

SAFETY FACTS: AVOIDING KICKBACKS WHEN USING CIRCULAR SAWS

There are two types of accidents which commonly occur when using circular saws:

1. Contact with the moving blade
2. Kickbacks

These accidents can be minimized by proper guarding and by establishing and enforcing safe work practices. This fact does not attempt to discuss total guarding of powered circular saws, only to emphasize the dangers of kickbacks and how spreaders, gate kickback devices, and work methods can reduce their occurrence.

Kickbacks can occur when the blade seizes the material being cut and the material is thrown back towards the operator. There are several conditions, which can create kickbacks:

- Failure to use spreaders or to keep the spreader in alignment with the blade. A spreader is positioned after the blade and helps to separate cut material and keep it from binding on the saw blade. If not properly aligned, the spreader may actually pull material into the blade and create more of a hazard.
- A spreader can also help to keep wood chips and slivers from entering the area at the back of the saw where they can be thrown by the motion of the saw. It is recommended that the spreader be mounted no more than ½" behind the saw blade and be high enough above the table to penetrate the full thickness of the stock. The spreader should be attached so that it remains in alignment with the saw blade- even if the table or the arbor is tilted.
- Failure to provide anti-kickback devices. These devices assist in holding down material and can prevent material from being thrown from the table.
- Improper alignment of the rip fence. If the rip fence is not set up parallel to the blade, the stock can be perched between the fence and the blade and create a kickback. This alignment is extremely important.
- A dull saw blade can catch on material more easily and create a kickback. Blades should be kept sharp and well maintained.

Some other potential conditions, which can cause kickbacks:

- Contact with a knot or other hard material in the stock can create a hazard. Material should be inspected before cutting to avoid this hazard if possible.
- Lumber with a twisted grain has more internal stress and may catch more easily on the block. Material should be inspected for this situation.
- Attempting to rip stock, which is too large for the saw. Overloading the saw can create a binding situation and create a kickback.

A combination of good guarding techniques and proper work methods can help to reduce the likelihood of kickbacks. There are also other safety considerations to keep in mind when using saws.