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Instruction Manual

MANUAL BAR BENDER UB-100H

Order Code: (B044)

INTRODUCTION

The HAFCO Universal Hand Bar Bender features an assortment of bending dies for round, square and angle profiles. This item is an absolute essential addition for any metal workshop. Built of high quality cast iron with a powder coated base and all working parts treated with a corrosion resistant black phosphate finish. With a comfortable long handle offering plenty of leverage, easy set angle stop and a wide range of bending dies its hard to go past this universal bender. This universal bender is capable of bending up to a piece of 100mm wide by 7mm thick steel cold or 20 x 20mm square steel.

SPECIFICATIONS

Order Code	B044
MODEL	UB-100H
Flat Bar Capacity - Mild Steel (mm)	100 x 7 60 x 8 40 x 10
Square Bar Capacity - Mild Steel (mm)	20 x 20
Round Bar Capacity - Mild Steel (mm)	Ø20
Bending Lever Length (mm)	1500
Nett Weight (kg)	45

FEATURES

- COLD BENDING - Flat 100x7mm, Square 20x20mm, Round Ø20mm, Angle Steel 75x8mm (only with pre-notching)
- HOT BENDING - Flat 100x12mm, Square 22x22mm, Round Ø22mm, Angle Steel 100x12mm (only with pre-notching)
- Wide supporting face ensuring safe and reliable operation
- Mount to work bench with 4 mounting holes for sturdy operation
- Adjustable bending stop with angle scale up to 120°
- Adjustable material length stop for repeatability
- Eccentric quick action cam lever material clamp



CAUTION!

It must be determined by the operator that the materials being processed through the machine are NOT potentially hazardous to operator or personnel working nearby.

ASSEMBLY

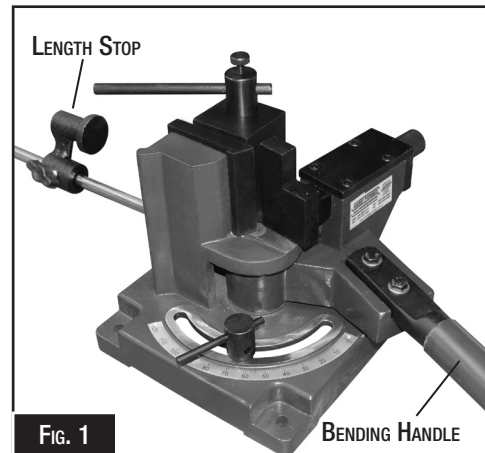
The assembly process is a very simple one. Hafco have tried to make it as easy as possible so that projects can be started immediately.

Bending Handle:

1. Attach the bending handle to the universal bender with the two M10x25mm bolts and washers supplied. (Fig. 1)

Length Stop:

1. Thread the length stop rod into the base of the bender and secure. (Fig. 1)
2. Slide the length stop onto the rod.



SAFETY

1. **READ AND UNDERSTAND EQUIPMENT OWNERS MANUAL.**
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from equipment.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DO NOT USE IN DANGEROUS ENVIRONMENT.** DO NOT use equipment in damp or wet locations. Keep work area well lighted and free of obstructions.
5. **MAINTAIN TOOLS AND EQUIPMENT WITH CARE.** Keep tools sharp and clean for best and safest performance.
6. **DO NOT OVER-REACH.** Keep proper footing and balance at all times.

PRE-START

1. Complete pre-start check of equipment.
2. Confirm machine has the capacity for the job.
3. Inspect area for hazards.
4. Keep bystanders clear and warn others of your intention to use equipment.
5. Ensure no slip/trip hazards are present in the workspace and work surface.
6. Display this SOI adjacent to equipment.

OPERATION

1. Wear appropriate PPE.
2. Use equipment only for its intended purpose.
3. Do not exceed the capacity of the equipment.
4. Clamp work piece securely.
5. Beware of sharp edges on metal work pieces.
6. Keep fingers clear of crush points.
7. Beware of strains from over exertion.
8. Ensure work area is dry and uncluttered to prevent slip/trips.
9. Do not attempt to bend objects that could shatter.

FINISH

1. Clean work area up.
2. Return tools and equipment to the designated storage place.



CAUTION!

A prepared list of safety guidelines can never be complete. Every workshop environment is different. Always consider Safety first, as it applies to your individual working conditions. Use this machine and other machinery with caution and respect. Failure to do so could result in serious Personal injury, damage to the equipment, or poor work results.

OPERATION

To use a manual bar bender, secure the tool to a sturdy surface, install the correct size rollers, and adjust the bending plate to fit the work piece. Insert the metal bar, clamp it securely using the eccentric block, and pull the handle smoothly to achieve the desired bend angle.

KEY OPERATING PROCEDURES:

Setup: Secure the base to a workbench. Use safe lifting posture to reduce the chances of injury.

Adjustment: Adjust the clamping block (eccentric block) to hold the bar tightly against the centre roller.

Bending: The bending arm is then rotated, forcing the material around the centre die to create precise bends.

Safety: Wear protective equipment and ensure the area is clear of bystanders.

COMMON TIPS:

Marking: Use a marker to indicate the bending point on the work piece.

Accuracy: Bend a little at a time, check, and adjust, rather than over-bending.

Maintenance: Lubricate the central swivel casting (grease nipple) regularly.

Capacity: Do not exceed the rated capacity (e.g., maximum thickness) of the tool.

To Make A Bend:

1. Set the bar bender ready for the bend by backing off the die screw.
2. Clamp the work piece in the bender using the clamp handle by moving the edge of the eccentric block close to the work-piece. (Fig. 2)
3. Set the angle stop at the desired angle on the angle stop scale. (Fig. 3, 4)
4. Use consistent force to move the handle clockwise to bend the material, until the desired angle is reached.
5. Adjust the die screw to increase or decrease the radius of the bend. (Fig. 2)

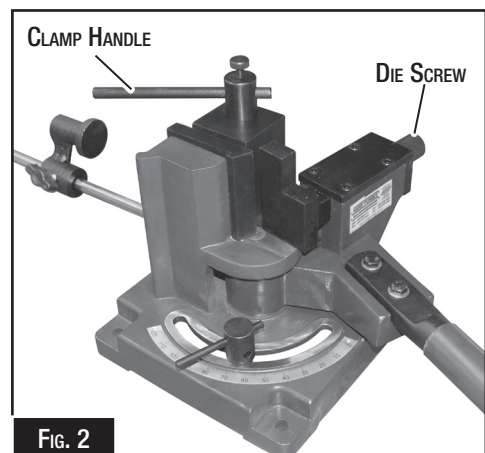


FIG. 2

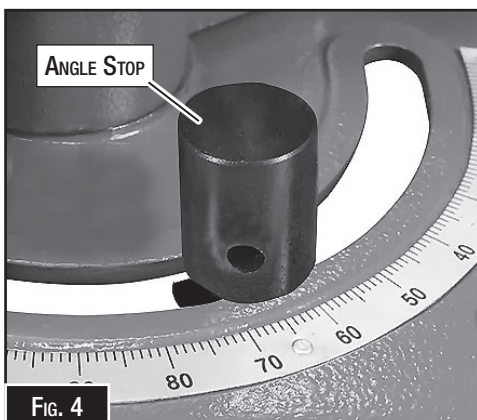


FIG. 4

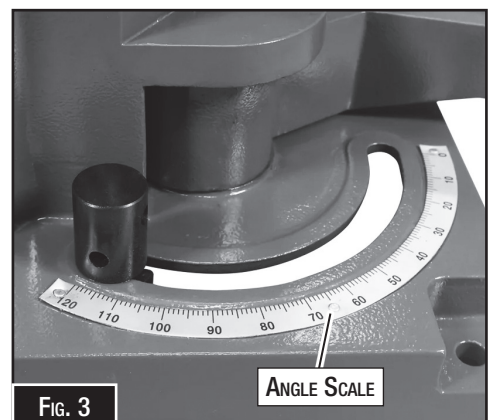
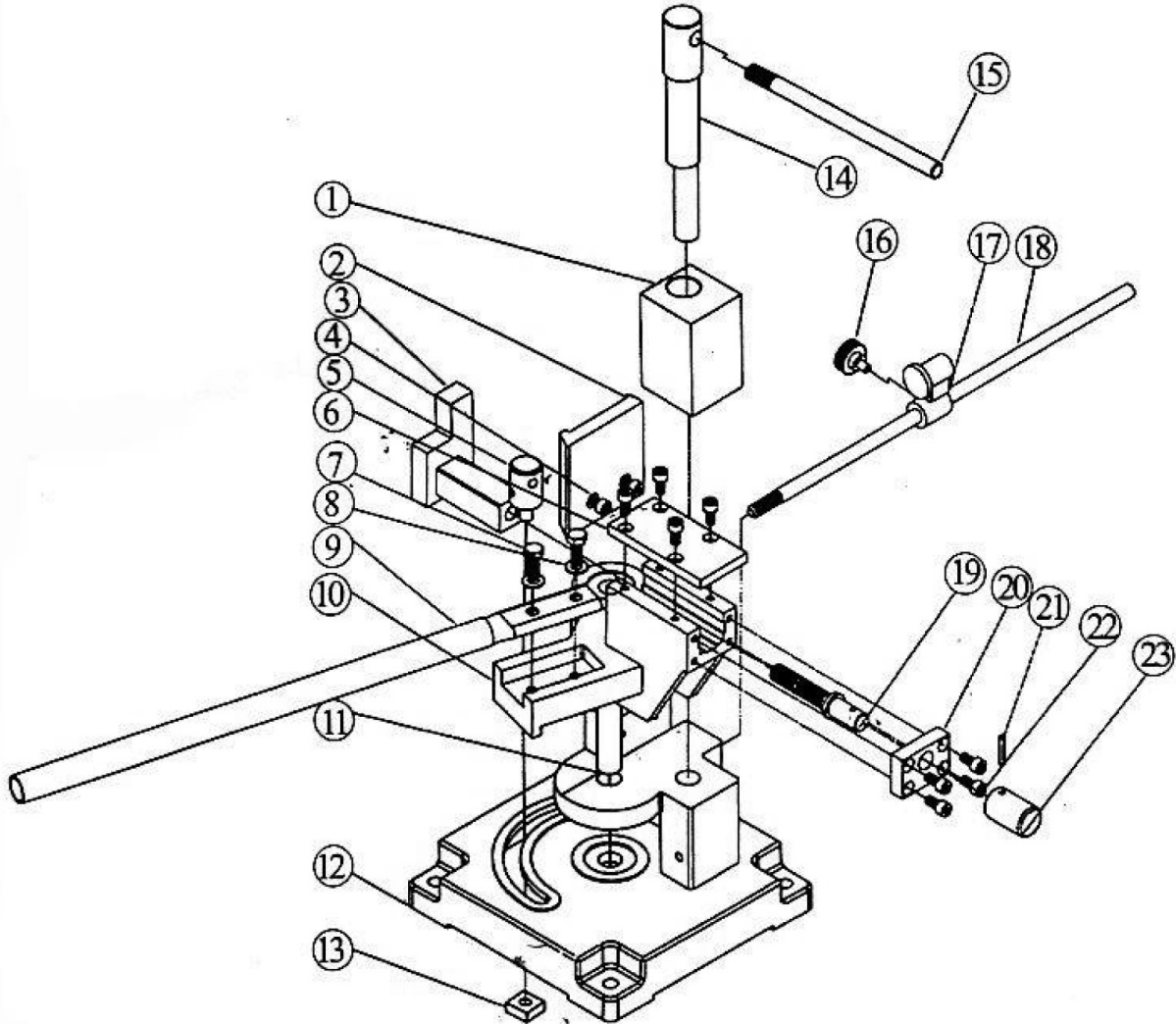


FIG. 3

ANGLE SCALE

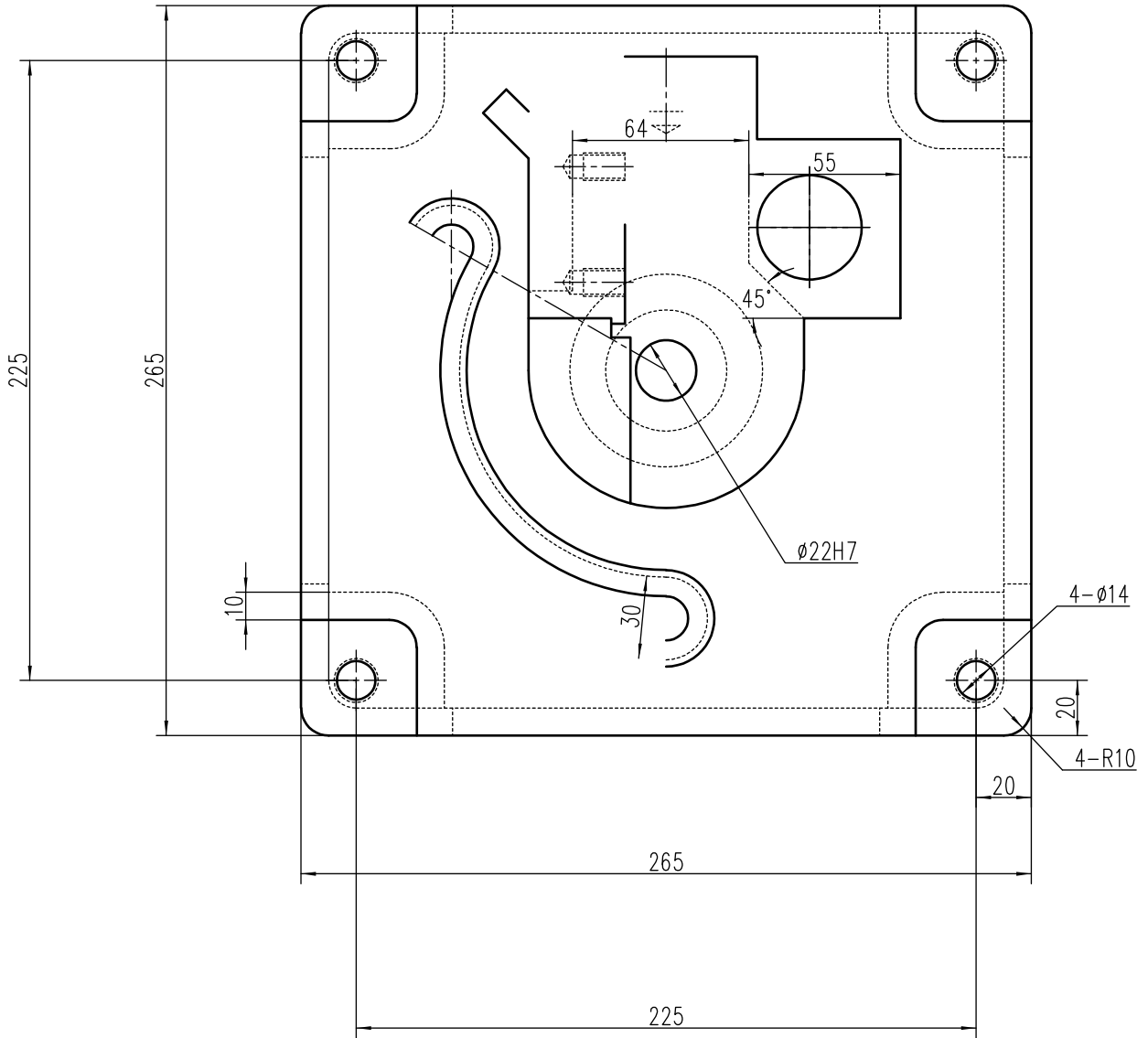
SPARE PARTS



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY.
1	Block	1	13	Square Nut M12	1
2	Die Plate	1	14	Eccentric Shaft	1
3	Sliding Block	1	15	Shaft	1
4	Screw M8 x 20mm	2	16	Handle Nut M8 x 15mm	1
5	Shaft Limit	1	17	Length Stop Clamp	1
6	Press Plate	1	18	Length Stop Shaft	1
7	Bolt M10 x 25mm	2	19	Screw Shaft M16 x 112mm	1
8	Washer 10mm	2	20	Cover Plate	1
9	Handle	1	21	Spring Pin 5 x 30mm	1
10	Rotary Block	1	22	Screw M8 x 16mm	4
11	Fixed Shaft	1	23	Handle	1
12	Main Body	1			

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

BASE DIMENSIONS





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.

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