

## POWER PRESS BRAKE SAFETY GUIDELINES

Press Brakes are extremely difficult to guard. Therefore it is imperative that the operator take extreme caution during set-up and operation of the press brake. Particular attention should be directed toward pinch points and the point of operation.

- 1). It shall be the responsibility of the press brake operator to observe the following points, except those which the employer has delegated to others:
  - a). The power press brake and adjacent work area should be kept clean, orderly, and free of excessive accumulation of oil, grease, and material scrap.
  - b). When point-of-operation safe distance is being used, the material-position gages shall be of sufficient height and size to prevent slipping of the material past the gages in order to avert fingers from entering into the point-of-operation area. If this cannot be accomplished, the press brake operator shall immediately report it to his supervisor.
  - c). When using point-of-operation safe distance as the sole means of safeguarding, the press brake operator shall stand while operating the power press brake. If a platform is required, the employer shall provide a platform this is of safe and rigid construction in order to prevent the hazards of falling, slipping, or tripping.
  - d). The press brake operator shall use proper work supports, mechanical assists, or helpers when loading or unloading large heavy piece parts or sheets of material. They shall observe proper handling and lifting motions.
  - e). The press brake operator shall wear the personal protective equipment specified by the employer as required for the operation.
  - f). The press brake operator shall reposition or position his hands after inserting the material into the die to prevent being struck by the piece part or caught between the piece part and any part of the press brake or its attachments.
  - g). The press brake operator shall shut off the machine and immediately notify the supervisor when the press brake jams or sticks during the operating cycle.

- h). The press brake operator shall use the proper operating control and the safeguarding means provided to him by his employer for his safety and the safety of others.
- i). The press brake operator shall make certain that the appropriate work tables, material containers, die carts, etc, that are required to store and retain piece parts being processed shall neither interfere with his freedom, his access to the mechanical foot pedal or the operating controls, nor should they cause or prevent the movement of the treadle linkage mechanism.
- j). The press brake operator shall make the machine inoperable by the means provided to the press brake when he is not actively cycling the machine ram.
- k). Suggested practices and safety guidelines for setup:

#### Mechanical Press Brake

- 1). Position ram at bottom of working stroke.
- 2). Turn operator controls "off" (key lock) or removed foot pedal (or lock treadle) when working in the die area.
- 3). Set proper die space using ram adjustment.
- 4). Use "inch" mode and two-hand control.
- 5). To avoid splitting the die, make sure that the tonnage capacity of the die is not exceeded.
- 6). Provide point-of-operation safeguarding means.
- 7). Test all the required operator control stations, modes of operation, and safe-guarding means.
- 8). Removed all keys under supervisory control.

#### Hydraulic Press Brake

- 1). Position ram at bottom of working stroke.
- 2). Turn operator controls "off" (key lock) when working in die area.
- 3). Use "inch" mode and two-hand control.
- 4). To avoid splitting die, make certain tonnage capacity of die is not exceeded.
- 5). Provide point-of-operation safeguarding means.
- 6). Test all the required operator control stations, modes of operation, and safe-guarding means.
- 7). Removed all keys under supervisory control.

#### Mechanical or Hydraulic Press Brake Guidelines for Operation:

- 1). Use point-of-operation safeguarding means.
- 2). Know the setup and proper method of operation.

- 3). Test all the required operator control stations and modes of operation before each shift, each job run, and after each break.
- 4). Keep hands out of die area (point of operation).
- 5). Do not position any part of your body where it may be struck or crushed by part movement.
- 6). Turn off, lock out or removed the operator controls when not operating press brake.
- 7). When you leave this press brake:
  - Position ram at bottom of working stroke.
  - Turn off or lock out operator controls.
  - Turn power off.

2). **Never** place your hands or any part of your body in this machine.

3). **Never** operate this machine without proper eye, face, body protection and safety shoes.

4). **Never** operate this machine without first being fully trained and instructed and without first reading the instruction manual.

5). **Never** operate this machine if it is not working properly - stop operating and advise your supervisor immediately.

6). **Never** use a foot switch to operate this machine unless a point of operation guard or device is provided and properly maintained.

7). **Never** operate this machine unless two-hand trip, two-hand control or presence sensing devices are installed at the proper safety distance. Consult your supervisor should you have any questions regarding the proper safety distance.

8). **Never** tamper with, rewire or bypass any control or component on this machine.

9). Always keep safety in mind, be mentally alert on the job, always sober, and never dulled by the influence of drugs, prescribed or otherwise.

- 10). Do not wear neckties, wristwatches, rings jewelry, etc. when operating the machine.
- 11). The area around the machine should be free of oil or coolant spills (avoid a slippery floor) and as free as possible from obstructions. Keep the area clean at all times.
- 12). **Maintain die opening height of 1/8" above material. Applicable to materials up to and including 3/16" thickness.**
- 13). For normal lifting, use leg, not back, muscles. For heavy lifting, use a hoist or appropriate lifting device
- 14). Wrenches, tools, and other miscellaneous equipment should be kept off the press bed as well as off all moving units of the machine.
- 15). Use the proper hand tools for each job.
- 16). Report any unsafe conditions to your supervisor. Only qualified personnel should perform maintenance repair work.
- 17). Clean machine and area after each use.
- 18). **If forming is done to a scribed line, use supports and a back stop to help operators maintain control over the part.**
- 19). **When the piece part is large and extends some distance in front of the die, the operator must hold the sheet so that hands or fingers are not exposed to:**
  - a). **injury from impact with the moving part.**
  - b). **pinch points or the point of operation while the bend is being made.**
- 20). Test operate the press brake a few times at the start of each work period and after each setup to be sure that it is operating properly.

- 21). Do not change dies or place fingers or hands between dies without first being certain the main power panel is shut off.
- 22). Do not attempt to use dies that are damaged.
- 23). The foot control should only be in place or operable when the operator intends to start the machine.
- 24). When doing maintenance work, ensure that the machine is locked out.
- 25). If you must bend small parts close to the dies, use hand tools or a fixture to hold pieces.
- 26). Be observant of possible trip hazard with foot switch and cord.
- 27). Do not stack or lean materials and formed parts near press brake.
- 28). Always give yourself an adequate work envelope.
- 29). Do not operate press brake with someone in the rear of the machine.
- 30). Get help if the job requires it.
- 31). Always operate brake in single stroke (anti-repeat) mode. See supervisor for permission to use continuous mode.
- 32). Replace wooden support safety blocks after using machine.

### **Do's and Don'ts**

**DO** get thoroughly familiar with the STOP button.

- DO make sure that the work is held securely before engaging the ram.

**DO** make sure that all tools and machine parts are clear of the ram before starting the machine.

**DO** keep your hands away from the moving items (ram, work pieces, etc.)

**DO** keep the shirt sleeves rolled up above the elbows and wear close fitting shop aprons or coats.

**DON'T** under any circumstances attempt to operate any machine unless you are thoroughly familiar with it.

**DON'T** Move any lever unless you know exactly what is going to happen when it is moved.

**DON'T** play around with the lever of any machine.

**DON'T** go away, even for a moment, and leave the machine running.

**DON'T** try to operate the machine and engage fellow workers in conversation at the same time. Keep your mind on your work and let the other fellow do the same.

**DON'T** attempt to oil the machine while it is in operation.