

# MODEL M1117 52" SHEET METAL SHEAR



# **OWNER'S MANUAL**

(FOR MODELS MANUFACTURED SINCE 9/21)

Phone: (360) 734-3482 · Online Technical Support: techsupport@woodstockint.com

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This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

# **WARNING!**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.



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# INTRODUCTION

# Woodstock Technical Support

This machine 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.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 Ext. 2 or send e-mail to: <a href="mailto:techsupport@woodstockint.com">techsupport@woodstockint.com</a>. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition, you can download it from <a href="http://www.woodstockint.com/manuals">http://www.woodstockint.com/manuals</a>. If you have comments about this manual, please contact us at:

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# MACHINE SPECIFICATIONS



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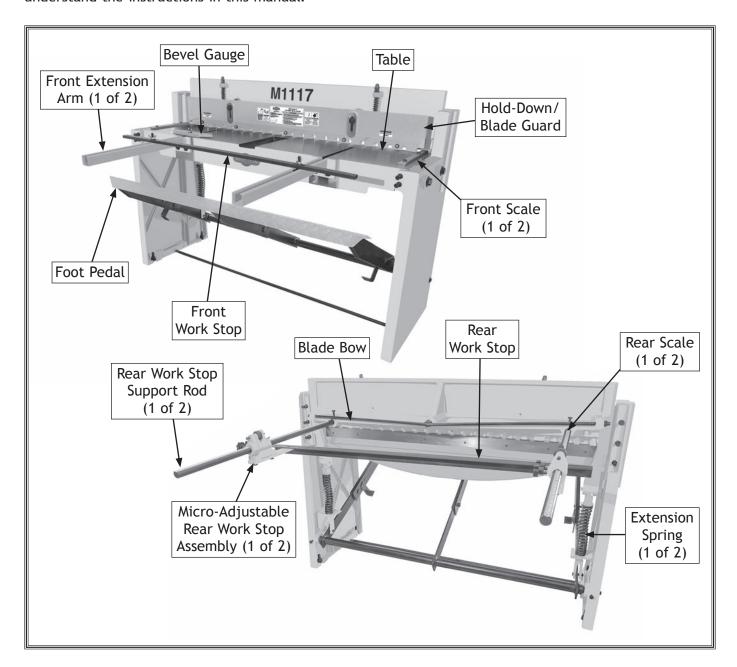
#### MODEL M1117 52" SHEET METAL SHEAR

Product Dimensions
Weight
Shipping Dimensions
Type
Main Specifications
Capacities
Maximum Width.52 in.Maximum Thickness Mild Steel.16 GaugeMaximum Thickness at Half Width Mild Steel.14 GaugeMaximum Thickness at Full Width Mild Steel.16 GaugeAluminum.12 GaugeSoft Brass.14 GaugeAnnealed Phosphor Bronze.17 GaugeSoft Copper.14 GaugeHard Copper.14 GaugeABS Plastic.2.2mmStainless Steel.20 GaugeMaximum Beam Lift.1-3/4 in.Bed Height Above Floor.42-1/8 in.Working Height.31-1/4 in.Front Stop Scale Range.0 - 12-1/2 in.Rear Stop Scale Range.0 - 33 in.
Construction
Frame
Other
Country of Origin



#### Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



# **A**WARNING



To reduce your risk of serious injury or damage to the machine, read this entire manual BEFORE using machine.

#### **AWARNING**

USE this and other machinery with caution and respect. Always consider safety first, as it applies to your individual working conditions. No list of safety guidelines can be complete—every shop environment is different. Failure to follow guidelines could result in serious personal injury, damage to equipment or poor work results.



#### **Controls & Components**

Refer to the **Figures 1-3** and the following descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and stay safe when operating this machine.

- A. Hold-Down/Blade Guard: Holds down workpiece and protects user from blades during shearing operation.
- B. Table: Supports infeed side of workpiece.
- **C. Bevel Gauge:** Secures front edge of angled workpieces.
- D. Foot Pedal: Controls cutting action of upper blade.
- E. Front Extension Arm (1 of 2): Provides infeed support for large workpieces and extends front work stop and bevel track.
- **F.** Front Work Stop: Adjusts on front extension arms and holds workpiece in place during shearing operation.
- **G.** Front Scale (1 of 2): Indicates distance from cutting line; keeps workpiece square with blades.
- H. Rear Work Stop Support Rod (1 of 2): Supports work stop and has scale for approximate positioning 0-33".
- I. Rear Work Stop Indicator: Indicates rear work stop position on scale.
- J. Micro-Adjustment Knob (1 of 2): Fine-tunes rear work stop position.
- K. Rear Work Stop Lock Knob (1 of 2): Loosen to adjust rear work stop position; tighten to secure.
- L. Micro-Adjustment Lock Knob (1 of 2): Loosen to fine-tune rear work stop position; tighten to secure.
- **M.** Rear Work Stop: Adjusts on rear work stop support rods to measure workpieces for repeatable cuts.
- N. Blade Bow: Adjusts to keep upper blade straight along its length.

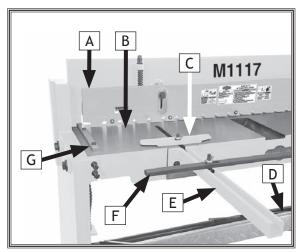
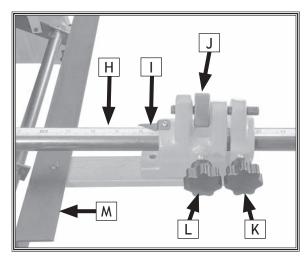


Figure 1. Infeed components and controls.



**Figure 2**. Outfeed components and controls.

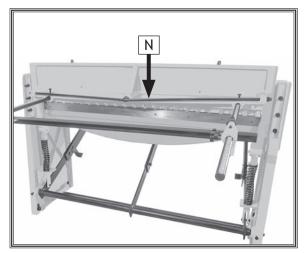


Figure 3. Location of blade bow rod.



# **SAFETY**

# For Your Own Safety, Read Manual Before Operating Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures—this responsibility is ultimately up to the operator!

# **ADANGER**

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

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

# **ACAUTION**

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 or a situation that may cause damage to the machinery.

# Standard Machinery Safety Instructions

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use-especially around children. Make workshop kid proof!

**DANGEROUS ENVIRONMENTS.** Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

**ELECTRICAL EQUIPMENT INJURY RISKS.** You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow an electrician or qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

**DISCONNECT POWER FIRST.** Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This eliminates the risk of injury from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.



- WEARING PROPER APPAREL. Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control.
- HAZARDOUS DUST. Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.
- HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.
- REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!
- INTENDED USAGE. Only use machine for its intended purpose—never make modifications without prior approval from Woodstock International. Modifying machine or using it differently than intended will void the warranty and may result in malfunction or mechanical failure that leads to serious personal injury or death!
- AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.
- CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.
- **GUARDS & COVERS.** Guards and covers reduce accidental contact with moving parts or flying debris—make sure they are properly installed, undamaged, and working correctly.

- **FORCING MACHINERY.** Do not force machine. It will do the job safer and better at the rate for which it was designed.
- **NEVER STAND ON MACHINE.** Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.
- **STABLE MACHINE.** Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.
- USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase risk of serious injury.
- **UNATTENDED OPERATION.** To reduce the risk of accidental injury, turn machine *OFF* and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.
- MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.
- CHECK DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.
- MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside, resulting in a short. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.
- experience difficulties. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact Technical Support at (360) 734-3482.



# **Additional Safety for Metal Shears**

Serious cuts, amputation, or death can occur from contact with shear blades during operation, adjustment, or maintenance. To reduce this risk, anyone using this machine MUST completely heed the hazards and warnings below.

- FINGER AMPUTATION. The shear blades or hold-down can easily pinch, crush, or amputate fingers or other body parts. Always keep hands, fingers, and other body parts away from blades and hold-down (point-of-operation) during shearing operations.
- CAPACITY. Exceeding cutting capacity of shear may result in breakage or machine damage that ejects dangerous metal debris at operator or bystanders. Only use sheet metal within the rated capacity of this shear (refer to the Machine Specifications).
- **BLADE CONDITION.** Sharp, undamaged, and properly adjusted blades will reduce risk of injury from breakage or sharp burrs left on workpiece. Always keep blades properly adjusted and sharp.
- SHEAR BLADE ADJUSTMENT. When adjusting or replacing shear blades, always wear heavy leather gloves to protect hands and wear safety glasses to protect eyes.
- PROPER WORKPIECE MATERIAL. Shear is only intended for cutting ferrous and non-ferrous mild sheet metal or flat stock. Do not attempt to cut round metal stock, glass, wood, drywall, backer board, plywood, or other material not intended for this machine. Cutting incorrect materials can produce unexpected results, which increases risk of injury, and may result in damage to machine.
- WORK AREA. Provide sufficient clearance around machine to permit safe use by regular operators and performance of maintenance procedures. Keep work area clear of materials or substances that may create a slip, trip, or fall hazard.

- SHARP METAL EDGES. The sharp metal edges of sheet metal can easily cut fingers, hands, and other body parts. Always wear heavy leather gloves when handling sheet metal. Always chamfer and deburr sharp metal workpiece edges.
- OPERATOR POSITION. Avoid awkward body and hand positions where a sudden slip could cause your hand or body to enter point-of-operation or make accidental contact with shear blades.
- MAINTENANCE/SERVICE. Always wait for all moving parts to come to a complete stop before performing any adjustments, service, or maintenance. Do not contact foot pedal while performing these adjustments.
- GUARDS. Keep all guards in place, properly positioned, and in working order. Never operate shear with blade guard removed. If blade guard is removed or not properly positioned, fingers may accidentally be cut or amputated by shear blades. Always position guard just high enough to allow workpiece to enter, but not high enough for fingers.
- check machine. Before using machine, carefully check components for wear that could affect operation. Check blade alignment and gib play, and ensure guards are properly installed. DO NOT operate machine until all defects are corrected.
- STRAY SHEET METAL PIECES. Sheet metal cut-off pieces left on the floor can easily slide under foot and cause falling injuries. Always remove cut-off sheet metal pieces from the floor after operation. Keep work area clean.



# **SETUP**

#### Unpacking

This machine has been carefully packaged for safe transportation. If you notice the machine has been damaged during shipping, please contact your authorized Shop Fox dealer immediately.

#### **Items Needed for Setup**

The following items are needed, but not included, to set up your machine.

Des	cription	Qty
•	Safety Glasses for Each Person	1 Pr.
•	Disposable Rags	As Needed
•	Disposable Gloves	As Needed
•	Cleaner/Degreaser	As Needed
•	Lifting Equipment (Rated for 1500 lbs.)	1
•	Another Person	1
•	Floor Mounting Hardware	As Needed
•	Precision Level	1
•	Wrench or Socket 10, 12mm	1 Ea.
•	Tape Measure	1



#### **AWARNING**

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



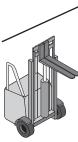
#### **AWARNING**

Wear safety glasses during entire setup process!



#### WARNING

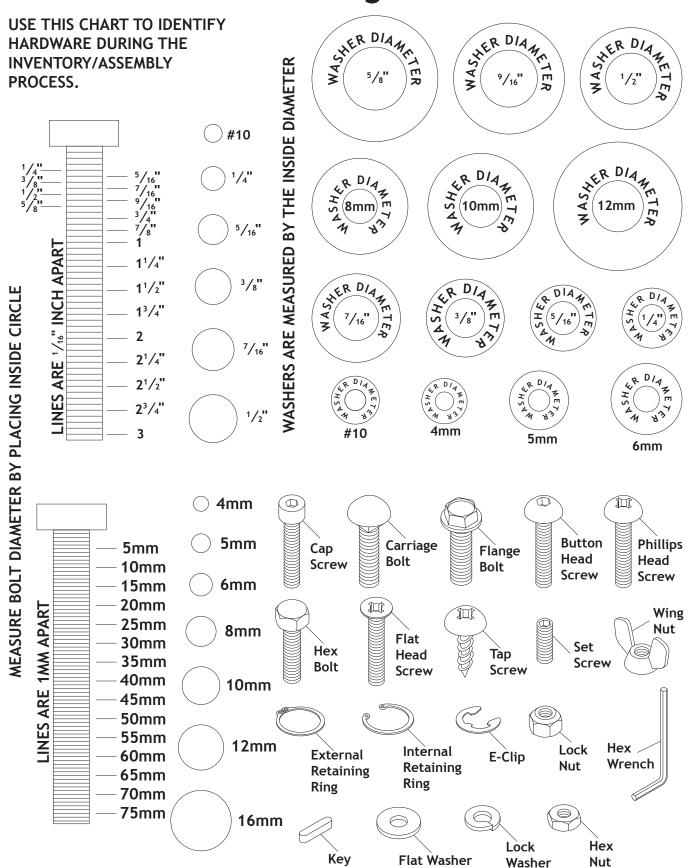
**HEAVY LIFT!** 



Straining or crushing injury may occur from improperly lifting the machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of machine.



#### Hardware Recognition Chart



Washer



# Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

**Note:** If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Loo	se Inventory (Figure 4):	Qty
A.	Front Extension Arms	2
В.	Rear Work Stop Support Rods	2
	Front Work Stop	
	Rear Work Stop Assemblies	
	Rear Work Stop	
	Bevel Gauge	

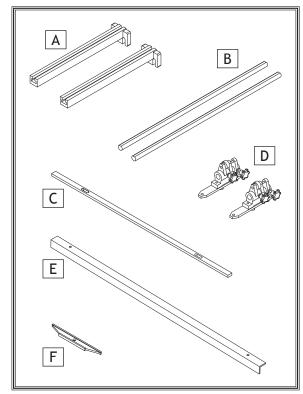


Figure 4. Loose inventory.

Fas	steners (Figure 5):	Qty
G.	T-Bolts M12-1.75 x 45	3
Н.	Hex Bolts M12-1.75 x 30	4
l.	Hex Bolts M10-1.5 x 20	2
J.	Flat Washers 12mm	7
K.	Flat Washers 10mm	2
L.	Wing Nuts M12-1.75	3
Μ.	Cotter Pins M3 x 50	4
N.	Clevis Pins 12 x 45mm	4
Ο.	Clevis Pins 12 x 88mm	2

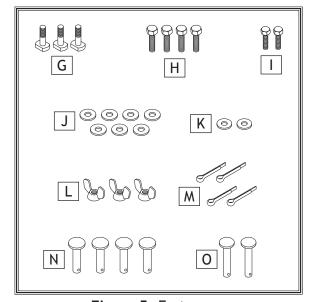


Figure 5. Fasteners.



# Cleaning Machine

To prevent corrosion during shipment and storage of your machine, the factory has coated the bare metal surfaces of your machine with a heavy-duty rust prevention compound.

If you are unprepared or impatient, this compound can be difficult to remove. To ensure that the removal of this coating is as easy as possible, please gather the correct cleaner, lubricant, and tools listed below:

- Cleaner/degreaser designed to remove storage wax and grease
- Safety glasses & disposable gloves
- Solvent brush or paint brush
- Disposable Rags

To remove rust preventative coating, do these steps:

- DISCONNECT MACHINE FROM POWER!
- 2. Put on safety glasses and disposable gloves.
- 3. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
- **4.** Wipe off surfaces. If your cleaner/degreaser is effective, the coating will wipe off easily.

**Tip:** An easier way to clean off thick coats of rust preventative from flat surfaces is to use a PLASTIC paint scraper to scrape off the majority of the coating before wiping it off with your rag. (Do not use a metal scraper or you may scratch your machine.)

- **5.** Repeat cleaning steps as necessary until all of the compound is removed.
- **6.** To prevent rust on freshly cleaned surfaces, immediately coat with a quality metal protectant.

#### **AWARNING**







Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery. Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.

#### NOTICE

In a pinch, automotive degreasers, mineral spirits or WD•40 can be used to remove rust preventative coating. Before using these products, though, test them on an inconspicuous area of your paint to make sure they will not damage it.



#### Machine Placement

#### Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range is outside 41°-104°F; the relative humidity range is outside 20-95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

#### Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. See below for required space allocation.

#### Weight Load

Refer to the **Machine Specifications** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

#### Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.



restricted location.

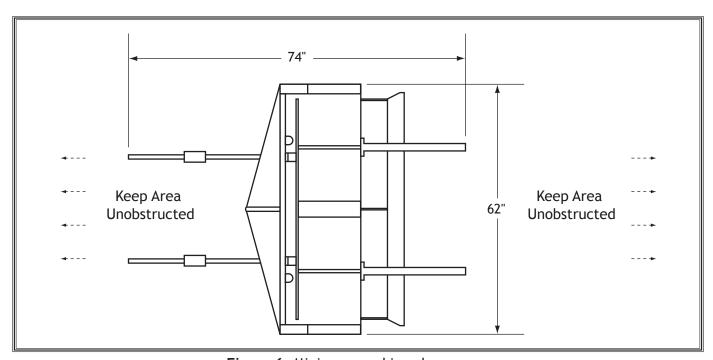


Figure 6. Minimum working clearances.

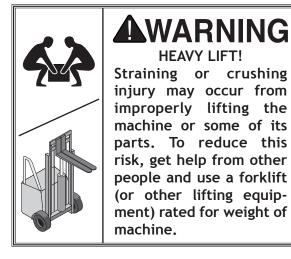


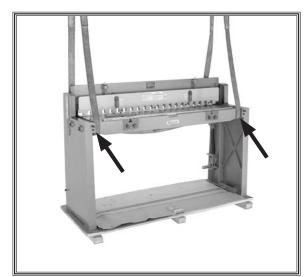
# Lifting & Moving

Use a forklift (or other type of lifting equipment) with lifting straps to move the machine to your desired location. All lifting equipment should be rated for at least 1500 pounds.

To lift and move machine, do these steps:

- Place shipping crate near installation location, then remove crate top and sides and set small items aside.
- 2. Unbolt machine from shipping pallet.
- Place lifting straps under shear table at locations shown in Figure 7. Straps should be spread as wide as possible.
- **4.** With help of another person to steady load, use forklift or crane to lift machine from pallet and move to desired location.





**Figure 7.** Example of lifting straps placed under shear table for lifting.



#### **Anchoring to Floor**

Number of Mounting Holes	4
Diameter of Mounting Hardware <sup>5</sup> /	'8 <b>"</b>

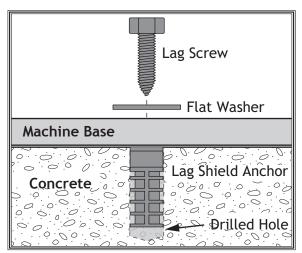
Anchoring machinery to the floor prevents tipping or shifting and reduces vibration that may occur during operation, resulting in a machine that runs slightly quieter and feels more solid.

If the machine will be installed in a commercial or workplace setting, or if it is permanently connected (hardwired) to the power supply, local codes may require that it be anchored to the floor.

If not required by any local codes, fastening the machine to the floor is an optional step. If you choose not to do this with your machine, we recommend placing it on machine mounts, as these provide an easy method for leveling and they have vibration-absorbing pads.

#### **Anchoring to Concrete Floors**

Lag shield anchors with lag screws (see **Figure**) are a popular way to anchor machinery to a concrete floor, because the anchors sit flush with the floor surface, making it easy to unbolt and move the machine later, if needed. However, anytime local codes apply, you MUST follow the anchoring methodology specified by the code.



**Figure 8.** Popular method for anchoring machinery to a concrete floor.



#### **Assembly**

Before beginning the assembly process, refer to Items Needed for Setup and gather everything you need. Ensure all parts have been properly cleaned of any heavy-duty rust-preventative applied at the factory (if applicable). Be sure to complete all steps in the assembly procedure prior to performing the Test Run or connecting the machine to power.

#### To assemble machine, do these steps:

- 1. Use level to check shear table.
  - If table is level, no adjustment is required. Proceed to Step 2.
  - If table is not level, use shims between floor and base to level machine before proceeding. Leveling shear helps blades and other components remain straight and flat during life of machine so machine can continue to cut straight and square.
- 2. Cut cable ties securing foot pedal to table.
- 3. Have another person press and hold foot pedal about halfway through full range of movement.
- 4. Insert (2) 12 x 45mm clevis pins in holes in foot pedal frame and secure with (2) M3 x 50 cotter pins, as shown in Figure 9.
- 5. Attach (2) front extension arms to shear table with (4) M12-1.75 x 30 hex bolts and 12mm flat washers (see Figure 10).

**Note:** Arm T-slots must line up with table T-slots, and surfaces must be flush (see **Figure 11**).

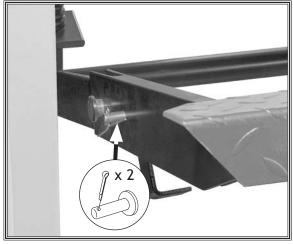
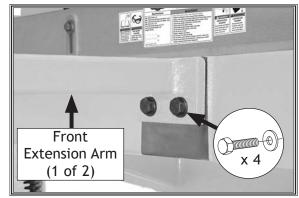
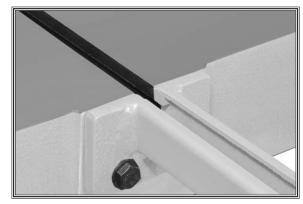


Figure 9. Location of hole in foot pedal frame (1 of 2 shown).



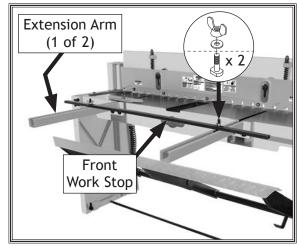
**Figure 10.** Front extension arms attached to shear table.



**Figure 11.** Extension arm correctly installed.



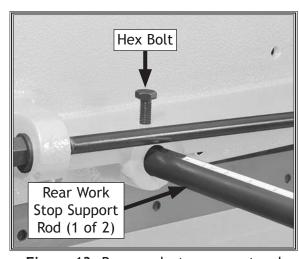
6. Install (1) M12-1.75 x 45 T-bolt in each T-slot and secure front work stop to extension arms using (2) 12mm flat washers and M12-1.75 wing nuts (see Figure 12).



**Figure 12.** Front work stop secured to extension arms.

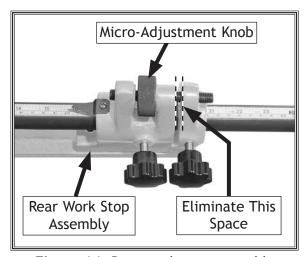
- 7. Insert (2) rear work stop support rods in holes shown in Figure 13.
- **8.** Secure rear work stop support rods in place by tightening pre-installed hex bolts (see **Figure 13**).

**Note:** Rear work stop support rods should extend same distance from back of machine. If one rod extends farther than the other, adjust hex bolts and rods until even.



**Figure 13.** Rear work stop support rod installed on machine.

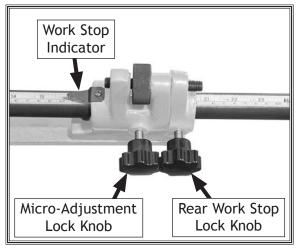
9. Install (2) rear work stop assemblies onto rear work stop support rods and tighten each micro-adjustment knob completely to eliminate space shown in Figure 14.



**Figure 14.** Rear work stop assembly installed on rear work stop support rod.

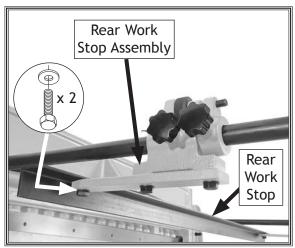


10. Align each work stop indicator to the same number on rear work stop support rod scales, then tighten micro-adjustment lock knobs and rear work stop lock knobs (see Figure 15).



**Figure 15.** Rear work stop assembly components.

11. Attach rear work stop to rear work stop assemblies with (2) M10-1.5 x 20 hex bolts and 10mm flat washers, as shown in Figure 16.



**Figure 16.** Rear work stop attached to rear work stop assembly.



# **OPERATIONS**

#### **Operation Overview**

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual and seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.

To complete a typical operation, the operator does the following:

- 1. Examines workpiece to make sure it is within capacities of machine.
- 2. Adjusts rear work stop length for cut.
- **3.** Puts on safety glasses, leather boots, and leather gloves.
- 4. Places workpiece on front extension arms.
- **5.** Slides workpiece under blade guard and upper blade, and up against rear work stop.
- **6.** Adjusts front work stop (or bevel gauge, if angled workpiece) against workpiece to keep shearing force from pushing workpiece forward.
- **7.** With balanced and stable body position, firmly presses down on foot pedal to make cut.
- **8.** Raises foot pedal and either removes workpiece or repeats **Steps 5-7** to make additional cuts.

# **AWARNING**



To reduce your risk of serious injury or damage to the machine, read this entire manual BEFORE using machine.

# **AWARNING**







Bodily injury could result from using this machine. Always wear safety glasses, leather work boots, and heavy duty leather work gloves when operating this machine or whenever handling sheet metal.

#### WARNING

Shear blades or hold-down/blade guard can easily pinch, crush, or amputate fingers or other body parts. Always keep body parts away from blades and hold-down during operation.

#### NOTICE

If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced operator of this type of machinery before performing unfamiliar operations. Above all, safety must come first!



# **Cutting Tips**

- Never attempt to cut any workpiece narrower than <sup>1</sup>/<sub>2</sub>". The workpiece must be long enough to be engaged by the hold-down/blade guard.
- Keep the upper blade properly adjusted to the lower blade (refer to Adjusting Blade Gap on Page 29 for detailed instructions). This will help ensure good cutting results and avoid blade damage.
- Before each operation, clean cut-offs or debris away from the shear.
- Use the foot pedal to engage the hold-down/blade guard with the workpiece, then pause to check the workpiece position. If the workpiece position is correct, continue lowering the foot pedal to complete the cut.
- The shearing action of the blades works similarly to a pair of scissors (see illustration in Figure 17).
   Use even pressure on the foot pedal throughout the entire cut to produce a straight, even cut.

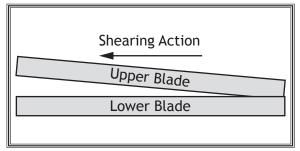


Figure 17. Blade shearing action.

# Adjusting Rear Work Stop

The rear work stop is used for making repetitive cuts of the same length. The micro-adjustment assemblies allow for precise positioning of the work stop.

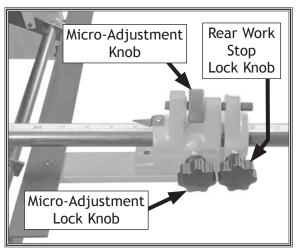
#### To adjust rear work stop, do these steps:

- Loosen (2) rear work stop lock knobs and (2) microadjustment lock knobs (see Figure 18).
- 2. Slide rear work stop evenly along support rods so work stop leading edge is at approximate desired distance from cutting edges of blades.

**Note:** Use scales on top of support rods for approximate positioning. Use fine ruler or tape measure for more precise positioning.

3. Use micro-adjustment knob on each assembly to adjust work stop in small, precise amounts until they are exactly where needed (see Figure 18).

**Note:** Move work stop evenly on both sides to keep it parallel with the blades.



**Figure 18.** Rear work stop adjustment components.



**4.** Tighten micro-adjustment lock knobs to secure rear work stop position.

# **Adjusting Front Work Stop**

The front work stop keeps the shearing blades from pushing the workpiece forward during cutting operations. Use the following steps to adjust the front work stop to the front workpiece edge once the workpiece has been inserted under the blade guard and is ready to be sheared.

#### To adjust front work stop, do these steps:

- 1. Loosen (2) front work stop wing nuts (see Figure 19).
- **2.** Adjust front work stop against front workpiece edge and tighten wing nuts to secure.

# Wing Nut (1 of 2) M11 7 Front Work Stop

**Figure 19.** Location of front work stop wing nuts.

# **Using Bevel Gauge**

The bevel gauge can be installed in place of the front work stop to support workpieces that have an angled front edge.

#### To use bevel gauge, do these steps:

- 1. Loosen (2) front work stop wing nuts (see Figure 20).
- 2. Slide front work stop out of front extension arms to remove (see Figure 20).
- **3.** Position workpiece on table and under blade guard for shearing operation.
- 4. Install (1) M12-1.75 x 45 T-bolt in T-slot and secure bevel gauge to extension arm or table against workpiece front edge with (1) 12mm flat washer and M12-1.75 wing nut (see **Figure 21**).

**Note:** Figure 21 shows bevel gauge installed in left T-slot, but it can be installed in either side. Install the bevel gauge in the best position to secure your workpiece for the operation.

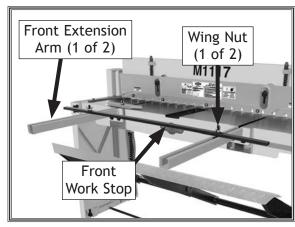
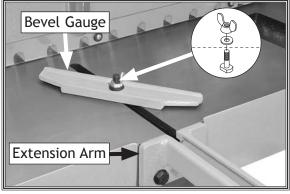


Figure 20. Front work stop components.



**Figure 21.** Bevel gauge installed to support angled front workpiece edge.



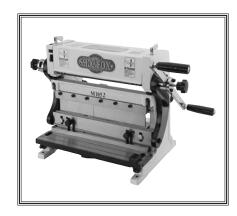
# ACCESSORIES Metal Shear Accessories

The following accessories may be available through your local Woodstock International Inc. Dealer. If you do not have a dealer in your area, these products are also available through online dealers. Please call or e-mail Woodstock International Inc. Customer Service to get a current listing of dealers at: 1-800-840-8420 or at sales@woodstockint.com.

The D3042 Double Suction Cup handles plate glass, glass mirrors, and sheet metal with safety and security. Cam-action levers make placement and removal quick and easy.



The M1052 3-In-1 Sheet Metal Machine has a 12" wide capacity and three sheet metal functions in one unit. There is no need to spend extra money and tie up shop space with three single-use machines. You will love the convenience and accuracy of this do-it-all machine! Maximum capacity of 22 gauge and a roll diameter of  $1^{1}/_{2}$ ".



The D3269 Deluxe Shop Tool Bag is perfect for the mobile craftsman who has a tool for everything. The deluxe shop bag features 18 easy access pockets, ballistic nylon construction, huge carrying capacity and a detachable shoulder strap that quickly clips on or off. Interior measures 17" L x  $9^{1}/2$ " W and 12" when unzipped and fully opened.





The **D2273 Single Roller Stand** features convenient hand knobs for fast height adjustment. The super heavy-duty roller stand is invaluable for supporting work on machines of varying heights.



The M1040 8" Plate Shear and M1041 12" Plate Shear are the fastest way to cut sheet metal, plate stock, and round stock to size. Both of these shears can be mounted for stationary use and feature compound lever action for tremendous mechanical advantage. Plate capacity: 3/16" (7 gauge).



The M1012 48" Pan and Box Brake is great for forming extra-wide or long pieces of sheet metal. When bolted to a concrete floor, the M1012 bends boxes or pans up to 6" deep, material up to 48" wide, and 12-gauge thick mild steels, from 0-135 degrees! Removable and adjustable 3", 4", and 25" fingers can accommodate a variety of metal widths.





#### **MAINTENANCE**

#### **General**

For optimum performance from this machine, this maintenance schedule must be strictly followed.

#### Ongoing

To minimize your risk of injury and maintain proper machine operation, stop operations immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts.
- Loose or damaged blade guard.
- Worn or damaged blades.
- Loose or bent rear work stop support rods.
- Any other unsafe condition.

#### **Daily Maintenance**

- Clean and protect blades and bare cast iron surfaces.
- · Lubricate pivot points.

#### Weekly Maintenance

Lubricate shearing blades, gibs, and slides.

#### Cleaning & Protecting

Cleaning the Model M1117 is relatively easy. Use a brush to clear away any metal debris from the blades, the blade guard, and the table.

Protect the unpainted cast iron table and blades by wiping with regular applications of quality metal protectant.



#### Lubrication

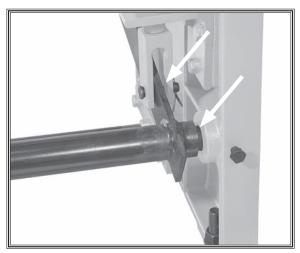
There are a number of parts on this machine that undergo a lot of movement and must remain lubricated for smooth operation and long life.

#### **Pivot Pins**

Oil Type	ISO 32 Equivalent
Oil Amount	1-2 Drops
Lubrication Frequency	Daily

Items Needed	Qty
Wire Brush	1
Shop Rags	As Needed
Light Machine Oil or ISO 32 Equivalent	As Needed

Use a wire brush to clean any built-up grease from pivot pins (see **Figure 22**) before applying a few drops of lubricant to the exposed portions of all four pivot pins. Keep your hands and fingers away from shearing area and press down on the foot pedal a few times to distribute the lubricant.



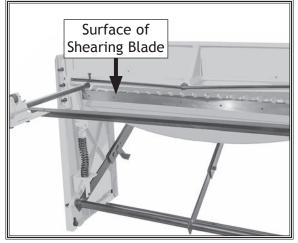
**Figure 22.** Location of pivot pins (2 of 4 shown).

#### **Shearing Blades**

Oil Type	ISO 68 Equivalent
Oil Amount	1-2 Drops
Lubrication Frequency	Weekly

Items Needed	Qty
Protective Gloves	1 Pr.
Shop Rags As	Needed
Mineral Spirits As	
Light Machine Oil or ISO 68 Equivalent As	Needed

While wearing protective gloves, use a rag and mineral spirits to clean away grease and built-up grime from the surfaces of the shearing blades (see **Figure 23**). Once the blades are dry, apply oil to the surfaces with a clean rag.



**Figure 23.** Location of lower shearing blade surface.



#### Gibs & Slides

Oil Type	ISO 68 Equivalent
Oil Amount	1-2 Drops
Lubrication Frequency	Weekly

**Item Needed Qty**Light Machine Oil or ISO 68 Equivalent...... As Needed

Apply a few drops of oil at each gib (see **Figure 24**) weekly to keep the upper blade and hold-down/blade guard moving smoothly.

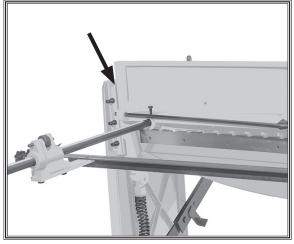


Figure 24. Gib and slide lubrication point.

#### **Rear Work Stop Assemblies**

Oil Type	ISO 68 Equivalent
Oil Amount	1-2 Drops
Lubrication Frequency	As Needed

Items Needed	Qty
Shop Rags	As Needed
Mineral Spirits	As Needed
Light Machine Oil or ISO 68 Equivalent	As Needed

The rear work stop assemblies must slide smoothly in order to achieve accurate measurements when shearing. Clean the rear work stop support rods with mineral spirits when you have any trouble adjusting the rear work stop position. Apply a few drops of oil to the locations shown in **Figure 25** on each assembly.

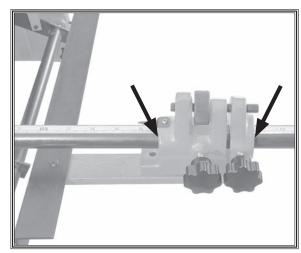


Figure 25. Rear work stop assembly lubrication locations.



# **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: techsupport@woodstockint.com.

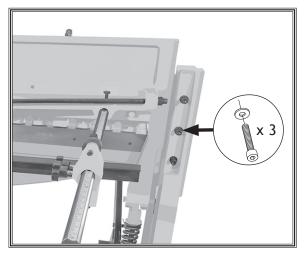
# **Adjusting Gibs**

The gibs are responsible for the amount of play in the upper blade. They should only be adjusted if the foot pedal is difficult to lower or if all the other blade adjustment have been verified as correct, and the quality of cut is still poor.

Tools Needed	Qty
Hex Wrench 8mm	. <b></b> 1
Open-Fnd Wrench 17mm	

#### To adjust gibs, do these steps:

- 1. Loosen (3) jam nuts on each gib (see Figure 26).
- 2. Adjust (3) gib screws on each side of shear in small, equal increments (see Figure 26). Test for binding or play after each adjustment by pushing or pulling top of cutter bar.
  - If foot pedal is difficult to lower and blades are binding, adjust screws counterclockwise.
  - If too much play of in upper blade is resulting in poor quality of cuts, adjust screws clockwise.
- **3.** Tighten jam nuts to secure gib adjustments.



**Figure 26.** Location of gib screws and jam nuts.



# Sharpening/Replacing Blade

The upper blade of the Model M1117 has two cutting edges so that if one cutting edge becomes dull, you can reverse the blade and use the fresh, sharp cutting edge.

If both the upper blade cutting edges are dull, or the cutting edge of the lower blade is dull, sharpen the blade(s) on a surface grinder and make sure the blade is flat along the entire length. Re-sharpen each blade edge as needed until it is too thin to safely install (as described in the following steps), then replace the blade. We recommend you keep an extra set of blades on hand to avoid any downtime.

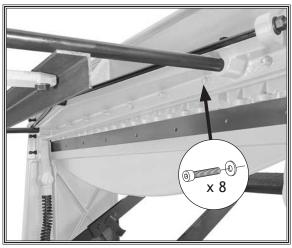
Items Needed	Qty
Another Person	1
Protective Gloves (For Each Person)	1 Pr.
Hex Wrench 8mm	1
Surface Grinder	1
Mineral Spirits As	s Needed
Shop Rags As	s Needed
Metal Protectant As	s Needed
New Upper Blade (#XM1117024) As	s Needed
New Lower Blade (#XM1117025) As	s Needed

#### To sharpen/replace blade, do these steps:

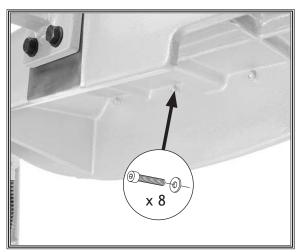
- 1. Have another person support blade while you remove (8) cap screws and flat washers to remove blade (see Figures 27-28).
- 2. Reverse blade (upper blade only) or sharpen on a surface grinder.
- 3. Clean blade with mineral spirits, then apply thin coat of quality metal protectant.
- 4. Install blade using hardware removed in Step 1.
  - If blade is so thin after sharpening that securing cap screws extend beyond opposite side of cutting edge, replace blade.

#### **AWARNING**

Shear blades are sharp. Wear protective gloves when handling blades to prevent laceration injuries.



**Figure 27.** Upper blade cap screws and flat washers.



**Figure 28.** Lower blade cap screws and flat washers.



# **Adjusting Blade Gap**

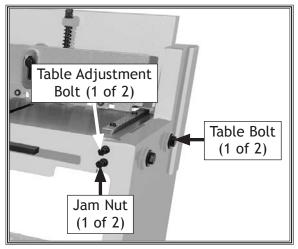
The gap between the upper and lower blades (as they pass each other) must remain even along the length of the blades to produce clean cuts. Initially, this adjustment has been made at the factory. However, over time and with normal wear, you may need to adjust the blade gap.

If the blade gap is too wide, the workpiece will not cut correctly and show signs of bending, ripping, or tearing. If the blade gap is too narrow, the upper blade will bind when lowering past the lower blade and the cutting edges may become damaged.

Items Needed	Qty
Scrap Paper	As Needed
Wrench or Socket 24mm	
Open-End Wrenches 17mm	2
Feeler Gauge 0.002"	

#### To adjust blade gap, do these steps:

- 1. Make cuts on piece of paper along full length of shear blades.
  - If paper cuts cleanly on full length of shear blades, blade gap requires no adjustment.
  - If paper does not cut cleanly on only one end of shear, lower blade needs to be adjusted on that end. Proceed to Step 2.
  - If paper does not cut cleanly along the entire length of blades, both ends of lower blade need to be adjusted. Proceed to Step 2.
  - If paper cuts cleanly on ends but not center of blades, or it cuts cleanly in center but not ends, blade bow needs to be adjusted (refer to Adjusting Blade Bow on Page 30 for detailed instructions).
- 2. Loosen (2) table bolts, (2) table adjustment bolts, and (2) jam nuts on side of shear that needs adjustment (see Figure 29).
- 3. Use foot pedal to lower and hold upper blade in lowest position.
- 4. Insert feeler gauge between blades on side that needs adjustment, then turn table adjustment bolts to move table and lower blade until lower blade makes light contact with feeler gauge against upper blade.



**Figure 29.** Location of blade gap adjustment components.



- **5.** Tighten (2) jam nuts and (2) table bolts to secure blade gap adjustment.
- 6. Repeat Step 1 to check adjustment.
  - If paper still does not cut cleanly, but blade gap adjustment is correct, blade(s) may need to be sharpened (refer to Sharpening/Replacing Blade on Page 28 for detailed instructions).

# **Adjusting Blade Bow**

The blade bow is used to keep the upper blade straight along its full length by adjusting the amount of force that the bow exerts on the blade ends.

The blade bow is adjusted by adjusting the bow jam nut on the centering rod (see Figure 30).

Items Needed	Qty
Open-End Wrench 24mm	1
Scrap Paper	As Needed

#### To adjust blade bow, do these steps:

- 1. Perform Step 1 of Adjusting Blade Gap on Page 29 to determine if blade needs bow adjustment. Adjust blade gap, if necessary, before proceeding.
  - If paper cuts cleanly on ends but not center of blades, adjust bow jam nut clockwise while testing results until paper cuts cleanly along entire length of blades.
  - If paper cuts cleanly on center but not end of blades, adjust bow jam nut counterclockwise while testing results until paper cuts cleanly along entire length of blades.

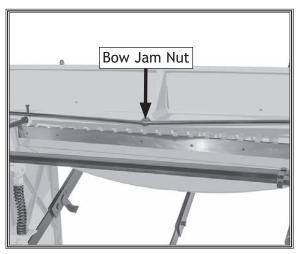


Figure 30. Location of bow jam nut.



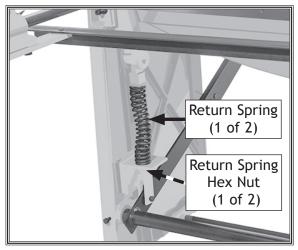
# Adjusting Return Spring Tension

The tension of the return springs can be adjusted to increase or decrease the return rate.

Tool Needed	Qty
Open-End Wrench 24mm	1

#### To adjust return spring tension, do these steps:

- 1. Adjust (2) return spring hex nuts in small, equal increments (see Figure 31).
  - To increase return rate, tighten hex nuts against springs.
  - To decrease return rate, loosen hex nuts.



**Figure 31.** Return spring tension adjustment components.

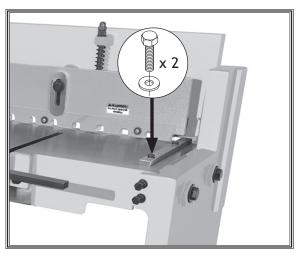
# **Squaring Front Scales**

For the front scales to work properly, these scales must be square to the blades.

Tools Needed	Qty
Machinist's Square	1
Wrench or Socket 13mm	

#### To square front scales, do these steps:

- 1. Use foot pedal to lower and hold blade guard in lowest position.
- 2. Place machinist's square against blade guard and front scale.
  - If scale is square to blade guard, no adjustment is necessary.
  - If scale is not square to blade guard, proceed to Step 3.
- 3. Loosen (2) hex bolts for front scale that needs adjustment (see Figure 32).
- **4.** Place one side of machinist's square against blade guard and adjust front scale against other side of square.
- 5. Tighten hex bolts from **Step 3** to secure position.



**Figure 32.** Location of front scale hex bolts.



# Adjusting Hold-Down/Blade Guard

When the upper blade is lowered, the blade guard is also engaged to contact and secure the workpiece during the cutting operation. The blade guard must be parallel with the table to correctly secure workpieces.

Tools Needed	Qty
Feeler Gauge Set	1
Wrench or Socket 19mm	1

#### **Adjusting Blade Guard Clearance**

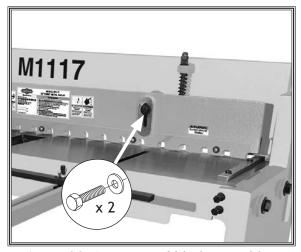
For an extra thin or thick workpiece, the guard can be adjusted for the correct amount of clearance to secure it.

#### To adjust blade guard clearance, do these steps:

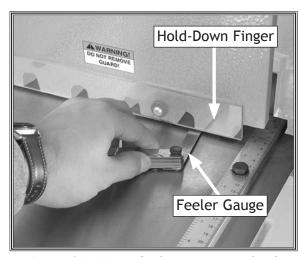
- 1. Loosen (2) blade guard hex bolts (see Figure 33).
- **2.** Adjust blade guard up or down to accommodate workpiece thickness.
- 3. Tighten (2) blade guard hex bolts to secure.
- **4.** Place edge of workpiece under blade guard, then use foot pedal to confirm workpiece is secured by guard.
- 5. Refer to following section to verify guard parallelism.

#### Adjusting Blade Guard Parallel With Table

- 1. Use foot pedal to lower and hold blade guard in lowest position.
- 2. Insert largest feeler gauge that will fit between hold-down finger and table on right end of blade guard (see Figure 34).
- 3. Repeat Step 2 on left end of blade guard.
  - If both hold-down fingers are same distance from table, no adjustment is required.
  - If both hold-down fingers are not same distance from table, proceed to Step 4.
- **4.** Loosen blade guard hex bolt on side of blade guard that needs adjustment.
- **5.** Adjust blade guard until entire length is same distance from table, then tighten hex bolt.



**Figure 33.** Location of blade guard hex bolts.



**Figure 34.** Using feeler gauge to check blade guard clearance.



# **Troubleshooting**

The following troubleshooting tables cover common problems that may occur with this machine. If you need replacement parts or additional troubleshooting help, contact our Technical Support.

**Note:** Before contacting Tech Support, find the machine serial number and manufacture date, and if available, your original purchase receipt. This information is required to properly assist you.

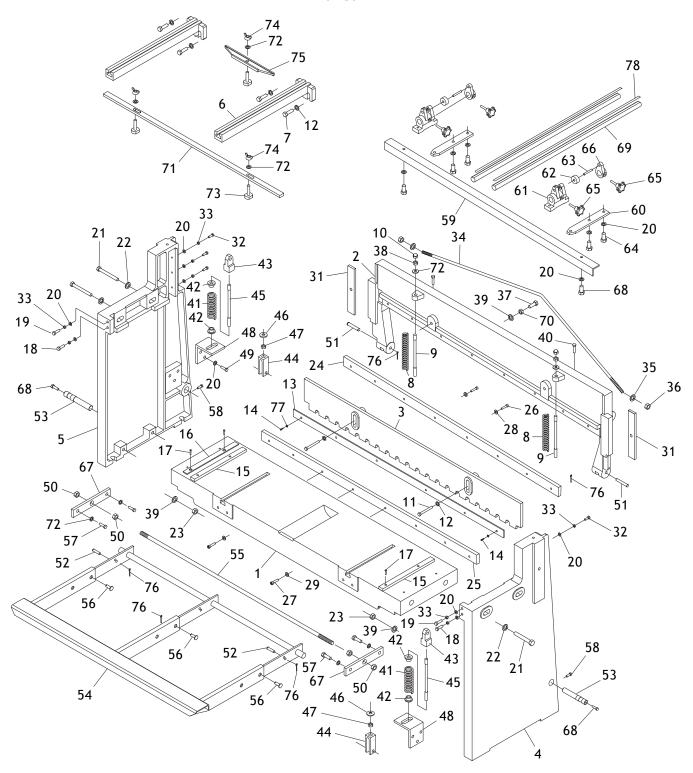
#### **Operations**

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Shear will not cut workpiece.	<ol> <li>Workpiece thickness exceeds shear capacity.</li> <li>Not enough pressure applied to foot pedal.</li> <li>Blades worn or damaged.</li> <li>Blade gap not correct.</li> <li>Hold-down/blade guard is not adjusted correctly.</li> </ol>	<ol> <li>Only use workpiece material that is within shear capacity (Page 3).</li> <li>Safely increase pressure on foot pedal.</li> <li>Sharpen/replace blades (Page 28).</li> <li>Properly adjust blade gap (Page 29).</li> <li>Properly adjust hold-down/blade guard (Page 32).</li> </ol>
Cuts are not square.	<ol> <li>Rear work stop is not parallel with blades.</li> <li>Blade gap not correct.</li> <li>Blade bow is not correct.</li> <li>Hold-down/blade guard is not adjusted correctly.</li> </ol>	<ol> <li>Properly adjust rear work stop parallel with blades (Page 20).</li> <li>Properly adjust blade gap (Page 29).</li> <li>Properly adjust blade bow (Page 30).</li> <li>Properly adjust hold-down/blade guard (Page 32).</li> </ol>
	<ol> <li>Blade gap not correct.</li> <li>Blades worn or damaged.</li> <li>Hold-down/blade guard is not adjusted correctly.</li> <li>Gibs too loose.</li> </ol>	<ol> <li>Properly adjust blade gap (Page 29).</li> <li>Sharpen/replace blades (Page 28).</li> <li>Properly adjust hold-down/blade guard (Page 32).</li> <li>Tighten gib screws (Page 27).</li> </ol>
	<ol> <li>Blade gap not correct.</li> <li>Pivot pins need lubrication.</li> <li>Gibs too tight.</li> </ol>	<ol> <li>Properly adjust blade gap (Page 29).</li> <li>Lubricate pivot pins (Page 25).</li> <li>Loosen gib screws (Page 27).</li> </ol>



# **PARTS**

# Main





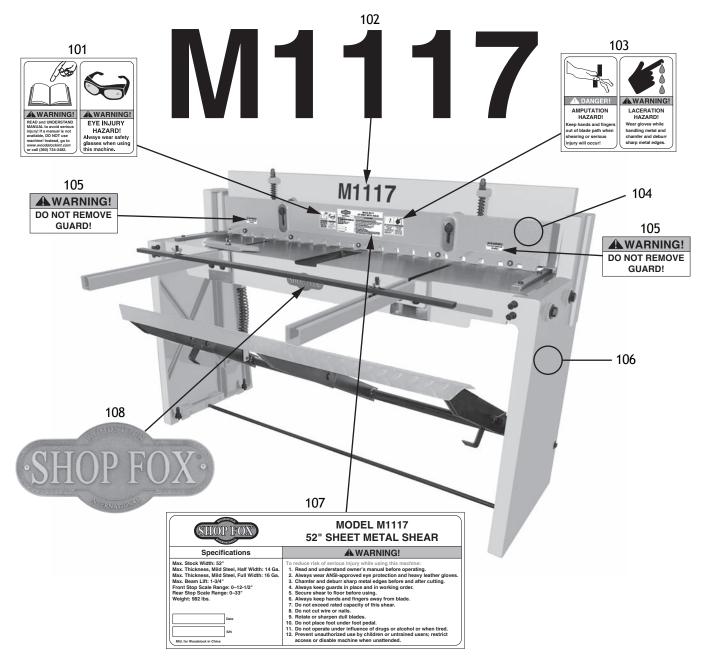
# Main Parts List

REF	PART #	DESCRIPTION
1	XM1117001	TABLE
2	XM1117002	CUTTER BAR
3	XM1117003	HOLD DOWN
4	XM1117004	SIDE PANEL (RIGHT)
5	XM1117005	SIDE PANEL (LEFT)
6	XM1117006	EXTENSION ARM
7	XM1117007	HEX BOLT M12-1.75 X 30
8	XM1117008	COMPRESSION SPRING 3 X 22 X 165
9	XM1117009	STUD-UDE M12-1.75 X 220, 25, 45
10	XM1117010	ACORN NUT M12-1.75
11	XM1117011	HEX BOLT M12-1.75 X 80
12	XM1117012	FLAT WASHER 12MM
13	XM1117013	BLADE GUARD
14	XM1117014	PHLP HD SCR M6-1 X 15
15	XM1117015	90-DEG STOP
16	XM1117016	TABLE SCALE
17	XM1117017	HEX BOLT M8-1.25 X 25
18	XM1117018	HEX BOLT M10-1.5 X 60
19	XM1117019	HEX BOLT M10-1.5 X 50
20	XM1117020	FLAT WASHER 10MM
21	XM1117021	HEX BOLT M16-2 X 120
22	XM1117022	FLAT WASHER 16MM
23	XM1117023	HEX NUT M16-2
24	XM1117024	UPPER BLADE
25	XM1117025	LOWER BLADE
26	XM1117026	CAP SCREW M10-1.5 X 45
27	XM1117027	CAP SCREW M10-1.5 X 50
28	XM1117028	FLAT WASHER 10MM
29	XM1117029	FLAT WASHER 10MM
31	XM1117031	GIB
32	XM1117032	CAP SCREW M10-1.5 X 45
33	XM1117033	HEX NUT M10-1.5
34	XM1117034	BLADE BOW ROD
35	XM1117035	FLAT WASHER 14MM
36	XM1117036	HEX NUT M14-2
37	XM1117037	BOW BOLT M16-2 X 60
38	XM1117038	HEX NUT M12-1.75
39	XM1117039	FLAT WASHER 16MM
40	XM1117040	HEX BOLT M10-1.5 X 40

REF	PART #	DESCRIPTION
41	XM1117041	COMPRESSION SPRING 8 X 46 X 275
42	XM1117042	SPRING CAP
43	XM1117043	PIVOT BLOCK
44	XM1117044	PIVOT BRACKET
45	XM1117045	STUD-UDE M16-2 X 320, 2, 16
46	XM1117046	FLAT WASHER 16MM
47	XM1117047	HEX NUT M16-2
48	XM1117048	SPRING MOUNTING BRACKET
49	XM1117049	HEX BOLT M10-1.5 X 25
50	XM1117050	HEX NUT M16-2
51	XM1117051	CLEVIS PIN 12 X 88MM
52	XM1117052	CLEVIS PIN 12 X 45MM
53	XM1117053	HINGE PIN
54	XM1117054	FOOT PEDAL ASSEMBLY
55	XM1117055	STUD-DE M16-2 X 1480, 60
56	XM1117056	CLEVIS PIN 20 X 36MM
57	XM1117057	HEX BOLT M12-1.75 X 25
58	XM1117058	HEX BOLT M10-1.5 X 25
59	XM1117059	REAR WORK STOP
60	XM1117060	REAR WORK STOP MOUNT
61	XM1117061	MICRO-ADJUSTMENT BLOCK
62	XM1117062	KNOB M10-1.5, D35, ROUND KD
63	XM1117063	STUD-FT M10-1.5 X 90
64	XM1117064	HEX BOLT M10-1.5 X 30
65	XM1117065	KNOB BOLT M8-1.25 X 25, 6-LOBE, D35
66	XM1117066	REAR WORK STOP ADJUSTMENT BLOCK
67	XM1117067	CONNECTING STUD BRACKET
68	XM1117068	HEX BOLT M10-1.5 X 20
69	XM1117069	SUPPORT ROD
70	XM1117070	HEX NUT M16-2
71	XM1117071	FRONT WORK STOP
72	XM1117072	FLAT WASHER 12MM
73	XM1117073	T-BOLT M12-1.75 X 45
74	XM1117074	WING NUT M12-1.75
75	XM1117075	BEVEL GAUGE
76	XM1117076	COTTER PIN M3 X 50 STANDARD
77	XM1117077	FLAT WASHER 6MM
78	XM1117078	SUPPORT ROD SCALE



#### Labels & Cosmetics



RFF	PART #	DESCRIPTION

101	XM1117101	MANUAL/EYE INJURY LABEL
102	XM1117102	MODEL NUMBER LABEL
103	XM1117103	AMPUTATION/LACERATION LABEL
104	XM1117104	TOUCH-UP PAINT, CAUTION YELLOW

#### REF PART # DESCRIPTION

105	XM1117105	DO NOT REMOVE GUARD LABEL
106	XM1117106	TOUCH-UP PAINT, SHOP FOX WHITE
107	XM1117107	MACHINE ID LABEL
108	XM1117108	SHOP FOX NAMEPLATE SMALL

#### **A**WARNING

Safety labels warn about machine hazards and how to prevent serious personal injury. The owner of this machine MUST maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, REPLACE that label before allowing machine to be operated again. Contact us at (360) 734-3482 or www.woodstockint.com to order new labels.

#### WARRANTY

Woodstock International, Inc. warrants all Shop Fox 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.

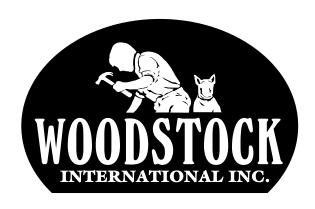
Woodstock International, Inc. will repair, replace, or arrange for a dealer refund, at its expense and option, the Shop Fox machine or machine part proven to be defective for its designed and intended use, provided that the original owner returns the product prepaid to an authorized warranty or repair facility as designated by our Bellingham, Washington 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 machinery complies with the provisions of any law, acts or electrical codes. We do not reimburse for third party repairs. In no event shall Woodstock International, Inc.'s liability under this limited 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 machinery meets high quality and durability standards. We are committed to continuously improving the quality of our products, and reserve the right to change specifications at any time.

To register the warranty, go to https://www.woodstockint.com/warranty, or scan the QR code below. You will be directed to the Warranty Registration page on www.woodstockint.com. Enter all applicable production information.





#### **High Quality Machines and Tools**

Woodstock International, Inc. carries thousands of products designed to meet the needs of today's woodworkers and metalworkers. Ask your dealer about these fine products:

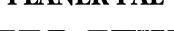


















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