760MM 3-IN-1 SHEET METAL MACHINE

MODEL NO: **TIO760.V2**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.


Refer to instructions


Wear eye protection


Wear protective gloves


Danger! Moving machinery risk of crushed hands


Danger! Moving machinery risk of trapped hand/fingers


WARNING! Hand crushing between press brake tool


WARNING! Hand crushing between press brake and material

1. SAFETY

- ✓ Wear approved safety goggles, gloves, and footwear, when operating the folder.
  NOTE: your local Sealey stockist offers a complete range of safety equipment.
- ✓ Use the tool only for its intended purpose.
- ✓ Regularly check all parts of the folder for damaged parts.
- × **DO NOT** use if any of its components are broken, worn or damaged.
- ✓ Use original Sealey spare parts and accessories. Use of non-recommended spare parts may be dangerous and will invalidate the warranty.
- ✓ Ensure good footing. Wear non-slip footwear.
- × **DO NOT** operate this tool while under the influence of drugs, alcohol or other impairing medication.
- × **DO NOT** allow unqualified persons to operate the metal folder.
- × **DO NOT** allow children near the tool.
- ✓ Be aware of sharp edges or sharp shreds of metal that may be created.
- ✓ Use heavy duty gloves when handling the workpiece.

2. INTRODUCTION

30” 3-in-1 light sheet metal working machine. Can shear, bend and roll a variety of metals including mild steel, aluminium and copper. The rollers have grooves with diameters of Ø4mm, 5mm and 6mm for bending rods. Adjust the distance and angle of the rollers to create the desired curvature for curves, cylinders or cones. Shear sheets of metal up to 760mm wide. Make pans with a maximum lip of 1” and bend (brake) sheets up to an angle of 90°.

3. SPECIFICATION

Model No:.....**TIO760.V2**
Die Sizes:.....28mm/1”, 50mm/2”, 75mm/3”, 155mm/6”, 203mm/8”, 255mm/10”
Minimum Roller Diameter:.....38mm/1-1/2”
Tube Rolling Diameter: .....4mm, 5mm and 6mm
Workpiece Maximum Thickness Mild Steel: ...1mm/20 Gauge
Workpiece Maximum Thickness Aluminium and Copper:1.2mm/18 Gauge
Workpiece Maximum Width:.....760mm/30”

FIG.1

NOTE: all diagrams in this manual are for illustration purposes only.

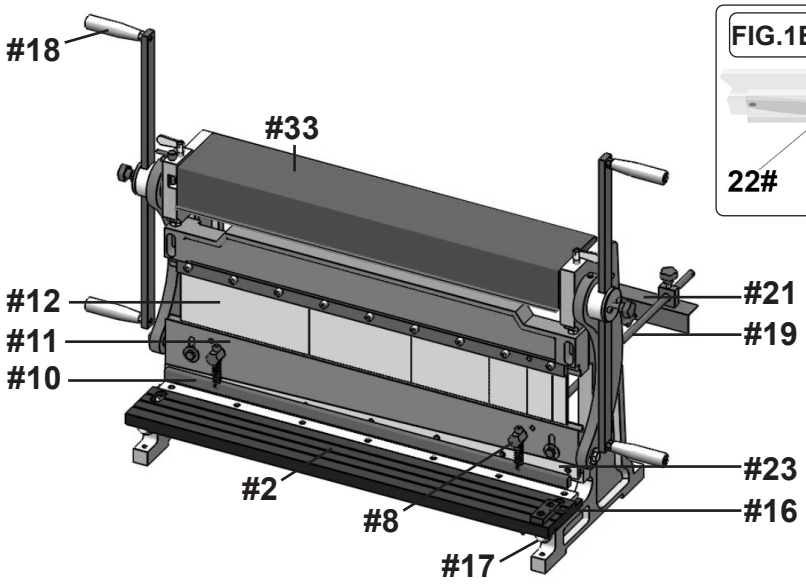
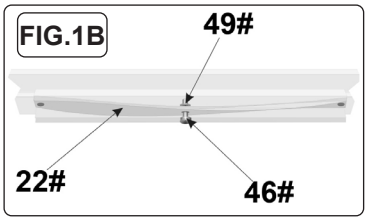


FIG.1B



4. SET UP

REFER TO FIG.1

4.1. REMOVAL OF CROSS BEAM GUARD

4.1.1. Remove segments of the Cross Beam Guard (12#) for smaller box/pan forming. Ensure remaining segments are centred before use.

4.2. ADJUSTING SPACING FOR BENDING SHEET METAL

4.2.1. Place a flat straight piece of wood between the Cross Beam Guard (12#) and Moveable Cutter Plate (11#).
4.2.2. Raise the Moveable Cutter Plate (11#) so that the material just touches the Cross Beam Guard (12#).
4.2.3. Loosen the bolts holding the Cross Beam Guard (12#) in place. It is not necessary to remove them.
4.2.4. Remove any unneeded Cross Beam Guard (12#) segments.
4.2.5. Raise and lower the Moveable Cutter Plate (11#).
4.2.6. Use the block of wood to adjust the alignment of the Cross Beam Guard (12#).
4.2.7. Tighten bolts to secure the Cross Beam Guard (12#).

4.3. REMOVAL AND INSTALLATION OF UPPER/LOWER BLADE

4.3.1. Remove the bolts securing the Blade (23#).
4.3.2. Remove the Blade (23#)
4.3.3. Ensure the Blade (23#) and Moveable Cutter Plate (11#) are aligned.
4.3.4. Tighten bolts to secure the Blade (23#)

4.4. ADJUSTMENT OF UPPER BLADE (FIG.1B)

4.4.1. Place a 12” piece of thin cardboard or paper between the Upper and Lower Blades (23#).
4.4.2. Rotate the Handle (18#) and cut the material.
4.4.3. Use a straight edge to determine the straightness of the cut and if the Blade (23#) is in need of adjustment.
4.4.4. If the Upper Blade (23#) is bowed out, away from the front of the tool, turn the M8 Steel Nut (49#) counter-clockwise.
4.4.5. If the Upper Blade (23#) is bowed in, towards the back of the tool, turn the M8 Steel Nut (49#) clockwise.

4.5. ADJUSTMENT OF LOWER BLADE

4.5.1. Lower the Upper Blade (23#) to its lowest position.
4.5.2. Loosen the two bolts located on top of the Workbench (2#).
4.5.3. Adjust the Lower Blade (23#) by turning Adjustable Bolts (17#).
NOTE: distance between the Upper and Lower Blades (23#) should be 5-8% of the thickness of the workpiece.
4.5.4. Tighten the two bolts located on top of the Workbench (2#).

4.6. FIT POSITIONING ROD & PLATE (as necessary)

4.6.1. The Positioning Rods (19#) and Plate (21#) can be used to support metal sheets offered up to the machine.

5. OPERATION

REFER TO FIG.1

5.1. SHEARING

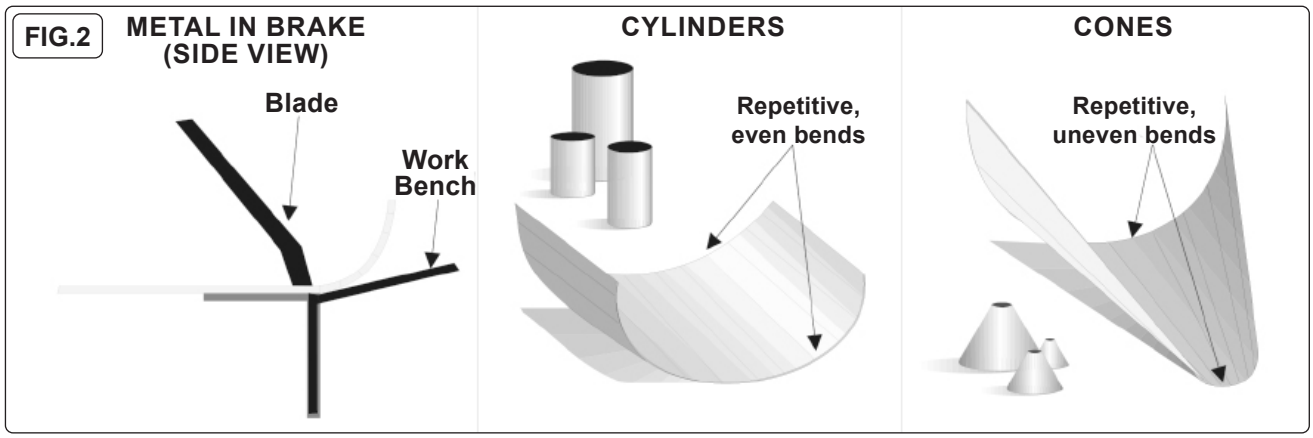
5.1.1. Scribe the cutting mark on the material.
5.1.2. Slide the material between the Upper and Lower Blades (23#).
5.1.3. Ensure the right hand side of the material rests against the Guide (16#).
5.1.4. While holding the material steady, rotate the Handle (18#) until the material has been cut.

5.2. ANGLE BENDING

5.2.1. Mark the workpiece where you want to bend the material.
5.2.2. Place material above the Moveable Cutter Plate (11#).
5.2.3. Align the bending mark with the front edge of the Cross Beam Guard (12#).
5.2.4. Rotate the Handle (18#) until the desired angle has been formed. Use a protractor or other measuring tool to ensure accuracy.

5.3. RADIUS BENDING (FIG.2)

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



5.4. PAN FORMING (FIG.3)

NOTE: the Hand Brake Roll can be used to make various sizes of pans. The maximum lip (side) height supported by this tool is 1”.

5.4.1. Pre-measure and cut the material before bending.
5.4.2. Notch the corners according to the desired lip height.
5.4.3. Insert material between the Cross Beam Guard (12#) and the Moveable Cutter Plate (11#).
5.4.4. Bend the material until a 90º degree angle has been formed.
5.4.5. Rotate the material 90º counterclockwise. Allow the completed side to extend just beyond the tooling. Bend the second and third sides.
5.4.6. Rotate to the final side, and insert workpiece between the tooling. Your formed sides will be on the outside of the tooling.

5.4.7. Before bending, tap one corner nearer to the middle of the machine to allow the material to clear the Cross Beam Guard (12#) when raised.
5.4.8. Bend the fourth side. Using a block or piece of wood, tap the corner of material back into place.

FIG.3

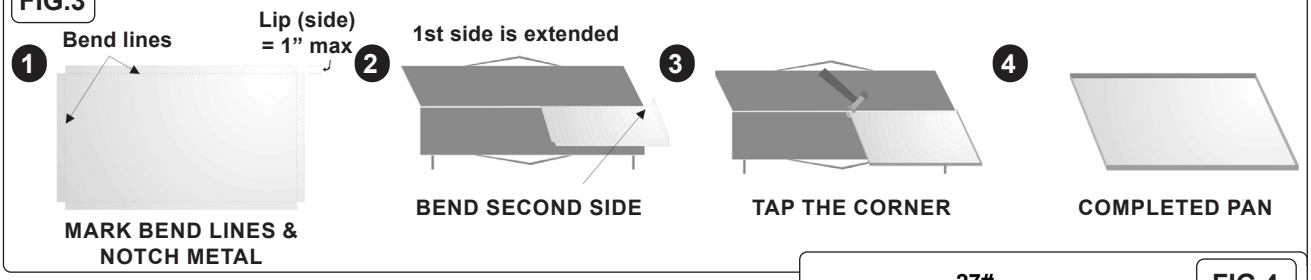
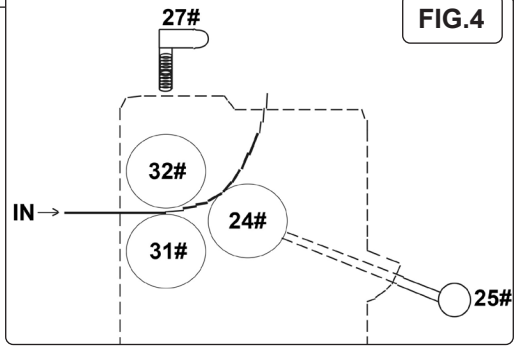


FIG.4



5.5. ROLLING (FIG.4)

5.5.1. Move the Cover (33#), shown on Fig.1, back and out of the way.
5.5.2. Drop the Roller Press, Middle (24#) by loosening the Roller Adjustment Bar with Knob (25#).
5.5.3. Insert the leading edge of your workpiece between the Roller Press, Upper (32#) and Roller Press, Lower (31#), and tighten the roll bar gap Adjustable Thumb Screw (27#) until the Roll Bars are barely snug against the workpiece.
5.5.4. Advance the Roller Adjustment Bar with Knob (25#) as much as desired, depending upon the tightness of the roll to be accomplished.
NOTE: the tighter the roll, the more the knobs must be advanced.
5.5.5. Crank the Handle (18#) until the proper roll has been achieved. The material should feed itself through the rollers as you crank the Handle (18#).

5.6. WIRE ROLLING

5.6.1. Use the proper groove in the Roller Press, Upper (32#) depending upon the Gauge of the wire being rolled.
5.6.2. Follow the procedures as listed above in "Rolling".

5.7. PRESSING

5.7.1. Slide the Press Plate Brackets (8#) of the Press Plate Assembly into the receiver holes of the Moveable Cutter Plate (11#).
NOTE: the Press Plate (10#), should be facing down.
5.7.2. Place the workpiece so that it is centred under the Press Plate (10#).
5.7.3. Rotate the Handle (18#) to press the workpiece.

5.8. SHEET METAL & WIRE FORMING

5.8.1. Remove the Cover (33#) from the machine.
NOTE: the Toothed Gears (30#) fitted on the rollers (31#) and (32#) should have a coating of general purpose grease for smooth operation. Clean any dirt or excess grease from the rolls. The following steps apply to both wire and sheet metal bending.
5.8.2. Adjust the Adjustable Thumb Screws (27#) to the thickness of the stock. It should feed between rollers (31#) and (32#) without slipping or binding when the Handle (18#) is turned. The material is fed into the rollers from the front of the machine.
5.8.3. Roller Press, Middle (24#) forms the radius in the material. The closer it is to the feed rollers, the smaller the radius will be. Roller Adjustment Bar with Knob (25#) adjusts the spacing of the back roller.
NOTE: metals will have different bending characteristics. Some are very pliable, while others have considerable spring or memory. Practice before beginning an important project.

6. MAINTENANCE

6.1. Lubricate the rotating parts of the machine every day. This can lengthen the machine life.

7. END OF LIFE

7.1. Dispose of item in accordance with national and regional regulations. Review footer referencing Environmental Protection.

ENVIRONMENT PROTECTION
Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

REGISTER YOUR PURCHASE HERE

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.
Important: No Liability is accepted for incorrect use of this product.
Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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