

12" SHEAR/BRAKE/ROLL/PRESS

SPECIFICATIONS

Capacity:	20 Gauge, 12"width
Rollers:	1-1/2"
Die Set Sizes:	4",3", 2" (x2), 1", 1/2", 3/8",&1/4"
Wire Forming Grooves:	3/32", 1/8", 5/32", 3/16", 7/32", &1/4"
Weight:	120 lbs.

SAVE THIS MANUAL

You will need this manual for the safety instructions, assembly instructions, operating procedures, parts list, and diagram. Write your invoice number on the inside front cover. Put both your manual and invoice in a safe, dry place for future reference.

IMPORTANT SAFETY PRECAUTIONS

READ ALL INSTRUCTIONS BEFORE USING THIS TOOL

1. KEEP WORK AREA CLEAN. Cluttered areas invite injuries.
2. CONSIDER WORK AREA CONDITIONS. Don't use tool in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit.
3. KEEP CHILDREN AWAY All children should be kept away from the work area. Don't let them handle tool or extension cords.
4. STORE IDLE EQUIPMENT. When not in use, tool should be locked up in a dry location to inhibit rust. If possible, store in an area out of reach of children.
5. DON'T FORCE THE TOOL. It will do the job better and more safely at the rate for which it was intended.
6. USE THE RIGHT TOOL. Don't force a small tool or attachment to do the work of a larger industrial tool. Don't use a tool for a purpose for which it was not intended.
7. DRESS PROPERLY. Don't wear loose clothing or jewelry. They can be caught in moving parts. Protective gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair, preventing it from getting caught in machinery.
8. USE EYE PROTECTION. Wear ANSI approved impact goggles
9. SECURE WORK. Use clamps or a vise to hold the work if possible. It's safer than using your hands and it frees both hands to operate the tool.
10. DON'T OVERREACH. Keep proper footing and balance at all times.
11. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have them repaired by and authorized service facility. Keep handles dry, clean, and free from oil and grease.
12. REMOVE ADJUSTING KEYS AND WRENCHES. Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before using.
13. STAY ALERT. Watch what you are doing, use common sense. Don't operate any tool when you are tired.
14. CHECK DAMAGED PARTS. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting

and other conditions that may affect its operation. Any part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in the instruction manual.

15. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
16. **DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgment of reflexes are impaired while taking drugs. If there is any doubt, do not operate machine.
17. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped over.
18. **KEEP GUARDS IN PLACE AND IN WORKING ORDER.** Never operate machine unless all guards are functioning properly.
19. **NEVER USE A TOOL IF ITS COVER OR ANY BOLTS ARE MISSING.** If the cover or bolts have been removed, replace them prior to use. Maintain all parts in good working order.
20. **DO NOT ATTEMPT TO LIFT OVERLY HEAVY WORK.** Get help when lifting tools and materials that are too heavy for you to do yourself. When appropriate and whenever possible, use a hoist or forklift.
21. **CLEAN UP SPILLS IMMEDIATELY.** Keep floor clean and free of all fluids and other spills likely to cause slipping. Check material safety data sheets for proper clean-up procedure.

UNPACKING

Your machine comes completely assembled, however, check to make sure the following accessories have been included:

1. 1/4", 3/8", & 1/2" wide braking dies(12-5, 12-6, &12-7 respectively).
2. Guide(16).
3. Two Hex Key Wrenches.
4. Two Hex Key Bolts(58).
5. If any pieces are missing, call Harbor Freight Tools at the number on the front cover of this manual.

When unpacking, you must remove the bolts that are used to mount the machine to the crate. Save these bolts for use when mounting to a workbench. For safe and precise operation, mount your machine to a workbench. Use the bolts that were used to secure the machine to the crate.

NOTE: The handle is shipped mounted to the right side of the machine. If you wish to move the handle to the left side of the machine, proceed with the following instructions.

1. Remove one of the handles(26).
2. Loosen the handle adjustment knob (72) and slide the handle arm (18) out.
3. Slide the handle arm into the opposite side and tighten the adjustment knob.
4. Attach the handle to the handle arm.
5. The handle arm can be positioned in the bushing (35) as desired for appropriate torque.

OPERATIONS

Hear:

For precision shearing from 2"-10" (lengthwise), first attach the back measurement assembly (19-21, 43, 44, 62-72) to the receiver holes in the back of the crossbeam (3).

To adjust the position of the back measurement assembly, first loosen the two knobs (43).

Move the assembly forward and back using the handwheel (64). When the desired position is achieved, tighten the knobs.

If a precise 90 angle is desired, attach the guide (16) to the left side of the work surface (2) using the two hex key screws (58).

Using the handle assembly (18 & 26); raise the upper cutting die (11) to the highest position.

Slide your workplace in-between the braking die and the work surface.

Crank down on the handle assembly (18 & 26) to shear the workpiece.

Pressing:

Slide press plate brackets (8) of the press plate assembly (8-10, 56) into the receiver holes of the upper cutting die (11). Note that the press plate (10) should be facing down.

Place the workpiece so that it is centered under the press plate.

Crank down using the handle assembly (18 & 26) to press the workpiece.

Braking:

1. For precision braking from 2"-10" (lengthwise), first attach the back measurement assembly (19-21, 43, 44, 62-72) to the receiver holes in the back of the crossbeam (3).
2. To adjust the position of the back measurement assembly, first loosen the two knobs (43). Move the assembly forward and back using the handwheel (64). When the desired position is achieved, tighten the knobs.
3. Using the handle assembly (18 & 26), raise the crossbeam (3) up to its highest position.
4. Insert the workpiece in-between the upper (12) and lower (11) braking dies.
5. Crank down using the handle assembly. Use the amount of force necessary to obtain the desired bending angle.
5. To bend only certain portions of your workpiece, simply loosen the bolts (54) that hold the upper braking die bracket (13) in place and remove or add dies as desired. For small increments, use the fractional dies included with your machine. You must notch the material appropriately before bending in order to achieve the desired results. (I.e. A cut has to be made between the portion of the material to be bent and the portion that you wish to remain straight.)

Rolling:

1. Move the cow (33) back and out of the way.
 2. Drop the rear roll bar (24) by loosening the adjustment knobs (25).
 3. Insert just the leading edge of your workpiece between the upper (32) and lower roll bars (31), and tighten the roll bar gap adjustment keys (27) until the roll bars are barely snug against the workpiece.
 4. Advance the adjustment knobs (25) as much as desired depending upon the tightness of the roll to be accomplished. (The tighter the roll, the more the knobs must be advanced.)
 5. Crank the handle assembly (18 & 25), until the proper roll has been achieved. The material should feed itself through the rollers or you crank the handle assembly.
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Wire Rolling:

1. Use the proper groove in the upper roll bar (32) depending upon the gauge of the wire being rolled.
2. Follow the procedures as listed above in "Rolling".

ADJUSTMENTS

Shear Bow

1. During operation ,the snear frame (6) may come out of alignment causing uneven cuts .
2. To correct this problem, tighten or loosen the bolt (47) attached to the shear frame adjustment bar (22) as necessary .
3. Tightening the bolt will cause the ends of the shear to bow out. Loosening will cause them to go in .

Shear Alignment:

1. Lower the shear assembly all of the way so that the two shears (23) are even with each other.
2. If one side of the lower shear is further away from the upper shear than the other ,the work surface (2) needs adjustment.
3. Loosen the bolts (60)that secure the work surface to the frames (1&2).
4. Tighten or loosen either of the adjustment screws (17) on the front underside of the work surface as necessary to make the two shears meet properly.

Upper Braking Dies:

1. The upper dies (12) may become uneven .The best way to correct this problem is to cut a gauge from hard wood .Make sure the gauge is even all of the way across its length.
2. Raise the crossbeam (3) all of the way.
3. Place the hardwood gauge underneath the dies.
4. Loosen the bolts (53) that hold the upper braking die bracket (13) in place and allow the dies to drop so that they contact the gauge.
5. Tighten the upper braking die bracket bolts.

LUBRICATION

1. Grease the cranking arms (4) as necessary using a grease gun on the provided zerk fittings.
2. Grease the sliding areas (14&52) as necessary.

PARTS LIST

No.	Description	No.	Description
1.	Left Frame	34.	Eccentric Shaft
2.	Work Surface	35.	Eccentric Bushing
3.	Crossbeam	36.	Washer
4.	Cranking Arm	37.	Bushing
5.	Right Frame	38.	Key
6.	Shear Frame	39.	Hex Key Screw
7.	Bushing Cover	40.	Hex Key Screw
8.	Press Plate Bracket	41.	Bolt
9.	Spring	42.	Hex Key Screw
10.	Press Plate	43.	Hex Key Screw
11.	Lower Braking Die	44.	Hex Key Screw
12.	Braking Dies	45.	Hex Key Screw
12-1.	1" Die	46.	Washer
12-2.	2" Die	47.	Shear Adjustment Bar Bolt
12-3.	3" Die	48.	Hex Key Screw
12-4.	4" Die	49.	Washer
		50.	Nut
		51.	Bolt
13.	Upper Braking Die Bracket	52.	Hex Key Screw
14.	Hex Key Screw	53.	Hex Key Screw
15.	Cranking Arm Roller	54.	Hex Key Screw
16.	Guide	55.	Washer
17.	Work Surface Adjustment Screws	56.	Bolt
18.	Handle Arm	57.	Hex Key Screw
19.	Support Rod	58.	Hex Key Screw
20.	Support Block	59.	Hex Key Screw
21.	Backstop	60.	Hex Key Screw
22.	Shear Adjustment Bar	61.	Washer
23.	Shears	62.	Left Back Measurement Gauge
24.	Rear Roll Bar	63.	Screw
25.	Rear Roll Bar Adjustment Knob	64.	Handwheel
26.	Handle	65.	Nut
27.	Roll Bar Adjustment Keys	66.	Right Back Measurement Gauge
28.	Bushing	67.	Brace
29.	Washer	68.	Dial Gauge
30.	Gear	69.	Positioning Plate
31.	Lower Roll Bar	70.	Lead Screw
32.	Upper Roll Bar	71.	Screw Nut
33.	Cover	72.	Screw
		73.	Handle Adjustment Knob



