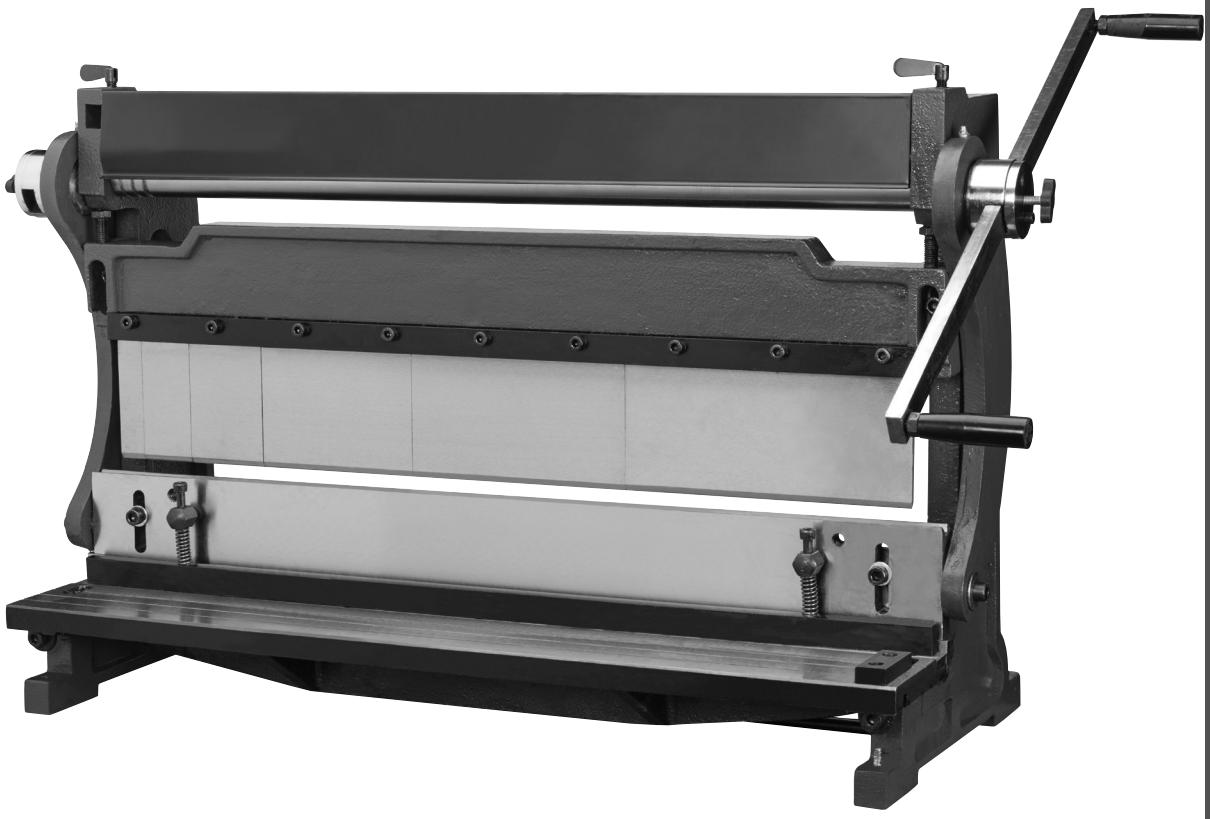
Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference. 20g

CENTRAL MACHINERY®

30" SHEAR, PRESS BRAKE AND SLIP ROLL



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Email our technical support at: productsupport@harborfreight.com

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When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.

Table of Contents

WARNING SYMBOLS AND DEFINITIONS	
⚠	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

Work Area Safety

1. **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
2. **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

Personal Safety

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
2. **Use safety equipment. Always wear eye protection.** *Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
3. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
4. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*

Tool Use and Care

1. **Do not force the tool.**
   Use the correct tool for your application.
   The correct tool will do the job better and safer at the rate for which it was designed.

2. **Store idle tools out of the reach of children and do not allow persons unfamiliar with the tool or these instructions to operate the tool.** *Tools are dangerous in the hands of untrained users.*

3. **Maintain tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the tool repaired before use.** *Many accidents are caused by poorly maintained tools.*

4. **Keep cutting tools sharp and clean.**
   Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

5. **Use the tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the tool for operations different from those intended could result in a hazardous situation.*

6. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

7. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Service

Have your power tool serviced by a qualified repair person using only identical replacement parts.
This will ensure that the safety of the power tool is maintained.

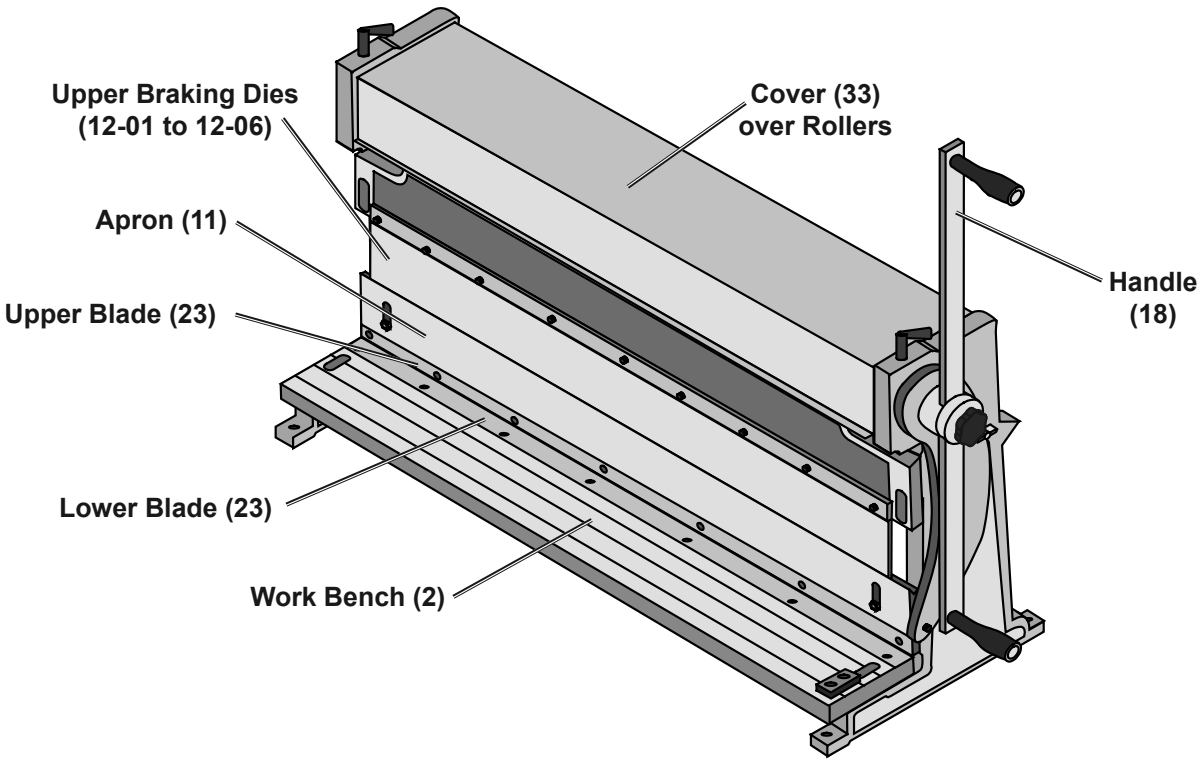
Specifications

Maximum Workpiece Width	30"
Maximum Workpiece Thickness	20 Gauge
Roll Diameter	1-1/2"
Wire Forming Grooves	5/32", 11/64", and 7/32"
Die Sizes	1", 2", 3", 6", 8", and 10"

Assembly Instructions

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this document including all text under subheadings therein before set up or use of this product.

Functions



Mounting

Before use, mount the unit to a strong level surface that is designed to handle the weight of this machine, plus any additional weight placed on it during use. If mounting onto a bench or other wooden surface:

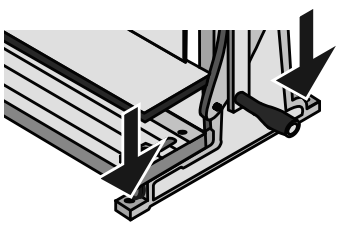


Figure A: Mounting Holes

1. Select four Bolts, eight Washers, and four Nuts (not included) to accommodate the four 6mm holes on the Left and Right Frames (1,5). Place the Press Brake in the location it will be mounted in. Make a mark in the center of each of the 4 mounting holes. Set the unit aside.

WARNING! TO PREVENT SERIOUS INJURY: Before drilling the holes, make sure that there are no electric wires, cables, utility lines or other obstructions in the area to be drilled in.

2. Drill the holes straight down, large enough to allow your mounting hardware to fit.

3. Put the Press Brake in place and mount using the hardware. Tighten all hardware securely before use.

Handle Removal & Adjustment

Adjust or move the Handle (18) by removing one of the Handle Knobs (26) and loosening the Bolt (42) that holds the Handle in place. Slide the Handle out of its socket, move to the opposite side of the tool if desired, and tighten it in the most convenient position.

Braking Die Installation & Adjustment

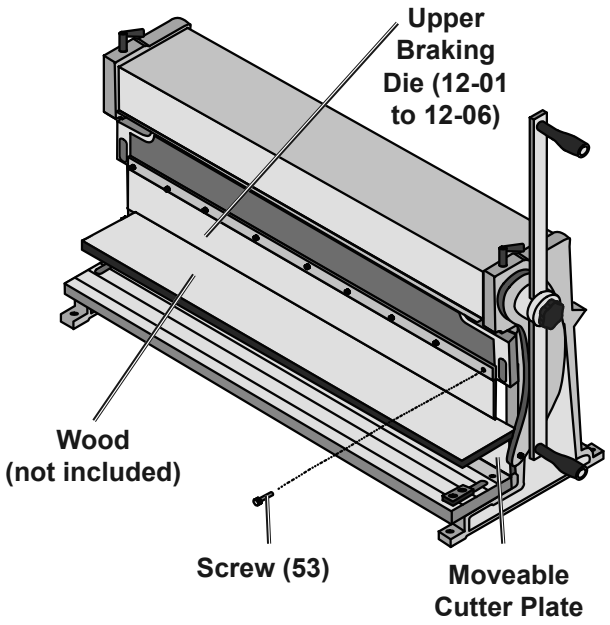


Figure B

1. The Upper Braking Dies (12-01 to 12-06) can be used for varying sizes of box and pan forming. When forming a smaller box or pan, choose the desired size Upper Die, center it and remove the others.
2. The Shear Brake Roll can be used to bend sheet metal up to 20 gauge.
3. The space between the Upper Die and the Apron (11) is adjustable.
4. To adjust the spacing:
   a. Place a flat straight piece of wood (not included) between the Upper Braking Die and the Apron and raise the Apron so that the material just touches the Upper Die.
   b. Loosen the Screws (53) holding the Upper Die in place. Do not remove them.
   c. Remove any unneeded Upper Dies.
   d. Raise and lower the Apron and use the block of wood to adjust the alignment of the Upper Dies.
   e. Tighten the Upper Die Screws.

Upper Blade Installation & Adjustment

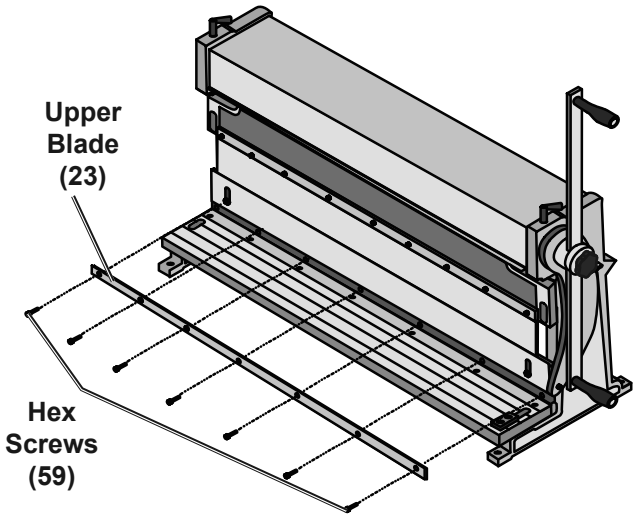


Figure C

1. Remove the Hex Screws (59) from the Upper Cutting Blade (23).
2. Remove the Upper Cutting Blade.
3. Align the Upper Cutting Blade so that it is flush with the Apron (11) and secure with its Screws.
4. To adjust the Upper Blade:

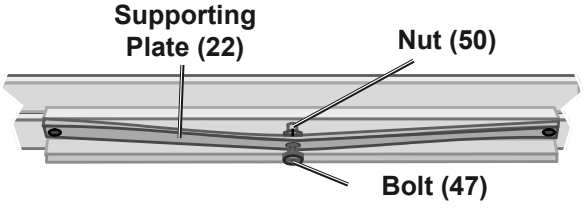


Figure D

   a. Place a 30″ piece of thin cardboard or paper between the Upper and Lower Cutting Blades (23).
   b. Rotate the Handle (18) and cut the material. Use a straight edge to determine the straightness of the cut and if the Blade needs adjustment.
   c. If the Blade is bowed out away from the front of the tool, turn the adjustment Nut (50) counterclockwise. This will tighten the Supporting Plate (22) and push the middle of the Upper Blade (23) out while pulling in its ends.

d. If the Blade is bowed in towards the back of the tool, turn the adjustment Nut clockwise. This will loosen the Supporting Plate and pull the middle of the Upper Blade in while pushing its ends out.

Lower Blade Installation & Adjustment

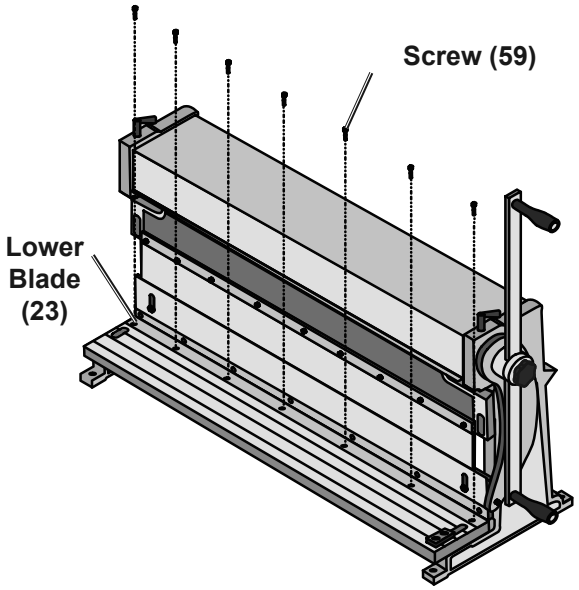


Figure E

1. Remove the Screws (59) from the Lower Cutting Blade (23).
2. Remove the Lower Cutting Blade.
3. Replace the Lower Cutting Blade and secure with the Screws.
4. To adjust the Lower Blade:

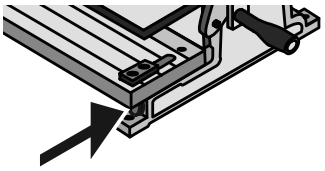


Figure F

a. Lower the Upper Cutting Blade to its lowest position.

b. Loosen the two inset Screws (57) located on the top of the Work Bench (2).

c. Adjust the Lower Cutting Blade by turning its Adjustment Screws. The distance between the Lower Cutting Blade and Upper Cutting Blade should be 5 to 8 percent of the thickness of the workpiece.

d. Tighten the two inset Screws.

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Workpiece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.
2. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
3. There must not be hazardous objects, such as utility lines or foreign objects, nearby that will present a hazard while working.
4. You must use personal safety equipment including, but not limited to, ANSI-approved eye and hearing protection, as well as heavy-duty work gloves.

General Operating Instructions

Cutting

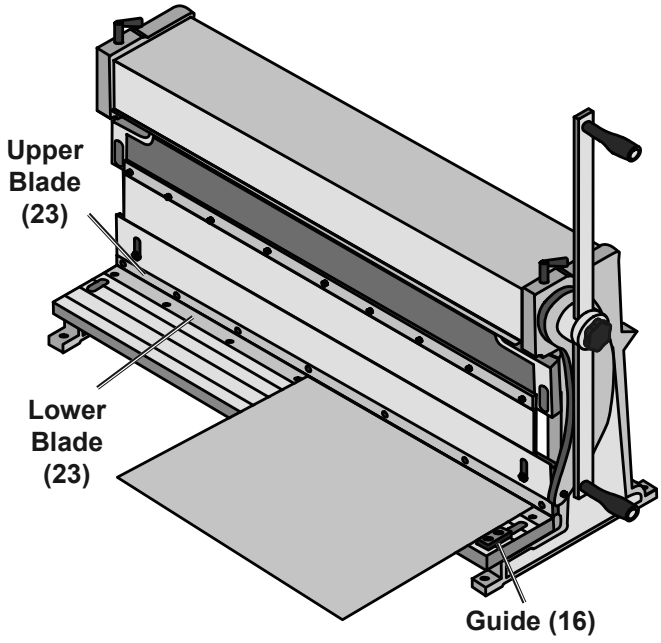


Figure G

1. Scribe the cutting mark on the material.
2. Slide the material between the Upper and Lower Cutting Blades so that the Upper Blade is positioned directly above the mark and the right hand side of the material rests against the Guide (16).
3. While holding the material steady, rotate the Handle until the material has been cut.

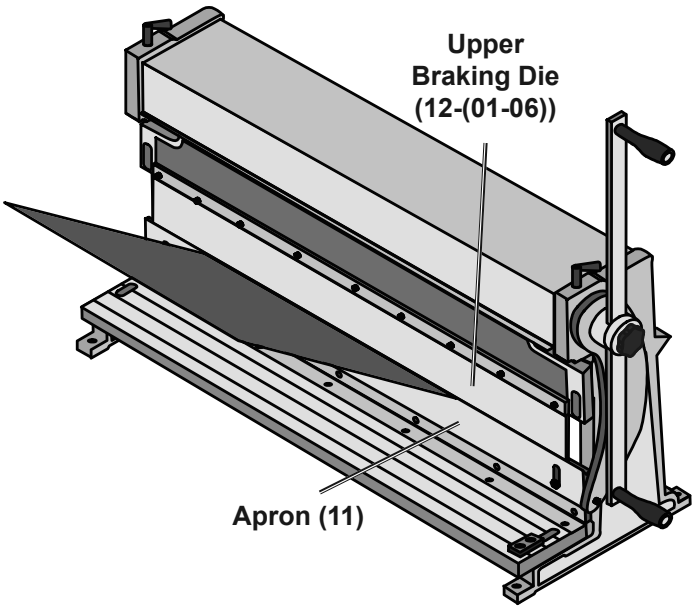


Figure H

1. Mark the workpiece where you want to bend the material.
2. Place the material above the Apron (11).
3. Align the bending mark with the front edge of the Upper Braking Die.
4. Rotate the Handle (18) until the desired angle has been formed. Use a protractor or other measuring tool to ensure accuracy.

Radius Bending

Radius bending is most commonly used to make cylinders and cones. Both shapes are formed by making a series of small, closely spaced bends in the workpiece.

For cylinders, the bends are evenly spaced, i.e. every bend is identical.

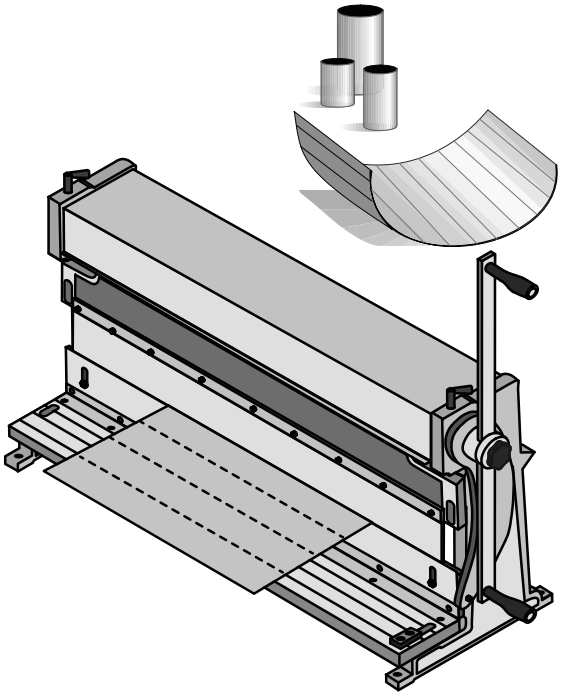


Figure I

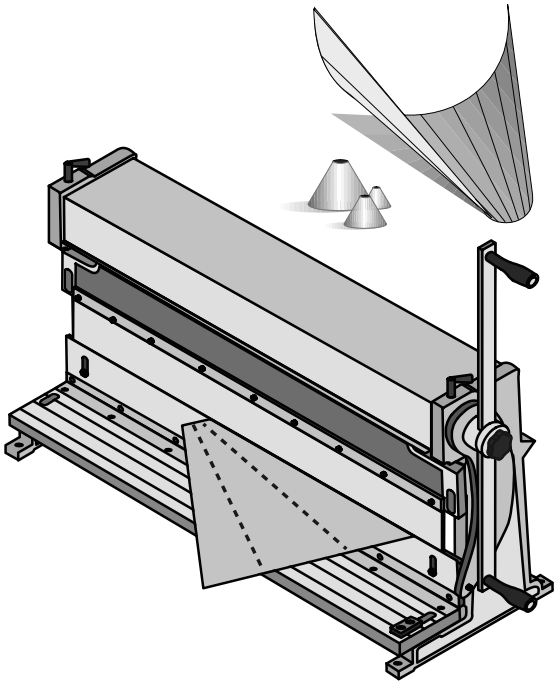


Figure J

For cones, move one side of the stock out farther than the other for every bend.

Wire or Sheet Metal Rolling

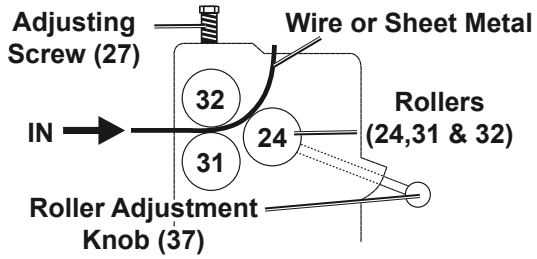


Figure K

1. Move the Cover (33) back and out of the way.
2. Coat the Pressing Rollers (24, 31 and 32) with general purpose grease for smooth operation. Clean any dirt or excess grease from the Rollers.
3. Drop the Back Pressing Roller (24) by loosening the Roller Adjusting Knob (37). The Back Pressing Roll (24) forms the radius in the material. The closer it is to the front Rollers, the smaller the radius will be. The Roller Adjustment Knob (37) adjusts the spacing of the Back Pressing Roller.
4. Test with scrap metal first, as metals have different bending characteristics.
5. Insert just the leading edge of your workpiece between the Upper Pressing Roll (32) and Lower Pressing Roll (31), and tighten the roll bar gap Adjusting Screw (27) until the Roll Bars are barely snug against the workpiece.

Note: For wire, insert the wire into the proper sized groove in the Upper Pressing Roller (32).

6. Advance the Back Pressing Roll with the Roller Adjustment Knob (37) as much as desired depending on the tightness of the roll to be accomplished. The tighter the roll, the more the knobs must be advanced.
7. Rotate the Handle (18) until the proper roll has been achieved. The material should feed itself through the rollers as you crank the Handle Assembly.

Note: To remove rolled material from Rollers without damaging the roll, loosen the Adjusting Screw, lift the Top Roller out of the groove and away from the Brake, and slide the rolled material off the rollers.

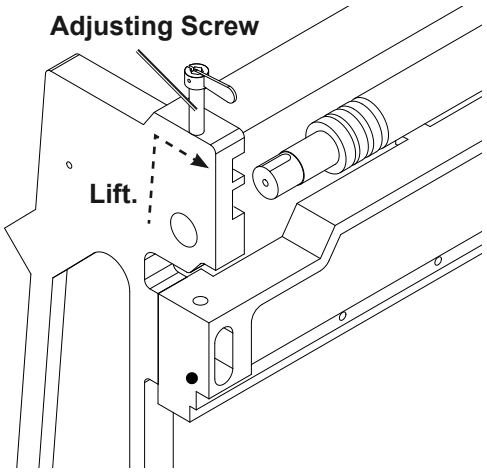


Figure L

Push the Top Roller back into the groove and tighten the adjusting screw when finished.

Pan Forming

Pans of various sizes can be formed with a maximum lip (side) of 1″.

To form a pan:

1. Pre-measure and cut the material before bending. Notch the corners according to the desired lip height.

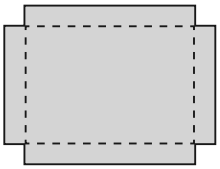


Figure M

2. Insert the material between the Upper Braking Die and the Apron. Bend the material until a 90º angle has been formed.

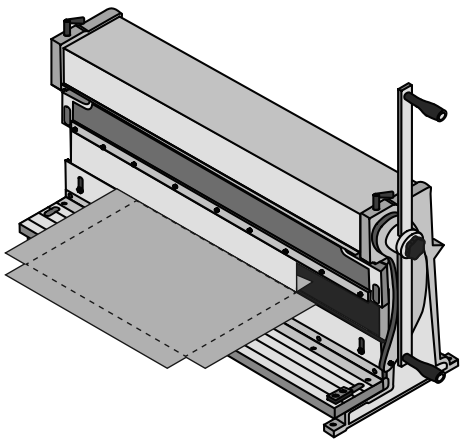


Figure N

3. Rotate the material 90º counterclockwise. Allow the completed side to extend just beyond the Die. Bend the second side.

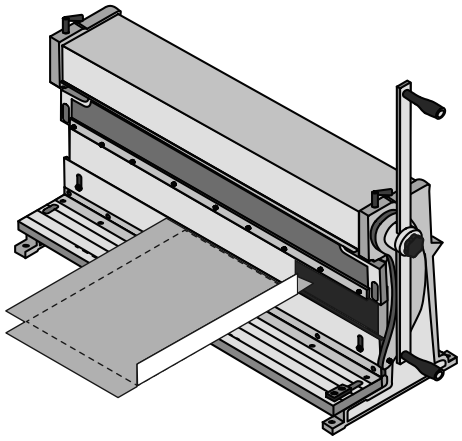


Figure O

4. Repeat Step 3 for the third side.

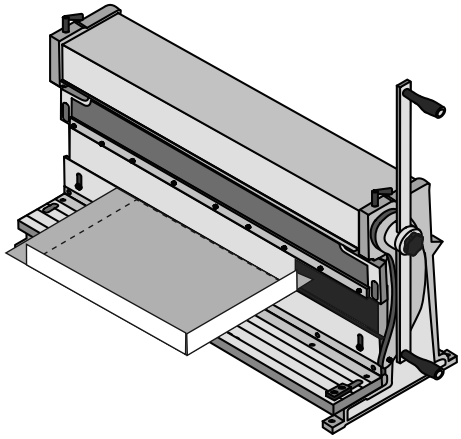


Figure P

5. Rotate to the final side, and insert the workpiece between the dies. The formed sides will be on the outside of the Die.

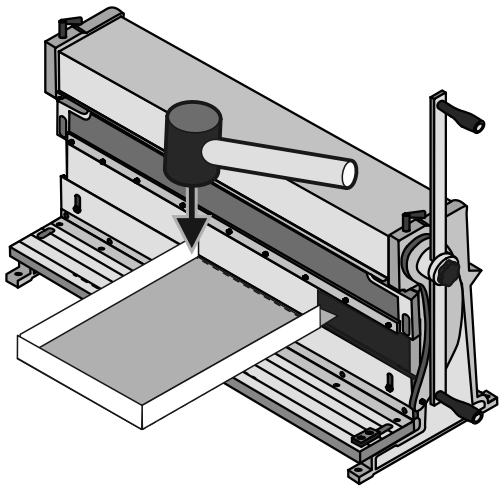


Figure Q

6. Before bending, tap one corner nearer to the middle of the machine. This will allow the material to clear the Upper Braking Die when raised.
7. Bend the fourth side.
8. Using a block or piece of wood, tap the corner of material back into place.

Pressing

1. Slide the Press Plate Bracket (8) of the Press Plate Assembly into the receiver holes of the Apron. Note that the Press Plate (10) should be facing down.
2. Place the workpiece so that it is centered under the Press Plate.
3. Rotate the Handle (18) to press the workpiece.

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE,** inspect the general condition of the tool. Check for:
   a. loose hardware,
   b. misalignment or binding of moving parts,
   c. cracked or broken parts, and
   d. any other condition that may affect its safe operation.
2. Regularly grease all moving parts.
3. **AFTER USE,** wipe external surfaces of the tool with clean cloth.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Bending		
Bend is distorted.	1. Clamping pressure too tight. 2. Radius set back too close.	1. Adjust clamping pressure so that the workpiece has little or no clamping pressure at the outside edges of the tool. 2. Adjust the radius set back to at least 1-1/2 times the thickness of the material being bent, then readjust the clamping pressure.
Bend angle doesn't match from end to end.	Clamp misaligned.	Measure angle at each end of bend, then adjust radius set back on each side as needed.
Cutting		
Metal doesn't cut evenly.	Upper Blade bowed.	Turn Adjustment Nut clockwise to loosen or counter clockwise to tighten. **CAUTION! Do not overtighten Supporting Plate.** Overtightening Supporting Plate will cause permanent distortion.
Blades don't cut through metal.	1. Blades dull. 2. Blade distance needs adjustment.	1. Replace Blades. 2. Adjust distance of Lower Cutting Blade.
Rolling		
Rolled shape uneven from one end to the other end.	Rollers misaligned.	Check and align rollers.

Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.

Parts List

Part	Description	Qty
1	Left Frame	1
2	Work Bench	1
3	Cross Beam	1
4	Crank Arm	2
5	Right Frame	1
6	Rear Frame	1
7	Cover	2
8	Press Plate Bracket	2
9	Spring	2
10	Press Plate	1
11	Moving Cutter Plate	1
12-1	Upper Braking Die 10″	1
12-2	Upper Braking Die 8″	1
12-3	Upper Braking Die 6″	1
12-4	Upper Braking Die 3″	1
12-5	Upper Braking Die 2″	1
12-6	Upper Braking Die 1″	1
13	Die Clamping Plate	1
14	Bolt M10x60	2
15	Arm Rolling Wheel	2
16	Guide	1
17	Adjustable Nut	2
18	Handle	1
19	Threaded Rod	2
20	Positioning Plate	2
21	Limited Block	1
22	Support Plate	1
23	Blade	2
24	Back Pressing Roll	1
25	Lead Screw	2
26	Nut M10	2
27	Adjusting Screw	2

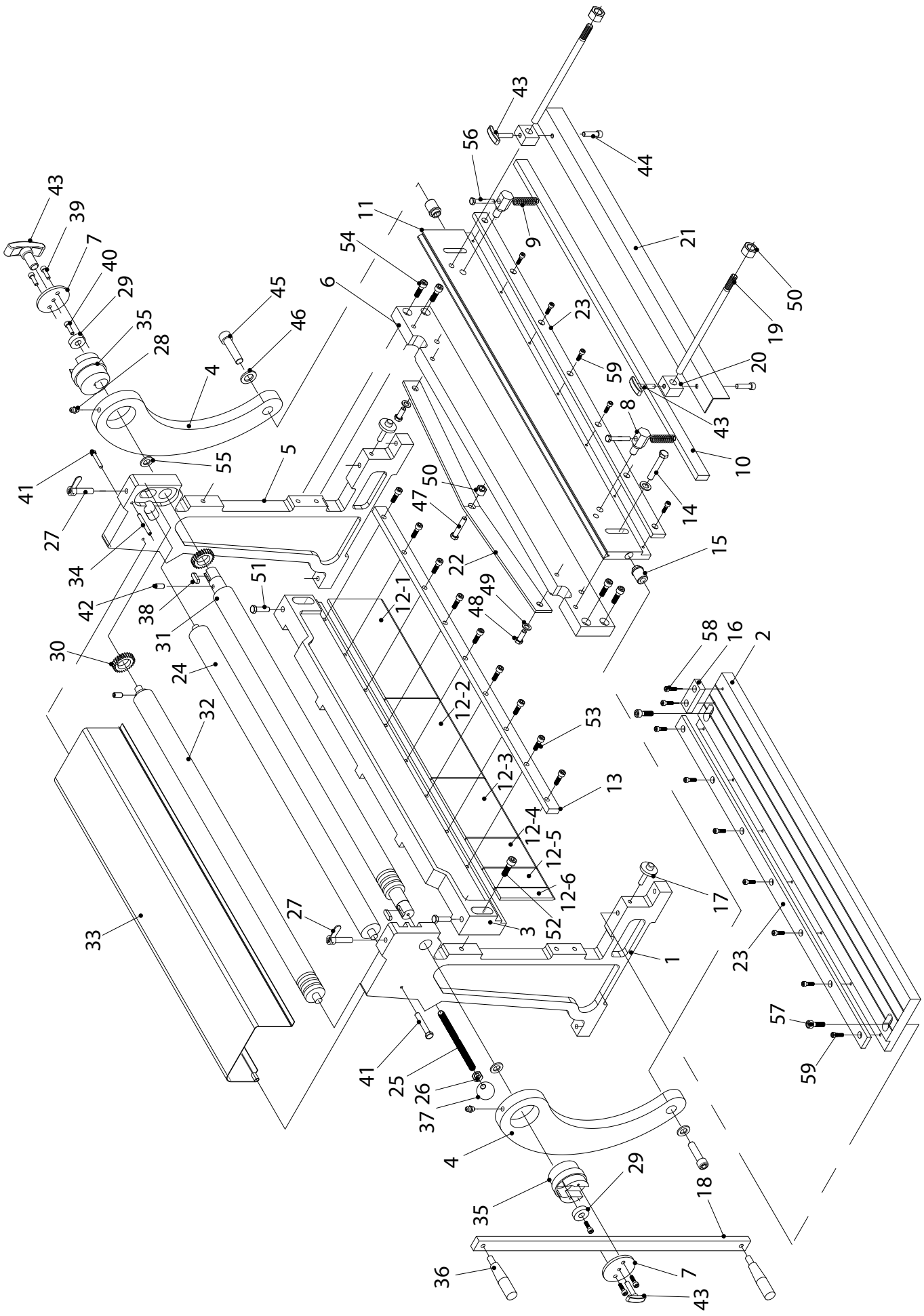
Part	Description	Qty
28	Grease Fitting	2
29	Press Cover	2
30	Gear	2
31	Lower Roll	1
32	Upper Roll	1
33	Protecting Cover	1
34	Pin (Ø3x18)	2
35	Eccentric Mounting	2
36	Handle	2
37	Roller Adjustment Knob	2
38	Flat Key	2
39	Screw M6x16	4
40	Screw M6x12	2
41	Bolt M6x40	2
42	Pin (Ø4x10)	2
43	Handle	4
44	Screw M6x10	2
45	Screw M10x45	2
46	Washer	4
47	Bolt M12x60	1
48	Bolt M10x25	2
49	Washer	2
50	Nut M12	3
51	Bolt M12x40	2
52	Screw M10x35	2
53	Screw M8x25	9
54	Screw M10x25	4
55	Washer	2
56	Screw M8x80	2
57	Screw M10x25	2
58	Screw M6x12	2
59	Screw M6x12	14

Record Serial Number Here:

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175336088 when ordering parts.

Assembly Diagram



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS DOCUMENT AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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