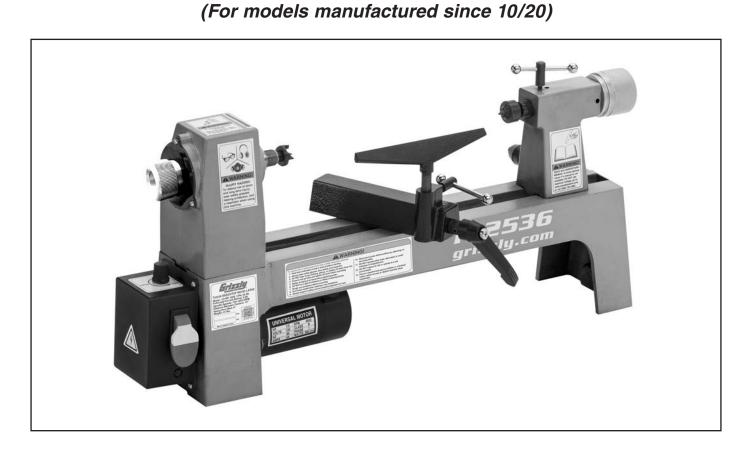


# MODEL T32536 8" X 13" BENCHTOP WOOD LATHE

OWNER'S MANUAL



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#KS21559 PRINTED IN CHINA



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.



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

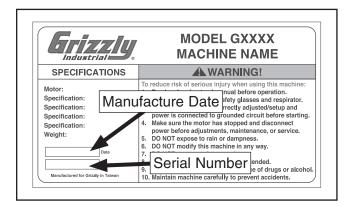
## **Manual Accuracy**

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.

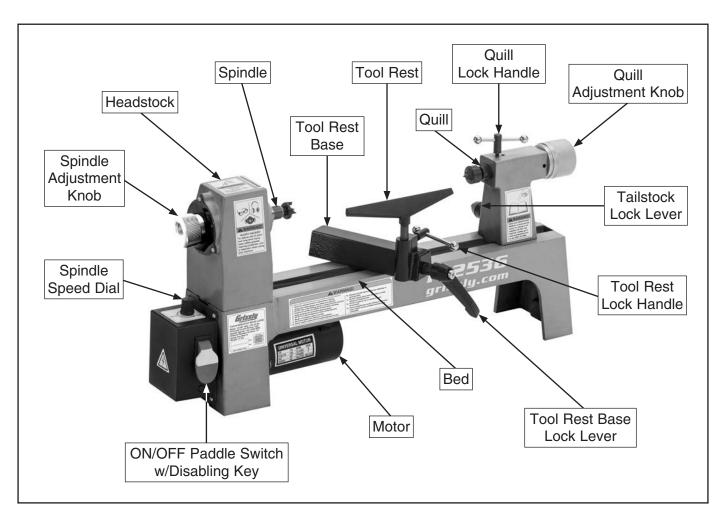
Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation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





## Identification

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



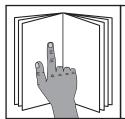
## **A**CAUTION

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



## **AWARNING**

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

Refer to **Figures 1–3** and the following descriptions to become familiar with the basic controls of this machine.

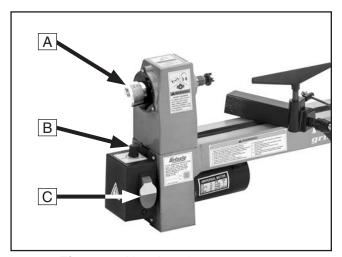


Figure 1. Headstock components.

- **A.** Spindle Adjustment Knob: Allows hand rotation of spindle to check clearances before powering up lathe.
- **B.** Spindle Speed Dial: Controls spindle speed. Always turn dial to lowest setting before starting lathe.
- C. ON/OFF Paddle Switch w/Disabling Key: Turns lathe motor ON and OFF. Remove yellow disabling key to prevent unauthorized operation of machine.

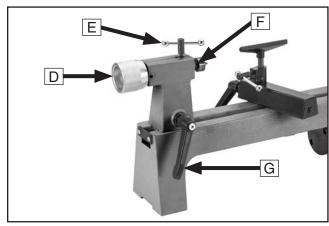


Figure 2. Tailstock components.

- **D.** Quill Adjustment Knob: Moves quill toward or away from spindle.
- **E. Quill Lock Handle:** Secures quill in position.
- **F. Quill:** Holds centers or tooling. Can be moved toward and away from spindle.
- G. Tailstock Lock Lever: Secures tailstock in position along bed.

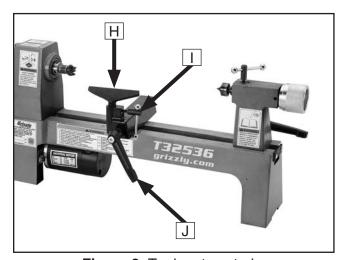


Figure 3. Tool rest controls.

- H. Tool Rest: Provides stable platform for cutting tools.
- Tool Rest Lock Handle: Secures tool rest in position.
- J. Tool Rest Base (Banjo) Lock Lever: Secures tool rest base in position along bed.



## **Glossary of Terms**

The following is a list of common definitions, terms and phrases used throughout this manual as they relate to this lathe and woodworking in general. Become familiar with these terms for assembling, adjusting or operating this machine. Your safety is **VERY** important to us at Grizzly!

- **Bed:** The long, rail-like metal base to which the tailstock, tool base, and headstock are attached.
- **Chuck:** A mechanical device that attaches to the spindle and holds the workpiece.
- **Faceplate:** The metal disc that threads onto the headstock spindle.
- **Faceplate Turning:** Turning situation in which the grain of the turning stock is at right angles to the lathe bed axis.
- **Backing Block:** A sacrificial piece of wood glued to the base of the workpiece and screwed to the faceplate. Often used to prevent mounting marks from appearing on the completed workpiece.
- **Headstock:** The cast metal box to which the motor is attached and contains the spindle, bearings, belts, and electrical components for operating the lathe.
- **Offset Turning:** A turning situation where the center of the workpiece is offset at various stages of the work to produce different shapes.
- **Outboard Turning:** Turning of workpiece with the headstock situated at the far end of the lathe so the work done is not over the bed of the lathe.

- **Roughing Out:** Taking stock from square billet to round blank.
- **Spindle:** This term has two meanings. First, it refers to the threaded shaft in the headstock to which the faceplate is attached. Second, it refers to any work that is spindle-turned.
- **Spindle-Turning:** Work performed where the grain and length of the workpiece are parallel to the axis of the bed.
- **Swing:** The capacity of the lathe, measured by doubling the distance from the bed to the spindle center.
- **Tailstock:** The metal component at the opposite end of the bed from the headstock containing a quill and live or dead centers. It maintains pressure on the spindle-turned workpiece.
- **Tool Base:** The movable metal fixture attached to the bed upon which the tool rest is fixed.
- **Tool Rest:** The adjustable metal arm upon which the tool rests during a turning operation.
- **Way:** One of the metal rails that make up the bed of the lathe.





## MACHINE DATA SHEET

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

## MODEL T32536 8" X 13" BENCHTOP WOOD LATHE

Product Dimensions:	
Weight	
Width (side-to-side) x Depth (front-to-back) x Height	
Footprint (Length x Width)	23-1/2 x 5-1/2 in.
Shipping Dimensions:	
Type	Cardboard Box
Content	Machine
Weight	
Length x Width x Height	
Must Ship Upright	Yes
Electrical:	
Power Requirement	120V, Single-Phase, 60 Hz
Full-Load Current Rating	
Minimum Circuit Size	15A
Connection Type	Cord & Plug
Power Cord Included	
Power Cord Length	
Power Cord Gauge	
Plug Included	
Included Plug Type	
Switch Type	Paddie Salety Switch w/Removable Key
Motors:	
Main	
Horsepower	1/3 HP
Phase	Single-Phase
Amps	4A
Speed	4600 RPM
Туре	Universal
Power Transfer	
Bearings	Shielded & Permanently Lubricated
Main Specifications:	
Operation Information	
Swing Over Bed	Q in
Swing Over Tool Rest Base	
Distance Between Centers	
Max. Distance Tool Rest to Spindle Center	
No of Spindle Speeds	
Spindle Speed Range	
Floor to Center Height	



#### **Spindle Information**

Spindle Taper	MT#1
Spindle Thread Size	
Spindle Thread Direction	
Spindle Bore	· ·
Type of Included Spindle Center	
Tool Rest Information	
Tool Rest Width	4-1/2 & 7 in
Tool Rest Post Diameter	
Tool Rest Post Length	
Tool Rest Base Height	
Tailstock Information	
Tailstock Quill Travel	1-3/8 in
Tailstock Taper	
Type of Included Tailstock Center	
Construction	
Construction	
Bed	Precision-Ground Cast Iron
Bed	Cast Iron & Steel
BedFrame	Cast Iron & Steel Cast Iron & Steel
BedFrameHeadstock	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel
BedFrameHeadstockTailstock	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel
BedFrameHeadstockTailstockPaint Type/FinishOther Related Information	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel
Bed Frame Headstock Tailstock Paint Type/Finish	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel
BedFrameHeadstockTailstockPaint Type/Finish  Other Related Information  Bed Width	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel
Bed Frame Headstock Tailstock Paint Type/Finish  Other Related Information Bed Width Faceplate Size.  Other Specifications:	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel 5-1/8 in.
Bed Frame	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel  5-1/8 in. 5-3/4 in.
Bed Frame	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel  5-1/8 in. 5-3/4 in.  China 1 Year
Bed Frame	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel  5-1/8 in. 5-3/4 in.  China 1 Year
Bed Frame	Cast Iron & Steel Cast Iron & Steel Cast Iron & Steel Enamel  5-1/8 in. 5-3/4 in.  China 1 Year 15 Minutes Machine ID Label

#### Features:

Paddle Safety Switch w/Removable Key Variable-Speed Spindle Precision-Ground Cast Iron Bed Right Hand Spindle 3/4" x 16 TPI

#### Accessories Included:

Hex Wrenches 3, 5mm
Open-End Wrench 19/27mm
Open-End Wrenches 24.5, 32mm
(2) Tool Rests: 4-1/2" & 7"
Faceplate 5-3/4"
MT#1 Spur Center
MT#1 Live Center
Knockout Tool



## **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.



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

**AWARNING** 

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

**A**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**

## **AWARNING**

**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.



## **AWARNING**

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**

## **AWARNING**

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.



## **AWARNING**

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

#### **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 .... 3.2 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.

## **AWARNING**

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.)

## **A**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!

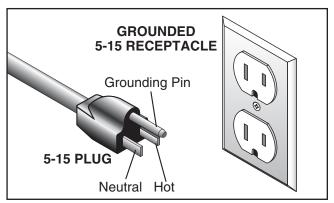
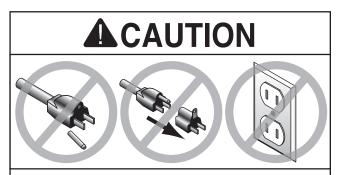


Figure 4. Typical 5-15 plug and receptacle.



#### **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 ......16 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.

Des	scription	Qty
•	Additional Person for Lifting	1
•	Safety Glasses (for each person).	1
•	Gloves	1 Pair
•	Phillips Head Screwdriver #2	1
•	Clean Shop Rags	As Needed
•	Cleaner/Degreaser	As Needed
•	Metal Lubricant	As Needed



## WARNING

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

## 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.

## **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	x 1 (Figure 5)	Qty
Α.	Lathe Assembly (not shown)	
	—Tool Rest Base (mounted)	1
	—Tailstock (mounted)	1
B.	Faceplate 5 <sup>3</sup> / <sub>4</sub> "	1
C.	Tool Rest 41/2"	1
D.	Tool Rest 7"	1
E.	Lock Levers	2
F.	Knockout Tool	1
G.	Spur Center	1
H.	Live Center	1
I.	Lock Handle M6-1 x 28 (Tool Rest)	1
J.	Lock Handle M6-1 x 18 (Quill)	1
K.	Hex Wrenches 3, 5mm	1 Ea
L.	Open-End Wrench 19/27mm	1
M.	Open-End Wrench 32mm	
N.	Open-End Offset Wrench 24.5mm	

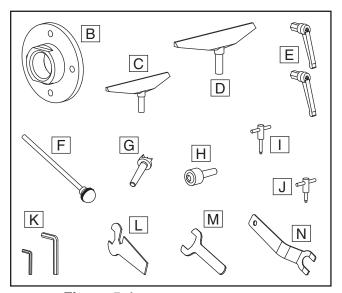


Figure 5. Inventory components.



## 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.
- 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.
- 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.

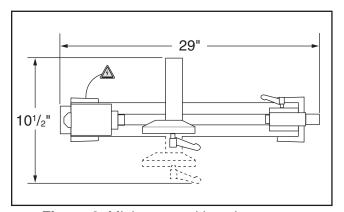
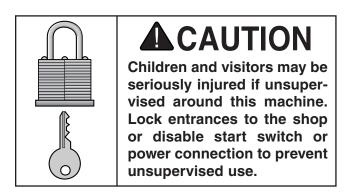


Figure 6. Minimum working clearances.





## **Bench Mounting**

## Number of Mounting Holes ...... 3 Dia. of Mounting Hardware Needed .......8mm

The base of this machine has mounting holes that allow it to be fastened to a workbench or other mounting surface to prevent it from moving during operation and causing accidental injury or damage.

The strongest mounting option is a "Through Mount" (see example below) where holes are drilled all the way through the workbench—and hex bolts and washers are used to secure the machine in place.

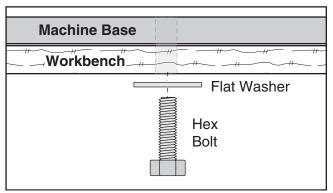


Figure 1. "Through Mount" setup.

## **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 tailstock lock lever and M6-1 X 18 quill lock handle (see **Figure 7**).

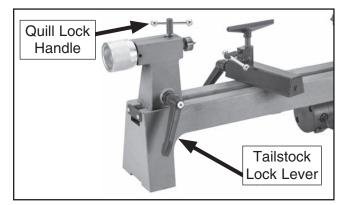
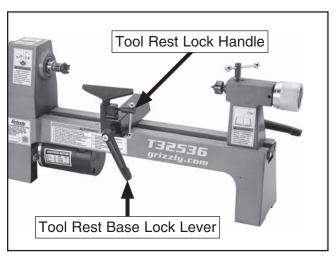


Figure 7. Hardware installed in tailstock.

2. Install tool rest base lock lever and M6-1 x 28 tool rest lock handle (see **Figure 8**).



**Figure 8.** Hardware installed in tool rest base.

3. Insert tool rest into tool rest base and tighten tool rest lock handle (see **Figure 9**).

**Note:** Unless workpiece clearance is an issue, always install the larger of the (2) tool rests included with this machine to give yourself more room to work.

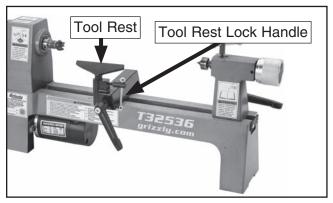


Figure 9. Tool rest installed in tool rest base.



## **Test Run**

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

## **AWARNING**

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.

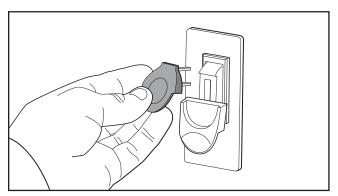
## **AWARNING**

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.
- Turn spindle speed dial all the way counterclockwise to help prevent accidental start-up.
- 3. Connect machine to power supply.

- **4.** Verify machine is operating correctly by moving ON/OFF paddle switch up, then slowly turning spindle speed dial clockwise.
  - When operating correctly, machine runs smoothly with little or no vibration or rubbing noises.
  - Investigate and correct strange or unusual noises or vibrations before operating machine further. Always disconnect machine from power when investigating or correcting potential problems.
- **5.** Turn spindle speed dial all the way counterclockwise.
- Turn machine OFF.
- 7. Remove switch disabling key (see Figure 10).



**Figure 10.** Removing switch disabling key from paddle switch.

- 8. Try to start machine with paddle switch.
  - If machine does not start, switch disabling feature is working correctly.
  - If machine does start, immediately disconnect power to machine. Switch disabling feature is not working correctly. Call Tech Support for help.

Congratulations! The Test Run is complete.

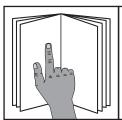


## **SECTION 4: OPERATIONS**

## **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.



## **AWARNING**

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

## WARNING

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







## **NOTICE**

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

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

- Examines workpiece to make sure it is suitable for turning. No extreme bows, knots, or cracks are present.
- 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 ½" gap.
- 5. Rotates workpiece by hand to verify spindle and workpiece rotate freely through full range of motion.
- **6.** Verifies spindle speed dial is turned all the way counterclockwise (lowest speed) so spindle does not start in high speed.
- **7.** Puts on ANSI-approved safety glasses, face shield, and respirator.
- Turns lathe ON, adjusts lathe speed as appropriate for workpiece, and carefully begins turning operation, keeping chisel against tool rest entire time it is cutting.
- Turns lathe *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. Never turn workpieces that 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!

• Wet or "Green" Stock: Turning wood with a moisture content over 20% can cause increased wear on tooling.

## **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. Serious personal injury may occur if tailstock moves during operation.

#### To position tailstock along length of bed:

 Loosen tailstock lock lever and move tailstock to desired position along bed (see Figure 11).

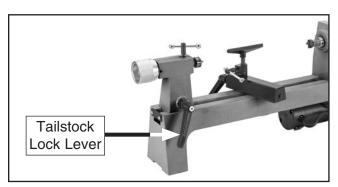


Figure 11. Location of tailstock lock lever.

**2.** Retighten tailstock lock lever to secure tailstock to bed.

Note: Clamping hex nut underneath tailstock (see Figure 12) requires occasional adjusting to ensure proper clamping of tailstock to bed. Turn this hex nut in small increments to fine-tune clamping pressure as needed.

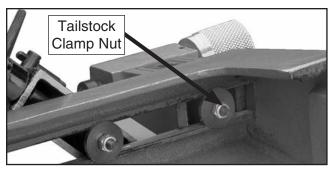


Figure 12. Location of tailstock clamp nut.



## **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. Adjust the tool rest as necessary during operations when the workpiece diameter decreases.

Many woodturners typically set the height of the tool rest ½" 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.

## **AWARNING**

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 13**.

**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.

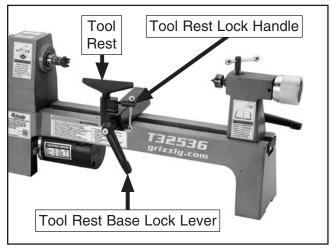


Figure 13. Tool rest controls.

2. Retighten tool rest base lock lever to secure tool rest assembly in position.

**Note:** The 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.

## **AWARNING**

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 13).
- 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#1 tapered fit.

Items Needed	Qty
Knockout Tool	1
Heavy Leather Gloves	1 Pair
Clean Rags	As Needed

#### **Installing Headstock Center**

- 1. DISCONNECT MACHINE FROM POWER!
- 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.
- Insert tapered end of center into spindle, and push it in with a quick, firm motion, as shown in Figure 14.

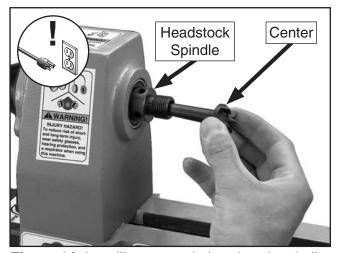
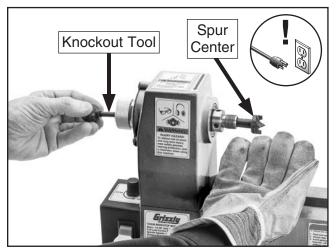


Figure 14. Installing center in headstock spindle.

**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**

- DISCONNECT MACHINE FROM POWER!
- 2. Hold a clean rag under spindle or wear leather glove to catch center when you remove it.
- Insert knockout tool through outboard end of spindle and firmly tap back of center, catching it as it falls, as shown in Figure 15.



**Figure 15.** Removing headstock center with knockout tool.



## Installing/Removing Tailstock Center

The included live center installs into the tailstock quill with an MT#1 tapered fit.

Items Needed	Qty
Heavy Leather Gloves1	Pair
Clean Rags As Nee	eded

#### **Installing Tailstock Center**

 Loosen quill-lock handle, and rotate quill adjustment knob until quill extends about 1", as shown in Figure 16.

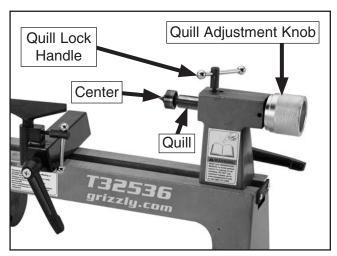


Figure 16. Tailstock center installed in guill.

- 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 16**.
- **4.** Make sure center is securely installed by attempting to pull it out by hand—a properly installed center will *not* pull out easily.

- **5.** Make sure set screw (see **Figure 17**) is aligned with quill keyway to ensure center and quill will not freely rotate under load.
- Secure quill in place by retightening quill-lock handle.

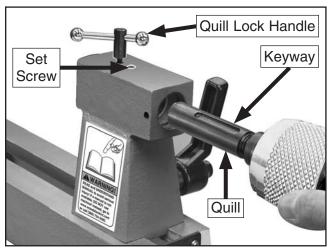


Figure 17. Tailstock quill alignment slot.

#### **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.
- Rotate quill adjustment knob counterclockwise—tailstock quill will retract back into quill, causing center to be forced out. If necessary, use knockout tool to remove center.

## **AWARNING**

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

# Installing/Removing Faceplate

These instructions cover installing and removing the faceplate. To mount a workpiece to your faceplate, refer to **Faceplate Turning** on **Page 26**.

Tools Needed	Qty
Open-End Wrench 19/27mm	1
Knockout Tool	1

#### **Installing Faceplate**

- 1. DISCONNECT MACHINE FROM POWER!
- While holding spindle in place, thread faceplate clockwise onto spindle shaft until secure against shoulder on spindle shaft.
- Insert knockout tool into one hole on spindle, then tighten faceplate with open-end wrench (see Figure 18).

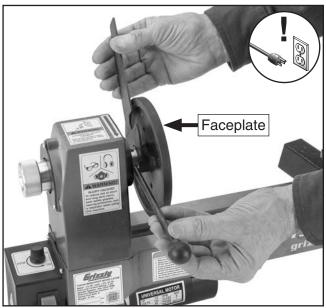


Figure 18. Installing faceplate on spindle.

#### **Removing Faceplate**

- DISCONNECT MACHINE FROM POWER!
- 2. Put open end of wrench over flats behind faceplate. While holding spindle in place with knockout rod, turn wrench counterclockwise until faceplate is removed (see Figure 18).

**Note:** If spur center is installed, it will be removed during this process.

## **AWARNING**

To prevent faceplate and workpiece separating from spindle during operation, headstock faceplate MUST be firmly threaded onto spindle. If these instructions are not properly performed, serious personal injury could occur.



# Adjusting Spindle Speed

The Model T32536 utilizes a spindle speed dial (see **Figure 19**) that allows for on-the-fly spindle speed changes from 750 to 3200 RPM. Rotate the spindle speed dial clockwise to increase speed and counterclockwise to decrease speed.

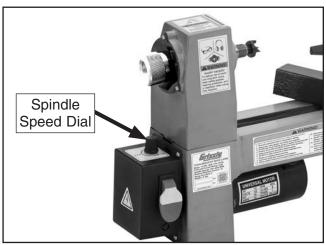


Figure 19. Location of spindle speed dial.

## **AWARNING**

Always start lathe with spindle speed dial set at slowest speed setting, and then choose correct spindle speed for your operation. Starting lathe at highest speed, or too fast of spindle speed may lead to workpiece breaking loose or being thrown from lathe at a high rate of speed, causing fatal or severe impact injuries.

Refer to the speed recommendations chart in **Figure 20** to choose the appropriate RPM for your operation.

Diameter of Work- piece	Roughing RPM	General Cutting RPM	Finishing RPM
Under 2"	1520	3000	3200
2–4"	760	1600	2480
4–6"	510	1080	1650
6–8"	380	810	1240
8–10"	300	650	1000
10–12"	255	540	830
12–14"	220	460	710

**Figure 20.** General speed recommendations for workpiece diameters.

## **Spindle Turning**

Spindle turning is the operation performed when a workpiece is mounted between centers in the headstock and tailstock, as shown in **Figure 21**. Bowls, table legs, tool handles, and candlesticks are typical projects where this operation is used.



**Figure 21.** Example of typical spindle turning operation.

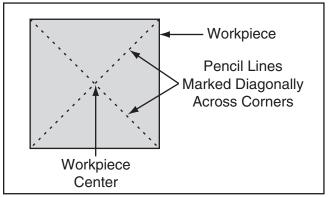
## **AWARNING**

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	
Drill Bit 1/4"	1
Tahlesaw/Bandsaw	1

#### To set up a spindle turning operation:

 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 22.



**Figure 22.** Workpiece marked diagonally from corner to corner to determine the center.

- Make a center mark by using a wood mallet and tapping point of spur center into center of workpiece on both ends.
- Drill a ¼" 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 <sup>1</sup>/<sub>8</sub>" 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 when roughing out workpiece (see **Figure 23**).

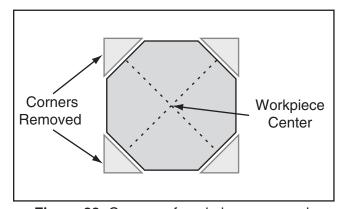


Figure 23. Corners of workpiece removed.



**6.** Drive spur center into end center mark of workpiece with a wood mallet to embed it at least 1/4" into workpiece (see **Figure 24**).

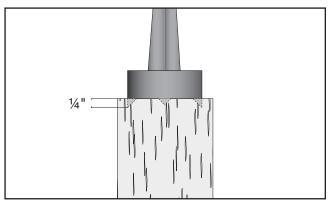


Figure 24. Spur center properly embedded.

 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).
- **9.** Slide tailstock toward workpiece until point of live center touches workpiece center mark, then lock tailstock in this position.
- **10.** Loosen quill-lock handle and rotate quill adjustment knob to push live center into workpiece at least ½".

## 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 impact injuries could result from the workpiece being ejected at high rates of speed.

 Properly adjust tool rest to workpiece (see Adjusting Tool Rest on Page 19). **12.** Before beginning lathe operation, rotate workpiece by hand to ensure there is safe clearance on all sides.

## **AWARNING**

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 and stopping the lathe to help prevent accidental startup at high speeds.
- Select the right speed for the size of workpiece that you are turning (refer to Figure 20 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 25**. This type of turning is usually done with open-faced workpieces such as bowls or plates.

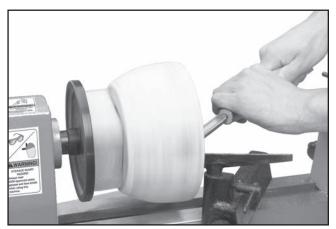


Figure 25. Typical faceplate turning operation.

#### Mounting Workpiece on Faceplate

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

#### To mount workpiece on faceplate:

 Mark workpiece center in same manner as described in Spindle Turning (see Page 24).

**Note:** Cut off corners of workpiece to make it as close to "round" as possible, as described in **Spindle Turning**, **Step 5** (see **Page 24**).

**2.** Center faceplate on workpiece and attach it with wood screws (see **Figure 26**).



**Figure 26.** Example of attaching faceplate to workpiece.

## **NOTICE**

Only use screws with non-tapered heads (see Figure 27) to attach faceplate to the workpiece. Screws with tapered heads can split faceplate or snap off during operation.

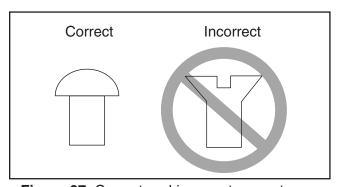


Figure 27. Correct and incorrect screw types.

- 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 on next page).



## Mounting Workpiece on Backing Block

Items Needed	Qty
Piece of Scrap Wood	
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 ¼" 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 26) to attach backing block to faceplate.

## Sanding/Finishing

After the turning operations are complete, the workpiece can be sanded and finished (see **Figure 28**) before removing it from the lathe.

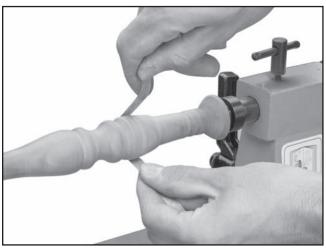
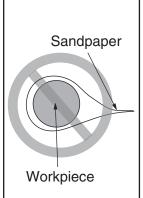


Figure 28. Example of typical sanding operation.

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



## **AWARNING**

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.

# 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 29. 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 30. 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 31. 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 doubleground.



Figure 32. 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 29 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—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.

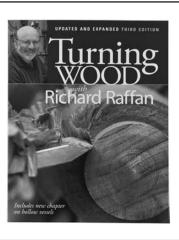
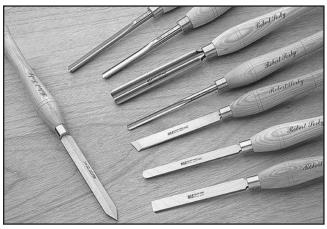


Figure 33. T25535 Turning Wood Book.

# H6542—Robert Sorby HSS 8-Pc. Turning Set This 8-pc. HSS Turning Tool Set includes <sup>3</sup>/<sub>4</sub>" Roughing Gouge, <sup>1</sup>/<sub>4</sub>" and <sup>1</sup>/<sub>2</sub>" Spindle Gouge, <sup>3</sup>/<sub>8</sub>" Bowl Gouge, <sup>3</sup>/<sub>4</sub>" Standard Skew, <sup>3</sup>/<sub>16</sub>" Diamond Side Cut Scraper, 1" Square Scraper, and <sup>1</sup>/<sub>2</sub>" Round Scraper. Overall lengths are 16" to 19".



**Figure 34.** Model H6542 Robert Sorby 8-Pc. Turning 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 35. Swan neck hollowing tools.

#### H7940—HSS Lathe Chisels, 3-Pc. Set

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



Figure 36. Model H7940 Lathe Chisel 3-Pc. Set.

#### T25802—Woodworking Calipers, 5-Pc. Set

Includes compass, straight dividers, inside calipers, outside calipers, and inside/outside calipers. Perfect for woodturning and general layout work.



**Figure 37.** Model T25802 Woodworking Calipers 5-Pc. Set.

#### D3640 —Tool Table Plus

The Tool Table Plus was designed in response to customer requests for a slightly wider and taller table to accommodate small planers, wood lathes, sanders and a variety of other bench-top machines. The butcher block finish table is  $1\frac{1}{4}$ " thick and measures 14" x 40". The total height of the tool table is 33".



Figure 38. Model D3640 - Tool Table Plus.

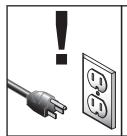
#### D3098—Center Finder

Find the center of round or square stock for lathe turning. One side locates a diagonal line on square stock up to 8" x 8", and the other side locates a diagonal line on round stock up to  $4^{1}/_{2}$ " in diameter. Marking two opposite diagonal lines determines the center point.



Figure 39. Model D3098 Center Finder.

## **SECTION 6: MAINTENANCE**



## **AWARNING**

To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

## **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 surfaces rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.



Figure 40. Assorted rust-prevention products.

## 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 adjustment knob 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	Switch disabling key removed.	Install disabling key.
start, or power-	2. Blown fuse.	2. Replace fuse/ensure no shorts (Page 36).
supply fuse/breaker	3. Incorrect power supply voltage or circuit	3. Ensure correct power supply voltage and circuit
trips immediately after startup.	size.	size.
aner startup.	4. Power supply circuit breaker tripped or fuse	4. Ensure circuit is sized correctly and free of shorts.
	blown.	Reset circuit breaker or replace fuse.
	5. Wiring broken, disconnected, or corroded.	Fix broken wires or disconnected/corroded connections.
	6. Spindle speed dial at fault.	6. Test/replace if at fault.
	7. ON/OFF switch at fault.	7. Replace switch.
	8. Motor brushes worn out.	8. Remove/replace brushes (Page 36).
	9. Circuit board at fault.	9. Inspect/replace if at fault.
	10. Motor or motor bearings at fault.	10. Replace motor.
Machine stalls or is	Machine undersized for task.	Use sharp chisels; reduce feed rate/depth of cut.
underpowered.	Workpiece material not suitable for machine.	2. Only cut wood/ensure moisture is below 20%.
	3. Feed rate/cutting speed too fast.	3. Decrease feed rate/cutting speed (Page 23).
	4. Belt slipping.	4. Tension/replace belt; ensure pulley is aligned
		properly (Page 35); belt is clean and not damaged.
	5. Pulley slipping on shaft.	5. Tighten/replace loose pulley/shaft.
	6. Spindle speed dial at fault.	6. Test/replace if at fault.
	7. Motor brushes worn out.	7. Remove/replace brushes (Page 36).
	8. Circuit board at fault.	8. Inspect/replace if at fault.
	9. Motor or motor bearings at fault.	9. Replace motor.
Machine has vibration or noisy	Motor or component loose.	Inspect/replace damaged bolts/nuts, and retighten with thread-locking fluid.
operation.	2. Machine sits unevenly on workbench.	2. Adjust feet.
	3. Belt worn, loose, pulleys misaligned or belt	3. Inspect/replace belt (Page 34). Realign pulleys if
	slapping cover.	necessary (Page 35).
	4. Pulley loose.	4. Realign/replace shaft, pulley, set screw, and key.
	5. Motor fan rubbing on fan cover.	5. Fix/replace fan cover; replace loose/damaged fan.
	6. Motor mount loose/broken.	6. Tighten/replace.
	7. Workpiece/faceplate at fault.	7. Center workpiece in chuck/faceplate; reduce RPM; replace defective chuck.
	8. Motor bearings at fault.	8. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

## **Wood Lathe Operation**

Symptom	Possible Cause	Possible Solution
Bad surface finish.	<ol> <li>Dull tooling or wrong tool used for task.</li> <li>Tool height is not 1/8" above spindle centerline.</li> <li>Spindle speed is wrong</li> </ol>	<ol> <li>Sharpen tooling, select correct tool for operation.</li> <li>Adjust tool rest so tool is ½" above spindle centerline.</li> <li>Adjust for appropriate spindle speed (Page 23)</li> </ol>
Excessive vibration upon startup (when workpiece is installed).	<ol> <li>Spindle speed is wrong.</li> <li>Workpiece is mounted incorrectly.</li> <li>Workpiece warped, out of round, or flawed.</li> <li>Machine sits unevenly on workbench.</li> <li>Spindle speed too fast for workpiece.</li> <li>Workpiece hitting stationary object.</li> <li>Tailstock or tool rest not securely clamped to lathe bed.</li> <li>Belt pulley is not properly aligned.</li> <li>Motor mount loose/broken.</li> <li>Belt worn, loose, pulleys misaligned or belt slapping cover.</li> <li>Spindle bearings at fault.</li> </ol>	<ol> <li>Adjust for appropriate spindle speed (Page 23).</li> <li>Remount workpiece, making sure that centers are embedded in true center of workpiece.</li> <li>Cut workpiece to be concentric, or use a different workpiece.</li> <li>Adjust feet.</li> <li>Reduce spindle speed (Page 23).</li> <li>Stop lathe and fix interference problem.</li> <li>Check lock levers and tighten if necessary (Pages 18–19).</li> <li>Align belt pulley (Page 35).</li> <li>Tighten/replace.</li> <li>Inspect/replace belt (Page 34). Realign pulleys if necessary (Page 35).</li> <li>Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> </ol>
Chisel grabs or digs into workpiece.	<ol> <li>Wrong chisel/tool being used.</li> <li>Chisel/tool too dull.</li> <li>Tool rest height not set correctly.</li> <li>Tool rest is set too far from workpiece.</li> </ol>	<ol> <li>Use correct chisel/tool.</li> <li>Sharpen or replace chisel/tool.</li> <li>Correct tool rest height (Page 19).</li> <li>Move tool rest closer to workpiece.</li> </ol>
Tailstock moves under load.	Tailstock mounting bolt/hex nut is loose.     Bed or clamping surface is excessively oily or greasy.	Tighten mounting bolt/hex nut.     Clean bed or clamping surface to remove excess oil/grease.
Spindle lacks turning power or starts up slowly.	<ol> <li>Belt is slipping.</li> <li>Pulley loose.</li> <li>Workpiece too heavy for spindle.</li> </ol>	<ol> <li>Tighten/adjust belt (Page 34).</li> <li>Tighten pulley set screw; re-align/replace shaft, pulley set screw, and key.</li> <li>Remove excess material before remounting; use lighter workpiece.</li> </ol>
Quill will not move forward when knob is turned.	Keyway is not aligned with quill lock lever.	Align quill keyway and quill lock lever and slightly tighten lever to engage keyway (Page 21).



# 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.

Tools Needed	Qty
Phillips Head Screwdriver #2	1
Hex Wrench 5mm	1
Open-End Wrench 32mm	1
Open-End Offset Wrench 24.5mm	1

#### **Tensioning Belt**

- 1. DISCONNECT MACHINE FROM POWER!
- **2.** Loosen (2) M6-1 x 1 cap screws on motor mounting plate (see **Figure 41**).

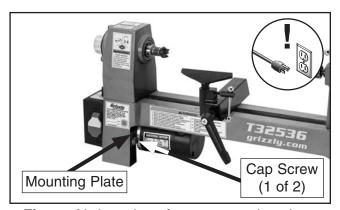
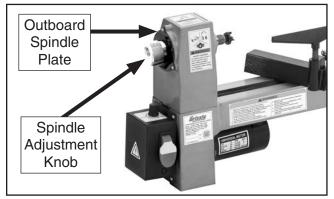


Figure 41. Location of motor mounting plate.

**3.** Remove outboard spindle plate by removing (3) M4-.7 x 8 Phillips head screws, then remove spindle adjustment knob, as shown in **Figure 42**.



**Figure 42.** Location of outboard spindle plate and spindle adjustment knob.

**4.** Apply downward pressure on motor assembly to properly tension drive belt, then retighten cap screws on motor mounting plate.

**Note:** When properly tensioned, belt should deflect about ½" when moderate pressure is applied to belt mid-way between upper and lower pulley (see **Figure 43**).

— If there is more than 1/8" deflection repeat the tensioning procedure until it is correct. If tension cannot be achieved replace belt.

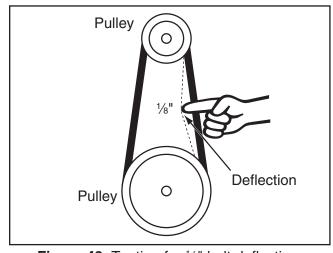


Figure 43. Testing for 1/8" belt deflection.

 Re-install spindle adjustment knob, then reinstall outboard spindle plate using (3) M4-.7 x 8 Phillips head screws.



#### **Replacing Belt**

- 1. DISCONNECT MACHINE FROM POWER!
- Loosen (2) M6-1 x 1 cap screws on motor mounting plate (see Figure 41 on Page 34).
- 3. Lift motor assembly all the way up, then re-tighten both motor mounting plate cap screws—this will hold motor in place while you change belt position.
- 4. Remove outboard spindle plate by removing (3) M4-.7 x 8 Phillips head screws, then remove spindle adjustment knob, as shown in **Figure 42** on **Page 34**).
- **5.** Roll belt off spindle pulley, then pull belt off motor pulley and through bottom of lathe.

**Tip:** This step may be easier to accomplish by gently rolling machine onto its back.

- **6.** Install new belt by performing **Step 5** *in reverse*.
- 7. Loosen motor mounting plate cap screws and apply downward pressure on motor assembly to properly tension drive belt, then re-tighten cap screws on motor mounting plate.

**Note:** When properly tensioned, belt should deflect about ½" when moderate pressure is applied to belt mid-way between upper and lower pulley (see **Figure 43** on **Page 34**).

- If there is more than 1/8" deflection repeat the tensioning procedure until it is correct. If tension cannot be achieved replace belt.
- **8.** Ensure belt is fully seated on pulley, then roll machine upright, if necessary.
- Re-install spindle adjustment knob, then reinstall outboard spindle plate using (3) M4-.7 x 8 Phillips head screws.

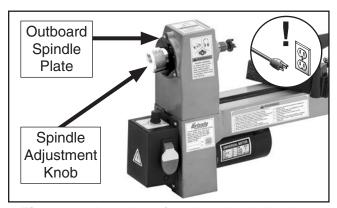
## **Aligning Pulleys**

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.

Tools Needed	Qty
Phillips Head Screwdriver #2	1
Hex Wrench 3mm	1
Open-End Wrench 32mm	1
Open-End Offset Wrench 24.5mm	1

#### To align motor and spindle pulleys:

- DISCONNECT MACHINE FROM POWER!
- 2. Remove outboard spindle plate and spindle adjustment knob (see Figure 44).



**Figure 44.** Location of outboard spindle plate and spindle adjustment knob.

- 3. Loosen M6-1 x 8 set screw on spindle pulley.
- **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 screw on spindle pulley.
- **6.** Install spindle adjustment knob and outboard spindle plate.



## Replacing Fuse

This machine features an onboard fuse designed to protect sensitive electrical parts in the event of electrical overload. If the fuse has blown, the motor will not start.

To verify the condition of the fuse, remove it from the switch box and hold it up to the light. If the element is broken, the fuse is blown and must be replaced.

Items Needed	Qty
Phillips Head Screwdriver #2	1
Fuse (PN PT32536059)	1

#### To replace fuse:

- DISCONNECT MACHINE FROM POWER!
- 2. Remove fuse holder on back of switch box (see Figure 45).

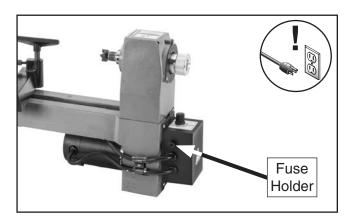


Figure 45. Location of fuse holder.

- Remove old fuse from holder and install new fuse.
- **4.** Re-install fuse holder in switch box.

## **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  $\frac{1}{4}$ " long (new brushes are  $\frac{5}{8}$ " long).

If your machine is used frequently, we recommend keeping a set of these replacement brushes on-hand to avoid any downtime.

Items Needed	Qty
Flat Head Screwdriver 1/4"	1
Precision Ruler	1
Motor Brushes (PN: PT32536041-1)	2

#### To replace motor brushes:

- DISCONNECT MACHINE FROM POWER!
- 2. Unscrew and remove brush caps (refer to Figure 46) and worn brushes from motor.

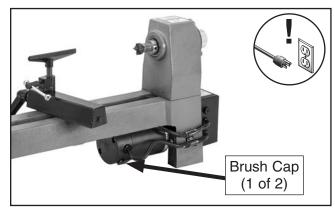


Figure 46. Location of motor brushes.

**3.** Replace both motor brushes and re-install brush caps.



## **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 aftermarket 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.

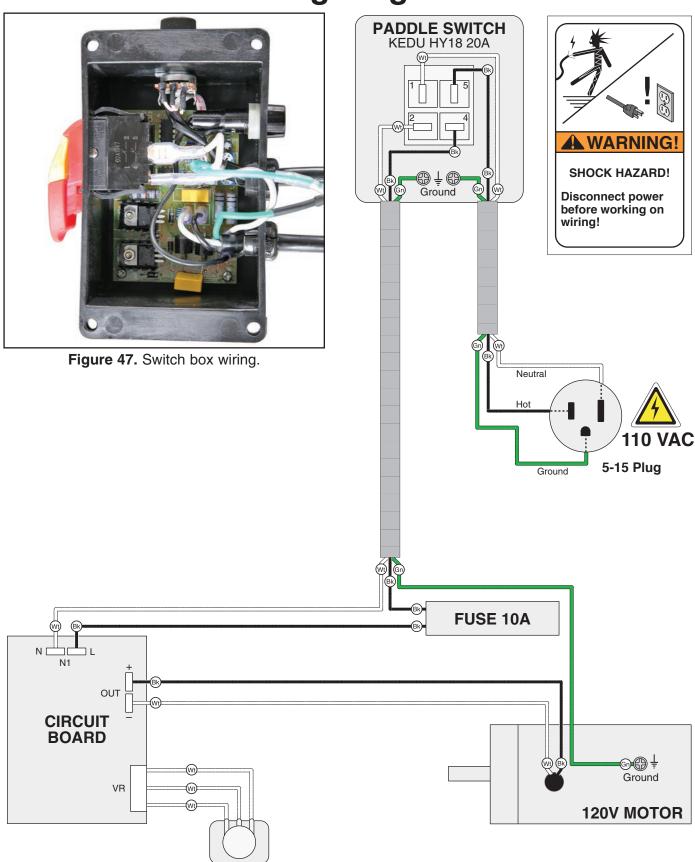
**CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

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

#### **NOTICE COLOR KEY** BLACK I **BLUE** YELLOW LIGHT The photos and diagrams included in this section are **YELLOW** WHITE = **BROWN** BLUE **GREEN** best viewed in color. You GREEN GRAY **PURPLE** can view these pages in TUR-QUOISE color at www.grizzly.com. RED **ORANGE PINK**



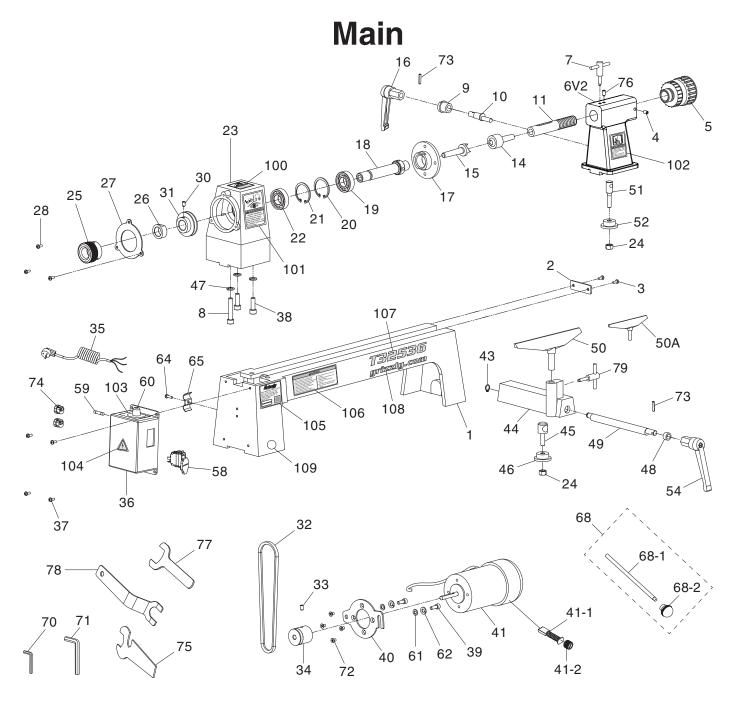
## **Wiring Diagram**



**VARIABLE SPEED DIAL** 

## **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 Parts List**

REF PART#

REF	PART #	DESCRIPTION
1	PT32536001	LATHE BED
2	PT32536002	RETAINING PLATE
3	PT32536003	PHLP HD SCR M58 X 8
4	PT32536004	SET SCREW M6-1 X 8 DOG-PT
5	PT32536005	TAILSTOCK ADJUSTMENT KNOB
6V2	PT32536006V2	TAILSTOCK BODY V2.04.21
7	PT32536007	T-LOCK KNOB BOLT M6-1 X 18
8	PT32536008	CAP SCREW M8-1.25 X 50
9	PT32536009	LEVER BUSHING
10	PT32536010	ECCENTRIC AXIS
11	PT32536011	TAILSTOCK QUILL
14	PT32536014	LIVE CENTER MT#1
15	PT32536015	SPUR CENTER MT#1
16	PT32536016	LOCK LEVER
17	PT32536017	FACEPLATE 5-3/4"
18	PT32536018	HEADSTOCK SPINDLE
19	PT32536019	BALL BEARING 6004-2RS
20	PT32536020	INT RETAINING RING 42MM
21	PT32536021	INT RETAINING RING 42MM
22	PT32536022	BALL BEARING 6004ZZ
23	PT32536023	HEADSTOCK
24	PT32536024	LOCK NUT M8-1.25
25	PT32536025	KNOB 3/4-16 LH, D42, ROUND KD
26	PT32536026	HEADSTOCK SPINDLE NUT
27	PT32536027	OUTBOARD SPINDLE PLATE
28	PT32536028	PHLP HD SCR M47 X 8
30	PT32536030	SET SCREW M6-1 X 8
31	PT32536031	DRIVE PULLEY
32	PT32536032	BELT K-516
33	PT32536033	SET SCREW M6-1 X 10
34	PT32536034	MOTOR PULLEY
35	PT32536035	POWER CORD 18G 3W 72" 5-15P
36	PT32536036	CIRCUIT BOARD W/BOX
37	PT32536037	PHLP HD SCR M47 X 10
38	PT32536038	CAP SCREW M8-1.25 X 25
39	PT32536039	CAP SCREW M6-1 X 20
40	PT32536040	MOTOR MOUNTING PLATE
41	PT32536041	MOTOR 1/3HP 120V 1-PH
41-1	PT32536041-1	CARBON BRUSH (2-PC SET)
41-2	PT32536041-2	BRUSH CAP

		DECOMM TION
44	PT32536044	TOOL REST BASE
45	PT32536045	TOOL REST CLAMP BOLT M8-1.25 X 32
46	PT32536046	CLAMP BLOCK
47	PT32536047	LOCK WASHER 8MM
48	PT32536048	SLEEVE
49	PT32536049	ECCENTRIC ROD
50	PT32536050	TOOL REST 7"
50A	PT32536050A	TOOL REST 4-1/2"
51	PT32536051	TAILSTOCK CLAMP BOLT M8-1.25 X 32
52	PT32536052	CLAMP BLOCK
54	PT32536054	LOCK LEVER
58	PT32536058	PADDLE SWITCH KEDU HY18 20A
59	PT32536059	FUSE 10A
60	PT32536060	SPINDLE SPEED DIAL W/POTENTIOMETER
61	PT32536061	FLAT WASHER 6MM
62	PT32536062	LOCK WASHER 6MM
64	PT32536064	PHLP HD SCR M47 X 10
65	PT32536065	CABLE CLAMP
68	PT32536068	KNOCK-OUT TOOL ASSEMBLY
68-1	PT32536068-1	KNOCK-OUT TOOL ROD
68-2	PT32536068-2	KNOCK-OUT TOOL END BALL
70	PT32536070	HEX WRENCH 3MM
71	PT32536071	HEX WRENCH 5MM
72	PT32536072	FLAT HD SCR M58 X 10
73	PT32536073	ROLL PIN 4 X 16
74	PT32536074	STRAIN RELIEF TYPE-1 3/8"
75	PT32536075	WRENCH 19 X 27MM OPEN-ENDS
76	PT32536076	SET SCREW M6-1 X 12
77	PT32536077	WRENCH 32MM OPEN-END
78	PT32536078	WRENCH 24.5MM OPEN-END OFFSET
79	PT32536079	T-LOCK KNOB BOLT M6-1 X 28
100	PT32536100	DISCONNECT 110V LABEL
101	PT32536101	EYE/EAR/LUNG HAZARD LABEL
102	PT32536102	READ MANUAL LABEL
103	PT32536103	SPINDLE SPEED LABEL
104	PT32536104	ELECTRICITY LABEL
105	PT32536105	MACHINE ID LABEL
106	PT32536106	MACHINE WARNING LABEL
107	PT32536107	MODEL NUMBER LABEL
108	PT32536108	GRIZZLY.COM LABEL
109	PT32536109	TOUCH-UP PAINT, GRIZZLY GREEN

**DESCRIPTION** 



PT32536043

EXT RETAINING RING 10MM

## **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.

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.

In the event you need to use 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.

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.

To take advantage of this warranty, you must register it at https://www.grizzly.com/forms/warranty, or you can scan the QR code below to be automatically directed to our warranty registration page. Enter all applicable information for the product.





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