

Distributed exclusively by Harbor Freight Tools<sup>®</sup>. 3491 Mission Oaks Blvd., Camarillo, CA 93011 Visit our website at: http://www.harborfreight.com



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

Copyright<sup>©</sup> 2008 by Harbor Freight Tools<sup>®</sup>. All rights reserved. No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. 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.

For technical questions or replacement parts, please call 1-800-444-3353.

## 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.

## **IMPORTANT SAFETY** INFORMATION

In this manual, on the labeling, and all other information provided with this product:



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

**DANGER** indicates a hazardous

situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates AWARNING a hazardous situation which, if not

avoided, could result in death or serious injury.

CAUTION, used

ACAUTION with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

# NOTICE

NOTICE is used to address practices not related to personal injury.

# CAUTION

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

#### **General Safety Rules**



#### WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

- 1. Work area safety
  - a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
  - b. Do not operate tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Tools create sparks which may ignite the dust or fumes.
  - c. Keep children and bystanders away while operating a tool. Distractions can cause you to lose control.
  - d. Do not expose tools to rain or wet conditions.
- 2. Personal safety
  - a. Stay alert, watch what you are doing and use common sense when operating a tool. Do not use a tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating

tools may result in serious personal injury.

- b. Use personal protective 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.
- c. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- d. 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.
- e. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
- 3. Tool use and care
  - a. 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.
  - b. Store idle tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate it. Tools are dangerous in the hands of untrained users.
  - c. 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.

d. Use the tool and bits 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.

#### Bender Safety Warnings

- 1. Secure the Bender to a work surface before use.
- 2. Do not bend conduit with wiring inside.
- 3. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 4. This product is not a toy. Keep it out of reach of children.
- 5. 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.

### SPECIFICATIONS

Bend Angle Possible	0 to 90°
Tubing Diameter	1/4", 3/8", 1/2" & 5/8"
	3/16", 1/4", 5/16", 3/8", 7/16" & 1/2"
Flat Stock Size	1/8"X2-1/4", 3/16"X1-1/2", 1/4"X1"

## UNPACKING

When unpacking, make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

# INITIAL SET UP INSTRUCTIONS

- Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.
- **Note:** For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.
- 1. Attach Base Block (6) and Handle (7) to top of the unit and secure them with Bolt (11), Washer (12) and Nut (13).
- 2. Attach the Baffle (9) to the Right Frame (3) with Bolt (10). After being attached the Baffle should still be able to rotate.
- For best use, the Bender should be mounted to a solid, level work surface that is capable of bearing the combined weight of both the Bender and workpiece. See Figure 1.
- 4. Use the holes in the base of the Bender as a template to mark the

work surface. Verify that the installation surface has no hidden utility lines before drilling or driving screws. Drill holes and attach the Bender firmly to the work surface with 1/2" lug bolts or hexagonal bolts, flat washers, and self locking hex nuts (hardware not included).

 If you will not use the unit for bending immediately, you may turn the Baffle (9) inside against the Handle (7) to prevent it from dropping and causing damage. See Figure 3.

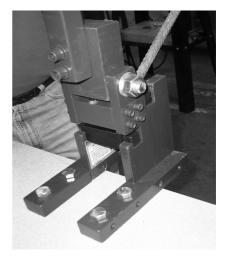


FIGURE 1

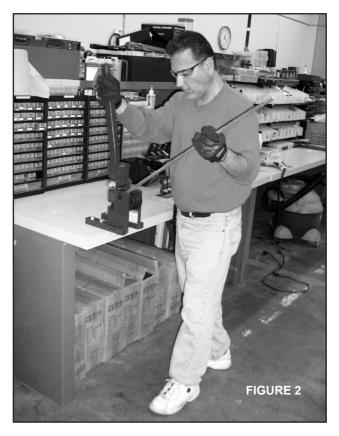
## OPERATING INSTRUCTIONS



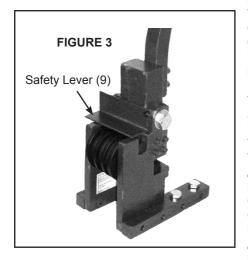
Read the <u>ENTIRE</u> IMPORTANT 3. SAFETY INFORMATION 3. section at the beginning of this manual including all text under subheadings therein before set up or use of this 4. product.

 Select the Die that is appropriate for the job. The large grooved Die (22) is for bending small tubes. The small grooved Die (23) is for bending small round stock. The square Die (24) is used to bend flat stock.

- 2. Raise the Handle (7) and place the Die into the slots between the Right Frame (3) and Left Frame (4).
- Insert the stock or tube into the top of the Bender and thread it into the appropriate groove between the Die and the Base Block (6).
- The Square Die (24) placed into the recess in the front of the unit will provide further support for stock being bent.
- Move the Handle slowly down until the stock is at the desired angle. See Figure 1.



 Swing the Safety Lever (9) back in place as shown in Figure 3, when not in use. This will prevent the handle from accidently falling down without warning.



#### USER-MAINTENANCE INSTRUCTIONS



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

#### Cleaning, Maintenance, and Lubrication

- BEFORE EACH USE, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts and any other condition that may affect its safe operation.
- 2. After Use, clean external surfaces of the tool with clean, moist cloth.
- Periodically lubricate the moving parts of the tool with a high quality machine oil.

## PLEASE READ THE FOLLOWING CAREFULLY

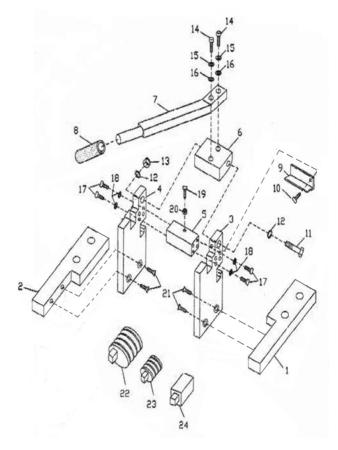
THE MANUFACTURER AND/OR DIS-TRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REP-RESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT. OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT. THE MANUFACTURER AND/OR DIS-TRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACE-MENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNI-CIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LI-ABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO. OR ARISING OUT OF HIS OR HER IN-STALLATION OF REPLACEMENT PARTS THERETO.

# PARTS LIST

Part	Description	Qty
1	Right Base Board	1
2	Left Base Board	1
3	Right Frame	1
4	Left Frame	1
5	Support Block	1
6	Base Block	1
7	Handle	1
8	Handle Cover	1
9	Safety Lever	1
10	Hex Bolt M6x12	1
11	Hex Bolt M18x120	1
12	Washer	2

# PARTS LIST

Part	Description	Qty
13	Hex Nut M18	1
14	Hex Bolt M10x40	2
15	Spring Washer	2
16	Washer	2
17	Hex Bolt M6x20	8
18	Spring Washer	8
19	Hex Bolt M5x12	1
20	Hex Nut	4
21	Bolt M10x25	4
22	Large Die	1
23	Small Die	1
24	Square Die	1



**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

#### 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.

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353