

# MODEL W1852 22" X 42" VARIABLE-SPEED WOOD LATHE



## OWNER'S MANUAL

*(FOR MODELS MANUFACTURED SINCE 11/17)*

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V1.01.18

THE WRITTEN APPROVAL OF WOODSTOCK INTERNATIONAL, INC.

#19053JH Printed in China



## **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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USE THE QUICK GUIDE PAGE LABELS TO SEARCH OUT INFORMATION FAST!





# 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 or send e-mail to: **[tech-support@shopfox.biz](mailto:tech-support@shopfox.biz)**. Our knowledgeable staff will help you troubleshoot problems and 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  
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# MACHINE SPECIFICATIONS



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## MODEL W1852 22" X 42" VARIABLE-SPEED WOOD LATHE

### Product Dimensions

Weight..... 496 lbs.  
Width (side-to-side) x Depth (front-to-back) x Height..... 81 x 23 x 51 in.  
Footprint (Length x Width)..... 65-1/2 x 20 in.

### Shipping Dimensions

Type..... Wood Box  
Content..... Machine  
Weight..... 584 lbs.  
Length x Width x Height..... 69 x 24 x 25 in.  
Must Ship Upright..... Yes

### Electrical

Power Requirement..... 220V, Single-Phase, 60 Hz  
Full-Load Current Rating..... 16A  
Minimum Circuit Size..... 20A  
Connection Type..... Cord & Plug  
Power Cord Included..... Yes  
Power Cord Length..... 6 ft.  
Power Cord Gauge..... 12 AWG  
Plug Included..... Yes  
Included Plug Type..... NEMA 6-20  
Switch Type..... ON/OFF Push Button Switch w/Safety Cover  
Inverter (VFD) Type..... Delta VFD-M  
Inverter (VFD) Size..... 3 HP

### Motors

#### Main

Horsepower..... 3 HP  
Phase..... 3-Phase  
Amps..... 8A  
Speed..... 1725 RPM  
Type..... TEFC Induction  
Power Transfer ..... Belt Drive  
Bearings..... Sealed & Permanently Lubricated



## Main Specifications

### Operation Information

Swing Over Bed.....	22 in.
Swing Over Tool Rest Base.....	18 in.
Distance Between Centers.....	42 in.
Max. Distance Tool Rest to Spindle Center.....	8 in.
No of Spindle Speeds.....	Variable
Spindle Speed Range.....	100 - 3200 RPM
Floor to Center Height.....	47-13/16 in.

### Spindle Information

Spindle Taper.....	MT#2
Spindle Thread Size.....	1-1/4" x 8 TPI
Spindle Thread Direction.....	Right Hand
Spindle Bore.....	0.393 in.
Type of Included Spindle Center.....	Spur
Indexed Spindle Increments.....	10 deg.
No of Indexes.....	36

### Tool Rest Information

Tool Rest Width.....	14 in.
Tool Rest Post Diameter.....	1 in.
Tool Rest Post Length.....	2-1/4 in.
Tool Rest Base Height.....	2 in.

### Tailstock Information

Tailstock Taper.....	MT#2
Type of Included Tailstock Center.....	Live

### Construction

Bed.....	Precision-Ground Cast Iron
Frame.....	Cast Iron
Stand.....	Cast Iron
Base.....	Cast Iron
Headstock.....	Cast Iron
Tailstock.....	Cast Iron
Paint Type/Finish.....	Enamel

### Other Related Information

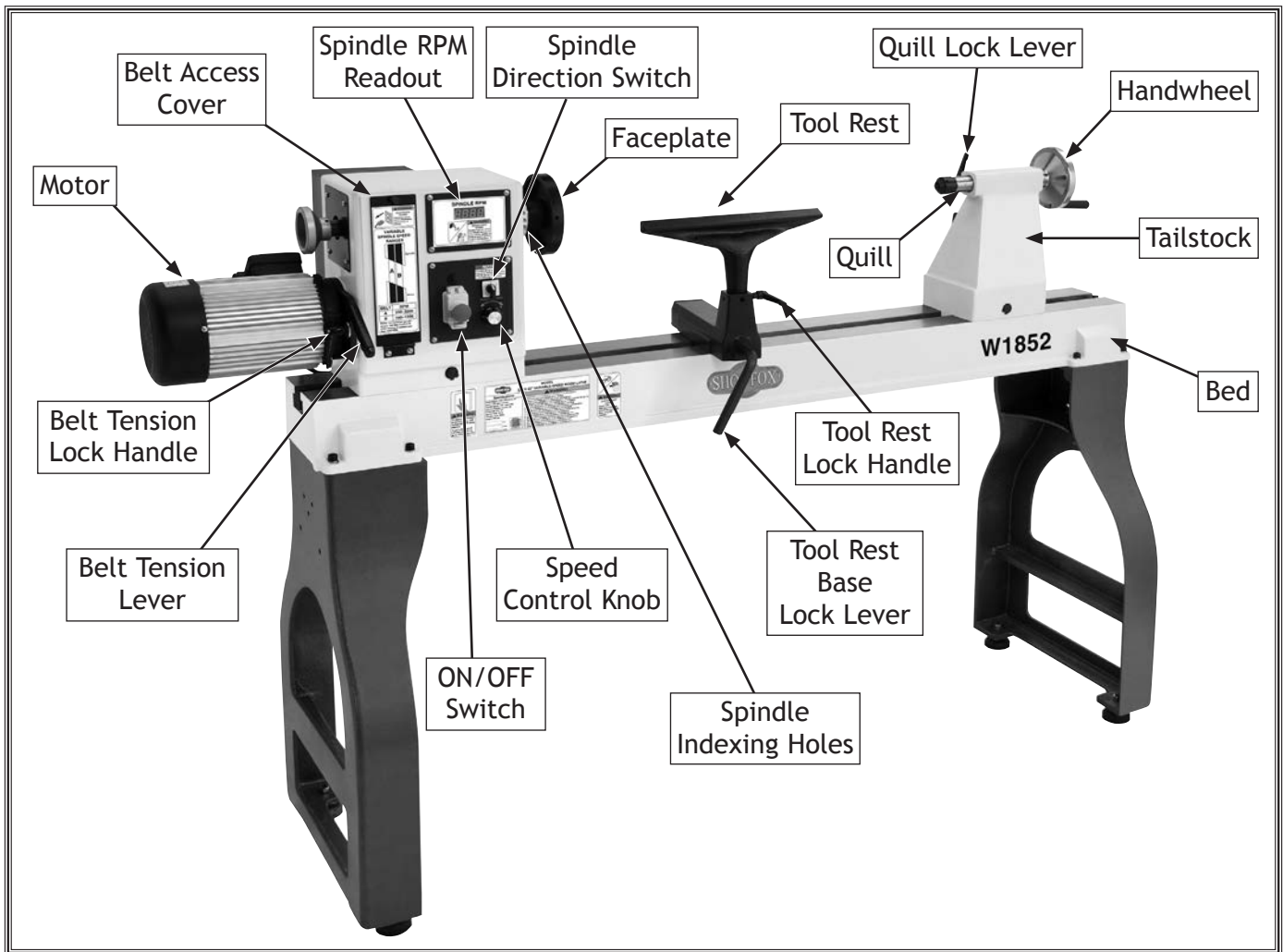
Bed Width.....	10 in.
Faceplate Size.....	6 in.

### Other

Country of Origin .....	China
Warranty .....	2 Years
Approximate Assembly & Setup Time .....	1 Hour
Serial Number Label .....	ID Label
ISO 9001 Factory .....	Yes
Certified by a Nationally Recognized Testing Laboratory (NRTL) .....	No

# Identification

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



## ⚠ CAUTION

For Your Own Safety Read Instruction Manual Before Operating Lathe

- Wear eye protection.
- Do not wear gloves, necktie, or loose clothing.
- Tighten all locks before operating.
- Rotate workpiece by hand before applying power.
- Rough out workpiece before installing on faceplate.
- Do not mount split workpiece or one containing knot.
- Use lowest speed when starting new workpiece.

# Controls & Components

Refer to **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. **Spindle RPM Readout:** Indicates spindle speed in rotations per minute (RPM).
- B. **Spindle Direction Switch:** Toggles spindle direction between clockwise and counterclockwise.
- C. **Speed Control Knob:** Adjusts spindle speed from low to high within range governed by pulley belt position.
- D. **ON/OFF Switch w/Emergency Stop Button:** Turns lathe ON and OFF.
- E. **Belt Tension Lock Handle:** Locks belt tension lever in place.
- F. **Belt Tension Lever:** Increases and decreases amount of tension on belt.
- G. **Tailstock Lock Lever:** Secures tailstock in position along bed.
- H. **Tailstock Handwheel:** Moves quill toward or away from spindle.
- I. **Quill Lock Handle:** Secures quill in position.
- J. **Quill:** Holds centers or tooling. Can be moved toward and away from spindle.
- K. **Tool Rest:** Provides stable platform for cutting tools.
- L. **Tool Rest Lock Handle:** Secures tool rest in position.
- M. **Tool Rest Base Lock Lever:** Secures tool rest base in position.

## ! WARNING



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

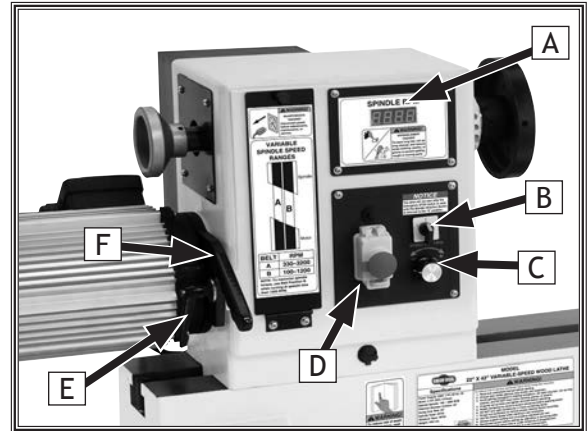


Figure 1. Headstock controls.

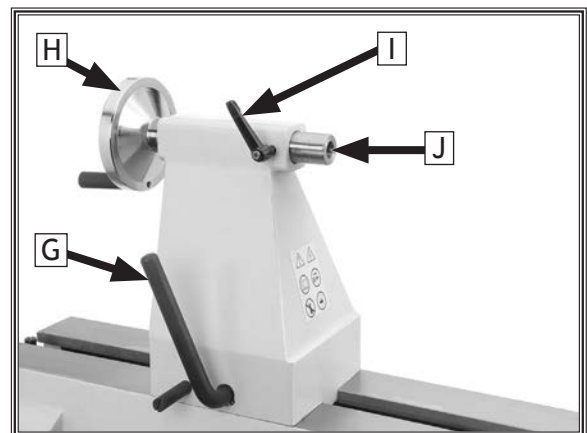


Figure 2. Tailstock controls.



Figure 3. Tool rest controls.



# 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 Wood Lathes

**MAIN INJURY HAZARDS:** Death or crushing injury from getting entangled in rotating spindle or workpiece; death, blindness, or broken bones from being struck by a workpiece that breaks apart or comes loose during rotation, turning tool kickback, or flying wood chips. To minimize your risk of these hazards, always heed the following warning information:

**INTEGRITY OF STOCK.** Verify each workpiece is free of knots, splits, nails, or foreign material to ensure it can safely rotate on spindle without breaking apart or causing turning tool kickback.

**WORKPIECE PREPARATION.** Before mounting, cut off waste portions with a bandsaw or other tool to ensure workpiece has no large edges to catch turning tool, and it will rotate without dangerous wobbling.

**SECURING LOCKS.** Verify tool rest, headstock, and tailstock are secure before turning lathe **ON**.

**SECURING WORKPIECE.** An improperly secured workpiece can fly off spindle with deadly force. Use proven setup techniques and always verify workpiece is well-secured before starting lathe. Only use high-quality fasteners with non-tapered heads for faceplate attachment.

**TOOL SUPPORT.** An improperly supported tool may be grabbed or ejected. Adjust tool rest approximately  $\frac{1}{4}$ " away from workpiece and  $\frac{1}{8}$ " above workpiece center line to provide proper support for turning tool. Firmly hold turning tool with both hands against tool rest.

**TOOL KICKBACK.** Occurs when turning tool is ejected from workpiece with great force, striking operator or bystanders. Commonly caused by poor workpiece selection/preparation, improper tool usage, or improper machine setup or tool rest adjustment.

**ADJUSTMENT TOOLS.** Remove all chuck keys, wrenches, and adjustment tools before turning lathe **ON**. A tool left on the lathe can become a deadly projectile when spindle is started.

**SAFE CLEARANCES.** Before starting spindle, verify workpiece has adequate clearance by hand-rotating it through its entire range of motion.

**EYE/FACE PROTECTION.** Always wear a face shield and safety glasses when operating lathe.

**PROPER APPAREL.** Do not wear gloves, necktie or loose clothing. Keep long hair away from rotating spindle.

**SPEED RATES.** Select correct spindle speed for workpiece size, type, shape, and condition. Use low speeds when roughing or when turning large, long, or non-concentric workpieces. Allow spindle to reach full speed before turning.

**NEW SETUPS.** Test each new setup by starting spindle rotation at the lowest speed and standing to the side of the lathe until workpiece reaches full speed and you can verify safe rotation.

**ROUGHING.** Use correct tool. Take light cuts, use low speeds, and firmly support tool with both hands.

**SHARP TOOLS.** Only use sharp turning tools—they cut with less resistance than dull tools. Dull turning tools can catch or grab and pull your hands into the rotating workpiece.

**STOPPING SPINDLE.** Always allow spindle to completely stop on its own. Never put hands or another object on spinning workpiece.

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

**MEASURING WORKPIECE.** Only measure workpiece after it has stopped. Trying to measure a spinning workpiece increases entanglement risk.

**SANDING/POLISHING.** To reduce entanglement risk, remove tool rest before sanding. Never completely wrap sandpaper around workpiece.

# Glossary of Terms

The following is a list of common definitions, terms and phrases used throughout this manual as they relate to this wood lathe and woodworking in general. Become familiar with these terms for assembling, adjusting or operating this machine.

**Bed:** The long, rail-like metal base to which the tailstock, tool base, and headstock are attached.

**Chuck:** A mechanical device that attaches to the spindle and holds the workpiece.

**Faceplate:** The metal disc that threads onto the headstock spindle.

**Faceplate Turning:** Turning situation in which the grain of the turning stock is at right angles to the lathe bed axis.

**Backing Block:** A sacrificial piece of wood glued to the base of the workpiece and screwed to the faceplate. Often used to prevent mounting marks from appearing on the completed workpiece.

**Headstock:** The cast metal box to which the motor is attached and contains the spindle, bearings, belts, and electrical components for operating the lathe.

**Index Head:** The mechanism that allows the headstock spindle to be locked at specific intervals for layout or other auxiliary tasks.

**Offset Turning:** A turning situation where the center of the workpiece is offset at various stages of the work to produce different shapes.

**Outboard Turning:** Turning of workpiece with the headstock situated at the far end of the lathe so the work done is not over the bed of the lathe.

**Roughing Out:** Taking stock from square billet to round blank.

**Spindle:** This term has two meanings. First, it refers to the threaded shaft in the headstock to which the faceplate is attached. Second, it refers to any work that is spindle-turned.

**Spindle-Turning:** Work performed where the grain and length of the workpiece are parallel to the axis of the bed.

**Swing:** The capacity of the lathe, measured by doubling the distance from the bed to the spindle center.

**Tailstock:** The metal component at the opposite end of the bed from the headstock containing a quill and live or dead centers. It maintains pressure on the spindle-turned workpiece.

**Tool Base:** The movable metal fixture attached to the bed upon which the tool rest is fixed.

**Tool Rest:** The adjustable metal arm upon which the tool rests during a turning operation.

**Way:** One of the metal rails that make up the bed of the lathe.

# 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 220V ..... 16 Amps

### Circuit Requirements

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Circuit Type ..... 208V/220V/240V, 60 Hz, 1-Phase  
 Circuit Size ..... 20 Amps  
 Plug/Receptacle ..... NEMA 6-20

### 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 220V Connection

This machine is equipped with a power cord that has an equipment-grounding wire and NEMA 6-20 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.

## 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 220V ..... 12 AWG  
Maximum Length (Shorter is Better) ..... 50 ft.

## ! 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.

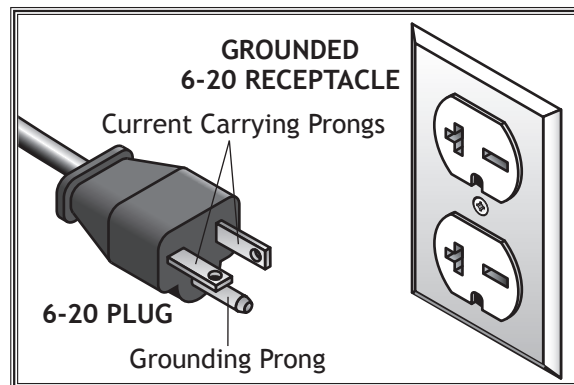
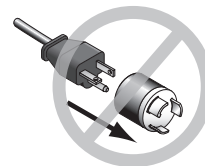


Figure 4. NEMA 6-20 plug & receptacle.

## ! CAUTION



No adapter should be used with the required plug. If the plug does not fit the available receptacle or the machine must be reconnected to a different type of circuit, the reconnection must be made by an electrician or qualified service personnel and it must comply with all local codes and ordinances.

# 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.

Description	Qty
• Precision Level at Least 12" Long .....	1
• Tape Measure.....	1
• Safety Glasses (for each person).....	1
• Solvent/Cleaner .....	1
• Shop Rags .....	As Needed
• Additional People.....	2
• 4" x 8" x 12" Wood Block.....	1
• Anchoring Hardware .....	As Needed
• Quality Metal Protectant Lubricant.....	As Needed
• Gloves .....	As Needed




**!WARNING**

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!



**!WARNING**

Wear safety glasses during entire setup process!



**!WARNING**

USE helpers or power lifting equipment to lift this machine. Otherwise, serious personal injury may occur.



**!WARNING**

**SUFFOCATION HAZARD!**  
Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

# 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.

## Inventory (Figures 5-7)

	Qty
<b>A. Lathe Assembly</b>	
—Headstock (mounted) .....	1
—Tool Rest Base (mounted) .....	1
—Tailstock (mounted) .....	1
—Faceplate 6" (installed) .....	1
<b>B. Stand Legs .....</b>	<b>2</b>
<b>C. Live Center MT#2 .....</b>	<b>1</b>
<b>D. Spur Center MT#2 .....</b>	<b>1</b>
<b>E. Indexing Pin .....</b>	<b>1</b>
<b>F. Tool Rest w/ 1 in. Post .....</b>	<b>1</b>
<b>G. Hex Wrenches 3, 4, 6, 8mm .....</b>	<b>1 Ea</b>
<b>H. Machine Feet .....</b>	<b>4</b>
<b>I. Knockout Tool .....</b>	<b>1</b>
<b>J. Hardware (see Hardware Recognition Chart)</b>	
—Cap Screws M10-1.5 x 35 .....	8
—Lock Washers 10mm .....	8
—Hex Nuts M8-1.25 .....	4

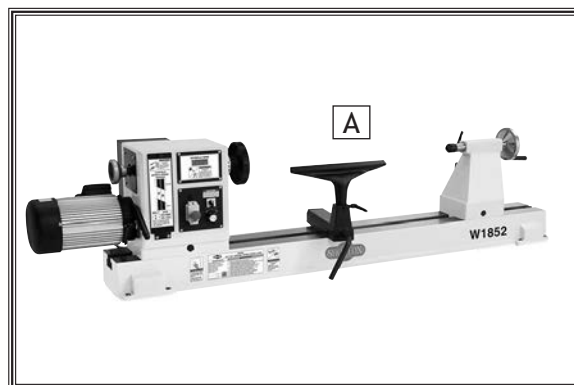


Figure 5. Lathe assembly.

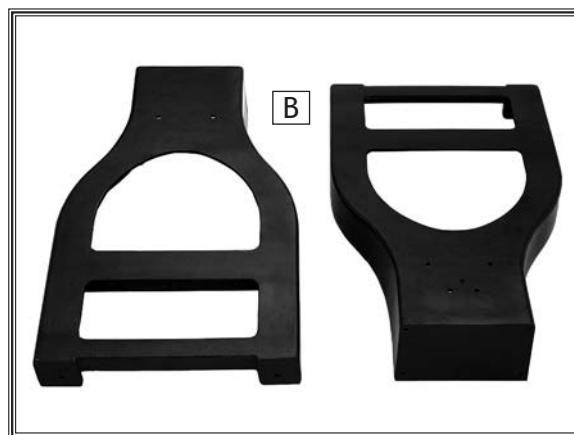


Figure 6. Stand legs.

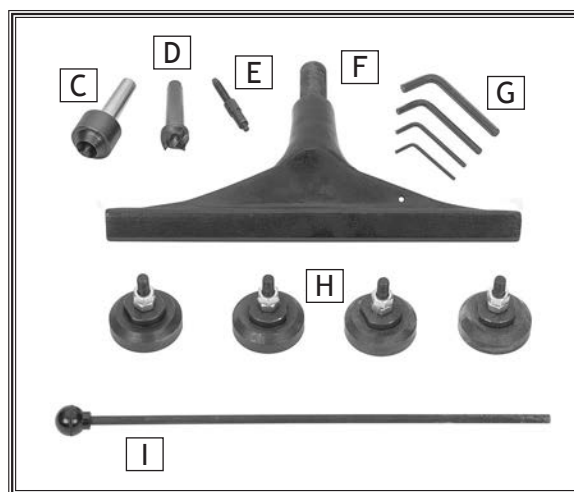
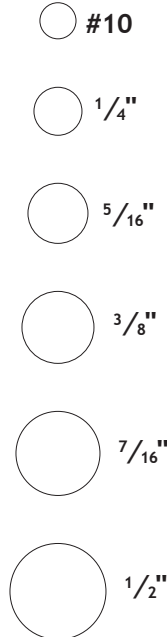
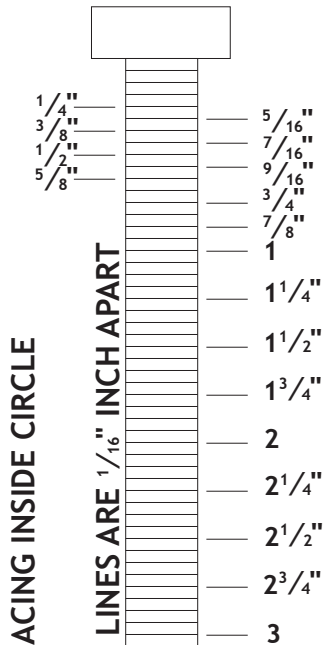


Figure 7. Loose inventory components.

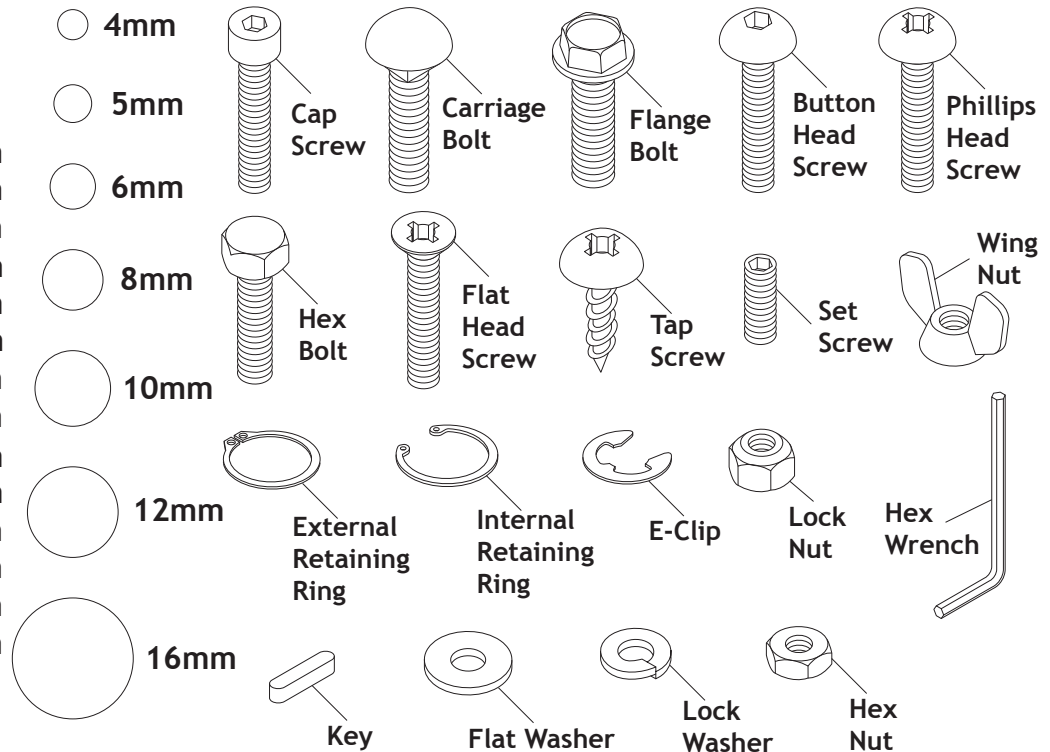
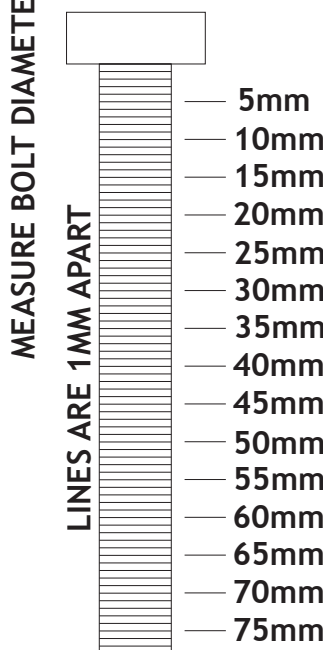
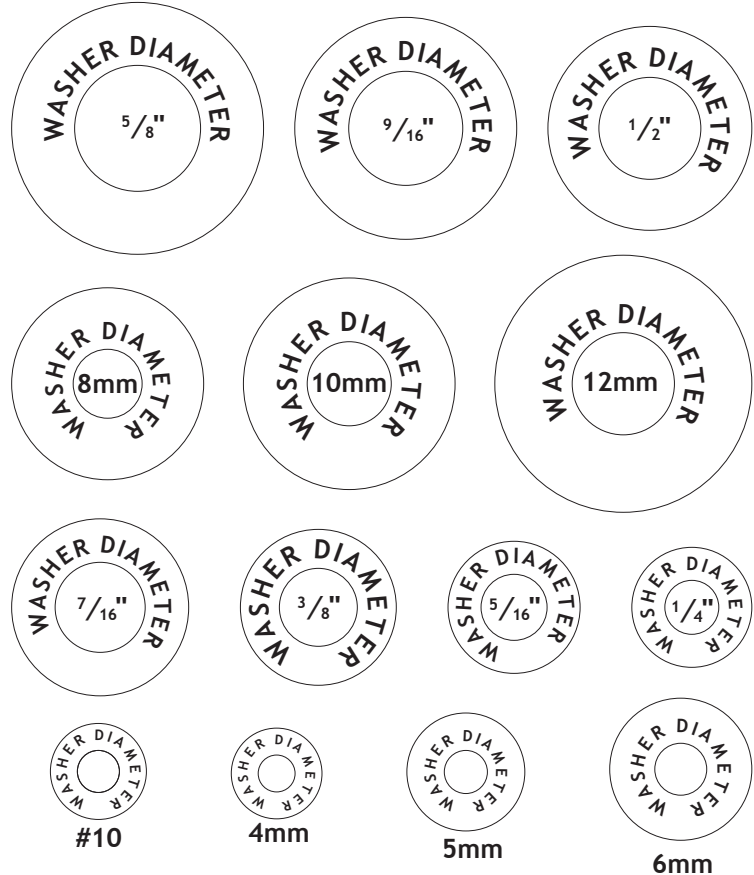


# Hardware Recognition Chart

USE THIS CHART TO IDENTIFY  
HARDWARE DURING THE  
INVENTORY/ASSEMBLY  
PROCESS.



WASHERS ARE MEASURED BY THE INSIDE DIAMETER



SETUP

# 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

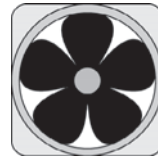
To remove rust preventative coating, do these steps:

1. 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.

## ! 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.

# Machine Placement

## 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.

## 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.**



## CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

## Physical Environment

The physical environment where your machine is operated is important for safe operation and the longevity of its 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 exceeds 41°-104°F; the relative humidity range exceeds 20-95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

## Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave access to a means of disconnecting the power source or engaging a lockout/tagout device.

## 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.

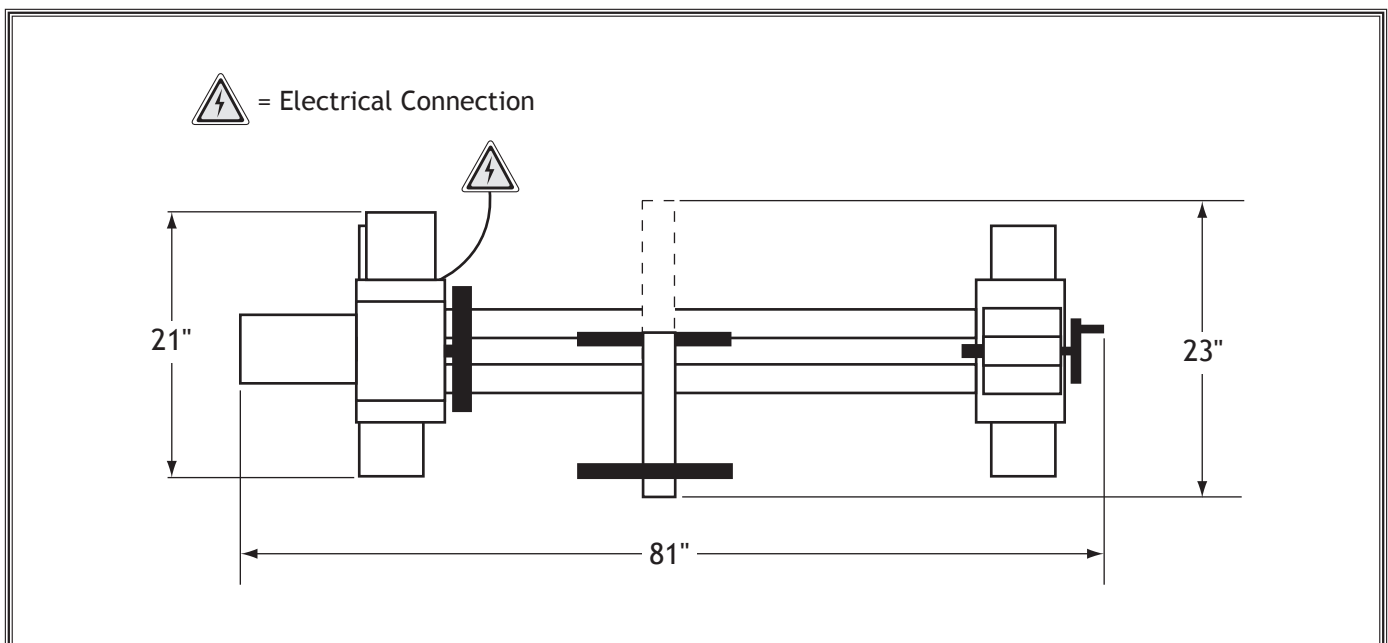


Figure 8. Working clearances.

# Anchoring to Floor

Number of Mounting Holes..... 4

Diameter of Mounting Hardware .....1/2"

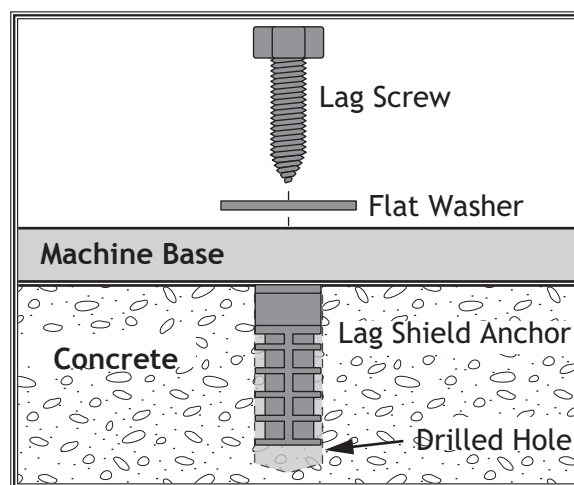
Anchoring machinery to the floor prevents tipping or shifting and reduces vibration that may occur during operation, resulting in a machine that runs slightly quieter and feels more solid.

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.



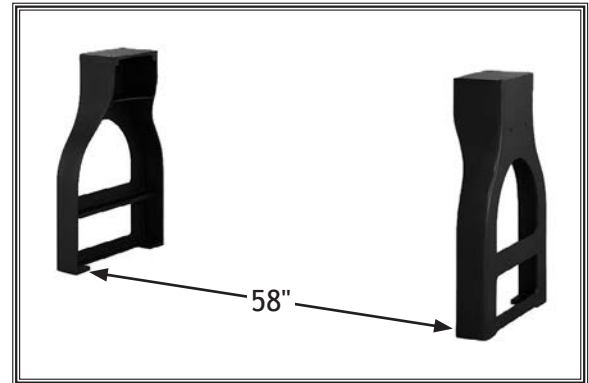
**Figure 9.** Popular method for anchoring machinery to a concrete floor.

# Assembly

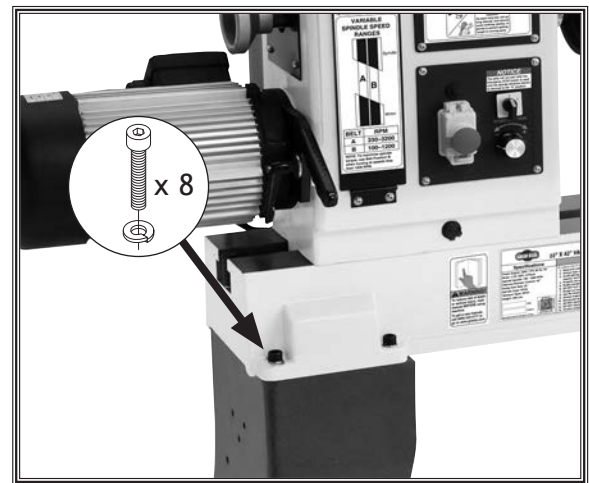
Before beginning the assembly process, refer to **Items Needed for Setup** and gather everything you need. Ensure all parts have been properly cleaned of any heavy-duty rust-preventative applied at the factory (if applicable). Be sure to complete all steps in the assembly procedure prior to performing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

To assemble machine, do these steps:

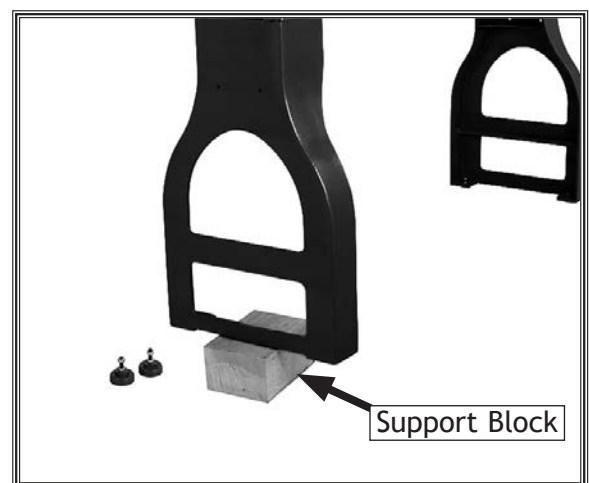
1. Position stand legs upright approximately 58" apart, and get them reasonably aligned (see **Figure 10**).
2. With help from two assistants, or using a fork lift and lifting straps, carefully position lathe assembly on top of stands/legs and align mounting holes.
3. Secure lathe assembly to stand legs with (8) M10-1.5 x 35 cap screws and 10mm lock washers, as shown in **Figure 11**.
4. If bolting lathe to floor, skip to **Step 7**. Otherwise, move tailstock, tool rest assembly, and headstock to one end of lathe bed way (refer to **Operations**, beginning on **Page 22**).
5. Use assistants to lift one end of lathe onto support block and stabilize lathe in preparation for installing machine feet (see **Figure 12**).



**Figure 10.** Stand legs aligned and centers of legs positioned 58" apart.

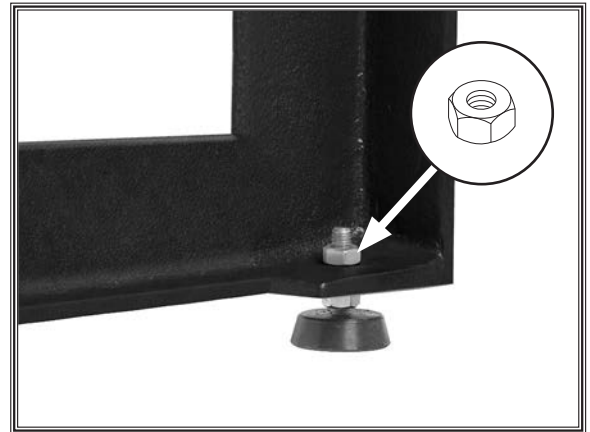


**Figure 11.** Lathe assembly secured to stand legs



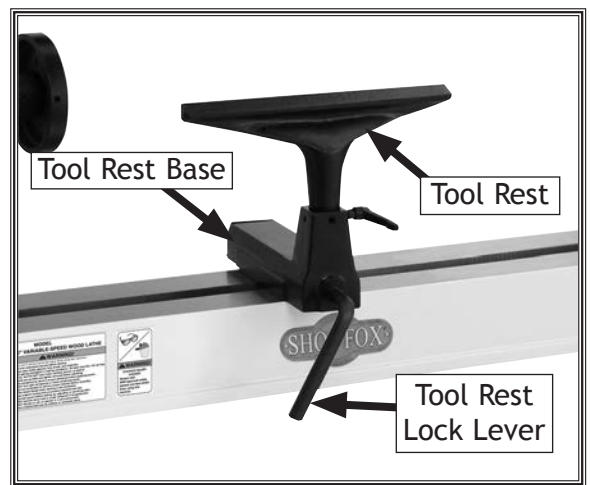
**Figure 12.** Leg supported for feet installation.

6. Remove top hex nut from feet, insert feet in leg mounting holes (see **Figure 13**), then thread top hex nut back on. **DO NOT** tighten hex nuts yet.
7. Remove supporting block and repeat **Steps 5-6** on other leg.



**Figure 13.** 1 of 4 machine feet installed.

8. Place level on lathe bed and make necessary adjustments so bed is level from side-to-side and front-to-back.
  - If you are using machine feet, adjust top and bottom hex nuts on each leg to level bed; then tighten hex nuts to secure these adjustments.
  - If you are bolting lathe to floor, use shims under legs to level bed; then tighten mounting fasteners.
9. Insert tool rest into tool rest base and tighten tool rest lock lever, as shown in **Figure 14**.



**Figure 14.** Tool rest installed on tool rest base.

## Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning properly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem **BEFORE** operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

The test run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the safety disabling mechanism on the switch works correctly.

To test run the machine, do these steps:

1. Clear all setup tools away from machine.
2. Connect machine to power supply.
3. Set spindle direction switch to neutral or "O" position and turn speed control knob all the way counterclockwise.
4. Squeeze tab on bottom of Emergency Stop button, lift button to open switch cover, and press green ON button to start machine.
5. Verify machine is operating correctly by turning spindle direction switch to "R" position, then slowly turn speed control knob to the right.
  - When operating correctly, machine runs smoothly with little or no vibration or rubbing noises.
  - Investigate and correct strange or unusual noises or vibrations before operating machine further. Always disconnect machine from power when investigating or correcting potential problems.
6. Turn speed control knob all the way left.
7. Turn spindle direction switch to "L" position, and slowly turn speed control knob to the right.
  - When operating correctly, machine runs smoothly with little or no vibration or rubbing noises.
8. Move spindle direction switch to "O" position, and push in Emergency Stop button.

### **WARNING**

Serious injury or death can result from using this machine **BEFORE** understanding its controls and related safety information. **DO NOT** operate, or allow others to operate, machine until the information is understood.

### **WARNING**

**DO NOT** start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

9. Without opening Emergency Stop button, turn spindle direction switch to "R" and "L" positions. Machine should not start at either position.
  - If machine *does not* start, Emergency Stop button safety feature is working correctly. Test run is complete.
  - If machine *does* start (with Emergency Stop button pushed in), immediately disconnect power to machine. Emergency Stop button safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.



# OPERATIONS

## General

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

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

The overview below provides 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 its generic nature, this overview is **NOT** intended to be an instructional guide.

To complete a typical operation, operator does the following:

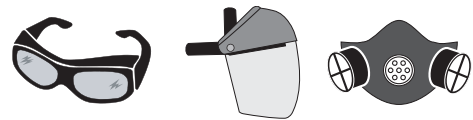
1. Examines workpiece to make sure it is suitable for turning. No extreme bows, knots, or cracks present.
2. Prepares and trims up workpiece with a bandsaw or table saw to make it roughly concentric.
3. Installs workpiece between centers, or attaches it to faceplate or chuck.
4. Adjusts tool rest to  $\frac{1}{8}$ " above workpiece centerline, and sets minimum clearance between workpiece and lip of tool rest to  $\frac{1}{4}$ " gap.
5. Rotates workpiece by hand to verify spindle and workpiece rotate freely throughout full range of motion.
6. Verifies pulley ratio is set for type of wood and size of workpiece installed.
7. Verifies spindle speed dial is turned all the way counterclockwise so spindle does not start in high speed.
8. Verifies spindle direction switch is set for correct direction.
9. Puts on safety glasses, face shield, and respirator.
10. Turns lathe **ON**, adjusts lathe speed, and carefully begins turning operation, keeping chisel against tool rest entire time it is cutting.
11. Turns lathe **OFF** when cutting operation is complete.

### WARNING



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

### WARNING



To reduce the risk of eye injury and long-term respiratory damage, always wear safety glasses, face shield and a respirator while operating machine.

### 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!



# Workpiece Inspection

Some workpieces are not safe to turn or may require modification before they can be made safe to turn.

**Before turning, get in the habit of inspecting all workpieces for the following:**

- **Material Type:** This machine is intended for turning natural wood products. Never attempt to turn any composite wood materials, plastics, metal, stone, or rubber workpieces; turning these materials can lead to machine damage or severe injury
- **Foreign Objects:** Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While turning, these objects can become dislodged and hit the operator, cause tool grab, or break the turning tool, which might then fly apart. Always visually inspect your workpiece for these items. If they can't be removed, DO NOT turn the workpiece.
- **Large/Loose Knots:** Loose knots can become dislodged during the turning operation. Large knots can cause a workpiece to completely break in half during turning and cause machine damage and injury. Choose workpieces that do not have large/loose knots.
- **Wet or "Green" Stock:** Turning wood with a moisture content over 20% can cause increased wear on tooling.
- **Excessive Warping:** Workpieces with excessive bowing or twisting are unstable and unbalanced. Never turn these workpieces at high speed, or instability will be magnified and the workpiece can be ejected from the lathe causing injury. Only turn concentric workpieces!

# Selecting Turning Tools

Lathe tools come in a variety of shapes and sizes, and usually fall into five major categories.

- **Gouges**—Mainly used for rough cutting, detail cutting, and cove profiles. The rough gouge is a hollow, double-ground tool with a round nose, and the detail gouge is a hollow, double-ground tool with either a round or pointed nose.
- **Skew Chisel**—A very versatile tool that can be used for planing, squaring, V-cutting, beading, and parting off. The skew chisel is flat, double-ground with one side higher than the other (usually at an angle of 20°-40°).
- **Scrapers**—Typically used where access for other tools is limited, such as hollowing operations. This is a flat, double-ground tool that comes in a variety of profiles (round nose, spear point, square nose, etc.) to match many different contours.
- **Parting Tools**—Used for sizing and cutting off work. This is a flat tool with a sharp pointed nose that may be single- or double-ground.
- **Specialty Tools**—These are the unique, special function tools to aid in hollowing, bowl making, cutting profiles, etc.

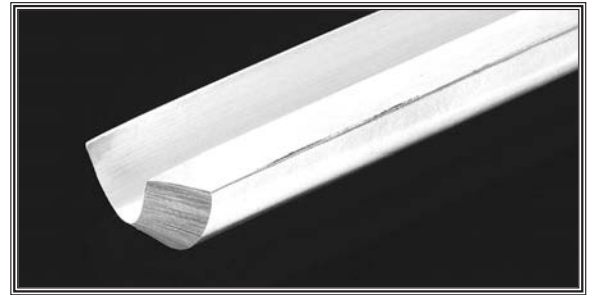


Figure 15. Example of a gouge.

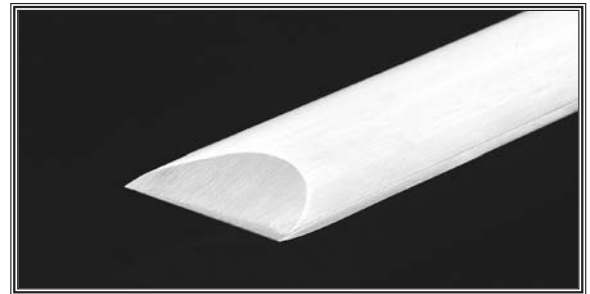


Figure 16. Example of a skew chisel.



Figure 17. Example of a round nose scraper.



Figure 18. Example of a parting tool.

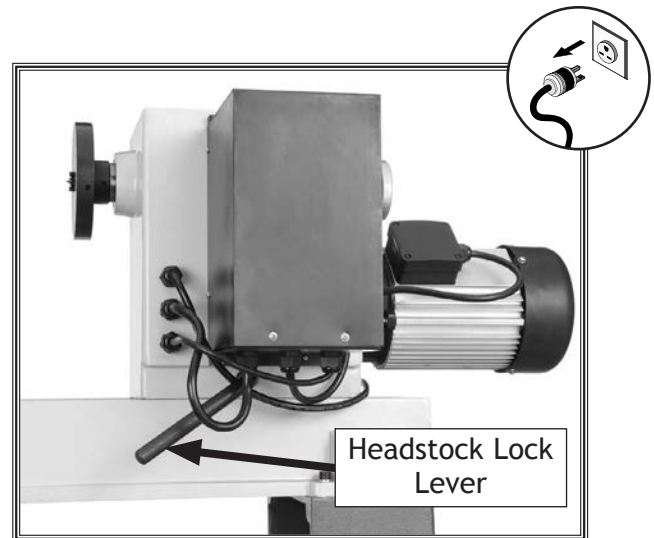
## Adjusting Headstock

The Model W1852 headstock is equipped with a cam-action clamping system to secure it to the lathe bed. When the lever is tightened, a locking plate lifts up underneath the bed and secures the headstock in place. The headstock can be positioned anywhere along the lathe bed.

To position headstock along length of bed, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Loosen headstock lock lever (see **Figure 19**).
3. Slide headstock to desired location on bed, and use headstock lock lever to secure headstock in position.

**Note:** The large clamping hex nut underneath the headstock will require occasional adjusting to ensure proper clamping pressure of the headstock to the bed. Turn this hex nut in small increments to fine tune the clamping pressure as needed.



**Figure 19.** Headstock lock lever location.

### WARNING

Always operate lathe with headstock firmly locked to bed. Otherwise, serious personal injury may occur, as workpiece or faceplate could shift during operation or be ejected from lathe.

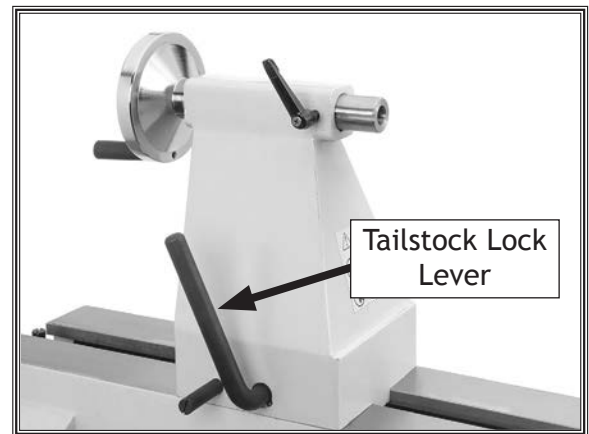
## Adjusting Tailstock

The tailstock adjusts in the same manner as the headstock.

To position tailstock along length of bed, do these steps:

1. Loosen tailstock lock lever and move tailstock to desired position along bed, as shown in **Figure 20**.
2. Re-tighten tailstock lock lever to secure tailstock to bed.

**Note:** The large clamping hex nut underneath the tailstock will require occasional adjusting to ensure proper clamping pressure of the tailstock to the bed. Turn this hex nut in small increments to fine tune the clamping pressure as needed.



**Figure 20.** Tailstock lock lever location.

### WARNING

Always operate lathe with tailstock firmly locked to bed. Otherwise, serious personal injury may occur by tailstock moving during operation and workpiece being ejected at high speed.

# Adjusting Tool Rest

The tool rest assembly consists of two components: the tool rest base (or banjo) and the tool rest. The tool rest base moves forward/backward and along the length of the lathe bed. The tool rest rotates and moves up and down in the tool rest base. Locks for both components allow you to secure the tool rest in position as needed after making these adjustments.

When adjusting the tool rest, position it as close as possible to the workpiece without actually touching it. This maximizes support where the cutting occurs and minimizes leverage, reducing the risk of injury if a "catch" occurs.

Many woodturners typically set the height of the tool rest  $\frac{1}{8}$ " above or below the centerline of the workpiece, depending on their height, the type of tool they're using, and the type of operation they're performing.

**As a rule of thumb:** For most (spindle) turning operations, the cutting tool should contact the workpiece slightly above centerline. For most inside (bowl) turning operations, the cutting tool should contact the workpiece slightly below centerline.

Keeping all these factors in mind, your main goal when adjusting the tool rest should be providing maximum support for the type of tool being used, in a position that is safe and comfortable for you.

To position tool rest forward/backward and along the length of the bed, do these steps:

1. Loosen tool rest base lock lever and move tool rest assembly to desired position on lathe bed, as shown in **Figure 21**.

**Note:** To maximize support, the tool rest base should always be locked on both sides of the bed. Never pull the tool rest so far back that it is only secured on one side.

2. Re-tighten tool rest base lock lever to secure tool rest assembly in position.

**Note:** The large clamping hex nut underneath the tool rest base will require occasional adjusting to ensure proper clamping pressure of the tool rest assembly to the bed. Turn this hex nut in small increments to fine tune the clamping pressure as needed.

## ! WARNING

Improperly supported or positioned cutting tools can "catch" on workpiece, ejecting tool from your hands with great force. To reduce this risk, always ensure tool rest is properly positioned for each type of operation, cutting tool is firmly supported against tool rest **BEFORE** cutting, and cutting tool is properly positioned to cut at the correct angle for tool and operation type.

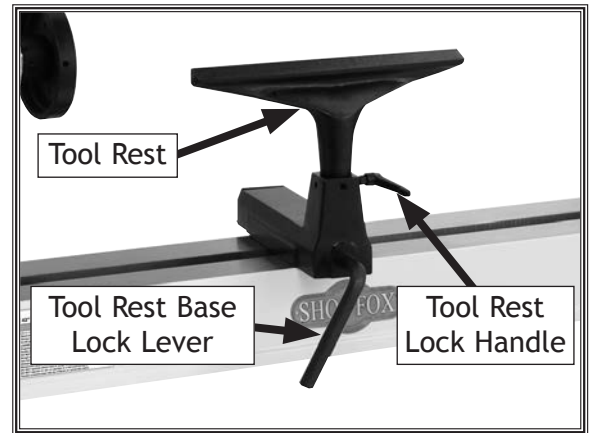


Figure 21. Tool rest controls.

## ! WARNING

Always operate lathe with tool rest assembly firmly locked in position. Otherwise, serious personal injury may occur by tool being pulled from operator's hands.

To adjust angle or height of tool rest, do these steps:

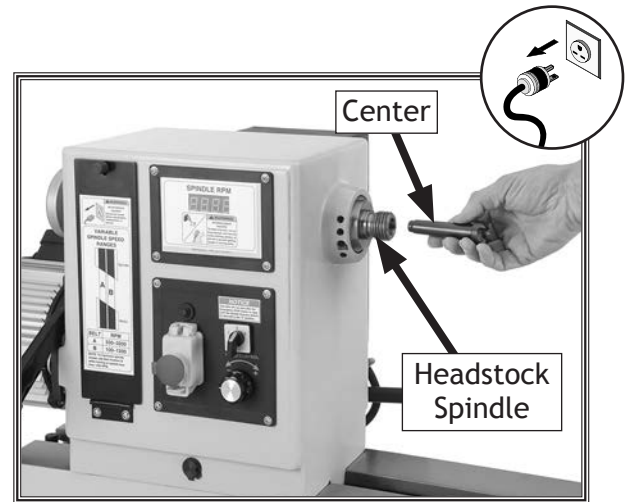
1. Loosen tool rest lock handle (see **Figure 21**).
2. Position tool rest in desired location.
3. Re-tighten tool rest lock handle to secure tool rest in position.

# Installing/Removing Headstock Center

The included spur center installs in the headstock spindle with an MT#2 tapered fit.

## Installing Headstock Center

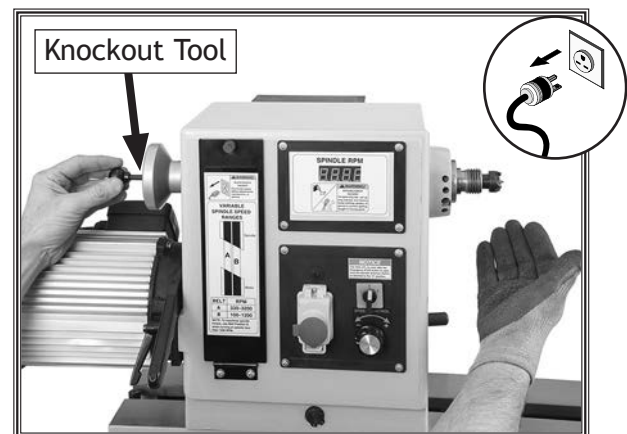
1. DISCONNECT MACHINE FROM POWER!
2. Make sure mating surfaces of center and spindle are free of debris and oily substances before inserting center to ensure a good fit and reduce runout.
3. Insert tapered end of center into spindle, and push it in with a quick, firm motion, as shown in **Figure 22**.
4. Make sure center is securely installed by attempting to pull it out by hand—a properly installed center will *not* pull out easily.



**Figure 22.** Installing center in headstock spindle.

## Removing Headstock Center

1. DISCONNECT MACHINE FROM POWER!
2. Hold a clean rag under spindle or wear leather glove to catch center when you remove it.
3. Insert knockout tool through outbound end of spindle and firmly tap back of center, catching it as it falls, as shown in **Figure 23**.



**Figure 23.** Removing the headstock center.

# Installing/Removing Tailstock Center

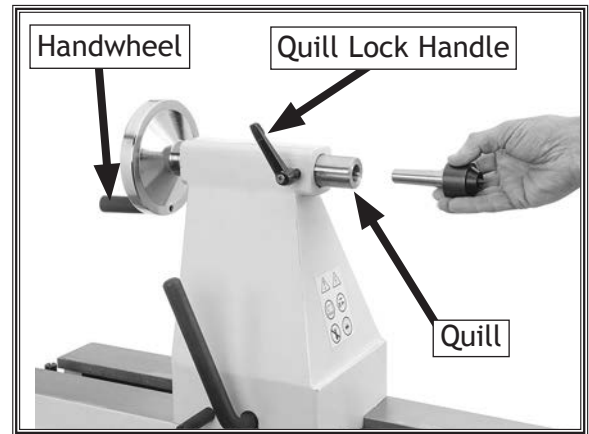
The included live center installs into the tailstock quill with an MT#2 tapered fit.

## Installing Tailstock Center

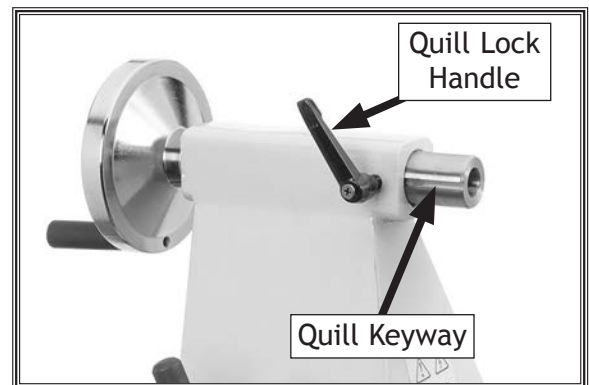
1. Loosen quill lock handle, and rotate handwheel until quill extends about 1", as shown in **Figure 24**.
2. Make sure mating surfaces of center and quill are free of debris and oily substances before inserting center to ensure a good fit and reduce runout.
3. Firmly insert tapered end of center into tailstock quill, as shown in **Figure 24**.
4. Make sure center is securely installed by attempting to pull it out by hand—a properly installed center will not pull out easily.
5. Make sure center of quill lock handle is aligned with quill keyway to ensure tailstock center and quill will not freely rotate under load (see **Figure 25**).
6. Secure quill in place by re-tightening quill lock handle.

## Removing Tailstock Center

1. Loosen quill lock handle.
2. Hold a clean rag under spindle or wear a glove to catch center when you remove it.
3. Rotate handwheel counterclockwise—tailstock quill will retract back into quill, causing center to be forced out.



**Figure 24.** Installing center into tailstock quill.



**Figure 25.** Quill lock handle aligned with quill keyway.

## WARNING

Tailstock quill must always be locked in place during lathe operation. Before tightening quill lock handle, it must be properly aligned with quill keyway. Otherwise, workpiece can be thrown from lathe causing serious personal injury or death.



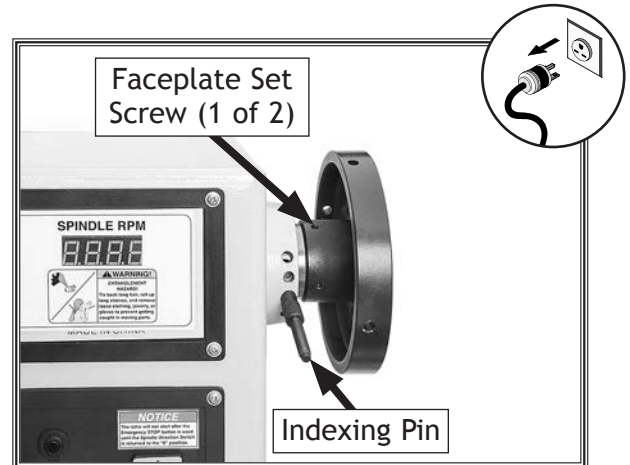
# Installing Faceplate

Tool Needed	Qty
Hex Wrench 4mm .....	1

To install faceplate, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Insert indexing pin into an indexing hole and rotate spindle until pin engages to prevent spindle from turning while you tighten faceplate, as shown in **Figure 26**.
3. Thread faceplate onto spindle until it is snug.
4. Tighten two set screws along inside diameter of faceplate to secure it to spindle (see **Figure 26**).

**Note:** To remove faceplate, disconnect lathe from power source and perform steps above in reverse.



**Figure 26.** Locking spindle with indexing pin and faceplate set screw.

## ! WARNING

To prevent faceplate and workpiece separating from spindle during operation, headstock faceplate **MUST** be firmly threaded onto spindle and secured in place by fully tightening the two faceplate set screws. If these instructions are not properly performed, serious personal injury could occur.

# Changing Speed Ranges

The Model W1852 pulley belt configurations provide two speed ranges (see Figure 28).

**Note:** To maximize spindle torque, use low spindle speed range for spindle speeds of 1200 RPM or less.

Refer to speed recommendations chart in Figure 27 to choose appropriate RPM for your operation. Then choose speed range that will include selected RPM.

Diameter of Work-piece	Roughing RPM	General Cutting RPM	Finishing RPM
Under 2"	1520	3200	3200
2-4"	760	1600	2480
4-6"	510	1080	1650
6-8"	380	810	1240
8-10"	300	650	1000
10-12"	255	540	830
12-14"	220	460	710
14-16"	190	400	620

Figure 27. Model W1852 speed recommendations.

To change speed ranges, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Open front belt access cover, as shown in Figure 29.

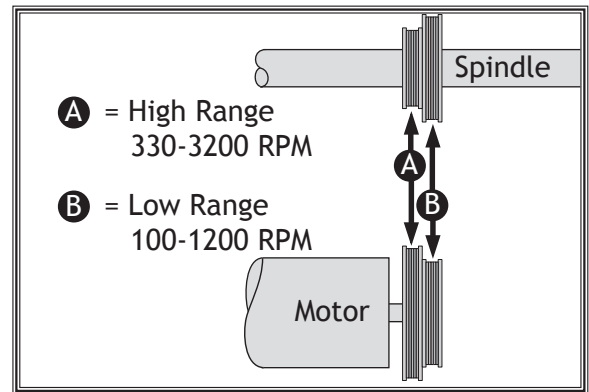


Figure 28. Speed range belt positions.

## ⚠ WARNING

Always choose correct spindle speed for an operation. Using wrong speed may lead to workpiece being thrown at high speed, causing fatal or severe impact injuries.

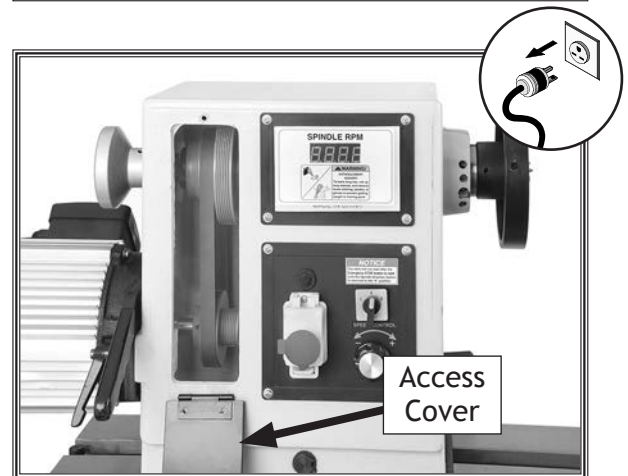


Figure 29. Belt access cover removed.



3. Loosen belt tension lock handle (see Figure 30).
4. Use belt tension lever (see Figure 30) to lift motor assembly all the way up, then re-tighten belt tension lock handle—this will hold motor in place while you change belt position.

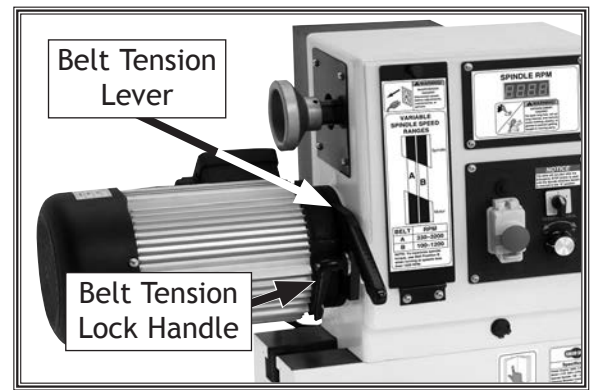


Figure 30. Motor tensoning handle and tension lock handle.

5. Reach into belt access cavity and roll belt onto desired set of pulleys, as shown in Figure 31.
6. Loosen belt tension lock handle and lower motor.

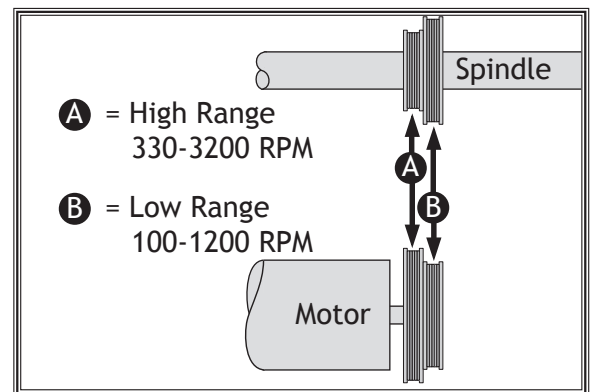


Figure 31. Speed range belt positions.

7. Apply downward pressure on belt tension lever to properly tension drive belt, then re-tighten belt tension lock handle.

**Note:** When properly tensioned, belt should deflect about  $\frac{1}{8}$ " when moderate pressure is applied to belt mid-way between upper and lower pulley, as shown in Figure 32.

8. Replace front belt access cover.

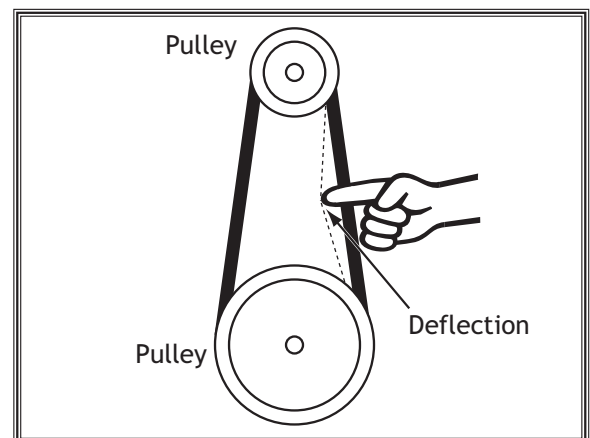


Figure 32. Testing for  $\frac{1}{8}$ " belt deflection.

# Using Indexing Feature

Indexing on a lathe is typically used for workpiece layout and other auxiliary operations that require equal distances around the workpiece circumference, such as clock faces or inlays.

By inserting the indexing pin into one of the four outer indexes of the spindle housing and engaging one of the 12 inner indexes in the spindle, the workpiece can be positioned in 10° increments, as shown in Figures 33-34.

## CAUTION

Always disconnect lathe from power before using indexing feature. DO NOT start lathe with indexing pin inserted into spindle; otherwise entanglement injury and property damage could occur.

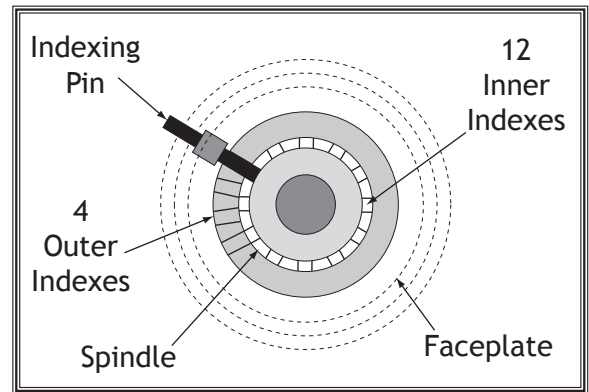


Figure 33. Model W1852 indexing configuration.

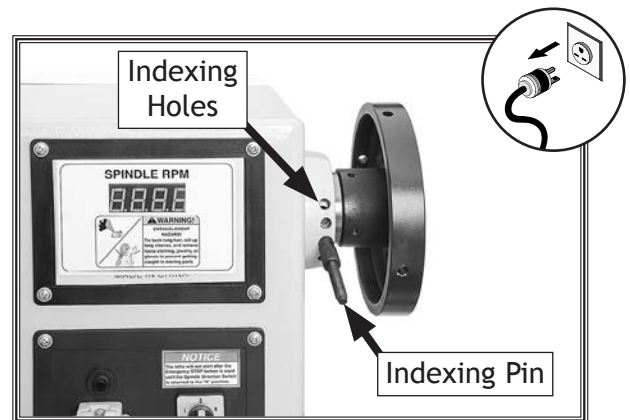


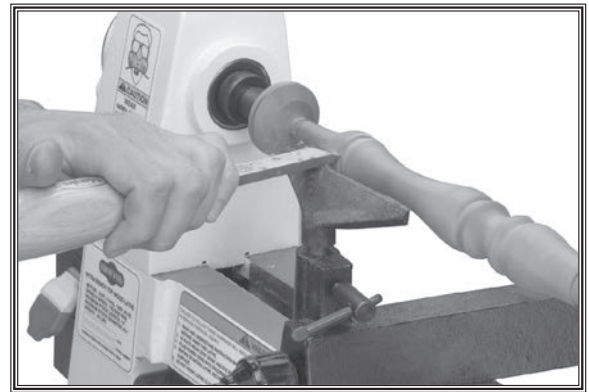
Figure 34. Indexing pin and indexing holes.

# Spindle Turning

Spindle turning is the operation performed when a workpiece is mounted between the headstock and the tailstock, as shown in **Figure 35**. Bowls, table legs, tool handles, and candlesticks are typical projects where this operation is used.

## WARNING

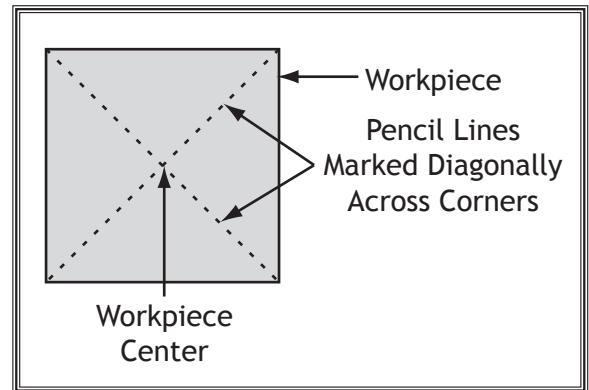
Damage to your eyes and lungs could result from using this machine without proper protective gear. Always wear safety glasses, a face shield, and a respirator when operating this machine.



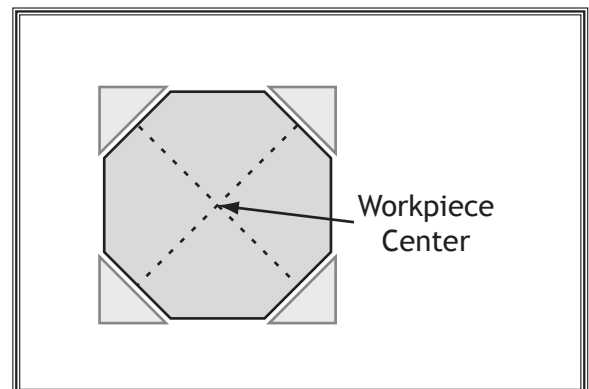
**Figure 35.** Example of typical spindle turning operation.

To set up a spindle turning operation, do these steps:

1. Find center point of both ends of your workpiece by drawing diagonal lines from corner to corner across end of workpiece, as shown in **Figure 36**.
2. Make a center mark by using a wood mallet and tapping point of spur center into center of workpiece on both ends.
3. Using a  $\frac{1}{4}$ " drill bit, drill a  $\frac{1}{4}$ " deep hole at center mark on end of the workpiece to be mounted on headstock spur center.
4. To help embed spur center into workpiece, cut  $\frac{1}{8}$ " deep saw kerfs in headstock end of workpiece along diagonal lines marked in **Step 1**.
5. If your workpiece is over 2" x 2", cut corners off workpiece lengthwise to make turning safer and easier (see **Figure 37**).



**Figure 36.** Workpiece marked diagonally from corner to corner to determine the center.

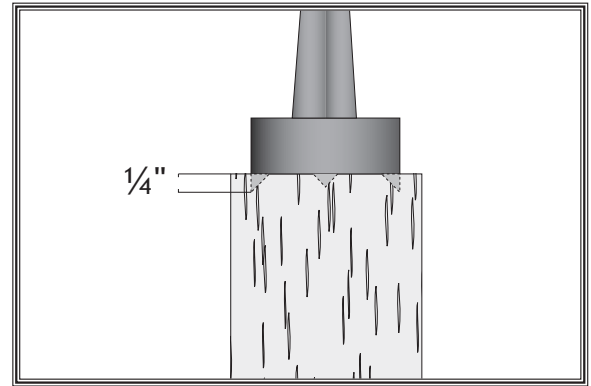


**Figure 37.** Corners of workpiece removed.

6. Drive spur center into end center mark of workpiece with a wood mallet to embed it at least  $\frac{1}{4}$ " into workpiece, as shown in **Figure 38**.
7. With workpiece still attached, insert spur center into headstock spindle (refer to **Installing/Removing Headstock Center** on **Page 27** for additional instructions).

**Note:** Use tool rest to support opposite end of workpiece so that workpiece and spur center do not separate during installation.

8. Install live center into tailstock quill and tighten quill lock handle to lock quill in position (refer to **Page 28** for additional instructions).
9. Slide tailstock toward workpiece until point of live center touches workpiece center mark, then lock tailstock in this position.
10. Loosen quill lock handle and rotate tailstock handwheel to push live center into workpiece at least  $\frac{1}{4}$ ".
11. Properly adjust tool rest to workpiece (see **Adjusting Tool Rest** on **Page 26**).
12. Before beginning lathe operation, rotate workpiece by hand to ensure there is safe clearance on all sides.



**Figure 38.** Spur center properly embedded.

## **WARNING**

Do not press the workpiece too firmly with the tailstock or the bearings will bind and overheat. Do not adjust the tailstock too loosely or the workpiece will spin off the lathe. Use good judgment and care, otherwise, serious personal injury could result from the workpiece being ejected at high speeds.

## **WARNING**

Keep lathe tool resting on tool rest the ENTIRE time it is in contact with workpiece or when preparing to make contact between lathe tool and workpiece. Otherwise, spinning workpiece could force lathe tool out of your hands or entangle your hands with workpiece. Failure to heed this warning could result in serious personal injury.

## Spindle Turning Tips:

- When turning the lathe **ON**, stand away from the path of the spinning workpiece until the spindle reaches full speed and you can verify that the workpiece will not come loose.
- Use the slowest speed when starting or stopping the lathe.
- Select the right speed for the size of workpiece that you are turning (refer to **Figure 27** on **Page 30**).
- Keep the turning tool on the tool rest the **ENTIRE** time that it is in contact with the workpiece.
- Learn the correct techniques for each tool you will use. If you are unsure about how to use the lathe tools, read books or magazines about lathe techniques, and seek training from experienced and knowledgeable lathe users.

## Faceplate Turning

Faceplate turning is when a workpiece is mounted to the faceplate, which is then mounted to the headstock spindle, as shown in **Figure 39**. This type of turning is usually done with open-faced workpieces like bowls or plates.

### Mounting Workpiece on Faceplate

1. Mark workpiece center in same manner as described in **Spindle Turning** (see **Page 33**).

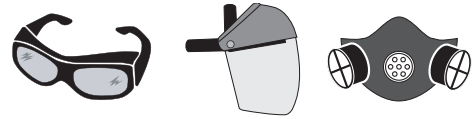
**Note:** Cut off corners of workpiece to make it as close to "round" as possible, as described in **Spindle Turning, Step 5** (see **Page 33**).

2. Center faceplate on workpiece and attach it (see **Figure 40**) with wood screws.

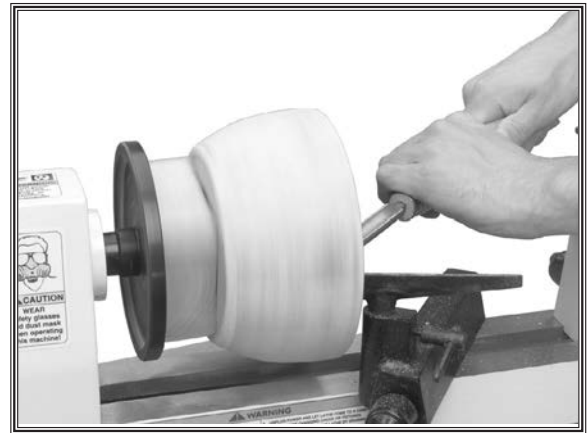
## NOTICE

Only use screws with non-tapered heads (see **Figure 41**) to attach faceplate to the workpiece. Screws with tapered heads can split faceplate or snap off during operation.

## WARNING



To reduce the risk of eye injury and long-term respiratory damage, always wear safety glasses, face shield and a respirator while operating machine.



**Figure 39.** Example of faceplate turning operation.



**Figure 40.** Example of attaching faceplate to workpiece.

3. Thread and secure faceplate onto headstock spindle (refer to **Installing Faceplate** on **Page 29**).
  - If wood screws cannot be placed in workpiece, faceplate can be mounted to a backing block attached to workpiece (see **Mounting the Workpiece to a Backing Block**).

### Mounting Workpiece to Backing Block

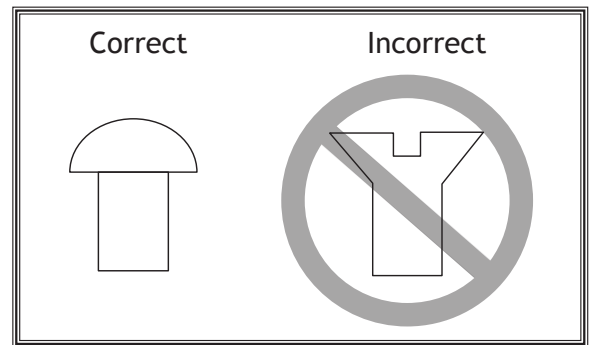
1. Make backing block from a suitable size piece of scrap wood.

**Note:** *Faces of backing block must be flat and parallel to each other, or uneven surfaces will cause workpiece to spin eccentrically, causing unnecessary vibration and runout. It is best to mount backing block to faceplate and turn other surface flat prior to mounting.*

2. Locate and mark center of workpiece and backing block.
3. Drill a  $\frac{1}{4}$ " hole through center of backing block.
4. Look through hole in backing block to line up center with workpiece and glue and clamp backing block to workpiece.

**Note:** *Allow glue to cure according to manufacturer's instructions.*

5. Follow Steps 1-3 under **Mounting Workpiece on Faceplate** (see **Page 35**) to attach backing block to faceplate.



**Figure 41.** Correct and incorrect screw types.

## Outboard Turning

Outboard turning is a variation of faceplate turning and is accomplished with the headstock positioned so the faceplate is not directly over the bed, allowing a larger turning capacity than the swing specification of the lathe.

The only way to rotate the headstock on this machine is to remove it from the bed first, which can be a heavy and cumbersome task. A much simpler alternative to removing the headstock is to remove the tailstock and slide the headstock to the other end of the bed. This will position the spindle so it is not directly over the bed whereby outboard turning can safely be accomplished.

To outboard turn, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Remove tailstock and tool base from machine by removing hex nuts and clamp washers located underneath assemblies, then lifting them from lathe bed.
3. Loosen headstock, then move it all the way to tail end of lathe bed, as shown in **Figure 42**.
4. Re-tighten headstock to bed.

### WARNING

When outboard turning, ALWAYS use a floor-mounted tool rest and keep tool in contact with rest during all turning operations. Failure to do so could cause tool to be pulled out of operator's control and ejected at high speed.

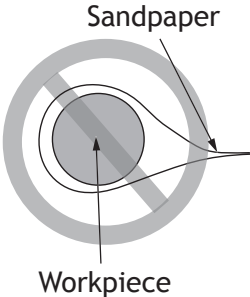


**Figure 42.** Example of lathe prepared for outboard turning.

## Sanding/Finishing

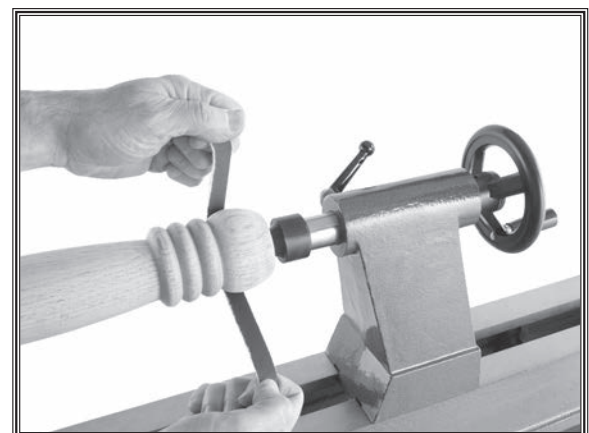
After the turning operations are complete, the workpiece can be sanded and finished before removing it from the lathe, as shown in **Figure 43**.

**Note:** Whenever sanding or finishing, move tool rest holder out of the way to increase personal safety and gain adequate working room.



### WARNING

Wrapping sandpaper completely around workpiece could pull your hands into moving workpiece and may cause serious injury. Never wrap sandpaper or finishing materials completely around workpiece.



**Figure 43.** Example of typical sanding operation.



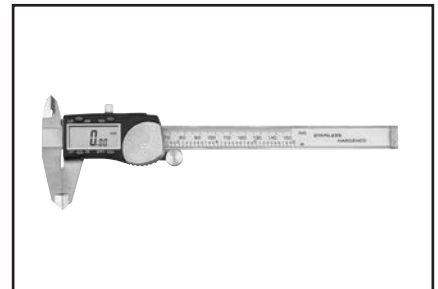
# ACCESSORIES

The following wood lathe 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: 1-800-545-8420 or at [sales@woodstockint.com](mailto:sales@woodstockint.com).

The **D4103 Mini Lathe Chuck with Arbors** is a "must have" for the serious wood turner. This 2" diameter 3-jaw mini lathe chuck is a self-centering scroll type chuck with reversible jaws. Includes MT#1 and MT#2 arbors and wrenches.



The **Model D4042 6" Digital Caliper** lets you switch between decimal and fractional inches and millimeters. Large digital readout makes precision measurements easy with a resolution of 0.0005". Features include hardened stainless-steel jaws and beam, thumb roll, lock knob, zero reset button, and an absolute and relative measurement function.



The **D2304 Steelex Plus 6-Piece Deluxe Lathe Chisel Set** features beefy ash handles for unsurpassed control, brass ferrules, and high-speed steel blades. Includes: a 17" long  $\frac{13}{16}$ " parting tool,  $\frac{13}{16}$ " round nose,  $\frac{3}{8}$ " gouge, 19" long 1" skew,  $\frac{5}{8}$ " gouge, and a  $22\frac{3}{4}$ " long  $\frac{3}{8}$ " gouge. Comes in a beautiful red blow-molded carrying case.



The **D2250 Steelex 5-Piece Turning Chisel Set** is for those fine detail turning operations. This set features well balanced hardwood handles and high carbon steel cutting edges. Includes: a  $\frac{1}{16}$ " radius gouge,  $\frac{1}{8}$ " radius gouge,  $\frac{3}{16}$ " parting tool,  $\frac{1}{4}$ " spear point, and a  $\frac{1}{4}$ " skew. All tools are  $10\frac{1}{2}$ " overall in length.





## Model W1852 (For Machines Mfd. Since 11/17)

The **D4058 3-Pc. HSS Lathe Chisel Set** is ideal for bowl turning and detail work. Each chisel measures roughly 16" long, with 10" ash handles, and the high-speed steel blades measure a full  $\frac{7}{32}$ " thick! The set includes one round, one curved, and one 90° corner chisel. Chisel set is protected in a fitted wooden box.



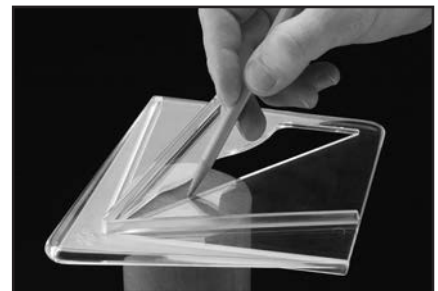
The **D3781 4-Pc. HSS Beading Lathe Chisel Set** turns beaded spindles with ease. Perfectly ground half-round profiles include  $\frac{1}{8}$ ",  $\frac{1}{4}$ ",  $\frac{5}{16}$ ", and  $\frac{3}{8}$ " diameters. Tapered sides allow closely-spaced, multiple beads for complete design flexibility. Naturally finished ash handles measure  $8\frac{7}{8}$ " and the high-speed steel blades measure  $5\frac{1}{8}$ " long (the  $\frac{1}{8}$ " beaded chisel blade measures 4" long).



The **D4596 5 Pc. Woodworking Caliper Set** includes compass, straight dividers, inside calipers, outside calipers, and inside/outside capliers. Perfect for wood turning and general layout work.



Find the center of round or square stock for lathe turning with the **D3098 Center Finder**. One side locates a diagonal line on square stock up to 8" x 8", and the other side locates a diagonal line on round stock up to  $4\frac{1}{2}$ " in diameter. Marking two opposite diagonal lines determines the center point. It's that simple!



# MAINTENANCE

## General

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

### Ongoing

- Loose faceplate or mounting bolts.
- Damaged center or tooling.
- Worn or damaged wires.
- Loose machine components.
- Any other unsafe condition.

### Daily Check

- Clean off dust buildup.
- Clean and lubricate lathe bed, spindle, and quill.

### Monthly Check

- Belt tension, damage, or wear.
- Clean out dust buildup from inside belt/pulley cavity.

## Cleaning & Protecting

Cleaning the Model W1852 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Protect the unpainted cast-iron bed by wiping it clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep your bed rust-free with regular applications of quality lubricants.

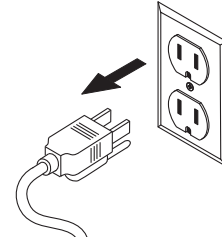
## Lubrication

All bearings for the Model W1852 are lubricated and sealed at the factory, and do not need additional lubrication.

Wipe a lightly oiled shop rag on the outside of the headstock spindle. DO NOT allow any oil to get on the inside mating surfaces of the spindle.

Use the tailstock handwheel to extend the quill out to the furthest position and apply a thin coat of white lithium grease to the outside of the quill. DO NOT allow any oil or grease to get on the inside mating surfaces of the quill.

## WARNING



**MAKE SURE** that your machine is unplugged during all maintenance procedures! If this warning is ignored, serious personal injury may occur.

## Tailstock

To disassemble the tailstock for cleaning, loosen the set screw above the handwheel, then completely unthread the handwheel from the threads of the quill. Except for the live center, thoroughly clean all of the unpainted parts with mineral spirits and apply a thin coat of light machine oil to these surfaces.

When re-assembling the tailstock, thread the handwheel back onto the quill, tighten down the set screw that secures it, then back the screw off one full turn so that the handwheel can freely rotate.

# 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](mailto:techsupport@woodstockint.com).

## Aligning Pulleys

The motor and spindle pulleys are aligned at the factory and should not require any adjustment. If they become misaligned over time, it is important that they be re-aligned in order to extend belt life and maximize the transfer of power from the motor to the spindle.

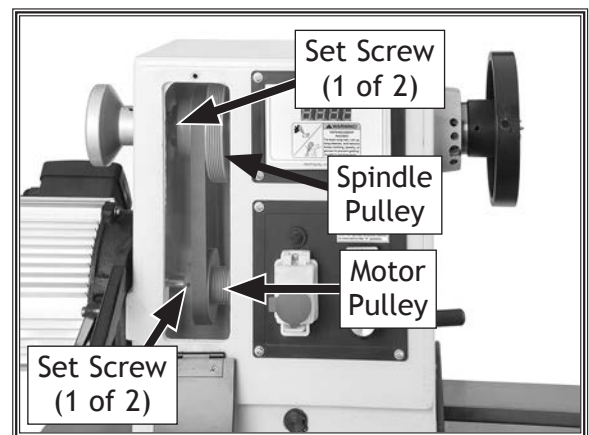
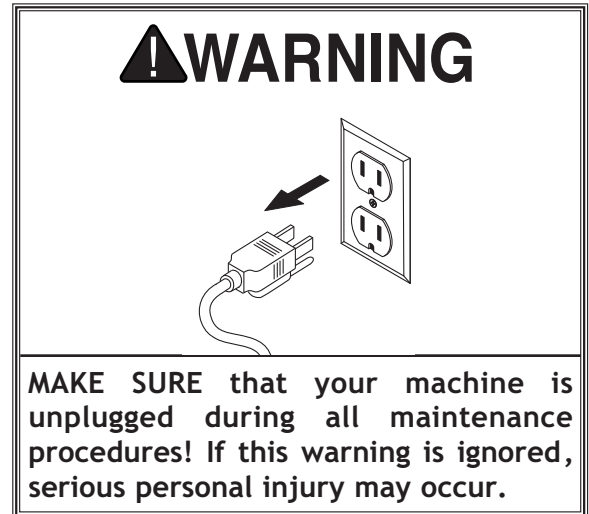
Tool Needed	Qty
Hex Wrench 4mm .....	1

To align motor and spindle pulleys, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Open belt access cover.
3. Loosen (2) M8-1.25 x 10 set screws on spindle pulley (see Figure 44).
4. Slide spindle pulley into alignment with motor pulley.

**Note:** When pulleys are properly aligned, there should be no unusual or pulsing sounds coming from the belt.

5. Tighten set screws.



**Figure 44.** Location of motor and spindle pulleys.

# Changing/Tensioning Belt

Over time, the belt will slightly wear and stretch, eventually losing its efficiency of transmitting power, and will require re-tensioning. A new belt typically has a break-in period and should be checked/re-tensioned after the first 16 hours of belt life, as it will stretch during this time.

To change/replace belt, do these steps:

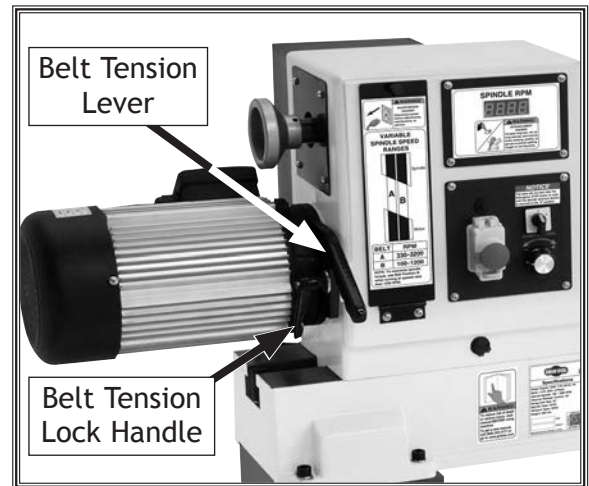
1. DISCONNECT MACHINE FROM POWER!
2. Open front belt access cover (see **Figure 45**).
3. Loosen belt tension lock handle (see **Figure 46**).
4. Use belt tension lever (see **Figure 46**) to lift motor assembly all the way up, then re-tighten motor tension lock handle—this will hold motor in place while you change belt position.
5. Reach into belt access cavity and roll belt off motor (lower) pulleys, then pull belt off spindle pulleys and through side of headstock.
6. Install new belt by performing **Step 5** in reverse.
7. Apply downward pressure on belt tension lever to properly tension drive belt, then re-tighten belt tension lock handle.

**Note:** When properly tensioned, belt should deflect about  $\frac{1}{8}$ " when moderate pressure is applied to belt mid-way between upper and lower pulley, as illustrated in **Figure 47**.

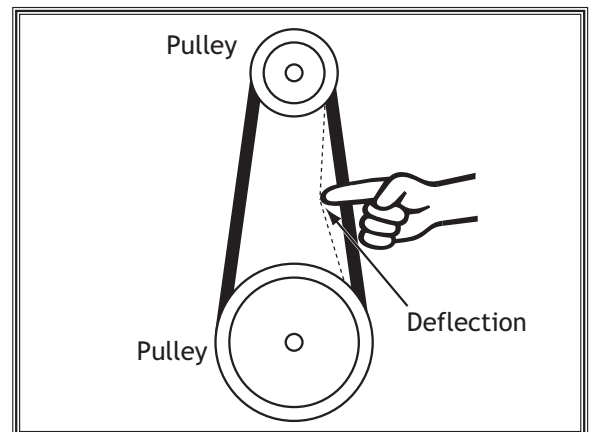
8. Ensure belt ribs are fully seated in pulley grooves, then secure front belt access cover.



**Figure 45.** Belt access cover opened.



**Figure 46.** Location of belt tension lever and belt tension lock handle.



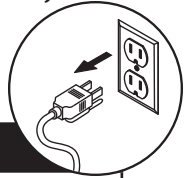
**Figure 47.** Testing for  $\frac{1}{8}$ " belt deflection.

# 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.

## Motor and Electrical



PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Machine does not start or immediately shuts down after startup.	<ol style="list-style-type: none"> <li>1. Emergency stop button depressed/at fault.</li> <li>2. Incorrect power supply voltage or circuit size.</li> <li>3. Power supply circuit breaker tripped or fuse blown.</li> <li>4. Motor wires connected incorrectly.</li> <li>5. Wiring open/has high resistance.</li> <li>6. ON/OFF switch at fault.</li> <li>7. Potentiometer/variable-speed dial controller at fault.</li> <li>8. Inverter/control box at fault.</li> <li>9. Motor at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press side tab in and lift switch cover. Press ON button to reset; replace if not working properly.</li> <li>2. Ensure correct power supply voltage and circuit size.</li> <li>3. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse.</li> <li>4. Correct motor wiring connections.</li> <li>5. Check/fix broken, disconnected, or corroded wires.</li> <li>6. Replace switch.</li> <li>7. Test/replace.</li> <li>8. Inspect inverter/controller box; replace.</li> <li>9. Test/repair/replace.</li> </ol>
Machine stalls or is underpowered.	<ol style="list-style-type: none"> <li>1. Machine undersized for task.</li> <li>2. Workpiece material not suitable for machine.</li> <li>3. Feed rate/cutting speed too fast.</li> <li>4. Belt slipping.</li> <li>5. Oil/grease on belt(s).</li> <li>6. Motor wired incorrectly.</li> <li>7. Plug/receptacle at fault.</li> <li>8. Motor overheated.</li> <li>9. Pulley slipping on shaft.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use sharp chisels; reduce feed rate/depth of cut.</li> <li>2. Ensure workpiece moisture is below 20%.</li> <li>3. Decrease feed rate/cutting speed.</li> <li>4. Tension/replace belt; ensure pulleys are aligned.</li> <li>5. Clean belt.</li> <li>6. Wire motor correctly.</li> <li>7. Test for good contacts/correct wiring.</li> <li>8. Clean motor, let cool, and reduce workload.</li> <li>9. Replace loose pulley/shaft; tighten pulley set screws.</li> </ol>
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> <li>1. Motor or component loose.</li> <li>2. Belt worn or loose.</li> <li>3. Motor fan rubbing on fan cover.</li> <li>4. Motor mount loose/broken.</li> <li>5. Pulley loose.</li> <li>6. Machine incorrectly mounted or sits unevenly on floor.</li> <li>7. Motor bearings at fault.</li> <li>8. Belt slapping cover.</li> <li>9. Workpiece/faceplate at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect/replace damaged bolts/nuts, and retighten with thread-locking fluid.</li> <li>2. Inspect/replace belt.</li> <li>3. Fix/replace fan cover; replace loose/damaged fan.</li> <li>4. Tighten/replace.</li> <li>5. Re-align/replace shaft, pulley set screw, and key.</li> <li>6. Tighten/replace anchor studs in floor; relocate/shim machine; adjust feet.</li> <li>7. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> <li>8. Replace/realign belt.</li> <li>9. Center workpiece in chuck/faceplate; reduce RPM.</li> </ol>

## Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Bad surface finish.	<ol style="list-style-type: none"> <li>1. Spindle speed wrong.</li> <li>2. Dull tooling or wrong tool selection.</li> <li>3. Tool height not at spindle centerline.</li> <li>4. Belt bad.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust for appropriate spindle speed.</li> <li>2. Sharpen tooling or select a better tool for intended operation.</li> <li>3. Adjust tool rest so tool is even with spindle centerline.</li> <li>4. Replace belt.</li> </ol>
Excessive vibration upon startup (when workpiece is installed).	<ol style="list-style-type: none"> <li>1. Workpiece is mounted incorrectly.</li> <li>2. Workpiece warped, out of round, or flawed.</li> <li>3. Spindle speed too fast for workpiece.</li> <li>4. Workpiece hitting stationary object.</li> <li>5. Headstock, tailstock, or tool rest not securely clamped to lathe bed.</li> <li>6. Belt pulleys are not properly aligned.</li> <li>7. Lathe resting on an uneven surface.</li> <li>8. Motor mount bolts loose.</li> <li>9. Belt worn or damaged.</li> <li>10. Spindle bearings worn or damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remount workpiece, making sure that centers are embedded in true center of workpiece.</li> <li>2. Cut workpiece to correct, or use different workpiece.</li> <li>3. Reduce spindle speed (<b>Page 35</b>).</li> <li>4. Stop lathe and fix interference problem.</li> <li>5. Check clamp levers and tighten if necessary (<b>Pages 29-30</b>).</li> <li>6. Align belt pulleys (<b>Page 49</b>).</li> <li>7. Shim stand or adjust feet to eliminate wobbles.</li> <li>8. Tighten motor mount bolts.</li> <li>9. Replace belt (<b>Page 48</b>).</li> <li>10. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> </ol>
Chisels grab or dig into workpiece.	<ol style="list-style-type: none"> <li>1. Wrong chisel/tool is being used.</li> <li>2. Chisel/tool dull.</li> <li>3. Tool rest set too low.</li> <li>4. Tool rest set too far from workpiece.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use correct chisel/tool.</li> <li>2. Sharpen or replace chisel/tool.</li> <li>3. Set tool rest higher.</li> <li>4. Move tool rest closer to workpiece.</li> </ol>
Tailstock moves under load.	<ol style="list-style-type: none"> <li>1. Tailstock mounting bolt is loose.</li> <li>2. Bed surface is oily or greasy.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten mounting bolt.</li> <li>2. Clean bed surface to remove excess oil/grease.</li> </ol>
Spindle lacks turning power or starts up slowly.	<ol style="list-style-type: none"> <li>1. Belt slipping.</li> <li>2. Pulleys loose.</li> <li>3. Workpiece too heavy for spindle.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten/adjust belt.</li> <li>2. Tighten pulley set screw; re-align/replace shaft, pulley set screw, and key.</li> <li>3. Remove excess material before remounting; use lighter workpiece.</li> </ol>
Quill will not move forward when handwheel is turned.	<ol style="list-style-type: none"> <li>1. Keyway not aligned with quill lock lever.</li> </ol>	<ol style="list-style-type: none"> <li>1. Align quill keyway and quill lock lever and slightly tighten lever to engage keyway.</li> </ol>



# Electrical Safety Instructions

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (360) 734-3482 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

## ⚠ WARNING

**SHOCK HAZARD.** Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

**QUALIFIED ELECTRICIAN.** Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.

**WIRE CONNECTIONS.** All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

**WIRE/COMPONENT DAMAGE.** Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components before completing the task.

**MODIFICATIONS.** Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.

**MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.

**CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

**CIRCUIT REQUIREMENTS.** You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

**EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (360) 734-3482.

### NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at [www.shopfox.biz](http://www.shopfox.biz).

### WIRING DIAGRAM COLOR KEY

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	TURQUOISE — Tu
RED — Rd	ORANGE — Or	PINK — Pk	

# Electrical Components

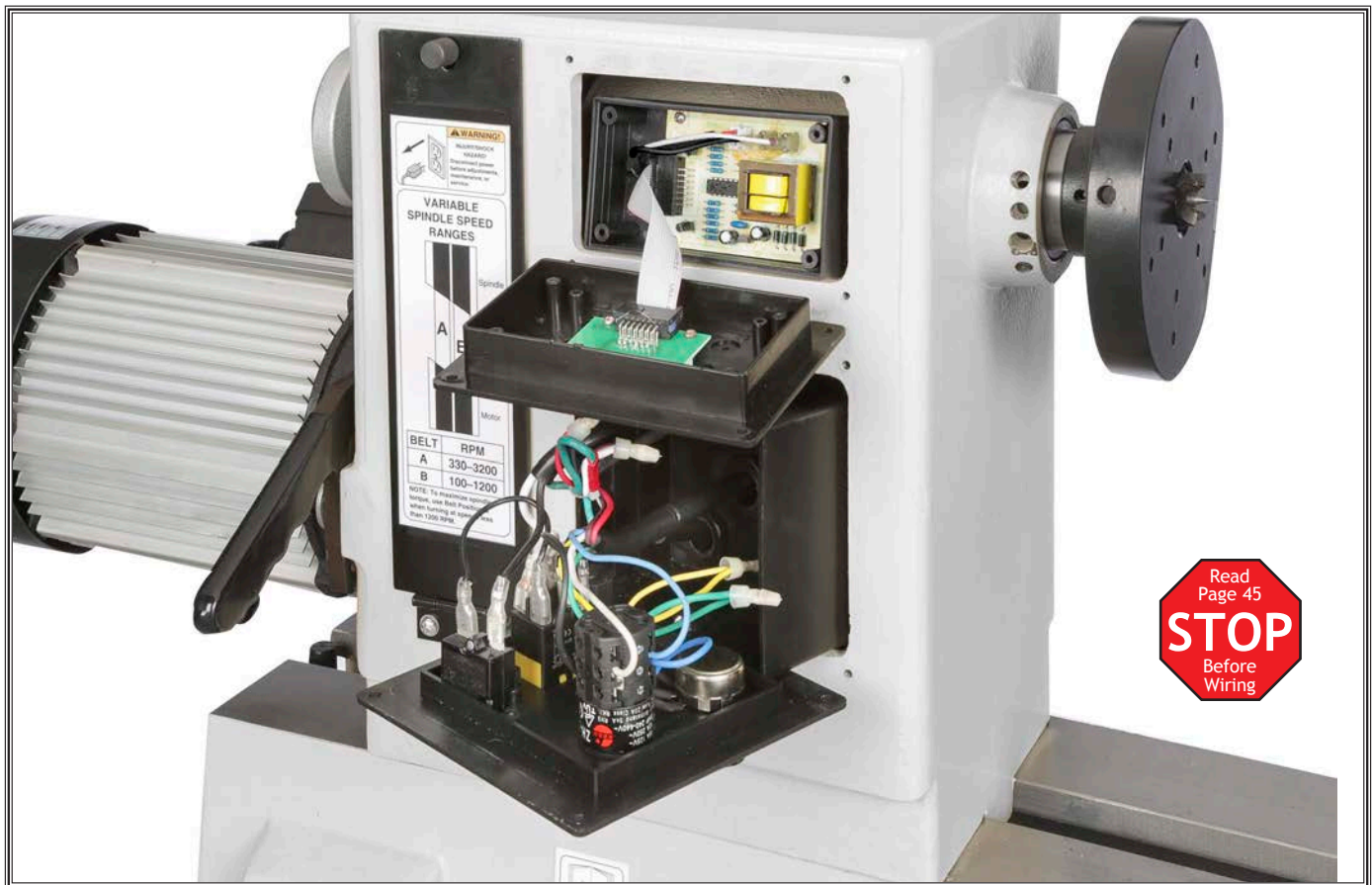
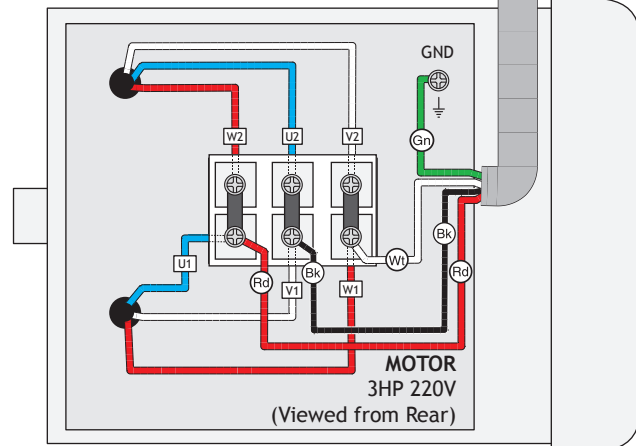
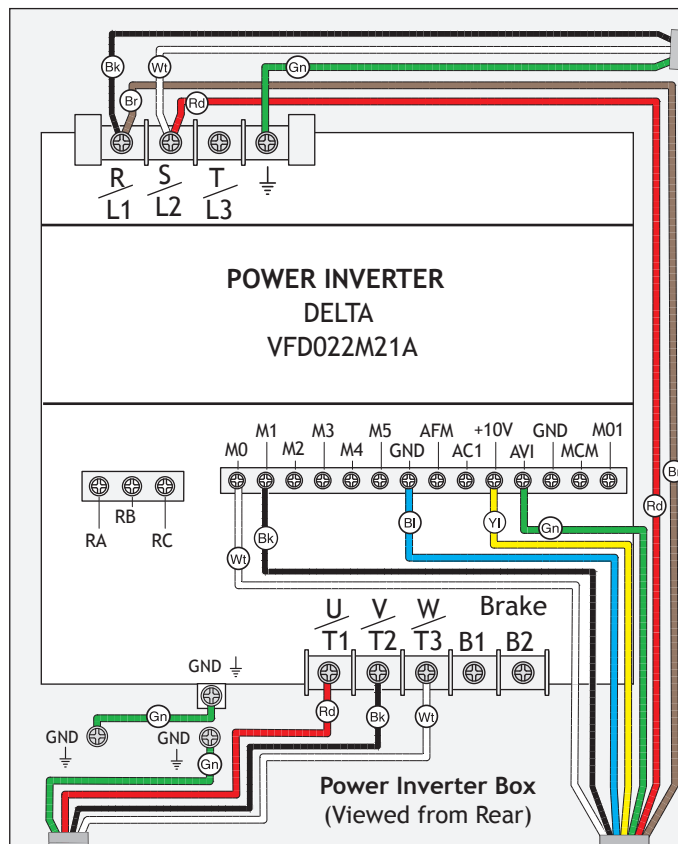


Figure 48. RPM readout display board and control panel wiring.



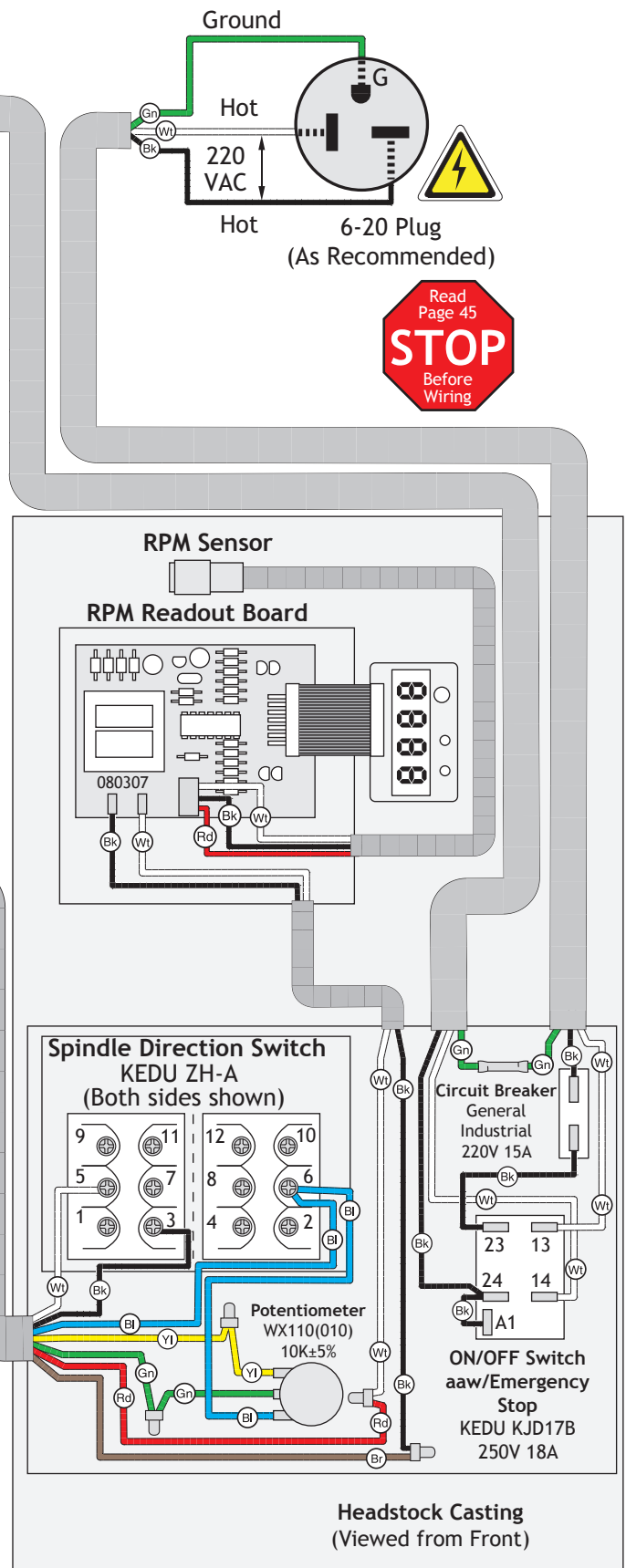
Figure 49. Inverter box and motor box locations.

# Wiring Diagram



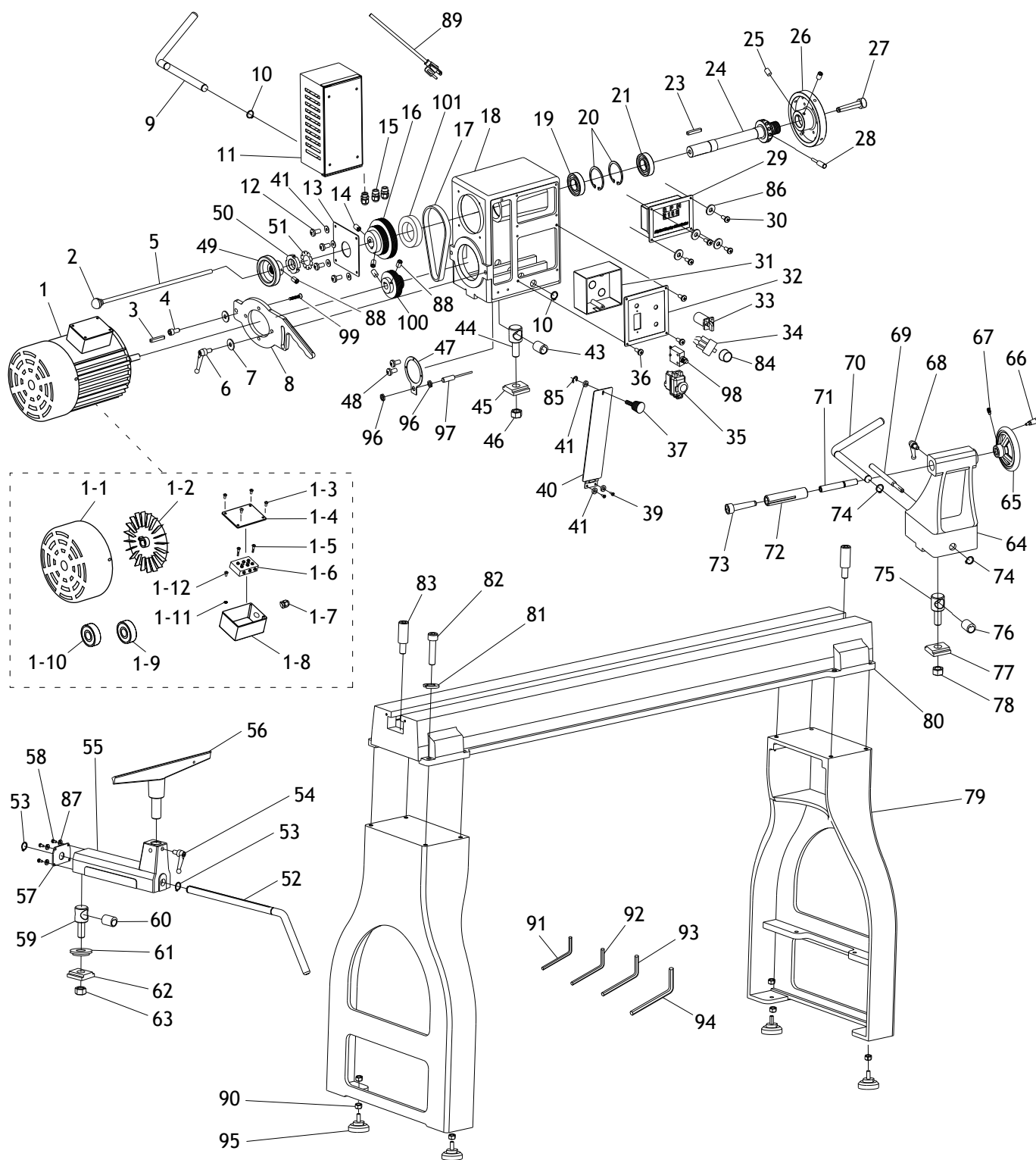
## NOTICE

This motor wiring diagram is current at the time of printing; however, always use the diagram on the inside of the junction box cover when rewiring your motor!



# PARTS

## Main





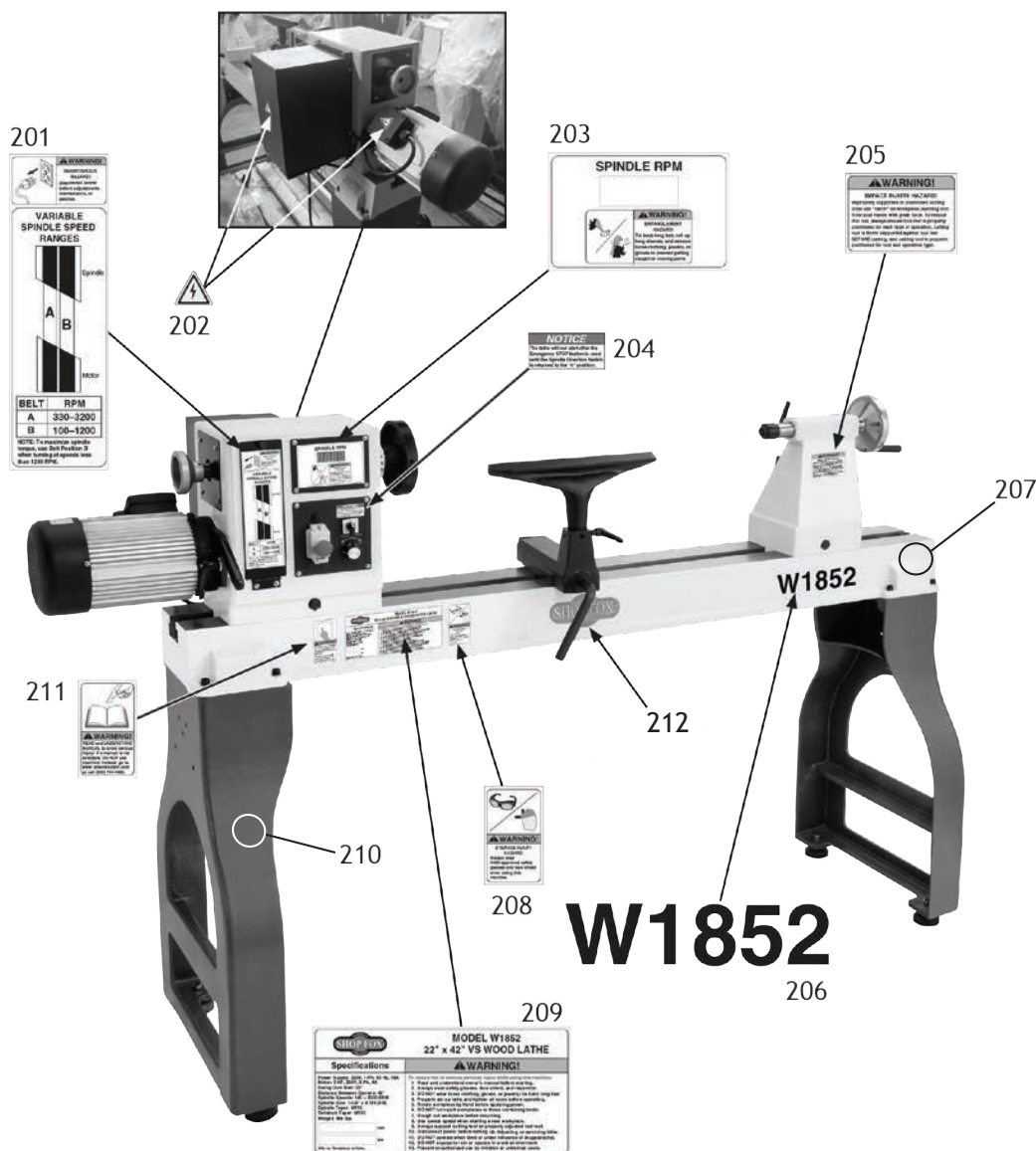
# Main Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
1	X1852001	MOTOR 3HP 240V 3-PH	47	X1852047	RPM SENSOR BRACKET
1-1	X1852001-1	MOTOR FAN COVER	48	X1852048	PHLP HD SCR M4-.7 X 8
1-2	X1852001-2	MOTOR FAN	49	X1852049	HANDWHEEL 49MM DIA DISHED
1-3	X1852001-3	TAP SCREW M4-.7 X 18	50	X1852050	SPANNER NUT M30-1.5
1-4	X1852001-4	MOTOR TERMINAL BOX COVER	51	X1852051	SPANNER NUT WASHER 30MM
1-5	X1852001-5	PHLP HD SCR M4-.7 X 20	52	X1852052	TOOL REST BASE LOCK LEVER
1-6	X1852001-6	MOTOR TERMINAL	53	X1852053	EXT RETAINING RING 19MM
1-7	X1852001-7	STRAIN RELIEF PG13.5 TYPE-3	54	X1852054	TOOL REST LOCK LEVER
1-8	X1852001-8	MOTOR TERMINAL BOX	55	X1852055	TOOL REST BASE (BANJO), 1" HOLE
1-9	X1852001-9	BALL BEARING 6205ZZ (FRONT)	56	X1852056	TOOL REST, 1" POST
1-10	X1852001-10	BALL BEARING 6204ZZ (REAR)	57	X1852057	TOOL REST BASE PLATE
1-11	X1852001-11	FLAT WASHER 4MM	58	X1852058	PHLP HD SCR M5-.8 X 12
1-12	X1852001-12	PHLP HD SCR M4-.7 X 8	59	X1852059	TOOL REST CLAMP BOLT M18-2.5 X 44
2	X1852002	ROUND KNOB M8-1.25	60	X1852060	ECCENTRIC BUSHING
3	X1852003	KEY 6 X 6 X 60	61	X1852061	SLIDE BUSHING
4	X1852004	CAP SCREW M10-1.5 X 30	62	X1852062	CLAMP PLATE
5	X1852005	KNOCKOUT ROD M8-1.25 X 14, 369L	63	X1852063	HEX NUT M18-2.5
6	X1852006	BELT TENSION LOCK LEVER	64	X1852064	TAILSTOCK CASTING
7	X1852007	FENDER WASHER 10MM	65	X1852065	HANDWHEEL 137MM DIA DISHED
8	X1852008	MOTOR PLATE	66	X1852066	HANDWHEEL HANDLE M8-1.25 X 13, 94L
9	X1852009	HEADSTOCK LOCK LEVER	67	X1852067	SET SCREW M8-1.25 X 12
10	X1852010	EXT RETAINING RING 19MM	68	X1852068	QUILL LOCK LEVER
11	X1852011	POWER INVERTER DELTA VFD022M21A	69	X1852069	STOP PIN M8-1.25 X 10, 152L
12	X1852012	PHLP HD SCR M5-.8 X 12	70	X1852070	TAILSTOCK LOCK LEVER
13	X1852013	SPINDLE PULLEY COVER	71	X1852071	LEADSCREW
14	X1852014	SET SCREW M8-1.25 X 10	72	X1852072	QUILL
15	X1852015	STRAIN RELIEF PG13.5 TYPE-3	73	X1852073	LIVE CENTER
16	X1852016	SPINDLE PULLEY	74	X1852074	EXT RETAINING RING 19MM
17	X1852017	V-BELT 220J6	75	X1852075	TAILSTOCK CLAMP BOLT M18-2.5 X 44
18	X1852018	HEADSTOCK CASTING	76	X1852076	ECCENTRIC BUSHING
19	X1852019	BALL BEARING 6206ZZ	77	X1852077	CLAMP PLATE
20	X1852020	INT RETAINING RING 62MM	78	X1852078	HEX NUT M18-2.5
21	X1852021	BALL BEARING 6206ZZ	79	X1852079	STAND
23	X1852023	KEY 8 X 8 X 45	80	X1852080	BED
24	X1852024	SPINDLE	81	X1852081	LOCK WASHER 10MM
25	X1852025	SET SCREW M6-1 X 12 DOG-PT	82	X1852082	CAP SCREW M10-1.5 X 35
26	X1852026	FACEPLATE 153MM DIA	83	X1852083	BED STOP
27	X1852027	SPUR CENTER	84	X1852084	VARIABLE SPEED DIAL
28	X1852028	INDEXING PIN	85	X1852085	E-CLIP 5MM
29	X1852029	DIGITAL READOUT	86	X1852086	FLAT WASHER 4MM
30	X1852030	PHLP HD SCR M4-.7 X 8	87	X1852087	LOCK WASHER 5MM
31	X1852031	SWITCH BOX	88	X1852088	SET SCREW M6-1 X 10
32	X1852032	PANEL COVER	89	X1852089	POWER CORD 12G 3W 72" 6-20P
33	X1852033	ROTARY SWITCH KEDU ZH-A FOR/OFF/REV	90	X1852090	HEX NUT M10-1.5
34	X1852034	POTENTIOMETER WX110 B10K	91	X1852091	HEX WRENCH 3MM
35	X1852035	ON/OFF SWITCH KJD178 250V 18A	92	X1852092	HEX WRENCH 4MM
36	X1852036	PHLP HD SCR M4-.7 X 6	93	X1852093	HEX WRENCH 6MM
37	X1852037	KNURLED THUMB SCREW M5-.8 X 8	94	X1852094	HEX WRENCH 8MM
39	X1852039	PHLP HD SCR M5-.8 X 8	95	X1852095	FOOT M10-1.5 X 18
40	X1852040	BELT DOOR	96	X1852096	HEX NUT M12-1.5 THIN
41	X1852041	FLAT WASHER 5MM	97	X1852097	CONDUIT M12-1.5 X 35
43	X1852043	BUSHING	98	X1852098	CIRCUIT BREAKER GEN. IND. 220V 15A
44	X1852044	HEADSTOCK CLAMP BOLT M18-2.5 X 44	99	X1852099	FLAT HD CAP SCR M8-1.25 X 20
45	X1852045	HEADSTOCK CLAMP	100	X1852100	MOTOR PULLEY
46	X1852046	HEX NUT M18-2.5	101	X1852101	PULLEY SPACER

# Labels & Cosmetics

## !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](http://www.woodstockint.com) to order new labels.



REF	PART #	DESCRIPTION
201	X1852201	SPINDLE SPEED CHART
202	X1852202	ELECTRICITY LABEL
203	X1852203	SPINDLE RPM LABEL
204	X1852204	SPINDLE DIRECTION SWITCH NOTICE
205	X1852205	IMPACT INJURY WARNING LABEL
206	X1852206	MODEL NUMBER LABEL

REF	PART #	DESCRIPTION
207	X1852207	SHOP FOX WHITE PAINT
208	X1852208	EYE/FACE INJURY HAZARD LABEL
209	X1852209	MACHINE ID LABEL
210	X1852210	SHOP FOX BLACK PAINT
211	X1852211	READ MANUAL LABEL
212	X1852212	SHOP FOX NAMEPLATE



# 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.**

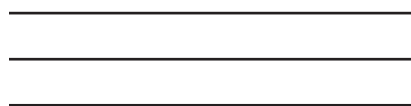
1. How did you learn about us?  
☐ Advertisement      ☐ Friend      ☐ Local Store  
☐ Mail Order Catalog      ☐ Website      ☐ Other: \_\_\_\_\_
2. How long have you been a woodworker/metalworker?  
☐ 0-2 Years      ☐ 2-8 Years      ☐ 8-20 Years      ☐ 20+ Years
3. How many of your machines or tools 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?  

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

9. Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place  
Stamp  
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WOODSTOCK INTERNATIONAL INC.  
P.O. BOX 2309  
BELLINGHAM, WA 98227-2309



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# 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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