

## CONSTRUCTION

Safety education for provided by the insurance specialists  
at **Crendon Insurance Brokers Ltd**



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ON  
SAFETY

# The Importance of Machine Safeguarding

## Introduction

We use a variety of dangerous, heavy machinery and equipment on the construction site, and safety is our biggest priority. One of the most important safety measures is the safeguards that many machines have to protect the operator. **Machine guards may not always seem convenient, but they are essential in keeping you safe, and they are a requirement on the job site.**

## What Should Be Guarded

Any machine part, function or process that may cause injury should have a machine guard.

## Where Mechanical Hazards Occur

Potentially hazardous moving parts on machines fall into three basic categories:

- **Point of operation:** Where the work is actually performed. This is probably the largest hazard area and where the more sophisticated machine safeguarding methods will be used.
- **Power transmission apparatus:** All components of the mechanical system that transmit energy (power) to the part of the machine performing the work. These components include flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks and gears.
- **Other moving parts:** All other parts of the machine that move while the machine is working. This can include reciprocating, rotating and transverse moving parts.

## Hazardous Motions and Actions

A wide variety of mechanical motions and actions may present hazards to you while operating a machine. These can include the movement of rotating members, reciprocating arms, moving belts, meshing gears, cutting teeth and any parts that impact or shear. These different types of hazardous mechanical motions and actions are basic to nearly all machines, and recognising them is the first step towards protecting yourself from the danger they present. **Familiarise yourself with the hazardous motions and actions on any equipment you are operating or working near, so that you can avoid injury.**



## Requirements for Safeguards

What must a safeguard do to protect workers against mechanical hazards? Regardless of the hazard, there are several goals all machine safeguards have in common. They are:

- **Prevent contact:** The safeguard must prevent hands, arms and any other part of a worker's body from making contact with dangerous moving parts.
- **Remain secure:** Guards and devices should be made of durable material that will withstand the conditions of normal use. They must be firmly secured to the machine.
- **Create no new hazards:** A safeguard defeats its own purpose if it creates a hazard of its own such as a shear point, a jagged edge or an unfinished surface, which can cause a laceration. Having to "work around" a machine safeguard isn't helpful.
- **Create no interference:** Safeguards that significantly impede the ability to do work are not helpful safeguards. Safeguards should protect workers but not prevent them from operating a piece of machinery properly.
- **Allow safe lubrication:** Safeguards should allow for the safe lubrication of machines without the need to completely dismantle the guarding system.

**If you feel a guard isn't properly preventing contact or remaining secure during operation, or the guard is interfering with your work, alert the site foreman. Never tamper with or remove a guard.**

## Operating Machinery

**When operating heavy equipment, you should be familiar with the machine you are using, the machine safeguarding methods, emergency stop buttons and switches, and how to safely perform routine maintenance functions.**

You should be able to identify the various types of machine safeguarding methods incorporated into the machine or tool you are using. It is important that you know how to properly use those machine guards and how to make sure they are functioning properly. Prior to starting work, inspect the equipment to make sure all machine safeguards are attached and functioning properly. Machines should not be used if the machine safeguards are not in place or not functioning.

You should also consider other potential hazards on the job site, such as long hair, loose-fitting clothing and hanging jewellery, which can get caught in a machine and cause serious injury. Always tie back long hair and avoid wearing clothing or jewellery that could get entangled in a machine.

