

MODEL W1764 1/8 HP POWER FEEDER



OWNER'S MANUAL

(FOR MODELS MANUFACTURED SINCE 1/14)

Phone: (360) 734-3482 • Online Technical Support: tech-support@shopfox.biz



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WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT

THE WRITTEN APPROVAL OF WOODSTOCK INTERNATIONAL, INC.

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WARNING!

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

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.

In the event that questions arise about your machine, please contact Woodstock International Technical Support at **(360) 734-3482** or send e-mail to: **tech-support@shopfox.biz**. Our knowledgeable staff will help you troubleshoot problems or process warranty claims.

If you need the latest edition of this manual, you can download it from **<http://www.shopfox.biz>**.

If you have comments about this manual, please contact us at:

**Woodstock International, Inc.
Attn: Technical Documentation Manager
P.O. Box 2309
Bellingham, WA 98227
Email: manuals@woodstockint.com**

MACHINE SPECIFICATIONS



Phone #: (360) 734-3482 • Online Tech Support: tech-support@shopfox.biz • Web: www.shopfox.biz

MODEL W1764 1/8 HP POWER FEEDER

Motor

| | |
|------------------------|--------------------------|
| Type | Universal Variable Speed |
| Horsepower | 1/8 HP |
| Voltage | 120V |
| Prewired | 120V |
| Phase | Single |
| Amps | 1.2A |
| Speed | 550–3300 RPM |
| Cycle | 60 Hz |
| Number of Speeds | Variable |
| Power Transfer | Gear Box |
| Bearings | Lubricated for Life |

Main Specifications

Operation Info

| | |
|--------------------------------|------------------|
| Minimum Workpiece Length | 5 in. |
| Number of Feed Speeds | Variable |
| Feed Speeds | 6.5–39 FPM |
| Swing | 360 deg. |
| Vertical Movement | 10-1/4 in. |
| Horizontal Movement | 10-1/4 in. |
| Rotation | Forward, Reverse |

Roller Info

| | |
|---------------------------------|------------|
| Number of Rollers | 3 |
| Roller Width | 1-3/16 in. |
| Roller Diameter | 3 in. |
| Roller Suspension Travel | 5/16 in. |
| Maximum Height of Rollers | 6 in. |
| Distance Between Rollers | 3-3/4 in. |

Overall Dimensions

| | |
|---------------------------|------------------|
| Weight | 20 lbs. |
| Length/Width/Height | 31 x 11 x 12 in. |
| Arm Diameter | 15/16 in. |

Construction Materials

| | |
|-----------------------------|------------------|
| Roller Construction | Synthetic Rubber |
| Housing Construction | Cast Aluminum |
| Supports Construction | Cast Aluminum |
| Column Construction | Steel |
| Paint | Epoxy |

**Shipping Dimensions**

Type Cardboard
 Content Machine
 Weight 27 lbs.
 Length/Width/Height 11 x 22 x 9 in.

Electrical

Switch On/Off Variable Speed
 Switch Voltage 120V
 Cord Length 7 ft.
 Cord Gauge 18 AWG
 Recommended Breaker Size 15A
 Included Plug Yes

Other

ISO Factory ISO 9001
 Country of Origin Taiwan
 Warranty 2 Years
 Assembly Time 20 Minutes

Optional Accessories

Quick Holder Model D3868
 Extra Roller Model D3870

Features

Spring Tensioned Rollers
 Heavy-Duty Gear Reduction Gearbox with Hardened Gears
 Universal Positioning with Handle Locks

Controls and Features

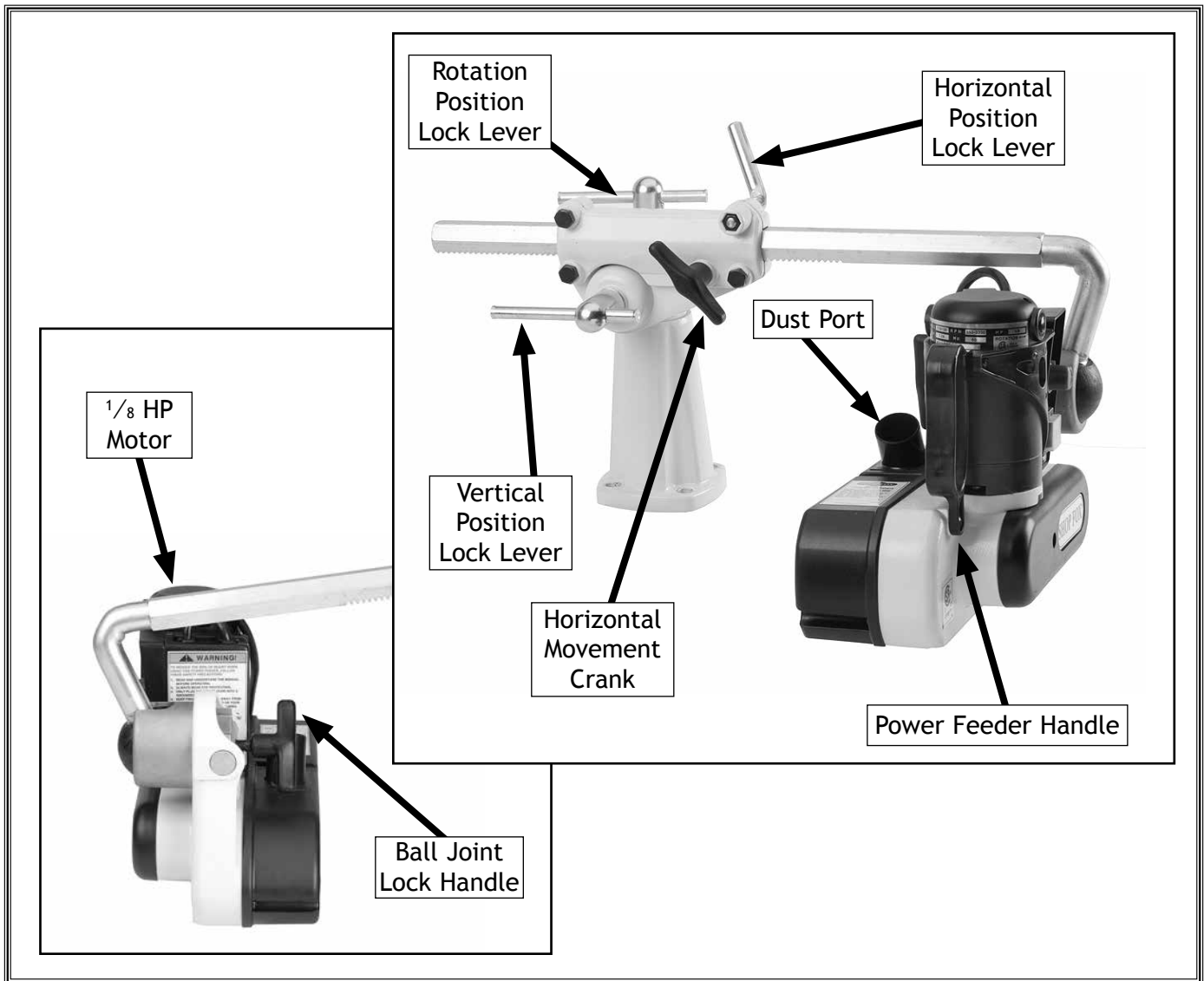
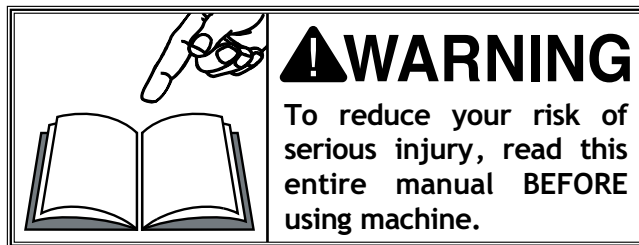


Figure 22. Controls and features.



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!



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, **COULD** result in death or serious injury.



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.

EXPERIENCING 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 Power Feeders

MAIN INJURY HAZARDS: Death, amputation, or crushing injuries from getting entangled in moving parts—which may include being pulled into the cutting tool on attached machinery; death, blindness, broken bones, or bruises from being struck by an ejected workpiece (kickback). To minimize your risk of these hazards, always heed the following information:

ATTACHED MACHINERY. Follow all warnings and safety information for the attached machine doing the cutting work.

HAND SAFETY. Keep hands away from rotating parts on power feeder and spinning blade or cutter of associated machine. Turn power feeder and associated machine **OFF** and only use a brush or compressed air to remove sawdust.

INSTALLING GUARDS. Install guards, fences, and hold-downs before starting attached machine or power feeder. Repair or replace guards promptly if they become damaged.

KICKBACK. Occurs when workpiece is ejected from machine with great force, striking operator or bystanders. Commonly caused by improper machine or power feeder setup.


VERIFY EACH SETUP. Ensure that power feeder is set up correctly and firmly secured before feeding workpiece. An improperly adjusted power feeder could increase the risk of kickback, because it will continue feeding when stock is not properly positioned for the cut.

FEATHERBOARD. When cutting long or large stock that is difficult to feed properly, use a featherboard before powerfeeder (on the infeed side) to maintain even pressure and control of workpiece against fence, and help reduce risk of kickback.

FEED WORKPIECE PROPERLY. Verify blade or cutter of associated machine is at full speed before feeding stock with power feeder. Do not feed workpiece too quickly. Verify power feeder wheels are slightly lower than workpiece. Stop power feeder before stopping cutting tool.

WORKPIECE SUPPORT. Support workpiece continuously during operation as required. Use auxiliary stands or support tables for long or wide stock.

ADJUSTMENTS/MAINTENANCE. Make sure power feeder is turned **OFF**, disconnected from power, and all moving parts are completely stopped before doing adjustments or maintenance.



⚠ WARNING

READ and understand this entire 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!

⚠ CAUTION

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.

ELECTRICAL

Circuit Requirements

This machine must be connected to the correct size and type of power supply circuit, or fire or electrical damage may occur. Read through this section to determine if an adequate power supply circuit is available. If a correct circuit is not available, a qualified electrician **MUST** install one before you can connect the machine to power.

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 120V 1.2 Amps

Circuit Requirements for 120V

This machine can be converted to operate on a 110V power supply (details about voltage conversion can be found later in this manual). The 110V power supply circuit must have a verified ground and meet the requirements that follow:

Circuit Type 120V, 60 Hz, Single-Phase
Circuit Size 15 Amps
Plug/Receptacle NEMA 5-15

⚠ WARNING

The machine must be properly set up before it is safe to operate. **DO NOT** connect this machine to the power source until instructed to do so later in this manual.

⚠ WARNING



Incorrectly wiring or grounding this machine can cause electrocution, fire, or machine damage. To reduce this risk, only an electrician or qualified service personnel should do any required electrical work on this machine.

NOTICE

The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult with an electrician to ensure that the circuit is properly sized for safe operation.

Grounding Requirements

This machine **MUST** be grounded. In the event of certain types of malfunctions or breakdowns, grounding provides a path of least resistance for electric current to travel—in order to reduce the risk of electric shock.

Improper connection of the equipment-grounding wire will increase the risk of electric shock. The wire with green insulation (with/without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

For 120V Connection

This machine is equipped with a power cord that has an equipment-grounding wire and NEMA 5-15 grounding plug. The plug must only be inserted into a matching receptacle (see **Figure**) that is properly installed and grounded in accordance with local codes and ordinances.

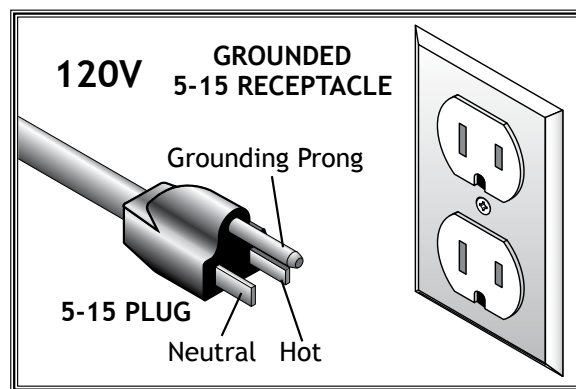
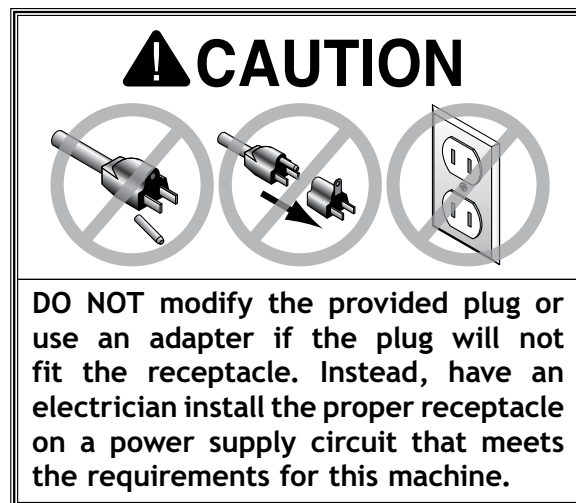


Figure 23. NEMA 5-15 plug & receptacle.



Extension Cords

We do not recommend using an extension cord with this machine. Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases with longer extension cords and smaller gauge sizes (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size at 120V 14 AWG
Maximum Length (Shorter is Better) 50 ft.

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.

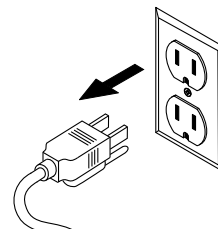
Inventory

The following is a description of the main components shipped with the Model W1764. Lay the components out to inventory them.

Note: If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for safer shipping.

| Box Inventory (Figures 24 & 25) | Qty |
|--|-----|
| A. Base..... | 1 |
| B. Arm Bracket | 1 |
| C. Power Feeder Unit | 1 |
| D. Arm | 1 |
| E. Base Mounting Template | 1 |
| F. Elbow Clamp Assembly | 1 |
| G. Ball Joint Assembly..... | 1 |
| H. Hardware Bag (Figure 25) | 1 |
| —Cap Screw M10-1.5 x 25mm (Elbow Clamp)..... | 1 |
| —Hex Bolt M10-1.5 x 50mm (Elbow Clamp) | 3 |
| —Lock Lever (Arm Bracket Clamp) | 1 |
| —Hex Nut M8-1.25mm (Arm Bracket Clamp)..... | 1 |
| —Flat Washer 8mm (Arm Bracket Clamp) | 1 |
| —T-Handle and Pivot Bar (Ball Joint Assembly)..... | 1 |
| —Hex Bolt M10-1.5 x 35mm (Base) | 4 |
| —Lock Washer 10mm (Base) | 8 |
| —Hex Nut M10-1.5mm (Base)..... | 7 |

! WARNING



Keep machine disconnected from power until instructed otherwise.

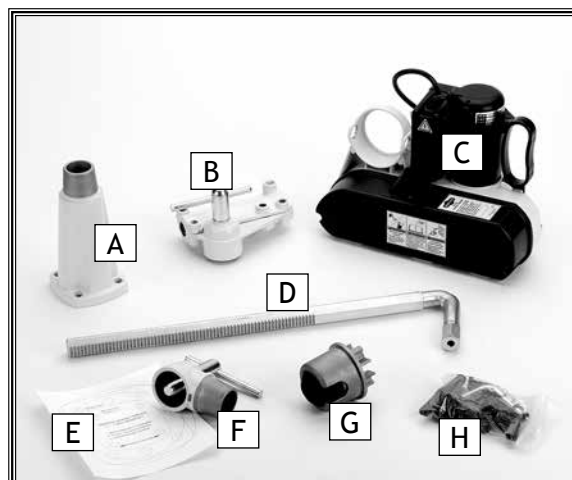


Figure 24. Box inventory.



Figure 25. Hardware inventory.

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

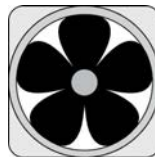
To remove the rust preventative coating, do these steps:

1. DISCONNECT THE MACHINE FROM POWER!
2. Put on safety glasses and disposable gloves.
3. Using a liberal amount of your cleaner/degreaser, Coat all surfaces that have the coating, and let soak for few minutes.
4. Wipe off the surfaces. If your cleaner/degreaser is effective, the coating will wipe off easily.

Tip: To clean off thick coats of the rust preventative compound on flat surfaces, 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 the cleaning steps as necessary until all of the compound is removed.
6. To prevent rust on the freshly cleaned surfaces, immediately coat with a quality metal protectant.

! WARNING



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.

Assembly

To correctly position this power feeder on your table top, completely assemble the power feeder first, then refer to **Base Mounting** on **Page 16**. With the power feeder unit completely assembled, it will be easier to determine where on the table top to drill your base mounting holes, so you can take advantage of the full range of power feeder swing and adjustments.

To assemble the power feeder, do these steps:

1. Oil the T-handle threads and position the elbow clamp assembly onto the feeder base, as shown in **Figure 26**.
 2. Thread the T-handle into the feeder base until the elbow is snug.
 3. Insert the arm into the ball-joint ball and secure both together with the M10-1.5 x 25mm cap screw shown in **Figure 27**.
 4. Insert the ball joint assembly into the power feed socket shown in **Figure 27**.
 5. Insert the ball-joint socket into the power feed socket as shown in **Figure 28**, so it rests against the ball-joint ball.
- Note:** *Lubrication is not necessary for the ball joint assembly.*
6. Align the ball-joint socket with the power feeder socket and insert the pivot bar, as shown in **Figure 28**.
 7. Lightly oil the T-handle threads.
 8. Thread the T-handle through the pivot bar so the end of the T-handle bolt presses against the ball-joint socket firmly, as shown in **Figure 28**.

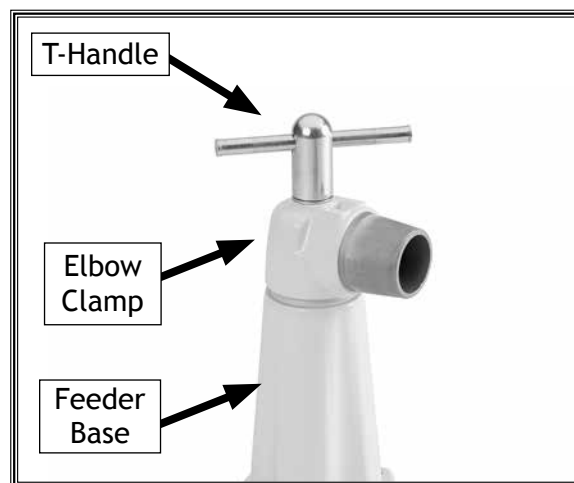


Figure 26. Assembled elbow clamp assembly.

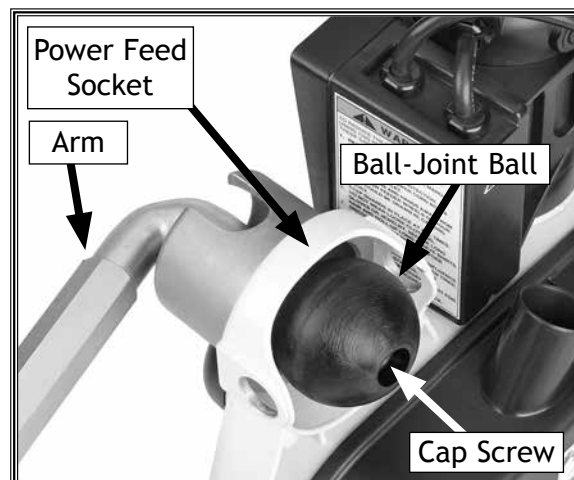


Figure 27. Arm, ball joint and socket assembly.

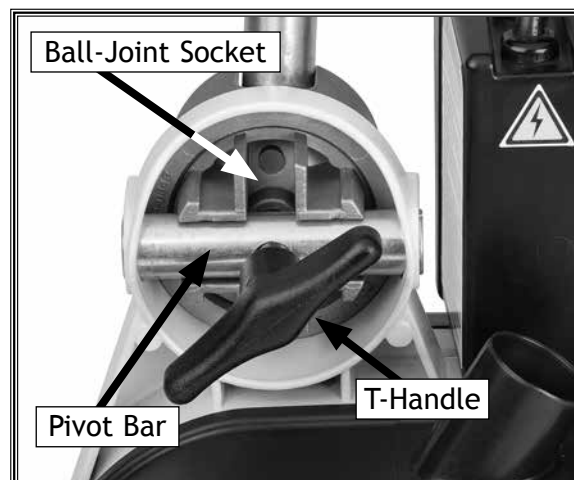


Figure 28. Assembled ball joint assembly.

9. Place the arm into the arm bracket so the teeth of the gear and arm mesh, as shown in **Figure 29**.

Note: No lubrication is required for the gear or rack teeth. Oil or grease will gather debris making the horizontal adjustment of the power feeder difficult.

10. Secure the arm bracket cover onto the arm bracket with three M10-1.5 x 35 hex bolts and washers (see **Figure 30**).

Note: Make sure that you do not tighten the hex bolts so much as to prevent the arm from sliding in and out of the arm bracket when the horizontal crank is turned.

11. Insert the horizontal crank completely so it engages the spline (**Figure 29**) in the gear.

12. Insert the lock lever, flat washer, and hex nut, as shown in **Figure 30**.

13. Place the E-clip on the end of the horizontal crank to retain the crank, as shown in **Figure 31**.

14. Turn the horizontal crank to make sure that the cover bolts are not too tight or too loose. Adjust the three hex bolts as required to achieve a slight drag between the arm and arm bracket.

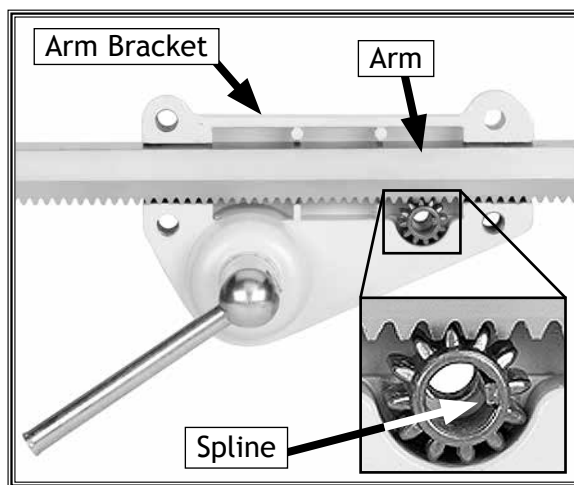


Figure 29. Arm bracket gearing.

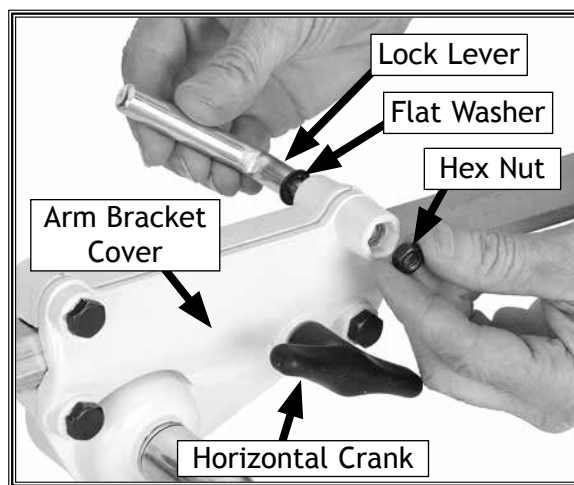


Figure 30. Assembling arm bracket.

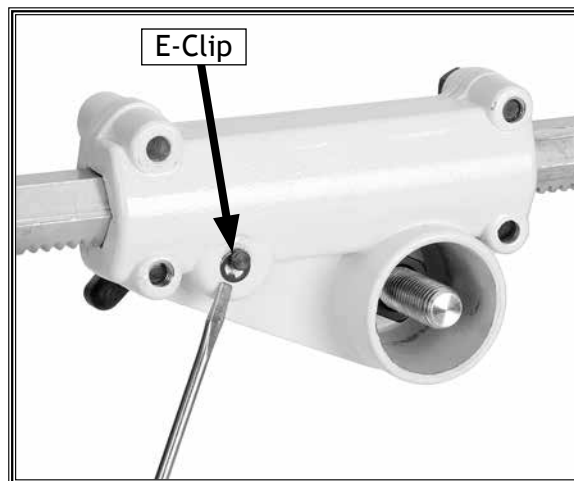



Figure 31. Horizontal movement handle E-clip.

Continued on next page 

15. Lightly oil the T-handle threads shown in **Figure 32**.

Note: No lubrication is required for the arm bracket and the elbow clamp connection.

16. Position the arm bracket onto the elbow clamp, as shown in **Figure 33**.
17. Thread the T-handle into the elbow clamp so both assemblies are secure, as shown in **Figure 33**.
18. Use the levers to lock the power feeder into position, such as the example shown in **Figure 34**.



Figure 32. Arm bracket handle threads.

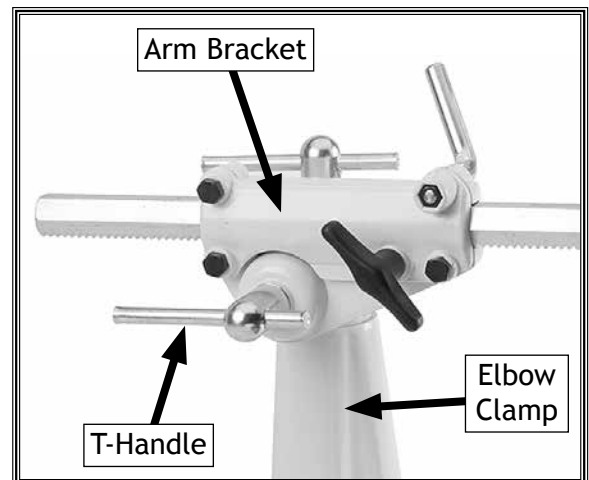


Figure 33. Arm bracket and elbow clamp assembly.



Figure 34. Typical power feed mounting using an optional Model D3868 Quick Holder.

Base Mounting

Assemble the power feeder before you mount the base to determine where on the table top to drill your base mounting holes, so you can maximize power feeder swing and adjustment options.

There are three mounting options available, **Through-Bolt Mounting**, **Direct Mounting**, and **Quick Holder Mounting** options discussed on Page 17. Choose an option that suits your requirements.

Your final goal is to be able to use the handcranks and lock levers to position the power feeder wheels so they are parallel with the table surface, and $\frac{1}{8}$ " lower than the thickness of your workpiece.

Also, you must be able to adjust the power feeder so it points towards the machine fence slightly (see **Figure 35**). In other words, the tracking of the power feeder must be toed-in approximately 1° to 1.5° degrees toward the machine fence, so the power feeder wheels push the workpiece against the fence slightly during cutting operations.

If cutting long or large stock that is difficult to feed properly, use a featherboard before the power feeder (on the infeed side) to maintain even pressure and control of the workpiece against the fence.

SETUP

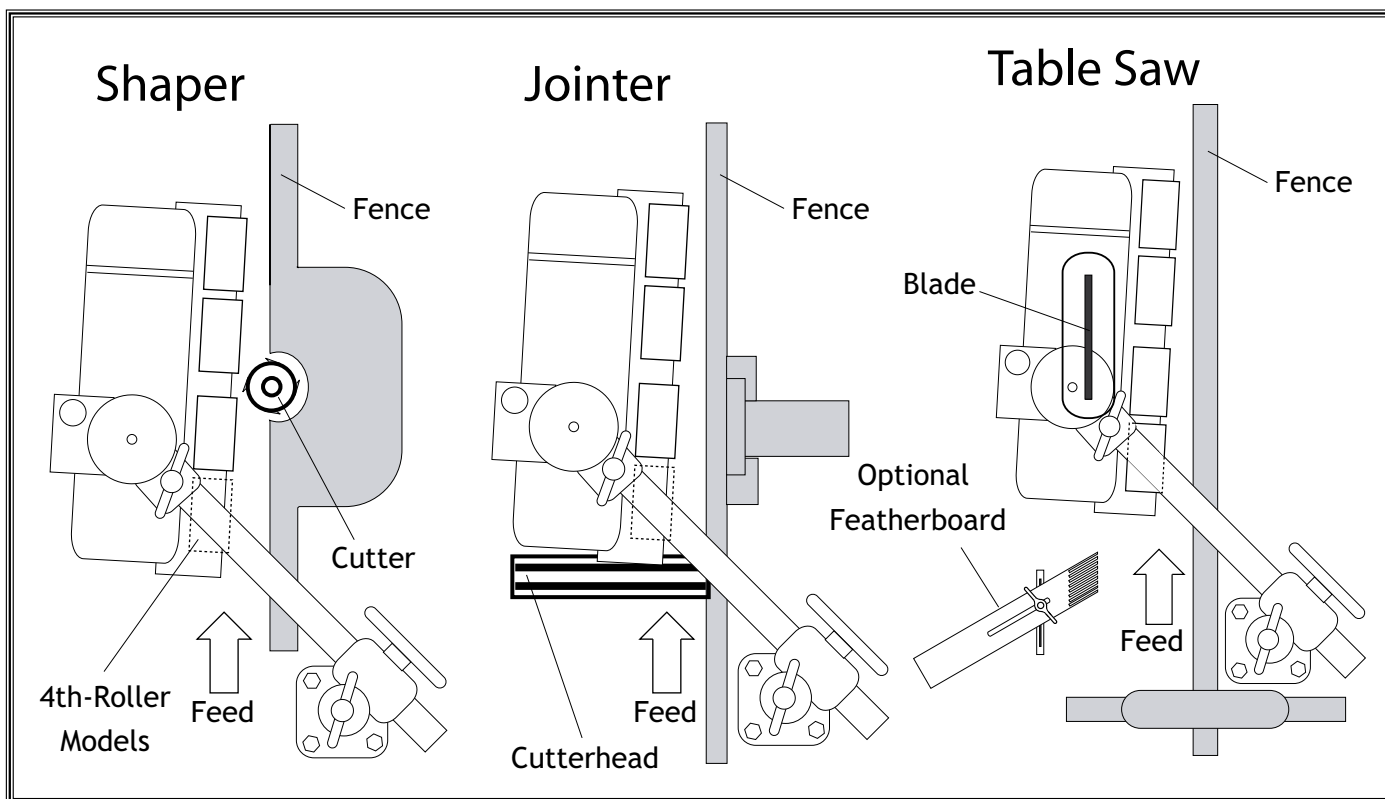



Figure 35. Typical power feed mounting on a shaper, jointer, and table saw.

Continued on next page 

Through-Bolt Mounting

We recommend that you mount your new power feeder to the machine table with through-bolts, nuts and washers (see **Figure 36**). This option will give the most rigidity and clamping strength to prevent the feeder base from twisting out of alignment during use. However, if the included mounting bolt template shows that any under-table support webs will interfere with any washer or nut locations under the table, you will have to use an optional clamping kit such as the Model D3868 Quick Holder (see **Accessories on Page 20**), or drill and thread holes directly into the table as described in **Direct Mounting**.

Direct Mounting

Use the included mounting template to drill and tap your table, so the power feeder base can be directly mounted to the table surface (see **Figure 37**). If the table is thinner than $\frac{3}{8}$ " thick where the threaded holes would be drilled and tapped, or if support webbing is in the way, the threads may strip or loosen as the power feeder is used. Thread locking compound will not cure this problem. Revert to the **Through-Bolt Mounting** option or the **Quick Holder Mounting** if the table is too thin or if support webbing is in the way. In any case, make sure to use a medium-grade liquid thread locking compound on all threads.

Quick Holder Mounting

For temporary or permanent installation of your power feeder without drilling into the table, you can purchase and install the Model D3868 Quick Holder Kit (see **Figure 38**). These kits, while not as rigid as the through-bolt or direct mount options, require no drilling or tapping, and are adequate for most power feeder applications. Make sure to use a medium-grade liquid thread locking compound on all threads.

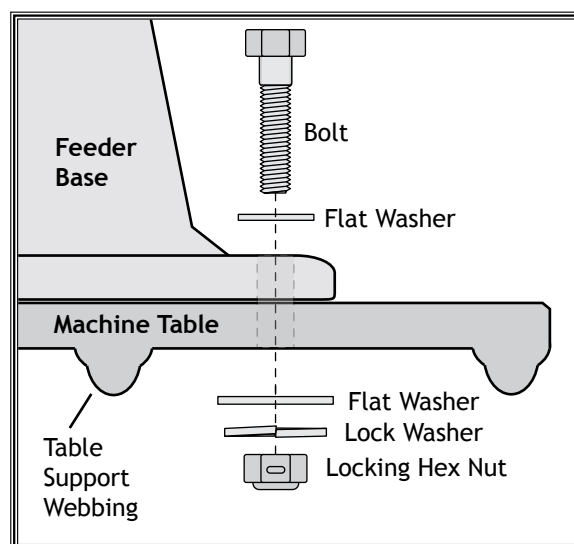


Figure 36. Through-bolt mounting.

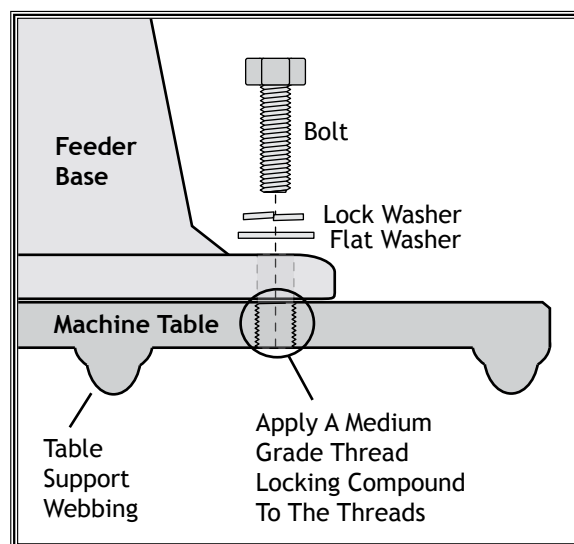


Figure 37. Direct mounting.

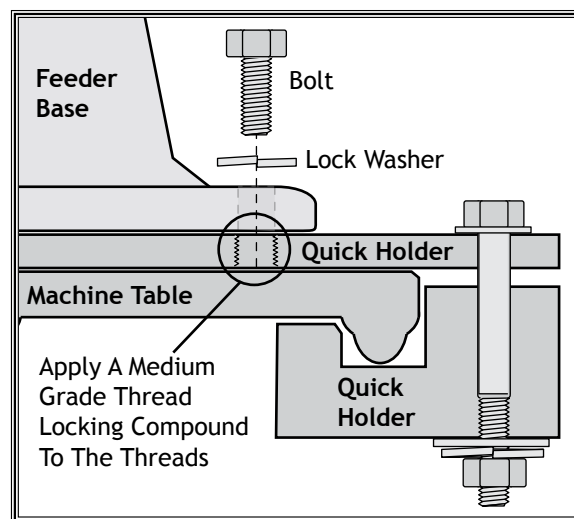


Figure 38. Quick holder mounting.

Test Run

Once the power feeder assembly is complete and mounted on the table, you must test run your power feeder to make sure it runs properly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the power feeder immediately, then review the **Troubleshooting** table on **Page 23**.

If you still cannot remedy a problem, contact our Technical Support at (360) 734-3482 for assistance.

To test run the power feed, do these steps:

1. Read the entire instruction manual first!
2. Make sure all tools and foreign objects have been removed from the tabletop area.
3. Make sure the speed dial (**Figure 39**) is pushed IN and turned all the way to the left.
4. Make sure the feed direction rocker switch (**Figure 39**) is in the central position.
5. Adjust the power feeder so all wheels are approximately 1" above the table surface.
6. Connect the power feeder to the power source.
7. Push the feed direction rocker switch to the left or right.
8. Pull the speed dial out all the way. The power feed should run slowly and smoothly with little or no vibration.
9. Slowly turn the speed dial clockwise. The speed of the wheels should increase respectively.
10. Turn the speed dial back to zero, push the rocker switch the opposite direction, then turn the speed dial clockwise until the wheels turn. They should rotate the opposite direction as before.
11. Turn the power feeder **OFF** and move the rocker switch to the central position. The test run is complete.

! WARNING



Projectiles thrown from the machine could cause serious eye injury. Wear safety glasses to reduce the risk of injury.

! WARNING



Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.

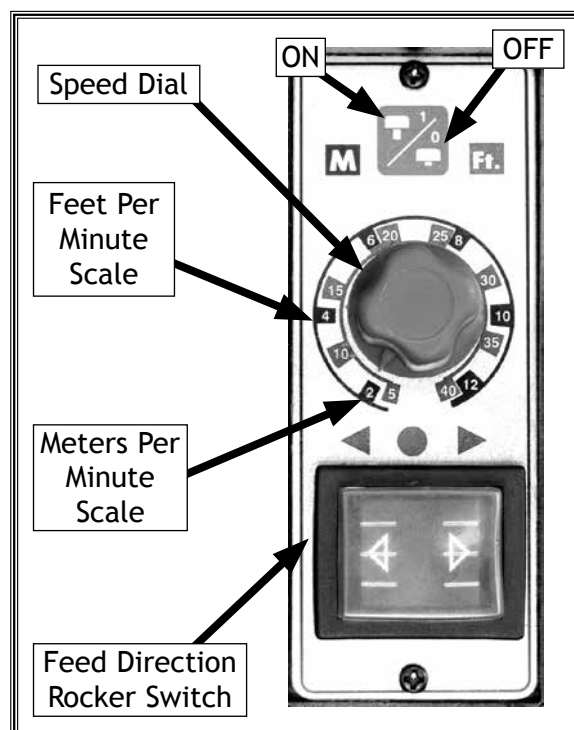


Figure 39. Feeder motor controls.

OPERATIONS

General

This machine will perform many types of operations that are beyond the scope of this manual. Many 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 experience 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 power feeder operator before performing any unfamiliar operations. **Above all, your safety should come first!**

Basic Use and Care

Power feeders reduce kickback hazards and improve cutting results by feeding in a consistent and stable manner. Remember, do not stand in path of potential kickback. When not in use, support power feeder with a wooden block so rubber wheels are raised above table and do not compress from weight of power feeder.

Universal joints on this power feeder allow you to adjust power feeder tracking and height to accommodate many workpiece sizes. Before loosening any lock lever, always support power feeder with a block of wood, so power feeder does not drop and cause damage.

Adjust power feeder so it is toed-in approximately 1° to 1.5° degrees towards machine fence. This adjustment will ensure power feeder wheels slightly push workpiece against fence during cutting operations (see **Figure 35** on **Page 16**). A featherboard may be used on infeed side to help feed long or large stock.

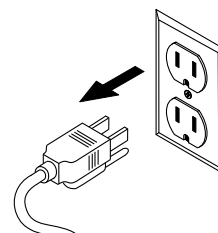
Next, adjust power feeder so rubber wheels are parallel with table surface, and are $\frac{1}{8}$ " lower than thickness of your workpiece. This adjustment ensures that workpiece will not slip or hang in middle of a cut. Always double check that power feeder wheels are slightly lower than workpiece before you begin feeding operations. Otherwise, workpiece may slip and kickback. For machine operations that generate a lot of dust, remove plastic knock-out plug at bottom of port and connect a $1\frac{3}{8}$ " inside diameter shop vacuum hose.

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!

WARNING



DO NOT investigate problems or adjust the machine while it is running. Wait until the machine is turned **OFF**, unplugged and all working parts have come to a complete stop before proceeding!

WARNING

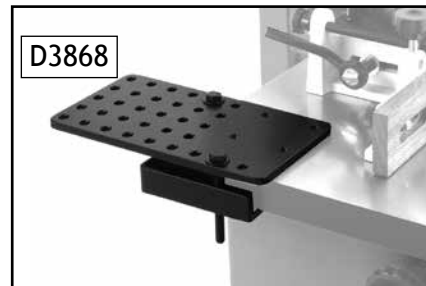


Always wear safety glasses when operating this machine. Failure to comply may result in serious personal injury.

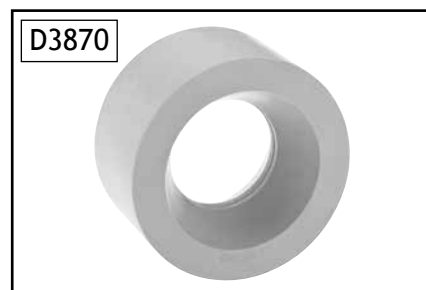
Power Feeder Accessories

The following power feeder 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.

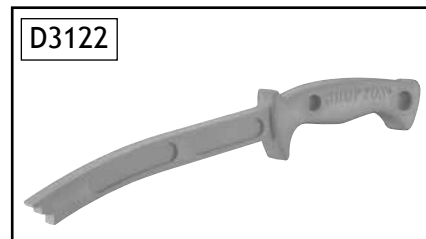
The **Model D3868 Shop Fox Quick Holder Kit** is adequate for most power feeder applications, and can be used for permanent or temporary power feeder mounting. This kit requires no drilling or tapping of your machine table.



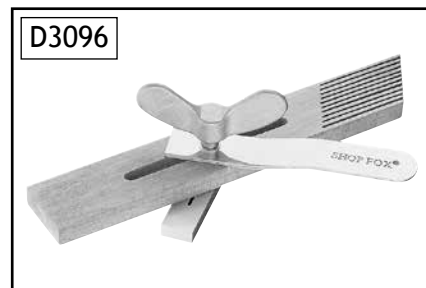
The **Model D3870 Extra Roller** adds insurance against downtime should a workpiece damage a wheel, or after long use the wheel tire wears out. These wheels can be replaced in a few minutes.



The **Model D3122 Push Stick** keeps hands a safe distance from blades and cutters while still maintaining control of the workpiece against machine fences. A true necessity when running narrow stock. Durable handle is designed for maximum control. Measures 13 1/2" overall.



The **Model D3096 Shop Fox Featherboard** helps reduce the risk of kick-back and achieve consistent results. Designed to lock into standard 3/8" x 3/4" miter gauge slots, this Featherboard is adjustable for various stock widths and miter slot locations. No drilling or bulky clamp arrangements!



The **Model D2018 60-Pc. Tap & Die Set** includes both coarse and fine thread tap and dies. Tap and dies are numbered from #4 - 40 to #12 - 24 and fractional taps and dies from 1/4" - 28 to 1/2" - 20 and 1/8" - 27 NPT. Set includes thread gauge, tap handle, die handle and small tap chuck, all in a nice molded case. Also includes metric taps and dies from M3 x .5 to M12 x 1.75. Made of high carbon steel.



MAINTENANCE

General

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

Check for the following conditions and repair or replace when necessary:

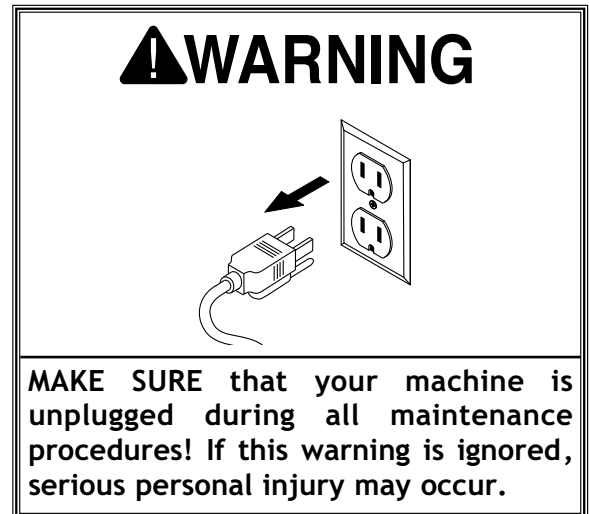
- Loose mounting bolts and damaged wheel rubber.
- Worn or damaged, switch, cord, and plug.
- Any other condition that could hamper the safe operation of the power feeder.

Cleaning

- Frequently blow-off sawdust with compressed air. This is especially important for the internal working parts and motor. Dust build-up around the motor is a sure way to decrease its life span.
- If the wheels become loaded up with pitch, oil, or other residues, wipe them clean using a clean rag and a mild solvent. Avoid touching the plastic or paint with mineral spirits or you may damage the surfaces.

Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them. However, periodically oil the lock lever and T-handle threads to ensure free operation. Wipe down the adjustment arm with a thin film of oil as required to prevent surface rust, but not enough to attract dirt.



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.

Wheel Replacement

If you damage one or more wheels, you can easily replace the wheels.

To replace the wheels, do these steps:

1. DISCONNECT THE MACHINE FROM POWER!
2. Remove the three cover screws and the cover (see Figure 40).
3. Put on your safety glasses and remove the retaining ring (see Figure 40) using external retaining ring pliers.
4. Replace the wheel and reassemble the power feeder.

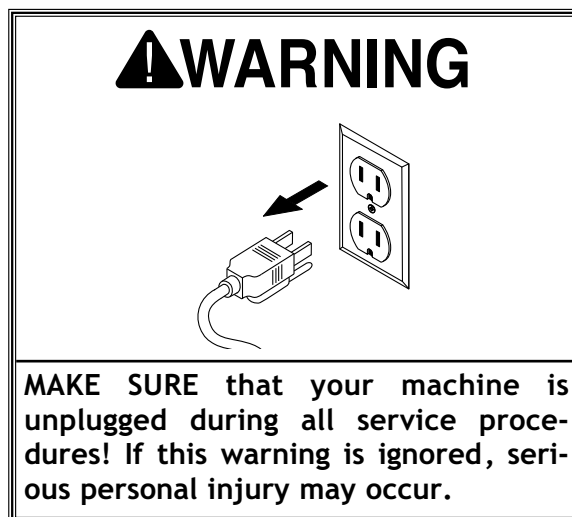


Figure 40. Wheel replacement.

Brush Replacement

After a long period of time you may notice the motor lose some power or begin making "growling" sounds during operation. This indicates that the motor brushes are worn and need replacement. The brushes can be easily replaced.

To replace the brush set, do these steps:

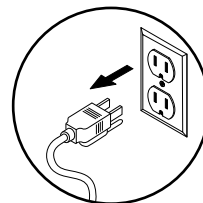
1. DISCONNECT THE MACHINE FROM POWER!
2. Unscrew both brush caps (see Figure 41) on either side of the motor.
3. Replace the brush set (see Figure 41) and re-install the caps.



Figure 41. Brush set replacement.

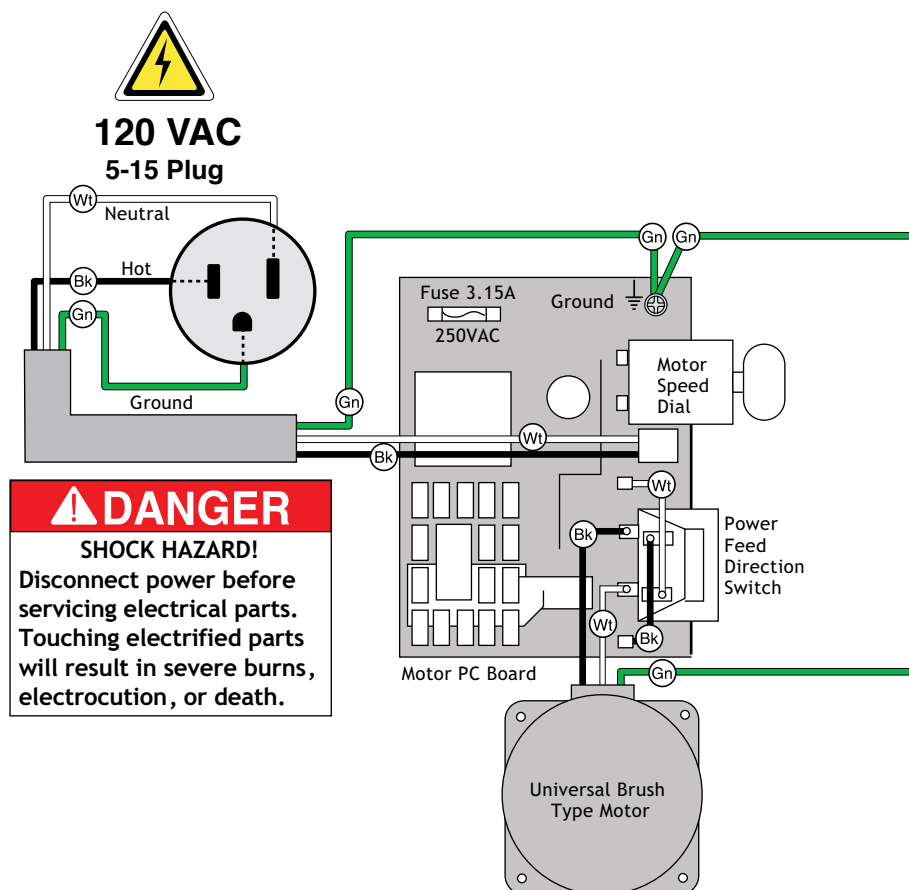
Troubleshooting

This section covers the most common problems and corrections with this type of machine. **WARNING! DO NOT** make any adjustments until power is disconnected and moving parts have come to a complete stop!



| PROBLEM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|---|--|--|
| Motor will not start. | <ol style="list-style-type: none"> 1. Low voltage. 2. Open circuit in motor or loose connections. 3. Blown fuse. 4. Motor brushes are at fault. 5. Motor switch or motor is at fault. | <ol style="list-style-type: none"> 1. Check power supply for proper voltage. 2. Inspect all lead connections on motor and magnetic switch for loose or open connections. 3. Replace fuse on circuit board. 4. Replace brushes (see Page 22). 5. Replace switch or motor. |
| Fuses or circuit breakers trip open. | <ol style="list-style-type: none"> 1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Power feeder rollers are jammed. | <ol style="list-style-type: none"> 1. Inspect cord or plug for damaged insulation and shorted wires and replace extension cord. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Disconnect all machinery from power and correct cause of jamming. |
| Motor overheats. | <ol style="list-style-type: none"> 1. Motor overloaded. 2. Motor brushes at fault. | <ol style="list-style-type: none"> 1. Reduce power feeder feed rate. 2. Replace brushes (see Page 22). |
| Workpiece jams when feeding under rollers. | <ol style="list-style-type: none"> 1. Rollers set too low. 2. Feeder at wrong angle. | <ol style="list-style-type: none"> 1. Raise feeder. 2. Adjust angle. |
| Workpiece slips while passing beneath rollers | <ol style="list-style-type: none"> 1. Rollers positioned too high, no traction. 2. Feeding too fast, cutter overloads. 3. Rollers are dirty or oily. 4. Worn roller(s). | <ol style="list-style-type: none"> 1. Lower feeder. 2. Slow feed speed. 3. Clean roller surface with a mild solvent. 4. Replace roller(s) (see Page 22). |
| Workpiece is burnt. | <ol style="list-style-type: none"> 1. Wrong feed speed. | <ol style="list-style-type: none"> 1. Adjust feed speed. |
| Rough finish or chipped grain on workpiece. | <ol style="list-style-type: none"> 1. Feed speed too fast. 2. Dull cutter or blade. 3. Power feeder angle is not toed in to keep workpiece against fence. | <ol style="list-style-type: none"> 1. Slow speed. 2. Replace with sharp cutter or blade. 3. Adjust power feeder so it is toed-in 1° to 1.5° degrees toward the fence. |
| Fuzzy grain occurs when planing or moulding. | <ol style="list-style-type: none"> 1. Lumber has high moisture content. 2. Dull knives. | <ol style="list-style-type: none"> 1. If moisture content is higher than 20%, sticker and allow to dry. 2. Sharpen or replace knives. |
| Workpiece hangs and does not enter the machine. | <ol style="list-style-type: none"> 1. Power feeder roller height is set incorrectly. | <ol style="list-style-type: none"> 1. Lower the power feeder 1/8" lower than the height of the workpiece. |

Wiring Diagram



| NOTICE | | WIRING DIAGRAM COLOR KEY | | | |
|--|--|--------------------------|-------------|-------------------|-----------------|
| The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.shopfox.biz . | | BLACK — Bk | BLUE — Bl | YELLOW — Yl | LIGHT BLUE — Lb |
| | | WHITE — Wt | BROWN — Br | YELLOW GREEN — Yg | BLUE WHITE — Bw |
| | | GREEN — Gn | GRAY — Gy | PURPLE — Pu | WHITE — Wt |
| | | RED — Rd | ORANGE — Or | PINK — Pk | TURQUOISE — Tu |

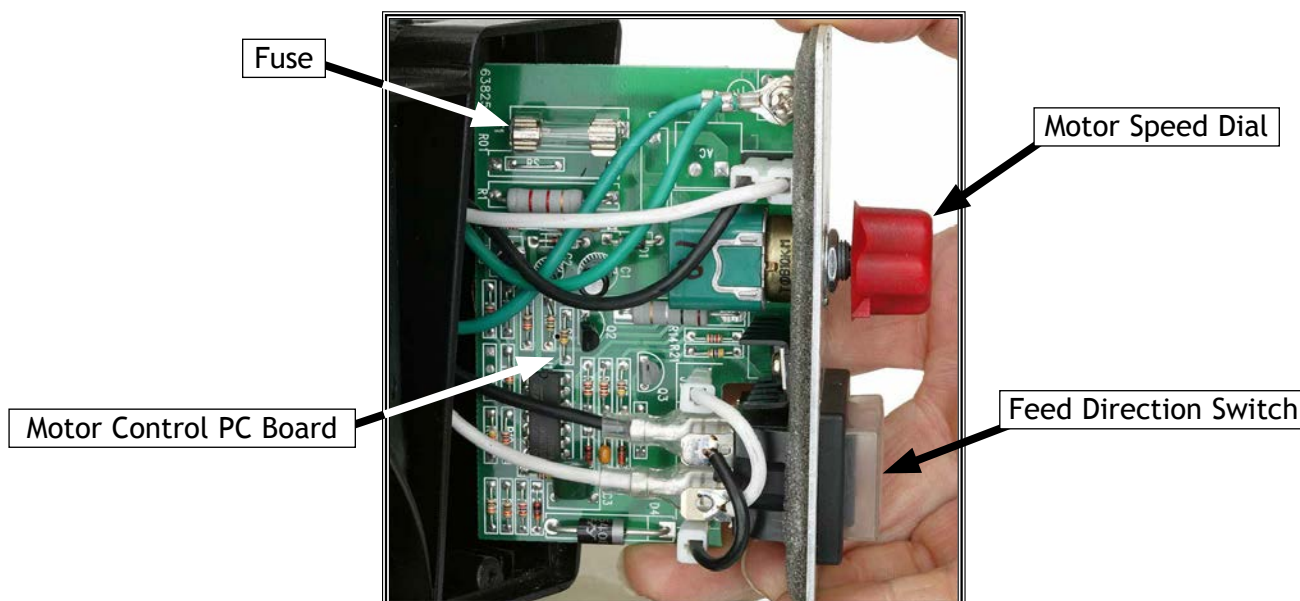


Figure 42. Feeder Control System.

PARTS



| REF | PART # | DESCRIPTION |
|------|------------|-------------------------|
| 1 | X1764001 | EXTRA ROLLER |
| 6 | X1764006 | SPROCKET CASE |
| 7 | X1764007 | TORTION SPRING 30 X 3 |
| 8 | X1764008 | BUSHING |
| 9 | X1764009 | CASE CAP |
| 11 | X1764011 | GEARKIT(25T) |
| 12 | X1764012 | EXT RETAINING RING 22MM |
| 14 | X1764014 | DRIVE SHAFT |
| 15 | X1764015 | GEAR 10-TEETH |
| 16 | X1764016 | E-CLIP 6.4MM |
| 17 | X1764017 | EXT RETAINING RING 12MM |
| 19 | X1764019 | SHAFT |
| 20 | X1764020 | HEX NUT M8-1.25 |
| 22 | X1764022 | BEVEL GEAR |
| 23 | X1764023 | KEY 5 X 5 X 20 |
| 25 | X1764025 | BEVEL GEAR CAP |
| 28 | X1764028 | SPROCKET 10-TEETH |
| 29 | X1764029 | BUSHING 14 X 21 X 10.5 |
| 30 | X1764030 | CHAIN (18S) |
| 31 | X1764031 | CHAIN (24S) |
| 33 | X1764033 | BACK COVER |
| 34 | X1764034 | PHLP HD SCR M5-.8 X 16 |
| 36 | X1764036 | FRONT COVER |
| 36-1 | X1764036-1 | HOUSING COVER |
| 37 | X1764037 | PHLP HD SCR M5-.8 X 16 |
| 38 | X1764038 | CONTROL BOX KIT |
| 38-1 | X1764038-1 | CONTROL BOX POWER CORD |
| 38-2 | X1764038-2 | CONTROL BOX GROMMETS |
| 39 | X1764039 | DC MOTOR 1/8HP |
| 39-1 | X1764039-1 | MOTOR POWER CORD |
| 39-2 | X1764039-2 | CABLE CLAMP |
| 39-3 | X1764039-3 | BRUSH ASSEMBLY |
| 39-4 | X1764039-4 | BRUSH CAP |
| 39-5 | X1764039-5 | HOUSING |
| 40 | X1764040 | MOTOR CONTROL SYSTEM |
| 40-1 | X1764040-1 | FUSE 3.15, A 250VAC |
| 43 | X1764043 | TAP SCREW M3-.5 X 8 |
| 45 | X1764045 | LOWER BALL HOUSING |

| REF | PART # | DESCRIPTION |
|------|------------|--------------------------------|
| 46 | X1764046 | STOPPER |
| 47 | X1764047 | UPPER BALL SOCKET |
| 49 | X1764049 | BALL |
| 50 | X1764050 | LOCK WASHER 10MM |
| 51 | X1764051 | CAP SCREW M10-1.5 X 25 |
| 53 | X1764053 | SHAFT |
| 54 | X1764054 | T-HANDLE |
| 56 | X1764056 | ARM CLAMP |
| 57 | X1764057 | ARM CLAMP COVER |
| 58 | X1764058 | HEX BOLT M10-1.5 X 50 |
| 59 | X1764059 | LOCK WASHER 10MM |
| 60 | X1764060 | HEX NUT M10-1.5 |
| 61 | X1764061 | T-HANDLE |
| 62 | X1764062 | FLAT WASHER 18MM |
| 63 | X1764063 | HEX NUT M16-2 |
| 65 | X1764065 | T-HANDLE |
| 66 | X1764066 | PINION GEAR |
| 67 | X1764067 | E-CLIP 5MM |
| 69 | X1764069 | CLAMP LEVER |
| 70 | X1764070 | FLAT WASHER 5/16 |
| 71 | X1764071 | HEX NUT M8-1.25 |
| 72 | X1764072 | ARM |
| 74 | X1764074 | ELBOW SWIVEL CONE |
| 75 | X1764075 | T-HANDLE |
| 76 | X1764076 | FLAT WASHER 18MM |
| 77 | X1764077 | HEX NUT M16-2 |
| 79 | X1764079 | BASE |
| 80 | X1764080 | LOCK WASHER 10MM |
| 81 | X1764081 | HEX BOLT M10-1.5 X 35 |
| 82 | X1764082 | LOCK WASHER 10MM |
| 83 | X1764083 | TORSION SPRING |
| 84V2 | X1764084V2 | MACHINE ID LABEL CSA V2.01.14 |
| 85 | X1764085 | SHOP FOX LOGO LABEL |
| 86V2 | X1764086V2 | GENERAL WARNING LABEL V2.01.14 |
| 87 | X1764087 | COMBO WARNING LABEL |
| 88 | X1764088 | ELECTRICITY LABEL 0.7W X 0.6H |
| 89 | X1764089 | DAMPNESS WARNING LABEL |
| 90 | X1764090 | SHOP FOX WHITE TOUCH-UP PAINT |

⚠ 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.shopfoxtools.com to order new labels.

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.

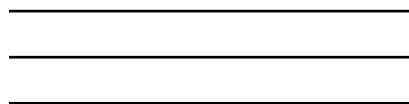
1. How did you learn about us?
 _____ Advertisement _____ Friend _____ Local Store
 _____ Mail Order Catalog _____ Website _____ Other:
2. How long have you been a woodworker/metalworker?
 _____ 0-2 Years _____ 2-8 Years _____ 8-20 Years _____ 20+ Years
3. How many of your machines or tools are Shop Fox?
 _____ 0-2 _____ 3-5 _____ 6-9 _____ 10+
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?
 _____ 20-29 _____ 30-39 _____ 40-49
 _____ 50-59 _____ 60-69 _____ 70+
7. What is your annual household income?
 _____ \$20,000-\$29,000 _____ \$30,000-\$39,000 _____ \$40,000-\$49,000
 _____ \$50,000-\$59,000 _____ \$60,000-\$69,000 _____ \$70,000+
8. Which of the following magazines do you subscribe to?

| | | |
|------------------------------|---------------------------|----------------------------|
| _____ Cabinet Maker | _____ Popular Mechanics | _____ Today's Homeowner |
| _____ Family Handyman | _____ Popular Science | _____ Wood |
| _____ Hand Loader | _____ Popular Woodworking | _____ Wooden Boat |
| _____ Handy | _____ Practical Homeowner | _____ Woodshop News |
| _____ Home Shop Machinist | _____ Precision Shooter | _____ Woodsmith |
| _____ Journal of Light Cont. | _____ Projects in Metal | _____ Woodwork |
| _____ Live Steam | _____ RC Modeler | _____ Woodworker West |
| _____ Model Airplane News | _____ Rifle | _____ Woodworker's Journal |
| _____ Modeltec | _____ Shop Notes | _____ Other: |
| _____ Old House Journal | _____ Shotgun News | |

9. Comments: _____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place
Stamp
Here



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TAPE ALONG EDGES--PLEASE DO NOT STAPLE

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.



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