Guards Keep You From Danger

Safety Talk

- A production worker had the tips of his fingers amputated when his right hand accidentally entered the cutting area of an unguarded tin-cutting shear.
- A worker was severely injured when he became entangled in a screw conveyor. A section of the guard had been removed from the conveyor that was operating during a cleanup program
- A sawmill worker suffered multiple fractures to his right arm when it became caught in an edger outfeed chain and sprocket. For unknown reasons, he had lifted the guard to check the drive mechanism.

In each of these cases machine guards were not in place at the time of the incident.

The purpose of any guard is to prevent contact between the operator and any part of the machine or its byproducts. Guards are barriers to other equipment hazards such as rotating belts, sparks or flying chips. They also protect the operator from contact with sharp edges when he is cutting or shaping metal or from blades when he is cutting wood.

Here are some types of machine guards:

- Enclosure guards are preferable to all other types because they prevent access to dangerous moving parts by completely enclosing them. Enclosure guards will also usually contain and restrain broken and flying machine parts.
- An interlock is a guard device applied to two or more moving parts, preventing movement of one part when other parts are locked in a predetermined sequence. This forces the operator to follow the correct sequence of steps.
- Mechanical interlocks may consist of a bar, chain or gear connections between the parts or devices located close together. An electric contact or mechanical stop activates a

brake, which is designed to stop immediately when any part of the operator’s body enters the danger zone.

- Yet another type of interlocking guard protects the operator with an electric eye beam that stops the machine or prevents it from being started if the operator’s hands are in the danger zone.
- When enclosure or interlocking guards are not practical, an automatic guard is sometimes used. Repeating its cycle as long as the machine is in motion, this guard actually pulls the operator’s hands, arms or body away from the danger zone.

Guards do protect, but only if they are used as designed. To be effective, they must be maintained and, most importantly, left in place.