

# MODEL M1012 48" PAN AND BOX BRAKE



## INSTRUCTION MANUAL

Phone: 1-360-734-3482 • On-Line Technical Support: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz)

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# INTRODUCTION

## Woodstock Technical Support

We stand behind our machines! In the event that questions arise about your machine, parts are missing, or a defect is found, please contact Woodstock International Technical Support at 1-360-734-3482 or send e-mail to: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz). Our knowledgeable staff will help you troubleshoot problems and send out parts for warranty.

If you need the latest edition of this manual, you can download it from <http://www.shopfox.biz>. If you still have questions after reading the latest manual, or if you have comments please contact us at:

Woodstock International, Inc.  
Attn: Technical Support Department  
P.O. Box 2309  
Bellingham, WA 98227

## About Your New Pan and Box Brake

Your new **SHOP FOX**® 48" Pan and Box Brake has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

This pan and box brake is an indispensable tool if you need to increase the strength of sheet metal plates with bends, or you intend on fabricating more complicated brackets, gussets, boxes, and fixtures. When bolted to a concrete floor, your pan and box brake allows you easily bend 48" wide mild steels up to 12 gauge thick in a range of angles from 0° to 135°. The removable and adjustable fingers can be installed in a variety of positions to accommodate for varying widths of metal.

Woodstock International, Inc. is committed to customer satisfaction in providing this manual. It is our intent to make sure all the information necessary for safety, ease of assembly, practical use and durability of this product be included.



# Specifications

Height w/o Counterweight Attached .....	48"
Height with Counterweight Attached .....	69"
Finger Sizes .....	(6) 3", (2) 4", (1) 25", Steel
Shipping Weight .....	1300 Lbs.
Footprint .....	56 1/2" x 29"
Crate Size .....	69 3/4" L x 29 1/2" W x 37 1/2" H
Brake Range .....	0° -135°
Maximum Width .....	48"
Maximum Size of Pan/Box Sides .....	6"

### Material Gauge Capacities:

Mild Steel .....	12 gauge at half width, 14 gauge at full width
Aluminum .....	6 gauge
Soft Brass .....	10 gauge
Annealed Phosphor Bronze .....	11 gauge
Soft Copper .....	10 gauge
Hard Copper .....	11 gauge
ABS Plastic .....	3 gauge

## Controls and Features

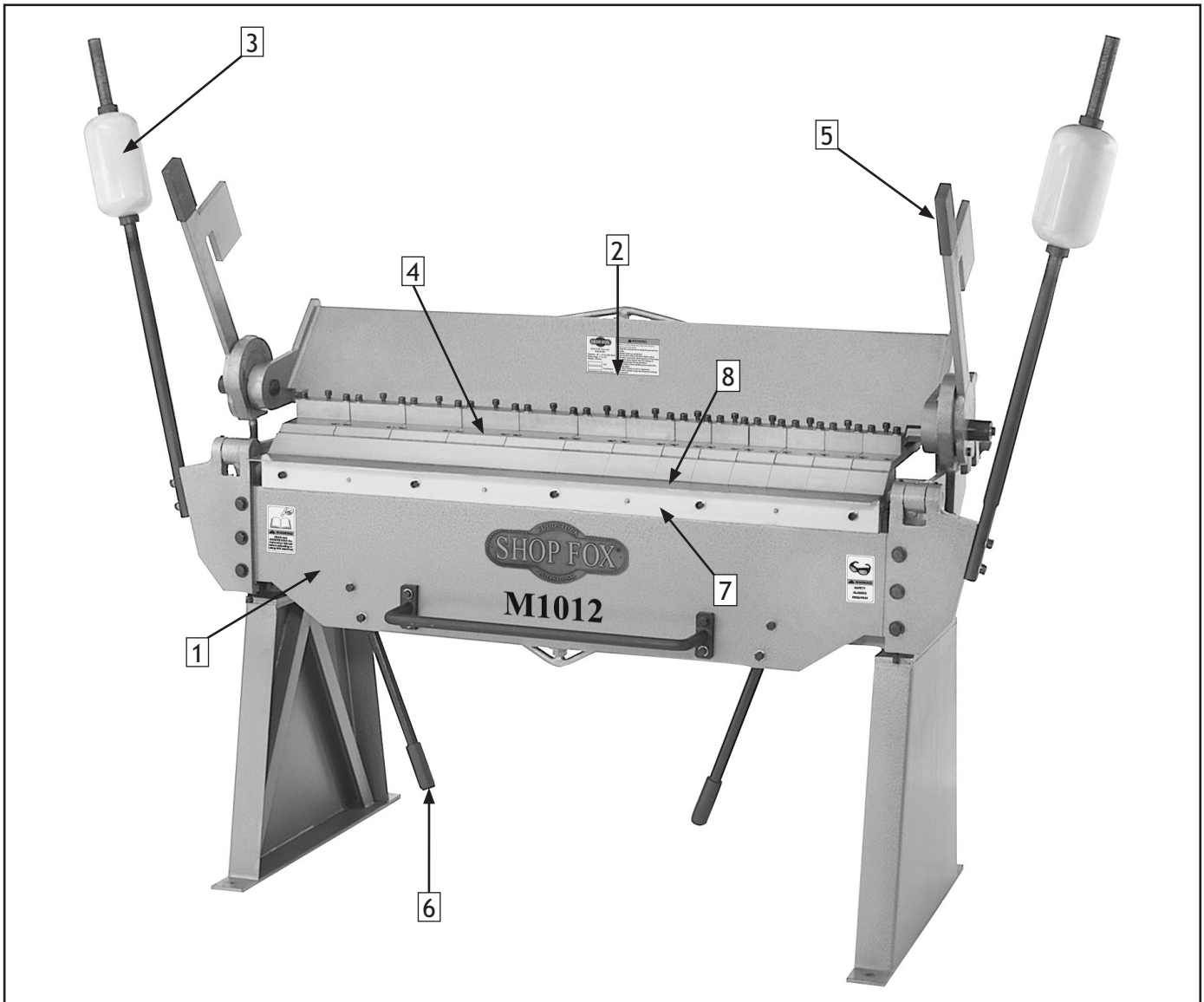


Figure 1. Main features of the Model M1012.

1. Bending Leaf
2. Clamping Leaf
3. Counterweight
4. Finger Blocks
5. Clamping Handles
6. Operating Handles
7. Bending Wing
8. Clamp Block

# SAFETY

**READ MANUAL BEFORE OPERATING MACHINE.  
FAILURE TO FOLLOW INSTRUCTIONS BELOW WILL  
RESULT IN PERSONAL INJURY.**

## **DANGER**

Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

## **WARNING**

Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

## **CAUTION**

Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

## **NOTICE**

This symbol is used to alert the user to useful information about proper operation of the equipment, and/or a situation that may cause damage to the machinery.

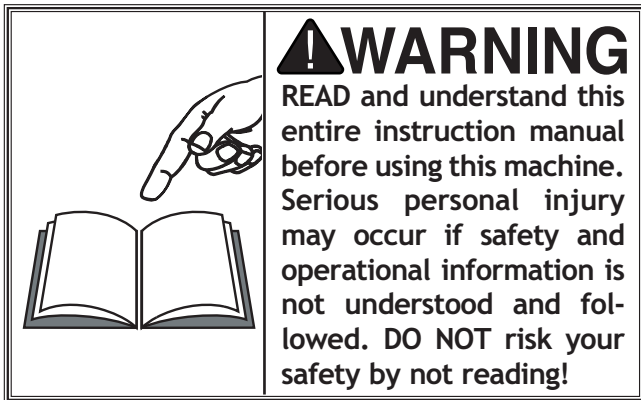
## Standard Safety Instructions

1. **Read and understand the Instruction Manual before operating this tool.** Learn the applications, limitations and potential hazards of this tool. Keep the manual in a safe and convenient place for future reference.
2. **Keep work area clean and well lighted.** Clutter and inadequate lighting invite potential hazards.
3. **Wear eye protection at all times.** Use safety glasses with side shields or safety goggles that meet the appropriate standards of the American National Standards Institute (ANSI).
4. **Make sure all safety guards are securely in place and in working condition.**
6. **Keep children and visitors away.** Visitors must be kept at a safe distance while operating unit.
7. **Childproof your workshop and dangerous tools.** Use padlocks, master switches or remove starter keys where applicable.
8. **Do not force machinery.** Work at the speed for which the machine or accessory was designed.
9. **Use the correct tool.** Do not force the tool or attachment to do a job for which it was not designed.
10. **Wear proper apparel.** Do not wear loose clothing, neck ties, gloves, jewelry, and secure long hair away from moving parts.
11. **Keep proper footing and balance.**
12. **Perform tool maintenance and care.** Follow lubrication and pre-use inspections listed in the manual.

13. **Experiencing difficulties.** If at any time you are experiencing difficulties performing the intended operation, stop using the tool! Then contact our Technical Support Department or ask a qualified expert how the operation should be performed.
14. **Develop good habits.** Develop good habits in your shop and safety will become second-nature to you.
15. **DO NOT over-reach.** Keep proper footing and balance at all times.
16. **Maintain tools and machinery with care.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
17. **Use recommended accessories.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
18. **Check damaged parts.** Before further use of the tool, a guard or other part that is 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 any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
19. **Be aware of hazardous chemicals.** Some coolants/lubricants used for machining may contain hazardous chemicals. Read and understand all user information and protect yourself accordingly.
20. **Never operate when tired, or under the influence of drugs or alcohol.** Full mental alertness is required at all times when using metalworking equipment.



# Safety Instructions for Pan and Box Brakes



1. **OVERLOADING PAN AND BOX BRAKE.** Overloading this tool can cause injury from flying parts. Bend 12 gauge or thinner metal.
2. **USING TORCHES.** Heating metal with a torch while the metal is in the pan and box brake will weaken the fingers.
3. **METAL EDGES.** Always chamfer and de-burr sharp sheet metal edges. Sharp edges on sheet metal can cut your fingers to the bone. Always chamfer and de-burr sheet metal before bending in the pan and box brake.
4. **GLOVES AND GLASSES.** Always wear leather gloves and approved safety glasses when using this tool.
5. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, STOP using the tool and contact our Technical Support Department, or ask a qualified expert how the operation should be performed.
6. **TOOLS IN POOR CONDITION.** Inspect the pan and box brake for any cracked linkage, levers, or loose fasteners. Correct any problems before use.

# SET UP

## Unpacking

The SHOP FOX® Model M1012 has been carefully packaged for safe transporting. If you notice the machine has been damaged, please contact Woodstock International Technical Support at 1-360-734-3482 or send e-mail to: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz)

SETUP




**!WARNING**

**SUFFOCATION HAZARD!**

Immediately discard all plastic bags and packing materials to eliminate a choking and suffocation hazard for children and animals.

**!WARNING**



**READ and understand this entire instruction manual before using this machine. Serious personal injury may occur if safety and operational information is not understood and followed. DO NOT risk your safety by not reading!**

## Items Needed for Set Up

The following items are needed, but not included, to setup your machine:

### Description

- Hammer Drill ..... 1
- Punch 1/2" ..... 1
- Hammer Drill Bit 1/2" ..... 1
- Hammer ..... 1
- Wrench or Socket 1/2" ..... 1
- Lag Shield Anchors 5/16" x 1 3/4" ..... 4
- Lag Bolts 5/16" x 2 1/2" ..... 4
- Lock Washers 5/16" ..... 4
- Flat Washers 5/16" ..... 4

# Inventory

The following is a description of the main components shipped with the SHOP FOX® Model M1012. Lay the components out to inventory them.

CONTENTS (Figures 2-4)	Qty
A. Pan and Box Brake Main Body .....	1
B. Supports .....	2
C. Counterweight Assemblies .....	2
D. Handlebar.....	1
E. Stop Rod .....	1
F. Operating Handles .....	2
G. Hardware Bag: .....	1
• Hex Bolts M10-1.5 x 40 .....	8
• Flat Washers 10MM .....	8
• Lock Washers 10MM.....	8
• Hex Bolts M12-1.75 x 40 .....	8
• Flat Washers 12MM .....	8
• Lock Washers 12MM.....	8
• Hex Nut M10-1.5 .....	1
• Hex Nut M16-2.....	2
• Stop Hub.....	1
• Stop Collar .....	1
• T-Bolt .....	1
• Flat Washer 16MM .....	1
• Hex Nuts M12-1.75.....	4

If any parts appear to be missing, examine the packaging carefully to be sure those parts are not among the packing materials. If any parts are missing, find the part number in the back of this manual and contact Woodstock International, Inc. at 360-734-3482 or at [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz)

## NOTICE

When ordering replacement parts, refer to the parts list and diagram in the back of the manual.

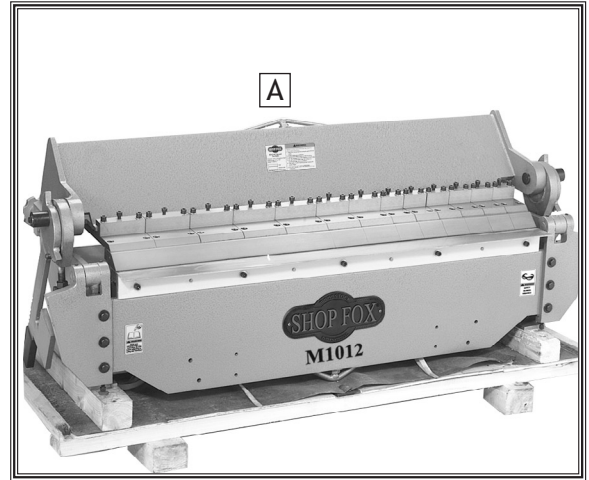


Figure 2. Pan and box brake main body.



Figure 3. Supports.

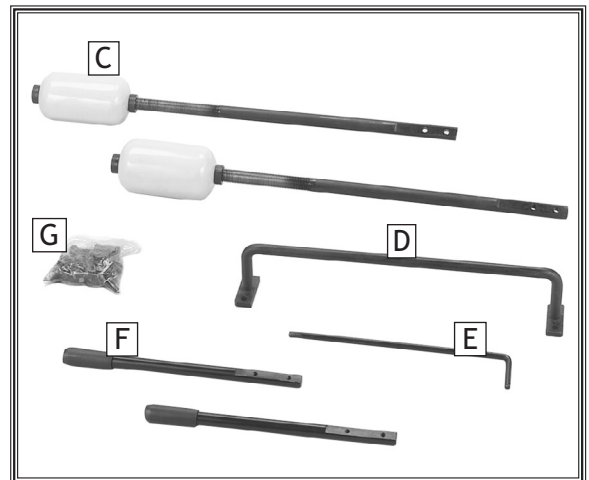


Figure 4. Contents of box.

SETUP

## Lifting

- If you are unsure of how to lift this equipment safely, consult a qualified professional.
- When lifting the pan and box brake, make sure the weight is supported evenly with two or more lifting devices.
- Make sure the body of the brake is bearing the load (Figure 5).

## Machine Placement

### Floor and Workbench Load

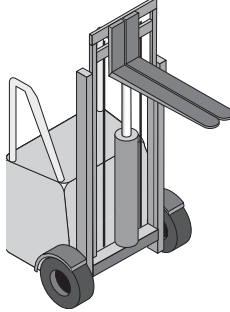
Your Model M1012 weighs nearly 1300 lbs and has a footprint of 56½" x 29". Most concrete floors should be sufficient to carry the weight. BEFORE moving the brake onto a wood floor, inspect it carefully to determine that it will be sufficient to carry the load of the machine, the lifting device, and its operators. If you question the strength of your floor, you should consider having it inspected for possible reinforcement.

### Working Clearances

Consider existing and anticipated needs, size of material to be processed through the machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your Model M1012 Pan and Box Brake.

### Lighting

Lighting should be bright enough to eliminate shadow and prevent eye strain.



**⚠ WARNING**

The Model M1012 is a heavy machine that weighs approximately 1300 lbs. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the equipment from the crate.

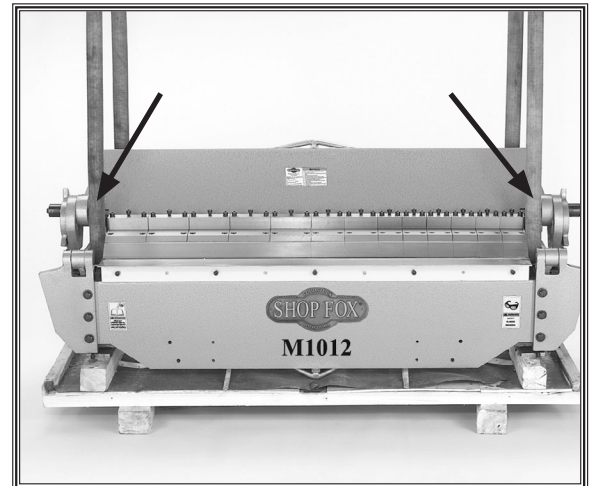


Figure 5. Pan and box brake supported evenly by two lifting straps.



**⚠ CAUTION**

MAKE your shop "child safe." Ensure that your workplace is inaccessible to youngsters by closing and locking all entrances when you are away. NEVER allow untrained visitors in your shop when assembling, adjusting or operating equipment.

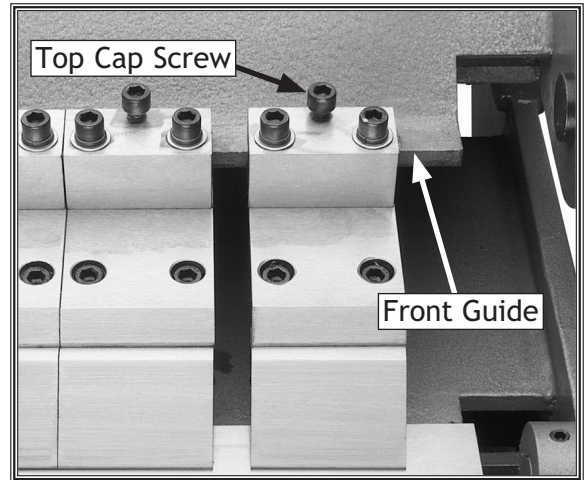
# Cleaning Machine

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser or with liberal amounts of WD-40®.

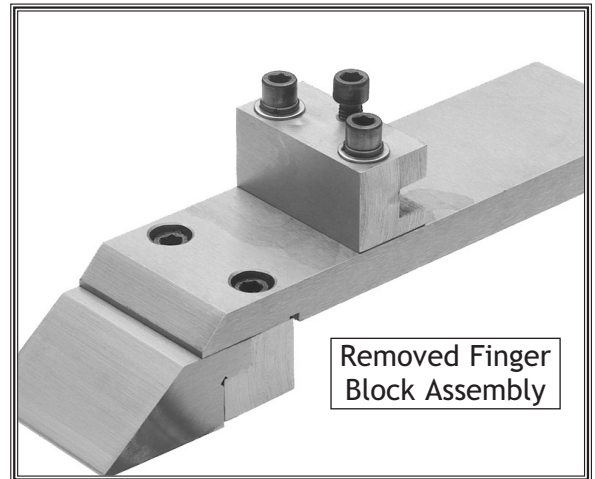
DO NOT use chlorine-based solvents such as brake parts cleaner or acetone—if you happen to splash some onto a painted surface, you will ruin the finish.

Remove and thoroughly clean each finger block assembly. Do this by first raising the clamping leaf to make sure there is no pressure on the finger blocks; then, for each finger block, remove the top cap screw shown in **Figure 6** and slide the entire finger block assembly off of the front guide (**Figure 7**). This procedure is easiest if you begin with a finger block on the end.

After the finger block assemblies have been cleaned, coat them liberally with a metal protectant and re-install. Make sure to follow the instructions on **Page 16** to re-align the fingers before operating your brake!



**Figure 6.** Top cap screw for loosening finger block to slide off front guide.



**Figure 7.** Removed finger block assembly shown for identification.

  	<h2>⚠ CAUTION</h2> <p>ALWAYS work in well-ventilated areas far from possible ignition sources when using solvents to clean machinery. Many solvents are toxic when inhaled or ingested. Use care when disposing of waste rags and towels to be sure they DO NOT create fire or environmental hazards.</p>
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<h2>⚠ WARNING</h2>
<p>NEVER use gasoline or other petroleum-based solvents to clean with. Most have low flash points, which make them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur if this warning is ignored!</p>

SETUP

# Mounting Main Body to Supports

To mount the main body to the supports, do these steps:

1. Prepare for the main body placement by arranging the supports so they are standing rightside-up, are parallel with each other, and are spaced about four feet away from each other (see **Figure 8**).
2. Using lifting equipment, position the main body over the supports, then carefully lower the main body onto the supports. Keep the lifting equipment in place to prevent the main body from accidentally falling before it is secured.
3. Secure the main body to the supports with the M12-1.5 x 40 hex bolts, 12mm flat washers, lock washers, and hex nuts as shown in **Figure 9**.



**Figure 8.** Supports ready for brake placement.



**Figure 9.** Main body mounted to supports.

	<p><b>CAUTION</b></p> <p>Some components for this equipment are heavy and awkward to handle. Assembling them without proper equipment may increase the likelihood of injury.</p>
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OPERATIONS

## Attaching Handles and Handlebar

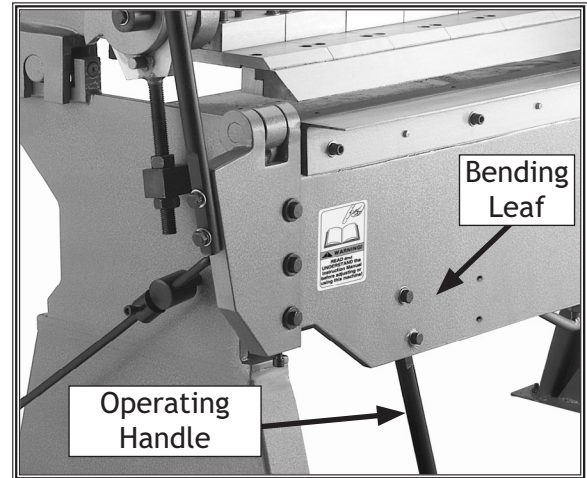
To attach the handles and handlebar, do these steps:

1. Using four of the M10-1.5 x 40 hex bolts, 10mm lock washers, and 10mm flat washers, attach both operating handles to the underside of the bending leaf, at the outermost pair of holes (see **Figure 10**).
2. Mount the handlebar to the front of the bending leaf with the remaining four M10-1.5 x 40 hex bolts, 10mm lock washers, and 10mm flat washers (see **Figure 11**).

## Installing Counterweights

To install the counterweights, do these steps:

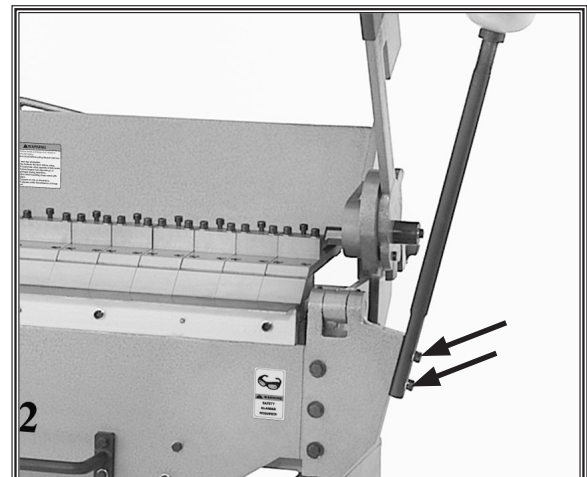
1. Have an assistant hold one of the counterweights up to the side of the brake, and align the mounting holes.
2. Bolt the counterweight assembly to the side of the bending leaf (**Figure 12**) with two M12-1.75 x 40 hex bolts, 12mm lock washers, and 12mm flat washers.
3. Repeat **Steps 1 & 2** at the other side of the brake with the remaining counterweight and hardware.



**Figure 10.** Operating handle attached to bending leaf at outermost pair of holes.



**Figure 11.** Handlebar attached to bending leaf.

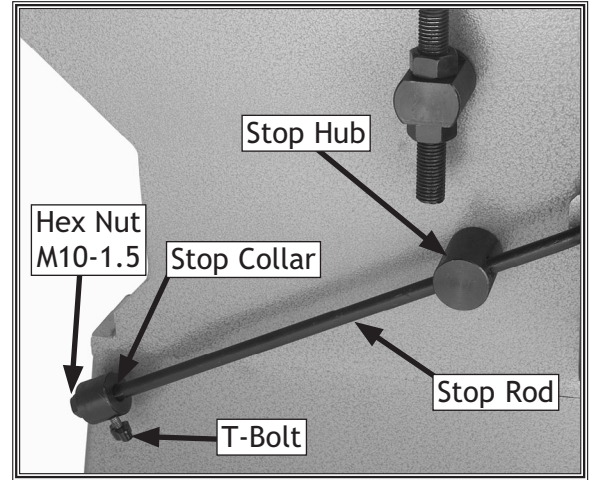


**Figure 12.** Counterweight mounted to side of bending leaf.

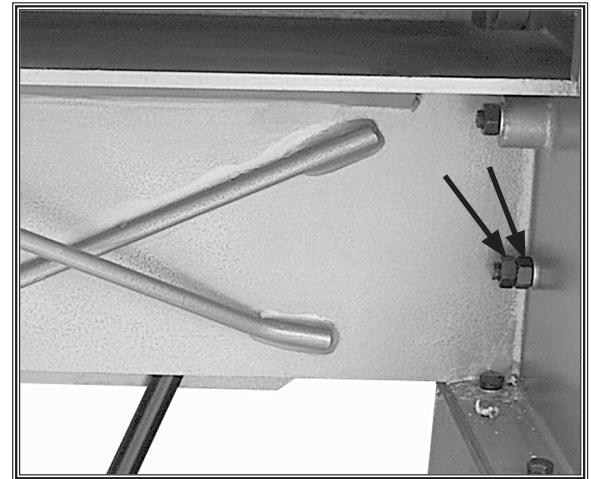
# Mounting Stop Rod

To mount the stop rod, do these steps:

1. Insert the stop rod through the stop hub (see **Figure 13**).
2. Insert the short end of the stop rod through the hole in the bending leaf.
3. Insert the stop hub through the hole in the side of the brake, and use one of the M16-2 hex nuts and the 16mm washer to secure the stop hub, as shown in **Figure 14**.
4. Back off the M16-2 hex nut a 1/4 turn, and use the second M16-2 hex nut as a jam nut against the first nut, then tighten the two nuts together so that the hub can still pivot without binding when the bending leaf is in operation (see **Figure 14**).
5. Slide the stop collar onto the end of the stop rod, and finger tighten the M10-1.5 hex nut onto the end of the stop rod.
6. Thread the T-bolt into the stop collar.



**Figure 13.** Stop rod components.



**Figure 14.** Hex nuts that keep stop hub mounted to side of bending leaf.



## Mounting to Floor

Although not required, we recommend that you mount your new pan and box brake to the floor.

To ensure accurate operation results, make sure your mounting location is as level as possible and that you provide adequate work room all around the pan and box brake.

To mount the Model M1012 to a concrete floor, do these steps:

1. Put on safety glasses before starting!
2. Use the holes in the feet of the supports to act as a guide for drilling, and use the hammerdrill with the  $\frac{1}{2}$ " bit to drill into the floor approximately  $2\frac{1}{2}$ " deep.
3. Using compressed air and a vacuum hose, remove the concrete dust from the newly drilled holes.
4. Using the hammer and punch, pound the lag shields into the concrete below the stand feet until flush with the surface of the concrete.
5. Secure the brake to the floor with the  $\frac{5}{16}$ " lag bolts and washers.

**Note:** Anchor studs (Figure 16) are stronger and more permanent alternatives to lag shield anchors (Figure 15); however, they will stick out of the floor, which may cause difficulties if you decide to move your brake at a later point.



Figure 15. Typical lag shield anchor.

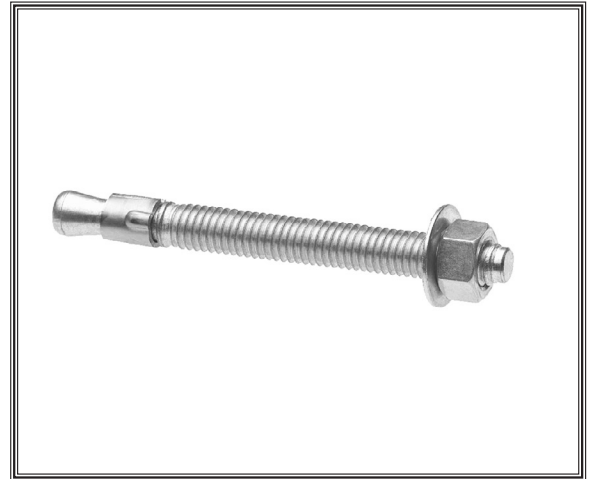


Figure 16. Typical anchor stud.

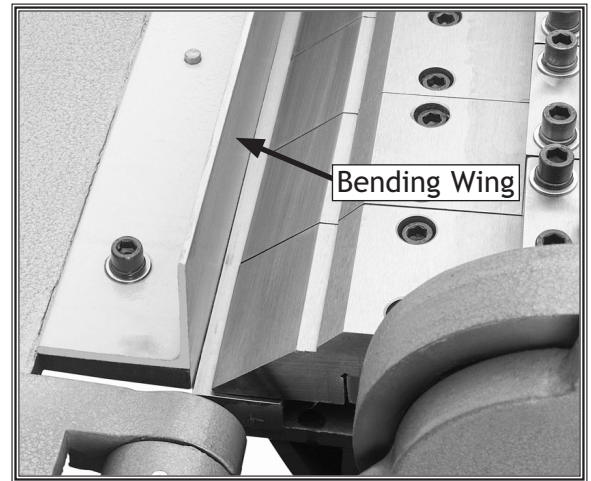
# Aligning Fingers

Finger alignment is critical to the results you will get with the bender during operation. The fingers can be aligned individually or all at once. (If you removed all the fingers for cleaning, follow the instructions for aligning all of them at once. Otherwise, just align individual fingers as needed.)

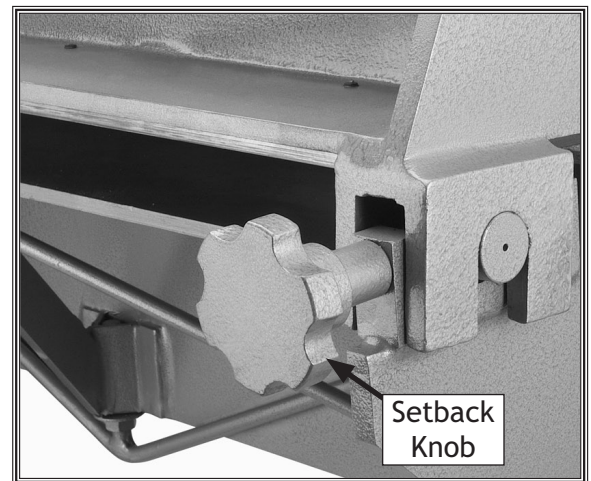
To align the fingers, do these steps:

1. Unlock the clamping handles to ensure there is no contact between the fingers and the table.
2. Raise the bending leaf so the bending wing is perpendicular to the fingers, as shown in **Figure 17**; the bending wing will act as a straightedge. Use the stop collar to hold the bending leaf in place.
3. Using both setback knobs at the rear of the brake (**Figure 18**), adjust the fingers forward in even amounts until the forward-most finger is barely touching the bending leaf.
4. Loosen the three cap screws shown in **Figure 19** to align the remaining fingers.
5. Tighten the cap screws when the fingers are aligned.

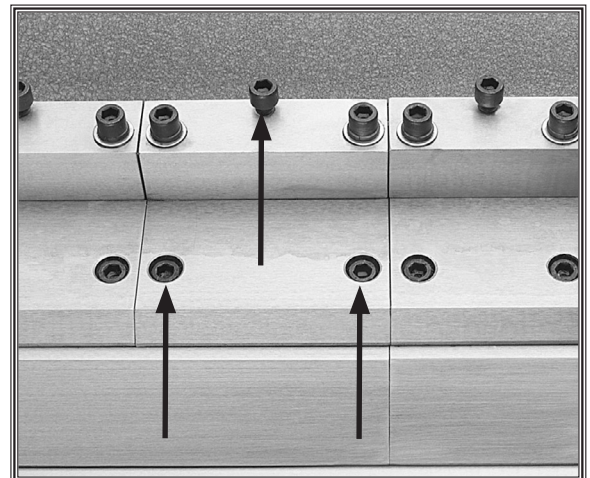
SETUP



**Figure 17.** Bending wing moved approximately perpendicular to fingers to act as a straightedge.



**Figure 18.** One of two setback knobs, which are located at the rear of the brake.



**Figure 19.** Cap screws used to align fingers.

# OPERATIONS

## General

The Model M1012 will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this machine. **If at any time you are experiencing difficulties performing any operation, stop using the machine!**

If you are an inexperienced operator, we strongly recommend that you read books, trade articles, or seek training from an experienced *Machine Type* operator before performing any unfamiliar operations. **Above all, your safety should come first!**

## Adjusting Setback

The setback is the distance from the forward edge of the fingers and the edge of the clamp block (Figure 20). The setback distance is determined by the gauge of the workpiece and the desired radius of the bend. Normally, setback is adjusted at least 1½–2 times the thickness of the workpiece. (Thicker or tempered workpieces will need a larger setback. See material gauge capacities on Page 3.)

To adjust the setback, do these steps:

1. Make sure all the fingers are aligned with each other and that the fingers are not clamped to the clamp block.

### NOTICE

**You must include the thickness of folded edges or joints when determining the proper setback, or the brake may be damaged.**

**! WARNING**

Always wear safety glasses when operating the Model M1012 Pan and Box Brake. Failure to comply may result in serious personal injury.

**! WARNING**

Watch for pinch points on this equipment. This equipment has many moving parts which may cause serious injury to yourself or others around the equipment.

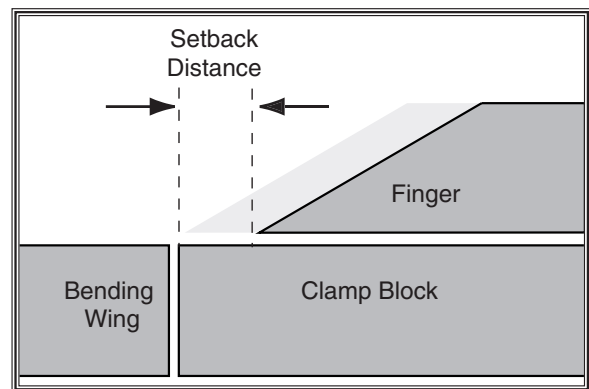


Figure 20. Profile view of finger and clamp blocks showing setback distance.

OPERATIONS

2. Rotate both setback knobs evenly (**Figure 21**) to move the front edge of the fingers toward or away from the edge of the clamp block.

**Note:** Make sure the finger edges are parallel with the edge of the clamp block or your bend will be distorted.

## Spacing Fingers

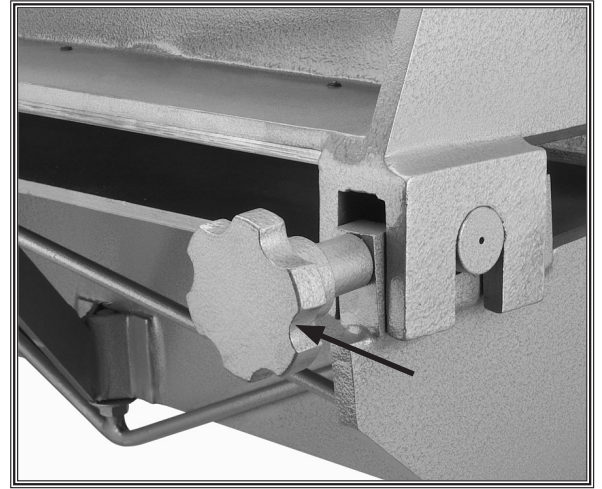
The fingers can be spaced apart for clearance when making pans or boxes. This requires removing one or more of the fingers so that you can space the others to match the width of your pan or box (**Figure 22**).

To space the fingers apart, do these steps:

1. Remove one of the end fingers by loosening the top cap screw, shown in **Figure 23**, and slide it off the front guide.
2. Loosen the top cap screws of the fingers you need to move, and slide them across the front guide so that you have adequate room for your workpiece on both sides.

**Note:** You may need to mix and match finger widths to equal the size of your workpiece.

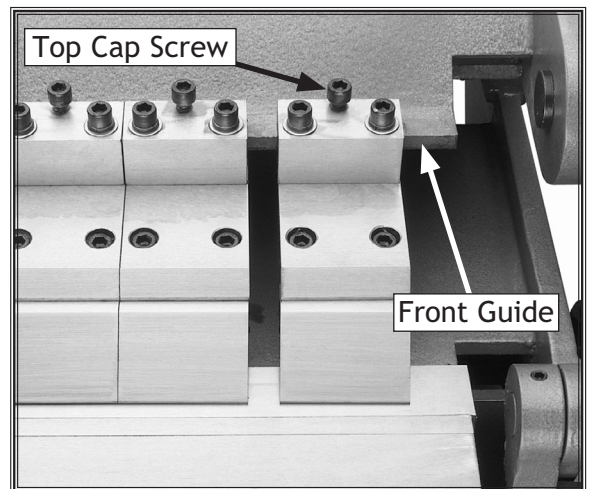
3. Align the fingers and tighten the cap screws. (See **Page 16** for alignment instructions.)



**Figure 21.** Setback adjustment knob (one of two) for clamping leaf.



**Figure 22.** Fingers spaced apart to allow clearance of pan or box sides.



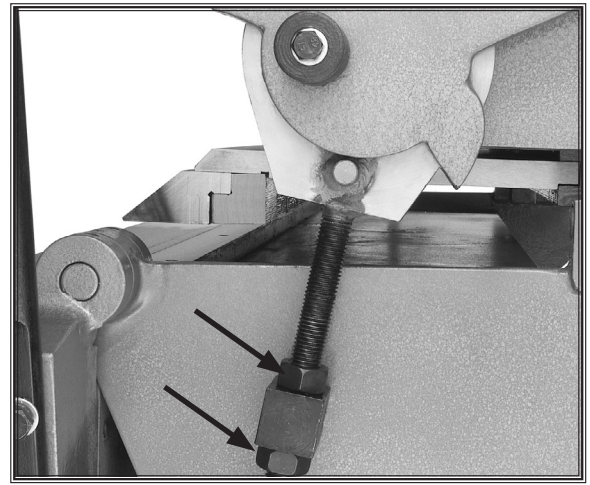
**Figure 23.** Top cap screw for loosening finger in order to slide it off the front guide.

# Adjusting Clamping Pressure

The correct clamping pressure depends on the workpiece thickness. The ideal pressure will have medium/hard resistance while pulling the handle, but will lock into position easily at the end of the stroke—much like a pair of vice grips. This pressure is adjusted by moving the nuts (**Figure 24**), which are located on both sides of the brake.

To adjust the clamping pressure, do these steps:

1. Tighten both sides of the clamping leaf with your workpiece in the brake.
  - If the clamping pressure feels right, no further adjustments are necessary.
  - If the clamping pressure feels light, move the adjusting nuts up.
  - If the clamping pressure feels hard, move the adjusting nuts down.
2. Remove the workpiece from the brake, lock the clamping leaf in place, then loosen the upper nut pressure.
3. Unlock the clamping leaf and turn the lower nut a  $\frac{1}{2}$  turn in the needed direction.
4. Lock the clamping leaf, tighten the upper nut, and repeat **Step 1**.



**Figure 24.** Clamping pressure adjusting nuts (one side).

# Setting Stop Collar

The stop collar (Figure 25) limits the amount that the bending leaf can travel during bending, thereby allowing you to repeat a bend at an exact angle.

To use the stop collar, do these steps:

1. Completely loosen the stop collar.
2. Make the bend that you want to repeat and hold the bending leaf in place at the top of the bend.
3. Slide the stop collar up against the stop hub and tighten it in place (Figure 25).
4. Check the stop collar by lowering the bending leaf and then raising the bending leaf into a bend. If the stop is working correctly, the bending leaf will stop in the same position as the first bend.

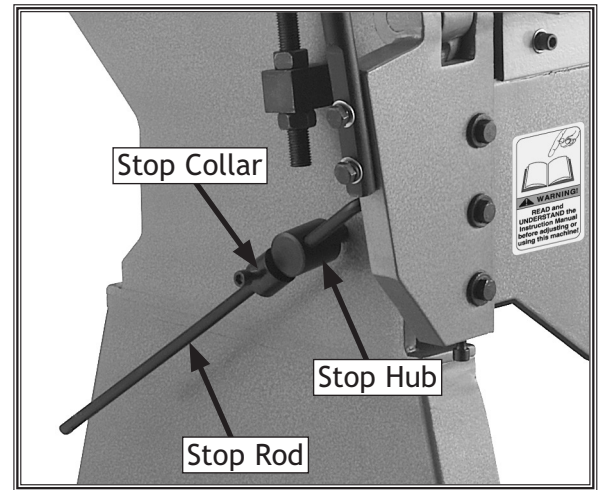


Figure 25. Stop collar shown tightened against stop hub on stop rod.

# Basic Bending

Bending operations require the fingers to be parallel with the edge of the clamping block and require the setback and clamping pressure to be correctly adjusted for the thickness of the workpiece.

To perform a basic bending operation, do these steps:

1. Lift the clamping handle to open the clamping leaf all the way.
2. Insert the workpiece between the fingers and the clamping block.
3. Align the fingers of the clamping leaf to the bend mark on the workpiece, and clamp it in place.

**Note:** Do not force the clamping handle. If the handle is hard to put in the locked position, the pressure may need to be adjusted for the sheet metal thickness. The holding pressure of the clamping leaf needs to be just tight enough to hold the sheet metal from moving when bending.

4. Lift up on the operation handles until the workpiece has reached the desired angle.
5. Open the clamping leaf and remove the bent workpiece.

**Note:** If a pan or box bend is desired, choose a finger or a selection of fingers that are as close as possible to the length of pan or box side lengths.

## Adjusting Counterweights

The counterweights add leverage to ease the effort needed to bend thicker workpieces.

The gauge of the workpiece determines where on the arm the counterweight is placed. For example, the counterweight would be positioned low on the arm for bending 20 gauge steel and high on the arm for bending 12 gauge steel.

The counterweights (**Figure 26**) simply slide up and down the shafts and the lock collars hold them in place.

**To adjust the counterweights, do these steps:**

### DOWN

1. Push up on the counterweight to relieve pressure, and turn the bottom lock collar down the shaft.
2. Allow the counterweight to slide down the shaft, and finger tighten the top lock collar against the counterweight.

### UP

1. Turn the top lock collar up the shaft.
2. Push the counterweight up against the top lock collar, and turn the bottom lock collar up the shaft and against the counterweight.

Following the adjustments, make sure the counterweights are securely held between the two pairs of lock collars.



**Figure 26.** Counterweights.

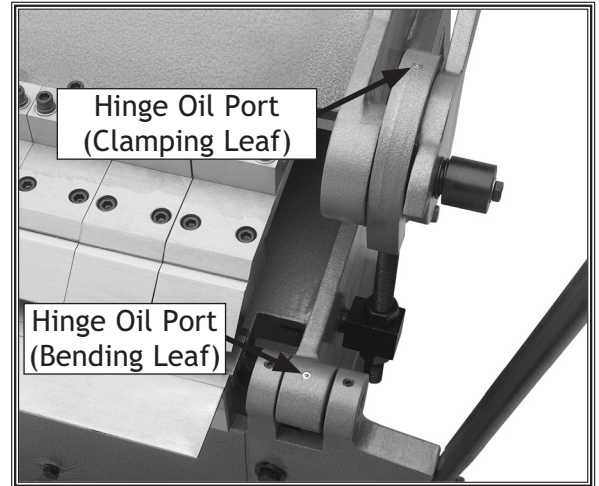
# MAINTENANCE

## Lubrication

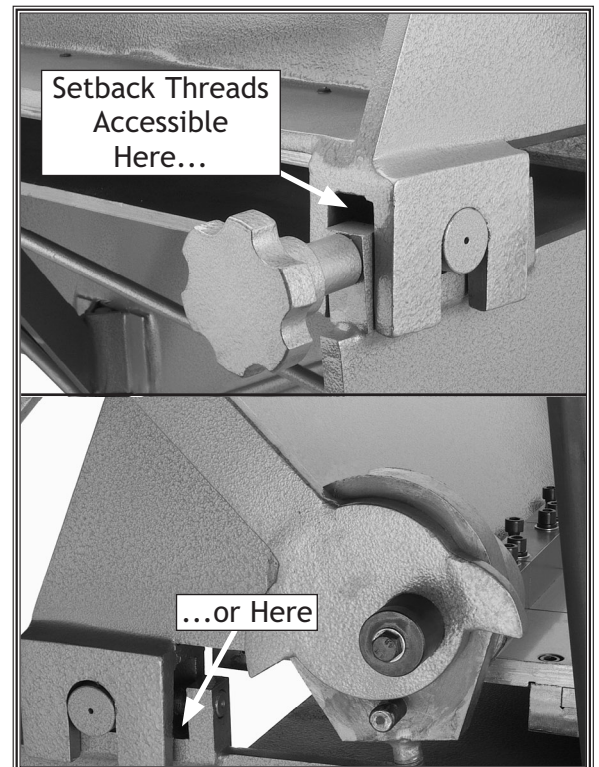
Regular periodic maintenance on your SHOP FOX® Model M1012 will ensure its optimum performance. Make a habit of inspecting your machine each time you use it.

There are four main areas to maintain on the Model M1012: 1) The unpainted cast iron surfaces, 2) the hinges for the hold down and bending leaf assemblies, 3) the setback knob threads, and 4) counterweight threads.

- **Cast Iron Surfaces:** To prevent rust, all unpainted cast iron surfaces on the Model M1012 should be regularly maintained with a surface protectant.
- **Hinges:** There are four hinges on the M1012—two for the clamping leaf and two for the bending leaf. These hinges are equipped with ball valve oil ports (**Figure 27**). Use an oil can with 30W non-detergent machine oil, and insert 5-6 drops into each port; repeat this as needed or every week, depending on use. Make sure to wipe up any excess oil to avoid build up of dust and grime.
- **Setback Knob Threads:** The threads on the setback knobs (**Figure 28**) may need an occasional dab of white lithium grease. The setback threads are easiest to reach if the setback is moved all the way forward or all the way backward. For best results, move the setback all the way back and forth one time after applying the grease; grease the threads as needed to maintain smooth operation from the knobs.
- **Counterweight Threads:** The threads on the counterweight shafts may need an occasional dab of white lithium grease to keep them in good working order. After applying grease, turn the lock collars up the length of the shaft to evenly coat the threads.



**Figure 27.** Lubrication points for clamping and bending leaf hinges (only one side shown).



**Figure 28.** Accessibility to setback threads.





# SERVICE

## General

This section covers the most common service adjustments or procedures that may need to be made during the life of your machine.

If you require additional machine service not included in this section, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz).

### Aligning Bending Wing

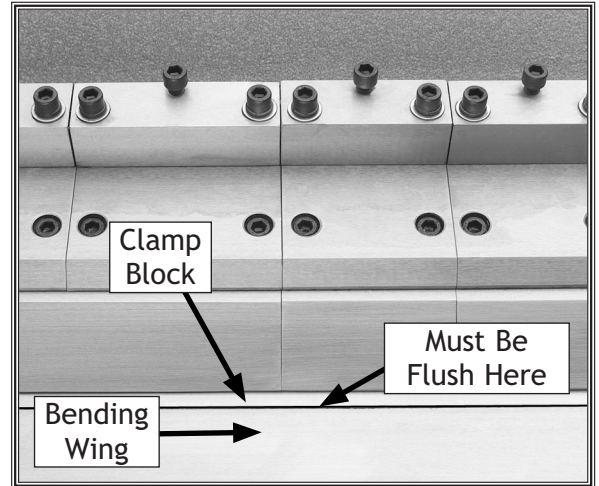
In order to achieve accurate bends, the top surface of the bending leaf and the attached bending wing must be flush with the top surface of the clamp block when the bending leaf is in the down position (see **Figure 29**).

Check for proper alignment by examining how the edges of each component meet each other. Only perform the instructions below if the top surfaces of these components are NOT flush with each other.

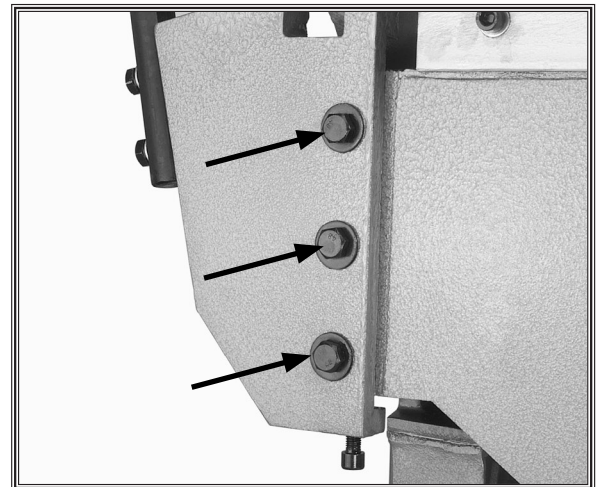
There are two adjustments that can be made to align the clamp and bending wings. First, you can adjust the ends of the bending leaf to make it even with the clamp block; and second, you can straighten the main body of the bending leaf or clamp block by tightening a large nut on the center of a truss assembly, which is mounted to each.

To align the clamp and bending wings, do these steps:


1. Loosen the bending leaf mounting bolts (**Figure 30**) on each end of the brake.



**Figure 29.** Callouts showing where clamp block and bending wing must be flush.

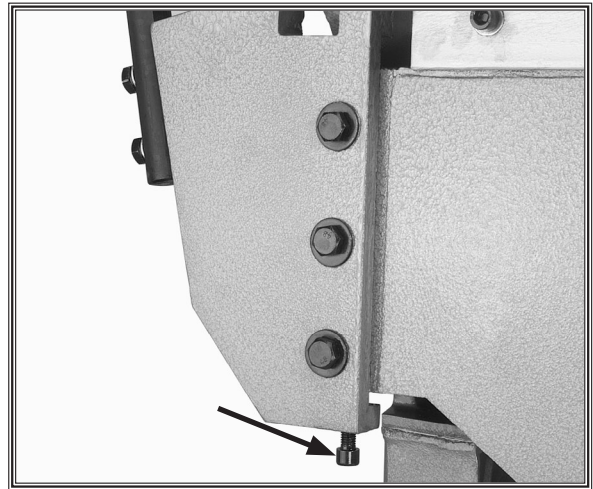


**Figure 30.** Bending leaf mounting bolts.

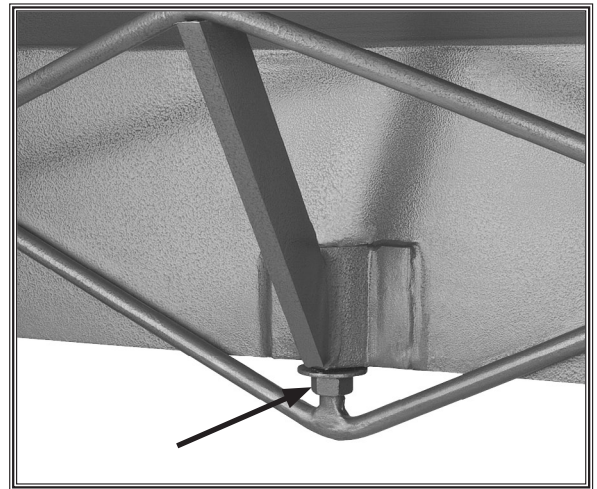
*Continued on next page* 

2. Use the bending leaf adjustment cap screws shown in **Figure 31** to align the bending leaf flush with the clamp bar.
3. Tighten the bending leaf mounting screws.
  - If the entire length of the bending leaf is flush with the clamp block, then no further adjustments are necessary.
  - If the bending leaf is flush with the clamp block at both ends but is not flush in the center, then proceed to **Step 4**.
4. Examine the center area where the clamp block and bending wing meet.
  - If the bending wing is lower than the clamp block, then the truss nut under the bending wing needs to be tightened (**Figure 32**).
  - If the bending wing is higher than the clamp block, then the truss nut under the clamp block needs to be tightened (**Figure 33**).
5. Tighten the appropriate truss nut as determined from **Step 4** until the bending wing and the clamp block are flush with each other in the center.

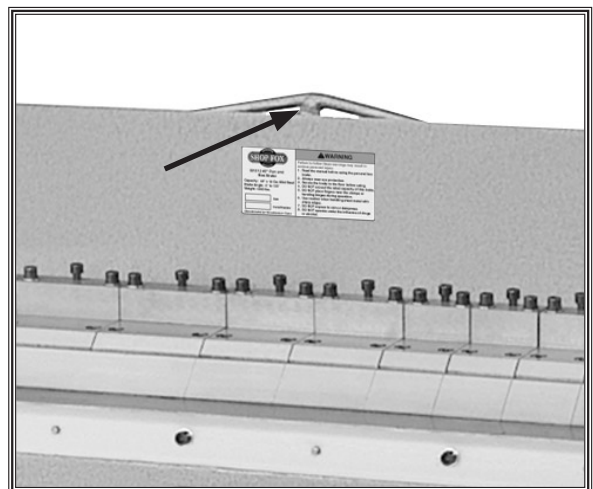
**Note:** Make sure the truss nuts remain tight, because they help stiffen the the leaf they are attached to.



**Figure 31.** Bending leaf adjustment cap screw.



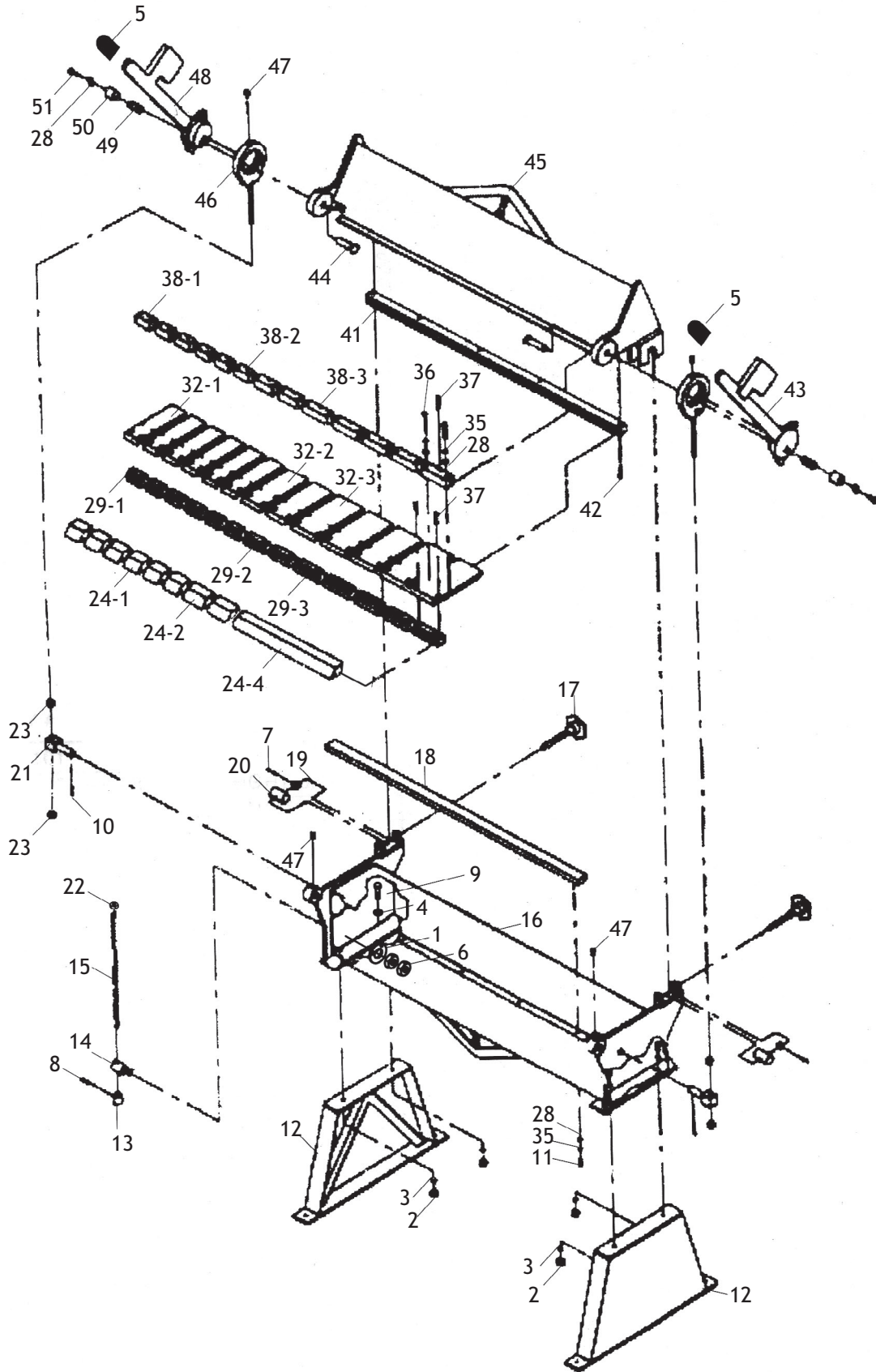
**Figure 32.** Truss nut under bending wing.



**Figure 33.** Truss nut under clamp block.

SERVICE

# PARTS

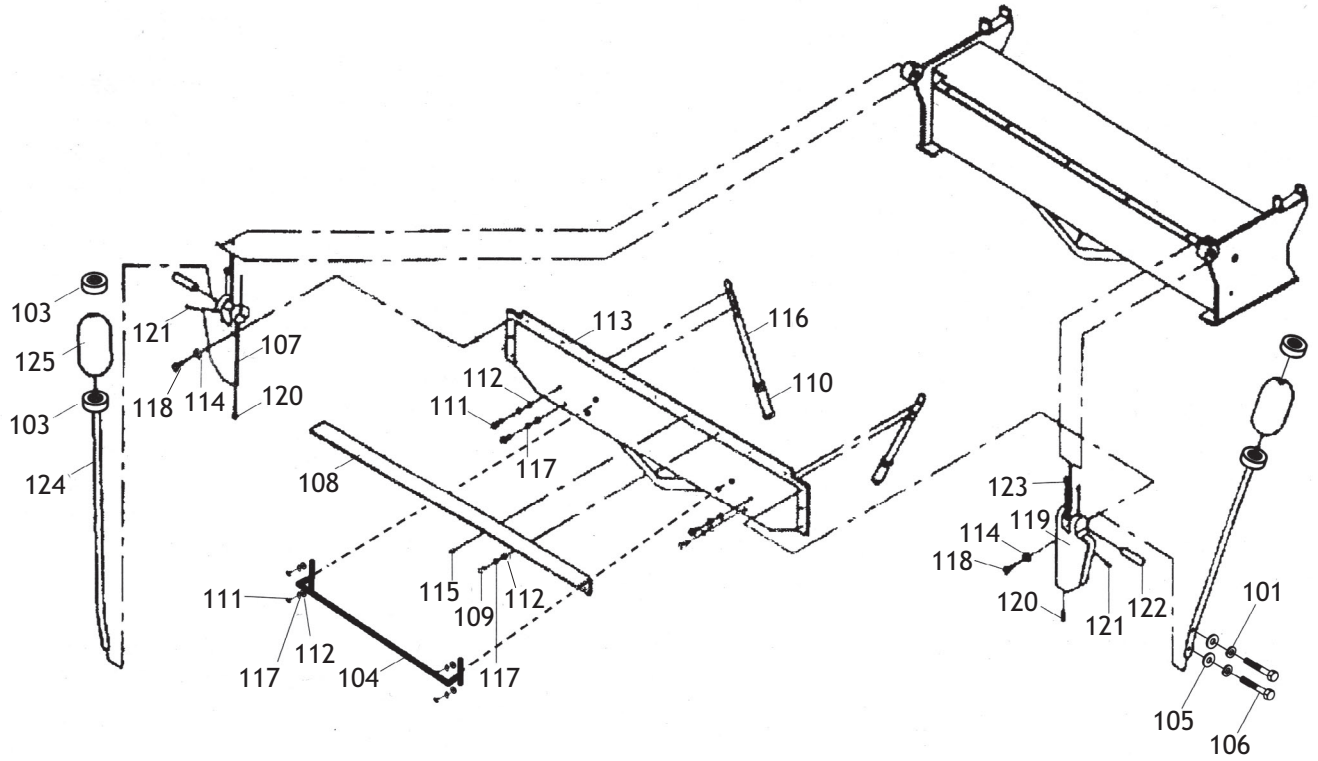


PARTS

# Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
1	XPW08M	FLAT WASHER 16MM	24-4	XM1012024-4	25" FINGER BLOCK
2	XPNO9M	HEX NUT M12-1.75	28	XPW04M	FLAT WASHER 10MM
3	XPLW05M	LOCK WASHER 12MM	29-1	XM1012029-1	3" LOWER CLAMP BAR
4	XPW06M	FLAT WASHER 12MM	29-2	XM1012029-2	4" LOWER CLAMP BAR
5	XM1012005	RUBBER HANDLE GRIP	29-3	XM1012029-3	5" LOWER CLAMP BAR
6	XPN13M	HEX NUT M16-2	32-1	XM1012032-1	3" FINGER BLOCK JAW
7	XM1012007	TAPER PIN 4 X 4.6 X 30M	32-2	XM1012032-2	4" FINGER BLOCK JAW
8	XM1012008	T-BOLT M8-1.25 X 20	32-3	XM1012032-3	5" FINGER BLOCK JAW
9	XPB35M	HEX BOLT M12-1.5 X 40	35	XPLW06M	LOCK WASHER 10MM
10	XM1012010	COTTER PIN 2.5 X 35	36	XPSB71M	CAP SCREW M10-1.5 X 60
11	XPSB84M	CAP SCREW M10-1.5 X 35	37	XPSB72M	CAP SCREW M10-1.5 X 30
12	XM1012012	SUPPORT	38-1	XM1012038-1	3" UPPER CLAMP BAR
13	XM1012013	STOP COLLAR	38-2	XM1012038-2	4" UPPER CLAMP BAR
14	XM1012014	STOP HUB	38-3	XM1012038-3	5" UPPER CLAMP BAR
15	XM1012015	STOP ROD	41	XM1012041	SUPPORT BLOCK
16	XM1012016	BODY	42	XPSB47M	CAP SCREW M10-1.5 X 40
17	XM1012017	SETBACK KNOB M20 X 150	43	XM1012043	CLAMPING HANDLE
18	XM1012018	TOP BAR	44	XM1012044	PIN
19	XM1012019	COLLAR	45	XM1012045	CLAMPING LEAF
20	XM1012020	ADJUSTING BLOCK	46	XM1012046	LINK
21	XM1012021	PIVOT BLOCK	47	XM1012047	OIL FITTING
22	XPNO2M	HEX NUT M10-1.5	48	XM1012048	CLAMPING HANDLE
23	XPN15M	HEX NUT M18-1.5	49	XM1012049	SPRING-RH 35 X 50
24-1	XM1012024-1	3" FINGER BLOCK	50	XM1012050	SPACER
24-2	XM1012024-2	4" FINGER BLOCK	51	XPB01M	HEX NUT M10-1.5 X 30

# PARTS



# Parts List

REF	PART #	DESCRIPTION
101	XPLW05M	LOCK WASHER 12MM
103	XM1012103	LOCK COLLAR M30-3.5
104	XM1012104	HANDLEBAR
105	XPW06M	FLAT WASHER 12MM
106	XPB35M	HEX BOLT M12-1.75 X 40
107	XM1012107	LEFT HINGE
108	XM1012108	BENDING WING
109	XPSB72M	CAP SCREW M10-1.5 X 30
110	XM1012110	HANDLE GRIP
111	XPB31M	HEX BOLT M10-1.5 X 40
112	XPW04M	FLAT WASHER 10MM
113	XM1012113	BENDING LEAF

REF	PART #	DESCRIPTION
114	XPW06M	FLAT WASHER 12MM
115	XM1012115	DOWEL PIN 8 X 30MM
116	XM1012116	OPERATING HANDLE
117	XPLW06M	LOCK WASHER 10MM
118	XPB35M	HEX BOLT M12-1.75 X 40
119	XM1012119	RIGHT HINGE
120	XPSB47M	CAP SCREW M10-1.5 X 40
121	XPSS77M	SET SCREW M12-1.75 X 20
122	XM1012122	PIVOT PIN
123	XPSS30M	SET SCREW M10-1.5 X 10
124	XM1012124	COUNTERWEIGHT SHAFT
125	XM1012125	COUNTERWEIGHT



# WARRANTY

Woodstock International, Inc. warrants all **SHOP FOX**<sup>®</sup> machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the **SHOP FOX**<sup>®</sup> machine or machine part which in normal use has proven to be defective, provided that the original owner returns the product prepaid to the **SHOP FOX**<sup>®</sup> factory service center or authorized repair facility designated by our Bellingham, WA office, with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that **SHOP FOX**<sup>®</sup> machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. 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 products.

Every effort has been made to ensure that all **SHOP FOX**<sup>®</sup> machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.





# Warranty Registration

Name \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone # \_\_\_\_\_ Email \_\_\_\_\_ Invoice # \_\_\_\_\_  
 Model # \_\_\_\_\_ Serial # \_\_\_\_\_ Dealer Name \_\_\_\_\_ Purchase Date \_\_\_\_\_

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?
 

<input type="checkbox"/> Advertisement	<input type="checkbox"/> Friend	<input type="checkbox"/> Local Store
<input type="checkbox"/> Mail Order Catalog	<input type="checkbox"/> Website	<input type="checkbox"/> Other:
  
2. How long have you been a woodworker/metalworker?
 

<input type="checkbox"/> 0-2 Years	<input type="checkbox"/> 2-8 Years	<input type="checkbox"/> 8-20 Years	<input type="checkbox"/> 20+ Years
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3. How many of your machines or tools are Shop Fox®?
 

<input type="checkbox"/> 0-2	<input type="checkbox"/> 3-5	<input type="checkbox"/> 6-9	<input type="checkbox"/> 10+
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4. Do you think your machine represents a good value?      Yes                              No
  
5. Would you recommend Shop Fox® products to a friend?      Yes                              No
  
6. What is your age group?
 

<input type="checkbox"/> 20-29	<input type="checkbox"/> 30-39	<input type="checkbox"/> 40-49
<input type="checkbox"/> 50-59	<input type="checkbox"/> 60-69	<input type="checkbox"/> 70+
  
7. What is your annual household income?
 

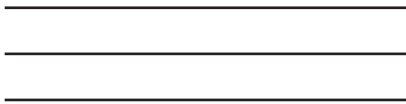
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<input type="checkbox"/> \$50,000-\$59,000	<input type="checkbox"/> \$60,000-\$69,000	<input type="checkbox"/> \$70,000+
  
8. Which of the following magazines do you subscribe to?
 

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<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wood
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Handy	<input type="checkbox"/> Practical Homeowner	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Live Steam	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Modeltec	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Shotgun News	

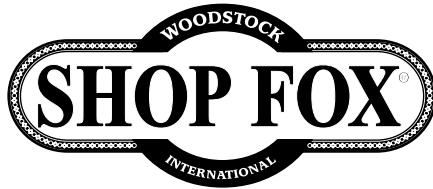
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