

RCI Safety Series Passport — Press Brake

Student Name: _____

Certification Date: _____, 20____

What should you do before using a press brake?

A press brake can be dangerous if not used properly.

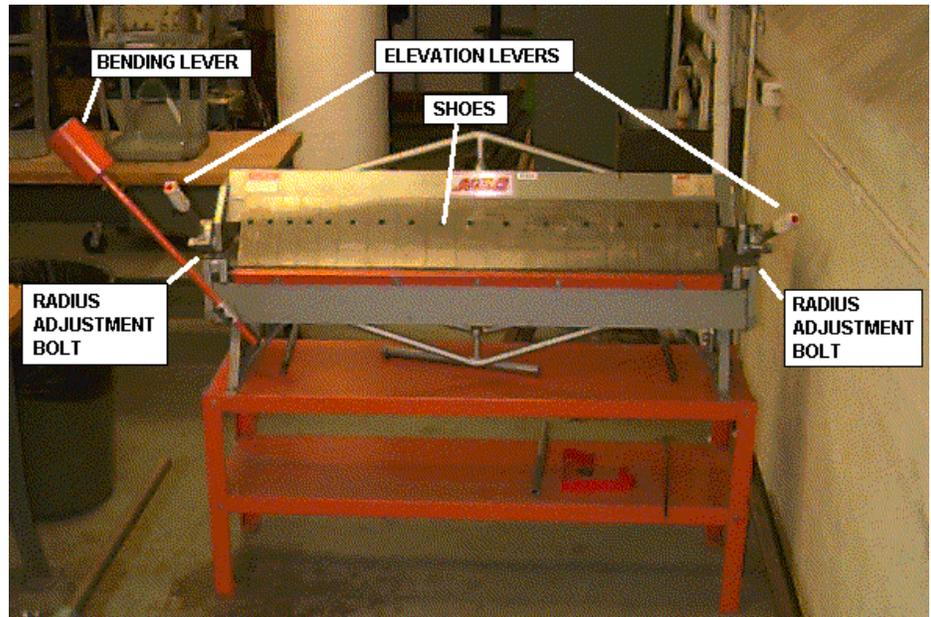
- ✓ Operate only with Mr. Ferguson's permission and after you have received proper instruction.
- ✓ Make sure you understand instructions before attempting to use any tool or machine.
- ✓ Learn the applications and limitations before use.
- ✓ Refer to the General Safety Tips sheet for general safety precautions.

What should you check before using a press brake?

- ✓ Ensure that the brake is rated to bend the gauge of sheet metal you're working with, or you may damage the brake.
- ✓ The gauge rating of a brake is generally marked prominently on the machine. Ensure you are within this rating.
- ✓ Are the parts and accessories in proper working condition?

What safety procedures should you follow when using a brake?

- ✓ Wear safety glasses or goggles.
- ✓ Contrary to other tools in the shop, sheet metal tools do require the use of gloves, as sheet stock can often have very sharp edges.
- ✓ Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to.
- ✓ Only trained students may operate the press brake.
- ✓ Keep hands/fingers away from working areas to keep them from getting "pinched" or crushed.
- ✓ Provide a minimum clearance of at least 3 feet around operator.
- ✓ When the stock is oriented properly, make a bend by pulling the bending lever.
- ✓ Observe all posted warnings.
- ✓ Ensure the press brake is rated to cut gauge of sheet stock you're using.
- ✓ Raise the shoes with the elevation levers, slide the work in place, and lower the shoes back down.
- ✓ The radius of the bend can be set with adjustment bolts on both sides of the press brake.
- ✓ Minimum bend radius is a function of the ductility and thickness of the material being worked (for aluminum sheet, the bend radius should be greater than the sheet thickness).
- ✓ Bend the work by applying force to the bending lever. It is necessary to bend the work slightly beyond the desired angle as the metal will "spring-back"; elastic deformation is recovered when the bending force is relaxed.



What should you avoid when using a press brake?

- ✓ When the material bends, the bending lever may strike someone on the opposite side of the brake. Ensure that both sides of the brake are clear before making a bend.
- ✓ Do not attempt to bend material thicker than the listed gauge.
- ✓ Only straight edges can be bent onto sheet metal stock using a brake.
- ✓ Only flat sheet stock (i.e., sheet metal) can be cut with the shear.
- ✓ When bending, be prepared for the sheet stock to rise vertically with the bend to avoid being struck by the sheet stock.

Ensure that you follow all shop safety rules

➔ **Safety First** ⬅