

4123:1-5-08 Power-driven saws and knives.

(A) Reserved.

(B) Reserved.

(C) Bandsaws, band resaws, and band knives.

All portions of the saw blade or band blade shall be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table. Bandsaw wheels shall be fully enclosed. The outside of periphery of the enclosure shall be solid. The front and back of the band wheels shall be either enclosed by solid material, or by wire mesh, or perforated. Such mesh or perforated metal shall be not less than 0.037 inch (U.S. Gage No. 20), and the openings shall be not greater than 3/8 inch.

(D) Circular saws.

All circular saws shall have the exposed portion of the saw blade under the table guarded.

(1) Circular rip saw (manual feed).

(a) Guarding.

A hood-type guard shall be provided that will cover the exposed portion of the saw blade. When in use the hood type guard shall automatically adjust itself to the thickness of and remain in contact with the material being cut when the stock encounters the saw, or may be a fixed or manually adjusted guard, provided the space between the bottom of the guard and the material being cut does not exceed three-eighths inch at any time.

(b) Design.

The hood-type guard shall be so designed as to prevent a kickback, or a separate attachment that will prevent a kickback shall be provided. Anti-kickback devices shall be effective for all thicknesses of material that are cut.

(c) Spreader.

A spreader shall also be provided and securely fastened at the rear of the saw in alignment with the saw blade, except where a roller wheel is provided at the back of the saw. The spreader shall be slightly thinner than

the saw kerf and slightly thicker than the saw disc to prevent material from squeezing the saw.

(d) Alternate method.

Where the method of guarding as specified above is impossible, a substantial jig, fixture, or template may be used which is designed to keep the hands of the operator out of the danger zone.

(2) Circular rip saw (power feed).

(a) Guarding.

A hood-type guard shall be provided but need not rest upon the table nor upon the material being cut, but shall extend to a line not more than three-eighths of an inch above the plane formed by the bottom of the top feed rolls. This distance (3/8 inch) may be increased to 3/4 inch, provided the lead edge of the hood is extended to be not less than 5.5 inches in front of the nip point between the front roll and the work.

(b) Spreader.

A spreader shall be provided and fastened securely at the rear of the saw in alignment with the saw blade, except where a roller wheel is provided at the back of the saw. The spreader shall be slightly thinner than the saw kerf and slightly thicker than the saw disc to prevent material from squeezing the saw.

(3) Circular cross-cut saw.

(a) Guarding.

A hood-type guard shall be provided that will cover the exposed portion of the saw blade. When in use the hood-type shall automatically adjust to the thickness of and remain in contact with the material being cut when the stock encounters the saw, or may be a fixed or manually adjusted hood or guard, provided the space between the bottom of the guard and the material being cut does not exceed three-eighths of an inch at any time.

(b) Automatic return.

A device shall be installed which shall return the saw automatically to the back of the table when released at any point of its travel. A device shall be installed which shall be designed to prevent a rebound of the saw blade.

(4) Circular resaws.

(a) Guarding.

A hood-type guard shall be provided that will cover the saw at all times, except where the material is being cut.

(b) Spreader.

A spreader shall be provided and securely fastened at the rear of the saw in alignment with the saw blade, except where a roller wheel is provided at the back of the saw. The spreader shall be slightly thinner than the saw kerf and slightly thicker than the saw disc and shall be placed not more than one-half inch from the ends of the saw teeth.

(5) Swing cutoff saws.

The requirements of this paragraph are also applicable to sliding cutoff saws mounted above the table.

- (a) Each swing cutoff saw shall be provided with a hood that will completely enclose the upper half of the saw at the arbor end, and the point of operation at all positions of the saw. The hood shall be constructed in such a manner and of such material that it will protect the operator from flying splinters and broken saw teeth. Its hood shall be so designed that it will automatically cover the lower portion of the blade, so that when the saw is returned to the back of the table the hood will rise on top of the fence, and when the saw is moved forward the hood will drop on top of and remain in contact with the table or material being cut.
- (b) Each swing cutoff saw shall be provided with an effective device to return the saw automatically to the back of the table when released at any point of its travel. Such a device shall not depend for its proper functioning upon any rope, cord or spring. If there is a counterweight, the bolts supporting the bar and counterweight shall be provided with cotter pins; and the counterweight shall be prevented from dropping by either a bolt passing through both the bar and counterweight, or a bolt put together through the extreme end of the bar, or, where the counterweight does not encircle the bar, a safety chain attached to it.
- (c) Limit chains or other equally effective devices shall be provided to prevent the saw from swinging beyond the front or back edges of the table, or beyond a forward position where the gullets of the lowest saw teeth will rise above the table top.

(6) Inverted swing cutoff saws.

Inverted swing cutoff saws shall be provided with a hood that will cover the part of the saw that protrudes above the top of the table or above the material being cut. It shall automatically adjust itself to the thickness of and remain in contact with material being cut.

(7) Radial saws.

(a) Guarding.

The upper hood shall completely enclose the upper portion of the blade down to a point that will include the end of the saw arbor. The upper hood shall be constructed in such a manner and of such material that it will protect the operator from flying splinters, broken saw teeth, etc., and will deflect sawdust away from the operator. The sides of the lower exposed portion of the blade shall be guarded to the full diameter of the blade by a device that will automatically adjust itself to the thickness of the stock and remain in contact with stock being cut to give maximum protection possible for the operation being performed.

(b) Anti-kickback device.

Each radial saw used for ripping shall be provided with an anti-knocked device, which shall be designed to provide adequate holding power for all the thicknesses of material being cut.

(c) Saw rotation.

Ripping and ploughing shall be against the direction in which the saw turns. The direction of the saw rotation shall be conspicuously marked on the hood. In addition, a permanent label not less than one and one-half inches by three-fourths inch shall be affixed to the rear of the guard at approximately the level of the arbor, reading as follows: "Danger: do not rip or plough from this end."

(d) Automatic return.

A device shall be installed which shall return the saw automatically to the back of the table when released at any point of its travel. A device shall be installed which shall be designed to prevent a rebound of the saw blade.

(e) Positive stop.

A positive stop shall be installed which shall prevent the saw from traveling beyond the front edge of the table.

(E) Cracked saw blades.

All cracked saw blades shall be removed from service.

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