

DIY 20-TON FINGER PRESS BRAKE ASSEMBLY INSTRUCTIONS.

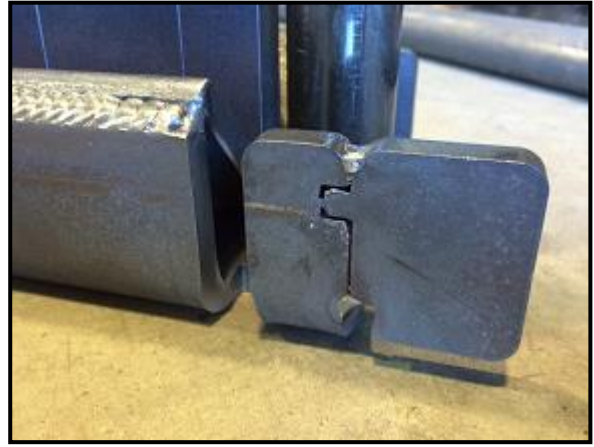
Tools needed for assembly:

- ✓ Welder
- ✓ Grinder
- ✓ Level or Square
- ✓ 20 HF Ton Press

Before you get started make sure you have everything shown in the picture below.



Step 1. Welding The Guide Rail Rods and Tabled Clamping Ears



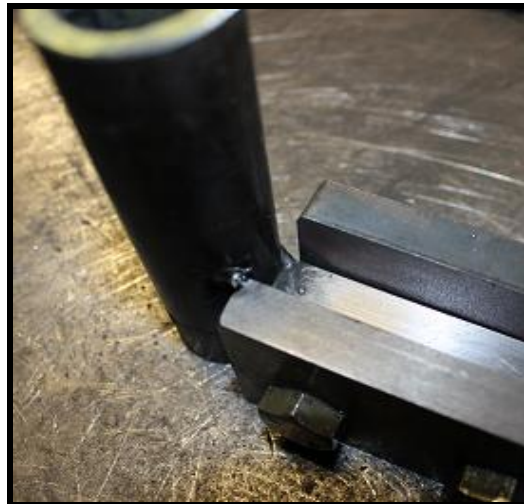
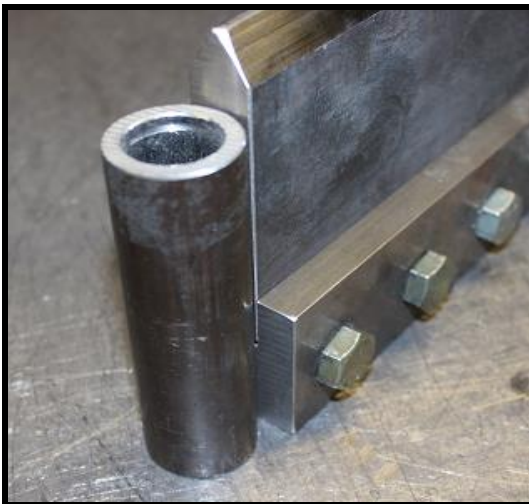
Using your shop press or a large hammer , press down on the ~7" long solid rod so the shaft is pressed half way through the bottom plate, note this will be a tight fit. From the bottom side, tack the rod into position,. Repeat this procedure on the other side.

Using a small square, square up the rod to the bottom plate in both directions. Make adjustments as necessary then fully weld the bottom side and grind smooth.

In order for the press brake kit to fit inside the flat rate shipping box and not poke through the ends, the ears have been removed and need to be tack welded into position as shown in the 2nd picture above.

Step 2. Welding The Top Die

Position the bottom machined top die clamp on a flat surface as show below. Using one of the finger inserts to help keep a visual reference that the tube is centered in the clamp tack the tube to the 1.25" thick machined clamp. **Note**, You will not weld directly to the fingers or the ½" thick steel plate on the back side.



Once you have tacked the guide tube in a couple different locations, double check that the top die assembly will freely slide on the vertical guide tubes welded in step 1, adjust as necessary then fully weld both sides of the guide tubes. Take time to protect the machined area where the finger dies slide into, as welding spatter will easily stick to the clean machined surface if left exposed.

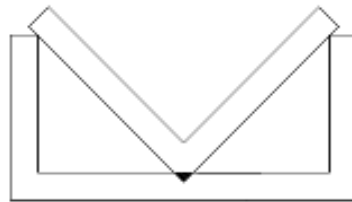
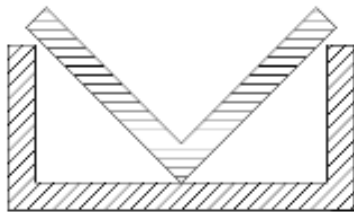


Depending upon the thickness of your weld it may be necessary to bevel the edge of the 1/2" thick threaded beam clamp to ensure it will sit flush.



Step 3. Welding The Bottom Die Into Position

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 corner of the die first to reduce warping of the press brake frame then fully weld the bottom die into position alternating sides welding few inches at a time. If necessary grind the bottom edge of the angle iron so it sits flush against the bottom formed channel.



Don't weld up the relief notch shown in the lower left of the picture below, this notch will be used later for the side stop assembly.



Step 4. Back Stop Guide Rails.

Using a chop saw or cut off wheel make one cut half way through the $\frac{3}{4}$ " dia tube. This slit only needs to be the width of the chop saw blade, or drill a $\frac{1}{2}$ " dia hole and plug weld the rod in place, roughly 1.0" up from the end of the tube. Thread on the $\frac{1}{2}$ " nut leaving $\frac{3}{8}$ " of threaded rod sticking out past the nut. Insert the 2" long threaded rod into the tube and weld the slit closed, and grind smooth.



Step 5. Side Stop Assembly

Install the springs onto the guide rails then install the top die. Install the back top guide rails with the supplied $\frac{1}{2}$ " nuts. Slide on the adjustable back stop and place the side stop into position. Weld the side stop into the press brake frame. **Note**, if you purchased the HD press brake kit you will need to open up the slot $\frac{.1}{16}$ " each side so it will slide over the $\frac{3}{8}$ " thick bend lip.



Step 6. Final Assembly.

Weld the shaft collar to the center of the top die assembly as shown below. **Note**, You will not weld the shaft collar to the $\frac{1}{2}$ " thick steel.



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

You must securely clamp both sides of the press brake frame to the up right supports of the hydraulic press.



The side stop has notch marks laser cut on the top surface. Align the back stop with the center of these notches for quick repeatable bending. The first notch is 2" away from the center of the top die, the 2nd notch is 3" away, the 3rd notch is 4" away and so on. If using the HD press brake kit the first notch is 3" away from the first notch and the 2nd notch is 4" away and so on.

Don't try to bend solid rod or steel with slag on edges, it will damage the dies.

Wear safety glasses and keep you fingers out of harms way.

Thanks for the order, and be sure to visit Swag Off Road on [Facebook](#).

