

# Edwards Ironworker

<b>Description</b>	Iron Worker- Edwards 55 Ton
<b>Size / Horse Power</b>	55 Ton / 5HP
<b>Power source</b>	208V 3 Phase
<b>Uses</b>	Punching, Shearing, Notching, and Bending of Metals

## Safety Precautions

### Hazards

- Electrical Shock
- Pinch and/or Crush
- Abrasions/Sharp Edges
- Quick Moving Material- rapid upward motion of material during bending/forming operation can contact operator
- Pressurized Fluids

### Training

- Shop Safety Fundamentals
- Site Specific Training

### Protective Equipment

- Cut resistant gloves
- Safety glasses



Power Switch

## Operation

### Startup

1. Put on PPE listed above
2. Ensure work area is clean and free of obstacles
3. Make necessary adjustments for safe operation
4. Ensure all guards are in place before starting
5. Ensure material or tools are not in work area of other functions on machine
6. To turn "ON" press the green "Push to Start" button
  - a. Resetting of the E-Stop may be necessary prior to starting
7. Align parts in work area
8. Slowly depress the foot control pedal to move ram
  - a. Slightly lifting your foot will pause the ram at the current position
9. If properly aligned depress foot control until ram bottoms out
10. Release foot pedal completely to return ram to fully retracted position

### Shutdown

1. Return machine to the ram fully retracted (raised) state
2. Remove all materials from the machine
3. Power machine off by depressing the E-Stop button
4. If applicable, remove punch and dies or rotate to largest opening

## Adjustments

### Installing/Removing Punches/Dies

1. With the machine off, loosen the 4 bolts securing the shield/wiper for the punch (3/4" wrench)
2. Rotate the shield up and retighten enough bolts to hold shield in raised location
3. Remove nut that holds the punch (should be hand tight)
4. Install the punch side of the punch/die set into the nut and tighten down using red wrench
  - a. If using an oblong or square punch/die, use a key stock to set the alignment of the punch
5. Install the lower die into the hole on the machine frame and tighten the set screw on the right hand side underneath the working surface
  - a. If using an oblong or square punch/die, align the flat faces of the die with the set screw prior to tightening.
6. Loosen the bolts holding the shield and lower to the operating position such that the height of the shield is just above the thickness of the material
7. Turn on machine and slowly operate the punch until fully extended to ensure the punch/dies are properly aligned prior to punching material
8. Once complete, turn off the machine and remove the punch/die from machine and return guard to operational location.
9. Return tools and punch/die to storage location

### Shear

1. With the machine off, adjust the hold down bar until contact is made with the material to be sheared and then back it off ½ of a turn.
2. Turn on the machine and position the material at the desired cut location and perform the cut
3. Once the shear operation is complete, power off the machine and remove all material from the work area and lower the hold down bar to the table surface

### Angle Iron Shear

1. With the machine off, adjust the hold down screw until contact is made with the material to be sheared and then back it off ½ of a turn.
2. Turn on the machine and position the material at the desired cut location and perform the cut
3. Once the shear operation is complete, power off the machine and remove all material from the work area and lower the hold down screw to the lower support surface

### Notcher

1. The notcher should only be installed or adjusted by a qualified individual. Contact the shop supervisor to identify who is qualified to perform these actions.
2. Turn on the machine and position the material at the desired notching location.
  - a. The notching guard is not adjustable and must remain installed for safe operation
3. Once the notching operation is complete, power off the machine and remove all material from the work area

### Brake

1. The brake should only be installed or adjusted by a qualified individual. Contact the shop supervisor to identify who is qualified to perform these actions.
2. With the machine off, adjust the lower die to the correct die for the material thickness being bent
3. Turn on the machine and position the material at the desired bending location.
4. Before starting bend, ensure hands are below the material and away from the punch/die
5. Slowly press the foot control pedal to begin the bending operation while paying attention to material location, hand placement, and interference with the machine
6. Once the bending operation is complete, power off the machine and remove all material from the work area and return the lower die to the largest opening die

## Maintenance

<b>Storage</b>	<ul style="list-style-type: none"><li>• Return punch to raised position</li><li>• Move control panel and foot controls close to machine</li></ul>
<b>Care</b>	<ul style="list-style-type: none"><li>• Clean punch and dies before and after use</li><li>• Prior to bending parts, ensure proper alignment of punch and die</li><li>• Periodically apply a light film of oil to punch and die. Grease guides and bearings per interval in operators manual</li></ul>
<b>Accessories</b>	