

READ THIS FIRST



Model G0844

*****IMPORTANT UPDATE*****

**For Machines Mfd. Since 07/21
and Owner's Manual Revised 12/19**

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

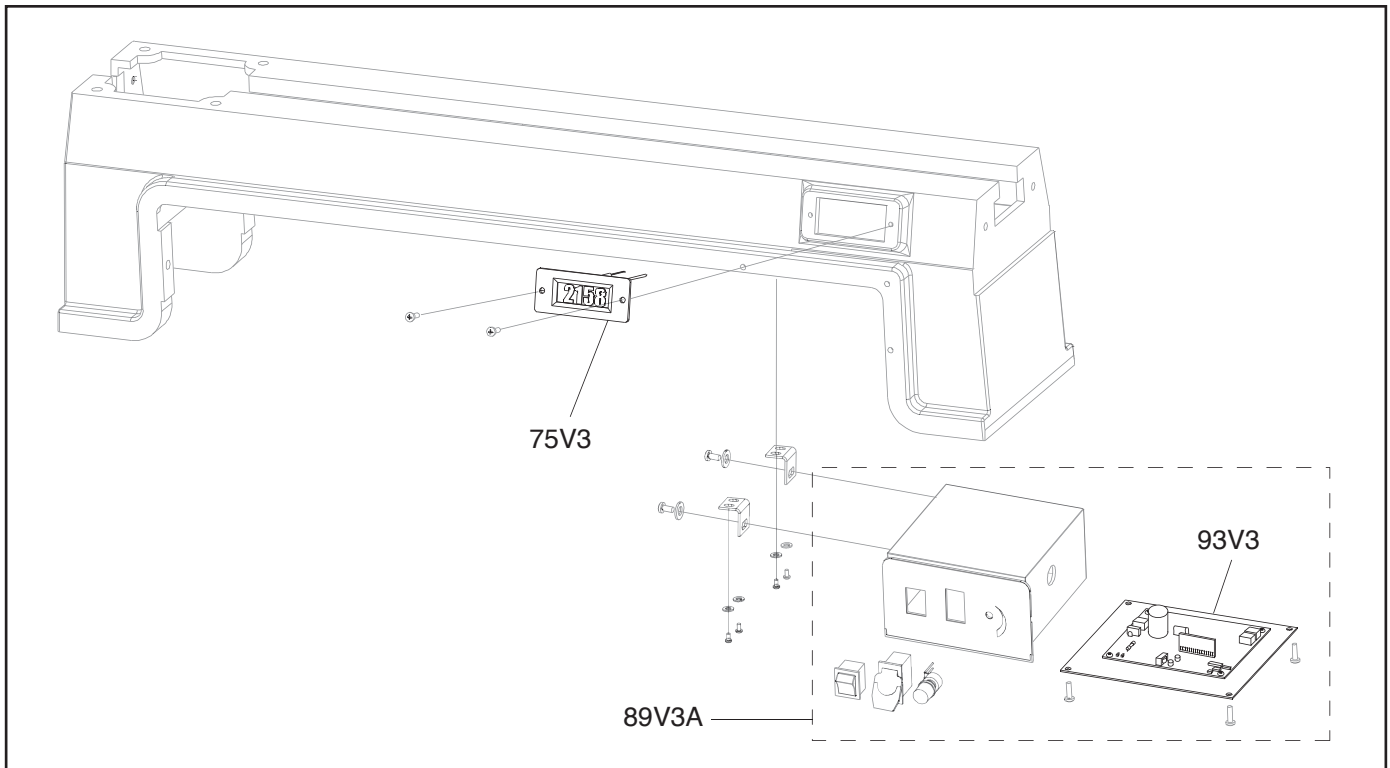
The following changes were recently made since the owner's manual was printed:

- Digital tachometer and circuit board changed.
- Wiring connections changed.

Aside from this information, all other content in the owner's manual applies and **MUST** be read and understood for your own safety. **IMPORTANT: Keep this update with the owner's manual for future reference.**

For questions or help, contact our Tech Support at (570) 546-9663 or techsupport@grizzly.com.

Revised Parts



REF	PART #	DESCRIPTION
75V3	P0844075V3	DIGITAL TACHOMETER V3.07.21
89V3A	P0844089V3A	ELECTRICAL BOX ASSEMBLY V3.07.21

REF	PART #	DESCRIPTION
93V3	P0844093V3	ELECTRICAL BOX COVER V3.07.21



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#CS22504 PRINTED IN CHINA

Electrical Components

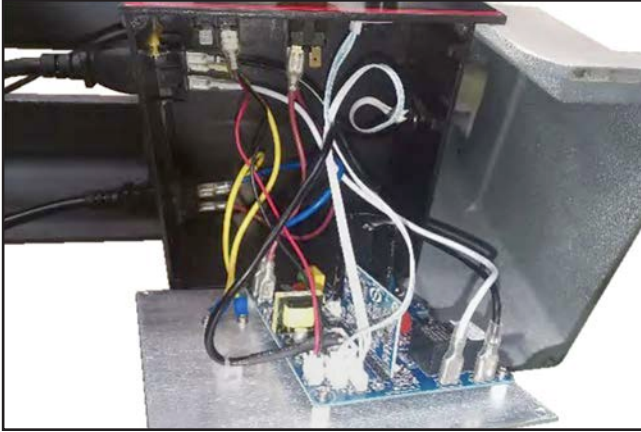
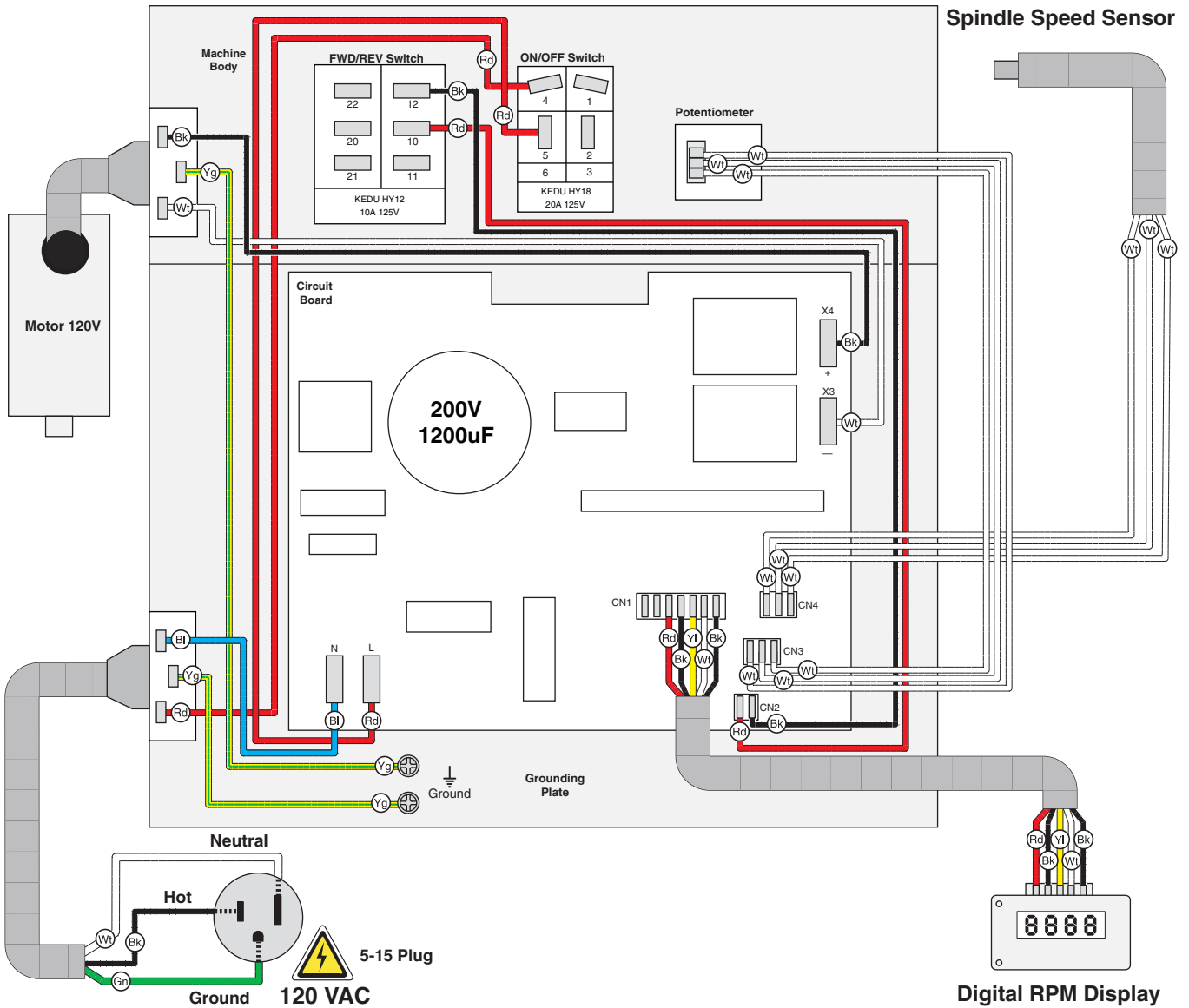


Figure 49. Control box wiring.



Figure 50. Spindle RPM sensor.

Wiring Diagram



Grizzly[®]

Industrial, Inc.

MODEL G0844

14" X 20" VARIABLE-SPEED BENCHTOP WOOD LATHE

OWNER'S MANUAL

(For models manufactured since 03/19)



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V2.12.19



WARNING!

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

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

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

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



WARNING!

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

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

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

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INTRODUCTION

Contact Info

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the **serial number** and **manufacture date** from the machine ID label. This will help us help you faster.

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
Phone: (570) 546-9663
Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com


Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual.**

If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at www.grizzly.com.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **Manufacture Date** and **Serial Number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.

		MODEL GXXXX MACHINE NAME	
SPECIFICATIONS		▲ WARNING!	
Motor:	To reduce risk of serious injury when using this machine:		
Specification:	Read the manual before operation.		
Specification:	Wear safety glasses and respirator.		
Specification:	Ensure safety is correctly adjusted/setup and		
Specification:	power is connected to grounded circuit before starting.		
Weight:	4. Make sure the motor has stopped and disconnect		
	power before adjustments, maintenance, or service.		
	5. DO NOT expose to rain or dampness.		
	6. DO NOT modify this machine in any way.		
	7.		
	8.		
	9. Do not use while tired, drowsy, or under the influence of drugs or alcohol.		
	10. Maintain machine carefully to prevent accidents.		
	Manufactured for Grizzly in Taiwan		

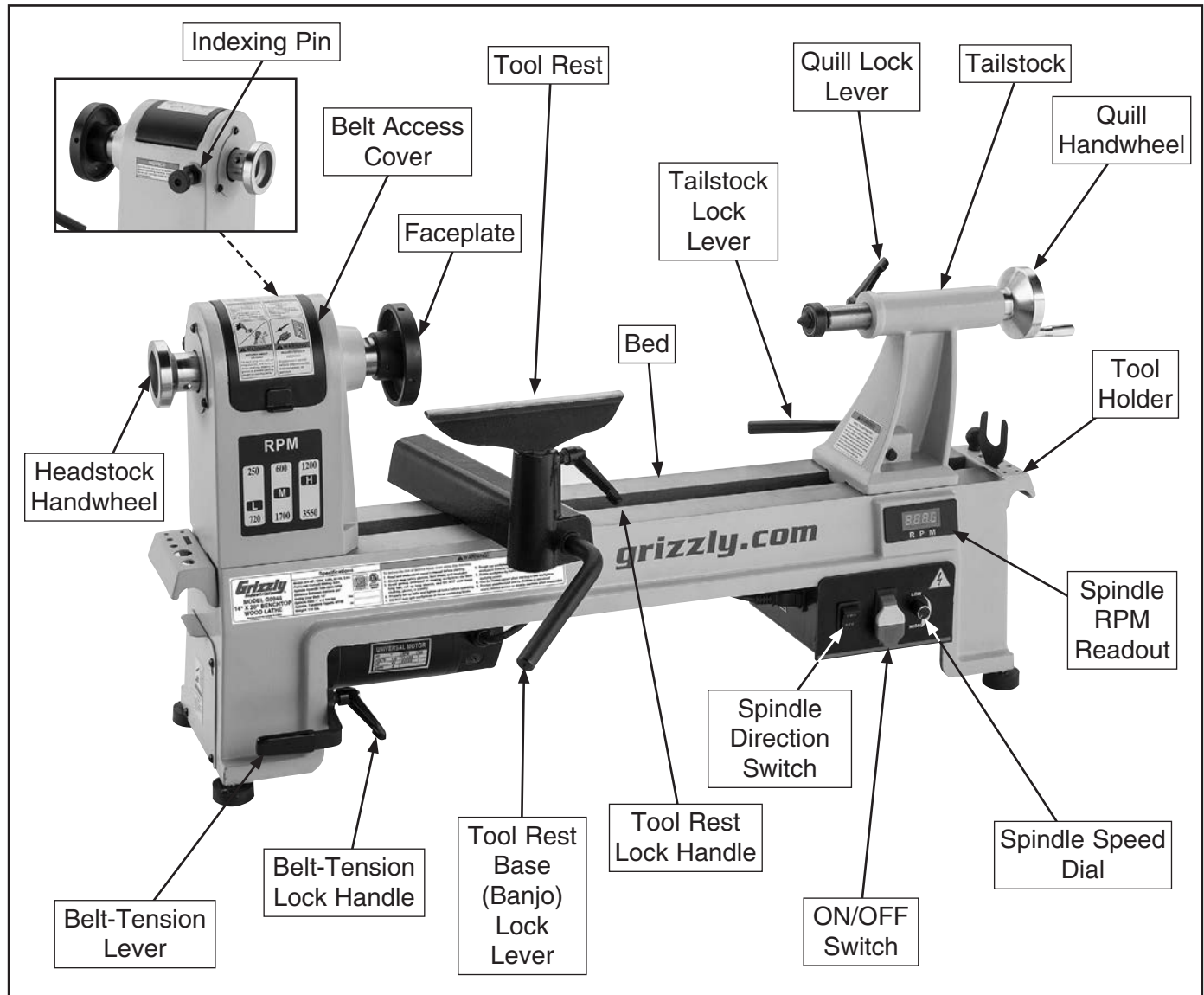
Manufacture Date []

Serial Number []



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

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



Controls & Components



Refer to **Figures 1–5** and the following descriptions to become familiar with the basic controls of this machine.

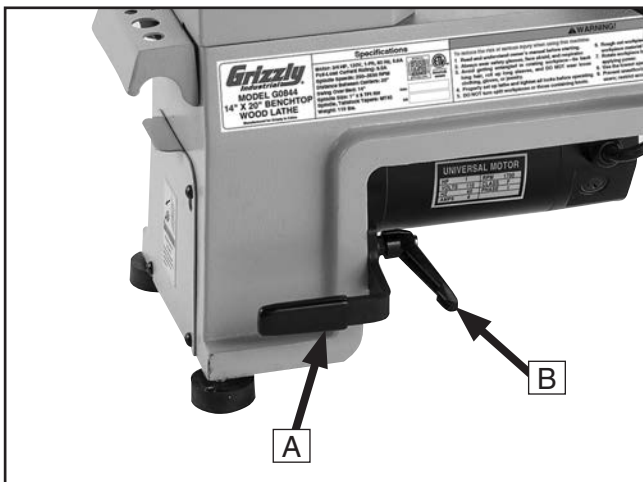


Figure 1. Belt-tension lever and lock handle.

- A. Belt-Tension Lever:** Increases or decreases amount of tension on belt.
- B. Belt-Tension Lock Handle:** Locks belt tension lever in place.



Figure 2. Spindle indexing pin.

- C. Indexing Pin Knob:** Locks spindle in place for indexing operations.

IMPORTANT: Indexing pin knob must be pulled out before operating machine. Failure to do so can damage motor or machine components.

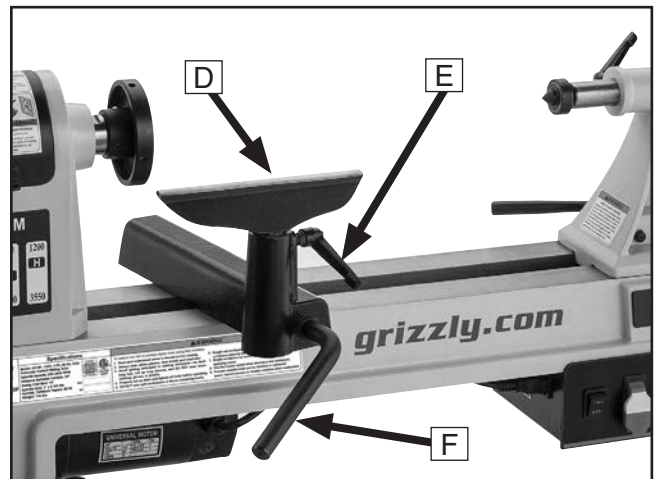


Figure 3. Tool rest controls.

- D. Tool Rest:** Provides stable platform for cutting tools.
- E. Tool Rest Lock Handle:** Secures tool rest in position.
- F. Tool Rest Base (Banjo) Lock Lever:** Secures tool rest base (banjo) in position along bed.



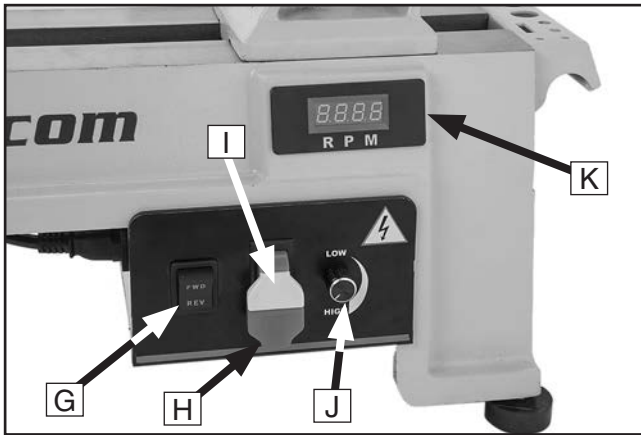


Figure 4. Main controls.

- G. Spindle Direction Switch:** Toggles spindle direction between FWD (up) and REV (down). To change switch positions, press ON/OFF switch, then toggle switch to opposite position.
- H. ON/OFF Switch:** Turns lathe motor ON/OFF to start/stop spindle rotation.
- I. ON/OFF Switch Disabling Key:** Disables switch when yellow key is removed to prevent unauthorized operation of machine.
- J. Spindle Speed Dial:** Adjusts spindle speed from low to high within range governed by pulley belt position.
- K. Spindle RPM Readout:** Indicates spindle speed in revolutions per minute (RPM).

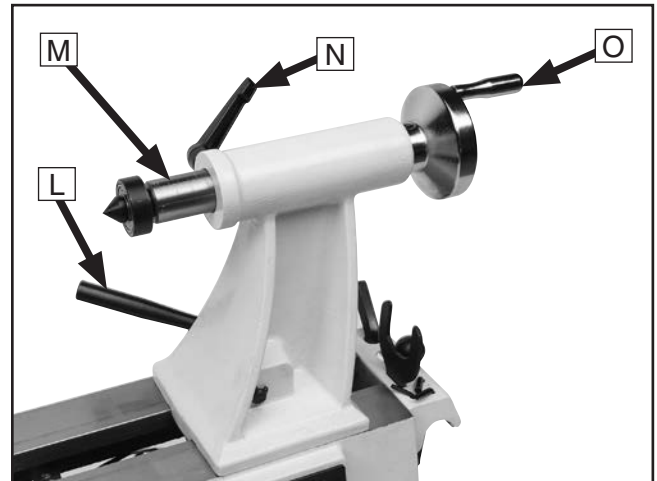


Figure 5. Tailstock controls.

- L. Tailstock Lock Lever:** Secures tailstock in position along bed.
- M. Quill:** Holds centers or tooling. Can be moved toward or away from spindle.
- N. Quill-Lock Handle:** Secures quill in position.
- O. Tailstock Handwheel:** Moves quill toward and away from spindle.





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G0844 14" X 20" VARIABLE-SPEED BENCHTOP WOOD LATHE

Product Dimensions:

Weight..... 110 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 41-1/2 x 17-1/2 x 18 in.
Footprint (Length x Width)..... 35-1/2 x 9 in.

Shipping Dimensions:

Type..... Cardboard Box
Content..... Machine
Weight..... 116 lbs.
Length x Width x Height..... 39 x 21 x 13 in.
Must Ship Upright..... Yes

Electrical:

Power Requirement..... 120V, Single-Phase, 60 Hz
Full-Load Current Rating..... 9.5A
Minimum Circuit Size..... 15A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 16 AWG
Plug Included..... Yes
Included Plug Type..... 5-15
Switch Type..... Paddle Safety Switch w/Removable Key

Motors:

Main

Horsepower..... 3/4 HP
Phase..... Single-Phase
Amps..... 5.6A
Speed..... 1900 RPM
Type..... DC Motor
Power Transfer Belt Drive
Bearings..... Shielded & Permanently Lubricated
Centrifugal Switch/Contacts Type..... N/A

Main Specifications:

Operation Information

Swing Over Bed..... 14 in.
Swing Over Tool Rest Base..... 10 in.
Distance Between Centers..... 20 in.
Max. Distance Tool Rest to Spindle Center..... 7-1/4 in.
No of Spindle Speeds..... Variable
Spindle Speed Range..... 250 - 3550



Spindle Information

Spindle Taper.....	MT#2
Spindle Thread Size.....	1" x 8 TPI
Spindle Thread Direction.....	Right-Hand
Spindle Bore.....	0.40 in.
Type of Included Spindle Center.....	Spur
Indexed Spindle Increments.....	15 deg.
No of Indexes.....	24
Outboard Spindle Thread Direction.....	Right-Hand
Outboard Spindle Size.....	M20 x 1.5

Tool Rest Information

Tool Rest Width.....	8 in.
Tool Rest Post Diameter.....	1 in.
Tool Rest Post Length.....	1-3/4 in.
Tool Rest Base Height.....	2 in.

Tailstock Information

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

Construction

Bed.....	Cast Iron
Base.....	Cast Iron
Headstock.....	Cast Iron
Tailstock.....	Cast Iron
Paint Type/Finish.....	Enamel

Other Related Information

Bed Width.....	5-1/8 in.
Faceplate Size.....	4 in.

Other Specifications:

Country of Origin	China
Warranty	1 Year
Approximate Assembly & Setup Time	15 Minutes
Serial Number Location	ID Label
ISO 9001 Factory	Yes
Certified by a Nationally Recognized Testing Laboratory (NRTL)	Yes

Features:

- 3 Spindle-Speed Ranges: Low (250–720 RPM); Medium (600–1700 RPM), and High (1200–3550 RPM)
- Live and Spur Centers
- Solid Cast-Iron Construction
- 8" Tool Rest
- 1" Tool Rest Post
- 15° Spindle Indexing
- Built-In Tool Holder
- Digital Spindle-Speed Readout
- 4" Faceplate
- Forward/Reverse Switch
- Easy-Access Door for Belt Changes
- Quick-Release on Rest and Tailstock for Easy Adjustment
- Convenient Carrying Handles
- Adjustable Rubber Feet



SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This 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. Always use common sense and good judgment.

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

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

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE Alerts the user to useful information about proper operation of the machine to avoid machine damage.

Safety Instructions for Machinery

⚠ WARNING

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 your 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 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 prevents an injury risk 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.



WARNING

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 reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. 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!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to 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 BEFORE operating machine.

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 the 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.

DAMAGED PARTS. Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

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. 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 our Technical Support at (570) 546-9663.



Additional Safety for Wood Lathes

WARNING

Serious injury or death can occur from getting entangled in, crushed between, or struck by rotating parts on a lathe! Rotating workpieces can come loose and strike operator or bystanders with deadly force if they are improperly secured, rotated too fast, or are not strong enough for the rotational forces required for turning. Improper tool setup or usage can cause tool kickback or grabbing, resulting in impact injury or entanglement. To reduce the risk of operator (or bystander) injury or death, anyone operating this machine **MUST** completely heed the hazards and warnings below.

VERIFY WORKPIECE INTEGRITY. 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 tool kickback.

PROPERLY PREPARE WORKPIECE. Before mounting, cut off waste portions to balance workpiece for safe rotation and removal of large edges that can catch on tooling.

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

SECURE WORKPIECE. Use proven setup techniques and always verify workpiece (and centers/tooling holding workpiece) are well-secured before starting lathe. Only use high-quality fasteners with non-tapered heads for faceplate attachment.

ADJUST 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.

REMOVE ADJUSTMENT TOOLS. Remove all chuck keys, wrenches, and adjustment tools before turning lathe **ON**. These items can become deadly projectiles when spindle is started.

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

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

WEAR PROPER PPE. Always wear a face shield and safety glasses when operating lathe. Do not wear gloves, necktie or loose clothing. Keep long hair away from rotating spindle.

USE CORRECT SPEEDS. 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.

AVOID TOOL KICKBACK. This occurs when turning tool is grabbed or ejected from workpiece with great force. Commonly caused by poor workpiece selection/preparation, improper tool usage, or improper machine setup or tool rest adjustment.

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

USE SHARP TOOLS. Sharp tools cut with less resistance than dull tools. Using dull tools increases the risk of tool kickback or grabbing.

SAFELY STOPPING ROTATION. Always allow rotating workpiece to stop on its own. Never put hands or another object on workpiece to stop it.

SAFELY MEASURE WORKPIECE. Only measure mounted workpiece after it has completely stopped. Trying to measure a spinning workpiece increases entanglement risk.

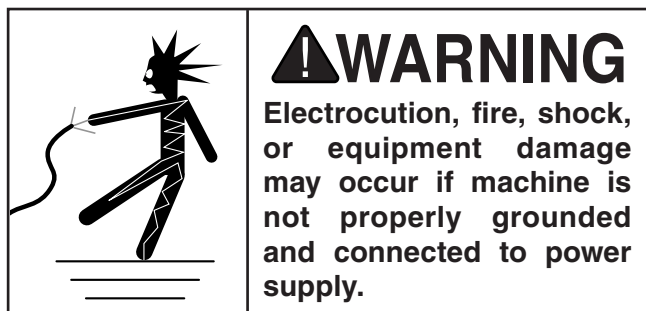
SANDING/POLISHING. To reduce entanglement risk, remove tool rest before sanding. Never completely wrap sandpaper around workpiece.



SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.



Full-Load Current Rating

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

Full-Load Current Rating at 120V ... 9.5 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

! WARNING

Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.

120V Circuit Requirements

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

Nominal Voltage 110V, 115V, 120V
Cycle 60 Hz
Phase Single-Phase
Power Supply Circuit 15 Amps

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.)

! CAUTION

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.

Note: *Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.*



Grounding & Plug Requirements

This machine **MUST** be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug. Only insert plug into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances. **DO NOT** modify the provided plug!

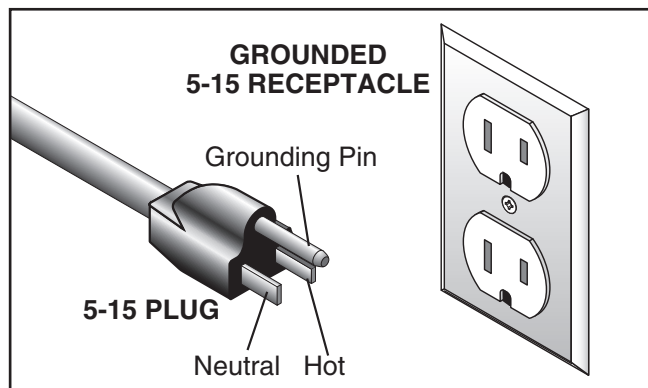


Figure 6. Typical 5-15 plug and receptacle.

⚠ CAUTION

SHOCK HAZARD!

Two-prong outlets do not meet the grounding requirements for this machine. Do not modify or use an adapter on the plug provided—if it will not fit the outlet, have a qualified electrician install the proper outlet with a verified ground.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or 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.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which can damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

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



SECTION 3: SETUP

Unpacking


This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

IMPORTANT: Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. ***You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.***

Needed for Setup

The following items are needed, but not included, for the setup/assembly of this machine.

Description	Qty
• Additional People	1
• Safety Glasses	1
• Cleaner/Degreaser	As Needed
• Disposable Shop Rags.....	As Needed



⚠ WARNING
This machine is heavy. DO NOT over-exert yourself while unpacking or moving machine—get assistance.

Inventory

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

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

Box 1 (Figure 7)	Qty
A. Knockout Rod.....	1
B. Open-End Wrench 32mm	1
C. Hex Wrenches 3, 4, 5, 12mm.....	1 Ea.
D. Live Center MT#2	1
E. Spur Center MT#2	1
F. Power Cord.....	1
G. Rubber Feet M8-1.25 x 15.....	4

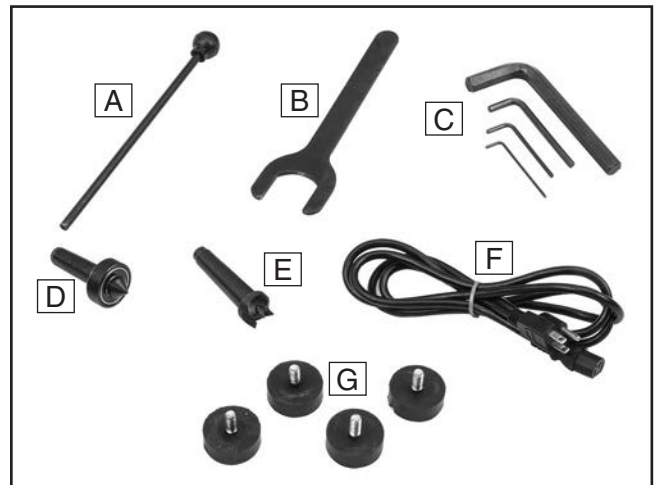


Figure 7. Inventory components.

NOTICE

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.



Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD-40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

NOTICE

Avoid harsh solvents like acetone or brake parts cleaner that may damage painted surfaces. Always test on a small, inconspicuous location first.

Site Considerations

Workbench Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

Placement Location

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the shop. Below is the minimum amount of space needed for the machine.

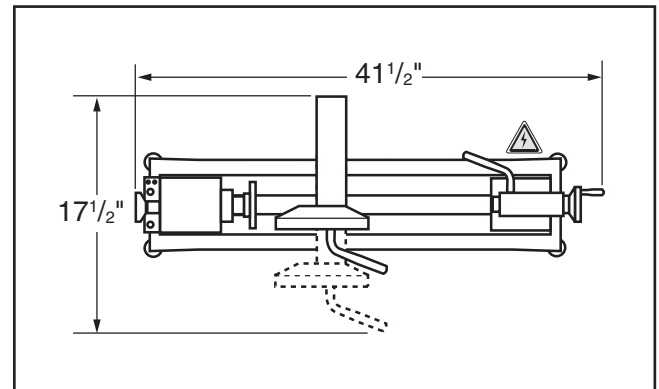
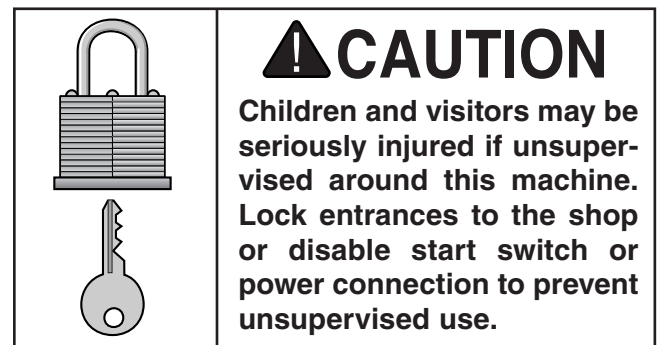


Figure 8. Minimum working clearances.



Assembly

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).

To assemble machine:

1. Install (4) rubber feet (see **Figure 9**) into holes in bottom of legs and adjust feet so lathe sits level without rocking.



Figure 9. Rubber feet installed.

2. Insert end of power cord into receptacle in back of control box (see **Figure 10**).

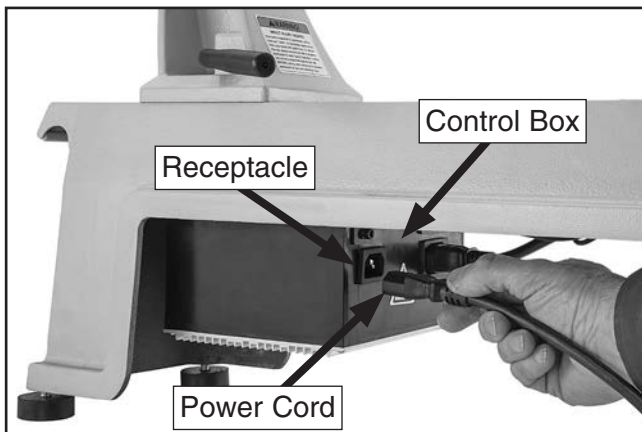


Figure 10. Installing power cord.

Test Run

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

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.

!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.

To test run machine:

1. Clear all setup tools away from machine.



2. Pull out indexing pin knob and rotate so detent is seated on roll pin (see **Figure 11**). This disables the indexing pin knob.

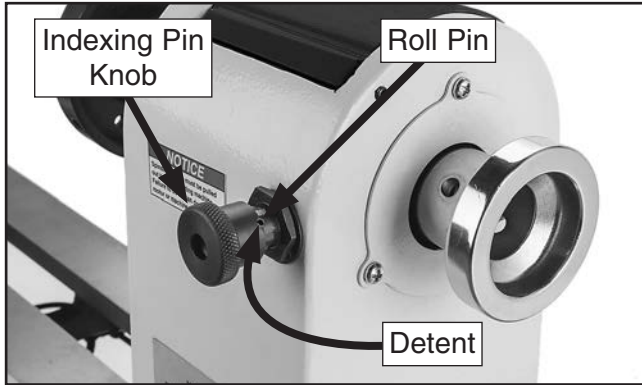


Figure 11. Indexing pin disabled.

3. Turn spindle speed dial all the way counter-clockwise (see **Figure 12**).

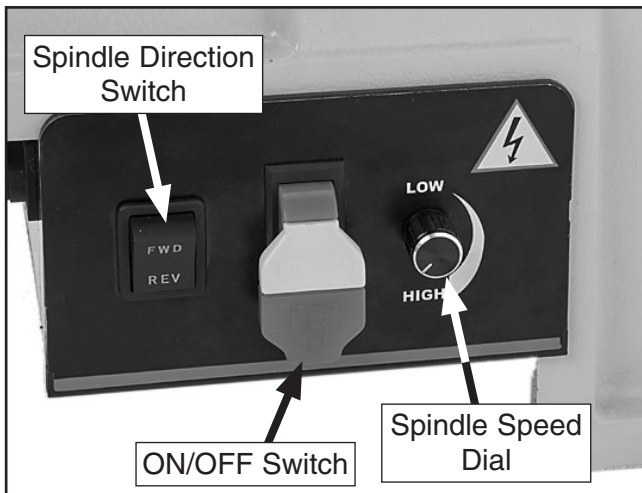


Figure 12. Spindle controls.

4. Connect machine to power supply.
5. Verify machine is operating correctly by setting spindle direction switch in FWD (up) position, flipping ON/OFF paddle switch up (see **Figure 12**), then slowly turning spindle speed dial clockwise. The digital readout should illuminate, and spindle should rotate down toward front of lathe.
6. Press ON/OFF switch (see **Figure 12**).

7. Turn spindle speed dial all the way counter-clockwise.
8. Set spindle direction switch to REV (down) position, flip ON/OFF paddle switch up, then slowly turn spindle speed dial clockwise.

— When operating correctly, machine runs smoothly with little or no vibration or rubbing noises. Spindle should rotate up toward rear of lathe.

9. Press ON/OFF switch.
10. Remove switch disabling key, as shown in **Figure 13**.

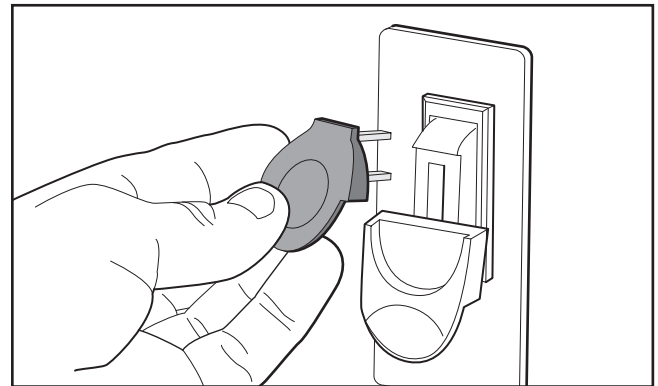


Figure 13. Removing switch key from paddle switch.

11. Try to start machine with paddle switch. The machine should not start.

— If the machine *does not* start, the switch disabling feature is working correctly.

— If the machine *does start*, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

Congratulations! The **Test Run** is complete.

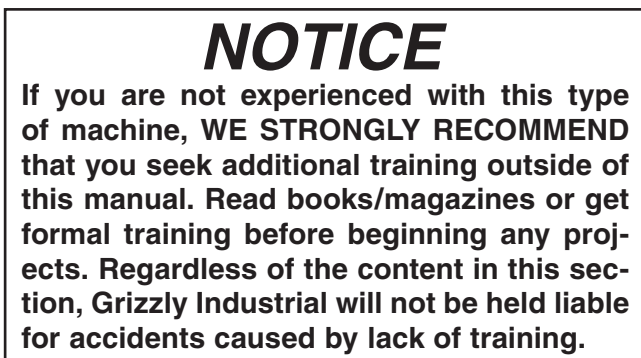
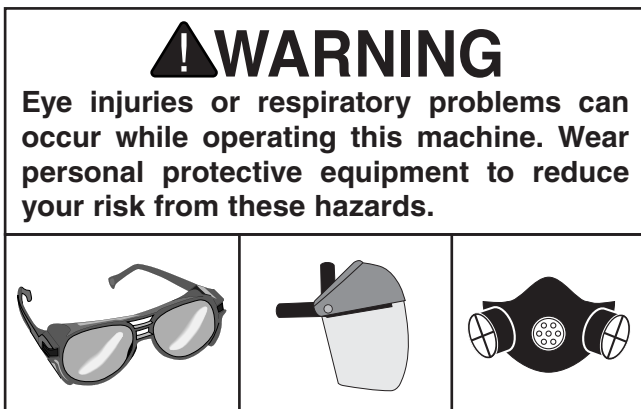


SECTION 4: OPERATIONS

Operation Overview

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

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



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

1. Examines workpiece to make sure it is suitable for turning. No extreme bows, knots, or cracks should exist.
2. Prepares and trims 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 according to type of operation, 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 speed range 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 in neutral position.
9. Puts on safety glasses, face shield, and respirator.
10. Sets spindle direction switch to forward or reverse, starts spindle, adjusts spindle speed, and carefully begins turning operation, keeping chisel against tool rest entire time it is cutting.
11. Turns spindle **OFF** when cutting operation is complete.



Workpiece Inspection

Some workpieces are not safe to turn or may require modification before they are safe to turn. **Before turning, inspect all workpieces for the following:**

- **Workpiece 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 cutting, 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.
- **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!

Adjusting Tailstock

The tailstock 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 tailstock in place. The tailstock can be positioned anywhere along the lathe bed.

!WARNING

Always operate lathe with tailstock firmly locked to bed. Otherwise, serious personal injury may occur if tailstock moves/shifts during operation.

To position tailstock along length of bed:

1. Loosen tailstock lock lever and move tailstock to desired position along bed, as shown in **Figure 14**.



Figure 14. Location of tailstock lock lever.

2. Retighten 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.*



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 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.

⚠️ 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.

To adjust tool rest:

1. Loosen tool rest base lock lever and move tool rest assembly to desired position on lathe bed, as shown in **Figure 15**.

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.

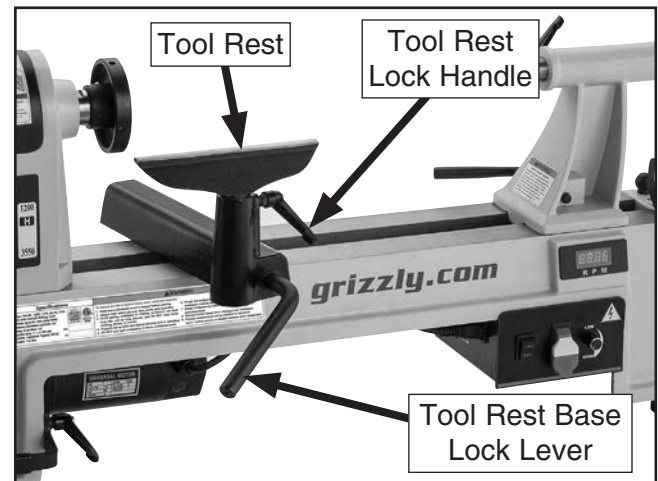


Figure 15. Tool rest controls.

2. Retighten 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

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.

3. Loosen tool rest lock handle (see **Figure 15**).
4. Position tool rest in desired location.
5. Retighten 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.

Items Needed	Qty
Leather Glove/Clean Rag	1
Knockout Rod.....	1

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 16**.



Figure 16. Example of installing center in headstock spindle.

4. Make sure center is securely installed by attempting to pull it out by hand. A properly installed center will *not* pull out easily.

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 rod through outboard end of spindle and firmly tap back of center, catching it as it falls, as shown in **Figure 17**.



Figure 17. Example of removing headstock center with knockout rod.



Installing/Removing Tailstock Center

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

Items Needed	Qty
Leather Glove/Clean Rag	1

Installing Tailstock Center

1. Loosen quill-lock handle, and rotate handwheel until quill extends about 1", as shown in **Figure 18**.

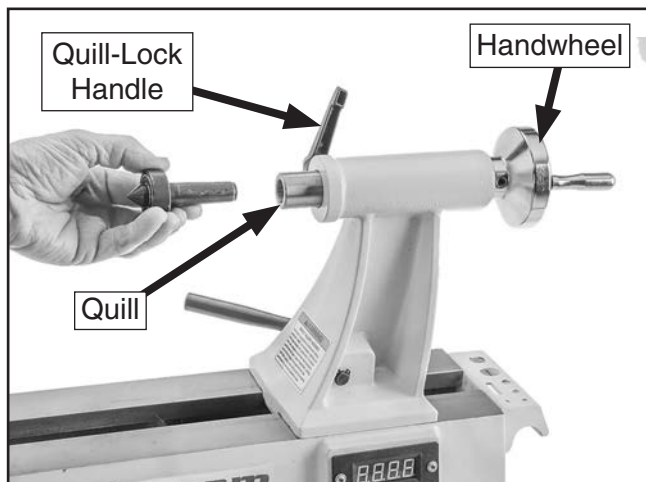


Figure 18. Installing center into tailstock quill.

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 18**.
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. Secure quill in place by retightening 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. If this does not work, use the knockout tool to remove the center.



Installing Faceplate

These instructions cover removing and installing the faceplate. To mount a workpiece to your faceplate, refer to **Faceplate Turning** on **Page 27**.

Tools Needed	Qty
Open-End Wrench 32mm.....	1
Hex Wrench 3mm.....	1
Knockout Tool.....	1

Removing Faceplate

1. DISCONNECT MACHINE FROM POWER!
2. Loosen (2) set screws on faceplate (see **Figure 19**).
3. Insert included wrench over flats on spindle. While holding spindle in place, turn faceplate counterclockwise with knockout tool until it is removed (see **Figure 19**). If the spur center is installed, it will be removed during this process.

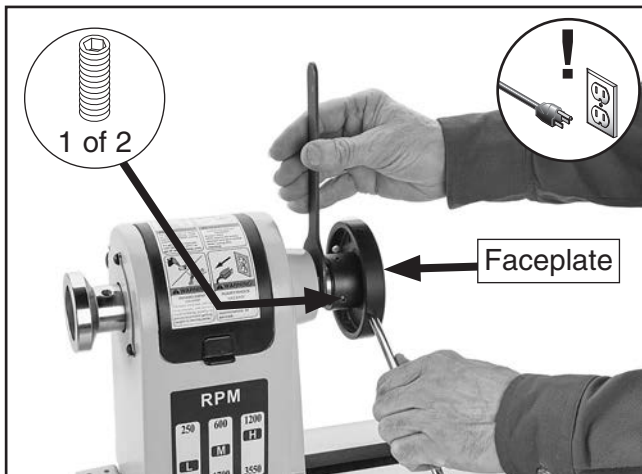


Figure 19. Example of removing faceplate.

Installing Faceplate

1. DISCONNECT MACHINE FROM POWER!
2. Insert included wrench over flats on spindle. While holding spindle in place, thread faceplate clockwise onto spindle shaft until secure against shoulder on spindle shaft.
3. Tighten/secure (2) set screws on faceplate (see **Figure 19**).

!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.

!CAUTION

Never resume turning operations without making sure that index pin knob is disengaged and spindle turns freely by hand. Otherwise personal injury or property damage could result.



Adjusting Spindle Speeds

Your lathe has three speed ranges for maximum turning options. These ranges are selected by changing belt positions on the motor and spindle pulleys (see **Figure 20**).

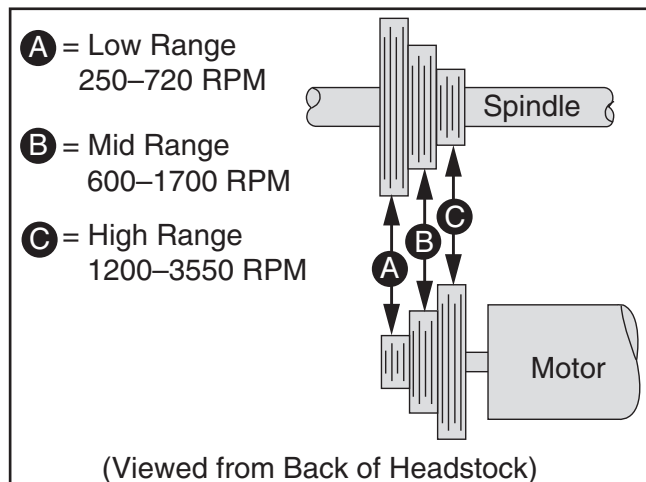


Figure 20. Speed ranges for each belt position.

High range (**A**) is best when turning a workpiece where a clean finish is required and only light cuts are made. Mid range (**B**) is a compromise between high and low ranges. Low range (**C**), which has more torque, is best when turning a workpiece where a lot of material must be removed and a rough finish does not matter. Use the speed dial to adjust spindle speed within each range.

Refer to the chart below to choose the appropriate RPM for your operation. Then choose the speed range that will include the selected RPM.

Diameter of Work-piece	Roughing RPM	General Cutting RPM	Finishing RPM
Under 2"	1520	3000	3000
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

Figure 21. Speed recommendations.

⚠ WARNING

Always choose correct spindle speed for your operation. Using wrong speed may lead to workpiece breaking loose or being thrown from lathe at a high rate of speed, causing fatal or severe impact injuries.

Tool Needed

Phillips Head Screwdriver #2 1

To change speeds:

1. DISCONNECT MACHINE FROM POWER!
2. Loosen belt-tension lock handle (see **Figure 22**).
3. Use belt-tension lever (see **Figure 22**) 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.

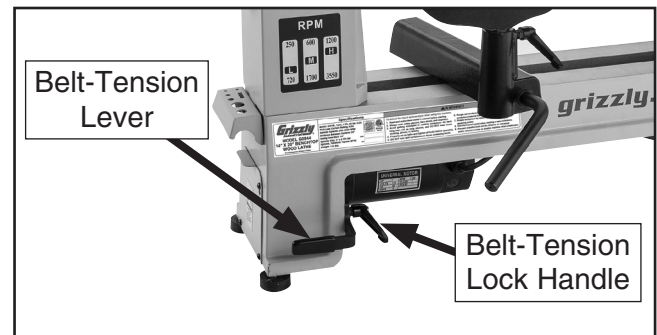


Figure 22. Location of belt-tension lever.

4. Open front access cover and remove side access cover (see **Figure 23**).

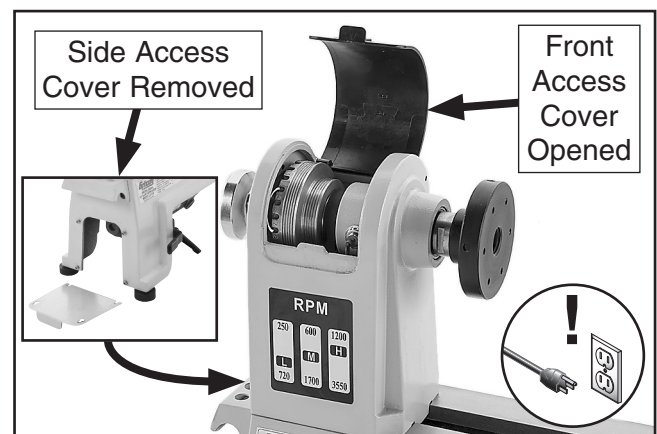


Figure 23. Location of side, front access covers.



5. Locate desired speed range on chart on front of headstock, then move belt to necessary grooves on motor and spindle pulleys (see **Figure 24**).

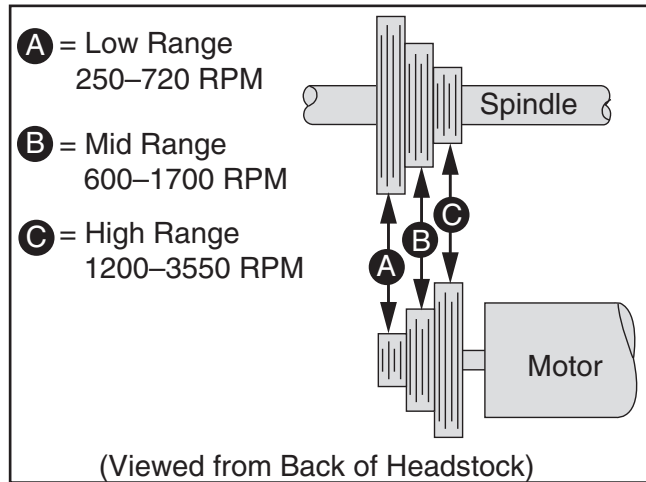


Figure 24. Speed ranges for each belt position.

6. Loosen belt-tension lock handle and lower motor.
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 $\frac{1}{2}$ " when moderate pressure is applied to belt mid-way between upper and lower pulley, as shown in **Figure 25**.

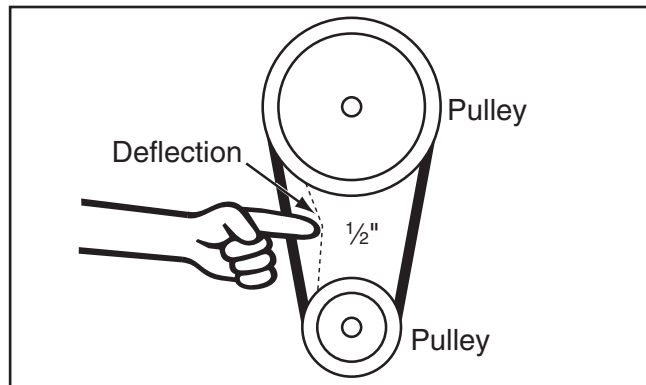


Figure 25. Testing for $\frac{1}{2}$ " belt deflection.

8. After verifying belt tension is correct, re-install side access cover and close front access cover.

Indexing

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 knob into one of the 24 indexes on the spindle housing, the workpiece can be positioned in 15° increments, as shown in **Figure 26**.

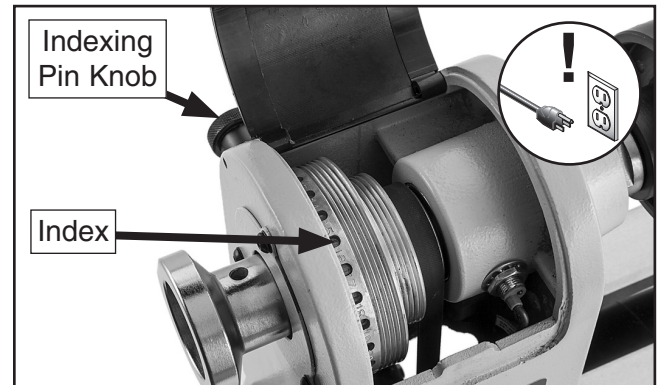


Figure 26. Indexing pin knob engaged (cover open to reveal indexes on spindle assembly).

CAUTION

Always **DISCONNECT LATHE FROM POWER** before using indexing feature. **DO NOT** start lathe with indexing pin knob inserted into spindle; otherwise entanglement injury and property damage could occur.



Spindle Turning

Spindle turning is the operation performed when a workpiece is mounted between centers in the headstock and tailstock, as shown in **Figure 27**. Bowls, table legs, tool handles, and candlesticks are typical projects where this operation is used.

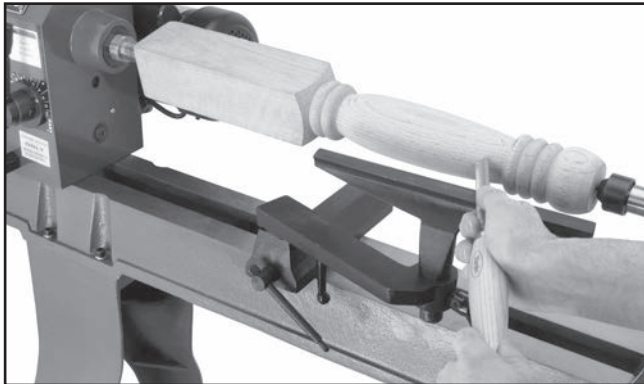


Figure 27. Typical spindle turning operation.

!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.

Tools Needed	Qty
Precision Ruler	1
Wood Mallet.....	1
Drill Bit 1/4".....	1
Tablesaw/Bandsaw.....	1

To set up a spindle turning operation:

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 28**.

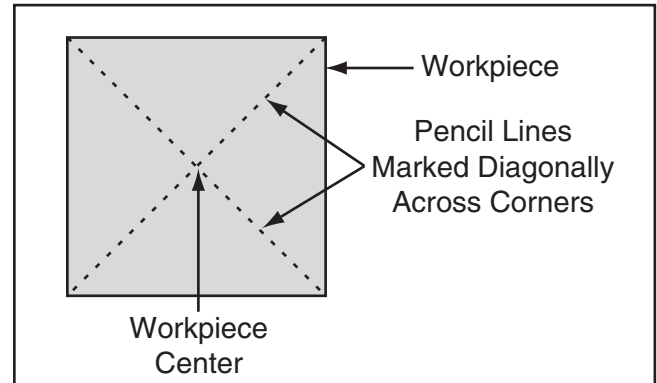


Figure 28. Workpiece marked diagonally from corner to corner to determine the center.

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 1/4" drill bit, drill a 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 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 29**).

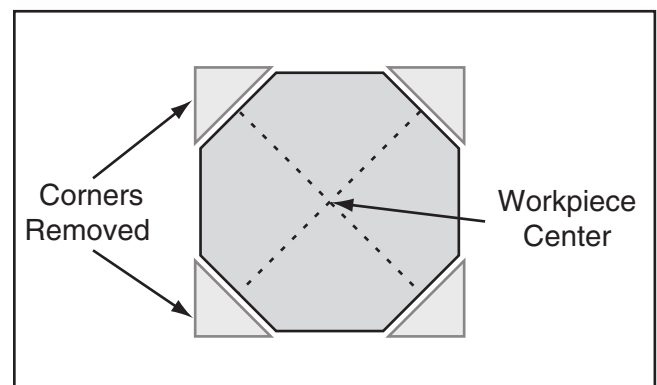


Figure 29. Corners of workpiece removed.



- 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 30**.

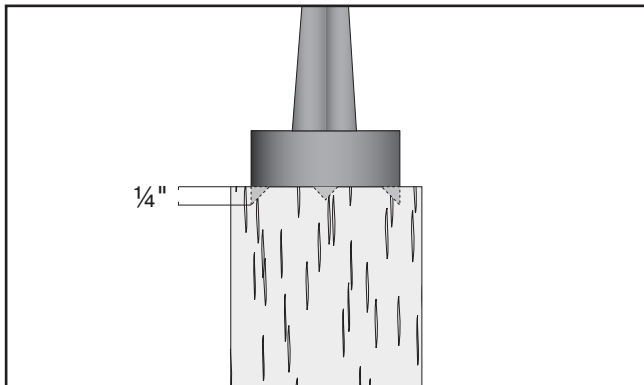


Figure 30. Spur center properly embedded.

- With workpiece still attached, insert spur center into headstock spindle (refer to **Installing/Removing Headstock Center** on **Page 20** for additional instructions).

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

- Install live center into tailstock quill and tighten quill-lock handle to lock quill in position (refer to **Page 21** for additional instructions).
- Slide tailstock toward workpiece until point of live center touches workpiece center mark, then lock tailstock in this position.
- Loosen quill-lock handle and rotate tailstock handwheel to push live center into workpiece at least $\frac{1}{4}$ ".

!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.

- Properly adjust tool rest to workpiece (see **Adjusting Tool Rest** on **Page 19**).

- Before beginning lathe operation, rotate workpiece by hand to ensure there is safe clearance on all sides.

!WARNING

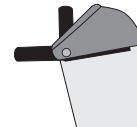
Keep lathe tool resting on tool rest the ENTIRE time it is in contact with workpiece or when preparing to make contact between lathe tool and workpiece. Otherwise, spinning workpiece could force lathe tool out of your hands or entangle your hands with workpiece. Failure to heed this warning could result 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 21** on **Page 23**).
- 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.

!WARNING

Eye injuries or respiratory problems can occur while operating this machine. Wear personal protective equipment to reduce your risk from these hazards.



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 31**. This type of turning is usually done with open-faced workpieces like bowls or plates.

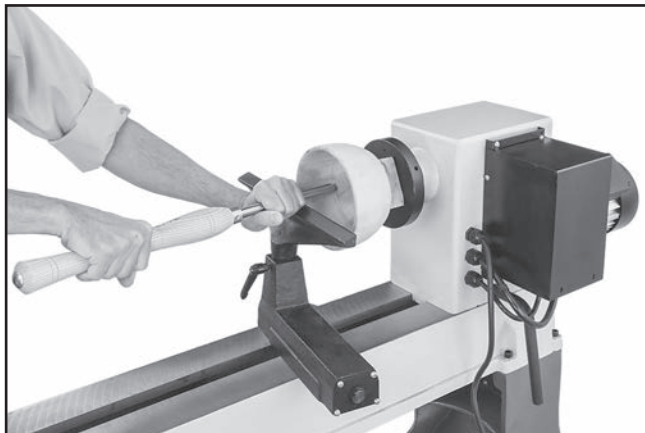


Figure 31. Typical faceplate turning operation.

Mounting Workpiece on Faceplate

Items Needed	Qty
Precision Ruler	1
Wood Screws	1
Drill	1
Tablesaw/Bandsaw.....	1

To mount workpiece on faceplate:

1. Mark workpiece center in same manner as described in **Spindle Turning** (see **Page 25**).

Note: *Cut off corners of workpiece to make it as close to "round" as possible, as described in **Spindle Turning, Step 5** (see **Page 25**).*

2. Center faceplate on workpiece and attach it (see **Figure 32**) with wood screws.



Figure 32. Typical attachment of faceplate to workpiece.

NOTICE

Only use screws with non-tapered heads (see **Figure 33**) to attach faceplate to the workpiece. Screws with tapered heads can split faceplate or snap off during operation.

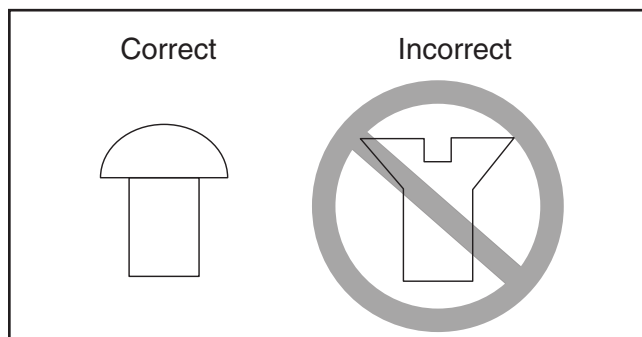


Figure 33. Correct and incorrect screw types.

3. Thread and secure faceplate onto headstock spindle (refer to **Installing Faceplate** on **Page 22**).

— If wood screws cannot be placed in workpiece, faceplate can be mounted to a backing block attached to workpiece (see **Mounting Workpiece on Backing Block**).



Mounting Workpiece on Backing Block

Items Needed	Qty
Piece of Scrap Wood.....	1
Precision Ruler	1
Drill Bit 1/4"	1
Glue	As Needed
Clamp	1

To mount workpiece on backing block:

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

Note: *Faces of backing block must be flat and parallel with 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 1/4" hole through center of backing block.
4. Look through hole in backing block to line up center with workpiece, and then 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 27**) to attach backing block to faceplate.

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 34**.

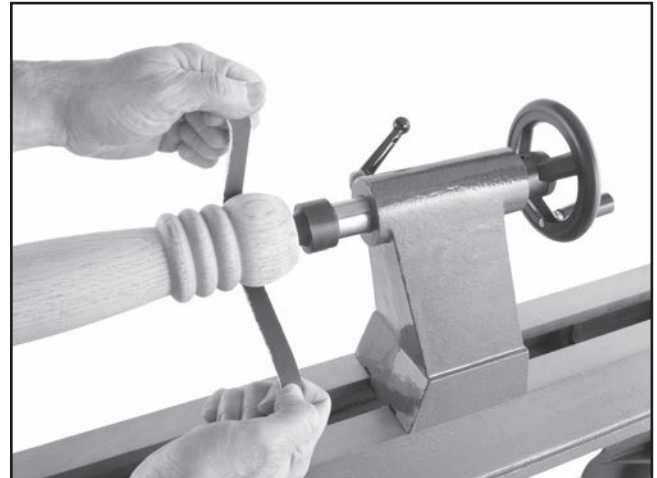
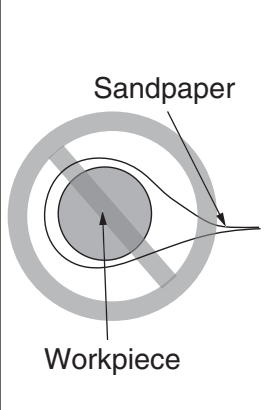


Figure 34. Typical sanding operation.

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

	<p>⚠ 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.</p>
--	---



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.

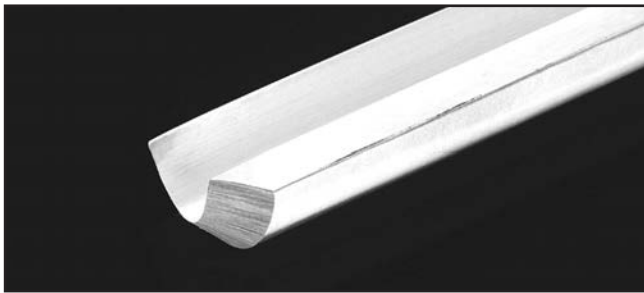


Figure 35. Example of a gouge.

- **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°).

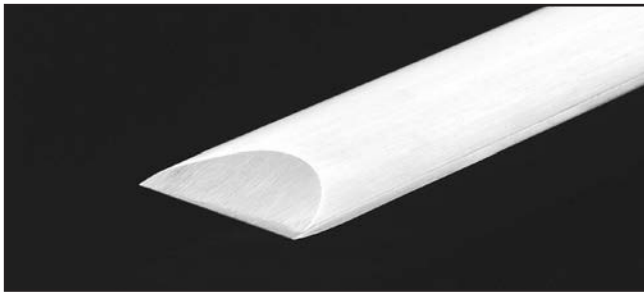


Figure 36. Example of a skew chisel.

- **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.



Figure 37. Example of a round nose scraper.

- **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.



Figure 38. Example of a parting tool.

- **Specialty Tools**—These are the unique, special function tools to aid in hollowing, bowl making, cutting profiles, etc. The Swan Neck Hollowing Tool shown on **Page 30** is a good example of a speciality tool.



SECTION 5: ACCESSORIES

!WARNING

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

NOTICE

Refer to our website or latest catalog for additional recommended accessories.

T25535—New Turning Wood Book

The appeal of woodturning is simple: with only a few hand tools and a lathe, remarkable results can be quickly achieved, including beautiful bowls, boxes in the round, lamp bases, and furniture parts. For over 20 years, woodturners have been turning to Richard Raffan for expert advice and inspiration.

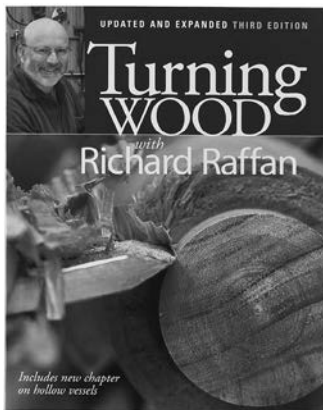


Figure 39. T25535 Turning Wood Book.

H6542—Robert Sorby HSS 8-Pc. Turning Set

This 8-pc. HSS Turning Tool Set includes $\frac{3}{4}$ " Roughing Gouge, $\frac{1}{4}$ " and $\frac{1}{2}$ " Spindle Gouge, $\frac{3}{8}$ " Bowl Gouge, $\frac{3}{4}$ " Standard Skew, $\frac{3}{16}$ " Diamond Side Cut Scraper, 1" Square Scraper, and $\frac{1}{2}$ " Round Scraper. Overall lengths are 16" to 19".



Figure 40. Model H6542 Robert Sorby 8-Pc. Set.

H0507—20" Swan Neck Hollowing Tool

H0508—24" Swan Neck Hollowing Tool

An excellent choice for blind turning or undercutting where reach is restricted. H0507 is designed for end-grain use while H0508 (with a more substantial steel cross section) is designed for both end-grain and side-grain (bowl) use.

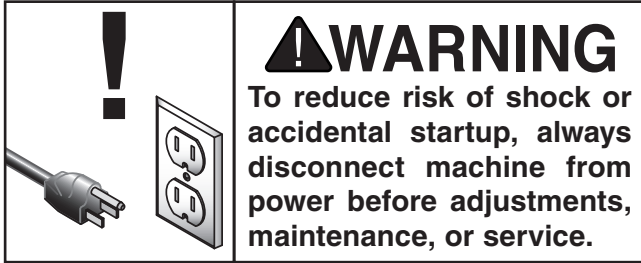


Figure 41. Swan neck hollowing tools.

order online at www.grizzly.com or call 1-800-523-4777



SECTION 6: MAINTENANCE



Schedule

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

Ongoing

To maintain a low risk of injury and proper machine operation, if you ever observe any of the items below, shut down the machine immediately and fix the problem before continuing operations:

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

Daily

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

Monthly

- Belt tension, damage, or wear.

Cleaning & Protecting

Cleaning this lathe 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 surfaces by wiping them clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep the surfaces rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.

Lubrication

All bearings on this lathe 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.

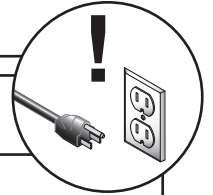
Use the tailstock handwheel to extend the quill out to the furthest position and apply a thin coat of white lithium grease to the outside of the quill. DO NOT allow any oil or grease to get on the inside mating surfaces of the quill.



SECTION 7: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start, or power-supply fuse/breaker trips immediately after startup.	<ol style="list-style-type: none"> 1. Switch disabling key removed. 2. OFF button not pressed before toggling spindle direction switch. 3. Motor brushes worn or at fault. 4. Power supply circuit breaker tripped or fuse blown. 5. Motor wires connected incorrectly. 6. Wiring open/has high resistance. 7. ON/OFF switch at fault. 8. Circuit board at fault. 9. Variable-speed potentiometer at fault. 10. Motor at fault. 	<ol style="list-style-type: none"> 1. Install disabling key. 2. Press OFF button before toggling spindle direction switch. 3. Remove/replace brushes (Page 36). 4. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 5. Correct motor wiring connections (Page 38). 6. Check/fix broken, disconnected, or corroded wires. 7. Replace switch/circuit breaker. 8. Inspect/replace if at fault. 9. Test/replace if at fault. 10. Test/repair/replace.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> 1. Machine undersized for task. 2. Workpiece material not suitable for machine. 3. Feed rate/cutting speed too fast. 4. Variable-speed potentiometer at fault. 5. Belt slipping. 6. Motor brushes worn or at fault. 7. Circuit board at fault. 8. Pulley slipping on shaft. 9. Motor at fault. 	<ol style="list-style-type: none"> 1. Use sharp chisels; reduce feed rate/depth of cut. 2. Only cut wood/ensure moisture is below 20%. 3. Decrease feed rate/cutting speed (Page 23). 4. Test/replace if at fault. 5. Tension/replace belt; ensure pulleys are aligned (Page 35); belts are clean and not damaged. 6. Remove/replace brushes (Page 36). 7. Inspect/replace if at fault. 8. Tighten/replace loose pulley/shaft. 9. Test/repair/replace.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component loose. 2. Machine sits unevenly on workbench. 3. V-belt worn, loose, or misaligned. 4. Pulley loose. 5. Motor fan rubbing on fan cover. 6. Workpiece/faceplate at fault. 7. Motor mount loose/broken. 8. Motor bearings at fault. 	<ol style="list-style-type: none"> 1. Inspect/replace damaged bolts/nuts, and retighten with thread-locking fluid. 2. Adjust feet. 3. Inspect/replace belt (Page 34). Re-align pulleys if necessary (Page 35). 4. Re-align/replace shaft, pulley, set screw, and key. 5. Fix/replace fan cover; replace loose/damaged fan. 6. Center workpiece in chuck/faceplate; reduce RPM; replace defective chuck. 7. Tighten/replace. 8. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.



Wood Lathe Operation

Symptom	Possible Cause	Possible Solution
Bad surface finish.	<ol style="list-style-type: none"> 1. Dull tooling or wrong tool used for task. 2. Tool height is not 1/8" above spindle centerline. 3. Spindle speed is wrong. 4. Excessive vibration. 	<ol style="list-style-type: none"> 1. Sharpen tooling, select correct tool for operation. 2. Adjust tool rest so tool is 1/8" above spindle centerline. 3. Adjust for appropriate spindle speed (Page 23). 4. Troubleshoot possible causes/solutions in this table.
Excessive vibration upon startup (when workpiece is installed).	<ol style="list-style-type: none"> 1. Workpiece is mounted incorrectly. 2. Workpiece warped, out of round, or flawed. 3. Lathe is resting on an uneven surface. 4. Spindle speed too fast for workpiece. 5. Workpiece hitting stationary object. 6. Tailstock or tool rest not securely clamped to lathe bed. 7. Belt pulleys are not properly aligned. 8. Motor mount bolts are loose. 9. Belt is worn or damaged. 10. Spindle bearings are worn or damaged. 	<ol style="list-style-type: none"> 1. Remount workpiece, making sure that centers are embedded in true center of workpiece. 2. Cut workpiece to be concentric, or use a different workpiece. 3. Adjust feet to eliminate wobble. 4. Reduce spindle speed (Page 23). 5. Stop lathe and fix interference problem. 6. Check lock levers and tighten if necessary (Pages 18–19). 7. Align belt pulleys (Page 35). 8. Tighten motor mount bolts. 9. Replace belt (Page 34). 10. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.
Chisel grabs or digs into workpiece.	<ol style="list-style-type: none"> 1. Wrong chisel/tool being used. 2. Chisel/tool too dull. 3. Tool rest height not set correctly. 4. Tool rest is set too far from workpiece. 	<ol style="list-style-type: none"> 1. Use correct chisel/tool. 2. Sharpen or replace chisel/tool. 3. Correct tool rest height (Page 19). 4. Move tool rest closer to workpiece.
Tailstock moves under load.	<ol style="list-style-type: none"> 1. Tailstock mounting bolt/hex nut is loose. 2. Bed or clamping surface is excessively oily or greasy. 	<ol style="list-style-type: none"> 1. Tighten mounting bolt/hex nut. 2. Clean bed or clamping surface to remove excess oil/grease.
Spindle lacks turning power or starts up slowly.	<ol style="list-style-type: none"> 1. Belt is slipping. 2. Pulleys loose. 3. Workpiece too heavy for spindle. 	<ol style="list-style-type: none"> 1. Tighten/adjust belt (Page 34). 2. Tighten pulley set screw; re-align/replace shaft, pulley set screw, and key. 3. Remove excess material before remounting; use lighter workpiece.
Quill will not move forward when handwheel is turned	<ol style="list-style-type: none"> 1. Keyway is not aligned with quill lock lever. 	<ol style="list-style-type: none"> 1. Align quill keyway and quill lock lever and slightly tighten lever to engage keyway.
DRO doesn't give reading; reading incorrect.	<ol style="list-style-type: none"> 1. Shorted/disconnected wiring/plugs. 2. Variable-speed potentiometer at fault. 3. DRO speed sensor at fault. 4. Circuit board at fault. 	<ol style="list-style-type: none"> 1. Inspect wiring connections on circuit boards, sensors, and plugs. Replace/repair as necessary. 2. Test/replace if at fault. 3. Test/replace if at fault. 4. Inspect/replace if at fault.



Tensioning & Replacing Belt

The drive belt stretches as the lathe is used. Most of the stretching will occur during the first 16 hours, but may continue with further use. If the lathe loses power while making a cut, the belt may be slipping and need tensioning. If the belt shows signs of excessive wear, or damage, replace it.

Tool Needed Qty
Phillips Head Screwdriver #2 1

Tensioning Belt

1. DISCONNECT MACHINE FROM POWER!
2. Remove side access cover, open front access cover, and loosen belt-tension lock handle (see **Figure 42**).
3. Lift belt-tension lever (see **Figure 42**), then tighten belt-tension lock handle.



Figure 42. Belt tension controls.

4. Press belt with moderate pressure in center to check tension. Belt is correctly tensioned when there is approximately 1/2" deflection when pushed as shown in **Figure 43**.

— If there is more than 1/2" deflection repeat the tensioning procedure until it is correct. If tension cannot be achieved replace belt.

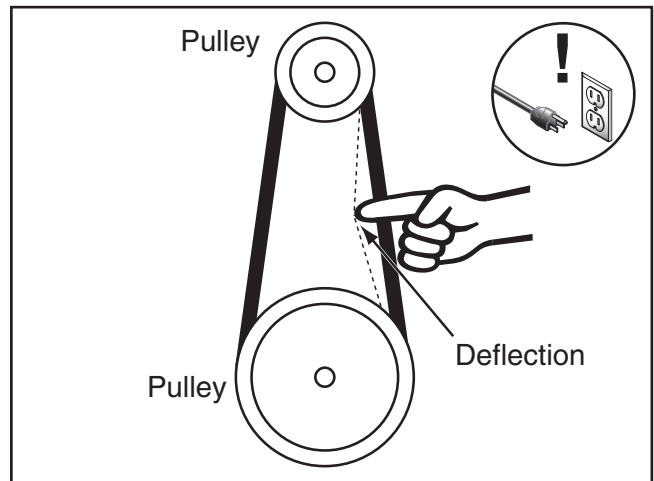


Figure 43. Checking belt deflection.

5. Re-install side access cover and close front access cover.

Replacing Belt

1. DISCONNECT MACHINE FROM POWER!
2. Remove side access cover and open front access cover.
3. Loosen belt-tension lock handle, release belt tension, tighten lock handle, then remove belt from motor pulley.
4. Unthread and remove spindle handwheel, then remove (3) Phillips head screws from spindle end cover and remove cover (see **Figure 44**).



Figure 44. Spindle handwheel and end cover removed from headstock.

5. Move belt around pulley and spindle, then remove belt through upper opening.



6. Insert new belt through lower opening, and pull it around end of spindle onto pulley (see **Figure 45**).

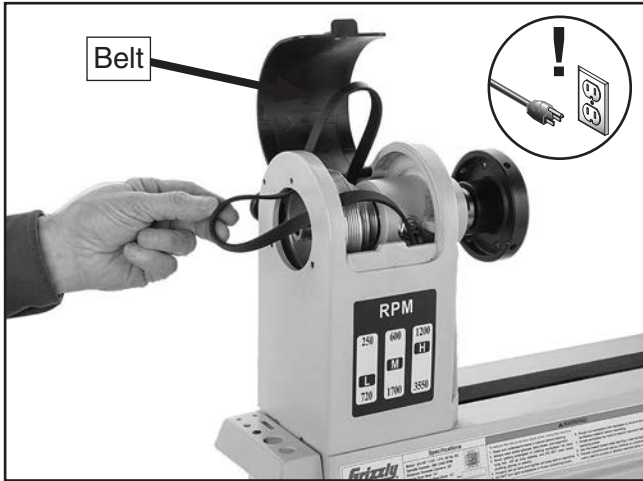


Figure 45. Installing belt onto spindle pulley.

7. Re-install end cover and headstock spindle handwheel.
8. Loosely install belt on inner or outermost motor pulley position.
9. Loosen belt-tension lock handle, move belt-tension lever down to tension belt, then tighten belt-tension lock handle.
10. Follow **Step 4** in the **Tensioning Belt** procedure to set belt tension.
11. Re-install side access cover and close front access cover.

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 3mm.....	1

To align motor and spindle pulleys:

1. DISCONNECT MACHINE FROM POWER!
2. Open front access cover.
3. Loosen (2) set screws on spindle pulley (see **Figure 46**).

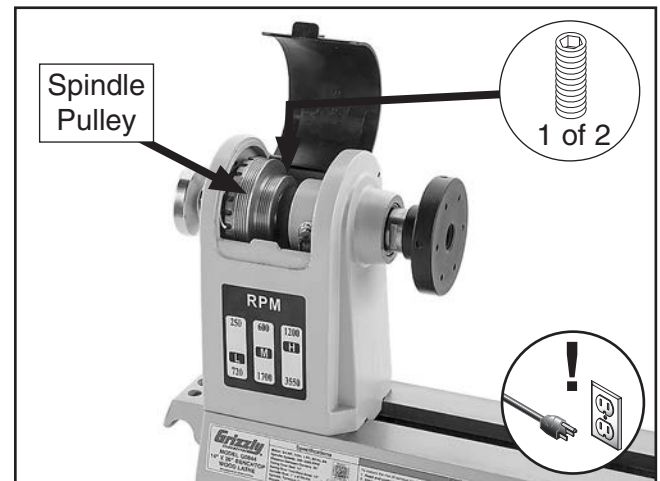


Figure 46. Location of spindle pulley and set screws.

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.



Replacing Brushes

This machine is equipped with a universal motor that uses a pair of carbon brushes to transmit power. These brushes are considered to be regular "wear items" or "consumables" that will eventually need to be replaced. The frequency of this replacement is directly related to how much the motor is used and how hard it is pushed. These brushes are not covered under warranty.

Replace both brushes at the same time if the motor no longer reaches full power, operates inconsistently, or when the brushes measure less than 1/4" long (new brushes are 5/8" long).

Tools Needed	Qty
Dime	1
Precision Ruler	1

You can order a new brush kit (two brush assemblies) from Grizzly. The part number for the brush kit is **P0844084V2-1**.

To replace motor brushes:

1. DISCONNECT MACHINE FROM POWER!
2. Use dime to unscrew and remove brush caps on front and rear of motor (see **Figure 47**).

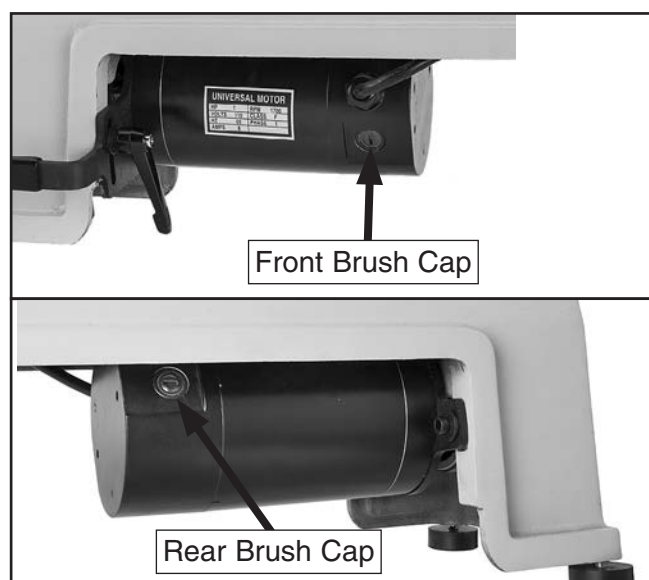


Figure 47. Location of front and rear brush caps.

3. Remove brushes from motor (see **Figure 48**).



Figure 48. Removing brush from motor.

Note: When brush caps are being removed, a spring will pop out of the motor socket; a spring is firmly attached to each carbon brush. **DO NOT** separate brush from spring.

4. Use a ruler to measure wear of each carbon brush. If either brush is worn to less than 1/4" in length, replace *both* brushes.
5. Insert new brush assemblies, positioning them to slide into slots in motor sockets. Individually, press each brush cap against its spring, pushing it into motor socket and turning each brush cap to lock it into motor housing.
6. Test run machine.

— If machine runs properly, you are done.

— If motor does *not* start, either new brushes are not correctly aligned in each socket, or there is another problem with motor or wiring. Double-check all wire connections first, then refer to **Troubleshooting** on **Page 32** for assistance.



SECTION 8: WIRING

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 (570) 546-9663 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

Wiring Safety Instructions

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!

MODIFICATIONS. Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved after-market parts.

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.

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

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.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.















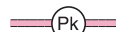
CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

COLOR KEY

BLACK		BLUE		YELLOW		LIGHT BLUE	
WHITE		BROWN		YELLOW GREEN		BLUE WHITE	
GREEN		GRAY		PURPLE		TURQUOISE	
RED		ORANGE		PINK			



Electrical Components

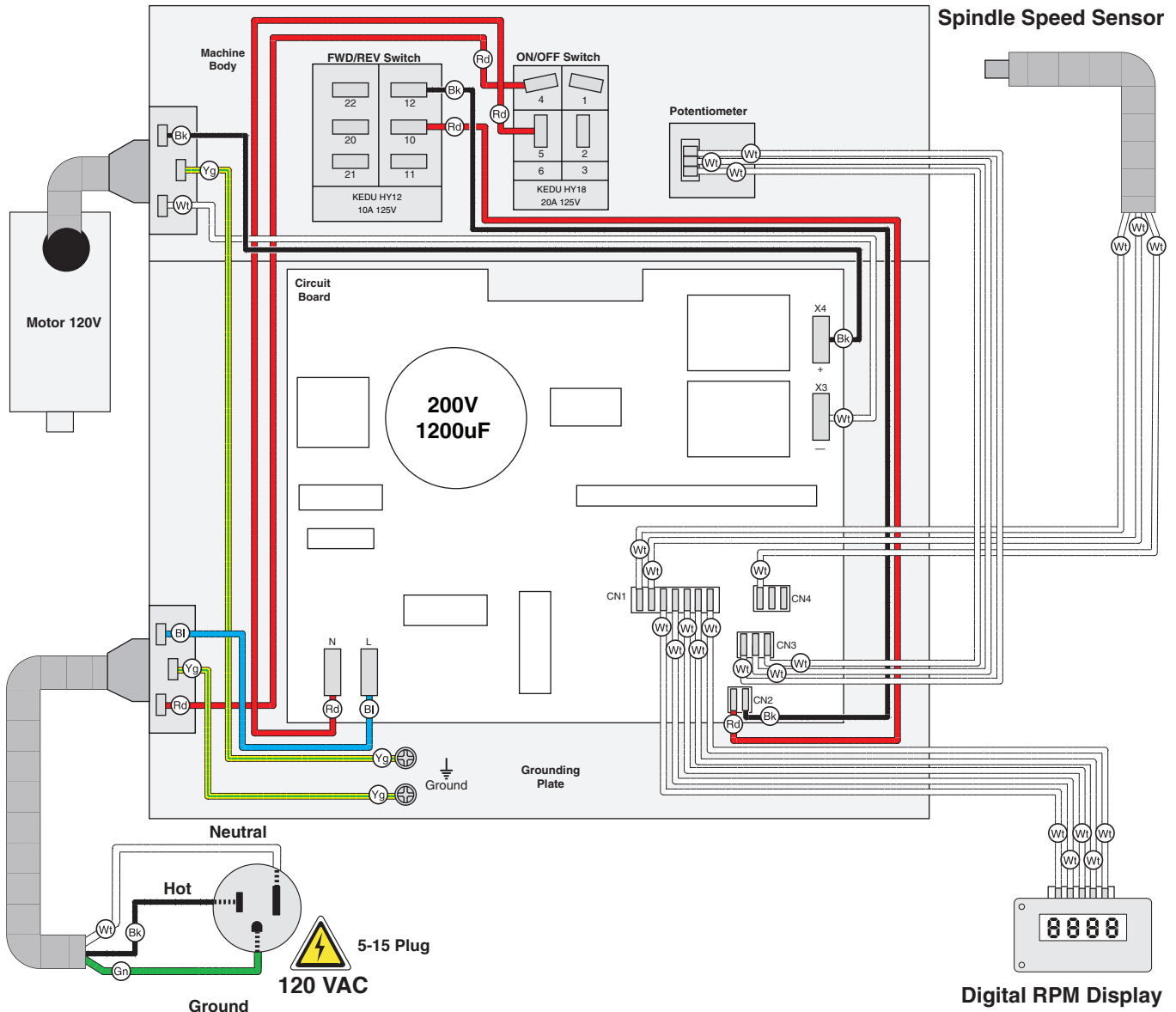


Figure 49. Control box wiring.



Figure 50. Spindle RPM sensor.

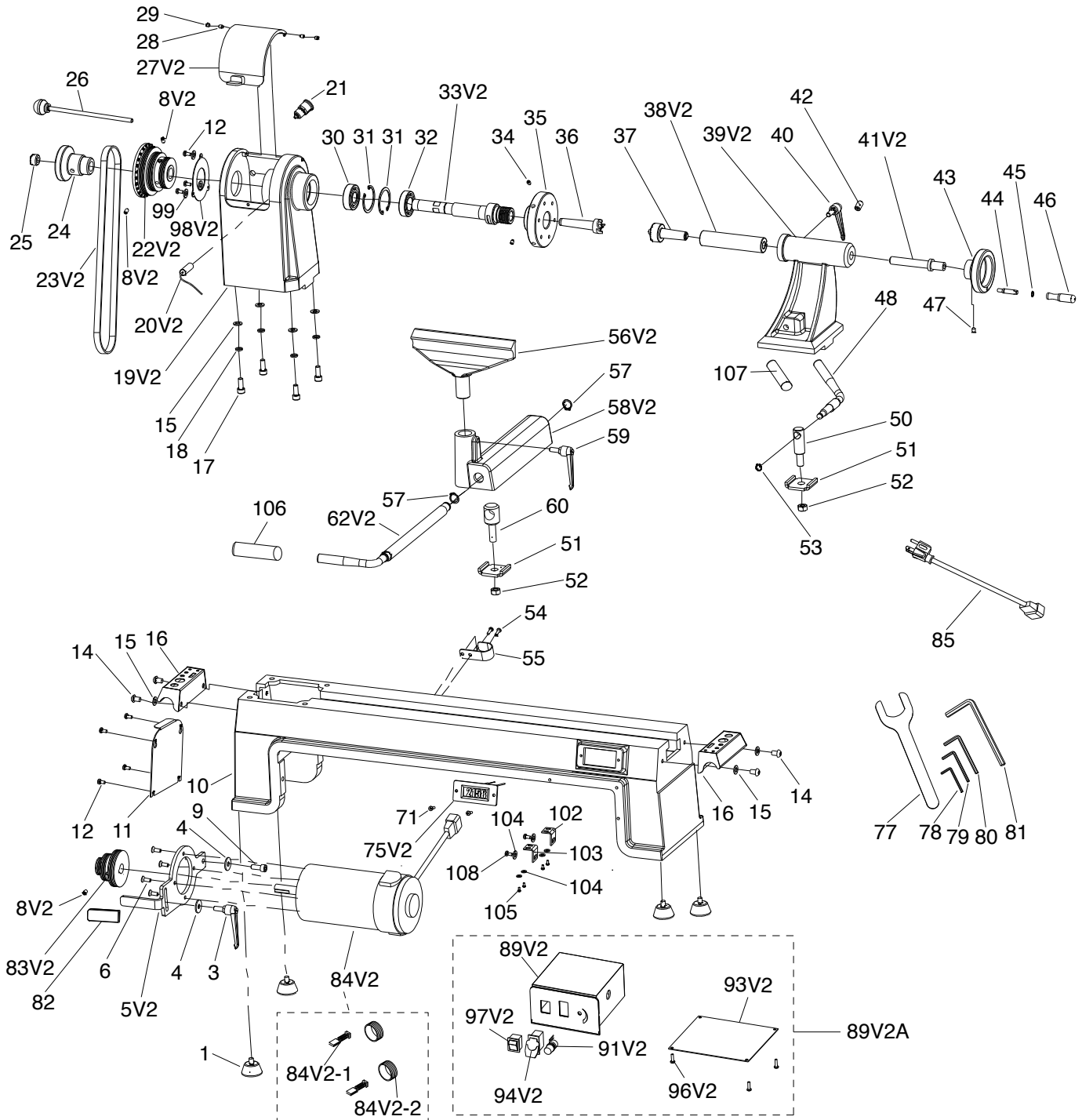
Wiring Diagram



SECTION 9: PARTS

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call (800) 523-4777 or visit www.grizzly.com/parts to check for availability.

Main



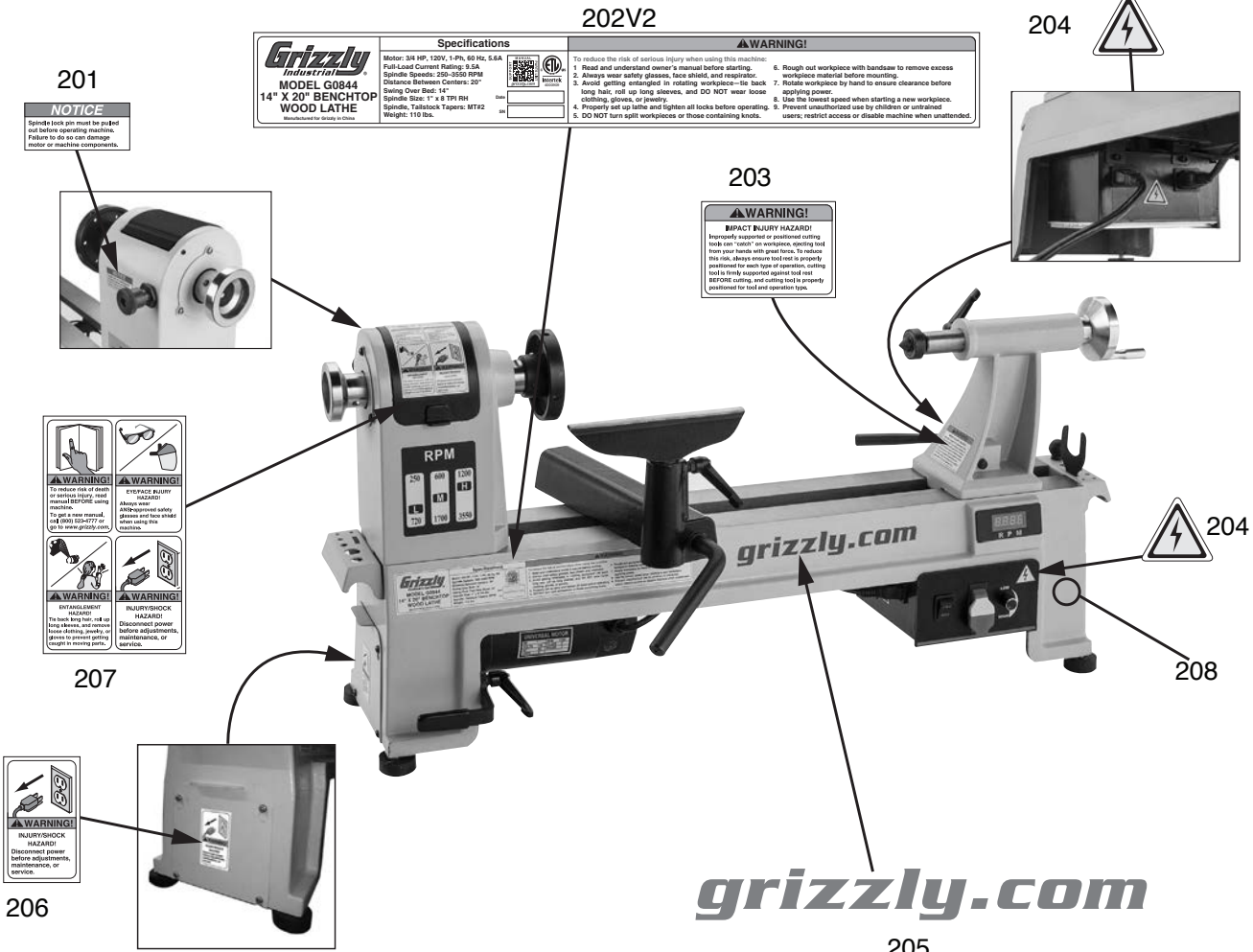
Main Parts List

REF	PART #	DESCRIPTION
1	P0844001	FOOT M8-1.25 X 18
3	P0844003	BELT TENSION LEVER
4	P0844004	FLAT WASHER 8MM
5V2	P0844005V2	MOTOR MOUNTING PLATE V2.12.19
6	P0844006	FLAT HD CAP SCR M6-1 X 16
8V2	P0844008V2	SET SCREW M8-1.25 X 10
9	P0844009	CAP SCREW M8-1.25 X 16
10	P0844010	BED
11	P0844011	BELT ACCESS DOOR
12	P0844012	PHLP HD SCR M5-.8 X 10
14	P0844014	PHLP HD SCR M8-1.25 X 12
15	P0844015	FLAT WASHER 8MM
16	P0844016	ACCESSORIES TRAY
17	P0844017	CAP SCREW M8-1.25 X 20
18	P0844018	LOCK WASHER 8MM
19V2	P0844019V2	HEADSTOCK V2.03.19
20V2	P0844020V2	DIGITAL TACHOMETER SENSOR V2.12.19
21	P0844021	LOCATION PIN ASSEMBLY
22V2	P0844022V2	SPINDLE BELT V2.12.19
23V2	P0844023V2	POLY-V BELT 310J5 V2.12.19
24	P0844024	OUTBOARD HANDWHEEL M20-2.5 X 25, 65D
25	P0844025	EXT THREAD LOCK NUT M20-2.5 X 12
26	P0844026	KNOCKOUT ROD
27V2	P0844027V2	HEADSTOCK COVER V2.03.19
28	P0844028	CAP SCREW M5-.8 X 10
29	P0844029	SET SCREW M5-.8 X 6
30	P0844030	BALL BEARING 6204-2RS
31	P0844031	INT RETAINING RING 47MM
32	P0844032	BALL BEARING 6005-2RS
33V2	P0844033V2	SPINDLE V2.12.19
34	P0844034	CAP SCREW M6-1 X 8
35	P0844035	FACE PLATE 4"
36	P0844036	SPUR CENTER MT2
37	P0844037	LIVE CENTER MT2
38V2	P0844038V2	TAILSTOCK QUILL V2.03.19
39V2	P0844039V2	TAILSTOCK V2.03.19
40	P0844040	QUILL LOCK LEVER M10-1.5 X 17
41V2	P0844041V2	LEADSCREW V2.03.19
42	P0844042	SET SCREW M8-1.25 X 16 DOG-PT
43	P0844043	HANDWHEEL TYPE-28 80D X 15B-S X M6-1
44	P0844044	HANDWHEEL HANDLE SCREW M6-1 X 10
45	P0844045	FLAT WASHER 8MM

REF	PART #	DESCRIPTION
46	P0844046	HANDWHEEL HANDLE
47	P0844047	SET SCREW M8-1.25 X 12 CONE-PT
48	P0844048	TAILSTOCK LOCK LEVER
50	P0844050	TAILSTOCK CLAMP BOLT
51	P0844051	TAILSTOCK CLAMP
52	P0844052	HEX NUT M12-1.75
53	P0844053	EXT RETAINING RING 10MM
56V2	P0844056V2	TOOL REST 8"W X 1" POST V2.12.19
57	P0844057	EXT RETAINING RING 16MM
58V2	P0844058V2	TOOL REST BASE (BANJO) V2.12.19
59	P0844059	TOOL REST LOCK LEVER M10-1.5 X 18
60	P0844060	TOOL REST CLAMP BOLT
62V2	P0844062V2	TOOL REST BASE LOCK LEVER V2.12.19
71	P0844071	PHLP HD SCR M4-.7 X 8
75V2	P0844075V2	DIGITAL TACHOMETER V2.12.19
77	P0844077	OPEN-ENDED WRENCH 32MM
78	P0844078	HEX WRENCH 3MM
79	P0844079	HEX WRENCH 4MM
80	P0844080	HEX WRENCH 5MM
81	P0844081	HEX WRENCH 12MM
82	P0844082	RUBBER HANDLE SLEEVE
83V2	P0844083V2	MOTOR PULLEY V2.12.19
84V2	P0844084V2	MOTOR 3/4HP 110V DC 1-PH V2.12.19
84V2-1	P0844084V2-1	MOTOR BRUSH (2-PC SET)
84V2-2	P0844084V2-2	MOTOR BRUSH CAP
85	P0844085	POWER CORD 16G 3W 78" 5-15P
89V2A	P0844089V2A	ELECTRICAL BOX ASSEMBLY V2.12.19
89V2	P0844089V2	ELECTRICAL BOX V2.12.19
91V2	P0844091V2	POTENTIOMETER V2.12.19
93V2	P0844093V2	ELECTRICAL BOX COVER V2.12.19
94V2	P0844094V2	ON/OFF SWITCH KEDU HY18 V2.12.19
96V2	P0844096V2	TAP SCREW M3 X 10
97V2	P0844097V2	FWD/REV SWITCH KEDU HY12 V2.12.19
98V2	P0844098V2	HEADSTOCK REAR PLATE V2.07.20
99	P0844099	FLAT WASHER 5MM
102	P0844102	MOUNTING BRACKET (REAR)
103	P0844103	MOUNTING BRACKET (FRONT)
104	P0844104	FLAT WASHER 5MM
105	P0844105	CAP SCREW M5-.8 X 8
106	P0844106	TOOL REST BASE LEVER SLEEVE
107	P0844107	TAILSTOCK LOCK LEVER SLEEVE
108	P0844108	CAP SCREW M5-.8 X 12



Labels & Cosmetics



Specifications		WARNING!	
Grizzly Industrial America MODEL G0844 14" X 20" BENCHTOP WOOD LATHE	Motor: 3/4 HP, 120V, 1 Ph, 60 Hz, S.A. Full-Load Current Rating: 9.5A Spindle Speeds: 250-3550 RPM Distance Between Centers: 20" Swing Over Bed: 14" Spindle Size: 1" x 8 TPI RH Spindle, Tailstock Tapers: MT#2 Weight: 110 lbs.		To reduce the risk of serious injury when using this machine: 1. Read and understand owner's manual before starting. 2. Always wear safety glasses, face shields, and respirator. 3. Avoid getting entangled in rotating workpiece—tie back long hair, roll up long sleeves, and DO NOT wear loose clothing, gloves, or jewelry. 4. Properly set up lathe and tighten all locks before operating. 5. DO NOT turn split workpieces or those containing knots.

201
NOTICE
Spindle lock pin must be pulled out before operating machine. Failure to do so can damage motor or machine components.



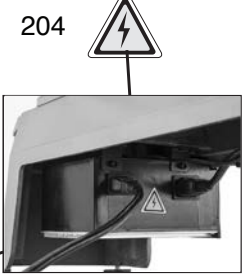
WARNING!
To reduce risk of death or serious injury, read manual BEFORE using machine. For more information, call (800) 523-4777 or go to www.grizzly.com.

WARNING!
EYE/FACE INJURY HAZARD! Always wear safety glasses and face shield when using this machine.

WARNING!
ROTATIONAL INJURY HAZARD! Tie back long hair, roll up long sleeves, and remove loose clothing, jewelry, or accessories before starting, working, or idling to prevent getting caught in moving parts.

WARNING!
INJURY/SHOCK HAZARD! Disconnect power before adjustments, maintenance, or service.

203
WARNING!
IMPACT INJURY HAZARD!
Improperly supported or positioned cutting tools can catch on workpiece, exerting force from your hands with great force. To reduce this risk, always remove tool rest to properly position for each type of operation, cutting tools to firmly supported against tool rest BEFORE cutting, and cutting tool to properly positioned for tool and operation type.



206
WARNING!
INJURY/SHOCK HAZARD!
Disconnect power before adjustments, maintenance, or service.



grizzly.com

REF	PART #	DESCRIPTION
201	P0844201	NOTICE LABEL
202V2	P0844202V2	MACHINE ID LABEL V2.12.19
203	P0844203	WARNING LABEL
204	P0844204	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
205	P0844205	GRIZZLY.COM LABEL
206	P0844206	DISCONNECT POWER LABEL
207	P0844207	MACHINE HAZARD LABEL
208	P0844208	TOUCH-UP PAINT GRIZZLY BIEGE

⚠ WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine **MUST** replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.







WARRANTY CARD

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone # _____ Email _____
 Model # _____ Order # _____ Serial # _____

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 Catalog
 Card Deck Website Other:

2. Which of the following magazines do you subscribe to?

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

3. 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+

4. What is your age group?

20-29 30-39 40-49
 50-59 60-69 70+

5. How long have you been a woodworker/metalworker?

0-2 Years 2-8 Years 8-20 Years 20+ Years

6. How many of your machines or tools are Grizzly?

0-2 3-5 6-9 10+

7. Do you think your machine represents a good value? Yes No

8. Would you recommend Grizzly Industrial to a friend? Yes No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: We never use names more than 3 times. Yes No

10. Comments: _____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place Stamp Here



GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name _____
Street _____
City _____ State _____ Zip _____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY & RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly'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 or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly 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.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

grizzly.com[®]

TOOL WEBSITE

Buy Direct and Save with Grizzly[®] – Trusted, Proven and a Great Value!
~Since 1983~

*Visit Our Website Today For
Current Specials!*

**ORDER
24 HOURS A DAY!
1-800-523-4777**

