procedures for equipment operation and safety. They must lead by example, and when employees become negligent, they must reprimand accordingly. Employees watch how their supervisors do things, and if the supervisors are negligent, the employees will be, too.

#### No policies and procedures in place

Without written safety program policies and procedures your safety program is doomed; your supervisors will have no guide to use as an example and no training references. Without safety program policies and procedures you will not be compliant with OSHA, and you will have more liability when an accident occurs. It is important that written programs be specific to your operation and the tasks performed. Your workers' compensation insurance provider and OSHA can provide you with free guidance materials.

#### Failure to follow/enforce policies and procedures

Supervisors must lead by example and supervise in accordance to the company's safety program policies and procedures. If you have programs in place, have provided the proper documented training and test and monitor the equipment operation, your supervisors will simply have to maintain status quo. Lack of proper supervision and enforcement of policies and procedures is quite often the root cause of an accident.

#### Personal protective equipment not in use

Personal protective equipment (PPE) is a whole safety subject in itself. Clothing worn by employees must always be appropriate to the tasks they will be performing. Clothing should always be well-fitting, shirttails should be tucked-in, sleeves buttoned or properly folded, and clothing should never be loose or frayed.

Personal protective equipment is the easiest and cheapest way to protect your employees from common injuries. Employees operating mowers, tractors, trimmers or any hand-operated power equipment, at a minimum, need to be wearing eye and hearing protection. Eye protection while operating any equipment should be a requirement.

Most power equipment creates over 80 decibels while running, and permanent hearing loss can be expected at decibels around 85 and above. OSHA requires employers have a Written Hearing Protection Program when decibels of 85 are present in a work environment, and to provide hazard controls when the decibels are 90 and above.

Dust masks are cheap and provide some protection from dust and pollen. Field work, turf work, landscaping and maintenance personnel often suffer from allergies and irritation from dusts and pollens. Gloves should be worn whenever the employee's hands need extra protection, especially while using

power tools and during debris removal.

High-visibility (HV) clothing is your first line of defense when working around traffic, equipment and roadways. Employees working in high-traffic areas such as around construction sites, parking lots and roadways must remain attentive to their surroundings. A good policy is when they get out of the vehicle, they should have the HV clothing on.

As always, check with your state's safety rules and regulations and OSHA Standards to assure you meet the compliance laws in the area in which your employees work.

The author is an occupational safety consultant with over 25 years of occupational safety training and human resources experience. He has also written numerous articles related to workplace safety for agriculture and related industries.