



PRESS BRAKE Assembly Instructions

Tools for assembly:

- ✓ Welder
- ✓ Grinder
- ✓ Level or Square
- ✓ 20 Harbor Freight Ton Press or Equivalent

Before starting the assembly process place all parts out as shown to ensure that you have received everything



20 TON HEAVY DUTY FINGER BRAKE



20 TON HEAVY DUTY PRESS BRAKE



20 TON STANDARD DUTY FINGER BRAKE



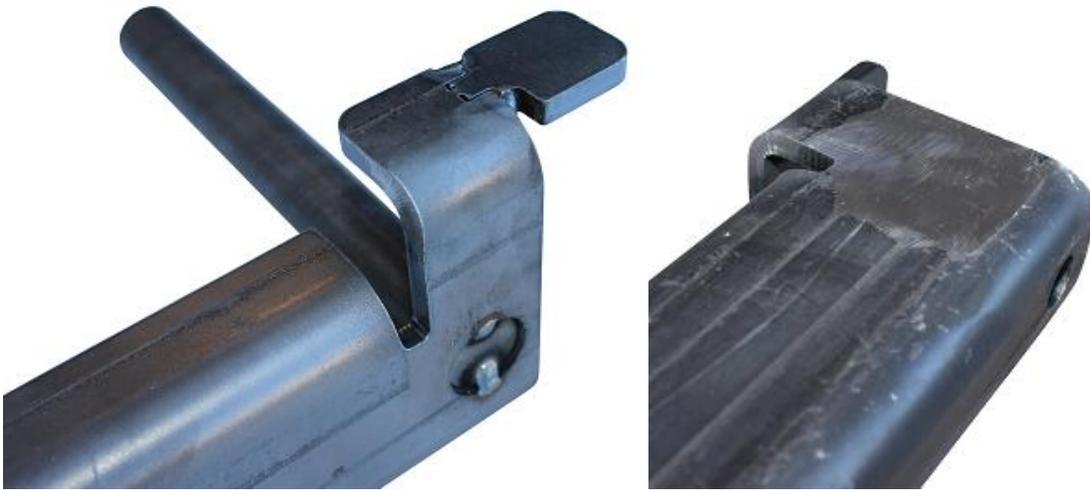
20 TON STANDARD DUTY PRESS BRAKE



12 TON FINGER BRAKE



Step 1. Welding the Guide Rods and Optional Clamping Ears



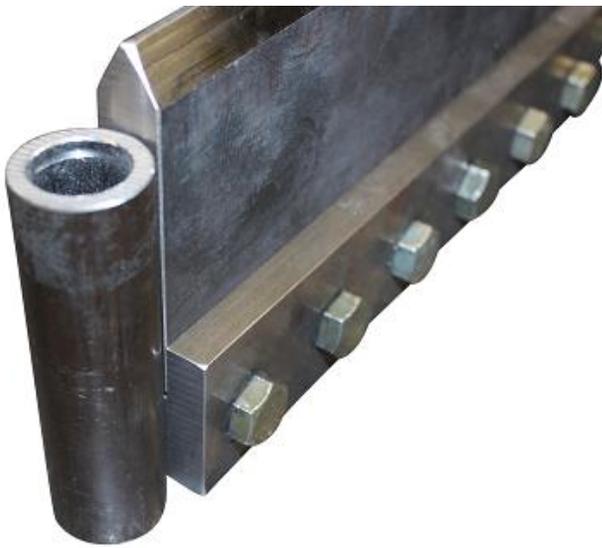
Using a press or a large hammer, push the ~7" long solid rods into the bottom formed tray. Ensure the shaft is pressed halfway through the bottom tray (approximately 1/8"-3/16.) **Note:** It should be a tight fit!

Using a small square, square up the rods with the bottom formed tray. Tack the rods into position from the bottom of the tray. Adjust as necessary to ensure the rods are square. Then, fully plug weld the bottom of the rod and grind smooth.

Tack the optional centering ears into position as shown above.

Step 2A. Welding Top Die for Finger Brake Kits ONLY

Position the machined top die clamping bar on a flat surface as show on the top of the next page. Use one of the finger inserts to provide a visual reference and center the guide tube. Tack the tube to the machined side of the clamp assembly. (**Note:** DO NOT weld directly to the fingers or the 1/2" thick steel plate that makes up the back side of the clamp, ONLY WELD THE GUIDE TUBES TO THE SIDE OF THE CLAMP THAT SAYS, "SWAG OFF ROAD FINGER BRAKE.")



Next, tack the guide tube in a couple different locations. (double check that the top die assembly will freely slide on the vertical guide rods welded in Step 1.) Adjust as necessary. Next fully weld both sides of the guide tubes to the machined side of the clamp assembly. (REMEMBER: Take time to protect the machined area where the finger dies are clamped. Welding spatter will easily stick to the clean machined surface if left exposed and prevent proper clamping of the finger.)



Depending upon the thickness of your weld it may be necessary to bevel the edge of the 1/2" thick threaded beam clamp to ensure it sits flush as shown below.



Step 2B. Welding the Top Die Non-Finger Brake Kits

Position the top die with the machined edge pointing up. Center up the guide tubes on the outside edge of the die as show below and tack into position. Double check that the top die will freely slide on the vertical guide rods welded in step 1. Adjust as necessary then fully weld both sides of the guide tubes.

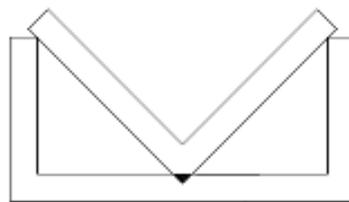


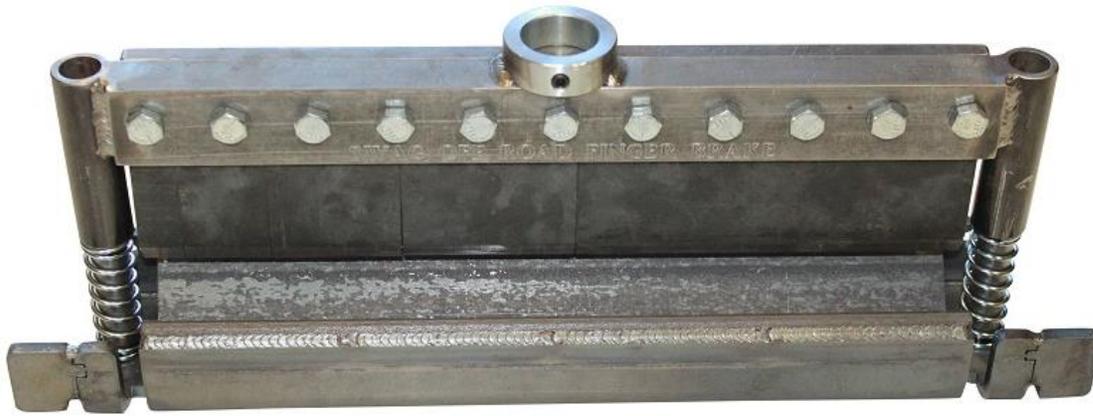
Step 3. Welding the Bottom Die

Weld the two provide 5/16" X 3/4" button head bolts to the formed base as shown below. (The head of these bolts will not be accessible once the bottom die is welded into position so weld thoroughly.) ~These bolts are mounting studs for the back-stop attachment.



Square up and center the bottom die to the press brake frame using the top die to help center the bottom die. Tack all four corners of the die first to reduce warping of the press brake frame. Next, fully weld the bottom die into position alternating sides while welding a few inches at a time. (If necessary, grind the bottom edge of the angle iron so it sits flush against the bottom formed channel)





Step 4. Shaft Collar

Weld the shaft collar to the center of the top die assembly as shown below. (Note: For the finger brakes, do not weld the shaft collar to the 1/2" thick steel, doing so will NOT allow you to remove the fingers. ONLY WELD THE SHAFT COLLAR TO THE SIDE OF THE CLAMP THAT SAYS, "SWAG OFF ROAD FINGER BRAKE.")



Step 5. Back Stop Assembly

Install the backstop assembly as show below. (**Note:** the top adjustment arm can be flipped around if you are needing a deeper back stop setting)



IMPORTANT NOTES: It is critical that you support the entire bottom side of the press brake. Failure to do so will destroy the press brake! (ask us how we know)

When bending, one must center up the piece you are working on in the middle of the die directly below the hydraulic ram.

Securely clamp both sides of the press brake frame to the upright supports of the hydraulic press.

DO NOT bend solid rod or steel with slag on edges! (It will damage the dies)

Always wear safety glasses, protective gear and keep fingers out of harms way.

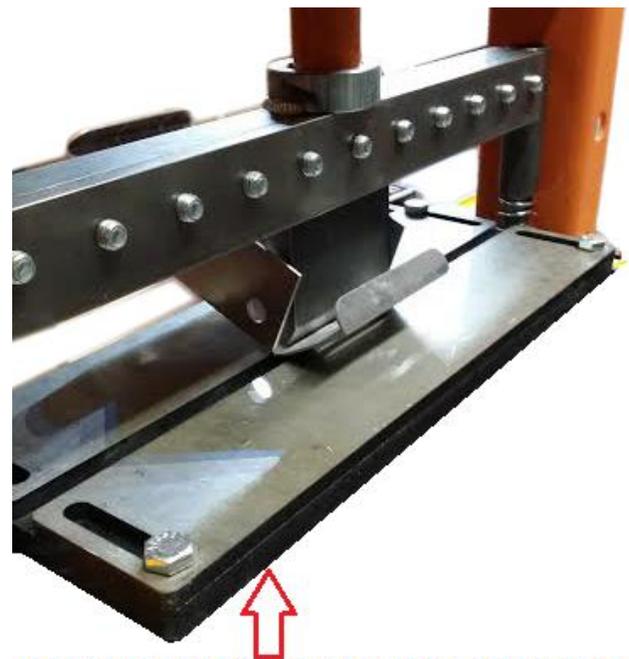
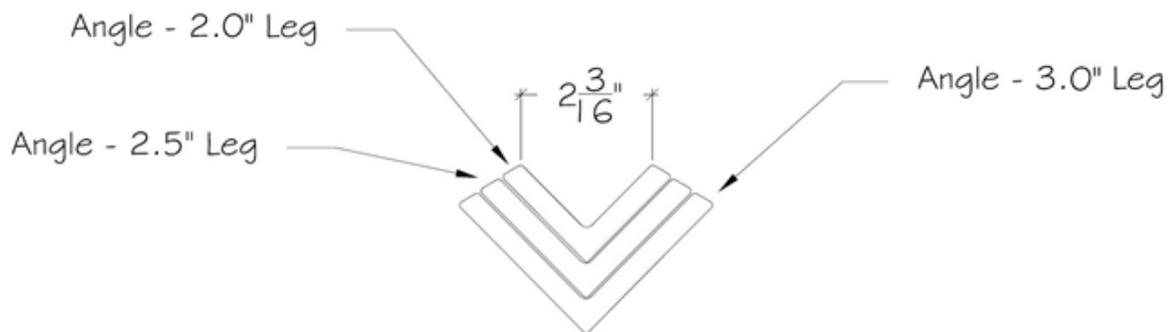
Thank you for the business! Visit us on [Facebook!](#)
Looking for a tighter bend radius?



Tip: Stacking smaller pieces of angle iron in the bottom die will decrease the bend radius. Use 2.5" x 2.5" x 1/4" then 2" x 2" x 1/4" angle.

Try the SWAG "FLAT TOP"! This is an adjustable bending platform that allows one to bend very narrow pieces with an extremely tight radius. (Available on our website)

Try the SWAG "ARBOR PRESS PLATES"! 1.5" thick high strength plates are better. We highly recommend these over the cast plates that can be prone to exploding under shock loads.



"FLAT TOP" DESIGNED FOR TIGHT BEND RADIUSSES

SWAG 1.5" THICK HIGH STRENGHT ARBOR PRESS PLATES
AVAILABLE IN 4 DIFFERENT SIZES



CAST ARBOR PLATES
THAT FAILED UNDER LOAD