

Baileigh SW-443

Baileigh 44-Ton Four-Station Hydraulic Ironworker SW-443 Instruction Manual

Model: SW-443

1. INTRODUCTION

The Baileigh SW-443 is a pivot-style hydraulic ironworker designed for metal fabrication tasks. This machine offers a compact footprint and delivers 44 tons of force for various operations, including punching, flat-bar shearing, angle cutting, and section cutting. It operates at up to 23 cycles per minute, enhancing project efficiency. This manual provides essential information for the safe and effective use of the SW-443 ironworker.

2. SAFETY INFORMATION

Operating heavy machinery requires strict adherence to safety protocols to prevent injury and equipment damage. Always wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and hearing protection. Ensure the work area is clear of obstructions and well-lit. Never operate the machine under the influence of drugs or alcohol. Refer to all warning labels on the machine and in the full safety manual for detailed instructions.

- Always ensure guards are in place and functioning correctly before operation.
- Keep hands and body clear of moving parts and cutting/punching areas.
- Disconnect power before performing any maintenance or adjustments.
- Only trained and authorized personnel should operate this equipment.

3. PRODUCT OVERVIEW

The Baileigh SW-443 Ironworker features four primary workstations designed for versatile metalworking. These stations include flat-bar shearing, angle cutting, section cutting, and punching. The machine is equipped with a large reference table and product guides to assist with material handling and ensure repeatable results.



PUNCHING STATION

Image 3.1: Punching Station - This image displays the punching station, highlighting the punch and die components ready for operation.



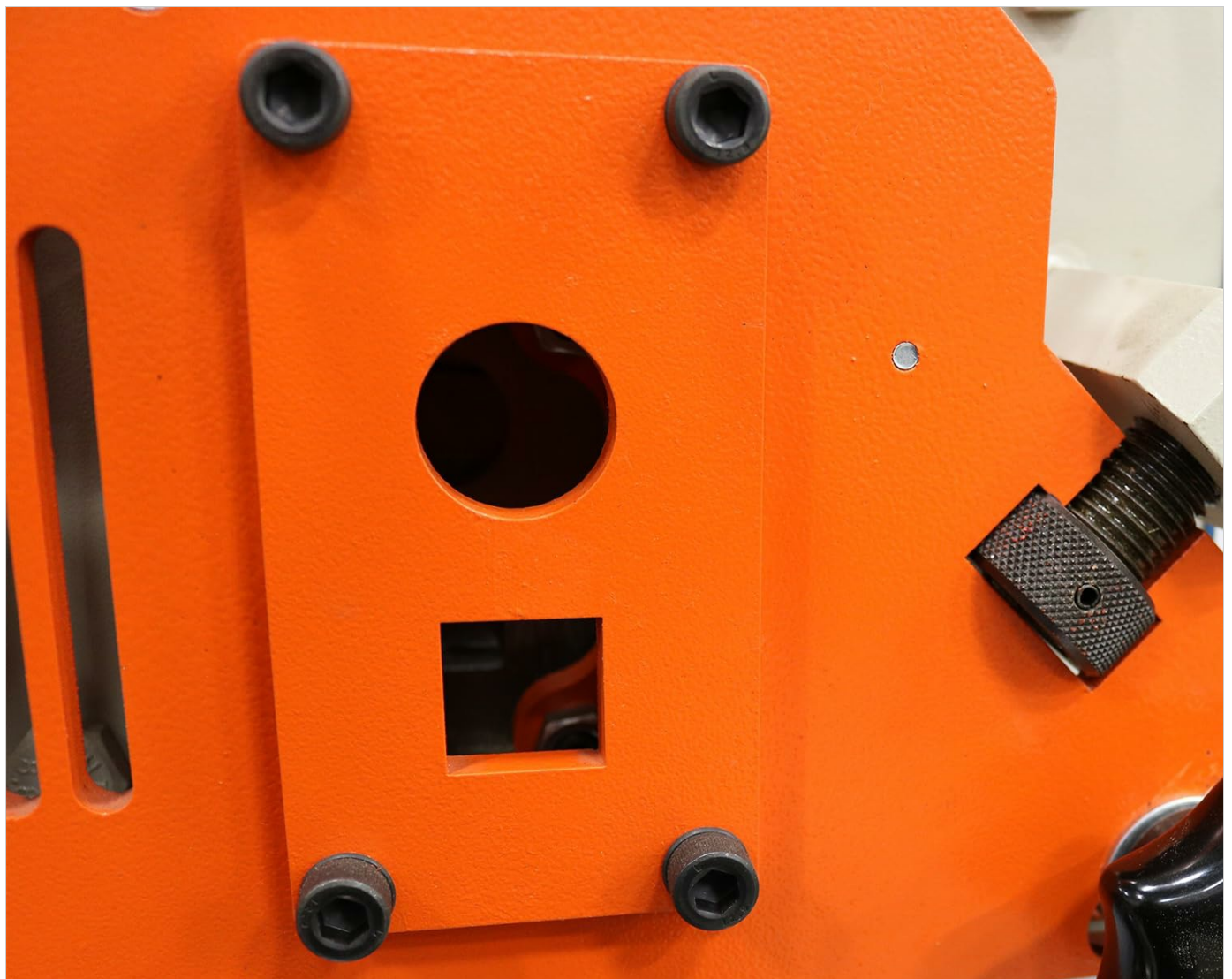
FLAT-BAR SHEARING STATION

Image 3.2: Flat-Bar Shearing Station - The flat-bar shearing station is shown, featuring the shearing blade and adjustable material guides for precise cuts.



ANGLE CUTTING STATION

Image 3.3: Angle Cutting Station - This image details the angle cutting station, including the cutting mechanism and adjustable stops for securing angle iron.



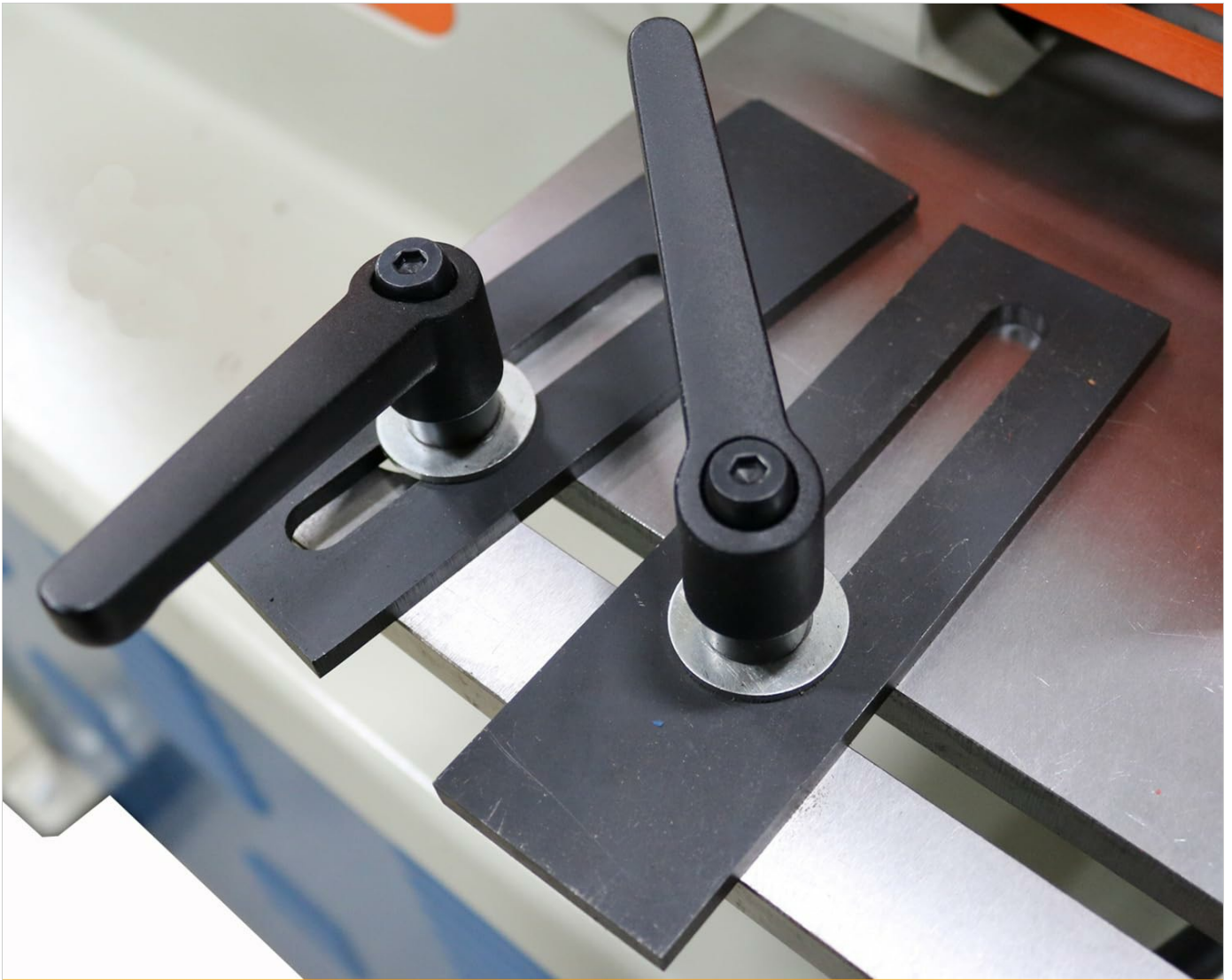
ROD SHEARING STATION

Image 3.4: Rod Shearing Station - The rod shearing station is depicted, featuring multiple openings for shearing rods of different diameters.



LARGE-BUTTON CONTROL PANEL

Image 3.5: Large-Button Control Panel - This image shows the user-friendly control panel with large, clearly labeled buttons for power, emergency stop, and various operational modes.



MATERIAL HOLD DOWNS

Image 3.6: Material Hold-Downs - The material hold-downs are visible, designed to firmly secure workpieces during shearing and punching operations for accuracy and safety.



STROKE ADJUSTMENT ACTUATORS

Image 3.7: Stroke Adjustment Actuators - This image shows the stroke adjustment actuators, which allow operators to precisely control the upstroke and downstroke limits for both punching and shearing.

The machine also features a large table with product guides for efficient material handling and a foot pedal for convenient operation. The quick-release punch and die system facilitates faster changeovers.

Your browser does not support the video tag.

Video 3.1: Baileigh SW-44 Ironworker Demonstration - This video provides a demonstration of the Baileigh SW-44 Ironworker in use, showcasing its various stations, control panel, and the quick-release punch and die system. It illustrates the machine's power and speed during operation.

4. SETUP

Before operating the Baileigh SW-443 Ironworker, ensure proper setup:

1. **Placement:** Position the machine on a level, stable surface capable of supporting its weight (approximately 1320 lbs). Ensure adequate clearance around the machine for safe operation and material handling.
2. **Power Connection:** Connect the machine to a 220V, 3-phase power supply as specified. Verify all electrical

connections are secure and meet local electrical codes.

3. **Tooling Installation:** Install the appropriate punch and die for your specific task. The quick-release system allows for fast and efficient changeovers. Ensure the punch and die are correctly aligned and secured.
4. **Adjustments:** Utilize the stroke adjustment actuators to set the desired upstroke and downstroke limits for both the shearing and punching sections. Adjust material hold-downs and product guides as needed for the material being processed.
5. **Initial Check:** Perform a visual inspection of the machine for any loose parts, damage, or obstructions. Test the emergency stop function.

5. OPERATING INSTRUCTIONS

The Baileigh SW-443 Ironworker is operated using a large-button control panel and a foot pedal. Follow these general steps for operation:

1. **Power On:** Turn on the main power switch on the control panel.
2. **Select Mode:** Choose the desired operation mode (e.g., Punch, Notch) using the selector switch on the control panel.
3. **Material Placement:** Carefully position the workpiece on the appropriate station (punching, flat-bar shearing, angle cutting, or rod shearing). Use the product guides and material hold-downs to ensure the material is correctly aligned and secured.
4. **Operation:** Depress the foot pedal to activate the hydraulic ram. The ram will move down to perform the selected operation. Release the foot pedal to return the ram to its upstroke position.
5. **Repetitive Tasks:** For production runs, utilize the adjustable product guides to maintain consistency and efficiency.
6. **Power Off:** After completing work, turn off the main power switch.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and optimal performance of your Baileigh SW-443 Ironworker. Perform the following tasks:

- **Daily:** Clean the machine surfaces and remove any metal shavings or debris. Inspect punches, dies, and shear blades for wear or damage.
- **Weekly:** Check hydraulic fluid levels and top off if necessary. Inspect hydraulic hoses and connections for leaks. Lubricate all moving parts as recommended in the detailed service manual.
- **Monthly/Quarterly:** Inspect electrical connections for tightness. Check for proper alignment of all tooling. Replace worn or damaged components promptly.
- **Annual:** Have a qualified technician perform a comprehensive inspection and service.

Always refer to the complete maintenance schedule provided in the official product manual for detailed instructions and specific lubrication points.

7. TROUBLESHOOTING

This section addresses common issues that may arise during the operation of the SW-443 Ironworker. For complex problems, contact customer support.

- **Machine does not power on:**
 - Check power supply connection.
 - Verify main power switch is in the 'ON' position.
 - Ensure emergency stop button is not engaged.

- **Ram does not move:**

- Check hydraulic fluid level.
- Ensure foot pedal is fully depressed.
- Verify correct operation mode is selected.

- **Poor cut/punch quality:**

- Inspect punches, dies, or shear blades for wear or damage; replace if necessary.
- Ensure material is properly secured with hold-downs.
- Verify correct tooling for the material thickness and type.

8. SPECIFICATIONS

Feature	Detail
Model Number	SW-443
Brand	Baileigh
Load Capacity	44 Tons
Power	3 HP, 220V 3Ph
Cycles Per Minute	Up to 23
Material	Iron
Color	Blue
Item Weight	1320 pounds
Package Dimensions	59 x 44 x 22 inches
Manufacturer	JPW Industries
Date First Available	September 25, 2013
Included Accessories	Ironworker, .75-inch Punch & Die

9. WARRANTY

The Baileigh SW-443 Ironworker comes with a **1 Year Warranty**. For specific terms and conditions, please refer to the warranty documentation included with your product or contact Baileigh customer support.



Image 9.1: 1 Year Warranty - This image confirms the product is covered by a one-year warranty.

10. CUSTOMER SUPPORT

For further assistance, technical support, or to inquire about optional tooling, please contact Baileigh Industrial. Experienced representatives are available for troubleshooting and project advice.

Visit the official Baileigh Industrial website for more information:

www.baileigh.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question