

4123:1-5-09 Woodworking machinery.

(A) Reserved.

(B) Reserved.

(C) Jointers.

(1) Manual-feed jointers and planers - cutting head.

(a) Guarding - point of operation.

Manual-feed jointers and planers with horizontal head shall be equipped with a cylindrical cutting head, the knife projection of which shall not exceed one-eighth inch beyond the cylindrical body of the head.

(b) Table openings.

The opening in the table shall be as small as productive operation of the jointer permits.

The clearance between the edge of the rear of the table and the cutter head shall be not less than one-eighth inch.

(c) Guards - automatic.

Manual-feed jointers and planers with horizontal cutting heads shall have an automatic guard which will:

(i) Cover the section of the head on the working side of the fence.

(ii) Automatically adjust itself to recover the cutting head after the material has passed through.

(d) Guard - cutting head back of fence or gage.

Each manual-feed jointer with horizontal cutting head shall have a guard which will cover the section of the head back of the gage or fence.

(2) Vertical head jointers.

Each wood jointer with vertical head shall have either an exhaust hood or other guard so arranged as to guard completely the revolving head, except for a slot of such width as may be required for the application of the material to be jointed.

(D) Planer, molder, sticker, and matcher.

(1) Guarding - cutting heads.

Each planer, molder, sticker, and matcher shall have all cutting heads and saws, if used, covered by a metal guard. If such a guard is constructed of:

(a) Sheet metal - the material used shall be not less than one-sixteenth inch in thickness.

(b) Cast iron - the material used shall be not less than three-sixteenths inch in thickness.

(2) Guarding - where exhaust systems are used.

Where an exhaust system is used, the guards shall form part or all of the exhaust hood and shall be constructed of metal of a thickness not less than that specified in (1)(a) or (b) above.

(3) Guarding - feed rolls.

Feed rolls shall be guarded in accordance with the requirements of 4123:1-5-05(H).

(a) Sectional in-feed rolls.

Surfaces of planers used in sizing multiple pieces of material simultaneously shall be provided with sectional in-feed rolls having sufficient yield in the construction of the sections to provide feeding contact pressure on the stock over the permissible range of variation in stock thickness for which the machine was designed.

(b) Alternate method.

In lieu of such yielding sectional rolls, suitable section kickback finger devices shall be provided at the in-feed end.

(E) Boring and mortising machines.

(1) Guarding.

(a) Mortising machines (except hollow chisel mortisers).

Mortising machines, except hollow chisel mortisers, shall be provided with thumb stops at each side of the chisel or equivalent protection.

(b) Bits.

Bits on all automatic boring machines shall be guarded at the points of operation.

(c) Chain mortiser.

The top of the cutting chain and driving mechanism shall be guarded.

(d) Counterweight.

If a counterweight is used it shall comply with the requirements of 4123:1-5-05(F).

(e) Universal joint.

Universal joints shall comply with the requirements of 4123:1-5-04(E)(6).

(2) Chuck design.

Safety bit chucks with no projecting set screws shall be used.

(F) Stationary sanding machines.

(1) Drum sanders.

Drum sanders shall have a guard so arranged as to enclose the revolving drum, except such portion of the drum above the table (if table is used) as may be required for the application of the material to be finished. Where an exhaust system is used, the hood of the exhaust system shall be construed as comprising all, or part, of the guard.

(2) Disc sanders.

Disc sanders shall have a guard so arranged to enclose the periphery and back of the revolving disc, except such portion of the face of the disc above the table (if table is used) as may be required for the application of the material to be finished. Where an exhaust system is used, the hood of the exhaust system shall be construed as comprising all, or part, of the guard.

(3) Belt sanders.

Belt sanders shall have both pulleys guarded in such manner as to guard the points where the belt runs onto the pulleys. The edges of the unused run of the belt shall be guarded.

(4) Feed rolls of self-feed sanding machines.

Feed rolls of self-feed sanding machines shall comply with the requirements of 4123:1-5-05(H).

(G) Wood shapers.

(1) Guarding.

(a) Cutting heads.

(i) The cutting heads of each wood shaper, hand-fed panel raiser or other similar machine, not automatically fed, shall be guarded. The diameter of circular shaper guards shall be not less than the greatest diameter of the cutter.

(ii) When single cutter knives in shaper heads are used, the shaper heads shall be balanced.

(b) Alternate method.

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) Starting and stopping devices.

All shapers shall be provided with a spindle starting and stopping device for each spindle.

(H) Tenoners.

Tenoners shall have all cutting heads or saws guarded. An exhaust hood may comprise part or all of the guard. If such a guard is constructed of sheet metal, the material used shall be not less than one-sixteenth inch in thickness, and if cast iron is used, it shall be not less than three-sixteenths inch in thickness.

(I) Lathes.

Each profile and swing-head lathe shall have the cutting head guarded. An exhaust hood may comprise all, or part, of the guard.

(J) Veneer machinery and equipment.

(1) Vats and soaking pits.

(a) Guarding.

Sides of vats and soaking pits shall extend to a height of not less than thirty-six inches above the working floor level. When loading or unloading operations are performed from the sides and/or ends of vats and soaking pits, standard guard railing and toeboards shall be installed.

(b) Walkways between sections.

Large vats and soaking pits divided into sections shall be provided with substantial walkways between sections. Each walkway shall be provided with a standard guard railing.

(2) Drag saws.

Drag saws shall be so located as to give at least four feet clearance for passage when the saw is at extreme end of stroke or if such clearance is not obtainable, the saw and its driving mechanism shall be guarded.

(3) Clippers and wringers.

(a) Clippers.

Veneer clippers shall have automatic feed or shall be provided with a guard when stock is manually fed or removed.

(b) Wringers.

In-running sides of veneer wringers shall be guarded leaving only sufficient space to insert stock.

(K) Cooperage machinery.

(1) Bolt, stave and heading equalizers.

Each bolt, stave and heading equalizer shall have the saws guarded except that portion immediately adjacent to the feeding device.

(2) Barrel stave saws.

Each machine of this type shall have the saw and the revolving part to which the saw blade is bolted, guarded, except that part of the saw immediately adjacent to the feeding device.

(3) Heading, rip, flat-stave and head-rounders.

All machines coming under this heading shall have the saws guarded.

(4) Stave and heading planers.

All cutting heads and knives of single and double planers shall be guarded. An exhaust hood may comprise all or part of the guard.

(5) Stave jointing machines (wheel).

Machines for jointing staves shall be guarded.

(6) Stave croziers.

The cutting heads shall be guarded except that part which actually imbeds itself in the stock.

(7) Pail and barrel lathes.

The requirements of 4123:1-5-09(I), Lathes, where applicable, shall govern the guarding of pail and barrel lathes.

(L) Miscellaneous woodworking machines.

(1) Combination or universal woodworking machines.

(a) Guarding.

Each point of operation shall be guarded as required for such a tool in a separate machine.

(b) Stopping and starting devices.

Such machines shall be provided with a separate stopping and starting device for each separate operation.

(2) Routers.

The pulleys, spindles, and cutting tools shall be guarded. Turnplates, jigs, and fixtures which keep the operator's hands out of the danger zone may be provided as an alternative.

(3) Glue spreaders (roll type).

The feed rolls shall be guarded. The bottom of the guard shall be not more than three-eighths inch above a plane formed by the contact face of the feed roll where it contacts the stock.

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