

READ THIS FIRST



Model G0624

IMPORTANT UPDATE

For Machines Mfg. Since August, 2012
and Owner's Manual Printed November, 2006

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

- Obtained CSA certification for meeting CSA 22.2 #71.2-08 and UL 987-7th standards.
- Changed the motor nominal voltage 110V to 120V.

This document provides relevant updates to portions of the owner's manual that no longer apply and additional information required by CSA—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.

Changed Specifications

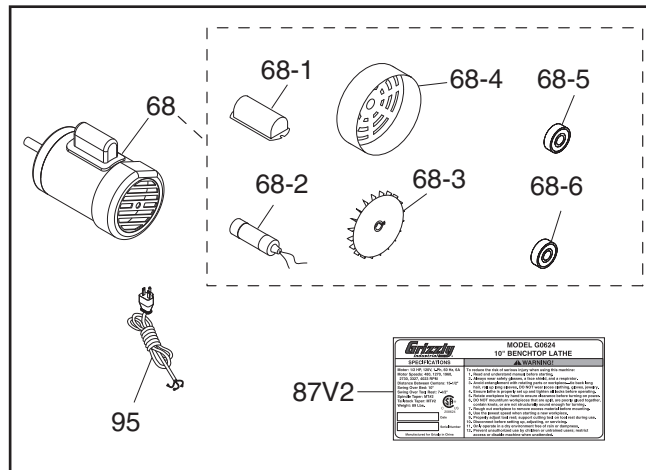
Electrical

Power Requirement..... 120V, Single Phase, 60 Hz

Motor

Voltage 120V
Spindle Speeds 480-4000 RPM

New/Revised G0624 Parts



| REF | PART # | DESCRIPTION |
|------|------------|-------------------------------|
| 68 | P0624068 | MOTOR 1/2HP 120V 1-PH |
| 68-1 | P0624068-1 | CAPACITOR COVER |
| 68-2 | P0624068-2 | R CAPACITOR 25M 250V |
| 68-3 | P0624068-3 | MOTOR FAN |
| 68-4 | P0624068-4 | MOTOR FAN COVER |
| 68-5 | P6202ZZ | BALL BEARING 6202ZZ |
| 68-6 | P6200ZZ | BALL BEARING 6200ZZ |
| 87V2 | P0624087V2 | MACHINE ID LABEL CSA V2.08.12 |
| 95 | P0624095 | POWER CORD 18G 3W 72" 5-15P |



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#BLTS15314 PRINTED IN CHINA

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 judgement.



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



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



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

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

Safety Instructions for Machinery



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

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

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

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

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow 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 avoid accidental slips, which could cause loss of workpiece control.

HAZARDOUS DUST. Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

INTENDED USAGE. Only use machine for its intended purpose and never make modifications not approved by Grizzly. Modifying machine or using it differently than intended may result in malfunction or mechanical failure that can lead to serious personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase 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.

CHECK DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

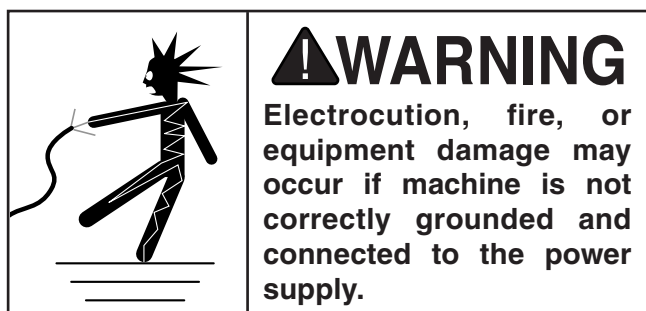
SANDING/POLISHING. To reduce entanglement risk, remove tool rest before sanding. Never completely wrap sandpaper around workpiece.



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 6 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 requirements in the following section.

! WARNING

Serious injury could occur if you connect the machine to power before completing the 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 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: *The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult a qualified electrician to ensure that the 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 (similar to the figure below). The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances.

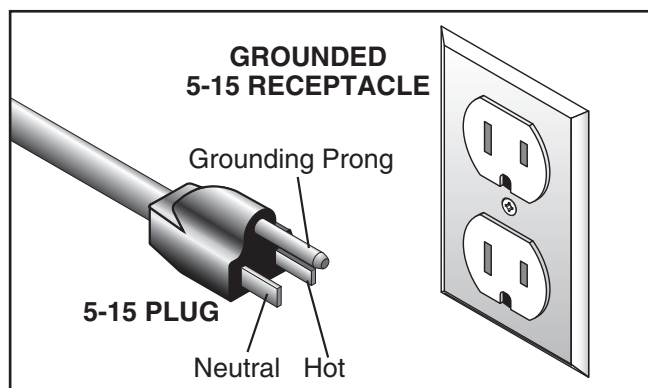
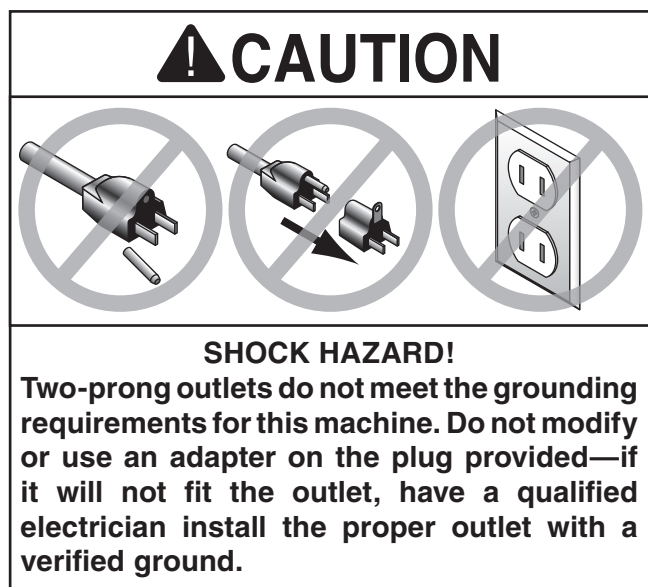


Figure 1. Typical 5-15 plug and receptacle.



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 may 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 contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size14 AWG
Maximum Length (Shorter is Better).....50 ft.



G0624 Wiring Diagram

⚠ DANGER

Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury and even death!

PADDLE SWITCH (viewed from behind)

COLOR KEY

| | |
|-------|--|
| BLACK | |
| WHITE | |
| GREEN | |
| RED | |

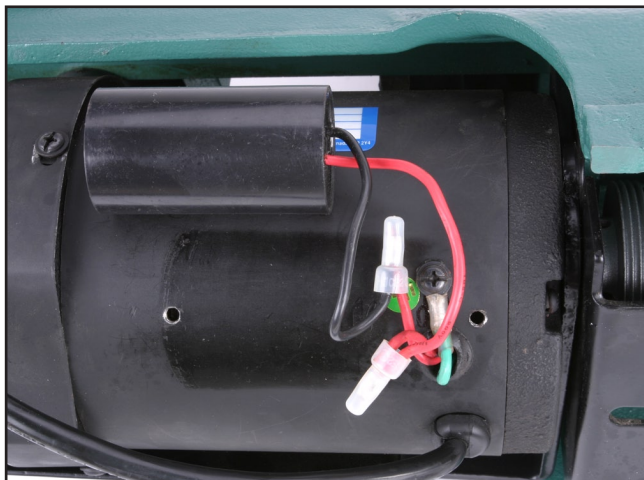
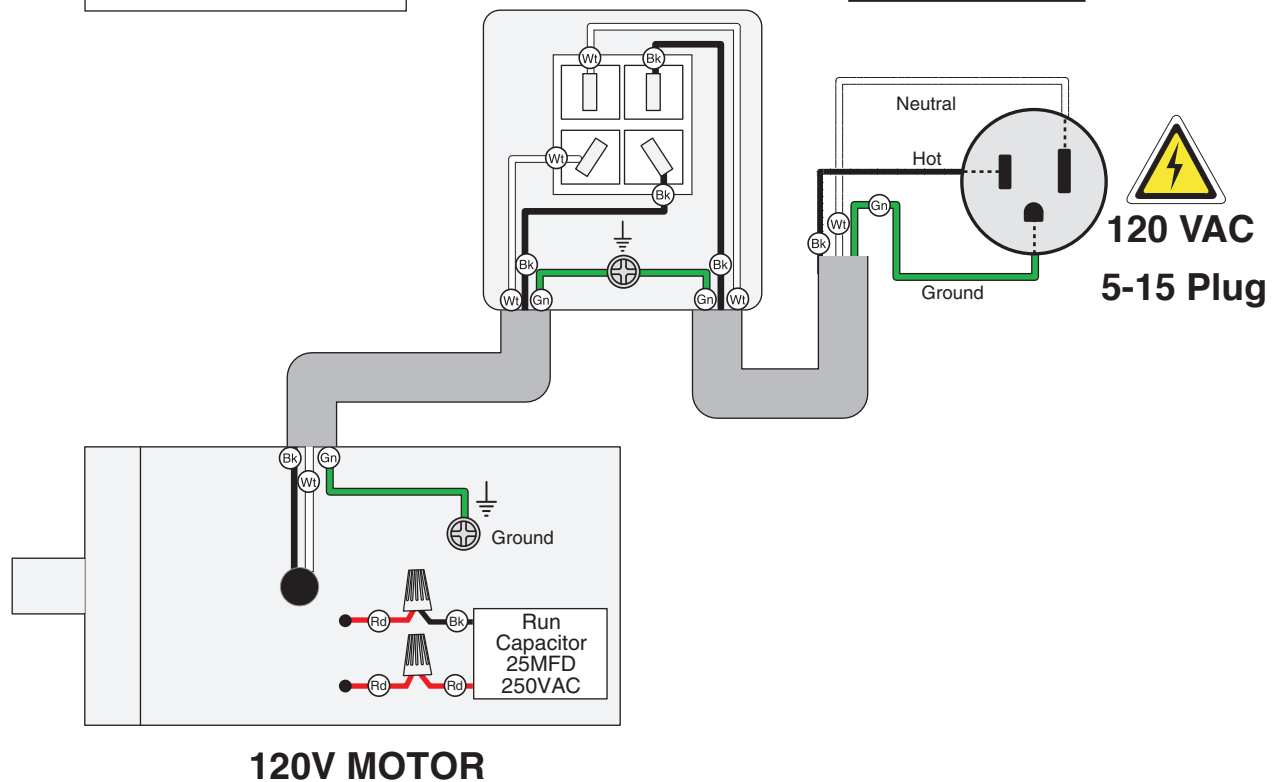


Figure 2. Motor connections.

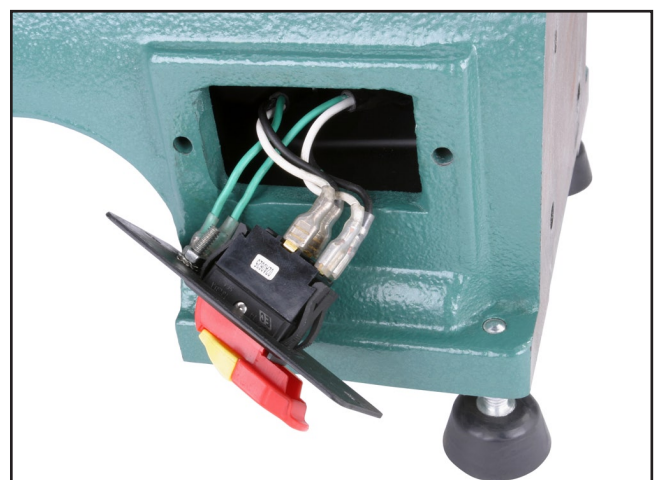


Figure 3. Switch connections.



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MODEL G0624

10" BENCHTOP LATHE

OWNER'S MANUAL



Model G0624 shown with optional Model G0625 Bed Extension.

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#BL8683 PRINTED IN CHINA



WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

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

The owner of this machine/equipment 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, blade/cutter 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

Foreword

We are proud to offer the Model G0624 10" Benchtop Lathe. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G0624. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0624 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>





MACHINE DATA SHEET

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

MODEL G0624 10" CAST IRON BENCH TOP WOOD LATHE

Product Dimensions:

Weight..... 89 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 34 x 8-3/4 x 15 in.
Footprint (Length x Width)..... 33 x 8-3/4 in.

Shipping Dimensions:

Type..... Cardboard
Content..... Machine
Weight..... 102 lbs.
Length x Width x Height..... 37 x 12 x 18 in.

Electrical:

Minimum Circuit Size..... 15 amp
Switch..... Paddle Type w/ Lockout Key
Switch Voltage..... 110V
Cord Length..... 8.2 ft.
Cord Gauge..... 18 gauge
Plug Included..... Yes

Motors:

Main

Type..... Capacitor Start
Horsepower..... 1/2 HP
Voltage..... 110V
Prewired..... 110V
Phase..... Single
Amps..... 6A
Speed..... 1725 RPM
Cycle..... 60 Hz
Number of Speeds..... 1
Power Transfer Belt Drive
Bearings..... Shielded and Lubricated

Main Specifications:

Operation Information

Swing Over Bed..... 10 in.
Dist Between Centers..... 15-1/2 in.
Swing Over Tool Rest..... 7-1/2 in.
No of Spindle Speeds..... 6
Spindle Speeds..... 480, 1270, 1960, 2730, 3327, 4023 RPM
Floor to Center Height..... 13-5/32 in.

Spindle Information

Spindle Type..... Right Hand
Spindle Taper..... MT#2
Spindle Size..... 1 in.
Spindle Bore..... 23/64 in.
Spindle Center..... Spur
Spindle TPI..... 8



Tailstock Information

Tailstock Taper..... MT#2
Tailstock Center..... Live

Construction

Bed..... Cast Iron
Frame..... Cast Iron and Steel
Headstock..... Cast Iron and Steel
Tailstock..... Cast Iron and Steel
Paint..... Epoxy

Other Related Information

Bed Width..... 8-3/16 in.
Faceplate Size..... 3 in.

Other Specifications:

Country Of Origin China
Warranty 1 Year
Serial Number Location Data Label on Headstock
Customer Assembly & Setup Time 10 minutes
Sound Rating <80 dB

Accessories Included:

3" Face Plate
Live Rolling Center
Spur Center
Tool Rest



Identification

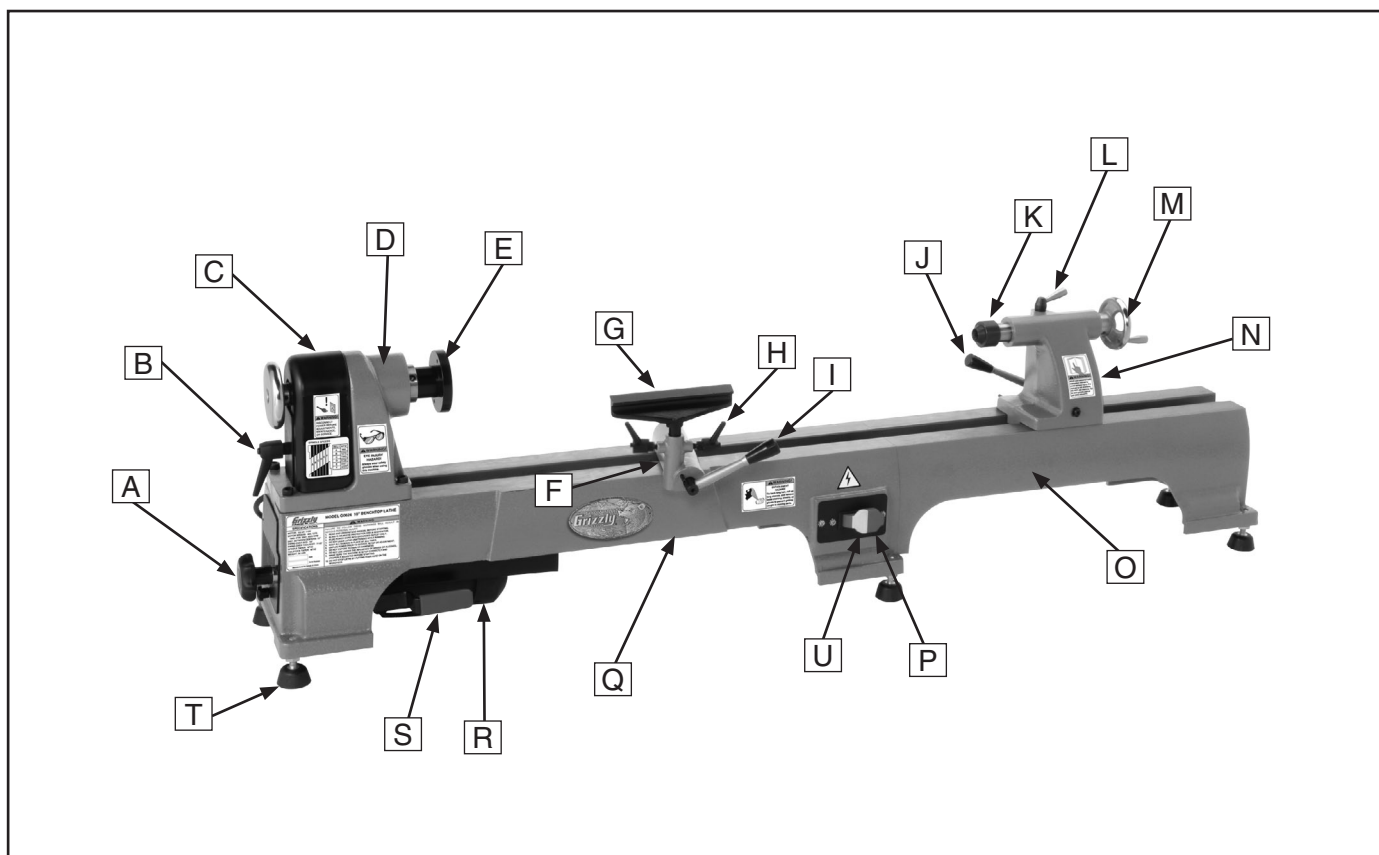


Figure 1. Model G0624 identification.

- | | |
|-----------------------------------|------------------------------------|
| A. Belt Tension Lock Knob | K. Live Center |
| B. Belt Cover Lock Handle | L. Quill Lock Handle |
| C. Belt Cover | M. Quill Handwheel |
| D. Headstock | N. Tailstock |
| E. Faceplate | O. Bed Extension (optional) |
| F. Tool Rest Base | P. ON/OFF Switch |
| G. Tool Rest | Q. Lathe Bed |
| H. Tool Rest Lock Handle | R. Motor |
| I. Tool Rest Release Lever | S. Belt Tension Lever |
| J. Tailstock Release Lever | T. Foot |
| | U. Safety Key |



SECTION 1: SAFETY

WARNING

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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.



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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

This symbol is used to alert the user to useful information about proper operation of the machine.

WARNING

Safety Instructions for Machinery

- 1. READ THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust can cause severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILDPROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Undersized cords create excessive heat. Always replace damaged extension cords.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. Improper accessories increase risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Maintain stability and balance at all times.
23. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.



WARNING

Additional Safety for Wood Lathes

1. **KEEPING GUARDS IN PLACE.** Make sure all guards are in place and that the lathe sits on a flat, stable surface.
2. **EYE/FACE PROTECTION.** Always wear eye protection or a face shield when operating the lathe.
3. **RESPIRATORY PROTECTION.** Always wear a respirator when using this machine. Wood dust may cause allergies or long-term respiratory health problems.
4. **MOUNTING WORKPIECE.** Before starting, be certain the workpiece has been properly imbedded on the headstock and tailstock centers and that there is adequate clearance for the full rotation.
5. **WORKPIECE CONDITION.** Always inspect the condition of your workpiece. DO NOT turn pieces with knots, splits, and other potentially dangerous conditions. Make sure joints of glued-up pieces have high quality bonds and won't fly apart during operation.
6. **ADJUSTING TOOL REST.** Adjust tool rest to provide proper support for the turning tool you will be using. Test tool rest clearance by rotating workpiece by hand before turning lathe **ON**.
7. **TURNING SPEED.** Select the correct turning speed for your work, and allow the lathe to gain full speed before using.
8. **USING SHARP CHISELS.** Keep lathe chisels properly sharpened and held firmly in position when turning.
9. **OPERATING DAMAGED LATHE.** Never operate the lathe with damaged or worn parts.
10. **ADJUSTMENTS/MAINTENANCE.** Make sure your wood lathe is turned **OFF**, disconnected from its power source, and all moving parts have come to a complete stop before starting any inspection, adjustment, or maintenance procedure.
11. **STOPPING LATHE.** DO NOT stop the lathe by using your hand against the workpiece. Allow the lathe to stop on its own.
12. **AVOIDING ENTANGLEMENT.** Keep long hair and loose clothing articles such as sleeves, belts, and jewelry items away from the lathe spindle.
13. **FACEPLATE TURNING.** When faceplate turning, use lathe chisels on the downward spinning side of the workpiece only.
14. **SANDING/POLISHING.** Remove the tool rest when performing sanding or polishing operations on the rotating spindle.
15. **MATERIAL REMOVAL RATE.** Removing too much material at once may cause workpiece to fly out of the lathe.
16. **REDUCING WORKPIECE VIBRATION.** If the workpiece vibrates, immediately turn the lathe **OFF**. Check to make sure the workpiece is centered and balanced. Trim excess waste off corners with a bandsaw or table saw to reduce vibration. Make sure workpiece is securely attached in setup.

WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

CAUTION

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



SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

!WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

Amperage Draw

The Model G0624 motor draws the following amps under maximum load:

Motor Draw 6 Amps

Circuit Recommendations

We recommend connecting your machine to a dedicated and grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

110V Circuit 15 Amps

Plug/Receptacle Type

Included Plug Type NEMA 5-15

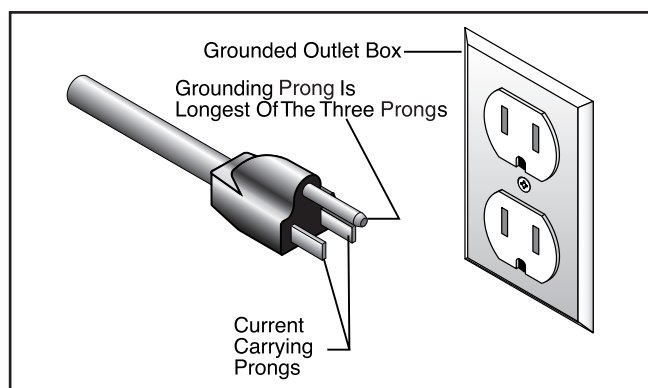
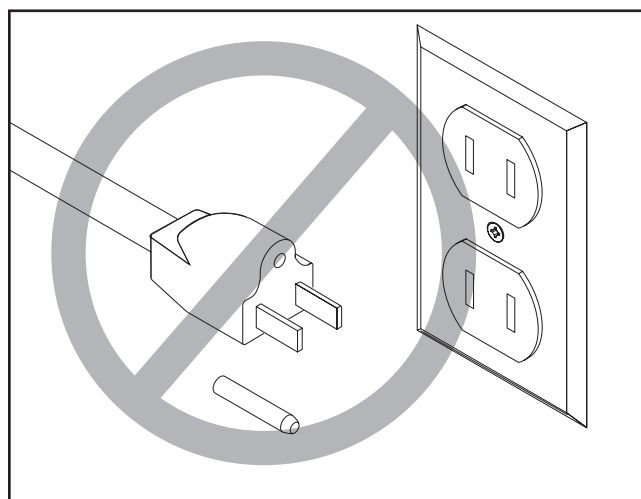
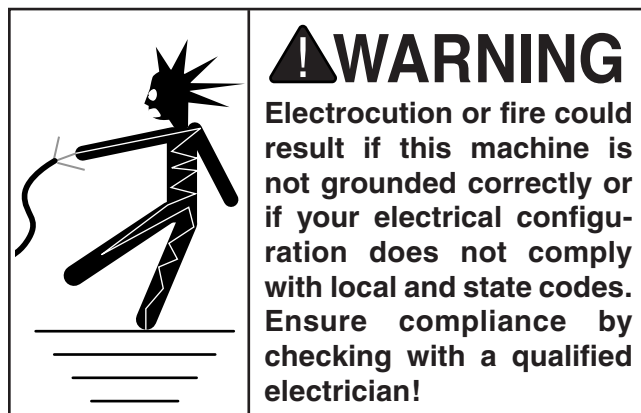


Figure 2. Typical type 5-15 plug and receptacle.



!CAUTION

This machine must have a ground prong in the plug to ground it. **DO NOT** remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

Extension Cords

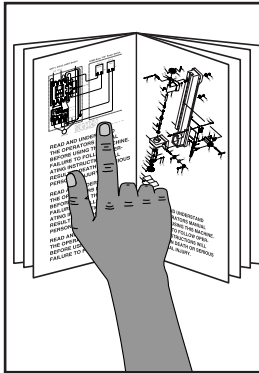
We do not recommend the use of extension cords, but if you find it absolutely necessary:

- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.



SECTION 3: SET UP

Set Up Safety



!WARNING

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



!WARNING

Wear safety glasses during the entire set up process!



!WARNING

The Model G0624 is a heavy machine. DO NOT over-exert yourself while unpacking or moving your machine—get assistance.

Items Needed for Setup

The following items are needed to complete the setup process, but are not included with your machine:

| Description | Qty |
|-------------------------------------|-----|
| • Cleaning Solvent (as needed)..... | 1 |

Unpacking

The Model G0624 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

Inventory

After all the parts have been removed from the box, you should have the following items:

| Box Contents: (Figure 3) | Qty |
|--|-----|
| A. 10" Benchtop Lathe (Not Shown)..... | 1 |
| B. Safety Glasses | 1 |
| C. Live Center | 1 |
| D. Spur Center | 1 |
| E. 3" Faceplate | 1 |
| F. Tool Rest | 1 |
| G. Knock Out Bar | 1 |
| H. Tool Rest Lock Handles | 2 |

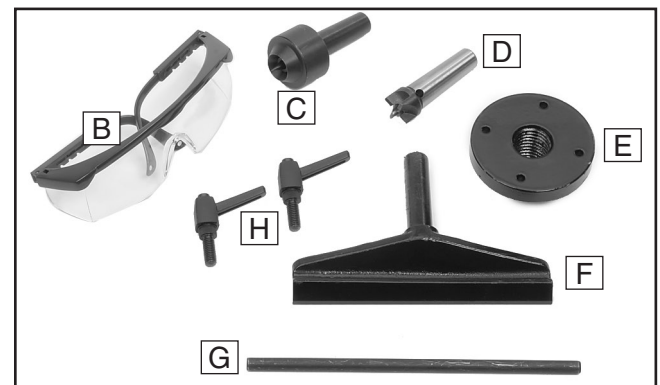


Figure 3. Additional box items.

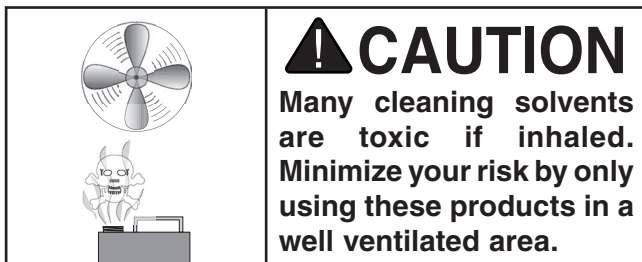
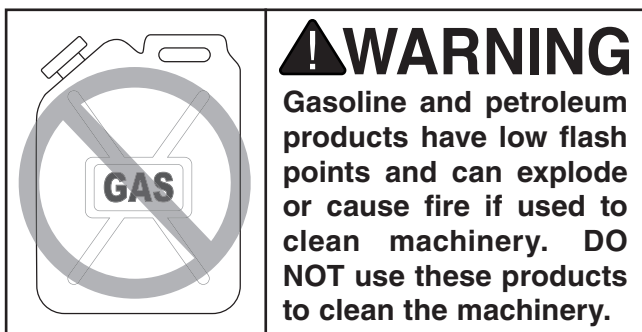
If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.

G0624 10" Benchtop Lathe



Clean Up

The unpainted surfaces are coated with a waxy oil to prevent corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Citrus Degreaser. To clean thoroughly, some parts must be removed. **For optimum performance from your machine, clean all moving parts or sliding contact surfaces.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner that may damage painted surfaces. Always follow the manufacturer's instructions when using any type of cleaning product.



G7895—Grizzly Citrus Degreaser

This natural, citrus-based degreaser is a great solution for removing export grease, and it's much safer to work around than nasty solvents.



Figure 4. Grizzly citrus degreaser.

Site Considerations

Floor Load

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

Placement Location

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 5** for the minimum working clearances.

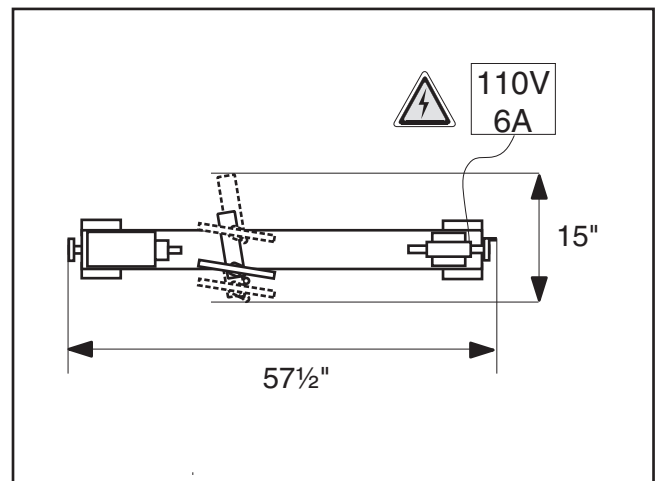
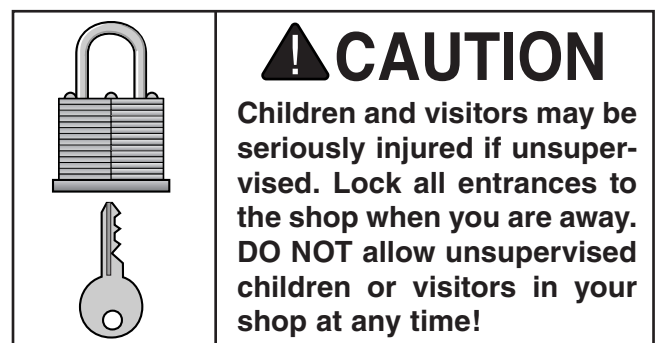


Figure 5. Minimum working clearances.



Assembly

To install the tool rest:

1. Turn the release lever on the tool rest base so it does not interfere with assembly.
2. Thread the tool rest lock handles into the tool rest base (**Figure 6**) until the threaded ends of the handles are flush with the inside of the shaft.

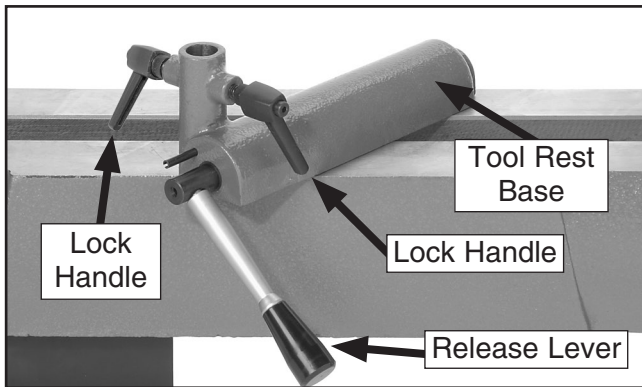


Figure 6. Tool rest lock handles installed onto tool rest base.

3. Insert the tool rest into the shaft and turn the handles to lock it as shown in **Figure 7**.

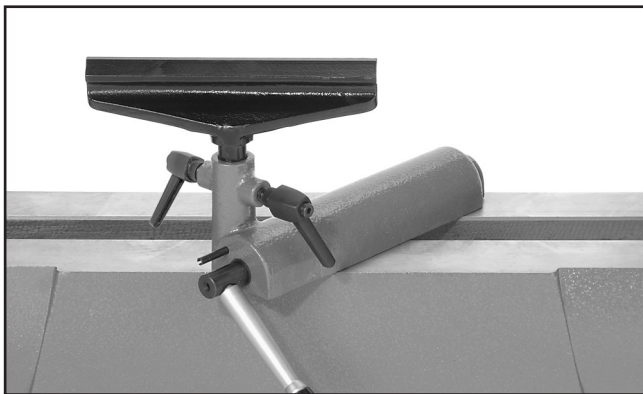


Figure 7. Tool rest installed.

4. Install the optional bed extension, Model G0625 (**Page 21**). Refer to the instruction sheet included with the bed extension.

Test Run

Once the assembly is complete, test run your machine to make sure it runs properly and is ready for regular operation.

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

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review the **Troubleshooting on Page 24**. If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure that you have read the safety instructions at the beginning of this manual and that the machine is setup properly.
2. Connect the machine to the power source.
3. Flip the paddle switch up to turn the machine **ON**. Make sure that your hand stays poised over the switch in case you need to quickly turn the machine **OFF**.

—When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.

—Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.

4. Turn the machine **OFF**.
5. Remove the safety key and attempt to turn the machine **ON**.

—If the machine starts, stop it. The switch disabling feature is not working. This safety feature must work properly before proceeding. Call Tech Support for help.

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

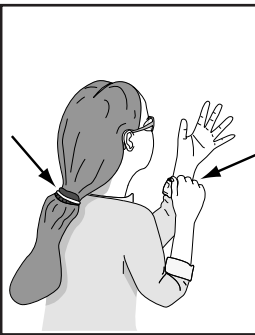


SECTION 4: OPERATIONS

Operation Safety

! WARNING

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



! WARNING

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

NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade 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.

Changing Speeds

To change speeds, the belt in the headstock must be rearranged. A chart on the pulley cover shows the belt positions needed to make the lathe run at the desired speed.

To change speeds:

1. Loosen the lock handle, remove the belt cover, and open the access plate (**Figure 8**).

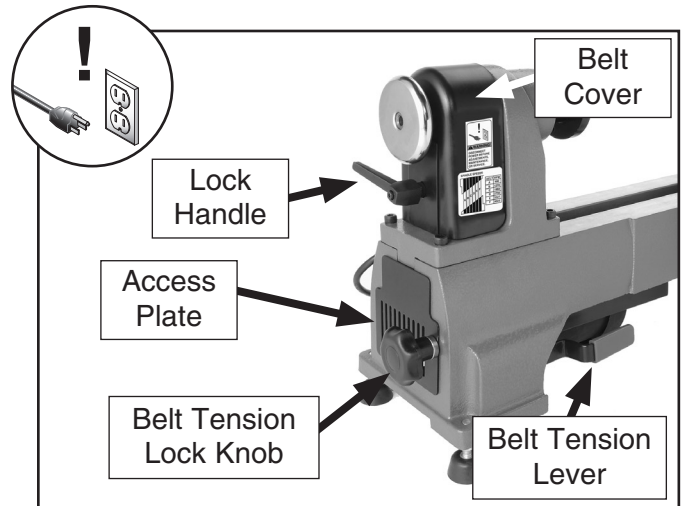


Figure 8. Belt access.

2. Loosen the belt tension lock knob, and move the belt tension lever up to reduce tension on the belt.
3. Locate the desired speed on the speed chart on the belt cover, and move the belt to the desired grooves on the motor and spindle pulleys.

For Example: As indicated in the speed chart, belt position **B** creates **1270 RPM** (**Figure 9**).

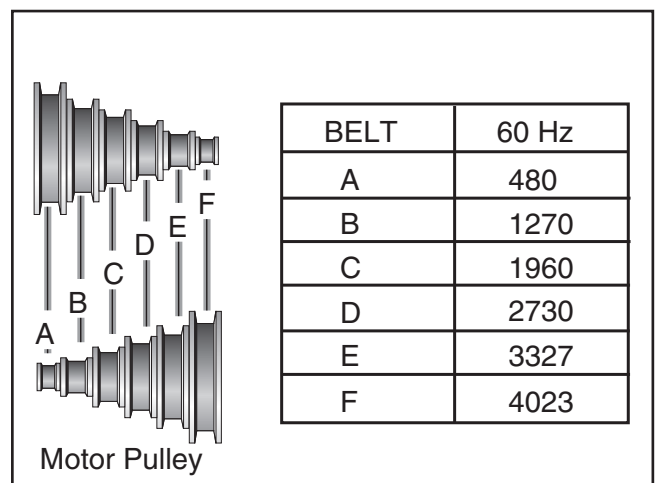


Figure 9. G0624 Spindle speeds.

4. Move the belt tension lever down, tighten the lock knob, and reinstall the access plate and belt cover.



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 and secures the tool rest to the bed.

To position the tailstock along the bed:

1. Loosen the release lever and move the tailstock to the desired position (**Figure 10**).

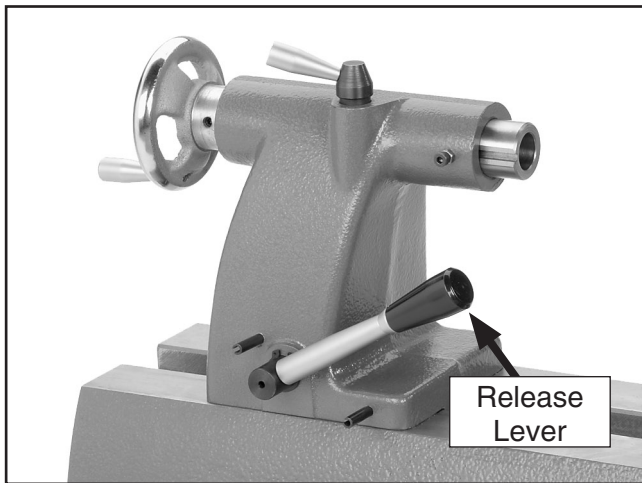


Figure 10. Tailstock controls.

2. Re-engage the release lever.
3. If the release lever will not lock the tailstock down onto the bed (either too loose or too tight), loosen or tighten the hex nut (located on the underside of the tailstock) in small increments as needed to achieve the proper clamping pressure.

Adjusting Tool Rest

The tool rest is equipped with a cam-action clamping system to secure it to the lathe bed. When the lever is engaged, a locking plate lifts up and secures the tool rest base to the bed.

To position the tool rest base along the bed:

1. Loosen the release lever and slide the tool rest base along the bed (**Figure 11**).

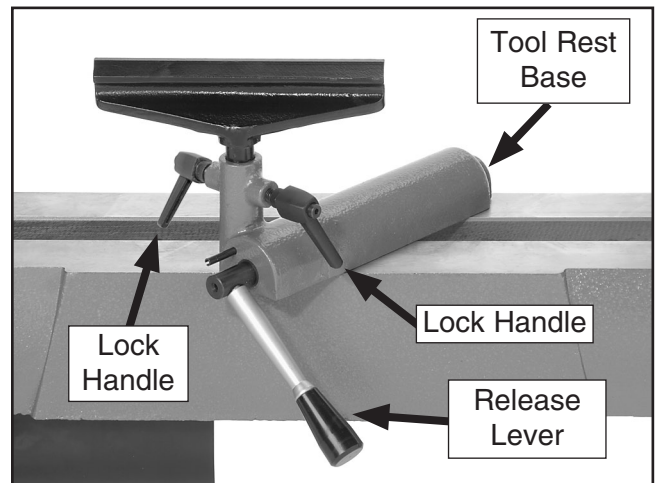


Figure 11. Tool rest controls.

2. Re-engage the release lever to lock the tool rest base in place.
—If the release lever will not lock the tool rest base onto the bed (either too loose or too tight), then loosen or tighten the hex nut (located on the underside of the tool rest base) in small increments as needed to achieve the proper clamping pressure.

To adjust the tool rest vertically:

1. Loosen the lock handles (**Figure 11**) and adjust the tool rest vertically or swivel it as needed.
2. Tighten the lock handles.



Installing/Removing Spur Center

The spur center installs into the headstock spindle with a taper fit.

To install the spur center:

1. UNPLUG LATHE FROM POWER!
2. Insert the tapered end of the center into the spindle, and push it in quickly and firmly (see **Figure 12**).

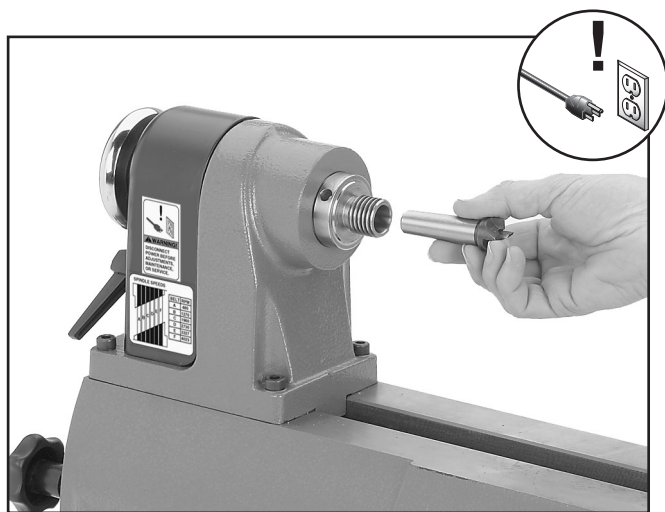


Figure 12. Inserting spur center into spindle.

3. Check that the center is securely installed by giving it a quick tug. (A properly installed center will not pull out by hand.)

To remove the spur center with the knock-out bar:

1. UNPLUG LATHE FROM POWER!
2. Hold a clean rag under the spindle or wear a glove to catch the center when you remove it.
3. Using the knock-out bar, tap the center from the outside end of the spindle (as shown in **Figure 13**) and catch the center as it falls out.

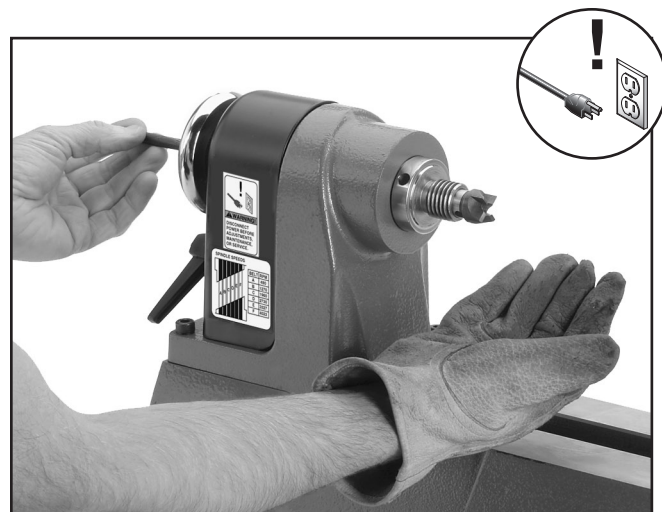


Figure 13. Removing spur center using the knock out bar.

Installing/Removing Live Center

To install the live center:

1. Loosen the quill lock handle (if locked) approximately half a turn counterclockwise.
2. Rotate the quill handwheel clockwise until the tailstock quill protrudes out of the tailstock housing about $\frac{3}{4}$ ".
3. Insert the live center, as shown in **Figure 14**, and push firmly.

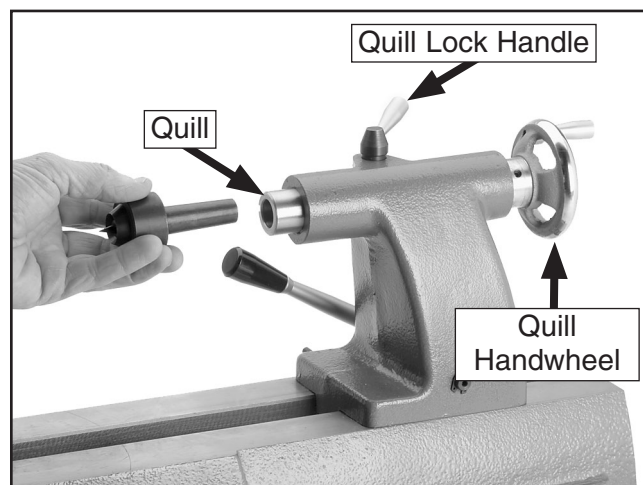


Figure 14. Installing live center in tailstock.

4. Tighten the lock handle.



To remove the live center:

1. Turn the quill handwheel counterclockwise until the tailstock quill bottoms out, causing the center to be forced out of the quill.

! WARNING

The tailstock quill lock handle must always be locked down while the lathe is in use. The workpiece can be thrown from the lathe if this step is not observed. Also, the tailstock quill should not protrude from the tailstock housing more than 2" or the quill will not be supported enough. Failure to follow these warnings may result in personal injury.

Installing/Removing Faceplate

The faceplate can be installed only if the spur center has been removed from the headstock spindle. The knock-out bar is included with the lathe for installing and removing the faceplate.

To install the faceplate:

1. UNPLUG LATHE FROM POWER!
2. Remove the spur center (See **Page 15**).
3. Thread the faceplate onto the headstock spindle.
4. Using the knock-out bar, hand tighten the faceplate as shown in **Figure 15**.

Note: Reverse **Steps 3-4** to remove the faceplate.



Figure 15. Tightening faceplate.

To mount a workpiece to your faceplate, refer to **Page 19**.

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 16** shows an example of a gouge.

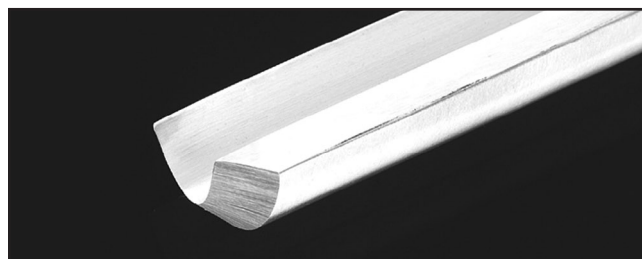


Figure 16. Gouge.

- **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 17 shows an example of a skew chisel.

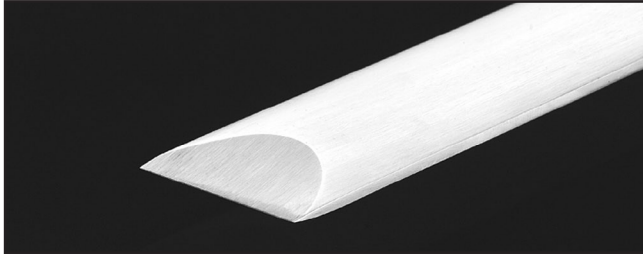


Figure 17. Skew chisel.

- **Scrapers**—Mainly 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 18** shows an example of a round nose scraper.

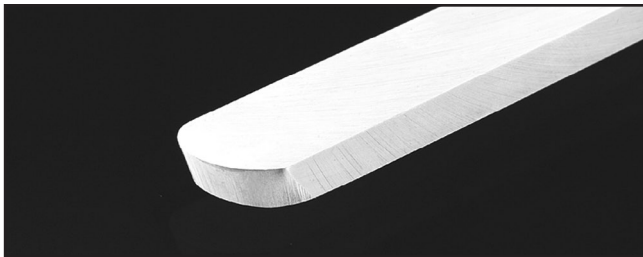


Figure 18. Round nose scraper.

- **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 19** shows an example of a parting tool.



Figure 19. 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 22** is a good example of a specialty tool.

Spindle Turning

Spindle turning (**Figure 20**) is the operation performed when a workpiece is mounted between the headstock and the tailstock.



Figure 20. Typical spindle turning operation.

To set up a spindle turning operation:

1. Mark both ends of your workpiece by drawing diagonal lines from corner to corner. The intersection point of these lines will show you the center of your workpiece. See **Figure 21** for details.

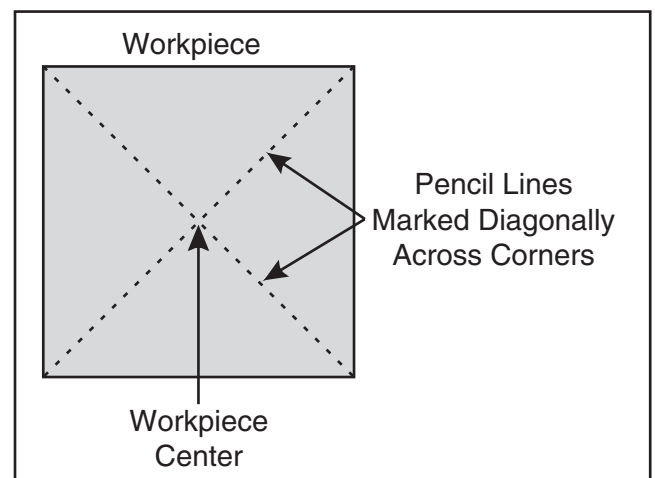


Figure 21. Workpiece marked diagonally from corner to corner to determine the center.



2. Using a wood mallet, tap the point of the spur center into the center of the workpiece, so that it leaves a center mark, then remove the spur center.
3. Using a $\frac{1}{8}$ " drill bit, drill a $\frac{3}{16}$ " deep hole at the center mark.
4. Cut the corners off your workpiece if it is over 2" x 2" to make turning safer and easier.
5. Drive the spur center into the center of the workpiece with a wood mallet to embed it at least $\frac{1}{4}$ ", as shown in **Figure 22**.

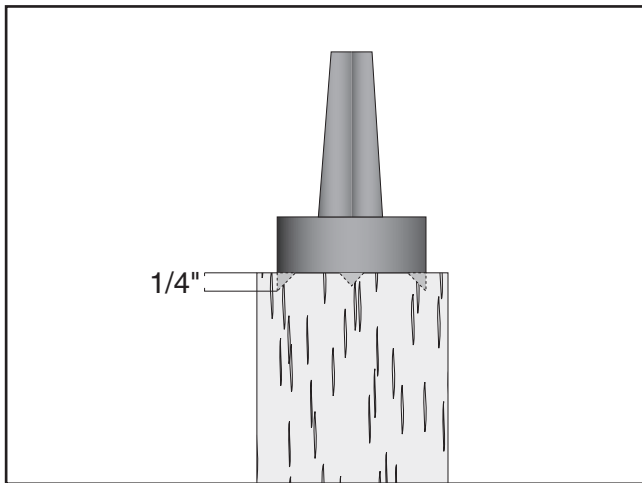


Figure 22. Spur center properly embedded.

6. With the workpiece still attached, insert the spur center into the headstock spindle.
7. With the live center installed in the tailstock, slide the tailstock toward the workpiece until the live center touches the workpiece center-point, then lock the tailstock in this position.
8. Use the quill handwheel to push the live center into the workpiece at least a $\frac{1}{4}$ ".

!WARNING

Do not press the workpiece too firmly with the tailstock or the bearings will bind and overheat. Likewise, do not adjust too loosely or the workpiece will spin off the lathe. Use good judgement. Serious personal injury could result if care is not taken.

9. Position the tool rest approximately $\frac{1}{4}$ " away from the workpiece and approximately $\frac{1}{8}$ " above the center line, as shown in **Figure 23**.

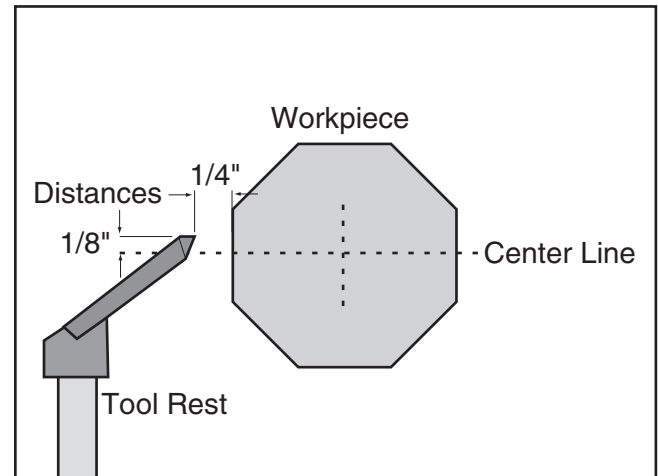


Figure 23. Tool rest set $\frac{1}{8}$ " above the center line and $\frac{1}{4}$ " away from workpiece.

10. Test the setup by hand turning the workpiece to make sure there is enough clearance all the way around before starting.

Spindle Turning Tips:

- When turning the lathe **ON**, stand to the side of the spinning direction until the lathe reaches full speed and you can verify that the lathe will not throw the workpiece.
- Use the slowest speed when starting or stopping the lathe, and when rough cutting.
- Select the right speed for the size of workpiece you are turning. Use slower speeds for large workpieces (4" diameter and over); use the middle range speeds for medium sized workpieces (2" to 4" diameter); and use faster speeds for small sized workpieces (under 2" in diameter).
- 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, read books or magazines about lathe techniques and seek training from experienced users.



- Turn the lathe **OFF** immediately if the workpiece vibrates excessively. Check to make sure the workpiece is centered and balanced. Remove the workpiece and trim excess waste off corners with a bandsaw or table saw to reduce vibration. Make sure workpiece is securely attached in the setup.

Faceplate Turning

Faceplate turning (**Figure 24**) is when a workpiece is mounted to the faceplate, which is mounted to the headstock spindle. This type of turning is usually done with open-faced workpieces like bowls.

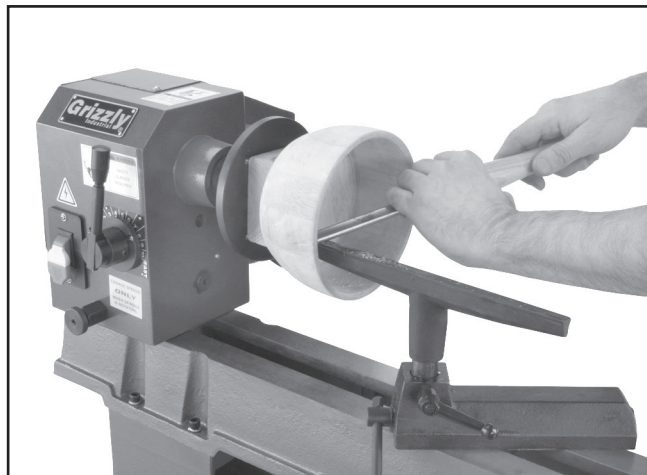


Figure 24. Typical faceplate turning operation.

To mount your workpiece to the faceplate:

1. Find the center of your workpiece in the same manner as when spindle turning.
2. Cut off the corners of the workpiece.
3. Center the faceplate on the workpiece and attach it through the faceplate holes with wood screws.
4. Thread the faceplate onto the headstock spindle and tighten securely.

Note: If screws cannot be placed in the workpiece, then a backing block can be glued to the workpiece and attached to the faceplate with screws.

NOTICE: Only use tap screws or wood screws with non-tapered heads (**Figure 25**) to attach the faceplate to the workpiece. Do NOT use drywall screws or screws with tapered heads because these can split the faceplate, or the screws may snap off during operation.

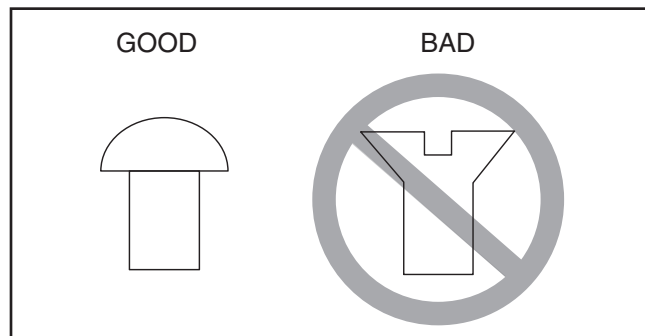


Figure 25. Correct and incorrect screw types for mounting faceplate to workpiece.

To mount your workpiece to a backing block:

1. Make the backing block (**Figure 26**) from a piece of scrap wood that is flat on both sides.

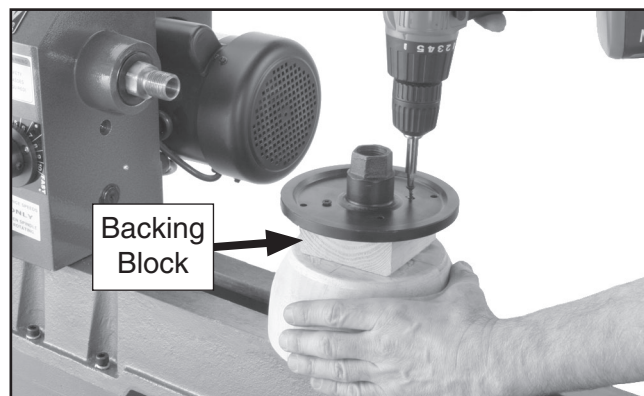


Figure 26. Example of mounting faceplate to a backing block.

2. Locate and mark the center of both the workpiece and the backing block.
3. Drill a $\frac{1}{4}$ " hole in the center of the backing block.
4. Glue the center of the backing block to the center of the workpiece (look through the drilled hole to line up centers), clamp the backing block to the workpiece, and wait for the glue to cure according to the manufacturer's recommendation.



Sanding/Finishing

After turning, the workpiece can be sanded, as shown in **Figure 27**, and finished (in the same manner) before removing it from the lathe.

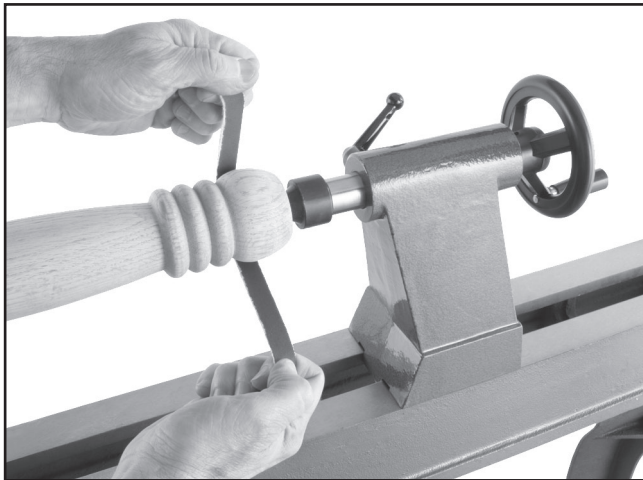
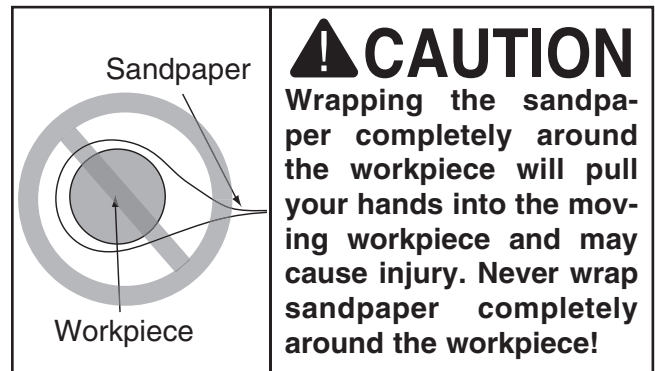


Figure 27. Typical sanding operation.



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



SECTION 5: ACCESSORIES

G1194—3-Jaw Chuck

A "must have" for the serious wood turner. This 3-jaw chuck is a self-centering style chuck used mostly for round work. All three jaws tighten together at the same time. Jaws are reversible for expanded work holding capacity. *Threaded insert required for mounting!*

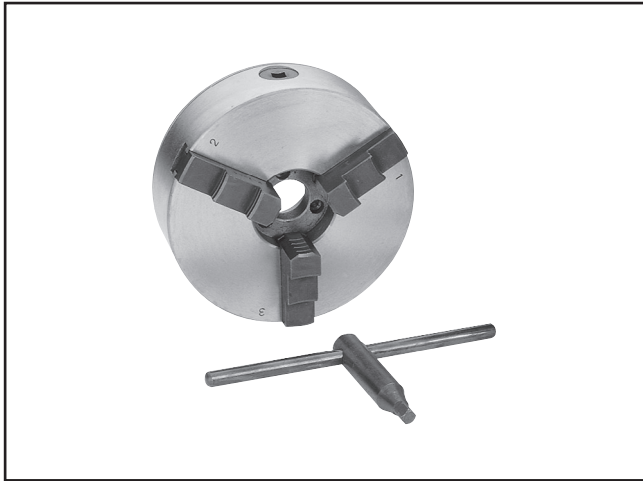


Figure 28. Model G1194 3-Jaw Chuck.

G1082—4-Jaw Chuck

Another "must have" for the serious wood turner. This 4-jaw chuck is an independent type chuck that is used for square and odd-shaped pieces. Each jaw tightens individually and can be turned around to hold larger dimension workpieces. *Threaded insert required for mounting!*

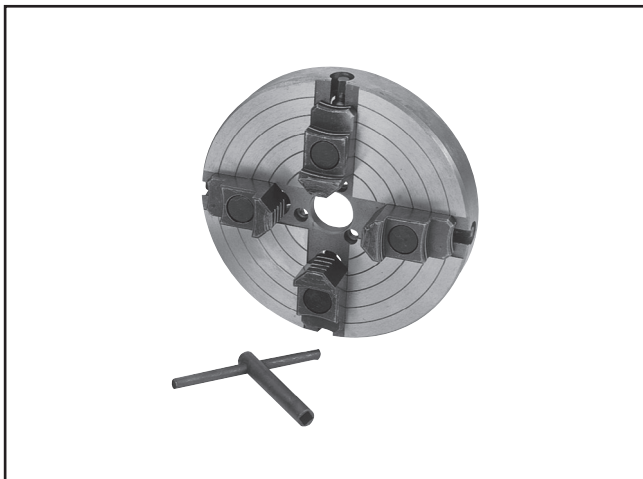


Figure 29. Model G1082 4-Jaw Chuck.

G3163—1" x 8 TPI RH Threaded Insert

This threaded insert is required to mount a 3- or 4-jaw chuck to your wood lathe.

H7828—Tool Table Plus

The new 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.



Figure 30. Model H7828 Tool Table Plus with Model G0624.

G0625—Bed Extension

With the Model G0625 Bed Extension attached, the Model G0624 lathe can turn up to 38" between centers.

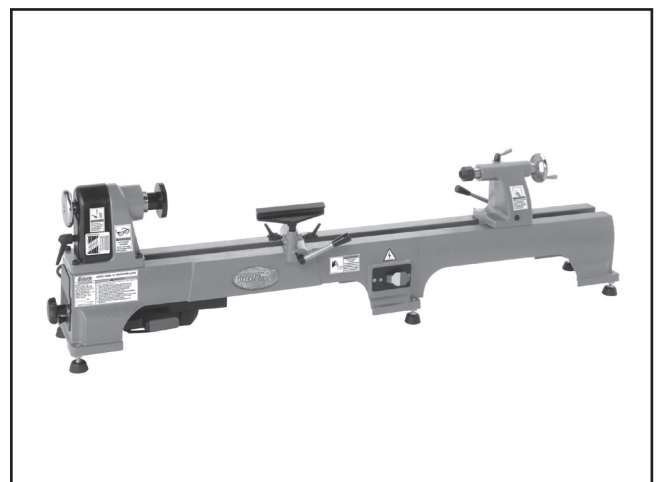


Figure 31. Model G0624 with Model G0625 Bed Extension.

H1064—6-PC Deluxe HSS Lathe Chisel Set

This deluxe chisel set features beefy ash handles for unsurpassed control, brass ferrules and high speed steel blades. Includes: a 17" long $\frac{13}{16}$ " Parting Tool, $\frac{13}{16}$ " Round Nose and $\frac{3}{8}$ " Gouge; a 19" long 1" Skew, a $\frac{5}{8}$ " Gouge and a 22 $\frac{3}{4}$ " long $\frac{3}{8}$ " Gouge. Comes in a beautiful blow molded carrying case. An extremely popular set!



Figure 32. Model H1064 6-PC Chisel Set.

H6542—Robert Sorby HSS 8-PC Turning Set

If quality is king, then start bowing. Made in England, these Robert Sorby lathe tools are especially for the perfectionist wood turner. Includes $\frac{3}{4}$ " roughing gouge, $\frac{3}{8}$ " & $\frac{1}{2}$ " 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. Full size handles are 16"–19".



Figure 33. Model H6542 Robert Sorby 8-PC Set.

G9863—8-PC HSS Lathe Chisel Set

This chisel set features beautiful 8" ash handles with brass ferrules and 3 $\frac{1}{2}$ " long, high speed steel blades. Chisels include: $\frac{1}{2}$ " parting tool, $\frac{1}{2}$ " straight chisel, $\frac{1}{2}$ " double bevel skew, $\frac{1}{2}$ " roundnose, $\frac{3}{4}$ " gouge, $\frac{3}{8}$ " gouge, $\frac{1}{2}$ " diamond point and $\frac{3}{8}$ " veiner. Set comes in fitted wooden case, and is very competitively priced!



Figure 34. Model G9863 8-PC Chisel Set.

H6204—Precision Drill Chuck $\frac{1}{32}$ "– $\frac{5}{8}$ " x JT#3

G1676—Drill Chuck Arbor MT#2 x JT#3

The best way to bore holes with your lathe!

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.

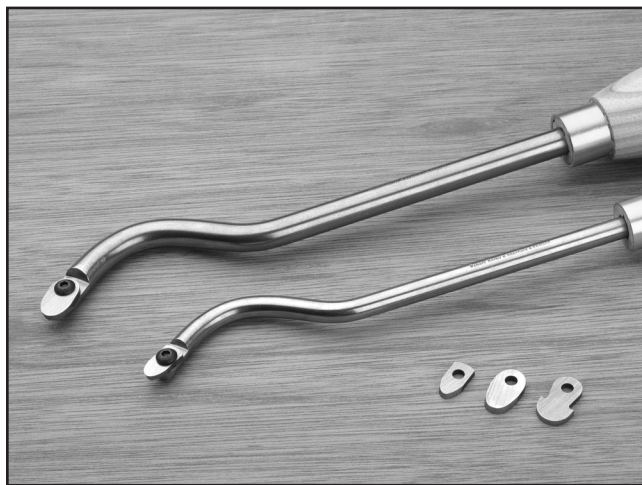
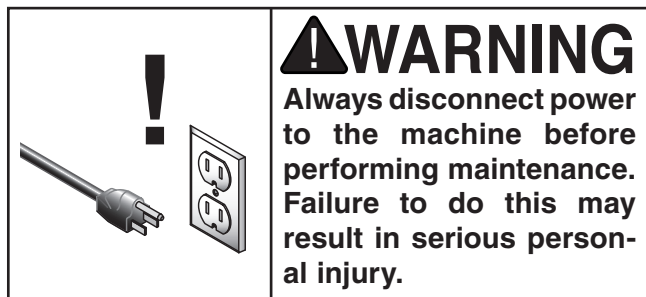


Figure 35. Swan Neck Hollowing Tools.

Call 1-800-523-4777 To Order



SECTION 6: MAINTENANCE



Schedule

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

Daily Check:

- Loose mounting bolts.
- Worn or damaged wires.
- Worn switch
- Any other unsafe condition.

Monthly Check:

- Belt tension, damage, or wear.
- Clean/vacuum dust buildup off of motor.

Cleaning

Cleaning the Model G0624 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. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Unpainted Cast Iron

Protect the unpainted cast iron surfaces on the lathe by wiping them clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep the bed rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see *Section 5: Accessories* on **Page 21** for more details).

Lubrication

Lubricate the locations shown in **Figure 36** with light machine oil or G96® Gun Treatment.

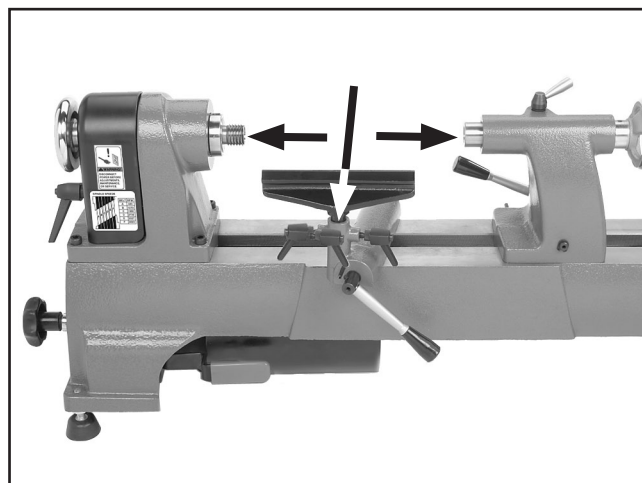


Figure 36. Lubrication locations.

Changing Belt

To change the belt:

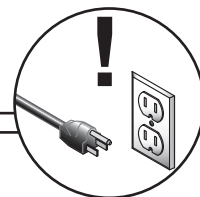
1. Perform **Steps 1-2** in the **Changing Speeds** procedure on **Page 13**.
2. Roll the belt off of the pulleys and slide it under the belt cover plates.
3. Reverse **Steps 1-2** to reinstall the belt.



SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Motor & Electrical

| Symptom | Possible Cause | Possible Solution |
|--|---|---|
| Machine does not start or a breaker trips. | <ol style="list-style-type: none"> 1. Plug/receptacle is at fault or wired incorrectly. 2. Power supply is at fault/switched OFF. 3. Lockout key is at fault. 4. Motor ON button or ON/OFF switch is at fault. 5. Wiring is open/has high resistance. 6. Motor is at fault. | <ol style="list-style-type: none"> 1. Test for good contacts; correct the wiring. 2. Ensure hot lines have correct voltage on all legs and main power supply is switched ON. 3. Install/replace lockout key; replace switch. 4. Replace faulty ON button or ON/OFF switch. 5. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary. 6. Test/repair/replace. |
| Machine stalls or is underpowered. | <ol style="list-style-type: none"> 1. Plug/receptacle is at fault. 2. Motor bearings are at fault. 3. Motor has overheated. 4. Motor is at fault. | <ol style="list-style-type: none"> 1. Test for good contacts; correct the wiring. 2. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 3. Clean off motor, let cool, and reduce workload. 4. Test/repair/replace. |
| Machine has vibration or noisy operation. | <ol style="list-style-type: none"> 1. Motor or component is loose. 2. Motor fan is rubbing on fan cover. 3. Workpiece or chuck is at fault. 4. Motor bearings are at fault. | <ol style="list-style-type: none"> 1. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 2. Replace dented fan cover; replace loose/damaged fan. 3. Center workpiece in chuck or face plate; reduce RPM; replace defective chuck. 4. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. |

Wood Lathe Operation

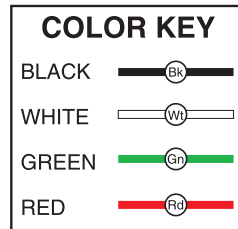
| SYMPTOM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|--|---|---|
| Vibration noise while machine is running; noise changes when speed is changed. | <ol style="list-style-type: none"> 1. Belt cover loose. 2. Belt cover bent or dented and is making contact with the motor pulley or belt. | <ol style="list-style-type: none"> 1. Tighten the belt cover lock handle; if necessary install a soft, vibration dampening material (between the belt cover and the headstock casting). 2. Remove belt cover and inspect the inside for dents, bends, or indications of rubbing. Tap out the dent with a rubber mallet, bend back into proper shape, or shim belt cover away from the motor pulley. |



| SYMPTOM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|---|--|---|
| Vibration noise while machine is running; noise remains constant when speed is changed. | 1. Dented fan cover on motor. | 1. Replace or adjust fan cover. Inspect motor fan and replace if damaged. |
| Excessive vibration. | 1. Workpiece mounted incorrectly. 2. Workpiece warped, out of round, or is flawed. 3. Spindle speed is set too fast for mounted workpiece. 4. Lathe is resting on an uneven surface. 5. Motor mount bolts are loose. 6. Belt is worn or damaged. 7. Spindle bearings are worn. | 1. Re-mount workpiece, making sure that centers are embedded in true center of workpiece. 2. Cut workpiece to correct, or use a different workpiece. 3. Reduce the spindle speed. 4. Shim or adjust feet to remove any wobbles. 5. Tighten motor mount bolts. 6. Replace belt. 7. Replace spindle bearings. |
| Chisels grab or dig into workpiece. | 1. Tool rest set too low. 2. Tool rest set too far from workpiece. 3. Wrong chisel/tool being used. 4. Chisel/tool dull. | 1. Set tool rest higher. See Page 18 for how to properly set the tool rest height. 2. Move the tool rest closer to the workpiece. See Page 18 for the proper workpiece/tool rest clearance. 3. Use the correct chisel/tool; educate yourself by reading books, trade magazines, or seeking help from an experienced lathe operator. 4. Sharpen or replace the chisel/tool you are using. |
| Bad surface finish. | 1. Wrong spindle speed. 2. Dull chisel or wrong chisel being used for the operation. | 1. Use trial-and-error to find a better spindle speed. 2. Sharpen chisel or try a different chisel. |
| Tailstock moves. | 1. Tailstock mounting bolt loose. 2. Too much clamping pressure applied by tailstock. 3. Bed surface is oily or greasy. | 1. Tighten. 2. Apply less clamping pressure with tailstock. 3. Clean bed surface to remove oil/grease. |
| Can't remove tapered tool from tailstock barrel. | 1. Tailstock barrel had not retracted all the way back into the tailstock. 2. Debris was not removed from taper before inserting into barrel. | 1. Turn the barrel handwheel until it forces taper out of barrel. 2. Always make sure that taper surfaces are clean. |



G0624 Wiring Diagram



⚠ DANGER

Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury and even death!

PADDLE SWITCH (viewed from behind)

Available in color online at Grizzly.com.

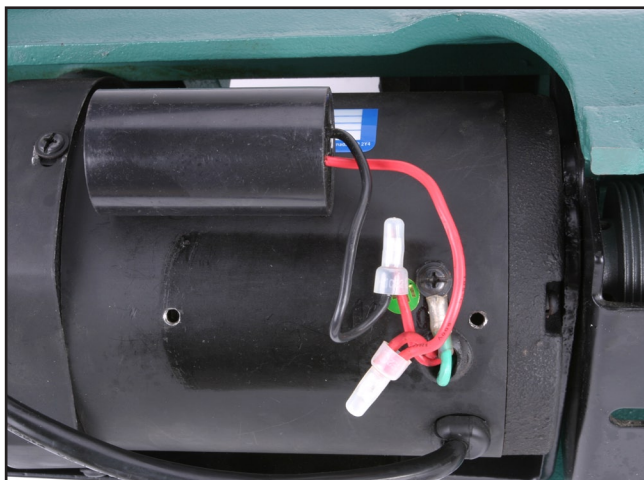
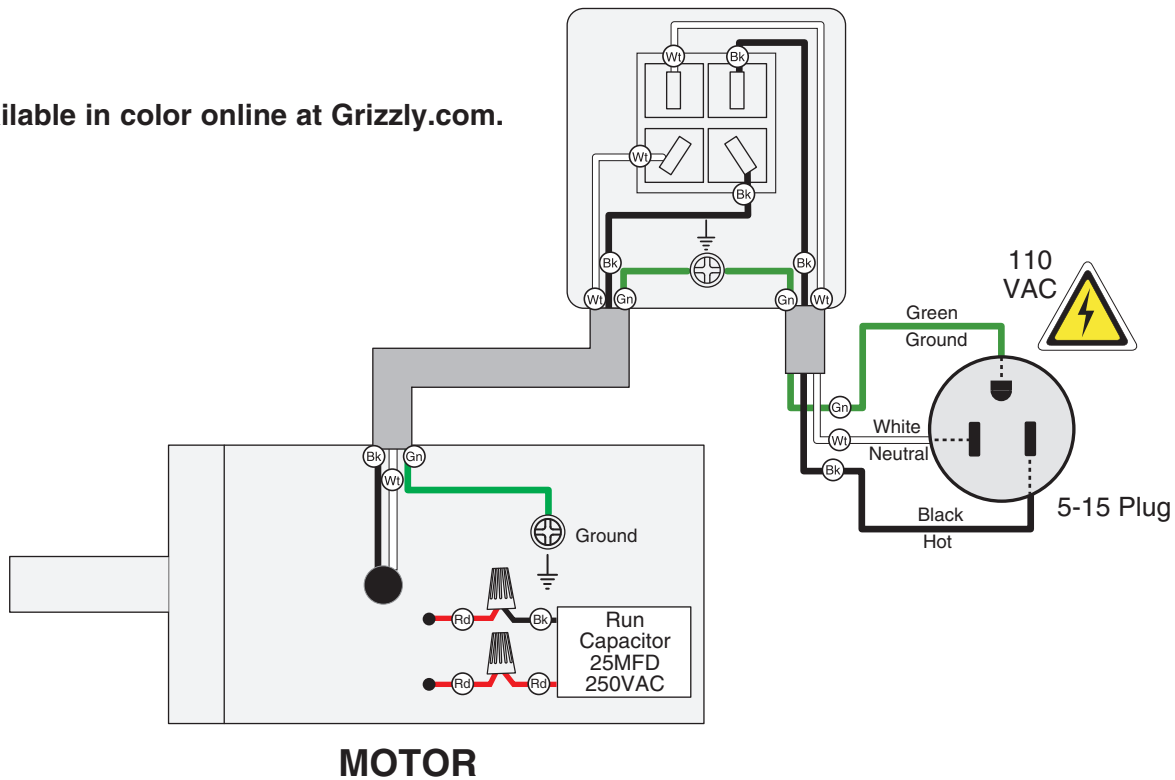


Figure 37. Motor connections.

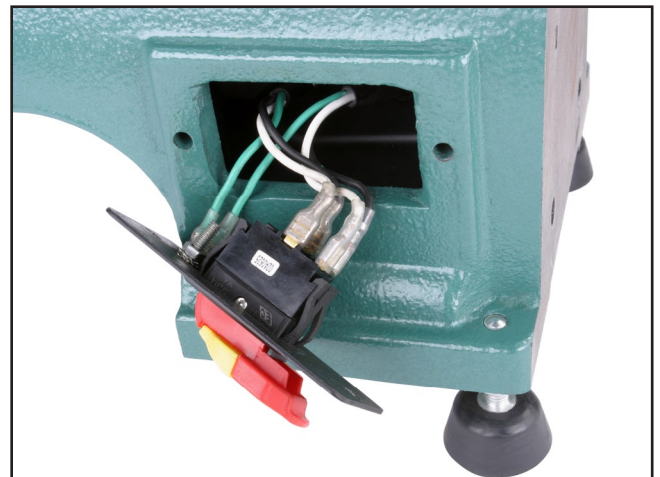
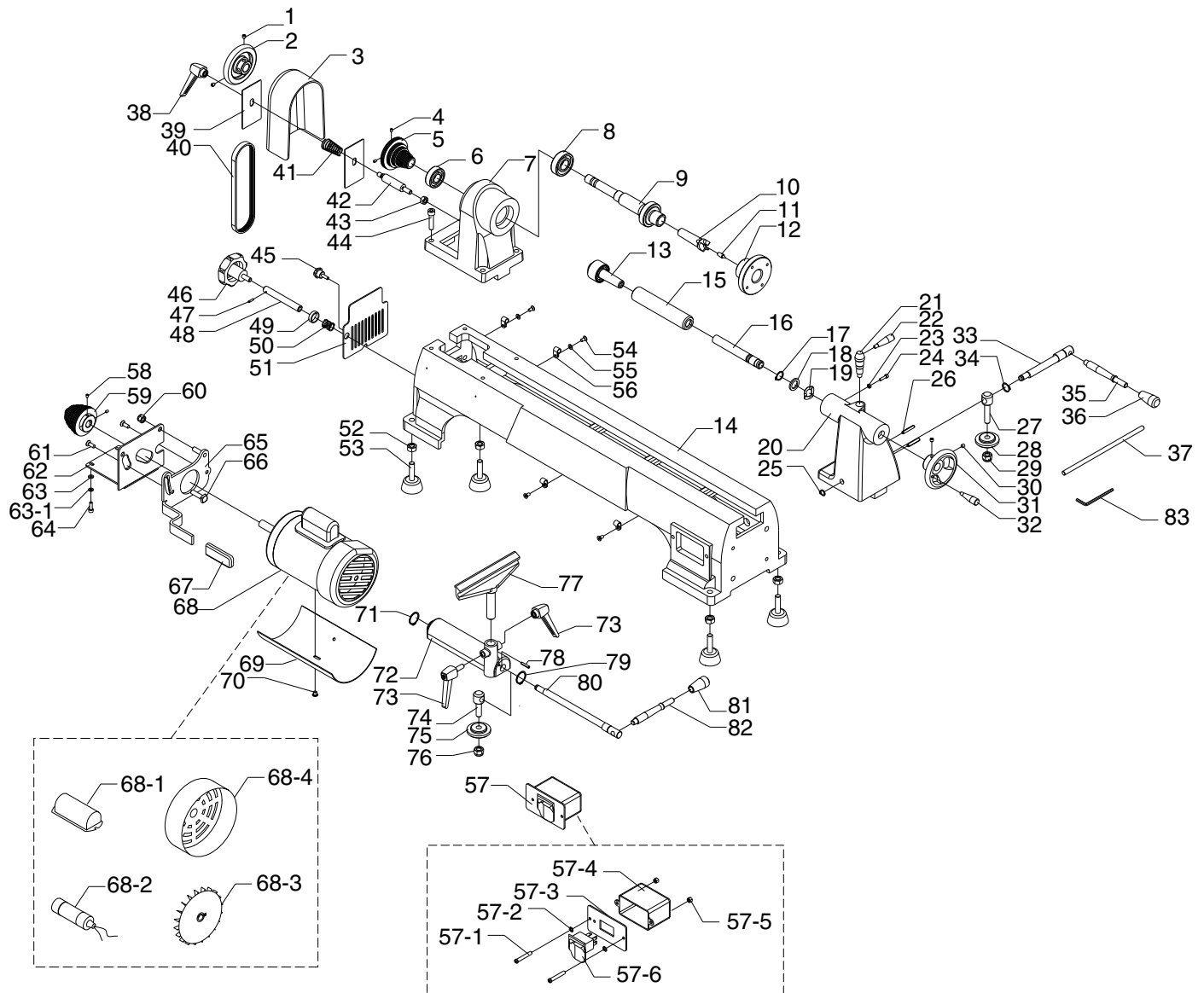


Figure 38. Switch connections.



Parts Breakdown



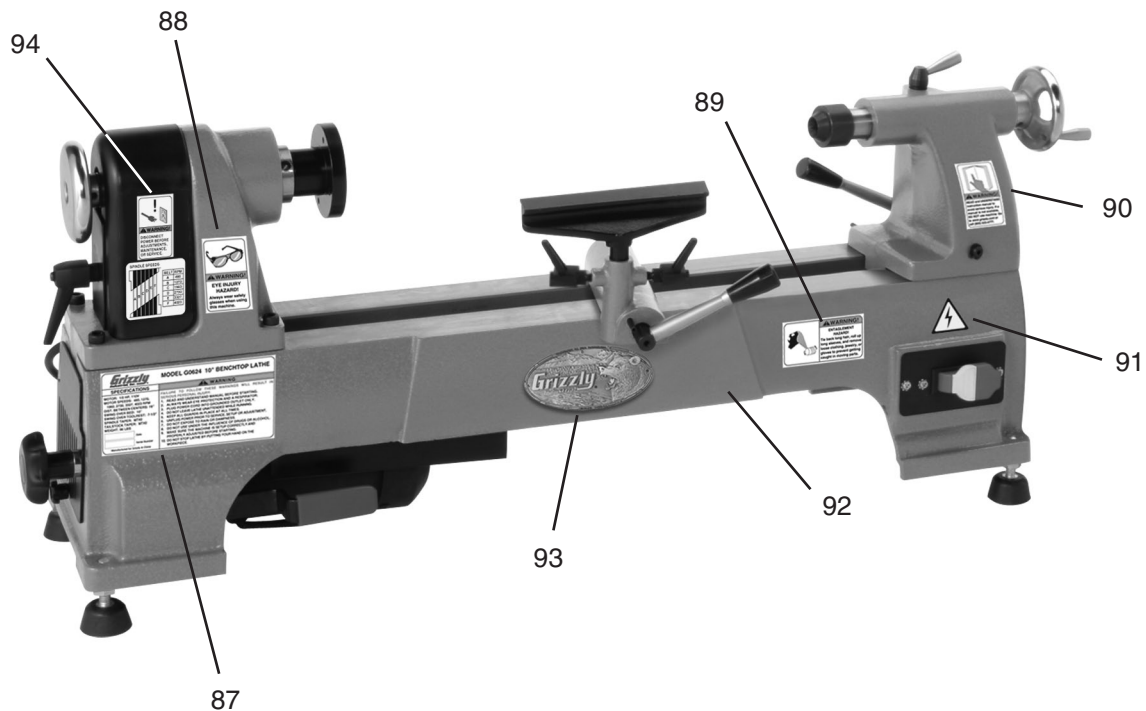
Parts List

| REF | PART # | DESCRIPTION |
|------|------------|-----------------------------------|
| 1 | PSS02M | SET SCREW M6-1 X 6 |
| 2 | P0624002 | HEADSTOCK HANDWHEEL |
| 3 | P0624003 | PULLEY SAFETY COVER |
| 4 | PSS79M | SET SCREW M4-.7 X 6 |
| 5 | P0624005 | SPINDLE PULLEY |
| 6 | P6004ZZ | BALL BEARING 6004ZZ |
| 7 | P0624007 | HEADSTOCK CASTING |
| 7A | P0624007A | COMPLETE HEADSTOCK ASSEMBLY |
| 8 | P6005ZZ | BALL BEARING 6005ZZ |
| 9 | P0624009 | SPINDLE |
| 10 | P0624010 | SPUR CENTER MT#2 |
| 11 | P0624011 | INDEXED SPINDLE 5-7MM TAPER |
| 12 | P0624012 | FACEPLATE 3" |
| 13 | P0624013 | LIVE CENTER MT#2 |
| 13-1 | P0624013-1 | INDEXED SPINDLE 9-11MM TAPER |
| 14 | P0624014 | BEDWAY |
| 15 | P0624015 | TAILSTOCK QUILL |
| 16 | P0624016 | TAILSTOCK LEADSCREW |
| 17 | PR05M | EXT RETAINING RING 15MM |
| 18 | PW14 | FLAT WASHER 5/8 |
| 19 | P0624019 | RUBBER COLLAR |
| 20 | P0624020 | TAILSTOCK CASTING |
| 20A | P0624020A | COMPLETE TAILSTOCK ASSY |
| 21 | P0624021 | ECCENTRIC SHAFT |
| 22 | P0624022 | QUILL LOCK HANDLE |
| 23 | PN04M | HEX NUT M4-.7 |
| 24 | PCAP16M | CAP SCREW M4-.7 X 16 |
| 25 | PR01M | EXT RETAINING RING 10MM |
| 26 | PRP05M | ROLL PIN 5 X 30 |
| 27 | P0624027 | ADJUSTMENT SHAFT |
| 28 | P0624028 | SLIDE COLLAR |
| 29 | PLN05M | LOCK NUT M10-1.5 |
| 30 | PSS02M | SET SCREW M6-1 X 6 |
| 31 | P0624031 | TAILSTOCK HANDWHEEL |
| 32 | P0624032 | TAILSTOCK HANDWHEEL HANDLE |
| 33 | P0624033 | ECCENTRIC SHAFT |
| 34 | PR06M | EXT RETAINING RING 16MM |
| 35 | P0624035 | TAILSTOCK RELEASE LEVER |
| 36 | P0624036 | LEVER KNOB |
| 37 | P0624037 | KNOCKOUT BAR |
| 38 | P0624038 | LOCK HANDLE |
| 39 | P0624039 | GUARD PLATE |
| 40 | P0624040 | RIBBED V-BELT ULTRA-FLEX 3V X 600 |
| 41 | P0624041 | COMPRESSION SPRING |
| 42 | P0624042 | THREADED SHAFT |
| 43 | PN03M | HEX NUT M8-1.25 |
| 44 | PCAP40M | CAP SCREW M8-1.25 X 35 |
| 45 | P0624045 | THUMB SCREW M5-.8 X 15 |
| 46 | P0624046 | BELT TENSION LOCK KNOB |

| REF | PART # | DESCRIPTION |
|------|------------|------------------------------------|
| 47 | PRP61M | ROLL PIN 3 X 12 |
| 48 | P0624048 | SHAFT |
| 49 | P0624049 | SPACER 18MM |
| 50 | P0624050 | COMPRESSION SPRING |
| 51 | P0624051 | LOWER PULLEY ACCESS PLATE |
| 52 | PN08 | HEX NUT 3/8-16 |
| 53 | P0624053 | RUBBER FOOT |
| 54 | PS09M | PHLP HD SCR M5-.8 X 10 |
| 55 | PW02M | FLAT WASHER 5MM |
| 56 | P0624056 | WIRE CLAMP |
| 57 | G8988 | SWITCH |
| 57-1 | PS10 | PHLP HD SCR 10-24 X 1-1/2 |
| 57-2 | PTLW02M | EXT TOOTH WASHER 5MM |
| 57-3 | P0624057-3 | SWITCH PLATE |
| 57-4 | P0624057-4 | SWITCH BOX |
| 57-5 | PN07 | HEX NUT 10-24 |
| 57-6 | P0624057-6 | SWITCH W/SAFETY KEY |
| 58 | PSS02M | SET SCREW M6-1 X 6 |
| 59 | P0624059 | MOTOR PULLEY |
| 60 | PLN04M | LOCK NUT M8-1.25 |
| 61 | PS11M | PHLP HD SCR M6-1 X 16 |
| 62 | P0624062 | MOTOR PLATE |
| 63 | PW02M | FLAT WASHER 5MM |
| 63-1 | PLW01M | LOCK WASHER 5MM |
| 64 | PCAP10M | CAP SCREW M5-.8 X 15 |
| 65 | P0624065 | TENSION BRACKET |
| 66 | P0624066 | SQUARE HEAD BOLT |
| 67 | P0624067 | RUBBER SLEEVE |
| 68 | P0624068 | MOTOR 1/2HP 120V 1-PH |
| 68-1 | P0624068-1 | CAPACITOR COVER |
| 68-2 | P0624068-2 | R CAPACITOR 25M 250V |
| 68-3 | P0624068-3 | MOTOR FAN |
| 68-4 | P0624068-4 | MOTOR FAN COVER |
| 69 | P0624069 | DUST GUARD |
| 70 | P0624070 | LOCTITE SCREW 10-24 X 6 |
| 71 | PR01M | EXT RETAINING RING 10MM |
| 72 | P0624072 | TOOL POST BASE |
| 73 | P0624073 | TOOL REST LOCK HANDLE M8-1.25 X 20 |
| 74 | P0624074 | ADJUST SHAFT |
| 75 | P0624075 | SLIDE COLLAR |
| 76 | PLN05M | LOCK NUT M10-1.5 |
| 77 | P0624077 | TOOL REST |
| 78 | PRP39M | ROLL PIN 4 X 20 |
| 79 | PR02M | EXT RETAINING RING 14MM |
| 80 | P0624080 | ECCENTRIC SHAFT |
| 81 | P0624081 | LEVER KNOB |
| 82 | P0624082 | TOOL REST RELEASE LEVER |
| 83 | PAW02.5M | HEX WRENCH 2.5MM |



Warning Labels Parts List



| REF | PART # | DESCRIPTION |
|-----|-----------|---------------------------------------|
| 87 | P0624087 | MACHINE ID LABEL |
| 88 | P0624088 | SAFETY GLASSES LABEL 1-1/2" X 2-1/2" |
| 89 | P0624089 | ENTANGLEMENT HAZARD LABEL |
| 90 | P0624090 | READ MANUAL LABEL 1-1/2" X 2-1/2" |
| 91 | PLABEL-14 | ELECTRICITY LABEL |
| 92 | PPAINT-1 | GRIZZLY GREEN PAINT |
| 93 | G9987 | GRIZZLY MINI NAME PLATE |
| 94 | P0624094 | DISCONNECT POWER-SPINDLE SPEEDS LABEL |

WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.



WARRANTY AND 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.





WARRANTY CARD

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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.**

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_____ Friend

_____ Catalog

_____ Card Deck

_____ Website

_____ Other:

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

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_____ Popular Mechanics

_____ Today's Homeowner

_____ Family Handyman

_____ Popular Science

_____ Wood

_____ Hand Loader

_____ Popular Woodworking

_____ Wooden Boat

_____ Handy

_____ Practical Homeowner

_____ Woodshop News

_____ Home Shop Machinist

_____ Precision Shooter

_____ Woodsmith

_____ Journal of Light Cont.

_____ Projects in Metal

_____ Woodwork

_____ Live Steam

_____ RC Modeler

_____ Woodworker West

_____ Model Airplane News

_____ Rifle

_____ Woodworker's Journal

_____ Modeltec

_____ Shop Notes

_____ Other:

_____ Old House Journal

_____ Shotgun News

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.

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