## **SAFETY AWARENESS**

Brief Topic Safety Refresher Training For Associates

## 2024

## **Machine Guarding and Hazardous Motions**

When operating machinery in the workplace, there are many hazards that need to be taken into account. Some of the most dangerous hazards occur around the point of operation, such as the blade of a saw or the slide of a power press.

To ensure your safety, it is important that points of operation be properly outfitted with guards to prevent injuries and accidents. However, effective guarding for hazardous motions is not always simple. Improper guarding could not only result in inadequate protection for you and your co-workers, but also cause a defect in the machine itself. The correct guard for the point of operation will depend on what machine you are using. Common types of guards that

- **Fixed guards:** These types of guards are permanently affixed to their equipment. Due to its simplicity, a fixed guard is usually preferable to other types, but can cause issues with visibility, flexibility of suitable operations and with needing to be removed for repair or adjustments to equipment.
- Interlocked guards: These guards provide easier access than fixed guards, but include a failsafe that will automatically power down the machine if opened or removed. The machine cannot be restarted until the guard has been replaced. Replacing the guard will not automatically restart the machine. This type of guard can provide maximum protection while also allowing easy access to the machine, but may cause unintended shutdowns and require careful adjustment and maintenance.
- Adjustable guards: Adjustable guards are advantageous in that they allow a wide variety of sizes and materials to be used in the machine. Employees working with adjustable guards should be aware that protection may not be complete at all times and that their hands may come closer to point of operation hazards than with other guards. These guards can also interfere with visibility and require frequent adjustment.
- Self-adjusting guards: As the name would suggest, these guards adjust themselves according to the stock being fed into the machine. As the operator pushes material into the danger area, an opening only large enough for the stock is created. These guards provide a constant barrier between the danger area and the operator but may not provide maximum protection, can disrupt visibility and might need frequent maintenance and adjustment.

Machines are either outfitted with or come equipped with guards for a reason. These pieces are integral to ensure that the workplace is as safe as possible. Make sure that you are familiar with different types of guards and are aware of how to recognize issues or defects with them. Remember to never tamper with, remove or modify a guard.

## **Hazardous Motions**

The exact hazards for any given pieces of machinery will vary depending on what type of equipment is being used and what kind of work is being done. Here are some of the more common examples of points of operation hazards that you are likely to encounter:

- **Cutting:** Cutting motions can be reciprocating, rotting or transverse using potentially dangerous equipment such as saw blades, drill heads, lathes or mills. Cutting action hazards exist at the point of operation where body parts may come into contact with the blade, as well as from flying chips or scrap material.
- **Punching:** Used by machines such as power presses and iron workers, punching action occurs when a slide or ram is used for stamping, drawing or blanking a material, such as metal. Punching action hazards at the point of operation occur where the material is inserted, held or withdrawn by hand.
- **Shearing:** Shearing action involves powering a slide or knife in order to trim or shear material. Point of operation hazards occur where the aforementioned material is inserted, held and withdrawn.
- **Bending:** Somewhat similar to punching, bending action occurs when power is applied to a slide to draw or stamp metal or another material. Possible hazards occur at the point of operation where stock is inserted, held and withdrawn.

There are many risks that come with operating machinery in the workplace, so it is important to be aware of the hazards that exist with different types of tasks. Make sure to never operate a machine without the proper guards and safety devices in place.

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