

Clarke®

METALWORKER



WARNING: Read these instructions before using the product

BOX & PAN FOLDER

MODEL NO: CBPF1

PART NO: 7627906

OPERATION & MAINTENANCE INSTRUCTIONS

ORIGINAL INSTRUCTIONS

GC09/23

INTRODUCTION

Thank you for purchasing this CLARKE product. Before attempting to use it please read this manual and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

Ensure the product suffered no damage during transit and that all items are present. Should any loss or damage become apparent, please contact your CLARKE dealer immediately.

PRODUCT SPECIFICATIONS

Dimensions L x W x H	760 x 230 x 220mm Length with handles = 460mm		
Net Weight	27kg		
Clamping finger dimensions	25mm (1") 51mm (2") 77mm (3") 203mm (8") 255mm (10")		
Max Bending Capacity	Thickness -1.2mm	Width 730mm	Angle - 0-90°

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended. Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

ENVIRONMENTAL PROTECTION



Recycle unwanted materials instead of disposing of them as waste. All unwanted accessories and packaging should be sorted and taken to a recycling centre for disposal in a manner which is compatible with the environment.

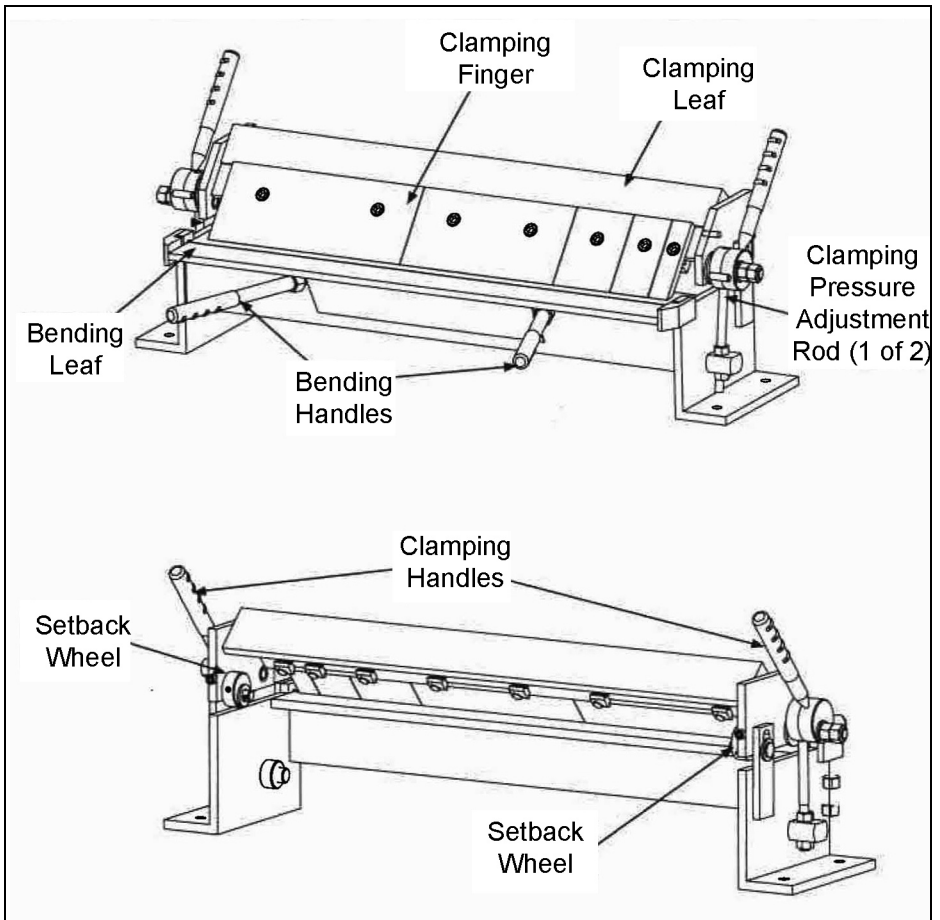
SAFETY PRECAUTIONS

As with all tools and workshop equipment it is necessary to exercise caution when it is put to use, being aware of any associated or inherent dangers.

- Due to the weight of the product, the help of an assistant may be beneficial during unpacking and mounting.
- ALWAYS operate on a suitably strong bench with adequate light.
- This equipment must be firmly secured to a firm and level bench using suitable bolts (not supplied).
- Leave adequate working space around the equipment for safer and convenient operation.
- ALWAYS check for signs of structural damage before starting work. DO NOT use if damage is found. Have repairs made only by a CLARKE service centre.
- ALWAYS ensure the workpiece is secure and properly positioned before applying pressure.
- ALWAYS keep hands and fingers away from moving parts that may pinch.
- NEVER use extension tubes to increase the length of the handles. Excessive effort can cause damage and/or accidents.
- NEVER attempt to bend materials which exceed the sizes stated above.

Failure to heed these warnings may result in damage to the equipment or personal injury.

PARTS IDENTIFICATION



CONTENTS

- 1 x Box & Pan Folder
- 2 x Handles
- 1 x 17mm /19mm spanner
- 1 x 5mm hex key
- 1 x 8mm hex key

If any items are missing contact your Clarke dealer.

WORKING COMPONENTS

Refer to the following figures and descriptions to become familiar with the components of this device. Understanding these items and how they work will help you understand the rest of the manual and minimize your risk of injury when using this product.

A: Clamping Leaf: Holds and positions the clamping fingers.

B. Clamping Handle (pair): Used to raise and lower the clamping leaf.

C. Clamping Finger: Holds the workpiece in place while the bending block produces the bend. Fingers can be individually removed or repositioned to allow clearance for the workpiece.

D: Clamping Pressure Adjustment Rod (pair): Move up or down to set the clamping pressure on the workpiece according to the workpiece gauge. Lock the rod in place with jam nuts.

E: Bending Leaf: Swivels up to bend the workpiece.

F: Bending Handle (pair): Use to raise the bending leaf and produce a bend in the workpiece.

G. Setback Wheel (pair): Use to adjust the distance between the clamping fingers and the bending block. Moves the clamping leaf forward and backward.

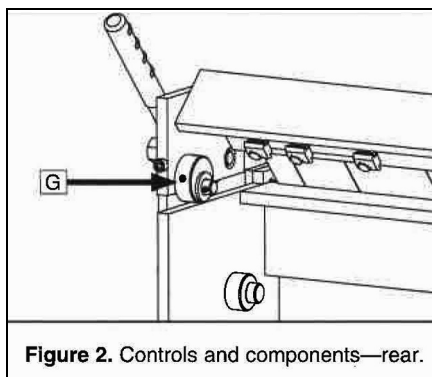
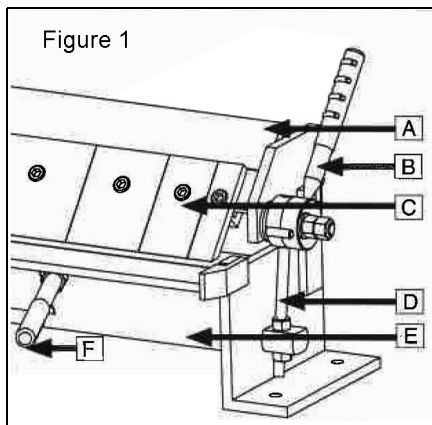


Figure 2. Controls and components—rear.

PREPARATION/CLEANING

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well but it will take a little time to clean.

Be patient and clean the machine thoroughly. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative

1. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
2. Wipe the surfaces. If your degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
3. Repeat Steps 2-3 as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust such as light oil.

CLEANING THE FINGERS

Although rust preventative was applied only to the visible surfaces of the clamping fingers (see Figure 3), some may have worked in between and underneath them. We recommend you remove all clamping fingers and thoroughly clean them.

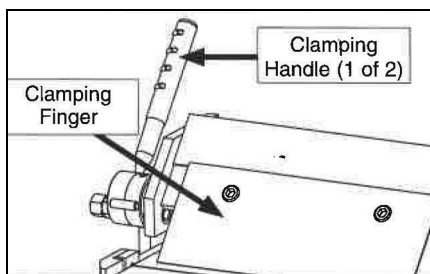


Figure 3. Location of clamping handle and fingers.

To remove the clamping fingers, move the clamping handles toward back of the machine to raise the clamping leaf, then loosen the cap screws and remove the clamping fingers and toe clamps (see Figure 4).

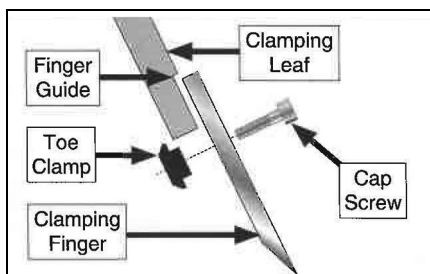


Figure 4. Clamping finger components.

After all the fingers have been cleaned, coat them liberally with a metal protectant and clean the finger guide on the clamping leaf.

Place the fingers along the guide on the clamping leaf, align the toe clamps to catch the bottom of the clamping leaf and tighten the cap screws enough so the fingers will not fall off. When done, make sure fingers are properly aligned (refer to Aligning Fingers on page 11).

BENCH MOUNTING

WORKBENCH LOAD

Refer to the product specification on page 2 for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

PLACEMENT LOCATION

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the workshop. Below is the minimum amount of space needed for the machine.

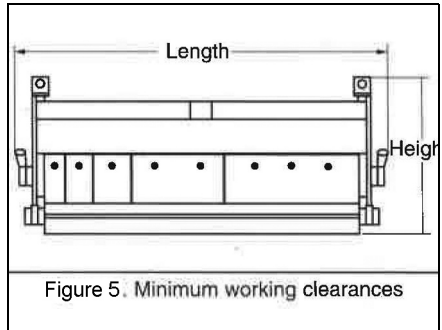


Figure 5. Minimum working clearances



WARNING: LIFTING HEAVY MACHINERY OR PARTS WITHOUT PROPER ASSISTANCE OR EQUIPMENT MAY RESULT IN STRAINS, BACK INJURIES, CRUSHING INJURIES OR PROPERTY DAMAGE.

The base of this machine has mounting holes that allow it to be fastened to a workbench or other mounting surface to prevent it from moving during operation and causing accidental injury or damage.

The strongest mounting option is a "Through Mount" (see example below) where holes are drilled all the way through the workbench and hex bolts, washers, and hex nuts are used to secure the machine in place.

- Number of mounting holes = 4
- Diameter of mounting hardware needed. 3/8".

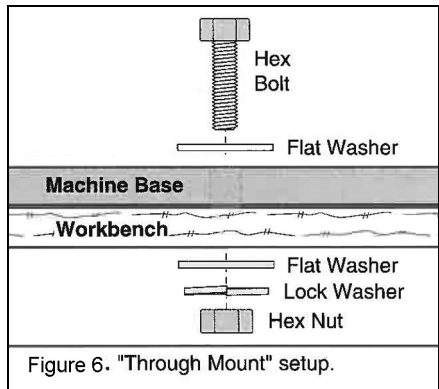
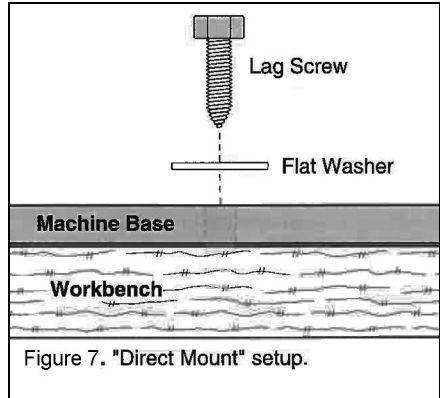


Figure 6. "Through Mount" setup.

Another option is a "direct mount" (see example) where the machine is secured directly to the workbench with lag screws and washers.



SPACING THE FINGERS

The clamping fingers can be spaced apart for clearance when making pans or boxes. This requires removing one or more of the fingers so that you can space the others to match the inside width of your pan or box.

TOOLS NEEDED

Hex wrench 8mm

TO SPACE CLAMPING FINGERS:

1. Loosen the cap screws from each finger you need to remove.
2. Remove the fingers and toe clamps from the clamping leaf, as shown in Figure 8, and set them aside.

NOTE: You may need to mix and match finger widths to match the inside width of your pan or box.

3. Align the remaining fingers and tighten the cap screws.

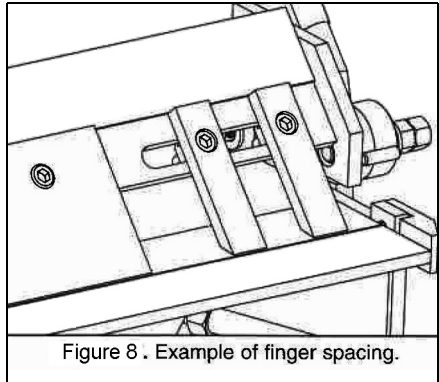


Figure 8 . Example of finger spacing.

ALIGNING THE CLAMPING FINGERS

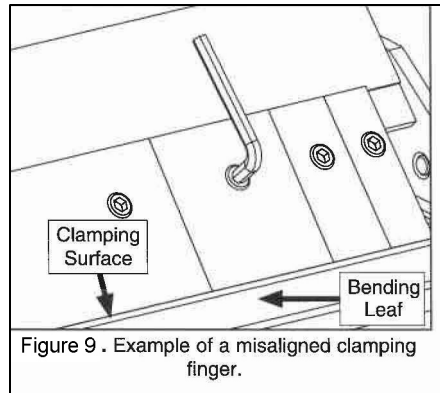
To help ensure the bend is even along its length, the clamping fingers must be parallel with the clamping surface and bending block.

TOOLS NEEDED

Hex wrench 8mm

TO ALIGN CLAMPING FINGERS:

1. Lower the clamping leaf until the clamping fingers are just touch the clamping surface (see Figure 9)
2. Look closely along the bottom edge of each finger to determine if any are out of alignment with the clamping surface and bending leaf, as shown in Figure 9.
3. Loosen the cap screw on a misaligned finger just enough to move it up or down.
4. Align the finger parallel with the clamping surface and bending block and then tighten the cap screw.



ADJUSTING SETBACK

NOTE: Include the thickness of folded edges or joints when determining the proper setback or the equipment may be damaged.

Before you begin any bending operation, consider the differences of sheet metal gauges when trying to achieve either sharp or rounded bends and allow for the differences by adjusting the setback.

Setback is the distance from the forward edge of the fingers to the edge of the bending leaf, as shown in Figure 10. The setback distance is determined by the gauge of the workpiece material and the desired radius of the bend.

Setback is normally adjusted 150% the thickness of 22 gauge and thinner workpieces, and 200% the thickness of a workpieces thicker than 22 gauge.

TO ADJUST SETBACK

1. Determine setback required for bend.
2. Raise the clamping fingers about 12mm off the clamping surface.
3. Loosen the cap screws that secure the setback wheels (see Figure 11).
4. Rotate both setback wheels until the desired setback distance is achieved.

NOTE: Setback wheels are eccentric. Turning them one full turn will bring the clamping leaf back to its original position.

If you find it hard to turn the setback wheels with your fingers, insert a hex wrench into the holes on the edges of the wheels to gain leverage.

5. Lower the clamping fingers onto the clamping surface and check the setback distance.
6. If necessary, repeat Steps 1-4 until the desired setback is achieved.
7. Check the finger alignment (refer to Aligning Fingers on Page 11).

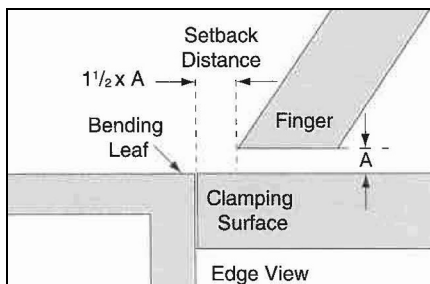


Figure 10 Determining setback distance for workpieces 22 gauge and thinner.

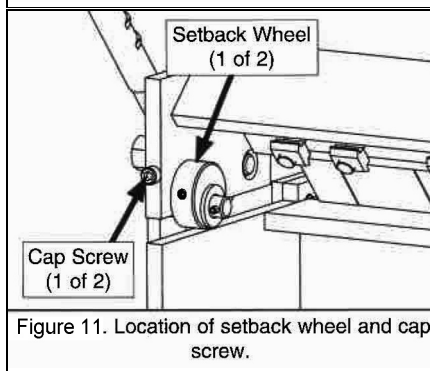


Figure 11. Location of setback wheel and cap screw.

ADJUSTING CLAMPING PRESSURE

Clamping pressure must be properly adjusted for different workpiece thicknesses. The ideal pressure will have medium resistance at the clamping handles and will lock the workpiece into position easily.

Pressure is adjusted by rotating the adjustment nuts on the clamping pressure adjustment rods (see Figure 12). These are located on both ends of the machine.

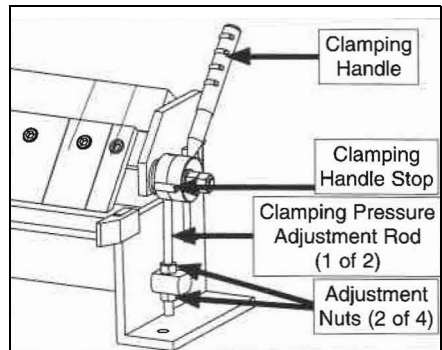


Figure 12. Locations of clamping components.

TOOLS NEEDED

Open ended wrench 17/19mm

1. Lower the clamping leaf so the clamping fingers just touch the workpiece.

It is best if the workpiece used in this procedure is same width as the machine. If not, place two pieces of metal of the same thickness as the workpiece on each end of machine.

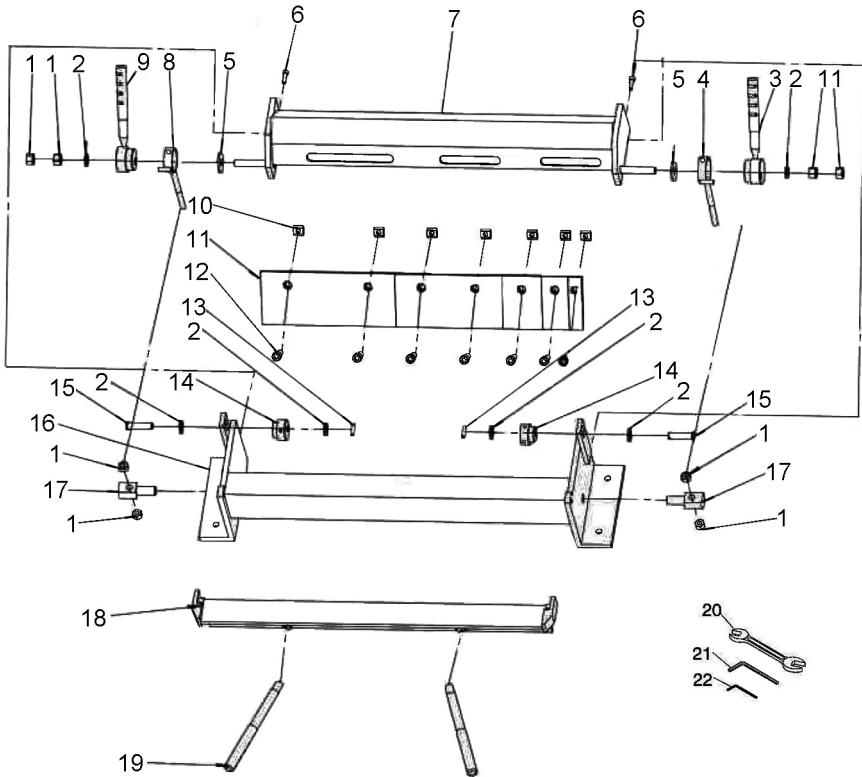
NOTE: If the clamping handles are at 10 o'clock (viewed from the right end) and 2 o'clock (viewed from left end) position, then the clamping pressure is suitable for the workpiece. Proceed to Step 4.

NOTE: If the clamping handles are not at 10 o'clock (viewed from right end of brake) and 2 o'clock (viewed from left end of brake) position, then the clamping pressure is not suitable for the workpiece. Proceed to Step 2.

2. Loosen the adjustment nuts (see Figure 12) and turn both sets up or down until the clamping handles are in the 10 and 2 o'clock position when the clamping fingers just touch the workpiece.
3. Tighten the adjustment nuts to secure in position.
4. Make sure the clamping pressure is even on both ends of the machine by raising one end and testing the clamping action of other end. The clamping action should be same on both ends.
5. If necessary, repeat Steps 1-4 until proper clamping pressure is achieved.

NOTE: Proper clamping pressure is achieved when the clamping handle snaps (or locks) into position against the handle stop (see Figure 12).

COMPONENT PARTS



Part	Description
1	Hex nut M12
2	Flat washer 12mm
3	Clamping handle (right)
4	Clamping pressure adjusting rod (right)
5	Flat washer 12mm
6	Cap screw M6
7	Clamping leaf
8	Clamping pressure adjusting rod (left)
9	Clamping handle (left)
10	Toe clamp M10
11	Clamping finger

Part	Description
12	Cap screw M10
13	Roll Pin
14	Setback Wheel
15	Pivot shaft
16	Stand
17	Swivel rod block
18	Bending leaf
19	Bending handle
20	Wrench 17 x 19mm
21	Hex wrench 8mm
22	Hex wrench 8mm

SHEET METALWORKING FROM THE CLARKE RANGE

Metal Part Benders



Compact benders, ideal for creating metal components using round or square section

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For fast, accurate sheet metal folding, designed to be held in a standard bench vice.

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Parts Enquiries

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Clarke INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com