

Job Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

## **Topic 292: Power Press Brakes**

**Introduction:** OSHA's machine guarding regulations require one or more guarding methods to protect operating, servicing, and nearby employees from exposure to hazardous machine energy. During normal production operations, the power press brake operator(s) must be protected by physical barriers, physical devices, maintaining safe distances, and/or exposure to hazards not at the point of operation and elsewhere on power press brakes.

**Supervision:** The employer must ensure, through effective supervision, that power press brakes are operated only by trained employees.

**Inspection and maintenance records:** It is the responsibility of the employer to establish a program of periodic and regular inspections of his power presses to ensure that all the parts, auxiliary equipment, and safeguards are in safe operating condition. The employer must maintain a certification record of inspections which includes the date of inspection, the signature of the person who performed the inspection, and the serial number, or other identifier, of the power press that was inspected.

**To protect employees** who are not operating or performing minor servicing from exposure to hazardous machine energy, an employer must provide power press brake guarding by physical barrier(s) or by restricting access to power press brakes.

**A power press brake** must not be "energized" when the point of operation is not guarded by one or more physical barriers or physical devices unless:

- Under the operating control of a trained operator.
- Under the operating control of an employee authorized to perform minor servicing.

**A main power** disconnect switch capable of being locked only in the off position must be provided with power press control systems.

**The motor start** button, and foot pedals (treadle) must be protected against accidental operation.

**Hand-lever-operated** power presses must be equipped with a spring latch on the operating lever to prevent accidental tripping.

**All clutch/brake** control electrical circuits must be protected against the possibility of an accidental ground in the circuit causing operation of the press.

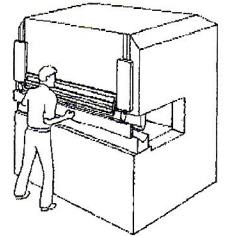
**Machine components** must be designed to minimize hazards caused by breakage, falling, or release of mechanical energy (i.e. broken springs).

**Point of operation guards** - "Point of operations" means that point at which cutting, shaping, boring, or forming is accomplished upon the stock.

**Every point of operation guard must meet the following design, construction, application, and adjustment requirements:**

- **It must conform** to the maximum permissible openings as follows:

Distance of opening from point of operation hazard (in inches)	Maximum width of opening (in inches)	Distance of opening from point of operation hazard (in inches)	Maximum width of opening (in inches)
1/2 to 1-1/2	1/4	6-1/2 to 7-1/2	7/8
1-1/2 to 2-1/2	3/8	7-1/2 to 12-1/2	1-1/4
2-1/2 to 3-1/2	1/2	12-1/2 to 15-1/2	1-1/2
3-1/2 to 5-1/2	5/8	15-1/2 to 17-1/2	1-7/8
5-1/2 to 6-1/2	3/4	17-1/2 to 31-1/2	2-1/8



- This table shows the distances (in inches) that guards must be positioned from the danger line in accordance with the required openings.
- **It must prevent** entry of hands or fingers into the point of operation by reaching through, over, under or around the guard.
- **It must create** no pinch point between the guard and moving machine parts.
- **It must utilize** fasteners not readily removable by operator, so as to minimize the possibility of misuse or removal of essential parts.
- **It must facilitate** its inspection, and offer maximum visibility of the point of operation consistent with the other requirements.
- **A fixed barrier guard** must be attached securely to the frame of the press or to the bolster plate.

**Point of operation devices** - Point of operation devices must protect the operator by:

- **Preventing and/or stopping** normal stroking of the press if the operator's hands are inadvertently placed in the point of operation.
- **Preventing the operator** from inadvertently reaching into the point of operation as the dies close.
- **Requiring both** of the operator's hands to operate machine controls and locating such controls at a distance from the point of operation so that the slide completes the downward travel or stops before the operator can reach into the point of operation with his/her hands.
- **Enclosing the point** of operation before a press stroke can be initiated, and staying closed until the motion of the slide has ceased.

**Safeguarding by maintaining a "safe distance" is acceptable if:**

- **The employer demonstrates** that physical barriers and physical devices are not feasible to guard the power press brake point of operation.
- **The employer demonstrates** that power press brake point of operation guarding by maintaining a safe distance is limited to one-time only fabrication of made-to-order or custom-made piece parts.

**Conclusion:** The use of hand feeding tools (regardless of their length or size) does not replace guards or devices. If gloves are worn by the operator, they must be worn outside the operating control enclosures.

### **Work Site Review**

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_

Personnel Safety Violations: \_\_\_\_\_

**Employee Signatures:**

*(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)*


*These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.*