

Personal protective equipment

All individuals in machine areas should wear safety glasses or face shields

All workers should wear close-fitting apparel without rings, bracelets, or other jewelry which may become entangled in moving machinery. Loose sleeves or other loose clothing also possess the same danger.

Hair nets or caps should be worn to keep long hair out of moving parts, and gloves or hand pads can be worn to protect hands from splinters and rough lumber. However, gloves should not be worn where there is any chance of being caught by the moving parts of machines, the rotating stock, etc.

Safety shoes should be worn when handling heavy material or when there is danger of foot injury.

See Chapter 19, "Personal Protective Equipment," for details.

Sources

There are a number of specific OSHA standards which require safety features on some woodworking machines. Most of these standards are based on American National Standard O1 1-1971, *Safety Requirements for Woodworking Machinery*. In addition, some states and other jurisdictions have codes which specify certain requirements. All of these sources should be consulted. The National Safety Council publishes data sheets on a number of woodworking machines. See References.

Specific Safety Principles

Circular saws

There are two principal types of accidents involving circular power saws: (a) blade cuts or abrasions, and (b) kickbacks. These two kinds of accidents can be minimized by proper guarding and by establishing and enforcing safe work procedures.

Power saw operators are most frequently injured when their hands slip off the stock, while pushing it into the saw, or when holding the hands too close to the blade during the cutting operations.

Helpers and take-away men are injured by coming into contact with the blade while removing scrap or the finished pieces from the

table.

Poor housekeeping practices and slippery floors are another source of accidents involving circular saws.

Circular saws are designed to permit a wide range of operations. Therefore, as is the case with most multiple-use equipment, it is difficult to design one type of guard for maximum protection for all types of operations. Contact with the saw blade can be prevented through use of the proper type of spreader, hood guard, jigs, fixtures, combs, or other devices.

Kickbacks. Kickbacks can cause serious injuries or death. Therefore, they must be prevented by every means possible.

Kickbacks on circular saws are usually caused by one of the following conditions:

1. No spreader to prevent work from binding on blade.
2. An improperly conditioned saw that allows the material to pinch on the outfeed edge of the saw and rise from the table. A dull saw blade is often a contributing factor.
3. Improper alignment of the gage or rip fence. It should be parallel to the saw blade to prevent the work from pinching between the rear of the blade and the fence.
4. Lumber that has not been properly planed, is not square, or has a twisted grain.
5. Attempting to rip saw or crosscut stock too large to control on the table.
6. Confining the cutoff piece whether ripping or crosscutting, such as between the blade and the fence when ripping or being caught by the length stop when crosscutting.
7. Ripping by applying feed force on the cutoff piece. Feed force for hand or power rip feeding should always be applied on the stock between the saw blade and the fence.
8. A sudden encounter with a knot or other hard material by the saw blade.

Kickbacks can be minimized by avoiding the causes mentioned. The proper use of the spreader and the antikickback fingers (dogs)