

Table saw

Table saws are versatile saws used for cutting across (crosscut) and with (rip) the wood grain. They are most commonly used to rip.

After adjusting the height and angle of the blade, the operator pushes the stock into the blade to make the cut. A guide (fence) is used to maintain a straight cut parallel to the blade.

Hazard

Severe cuts and amputations to the fingers or hands can occur if the operator contacts the saw blade. Many serious injuries are the result of using the table saw without the point-of-operation guarding. These injuries are often a direct result of operating the unguarded machine in combination with other hazardous practices, such as placing hands very close to the blade to guide stock (e.g., not using a push stick to guide stock through a cut), not firmly holding the stock causing the hands to slip off, diverting attention away from the cut (e.g., focusing on a long-sleeve shirt cuff in the middle of the cut), or removing small scraps (tailings) or finished pieces of stock from around the blade.

Although not at the point of operation, contact with the saw blade (and often a belt drive) may also be made from behind and underneath the table saw.

Kickbacks also offer a significant hazard and occur when the blade catches the stock and throws it back toward the operator. Kickbacks, more likely to occur during ripping, can result if the blade height is not correct, if the blade is not maintained properly, or safeguards are not used. In addition, kickbacks can also occur if the operator stops guiding the stock during the cut. For example, material remaining on the table behind the saw can cause an obstruction with the stock and require the operator to stop mid-cut.



DEWALT Industrial Tool Co.



Table saw equipped with self-adjusting blade guard.

Solution

The most common blade guard is a self-adjusting guard that encloses the portion of the saw above the table, and above the stock being cut. The guard automatically adjusts to the thickness of the material being cut and remains in contact with it during the cut.

Fixed enclosures, fixed barrier guards, or manually adjusted guards (e.g., Brett-Guards) can also be used as point of operation guarding provided its protection is equivalent to the protection of self-adjusting guards and it prevents employee exposure to the saw blade. These guards must be used under sufficient supervision and in accordance with manufacturer's instructions.

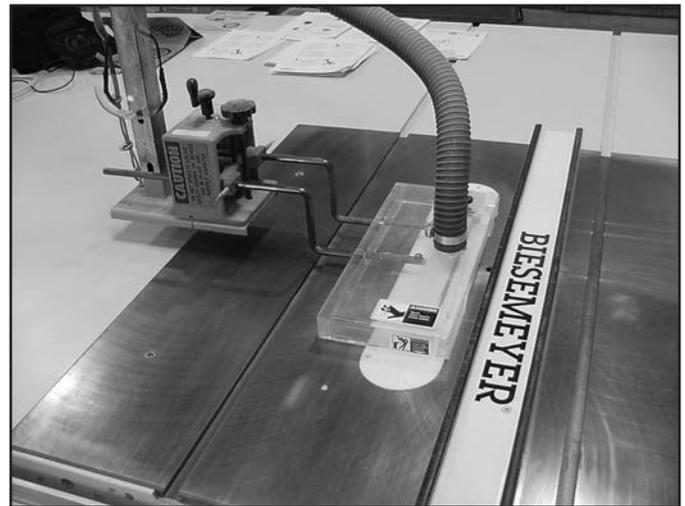
Prevent exposure to the blade (and belt drive) located underneath and behind the table saw with a fixed guard.

Use a push stick for small pieces of wood and for pushing stock past the blade. Consider using large or well-designed push sticks that can not only provide a firm and stable grip of the stock but also effectively push the stock through while keeping your hand away from the blade. Combs (featherboards) or suitable jigs can be used when a standard guard cannot be used during dadoing, grooving, jointing, moulding, or rabbeting.

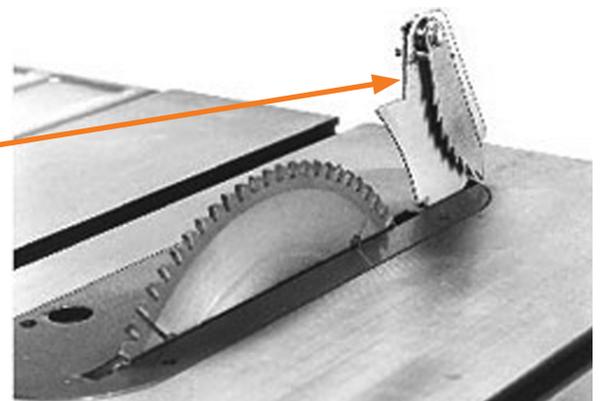
Turn the power off, wait for the blade to stop, and lower the blade before removing scraps or finished pieces of stock from around the blade.

Use a spreader and anti-kickback fingers to prevent material from squeezing the saw or kicking back during ripping.

Ensure enough clearance behind the blade to allow the stock to completely pass through the cut. Also, provide support for material that will pass beyond the table.



Coffee Creek Correctional Facility
Manually adjustable "Brett-Guard."



Biesemeyer Products/Delta Machinery
Guard removed to show spreader device.

References

■ General Industry

Oregon OSHA Division 2/Subdivision O 29 CFR 1910.213(c) & (d)

■ Construction

Oregon OSHA Division 3/Subdivision I 29 CFR 1926.304(h) & (i)

■ Agriculture

Oregon OSHA Division 4/Subdivision O OAR 437-004-2000(6)

■ Oregon OSHA Program Directive A-107 "Guarding: Woodworking Machinery" (March 13, 2001)

■ ANSI 01.1 *Woodworking Machinery — Safety Requirements*