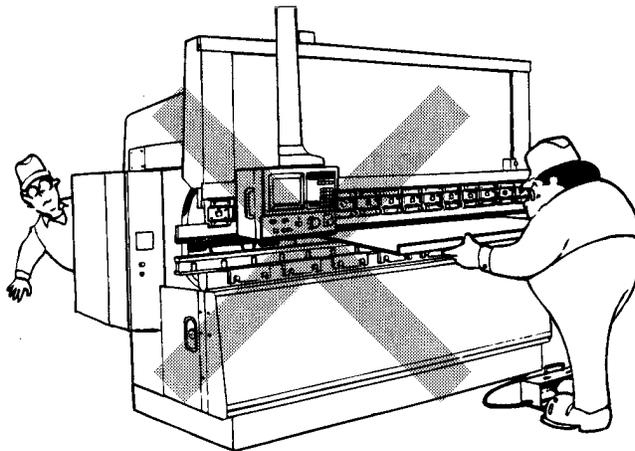


# *SAFETY RULES for RG-EX, RG-LD, FBD-NT and HDS-NT Series Press Brakes*

Observe these safety rules to prevent injuries and accidents.

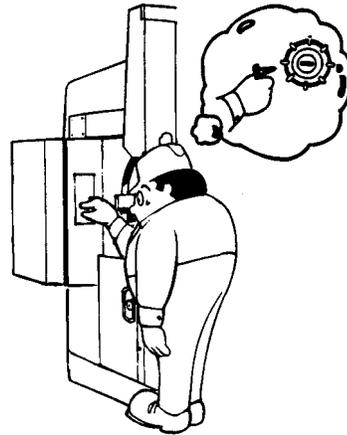
- 1) Never modify the machine. If the control circuit or other part of the machine is modified, the moving beam (ram) and backgauge may malfunction.
- 2) Whenever the machine is not in use, remove the keys of the selector switches and give them to the supervisor for safe keeping.
- 3) Assign trained operators to the operation and maintenance of the machine.
- 4) Inspect the machine before the start of the day's work.
- 5) Install the machine with a rear clearance of at least 1000 mm (40 in.) and where it is not exposed to direct sunlight. If the rear air inlet and outlet openings of the control box are obstructed which will result in overheating of the electrical equipment of the machine, the machine may malfunction.
- 6) Before starting the operation of the machine, check that there are no persons and obstacles around the machine. Pay particular attention to the rear of the machine. Never place hand tools and parts on the mounted dies or the lower beam.



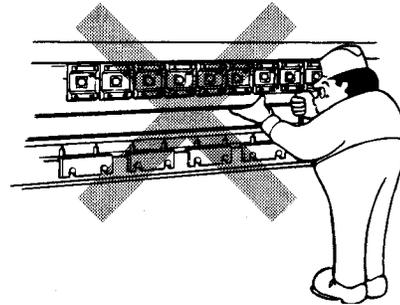
7) Never put your hands between the punches and dies.

8) When changing the punches and dies, strictly observe the following rules:

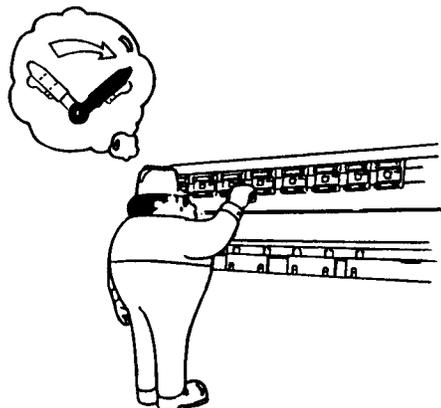
Before installing and uninstalling punches and dies, turn the tool change switch to "TOOL CHANGE", then remove the key and keep it in your possession. (Install and uninstall the punches and dies as instructed in machine's operator manual.)



Before installing and uninstalling the punches and dies, turn the HANDWHEEL to adjust the moving beam to the desired position, turn the tool change switch to TOOL CHANGE then remove and keep the key in your possession. Never put your hands between the punches and dies to support the punches. (Install and uninstall the punches and dies as instructed in machine's operator manual.)

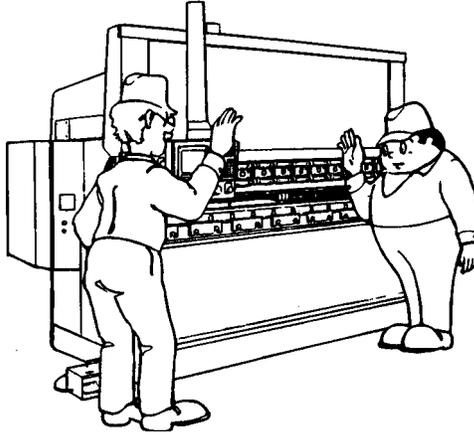


Securely fix the punches, dies, and die holders before applying any pressure to them.



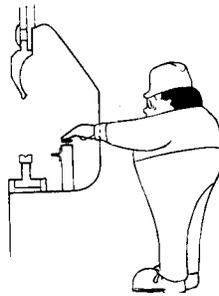
When you install and uninstall the punches and dies with an assistant operator or operators, be sure to closely coordinate and communicate with them to ensure no one is in a hazardous position.

- 9) When you bend worksheets with an assistant operator or operators, only press the bar pedal (or foot switches) after fully ensuring the safety of the other operators.



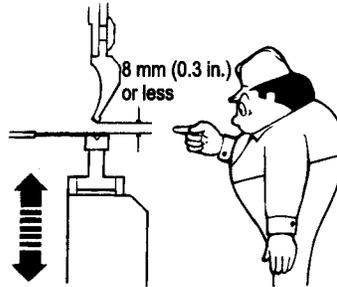
- 10) Before adjusting the backgauge, turn the tool change switch to TOOL CHANGE (or turn the MODE SELECT switch to OFF if the machine is so equipped), remove the key and keep it in your possession. Any manual adjustment to the backgauge should be done from the rear of the machine. NEVER reach in from the front of the machine to adjust the backgauge.

**OK**

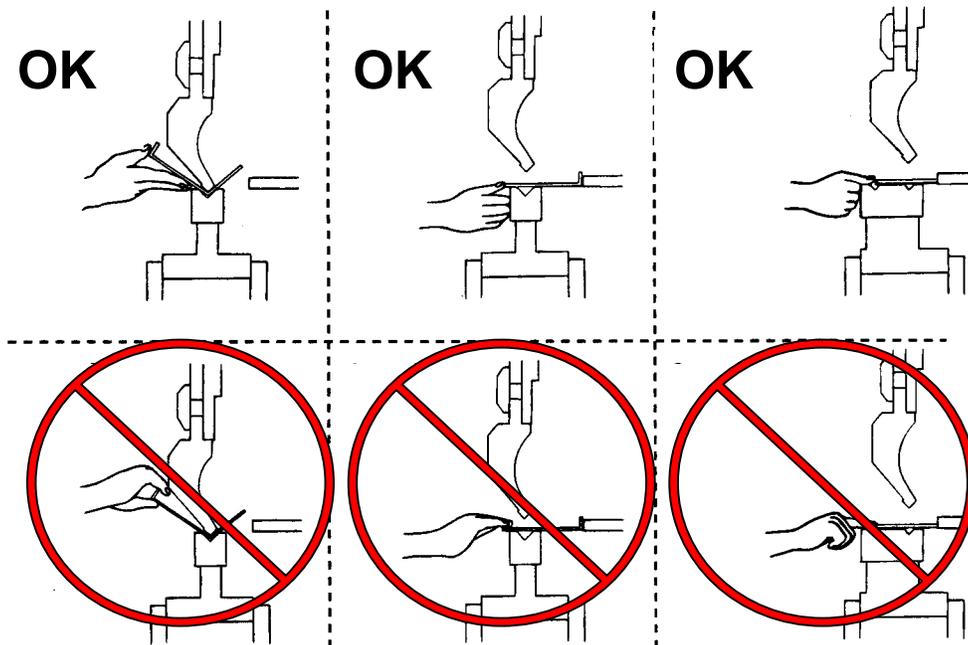


- 11) Pay close attention to the position at which the machines ram switches from fast approach speed to the slower bending speed. Correctly set the position so the ram speed slows down prior to the punch contacting the worksheet. If the speed change position is incorrectly set, the worksheet may move upward at too fast of a speed as forming begins. See machine's operator manual for instructions on how to properly set the speed change position.

- 12) When bending a small worksheet, set the overall stroke length at 8 mm (0.3 in.) or less, and hold the worksheet as shown below or use pliers to hold it. Take care that your fingers are not pinched between the punches and dies or between the punches and worksheet. See machines operator manual for instructions on how to set the stroke length

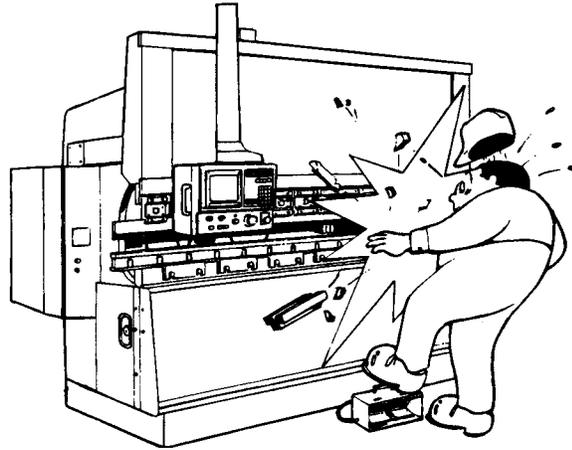


Hold the worksheet as shown below.



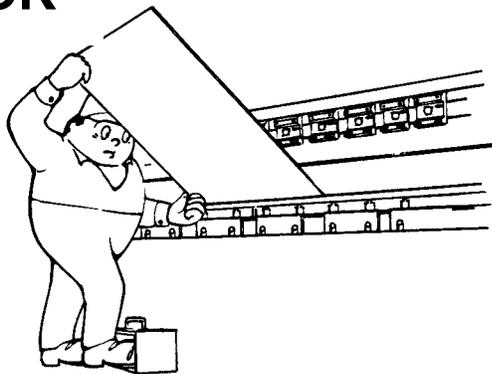
- 13) If the next bend in a workpiece involves the forward movement of the backgauge, push the worksheet against the stoppers of the backgauge after the backgauge moves to its forward position. If not, the worksheet may be pushed toward the operator when the backgauge moves forward.

- 14) Do not apply more pressure to the punches and dies higher than the maximum tonnage marked on them or designed in your tooling catalog. If the maximum pressure is exceeded, punches and dies may break and scatter in a dangerous manner. When 2V dies are used, use the V-groove toward the rear for additional safety.

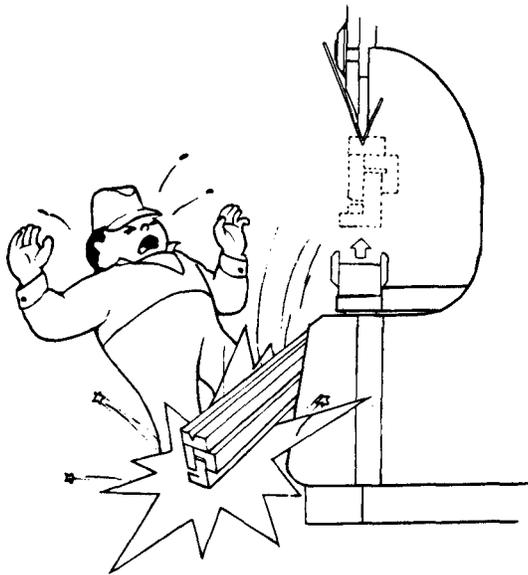


- 15) When bending a large worksheet, be careful of its upward movement as it can move faster than you might expect. Hold one side of the worksheet as shown below.

**OK**

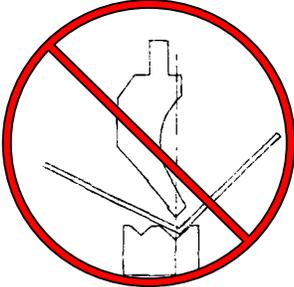
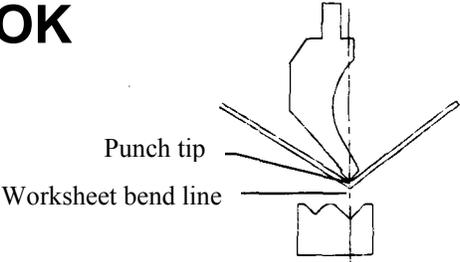


- 16) Before beginning a bending job, check that the punches and dies are securely mounted and tightened. With an acute angle or U-bend, the punches and dies may get stuck to the punches and/or dies. When ram moves to an open position, the punches and/or dies could be pulled out of position and fall out of the machine.

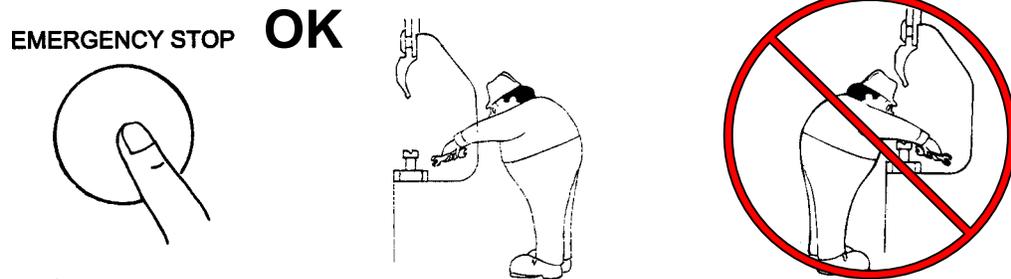


- 17) When re-striking a bend, align the punch tip of the punch with the bend line of the worksheet. If the worksheet is rebent without aligning the punch tip and worksheet bend line, an abnormal noise may be produced, and the punch and die may break and scatter in a dangerous manner.

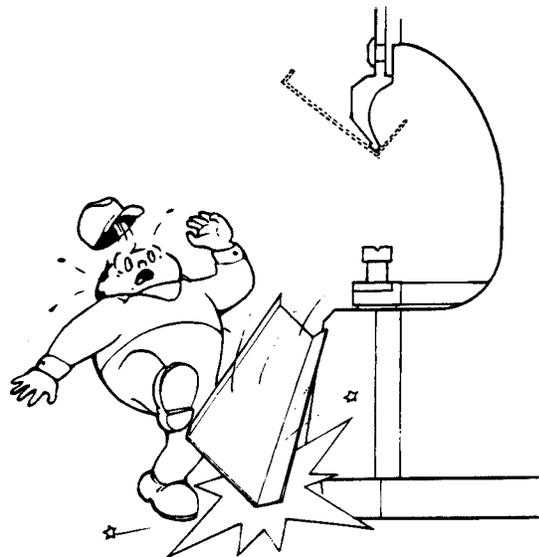
**OK**



- 18) Whenever a problem occurs during the operation of the machine, press the EMERGENCY STOP button, turn the tool change switch to TOOL CHANGE (or turn the MODE SELECT switch to OFF if machine is so equipped), remove and keep the key in your possession before working on the problem. If a worksheet has fallen into the machine, be sure to remove it from the rear of the machine only. Do not reach into the front of the machine.



- 19) If the machine suddenly loses power due to a power failure, the lower beam on RG-LD and RG-EX series press brakes may move down to the bottom position. In such a case, hold the worksheet over the lower dies so that it does not fall.

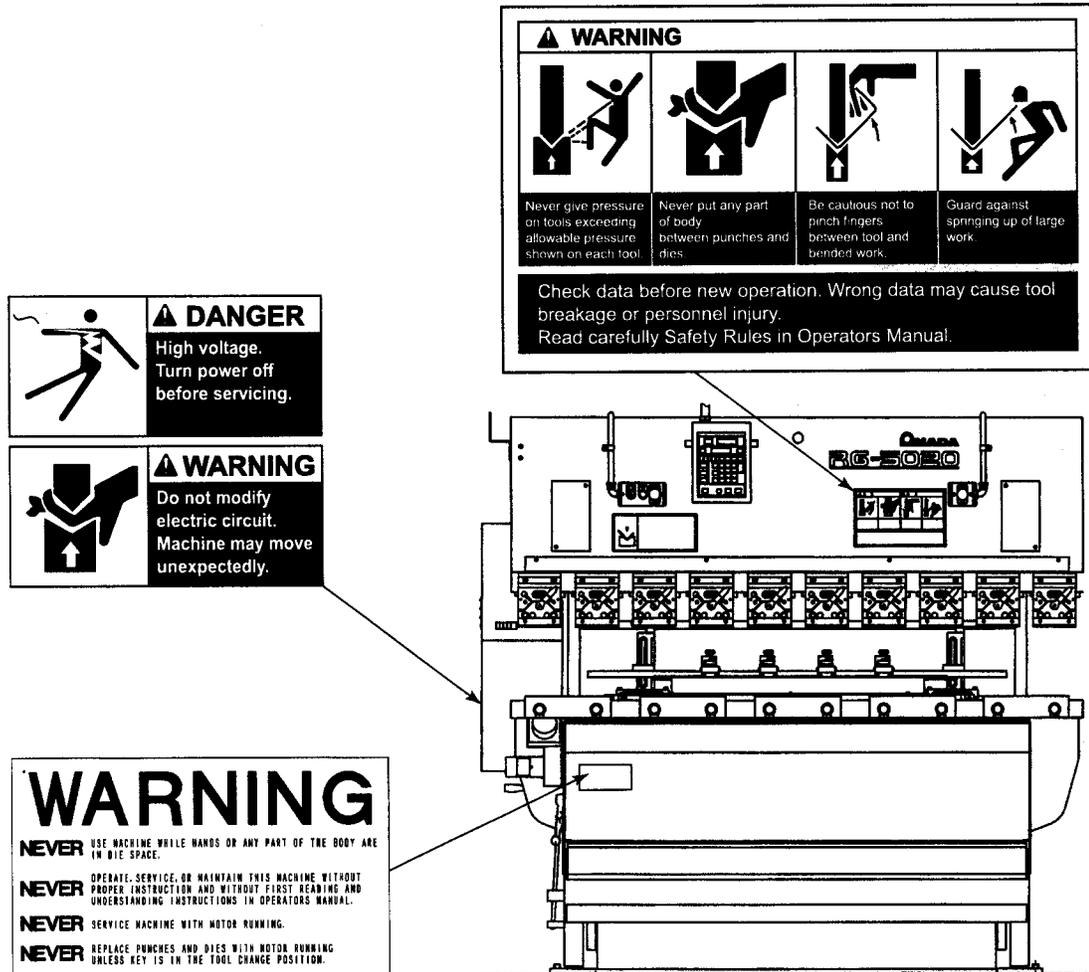


- 20) Before walking away from the machine, turn the tool change switch to TOOL CHANGE (or turn the MODE SELECT switch to OFF if machine is so equipped) then remove and keep the key in your possession.

- 21) Before opening the electrical enclosure, be sure to turn off the power to the machine. Failure to do so can cause electrical shock when you touch any part in the electrical enclosure.
  
- 22) Be sure to perform periodic maintenance on the machine. Refer to your operator manual for maintenance and lubrication instructions.
  
- 23) Before maintaining or cleaning the machine, turn off the shop circuit breaker and post a sign to notify other operators that the machine is under maintenance.
  
- 24) When relocating the machine, ask Amada service for proper moving instructions. If incorrectly moved, the machine may tip over.

## DANGER and WARNING plates for RG-EX and RG-LD Series Press Brakes

Keep DANGER and WARNING plates in plain sight and never remove them.

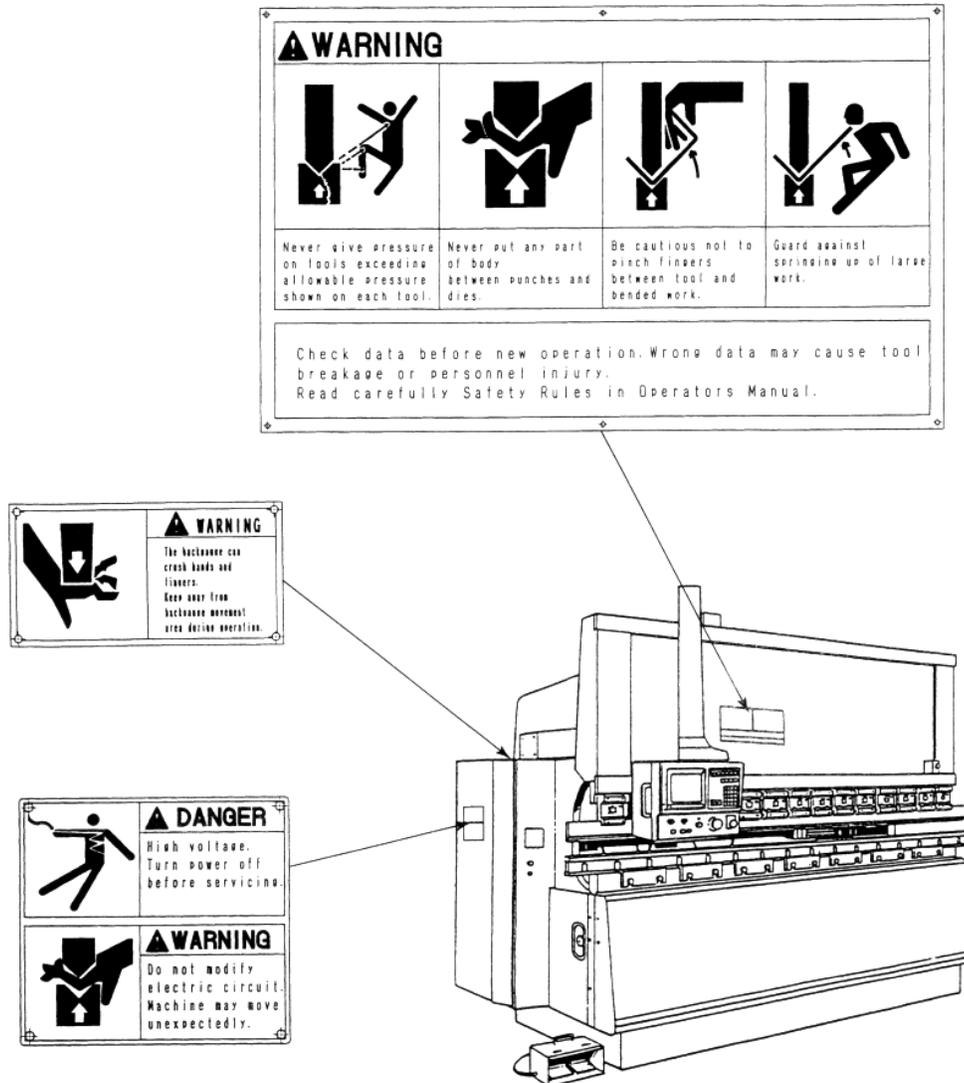


### Hazard seriousness level

 <b>DANGER</b>	<ul style="list-style-type: none"> <li>Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.</li> </ul>
 <b>WARNING</b>	<ul style="list-style-type: none"> <li>Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</li> </ul>
 <b>CAUTION</b>	<ul style="list-style-type: none"> <li>Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.</li> </ul>

## DANGER and WARNING plates for FBD-NT Series Press Brakes

Keep DANGER and WARNING plates in plain site and never remove them.

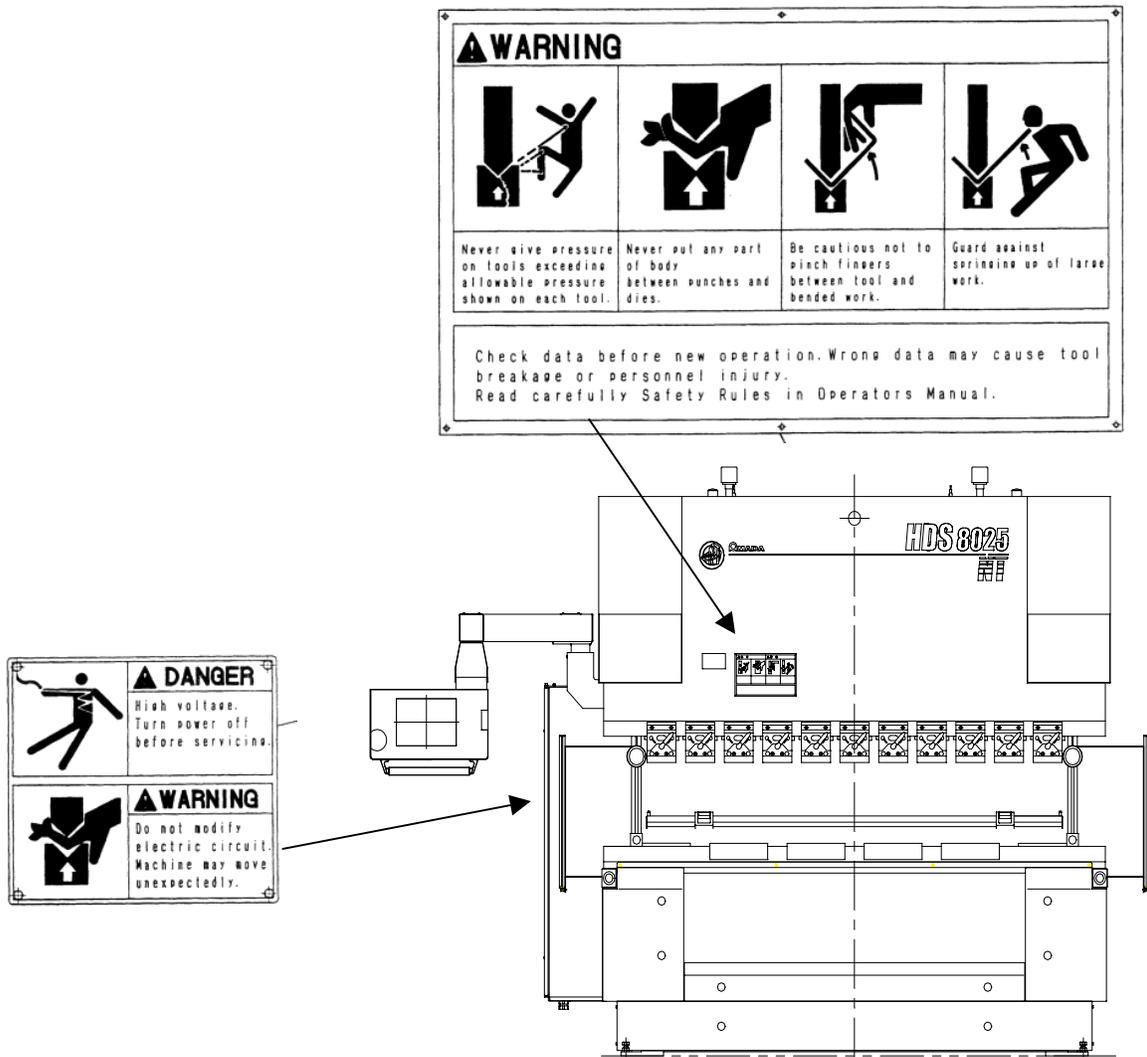


### Hazard seriousness level

	<b>DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	<b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	<b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

## DANGER and WARNING plates for HDS-NT Series Press Brakes

Keep DANGER and WARNING plates in plain site and never remove them.



### Hazard seriousness level

	<b>DANGER</b>	<ul style="list-style-type: none"> <li>Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.</li> </ul>
	<b>WARNING</b>	<ul style="list-style-type: none"> <li>Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</li> </ul>
	<b>CAUTION</b>	<ul style="list-style-type: none"> <li>Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.</li> </ul>