



MODEL G0758Z MILL/DRILL W/DRO MANUAL INSERT

For Machines Mfd. Since 02/17
and Owner's Manual Printed 05/14

Model G0758Z is an upgraded version of Model G0758 with an included X-/Y-/Z-Axis DRO.

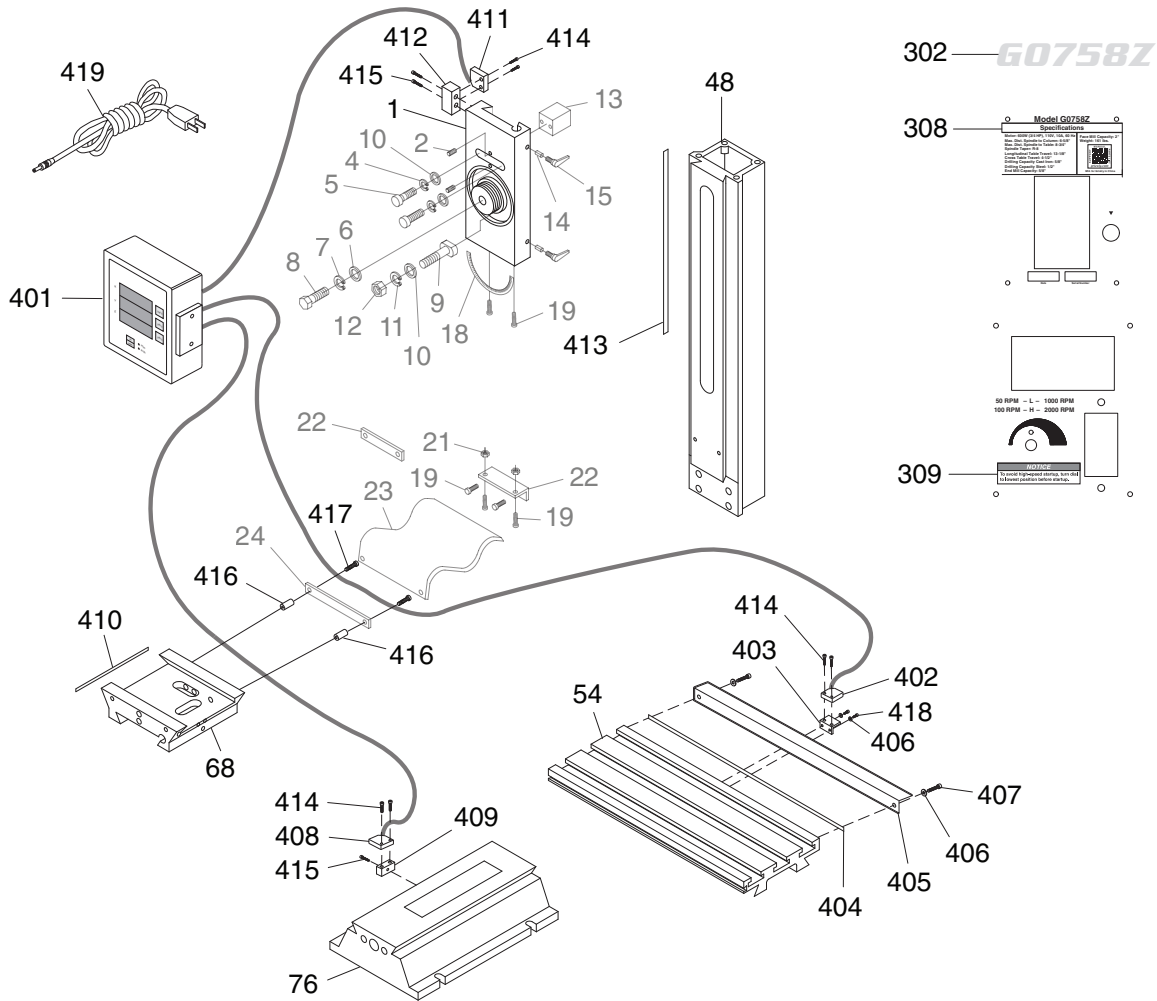
NOTE: The column, table, and saddle on this model have been specially machined to mount the DRO scales. Thus, the DRO components included with these models cannot be easily retrofitted onto Model G0758 without replacing these parts.

⚠WARNING: To reduce the risk of serious injury, you **MUST** read and understand this insert—and the entire Model G0758 manual—**BEFORE** assembling, installing, or operating this machine!

If you have any further questions about this manual insert or the differences between the Model G0758 and the Model G0758Z, contact our Technical Support at (570) 546-9663 or email techsupport@grizzly.com.



G0758Z Unique Parts



REF	PART #	DESCRIPTION
1	P0758Z001	Z-AXIS SLIDE
48	P0758Z048	COLUMN
54	P0758Z054	TABLE
68	P0758Z068	SADDLE
76	P0758Z076	BASE
302	P0758Z302	MODEL NUMBER LABEL
308	P0758Z308	MACHINE ID LABEL
309	P0758Z309	CONTROL PANEL LABEL
401	P0758Z401	DRO DISPLAY UNIT
402	P0758Z402	X-AXIS DRO SENSOR
403	P0758Z403	X-AXIS SENSOR MOUNTING BRACKET
404	P0758Z404	X-AXIS METALLIC STRIP 10 X 480MM
405	P0758Z405	ALUM BRACKET 30 X 480
406	P0758Z406	FLAT WASHER 4MM

REF	PART #	DESCRIPTION
407	P0758Z407	CAP SCREW M4-.7 X 8
408	P0758Z408	Y-AXIS DRO SENSOR
409	P0758Z409	Y-AXIS SENSOR MOUNTING BLOCK
410	P0758Z410	Y-AXIS METALLIC STRIP 10 X 150MM
411	P0758Z411	Z-AXIS DRO SENSOR
412	P0758Z412	Z-AXIS SENSOR MOUNTING BLOCK
413	P0758Z413	Z-AXIS METALLIC STRIP 10 X 390MM
414	P0758Z414	CAP SCREW M3-.5 X 16
415	P0758Z415	CAP SCREW M4-.7 X 16
416	P0758Z416	STEEL SLEEVE 5 X 18 X 33L
417	P0758Z417	CAP SCREW M5-.8 X 50
418	P0758Z418	CAP SCREW M4-.7 X 8
419	P0758Z419	DRO POWER CORD 2W 18G 72" 1-15P



DRO Components

Digital Readout

Model G0758Z features a magnetically mounted DRO (see **Figure 1**) for X-axis (table), Y-axis (saddle), and Z-axis (column) travel.

Note: When placing the DRO, locate all cables so they do not interfere with machine operation and cannot be pinched by moving components.



Figure 1. DRO magnetically mounted to mill headstock.

The X-axis sensor and scale are attached to the table. The Y-axis scale is attached to the saddle, and the Y-axis sensor is attached to the base. The Z-axis sensor and scale are attached to the column. Shielded cables run from each sensor to plugs on the back of the DRO (see **Figure 2**). The DRO connects to a 110V power supply with a dedicated power cord using a NEMA 1-15 plug.

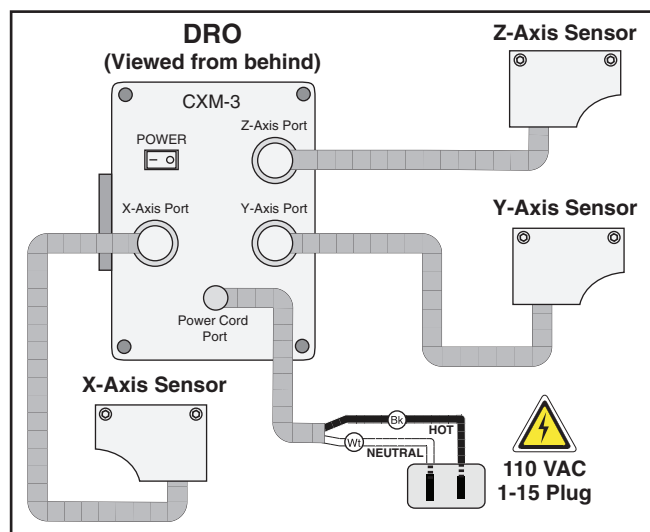


Figure 2. G0758Z DRO wiring.

Model G0758Z (Mfd. Since 02/17)

Using the DRO

- A. DRO displays current position of X-axis, Y-axis, and Z-axis in hundredths of a millimeter or thousandths of an inch.
- B. "X" value displays total X-axis travel from zero along table.
- C. "Y" value displays total Y-axis travel from zero along saddle.
- D. "Z" value displays total Z-axis travel from zero along column.
- E. **In/MM** button allows users to toggle measurement display in either inches or millimeters.
- F. **ZERO** buttons reset values at any point along the axis to 0.00.
- G. Green light indicates inches or millimeters.
- H. Magnetic mount.

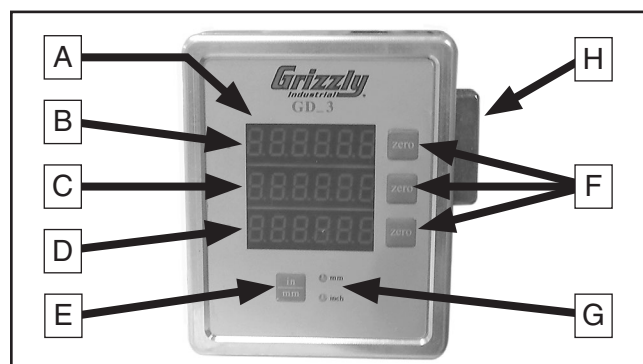


Figure 3. DRO controls and display.

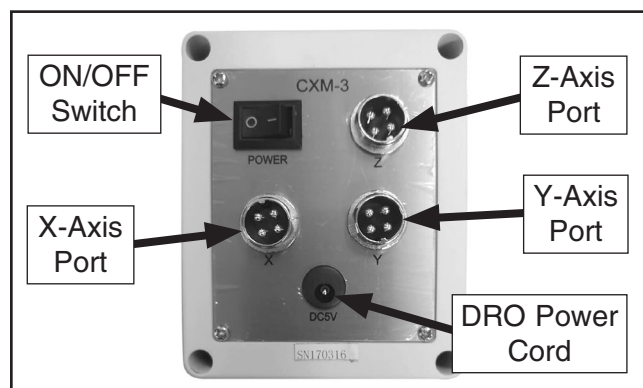


Figure 4. DRO cable connections (rear).



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MODEL G0758

MILL/DRILL

OWNER'S MANUAL

(For models manufactured since 02/14)



Shown with Optional Stand
(Model T26612)

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OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**

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V1.05.14



WARNING!

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

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

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

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



WARNING!

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

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

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

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INTRODUCTION

Machine Description

The Model G0758 is a high-precision mill/drill with a 600 Watt ($\frac{3}{4}$ HP) high-torque, low noise motor, with low speed gearing for maximum torque in the lowest RPM range.

This mill/drill has a spindle-to-table distance of 9" with a 13 $\frac{1}{4}$ " swing. It has an R-8 spindle size and features manual downfeed controls with a variable spindle speed range from 50–2000 RPM. DRO's for both the spindle speed and spindle downfeed stroke allow precise operation. The headstock tilts 45° left/right and moves in the Z-axis along dovetailed ways for maximum precision.

The large 5 $\frac{1}{2}$ " x 19 $\frac{1}{16}$ " table features manual 13" (X-axis) and 5 $\frac{1}{2}$ " (Y-axis) travel. All table movement is along precision-ground dovetailed ways. An optional stand (Model T26612) is available for purchase at www.grizzly.com.

Contact Info

We stand behind our machines. If you have any questions or need help, use the information below to contact us. Before contacting, please get the serial number and manufacture date of your machine. This will help us help you faster.

Grizzly Technical Support
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Email: techsupport@grizzly.com

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

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


Manual Accuracy

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

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

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

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

		MODEL GXXXX	
		MACHINE NAME	
SPECIFICATIONS		WARNING!	
Motor:		To reduce risk of serious injury when using this machine:	
Specification:		1. Read manual before operation.	
Specification:		2. Wear safety glasses and respirator.	
Specification:		3. Ensure machine is properly adjusted/setup and	
Specification:		4. Make sure the motor has stopped and disconnect	
Weight:		power before adjustments, maintenance, or service.	
		5. DO NOT expose to rain or dampness.	
		6. DO NOT modify this machine in any way.	
		7.	
		8.	
		9.	
		10. Maintain machine carefully to prevent accidents.	
Manufactured for Grizzly in Taiwan			

Manufacture Date []

Serial Number []



Identification

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

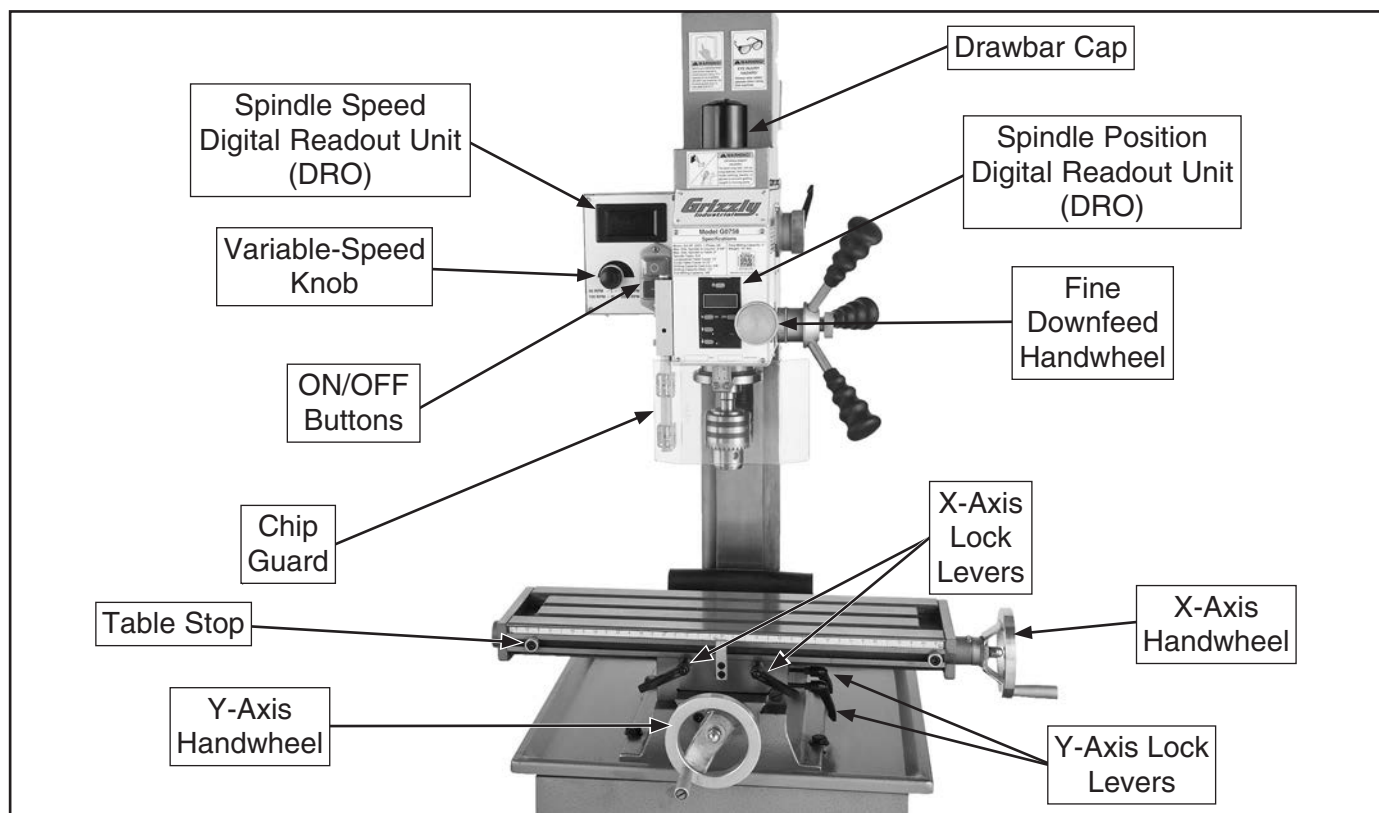


Figure 1. Front identification.

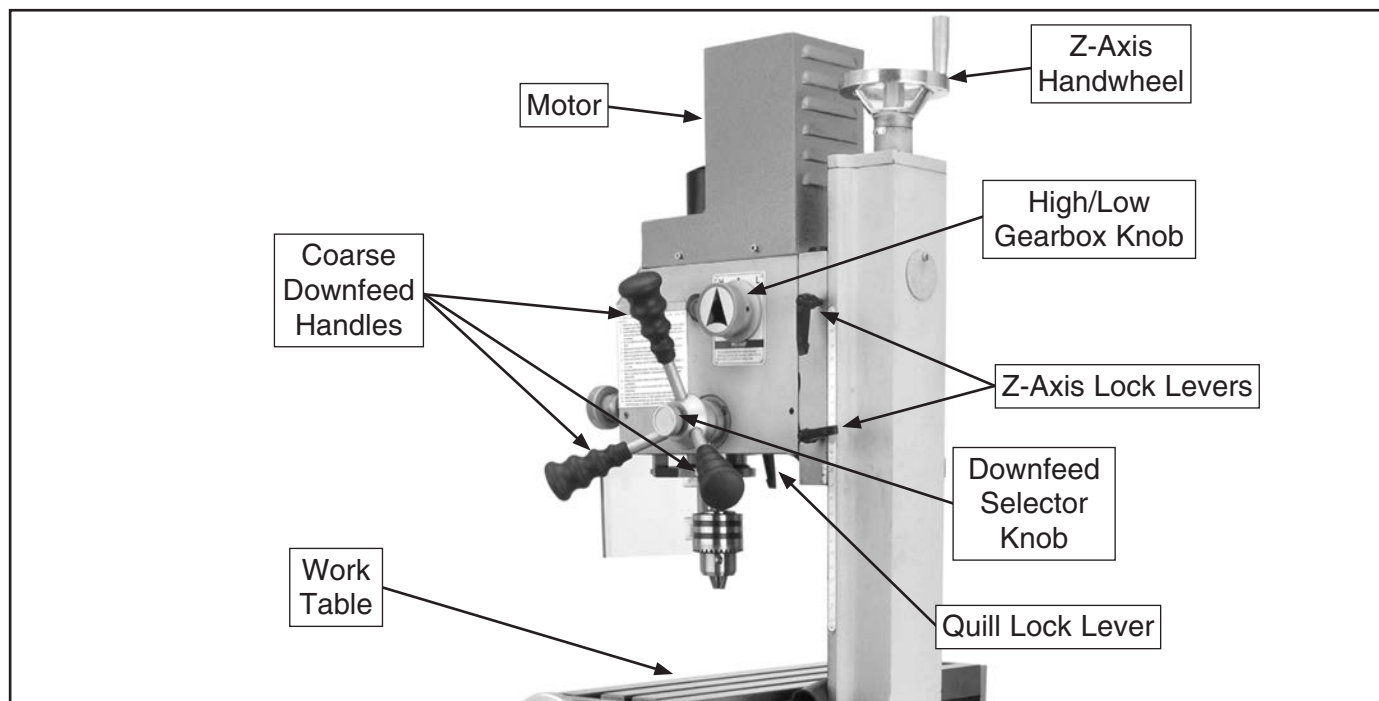


Figure 2. Right side identification.



Controls & Components



Refer to **Figures 3 & 4** and the following descriptions to become familiar with the basic controls of this machine.

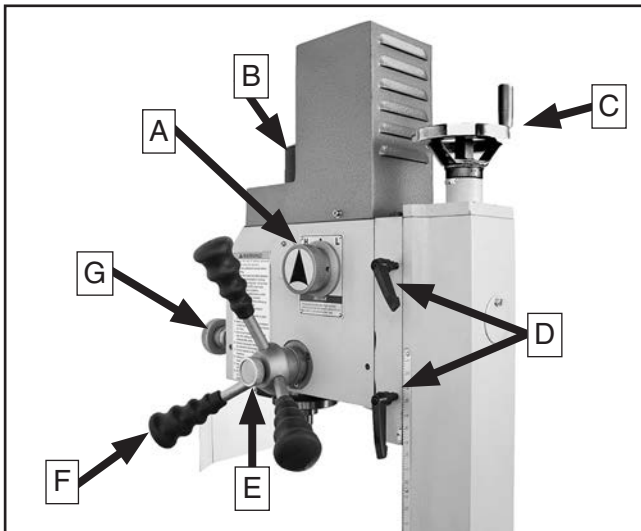


Figure 3. G0758 controls (right side).

- A. High/Low Gearbox Knob:** Selects low gear "L" for maximum torque from 50–1000 RPM, or high gear "H" for 100–2000 RPM.
- B. Drawbar Cap/Drawbar:** Drawbar secures collets and tooling in the spindle.
- C. Z-Axis Handwheel:** Raises and lowers headstock.
- D. Z-Axis Travel Locks:** Locks position of headstock to column.
- E. Downfeed Selector Knob:** Selects between fine and coarse vertical quill travel.

- F. Coarse Downfeed Handle:** Provides coarse control over vertical quill travel.
- G. Fine Downfeed Handwheel:** Provides fine control over vertical quill travel.

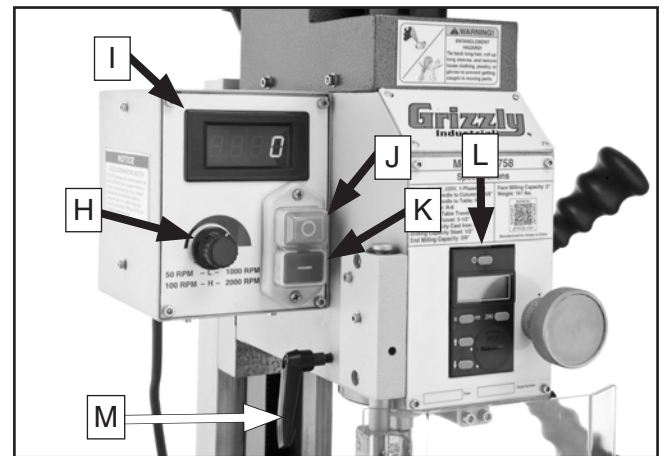


Figure 4. G0758 controls (front side).

- H. Variable-Speed Knob:** Controls spindle speed.
- I. Variable-Speed Digital Readout Unit (DRO):** Displays spindle speed.
- J. ON Button:** Supplies power for spindle rotation.
- K. OFF Button:** Disconnects power for spindle rotation.
- L. Spindle Downfeed Digital Readout Unit (DRO):** Displays a precise reading of vertical positioning of spindle. It can be zeroed at any position and manually increased or decreased independent of spindle position when operation requires it.
- M. Quill Lock Lever:** Locks vertical position of quill when tightened.





MACHINE DATA SHEET

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

MODEL G0758 MILL/DRILL

Product Dimensions:

Weight..... 161 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 19-3/4 x 21 x 30-1/4 in.
Footprint (Length x Width)..... 11 x 9 in.

Shipping Dimensions:

Type..... Wood Crate
Content..... Machine
Weight..... 204 lbs.
Length x Width x Height..... 24 x 22 x 32 in.
Must Ship Upright..... Yes

Electrical:

Power Requirement..... 110V, Single-Phase, 60 Hz
Full-Load Current Rating..... 10A
Minimum Circuit Size..... 15A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 16 AWG
Plug Included..... Yes
Included Plug Type..... 5-15
Switch Type..... ON/OFF Push Button Switch w/Safety Cover

Motors:

Main

Horsepower..... 600W (3/4 HP)
Phase..... Single-Phase
Amps..... 10A
Speed..... 4500 RPM
Type..... High-Torque DC
Power Transfer Gear Drive
Bearings..... Shielded and Permanently Sealed

Main Specifications:

Operation Info

Spindle Travel..... 2 in.
Max Distance Spindle to Column..... 6-5/8 in.
Max Distance Spindle to Table..... 8-3/4 in.
Longitudinal Table Travel (X-Axis)..... 13-1/8 in.
Cross Table Travel (Y-Axis)..... 5-1/2 in.
Vertical Head Travel (Z-Axis)..... 8-1/4 in.
Head Tilt (Left/Right)..... 45 deg.
Drilling Capacity for Cast Iron..... 5/8 in.
Drilling Capacity for Steel..... 1/2 in.
End Milling Capacity..... 5/8 in.
Face Milling Capacity..... 2 in.



Table Info

Table Length.....	19-3/4 in.
Table Width.....	5-3/4 in.
Table Thickness.....	1-7/8 in.
Number of T-Slots.....	3
T-Slot Size.....	3/8 in.
T-Slots Centers.....	1-1/2 in.
X/Y-Axis Travel per Handwheel Revolution.....	0.1 in.
Z-Axis Travel per Handwheel Revolution.....	0.1 in.

Spindle Info

Spindle Taper.....	R-8
Number of Vertical Spindle Speeds.....	Variable
Range of Vertical Spindle Speeds.....	50 – 1000, 100 - 2000 RPM
Quill Diameter.....	2.36 in.
Drawbar Thread Size.....	7/16-20
Drawbar Length.....	9-7/8 in.
Spindle Bearings.....	Tapered Roller Bearings

Construction

Spindle Housing/Quill.....	Cast Iron
Table.....	Cast Iron
Head.....	Cast Iron
Column/Base.....	Cast Iron
Paint Type/Finish.....	Enamel

Other

Optional Stand.....	T26612
---------------------	--------

Other Specifications:

Country of Origin	China
Warranty	1 Year
Serial Number Location	ID Label
ISO 9001 Factory	Yes
Certified by a Nationally Recognized Testing Laboratory (NRTL)	No

Features:

Dovetail headstock column and table ways
High-torque, low-noise DC motor
Variable-speed spindle with DRO
Spindle elevation DRO
3-Axis precision handwheel control
Coarse and fine spindle downfeed
2-Speed gearbox
Zero-setting dials on handwheels
Handwheel dials feature 0.002" graduations

Accessories Included:

Drill chuck 3-16mm with B16 taper
Drill chuck arbor B16 x R8
Open-ended and hex wrenches
Toolbox



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.



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 your workshop kid proof!

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

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

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are **NOT** approved safety glasses.



WARNING

WEARING PROPER APPAREL. Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

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

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

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

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

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

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

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

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

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

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

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

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine **OFF** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

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

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—**NOT** the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.



Additional Safety for Mills/Drills

WARNING

The primary risks of operating a Mill/Drill are as follows: You can be seriously injured or killed by getting clothing, jewelry, or long hair entangled with rotating cutter. You can be severely cut or your fingers can be amputated by contacting the rotating cutter. You can be blinded or struck with great force by broken cutting tools, metal chips, workpieces, or adjustment tools thrown from the rotating spindle. To reduce your risk of serious injury when operating this machine, completely heed and understand the following:

UNDERSTAND ALL CONTROLS. Make sure you understand the function and proper use of all controls before starting. This will help you avoid making mistakes that result in serious injury.

WEAR FACE SHIELD. Always wear a face shield in addition to safety glasses. This provides more complete protection for your face than safety glasses alone.

REMOVE CHUCK KEY & SPINDLE TOOLS. Always remove chuck key, drawbar wrench, and other tools used on the spindle immediately after use. This will prevent them from being thrown by the spindle upon startup.

PROPERLY SECURE CUTTER. Firmly secure cutting tool or drill bit so it does not fly out of spindle during operation.

USE CORRECT SPINDLE SPEED. Follow recommended speeds and feeds for each size and type of cutting tool. This helps ensure best cutting results and avoid tool breakage during operation.

INSPECT CUTTING TOOL. Inspect cutting tools for sharpness, chips, or cracks before each use. Replace dull, chipped, or cracked cutting tools immediately.

ALLOW SPINDLE TO STOP. To minimize your risk of entanglement, always allow spindle to stop on its own. DO NOT stop spindle using your hand or any other object.

SECURE WORKPIECE TO TABLE. Clamp workpiece to table or secure in a vise mounted to table, so workpiece cannot unexpectedly shift or spin during operation. NEVER hold workpiece by hand during operation.

CLEAN MACHINE SAFELY. Metal chips or shavings can be razor sharp. DO NOT clear chips by hand or compressed air that can force chips farther into machine—use a brush or vacuum instead. Never clear chips while spindle is turning.

PROPERLY MAINTAIN MACHINE. Keep machine in proper working condition to help ensure that it functions safely and all guards and other components work as intended. Perform routine inspections and all necessary maintenance. Never operate machine with damaged or worn parts that can break or result in unexpected movement during operation.

DISCONNECT POWER FIRST. To reduce risk of electrocution or injury from unexpected startup, make sure mill/drill is turned **OFF**, disconnected from power, and all moving parts have come to a complete stop before changing cutting tools or starting any inspection, adjustment, or maintenance procedure.

POWER DISRUPTION. In the event of a local power outage during operation, turn spindle switch **OFF** to avoid a possible sudden startup once power is restored.

WARNING

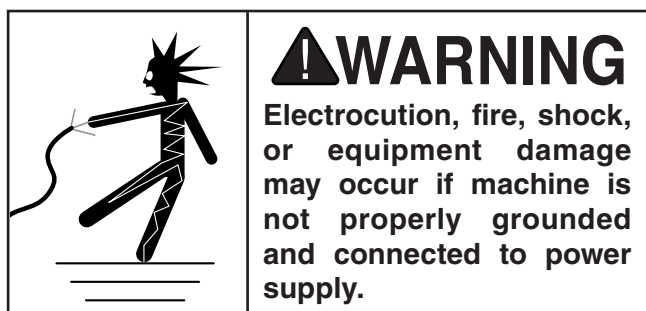
Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored,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



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 110V..... 8 Amps

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

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

! WARNING

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

110V Circuit Requirements

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

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

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

! CAUTION

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

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



Grounding & Plug Requirements

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

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug (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.

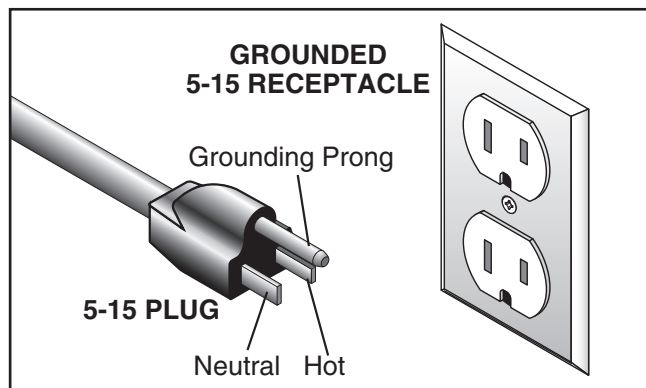
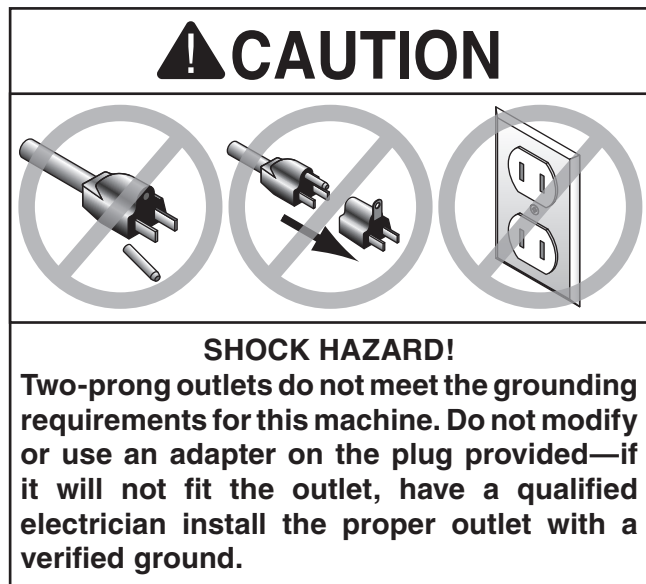


Figure 5. Typical 5-15 plug and receptacle.



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.

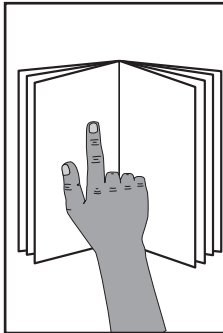
Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

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 Size16 AWG
Maximum Length (Shorter is Better).....50 ft.



SECTION 3: SETUP



!WARNING

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



!WARNING

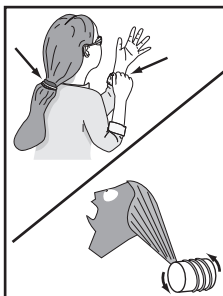
Wear safety glasses during entire setup process!



!WARNING

HEAVY LIFT!

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.



!WARNING

Keep hair, clothing, and jewelry away from moving parts at all times. Entanglement can result in death, amputation, or severe crushing injuries!

Needed for Setup

The following are needed to complete the setup process, but are not included with machine.

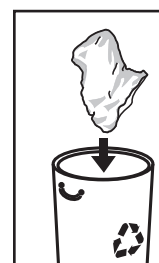
Description	Qty
• Additional People	1
• Safety Glasses	1
• Cleaner/Degreaser (Page 14)	As Needed
• Disposable Shop Rags.....	As Needed
• Forklift.....	1
• Lifting Sling (rated for at least 300 lbs.).....	1
• Mounting Hardware (Page 17) ...	As Needed
• Brass Hammer (Page 26)	1
• Mineral Spirits (Page 18).....	As Needed
• Wood Block (Page 18)	1

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover any damage, *please call us immediately 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.



!WARNING

SUFFOCATION HAZARD!

Keep children and pets away from plastic bags or packing materials shipped with this machine. Discard immediately.



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.

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 (Figure 6)	Qty
A. Handwheel Handles w/Screws.....	3
B. Bottle for Oil	1
C. Toolbox	1
D. Drill Chuck Arbor R-8 x B-16.....	1
E. Standard Screwdriver	1
F. Phillips Screwdriver	1
G. Spindle Pin	1
H. Open-End Wrench 8/10mm.....	1
I. Open-End Wrench 12/14mm	1
J. Open-End Wrench 17/19mm	1
K. Drill Chuck 3–16mm w/Chuck Key	1
L. T-Bolt M8-1.25 x 55 Assemblies.....	2
M. Hex Wrenches 2.5, 3, 4, 5, 6mm	1 Each

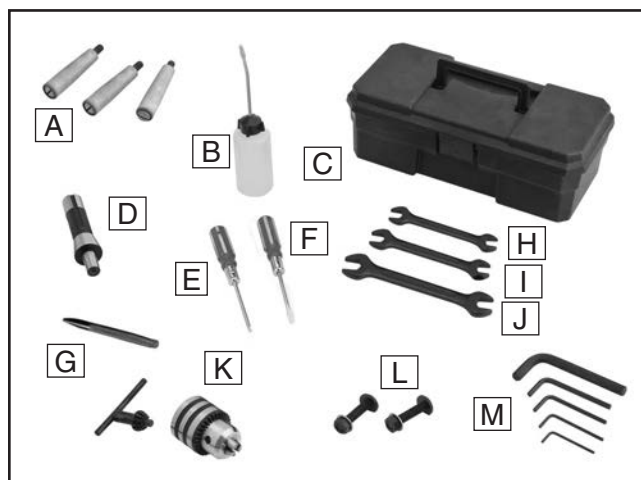


Figure 6. Inventory included with machine.



Cleanup

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

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


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

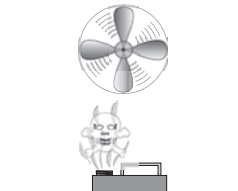
Before cleaning, gather the following:

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

Basic steps for removing rust preventative:

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

	⚠ WARNING Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.
--	--

	⚠ CAUTION Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.
--	---

NOTICE Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

T23692—Orange Power Degreaser

A great product for removing the waxy shipping grease from machine during clean up.



Figure 7. T23692 Orange Power Degreaser.



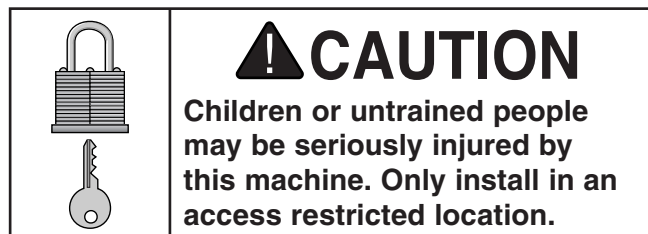
Site Considerations

Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

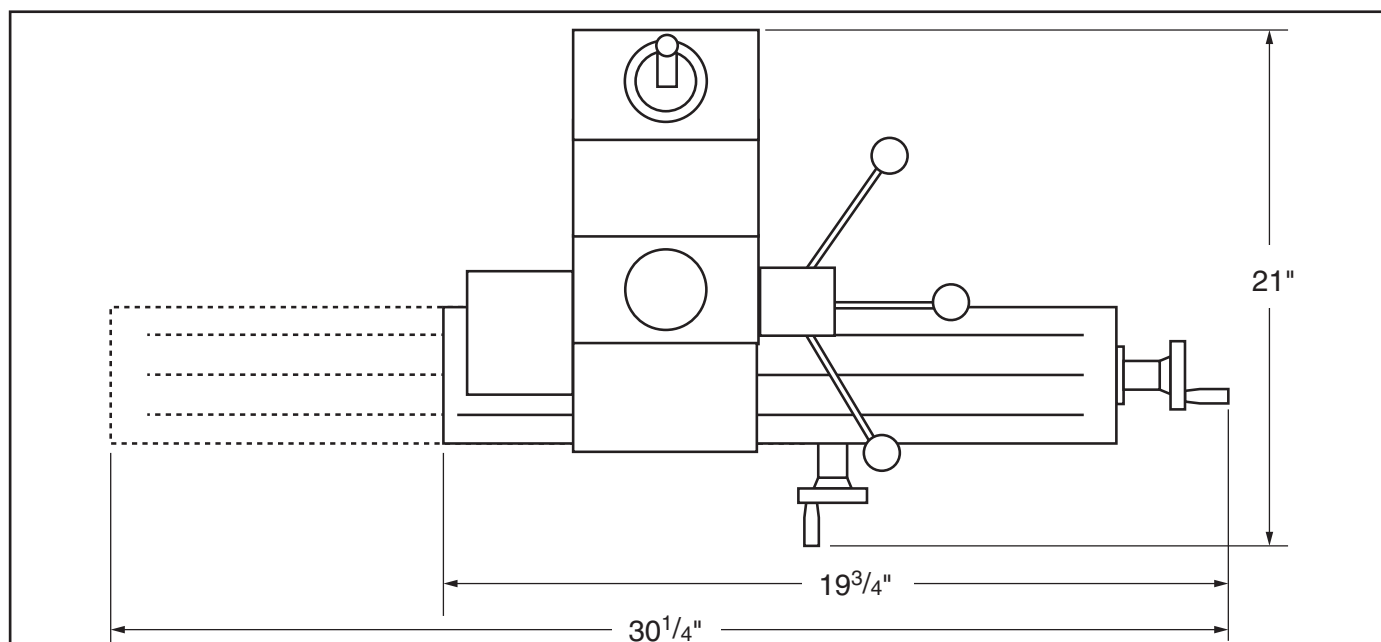


Figure 8. G0758 working clearances.



Lifting & Placing

The Model G0758 mill/drill can be mounted to a workbench or the Model T26612 optional stand (see **Figure 9**). The optional stand is specifically designed for Model G0758 and comes with pre-drilled mounting holes.



Figure 9. Model T26612 optional stand for Model G0758.

An icon depicting two people lifting a box together, and a forklift below them, indicating the use of proper lifting techniques and equipment.	<p>! WARNING HEAVY LIFT! Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.</p>
--	---

To lift machine and place it in position:

1. Place shipping crate next to workbench (or stand) where machine will be placed.
2. Use vertical handwheel to raise headstock as far as possible (see **Figure 10**). Lock headstock in place to avoid sudden shifts during lifting.

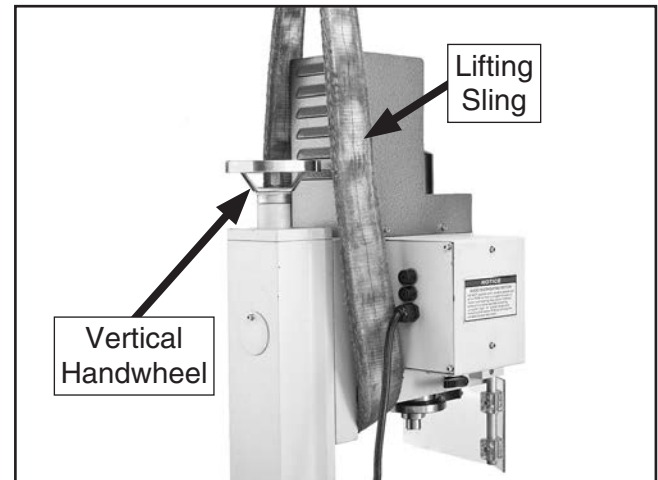


Figure 10. Headstock positioned for lifting.

3. Hang sling from forklift fork and place it under headstock, as shown in **Figure 10**. **DO NOT** place sling over any controls or against any components that may be damaged from the force required for lifting.
4. Unbolt machine from pallet. Have an assistant on the ground steady machine to prevent it from swinging and lift it slightly off the pallet with forklift.
5. Carefully place machine onto workbench or optional stand.
6. Mount machine to workbench following instructions in **Bench Mounting** on **Page 17** or to stand following instructions included with stand.



Bench Mounting

Number of Mounting Holes 4
Diameter of Mounting Hardware..... 1/2"

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, washers, and hex nuts are used to secure the machine in place.

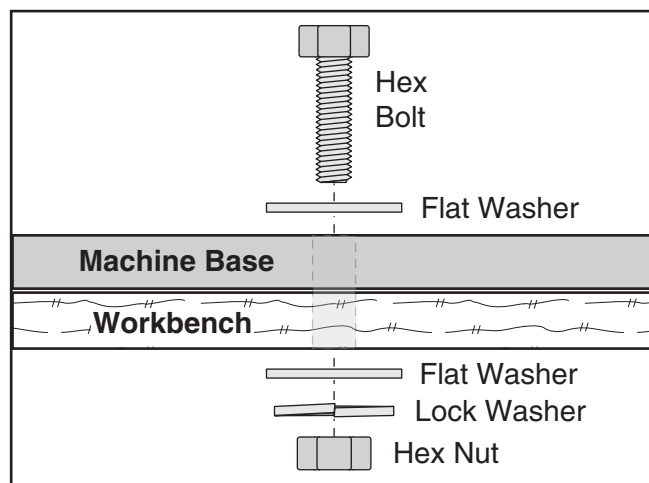


Figure 11. Example of a "Through Mount" setup.

Another option is a "direct mount" (see example below) where the machine is secured directly to the workbench with lag screws and washers.

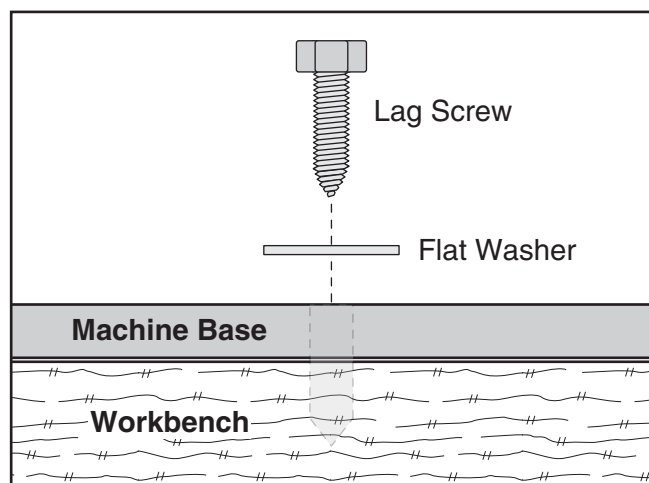


Figure 12. Example of a "Direct Mount" setup.



Assembly

Except for the handwheel handles, the mill/drill was fully assembled at the factory.

Use a standard screwdriver to attach handwheel handles (see **Figures 13–14**).

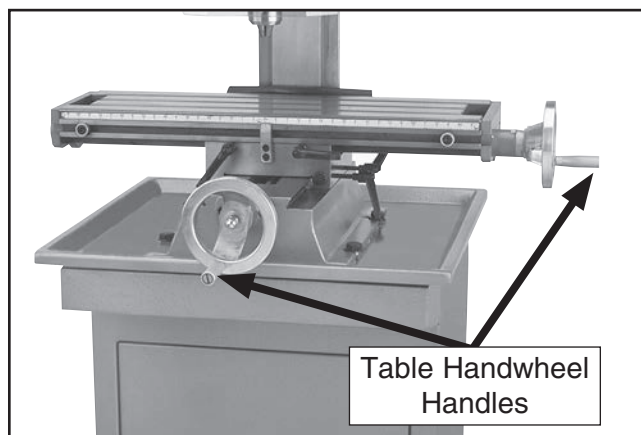


Figure 13. X- and Y-axis handwheel handles attached.

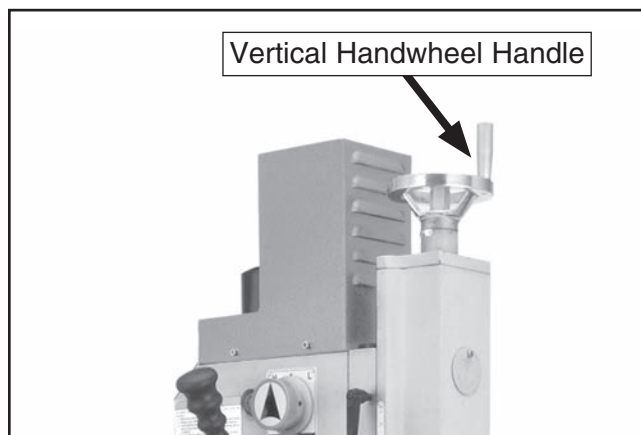


Figure 14. Z-axis handwheel handle attached.

Joining Drill Chuck & Arbor

A B-16 x R8 arbor is included for the drill chuck that comes with this machine. The following procedure describes how to install the arbor in the chuck.

After the arbor is installed in the drill chuck, it is very difficult to separate the assembly. If you would like to use a different chuck in the future, we recommend getting a new arbor for that chuck.

Important: DO NOT install the drill chuck and arbor into the spindle until AFTER the test run.

To join drill chuck and arbor:

1. Use mineral spirits to clean drill chuck and arbor mating surfaces, especially the bore.
2. Retract chuck jaws completely into chuck.
3. Insert small end of arbor into chuck.
4. Hold assembly by arbor and tap chuck onto a block of wood with medium force, as illustrated in **Figure 15**.

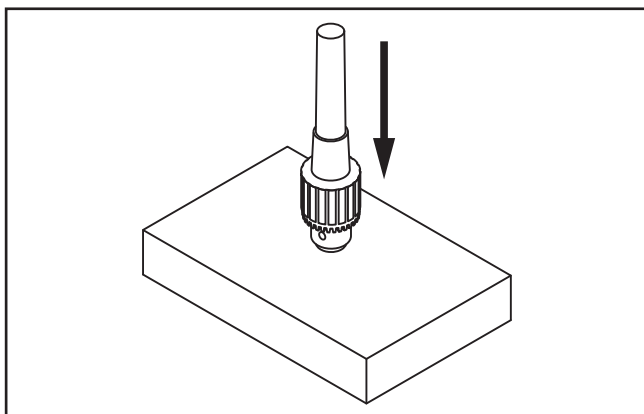


Figure 15. Tapping drill chuck/arbor on block of wood.

5. Attempt to separate drill chuck and arbor by hand. If you can pull them apart, repeat this procedure.

Note: Refer to *Installing/Removing Tooling* section on **Page 25** for installing arbor into spindle instructions.

Lubricating Mill/Drill

The lubrication procedures highlighted in the **Lubrication** subsection of **SECTION 6: MAINTENANCE** must be completed before performing the test run or spindle break-in.

NOTICE

Damage caused by running the mill/drill without first properly lubricating headstock gears will not be covered under warranty.



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.

⚠ WARNING

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

⚠ WARNING

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

To test run mill/drill:

1. Make sure all tools and objects used during setup are cleared away from machine.
2. Press OFF button (see **Figure 16**). This will help prevent unexpected startup when machine is connected to power.

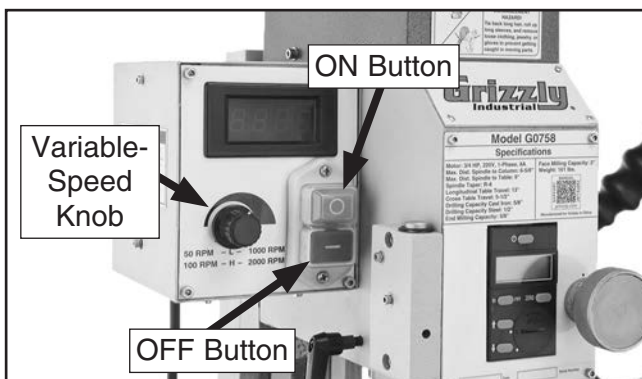


Figure 16. Location of mill/drill controls (front).

3. Rotate variable-speed knob to lowest setting.
4. Rotate high/low gearbox knob to low "L" gear setting (see **Figure 17**).

Note: When switching between gears, it may be necessary to rotate spindle by hand so gears will align and engage.

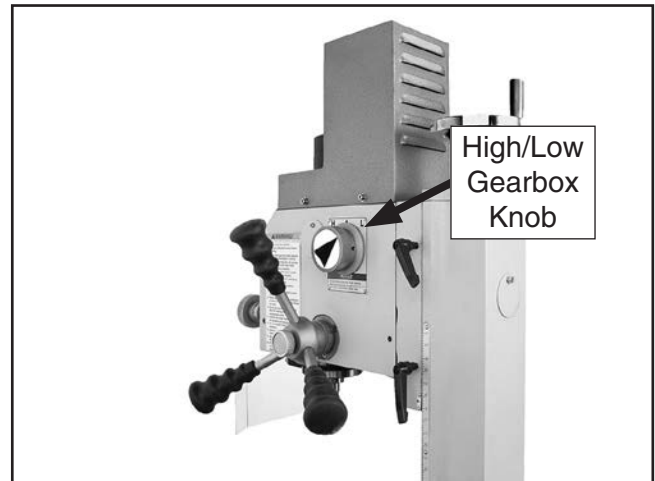


Figure 17. Gearbox knob rotated to low setting.

5. Connect mill/drill to power supply.
6. Press ON button. Spindle *should* begin to rotate clockwise (as viewed from top), and machine *should* run smoothly with little or no vibration or rubbing noises.
7. Press OFF button.
8. Open chip guard half way and press ON button. Machine *should not* start.

—If machine *does* start (with chip guard opened half way), press OFF button and immediately disconnect power to machine. The chip guard safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Refer to **Troubleshooting** table in this manual.

Congratulations! The **Test Run** is complete. Continue to **Spindle Break-In**.



Spindle Break-In

The spindle break-in procedure distributes lubrication throughout the bearings to reduce the risk of early bearing failure if there are any "dry" spots or areas where lubrication has settled in the bearings. You **must** complete this procedure **before** placing operational loads on the spindle for the first time when the machine is new or if it has been sitting idle for longer than 6 months.

Always start the spindle break-in at the lowest speed to minimize wear if there *are* dry spots. Allow the spindle to run long enough to warm up and distribute the bearing grease, then incrementally increase spindle speeds and repeat this process at each speed until reaching the maximum spindle speed. Following the break-in procedure in this progressive manner helps minimize any potential wear that could occur before lubrication is fully distributed.

NOTICE

You must complete this procedure to maintain the warranty. Failure to do this could cause rapid wear-and-tear of spindle bearings once they are placed under load.

To perform spindle break-in procedure:

1. Rotate variable-speed knob to 50 RPM and high/low gearbox knob to low "L".
2. Press ON button.
3. Run spindle for minimum of 10 minutes.
4. Without stopping spindle, use variable-speed knob to run machine at 500 and 1000 RPM for 10 minutes each.
5. Press OFF button.

6. Rotate variable-speed knob to 100 RPM and high/low gearbox knob to high "H".
7. Press ON button.
8. Run machine for a minimum of 10 minutes.
9. Without stopping spindle, use variable-speed knob to run machine at 1000 and 2000 RPM for 10 minutes each.
10. Press OFF button.

The spindle break-in of the machine is now complete!

Inspections & Adjustments

The following adjustments were performed at the factory before the machine was shipped:

- Gib Adjustments **Page 34**
- Leadscrew Backlash Adjustments..... **Page 34**

Be aware that these can change during the shipping process. Pay careful attention to these adjustments when first operating the machine. If you find that the adjustments are not set to your personal preferences, re-adjust them.

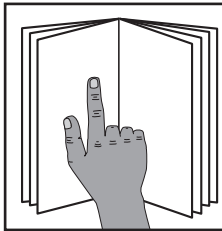


SECTION 4: OPERATIONS

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 and seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.



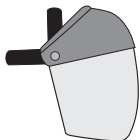
WARNING

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



WARNING

To reduce risk of eye or face injury from flying chips, always wear approved safety glasses and face shield when operating this machine.



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.



WARNING

To reduce risk of injury from unexpected startup of spindle at high speeds, always rotate variable-speed dial to the lowest setting before starting spindle.

To complete typical operation, operator does the following:

1. Examines workpiece to make sure it is suitable for cutting/drilling.
2. Puts on personal protective equipment.
3. Securely clamps workpiece to table.
4. With machine disconnected from power, installs correct tooling.
5. Adjusts headstock height above table.
6. Rotates variable-speed knob to lowest setting.
7. Selects correct gear setting on gearbox.
8. Connects machine to power and presses ON button and rotates variable-speed knob to correct spindle speed.
9. Uses downfeed controls or table controls to perform operation.
10. Presses OFF button and waits for spindle to completely stop before removing workpiece, changing tooling, or changing spindle speeds.



Downfeed Controls

Identification

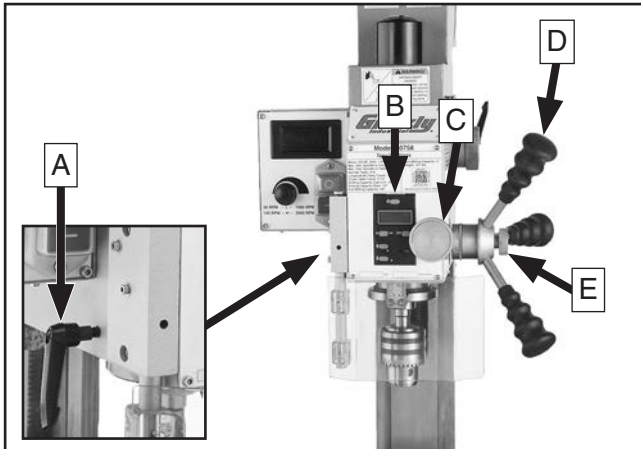


Figure 18. Identification of downfeed controls.

- A. Quill Lock Lever
- B. Spindle Downfeed DRO
- C. Fine Downfeed Handwheel
- D. Coarse Downfeed Handle
- E. Downfeed Selector Knob

Using DRO

1. Press Power/⏻ button (see **Figure 19**). A reading should appear on display.

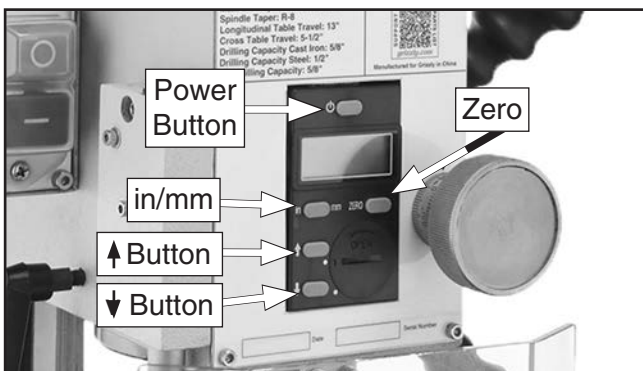


Figure 19. Identification of DRO controls.

2. Press in/mm button to select inches or millimeters. Each press of button switches between units.

3. Press ZERO to "zero" readout at any time. Current reading will be cleared and scale will reset to 0.00.

To increase or decrease reading, press ↑ or ↓ button. This is useful when calibrating mill/drill to known dimensions on a workpiece.

4. Press Power/⏻ button when operation is complete.

Using Coarse Downfeed

1. Loosen downfeed selector knob to engage coarse downfeed handles.
2. Loosen quill lock lever.
3. Turn on spindle DRO and zero it out.
4. Use coarse downfeed handles to raise and lower spindle while referencing spindle DRO for precise movement.

Using Fine Downfeed

1. Tighten downfeed selector knob to engage fine downfeed handwheel.
2. Loosen quill lock lever.
3. Turn on spindle DRO and zero it out.
4. Rotate fine downfeed handwheel to raise and lower spindle while referencing spindle DRO for precise movement.



Headstock Movement

The headstock moves in the following ways:

- Travels up and down the column (Z-axis).
- Tilts 45° left or right relative to the table.

Raising/Lowering Headstock

1. DISCONNECT MACHINE FROM POWER!
2. Loosen both Z-axis lock levers shown in **Figure 20**.

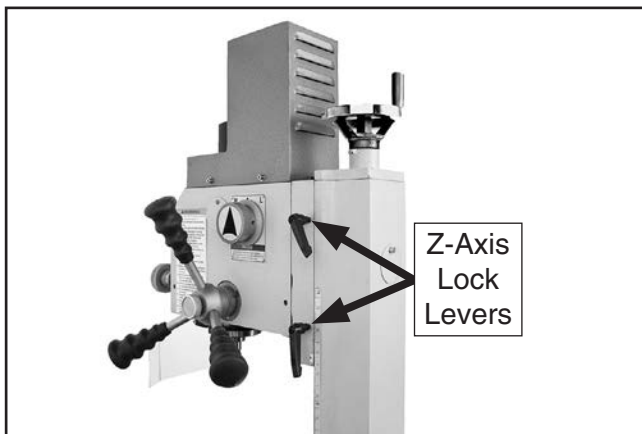


Figure 20. Location of Z-axis lock levers.

3. Use vertical handwheel shown in **Figure 21** to adjust headstock height.

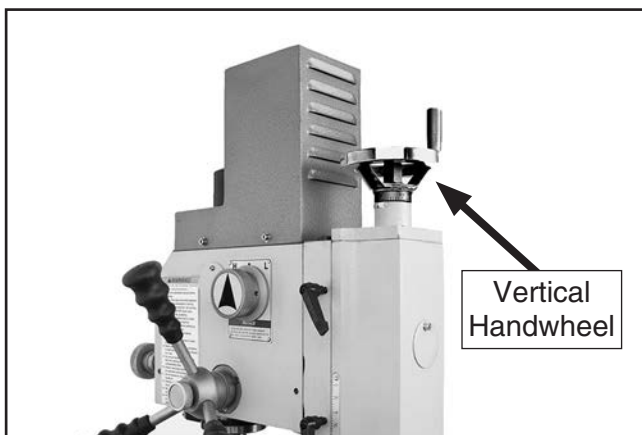


Figure 21. Location of Z-axis handwheel.

4. Retighten lock levers.

Tilting Headstock

Tools Needed	Qty
Wrench 19mm	1
Wrench 14mm	1

To tilt headstock:

1. DISCONNECT MACHINE FROM POWER!
2. Support headstock with one hand, then loosen headstock center bolt and angle lock nut (see **Figure 22**).

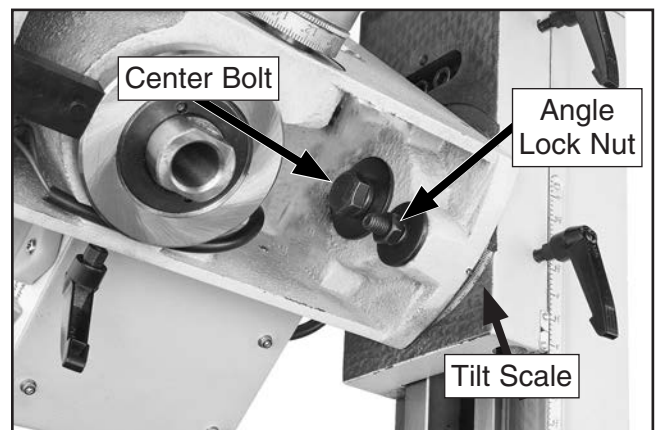


Figure 22. Headstock tilt controls.

3. While watching tilt scale, rotate headstock to required angle, then retighten center bolt and angle lock nut to secure headstock.



Table Travel

The table travels in two directions and is controlled by handwheels, as illustrated in **Figure 23**:

- X-axis (longitudinal)
- Y-axis (cross)

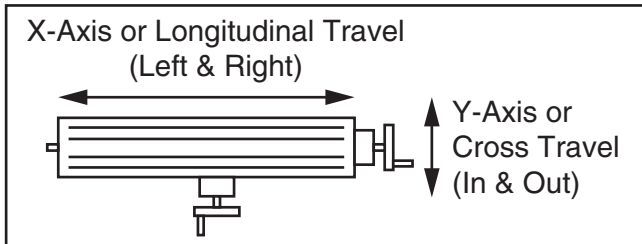


Figure 23. Possible directions of table travel.

Graduated Dials

The handwheels have graduated dials that are used to determine table movement in 0.002" increments, with one full revolution equalling 0.100".

Rotate graduated dial to a relative starting point (see **Figure 24**).

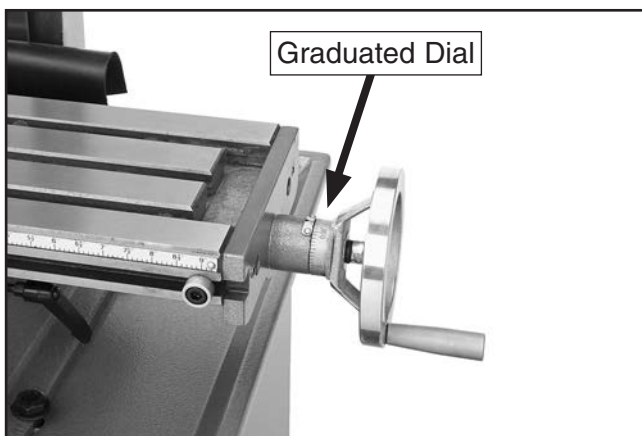


Figure 24. Graduated dial location.

X-Axis Handwheel

Tool Needed

	Qty
Hex Wrench 5mm.....	1

To use X-axis handwheel:

1. Loosen both X-axis table locks shown in **Figure 25**.

Note: To readjust positioning of table locks, pull out and rotate.

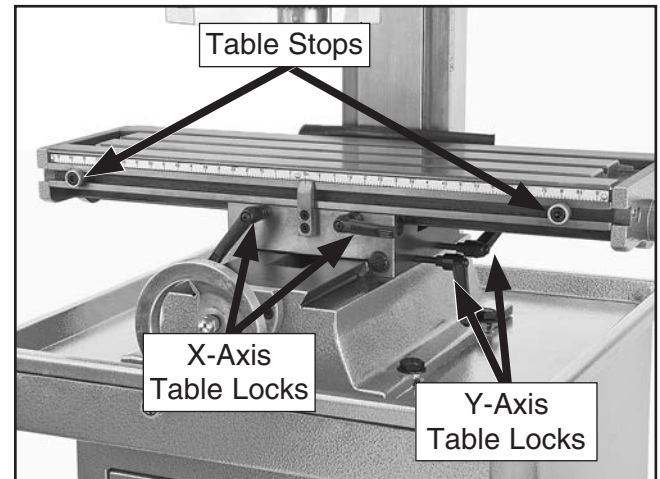


Figure 25. X- and Y-axis table travel locks.

2. Position table stops along front of table to restrict table travel.
3. Adjust X-axis graduated dial to zero, then use handwheel to move table.

Y-Axis Handwheel

The saddle does not have limit stops. To move the table along the Y-axis, loosen the Y-axis table locks shown in **Figure 25**, then use the handwheel in front of the table in the same manner as the X-axis handwheel.



Installing/Removing Tooling

The Model G0758 includes a 1–13mm drill chuck joined with R-8 arbor (see **Figure 26**).

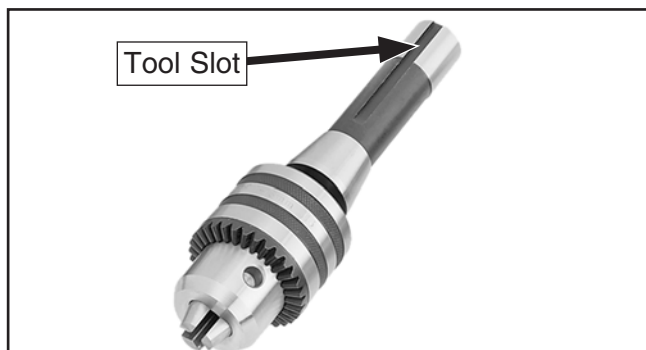
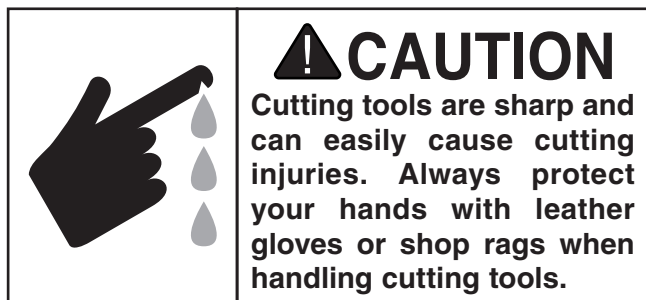


Figure 26. 1–13mm drill chuck joined with R-8 arbor.



Installing Tooling

Tools Needed	Qty
Spindle Pin	1
Wrench 8mm	1

To install tooling:

1. DISCONNECT MACHINE FROM POWER!
2. Remove drawbar cap (see **Figure 27**).



Figure 27. Location of drawbar cap.

3. Align tool slot (see **Figure 26**) with pin inside spindle, then insert tooling into spindle until in contacts drawbar.

Note: Height of drawbar inside spindle can be changed by rotating adjustment nut (see **Figure 28**).

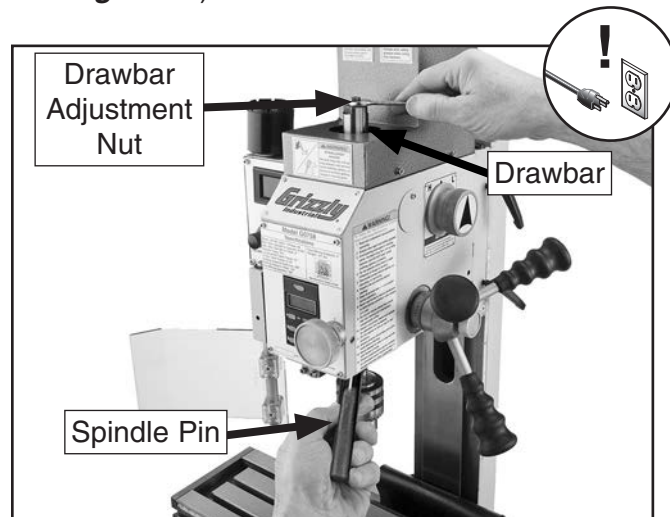


Figure 28. Components used when installing or removing tooling.

4. Working from above, thread drawbar by hand into tooling until it is snug.
5. Secure spindle with spindle pin and tighten drawbar with wrench, as shown in **Figure 28**.

Note: Do not overtighten drawbar. Overtightening makes tool removal difficult and will damage arbor and threads.

6. Re-install drawbar cap.



Removing Tooling

Tools Needed	Qty
Spindle Pin	1
Wrench 8mm	1
Brass Hammer	1

To remove tooling:

1. DISCONNECT MACHINE FROM POWER!
2. Remove drawbar cap and secure spindle with spindle pin. Unthread drawbar from tooling one full rotation.

Note: Do not fully unthread tooling from drawbar or the drawbar and tool threads could be damaged in the next step.

3. Tap top of drawbar with brass hammer to unseat taper.
4. Hold onto tooling with one hand and fully unthread drawbar.

Spindle Speed

Using the correct spindle speed is important for safe and satisfactory results, as well as maximizing tool life.

To set the spindle speed for operation, you will need to: 1) Determine the best spindle speed for the cutting/drilling task, and 2) adjust the gear box knob and variable-speed knob to produce determined speed.

Determining Spindle Speed

Many variables affect the optimum spindle speed to use for any given operation, but the two most important are the recommended cutting speed for the workpiece material and the diameter of the cutting tool, as noted in the formula shown in **Figure 29**.

$\frac{\text{*Recommended Cutting Speed (FPM)} \times 12}{\text{Tool Dia. (in inches)} \times 3.14} = \text{Spindle Speed (RPM)}$
<p>*Double if using carbide cutting tool</p>

Figure 29. Formula for determining best spindle speed.

Cutting speed, typically defined in feet per minute (FPM), is the speed at which the edge of a tool moves across the material surface.

A recommended cutting speed is an ideal speed for cutting a type of material in order to produce the desired finish and optimize tool life.

The books **Machinery's Handbook** or **Machine Shop Practice**, and some internet sites, provide excellent recommendations for which cutting speeds to use when calculating the spindle speed. These sources also provide a wealth of additional information about the variables that affect cutting speed and they are a good educational resource.

Also, there are a large number of easy-to-use spindle speed calculators that can be found on the internet. These sources will help you take into account the applicable variables in order to determine the best spindle speed for the operation.



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.

G7156—4" (3⁵/₈") Precision Milling Vise

G7154—5" (4¹/₂") Precision Milling Vise

G7155—6" (5⁵/₈") Precision Milling Vise

Swiveling Milling Vises feature perfectly aligned, precision ground jaws, large Acme® screws and easy-to-read 0°–360° scales.

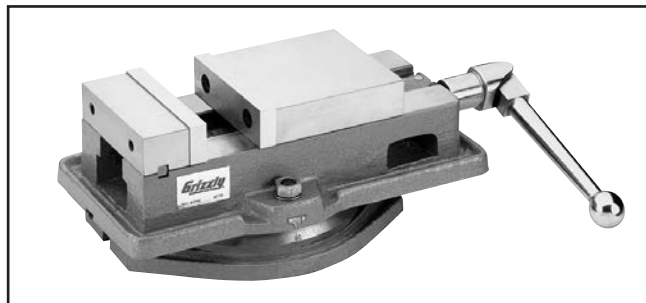


Figure 30. G7154 Precision Milling Vise.

T26612—Optional Stand for Model G0758



Figure 31. T26612 optional stand for Model G0758.

G5562—SLIPIT® 1 Qt. Gel

G5563—SLIPIT® 12 Oz. Spray

G2871—Boeshield® T-9 12 Oz. Spray

G2870—Boeshield® T-9 4 Oz. Spray

H3788—G96® Gun Treatment 12 Oz. Spray

H3789—G96® Gun Treatment 4.5 Oz. Spray



Figure 32. Recommended products for protecting cast iron/steel parts on machinery.

SB1365—South Bend Way Oil-ISO 68

T23964—Moly-D Multi-purpose NLGI#2 Grease

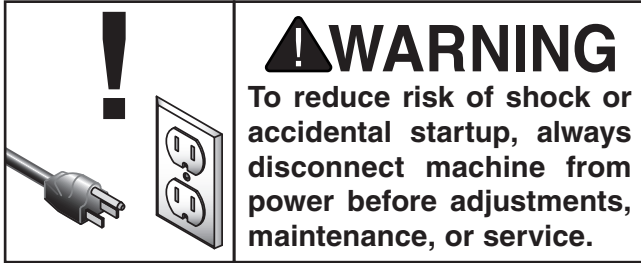


Figure 33. Recommended products for machine lubrication.

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



SECTION 6: MAINTENANCE



Schedule

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

Daily Check:

- Loose mounting bolts.
- Damaged tooling.
- Clean debris and built up grime off of machine.
- Worn or damaged wires.
- Any other unsafe condition.

Every 8 Hours of Operation:

- Lubricate table and column ways (**Page 29**).
- Lubricate quill outside surface (**Page 31**).

Every 40 Hours of Operation:

- Lubricate table leadscrews (**Page 30**).

Every 90 Hours of Operation:

- Headstock gears (**Page 30**).
- Lubricate quill rack (**Page 31**).

Every 120 Hours of Operation:

- Lubricate column leadscrew (**Page 29**).

Cleaning and Protecting

Metal chips left on the machine that have been soaked with water-based coolant will invite oxidation and a gummy residue build-up around the moving parts. Use a brush and shop vacuum to remove chips and debris from the working surfaces of the mill/drill. Never blow off the mill/drill with compressed air, as this will force metal chips deep into the mechanisms and may cause injury to yourself or bystanders.

Remove any rust build-up from unpainted cast iron surfaces of mill/drill and treat with a non-staining lubricant after cleaning.

Protect other unpainted cast iron surfaces with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9. (See **Accessories** on **Page 27** for more details.)

Lubrication

An essential part of lubrication is cleaning the components before lubricating them.

This step is critical because grime and chips build up on lubricated components over time, which makes them hard to move.

Clean all exterior components in this section with mineral spirits, shop rags, and brushes before lubricating.

DISCONNECT MACHINE FROM POWER BEFORE PERFORMING LUBRICATION!

NOTICE

Follow reasonable lubrication practices as outlined in this manual. Failure to do so could lead to premature failure of machine and will void warranty.



Table and Column Ways

Lube Type.. Model SB1365 or ISO 68 Equivalent
Lube AmountThin Coat
Lubrication Frequency 8 hrs. of Operation

Regular lubrication will ensure mill/drill performs at its highest potential. Regularly wipe table and column ways with recommended lubrication, then move components back and forth several times to ensure smooth movements (see **Figures 34–36**).

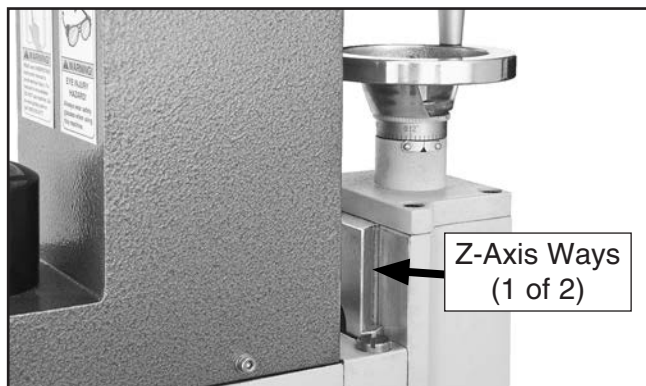


Figure 34. Z-axis way lubrication points.

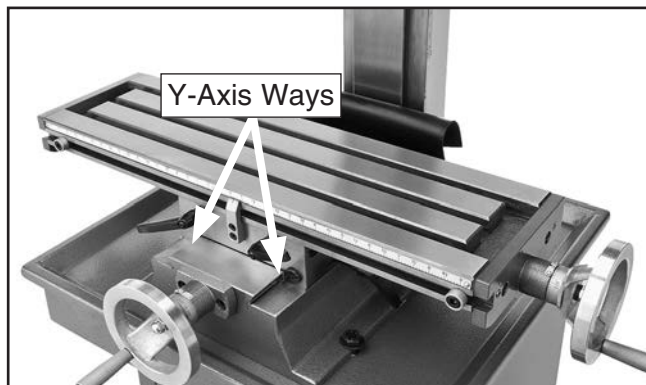


Figure 35. Y-axis way lubrication points.

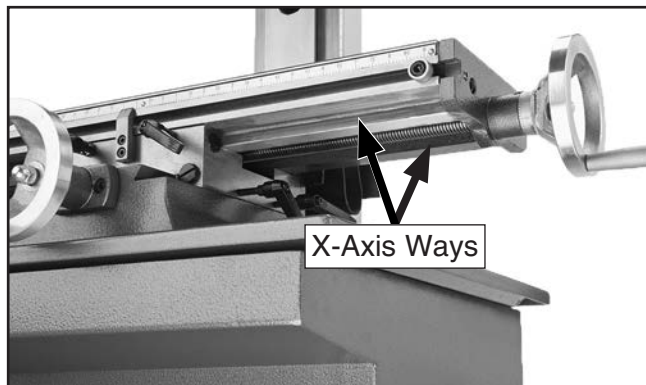


Figure 36. X-axis lubrication points.

Z-Axis Leadscrews

Lube Type..Model T23964 or NLGI#2 Equivalent
Lube AmountThin Coat
Lubrication Frequency 120 hrs. of Operation

To lubricate Z-axis leadscrew:

1. DISCONNECT MACHINE FROM POWER!
2. Lower headstock as far as you can without contacting spindle to table surface.
3. Use mineral spirits and a brush to clean as much existing grease and debris off of Z-axis leadscrew shown in **Figure 37** as possible. Allow leadscrew to dry.

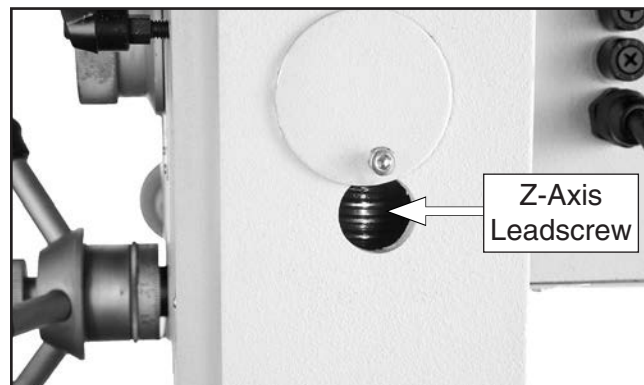


Figure 37. Z-axis leadscrew lubrication point.

4. Using a brush, apply NLGI#2 grease to exposed leadscrew threads, then move headstock through its full range of motion several times to disperse grease along full length of leadscrew.

Table Leadscrews

Lube Type.. Model SB1365 or ISO 68 Equivalent
Lube AmountThin Coat
Lubrication Frequency 40 hrs. of Operation

To lubricate table leadscrews:

1. DISCONNECT MACHINE FROM POWER!
2. Using Y-axis handwheel, move table as far forward as possible.
3. Use a 4mm hex wrench to remove rubber way cover, then use mineral spirits and a brush to clean existing grease and debris off of Y-axis leadscrew shown in **Figure 38**. Allow leadscrew to dry.

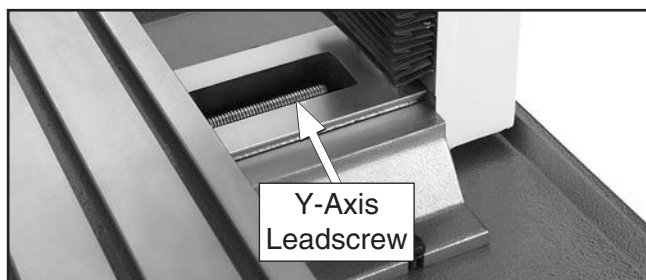


Figure 38. Location of Y-axis leadscrew.

4. Apply thin coat of ISO 68 machine oil to exposed leadscrew threads, then move table through its full range of cross motion several times to disperse oil along full length of leadscrew.
5. Using X-axis handwheel, move table as far to one side as possible.
6. From beneath table, use mineral spirits and a brush to clean as much of existing grease and debris as possible off of X-axis leadscrew shown in **Figure 39**. Allow leadscrew to dry.

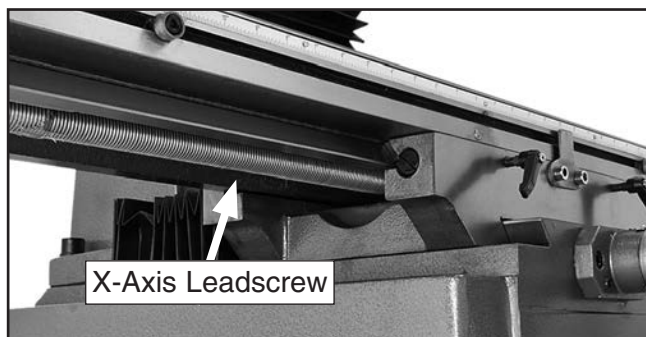


Figure 39. Location of X-axis leadscrew.

Headstock Gears

Lube Type..Model T23964 or NLGI#2 Equivalent
Lube AmountThin Coat
Lubrication Frequency 90 hrs. of Operation

To lubricate headstock gears:

1. Remove cap screw and headstock gear access cover shown in **Figure 40**.

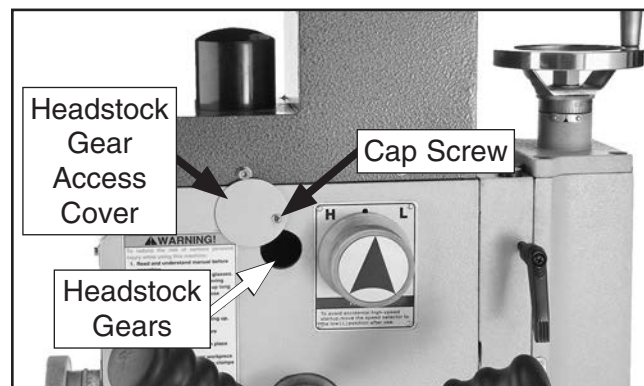


Figure 40. Headstock access cover and cap screw location.

2. Using small brush, apply thin coat of grease to headstock gears.
3. Operate mill/drill in both high and low gear settings to work grease through gears.
4. Re-install access cover and cap screw removed in **Step 1**.



Quill Outside Surface

Lube Type.. Model SB1365 or ISO 68 Equivalent
Lube AmountThin Coat
Lubrication Frequency 8 hrs. of Operation

To lubricate quill:

1. Without disturbing grease on quill rack, clean outside smooth surface of quill (see **Figure 41**) with mineral spirits and shop rags.

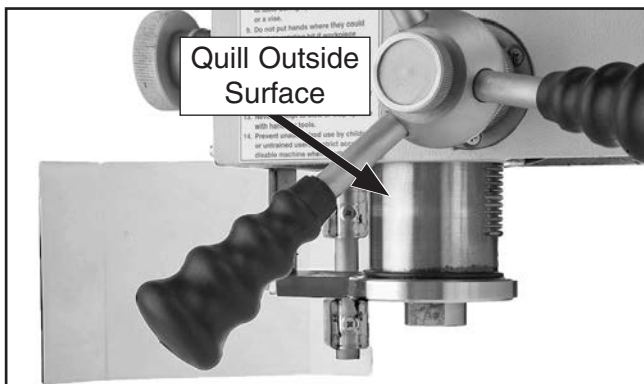


Figure 41. Outside surface of quill.

2. When dry, apply thin coat of lubricant to smooth surface, then move spindle up and down to evenly distribute oil.

Quill Rack

Lube Type..Model T23964 or NLGI#2 Equivalent
Lube AmountThin Coat
Lubrication Frequency 90 hrs. of Operation

To lubricate quill rack:

1. Move quill down to gain full access to quill rack (see **Figure 42**).

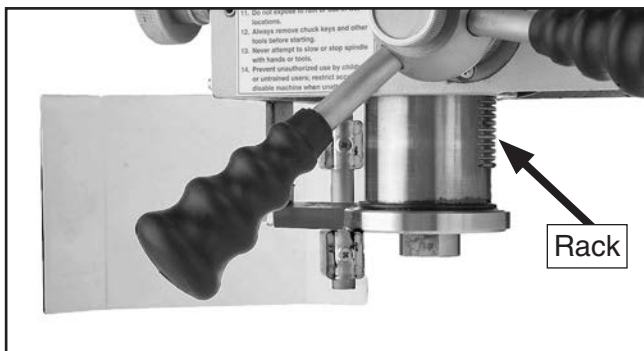


Figure 42. Quill rack location.

2. Clean teeth with mineral spirits, shop rags, and brush.
3. When dry, apply thin coat of grease to teeth and raise/lower quill several times to evenly distribute.

Note: Re-apply oil that may have been removed during the cleaning process to the quill surface around the rack.

Replacing DRO Battery

If the DRO stops operating correctly, the 3V lithium cell battery must be replaced.

To replace DRO battery:

1. Using a #3 standard screwdriver, remove battery cover (see **Figure 43**) by rotating counterclockwise.



Figure 43. Battery cover for DRO.

2. Remove old battery, dispose of it according to state and federal regulations, then replace it with a new one.
3. Replace battery cover.

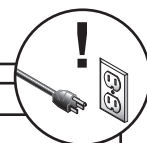


SECTION 7: SERVICE

Review the troubleshooting and 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 at (570) 546-9663.

Note: Please gather the serial number and manufacture date of your machine before calling.

Troubleshooting



Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Blown fuse in machine. 2. Chuck guard open. 3. Incorrect power supply voltage. 4. Plug/receptacle at fault/wired wrong. 5. Power supply circuit breaker tripped or fuse blown. 6. Motor wires connected incorrectly. 7. Wiring is open/has high resistance. 8. Motor brushes at fault. 9. Chuck guard safety switch at fault. 10. Circuit board at fault. 11. Motor at fault. 12. Potentiometer/variable-speed dial at fault. 	<ol style="list-style-type: none"> 1. Replace fuse/ ensure there are no shorts. 2. Close guard. 3. Ensure power supply voltage matches circuit requirements. 4. Test for good contacts; correct wiring. 5. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 6. Correct motor wiring connections. 7. Check for broken wires or disconnected/corroded connections; repair/replace as necessary. 8. Remove/replace brushes. 9. Replace safety switch. 10. Test/replace. 11. Test/repair/replace. 12. Test/replace.
Machine stalls or is overloaded.	<ol style="list-style-type: none"> 1. Feed rate/cutting speed too fast. 2. Wrong cutter type. 3. Machine is undersized for task or tooling is incorrect for task. 4. Motor wired incorrectly. 5. Motor bearings are at fault. 6. Motor has overheated. 7. Motor is at fault. 	<ol style="list-style-type: none"> 1. Decrease feed rate/cutting speed. 2. Use correct cutter for task. 3. Use smaller or sharper tooling; reduce feed rate or spindle speed; use coolant fluid if possible. 4. Ensure motor wiring is correct. 5. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 6. Clean off motor, let cool, and reduce workload. 7. Test/repair/replace motor.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or machine component is loose. 2. Machine is incorrectly mounted or sits unevenly. 3. Motor fan is rubbing on fan cover. 4. Workpiece not secure. 5. Excessive depth of cut. 6. Cutter/tooling is loose. 7. Cutter is dull or at fault. 8. Bit is chattering. 9. Motor bearings are at fault. 	<ol style="list-style-type: none"> 1. Inspect/replace stripped or damaged bolts/nuts, and retighten with thread locking fluid. 2. Tighten/replace mounting bolts in bench; relocate/ shim machine. 3. Replace dented fan cover or damaged fan. 4. Properly clamp workpiece on table or in vise. 5. Decrease depth of cut. 6. Make sure tooling is properly secured. 7. Replace/resharpen cutter. 8. Replace/sharpen bit; index bit to workpiece; use appropriate feed rate and cutting RPM. 9. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.



Symptom	Possible Cause	Possible Solution
Tool slips in spindle.	<ol style="list-style-type: none"> 1. Tool is not fully drawn up into spindle taper. 2. Debris on tool or in spindle taper. 3. Taking too big of cut. 	<ol style="list-style-type: none"> 1. Tighten drawbar (Do not overtighten). 2. Clean collet and spindle taper. 3. Lessen depth of cut and allow chips to clear.
Breaking tools or cutters.	<ol style="list-style-type: none"> 1. Spindle speed/feed rate is too fast. 2. Cutting tool too small. 3. Cutting tool getting too hot. 4. Taking too big of a cut. 5. Spindle extended too far down. 	<ol style="list-style-type: none"> 1. Set spindle speed correctly (Page 26) or use slower feed rate. 2. Use larger cutting tool and slower feed rate. 3. Use coolant fluid or oil for appropriate application if possible. 4. Lessen depth of cut and allow chips to clear. 5. Fully retract spindle and lower headstock. This increases rigidity.
Workpiece vibrates or chatters during operation.	<ol style="list-style-type: none"> 1. Table locks not tight. 2. Workpiece not secure. 3. Spindle speed/feed rate is too fast. 4. Spindle extended too far down. 	<ol style="list-style-type: none"> 1. Tighten down table locks. 2. Properly clamp workpiece on table or in vise. 3. Set spindle speed correctly (Page 26) or use slower feed rate. 4. Fully retract spindle and lower headstock. This increases rigidity.
Table is hard to move.	<ol style="list-style-type: none"> 1. Table locks are tightened down. 2. Chips have loaded up on ways. 3. Ways are dry and need lubrication. 4. Table limit stops are interfering. 5. Gibs are too tight. 	<ol style="list-style-type: none"> 1. Make sure table locks are fully released. 2. Frequently clean away chips that load up during milling operations. 3. Lubricate ways (Page 29). 4. Check to make sure that all table limit stops are not in the way. 5. Adjust gibs (see Page 34).
Bad surface finish.	<ol style="list-style-type: none"> 1. Spindle speed/feed rate is too fast. 2. Using dull or incorrect cutting tool. 3. Wrong rotation of cutting tool. 4. Workpiece not secure. 5. Spindle extended too far down. 	<ol style="list-style-type: none"> 1. Set spindle speed correctly (Page 26) or use a slower feed rate. 2. Sharpen cutting tool or select one that better suits operation. 3. Check for proper cutting rotation for cutting tool. 4. Properly clamp workpiece on table or in vise. 5. Fully retract spindle and lower headstock. This increases rigidity.



Adjusting Gibs

Gibs are tapered lengths of metal sandwiched between two moving surfaces to control how much friction they have when they slide past one another. Correctly adjusting the gibs is critical to producing accurate milling results.

Tight gibs make table movement more accurate but stiff. Loose gibs make table movement sloppy but easy. The goal of gib adjustment is to remove unnecessary sloppiness without causing the ways to bind.

Tip: *Many experienced machinists adjust the gibs until there is just a slight drag in table movement.*

Screws on each end allow gib adjustment to increase or decrease the friction between the sliding surfaces of the ways.

DISCONNECT MACHINE FROM POWER BEFORE ADJUSTING THE GIBS!

Make sure all table locks are loose. Then, loosen one gib adjustment screw (see **Figure 44**) and tighten the opposing screw the same amount to move the gib, while at the same time using the handwheels to move the table until you feel a slight drag in that path of movement.

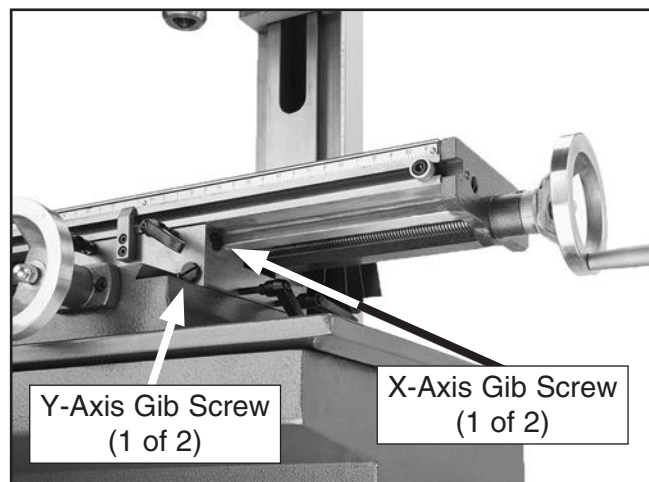


Figure 44. Location of gib screws.

Adjusting Leadscrew Backlash

Leadscrew backlash is the amount of free-play movement in the leadscrew (when changing the direction of rotation) before the attached device begins to move.

Leadscrews must have a certain amount of backlash, but over time, this will increase with normal wear. Generally, 0.003"–0.006" leadscrew backlash is acceptable to ensure smooth movement and reduce the risk of premature thread wear.

The X- and Y-axis leadscrew backlash is adjusted by using a long 5mm hex wrench to tighten/loosen the cap screw on the leadscrew nut. This adjusts the force the split leadscrew nut exerts on the leadscrew threads.

The X-axis leadscrew nut shown in **Figure 45** is accessed from underneath the left side of the table.

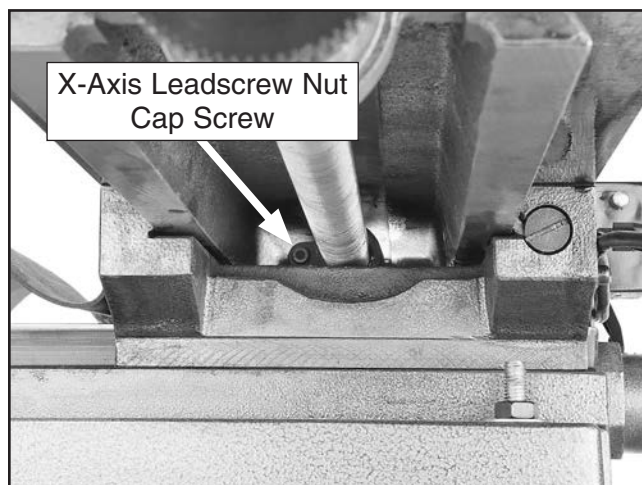


Figure 45. Example of X-axis leadscrew nut cap screw for adjusting backlash.

The Y-axis leadscrew nut is similar and is accessed from underneath the machine base.



Brush Replacement

This mill/drill is equipped with a universal motor that uses two carbon brushes to transmit electrical current inside the motor. These brushes are considered to be regular "wear items" or "consumables" that will need to be replaced during the life of the motor. The frequency of required replacement is often related to how much the motor is used and how hard it is pushed.

Replace the carbon brushes (part number: P0758202) when the motor no longer reaches full power, or when the brushes measure less than $\frac{1}{4}$ " long (new brushes are $\frac{5}{8}$ " long).

Tools Needed:	Qty
Hex Wrench 3mm.....	1
Standard Screwdriver #2.....	1

To inspect and replace motor brushes:

1. DISCONNECT MACHINE FROM POWER!
2. Uninstall motor cover by removing cap screws (see **Figure 46**).

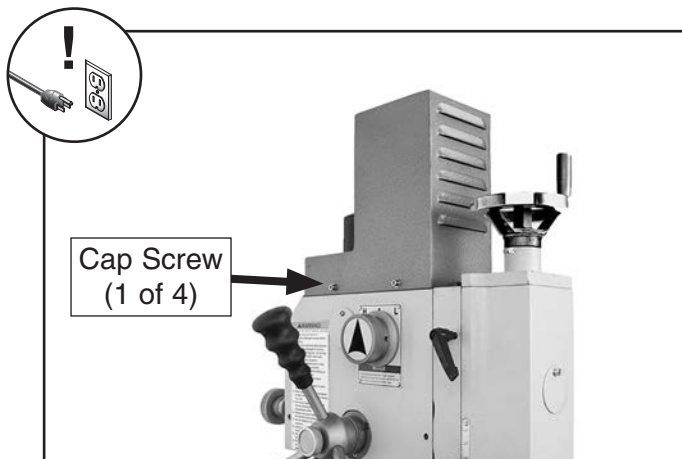


Figure 46. Location of motor cover cap screws.

3. Unscrew one of the brush caps (see **Figure 47**).



Figure 47. Removing motor brush cap.

4. Remove old brush assembly. If brush is worn down to less than $\frac{1}{4}$ ", then replace it with a new one. Otherwise re-install old brush (see **Figure 48**).

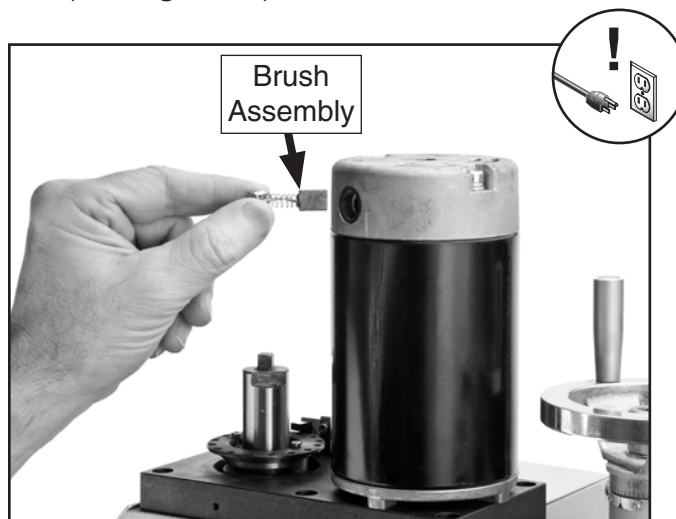


Figure 48. Inserting new motor brush.

5. Replace brush cap to secure brush.
6. Repeat **Steps 3–5** for second brush assembly on other side of motor.
7. Replace motor cover.



SECTION 8: WIRING

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

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

WARNING

Wiring Safety Instructions

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

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

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

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

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

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
















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

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

NOTICE

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

COLOR KEY

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



G0758 Wiring Overview

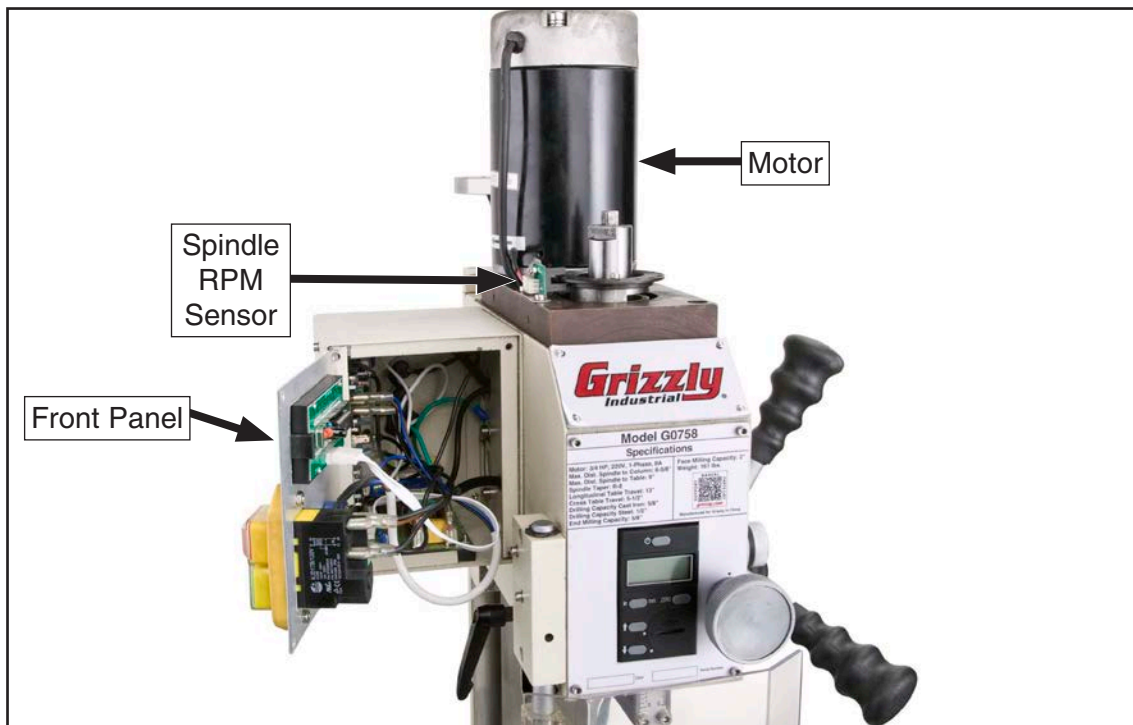


Figure 49. Wiring overview.

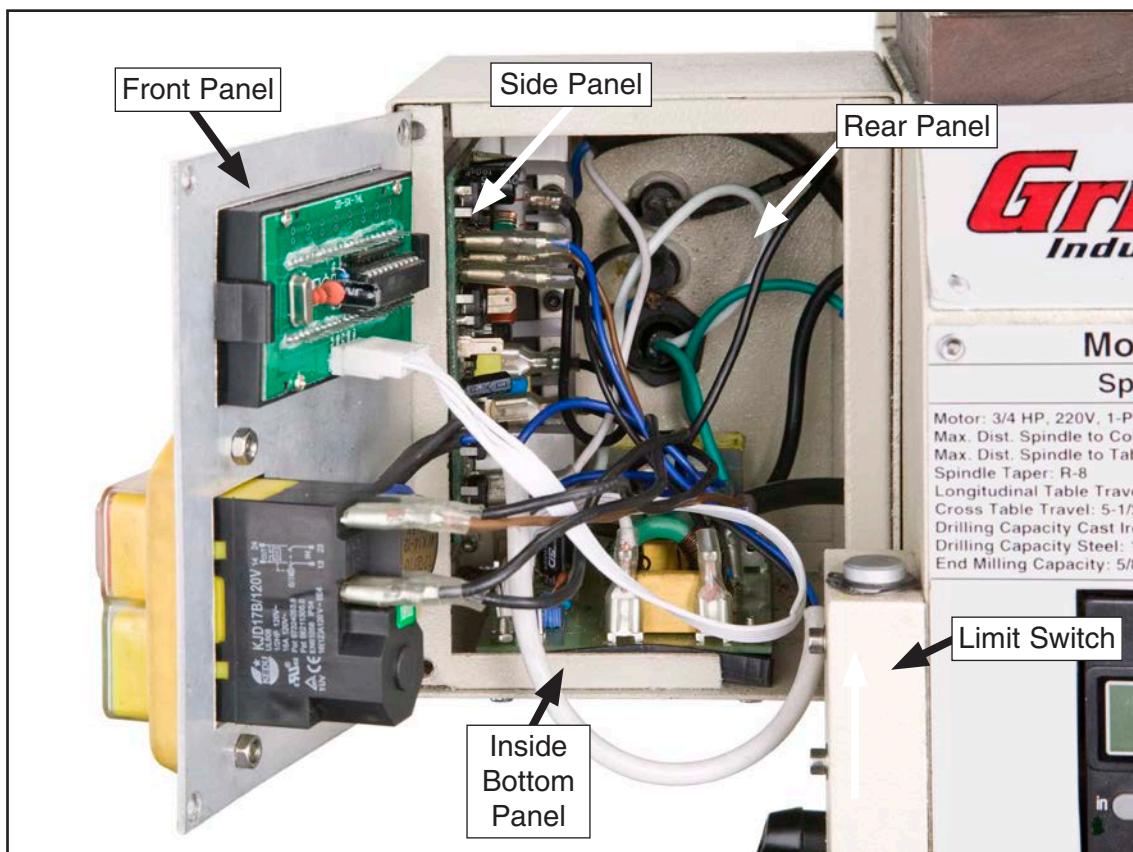
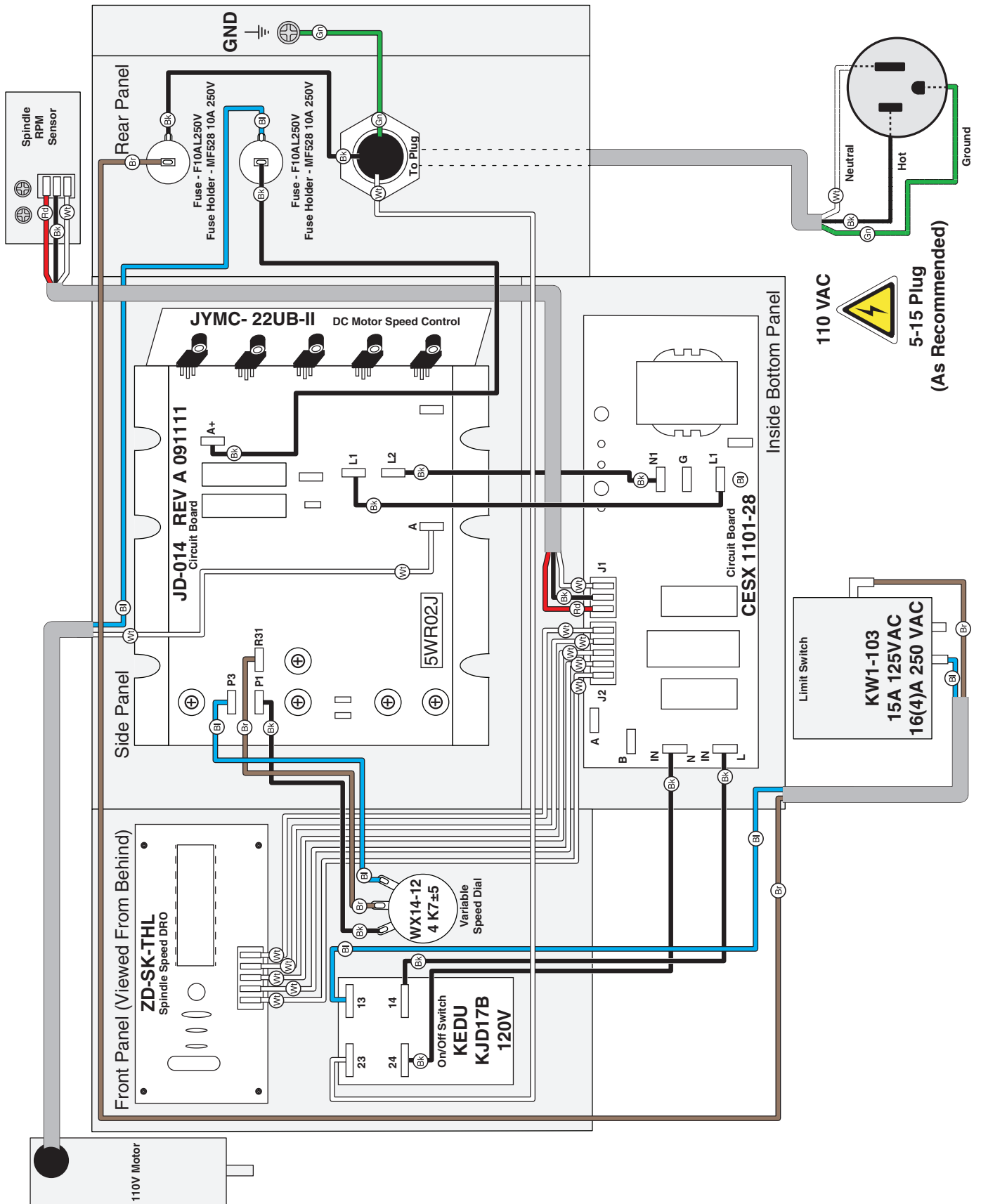


Figure 50. Wiring overview.

G0758 Wiring



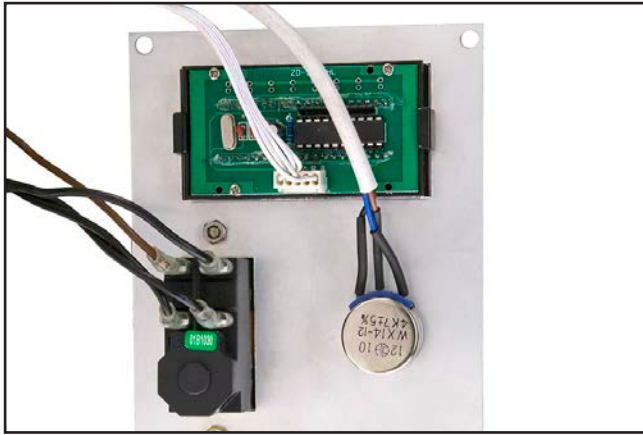


Figure 51. Front panel.



Figure 54. Rear panel.

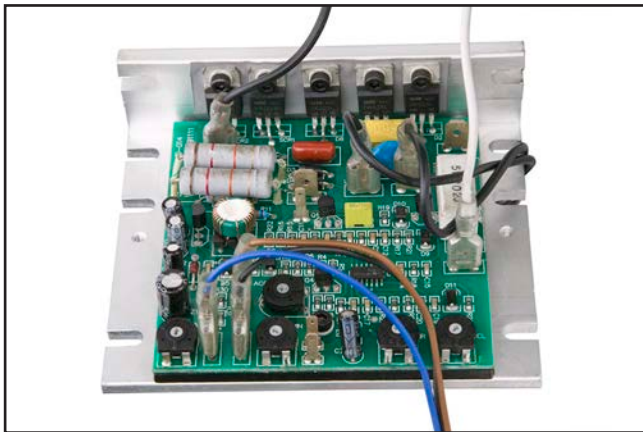


Figure 52. JD-014 circuit board.

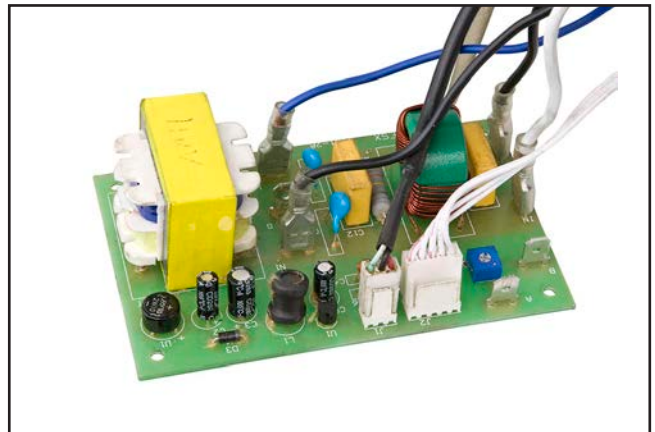


Figure 55. CESX 1101-28 circuit board.

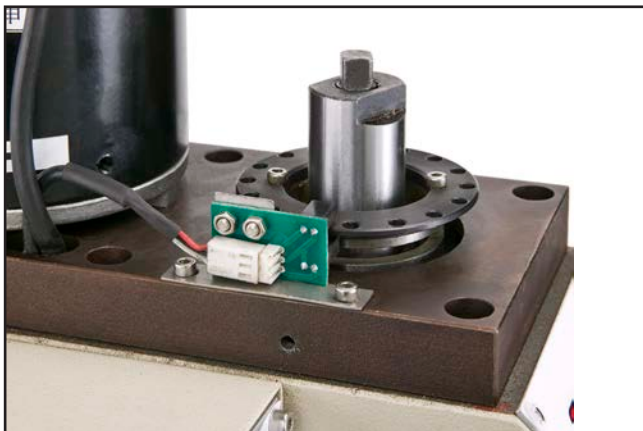


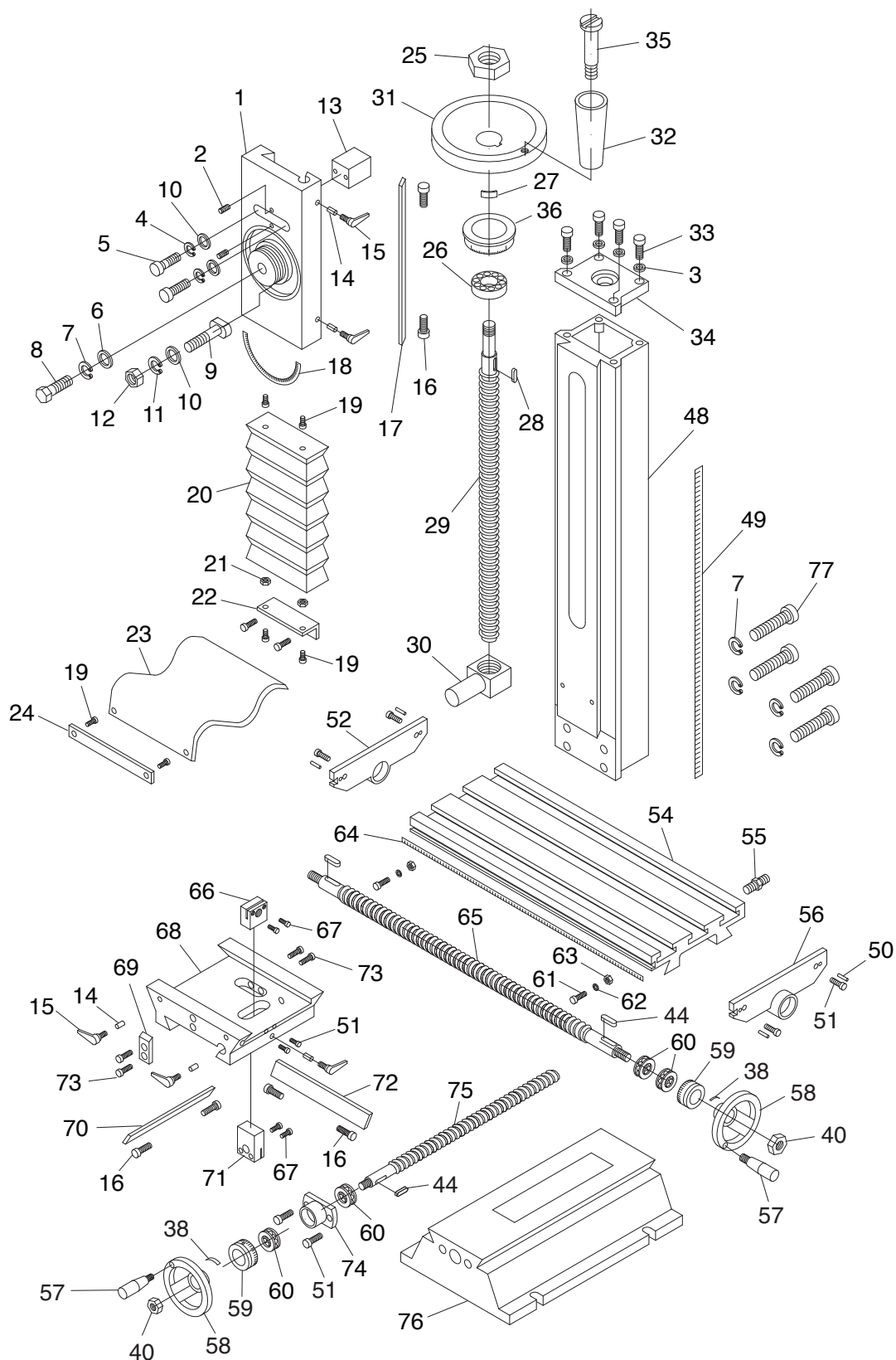
Figure 53. Spindle RPM sensor.



Figure 56. Guard limit switch.

SECTION 9: PARTS

Column



Column

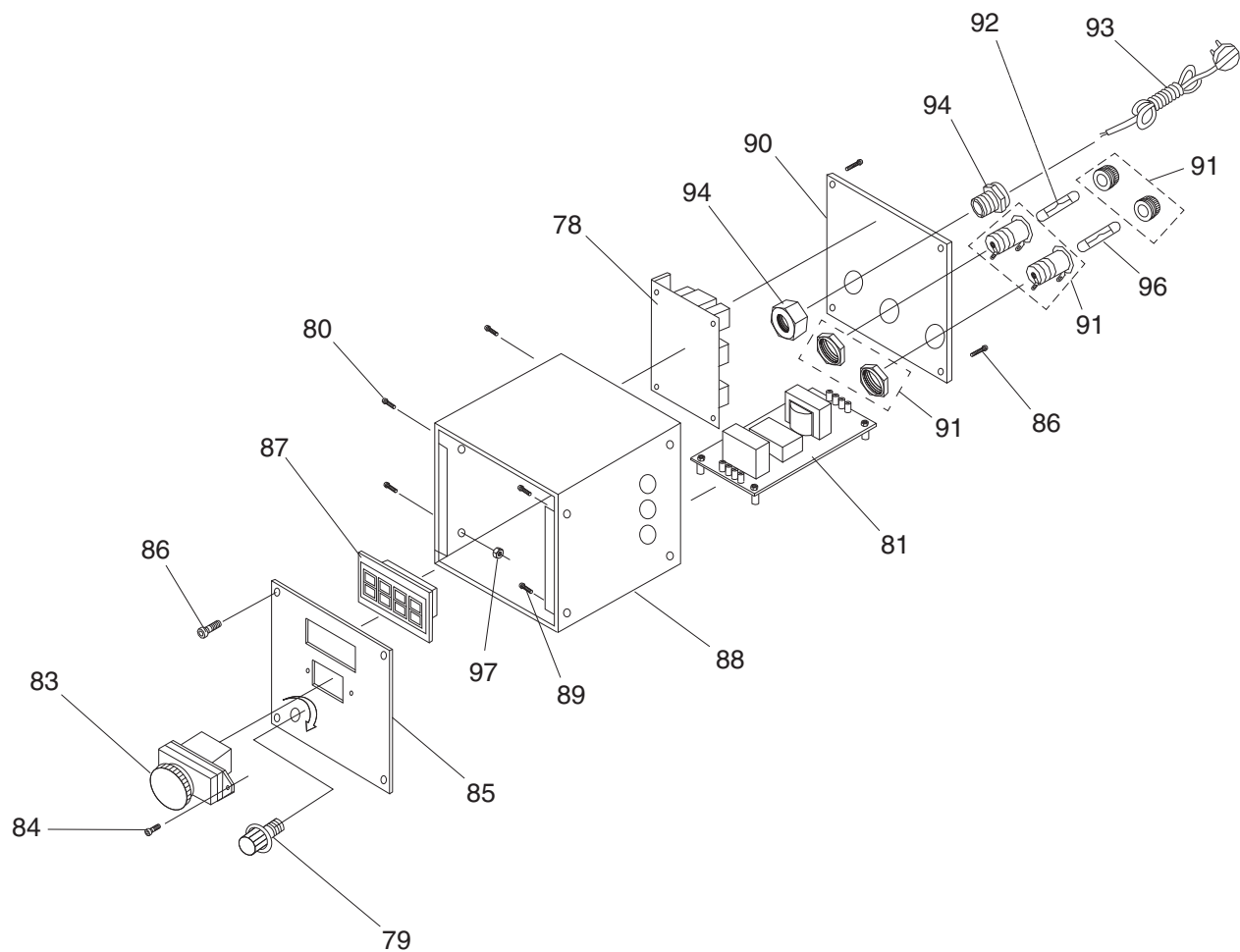
REF	PART #	DESCRIPTION
1	P0758001	Z-AXIS SLIDE
2	P0758002	SET SCREW M6-1 X 16
3	P0758003	FLAT WASHER 6MM
4	P0758004	LOCK WASHER 8MM
5	P0758005	CAP SCREW M8-1.25 X 25
6	P0758006	FLAT WASHER 12MM
7	P0758007	LOCK WASHER 12MM
8	P0758008	CAP SCREW M12-1.75 X 40
9	P0758009	T-BOLT M8-1.25 X 60
10	P0758010	FLAT WASHER 8MM
11	P0758011	LOCK WASHER 8MM
12	P0758012	HEX NUT M8-1.25
13	P0758013	SLIDE ALIGNMENT BLOCK
14	P0758014	LOCK PLUNGER, BRASS
15	P0758015	ADJUSTABLE HANDLE M6-1 X 16
16	P0758016	GIB ADJUSTMENT SCREW
17	P0758017	Z-AXIS GIB
18	P0758018	HEADSTOCK ANGLE SCALE
19	P0758019	CAP SCREW M5-.8 X 10
20	P0758020	Z-AXIS WAY COVER
21	P0758021	HEX NUT M5-.8
22	P0758022	Z-AXIS WAY COVER BRACKET
23	P0758023	Y-AXIS WAY COVER
24	P0758024	Y-AXIS WAY COVER BRACKET
25	P0758025	HEX NUT M16-1.5
26	P0758026	THRUST BEARING 51200
27	P0758027	HANDWHEEL CURVED PLATE SPRING
28	P0758028	KEY 4 X 4 X 16
29	P0758029	Z-AXIS LEADSCREW
30	P0758030	Z-AXIS LEADSCREW NUT
31	P0758031	Z-AXIS HANDWHEEL
32	P0758032	HANDWHEEL HANDLE M6-1 X 10
33	P0758033	CAP SCREW M6-1 X 14
34	P0758034	COLUMN TOP COVER

REF	PART #	DESCRIPTION
35	P0758035	SHOULDER SCREW M6-1 X 60, 10
36	P0758036	Z-AXIS GRADUATED DIAL
38	P0758038	HANDWHEEL CURVED PLATE SPRING
40	P0758040	HEX NUT M8-1.25
44	P0758044	KEY 4 X 4 X 12
48	P0758048	COLUMN
49	P0758049	Z-AXIS SCALE
50	P0758050	THREADED SLEEVE M6-1 X 16
51	P0758051	CAP SCREW M6-1 X 14
52	P0758052	X-AXIS LEADSCREW BRACKET (LH)
54	P0758054	TABLE
55	P0758055	COOLANT HOSE FITTING
56	P0758056	X-AXIS LEADSCREW BRACKET (RH)
57	P0758057	TABLE HANDWHEEL HANDLE M6-1 X 10
58	P0758058	TABLE HANDWHEEL
59	P0758059	TABLE GRADUATED DIAL
60	P0758060	THRUST BEARING 51100
61	P0758061	CAP SCREW M6-1 X 10
62	P0758062	LIMIT STOP
63	P0758063	T-NUT M6-1
64	P0758064	X-AXIS SCALE
65	P0758065	X-AXIS LEADSCREW
66	P0758066	X-AXIS LEADSCREW NUT
67	P0758067	CAP SCREW M4-.7 X 20
68	P0758068	SADDLE
69	P0758069	TABLE STOP BLOCK
70	P0758070	Y-AXIS GIB
71	P0758071	Y-AXIS LEADSCREW NUT
72	P0758072	X-AXIS GIB
73	P0758073	CAP SCREW M6-1 X 25
74	P0758074	Y-AXIS BEARING HOUSING
75	P0758075	Y-AXIS LEADSCREW
76	P0758076	BASE
77	P0758077	CAP SCREW M12-1.75 X 90

Please Note: We do our best to stock replacement parts whenever possible, but we cannot guarantee that all parts shown here are available for purchase. Call (800) 523-4777 or visit our online parts store at www.grizzly.com to check for availability.



Electrical Box



REF PART # DESCRIPTION

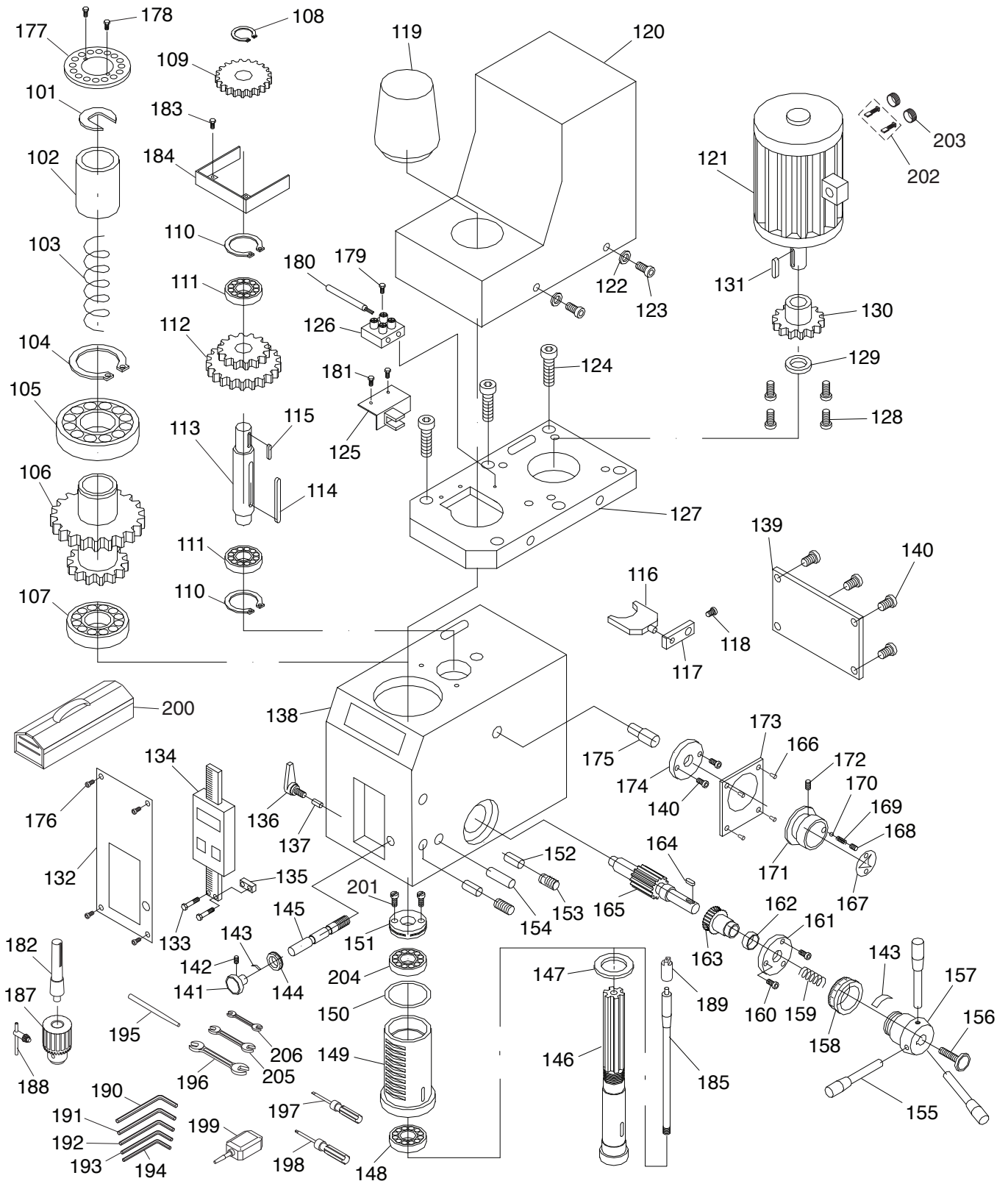
78	P0758078	CIRCUIT BOARD JD-014 5WR02J
79	P0758079	SPINDLE SPEED KNOB WX14-12
80	P0758080	CAP SCREW M3-.5 X 16
81	P0758081	CIRCUIT BOARD CESX 1101-28
83	P0758083	ON/OFF SWITCH KEDU KJD-17B/120V
84	P0758084	CAP SCREW M4-.7 X 10
85	P0758085	CONTROL PANEL PLATE
86	P0758086	CAP SCREW M4-.7 X 6
87	P0758087	RPM DIGITAL DISPLAY ZD-SX-THL

REF PART # DESCRIPTION

88	P0758088	ELECTRICAL BOX
89	P0758089	CAP SCREW M5-.8 X 8
90	P0758090	ELECTRICAL BOX REAR COVER
91	P0758091	FUSE HOLDER
92	P0758092	FUSE 15A 250V FAST-ACTING, GLASS
93	P0758093	POWER CORD 16G 3W 72" 5-15
94	P0758094	STRAIN RELIEF M20 X 1.5 TYPE-3
96	P0758096	FUSE 10A 250V FAST-ACTING, GLASS
97	P0758097	HEX NUT M3-.5



Headstock



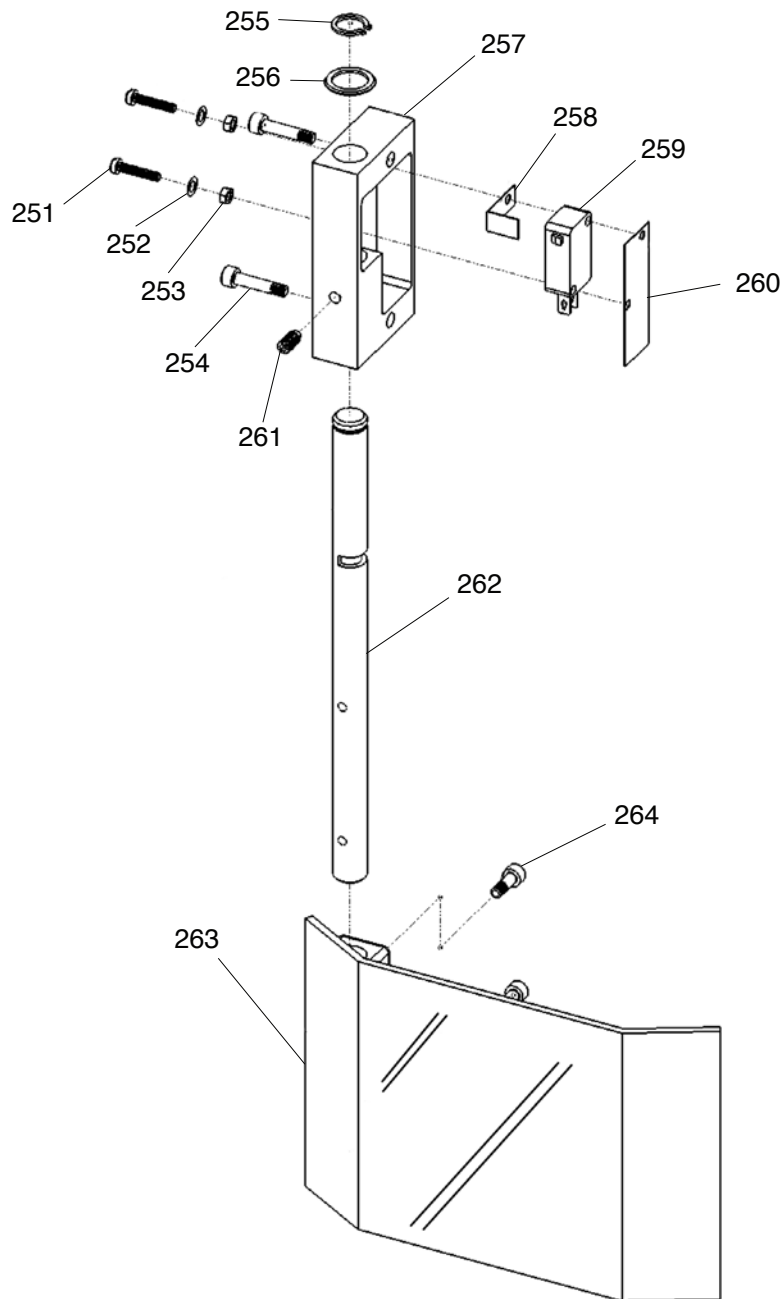
Headstock

REF	PART #	DESCRIPTION
101	P0758101	QUILL RETAINING CLIP
102	P0758102	BUSHING
103	P0758103	COMPRESSION SPRING 2.5 X 29 X 100
104	P0758104	EXT RETAINING RING 45MM
105	P0758105	BALL BEARING 6209ZZ
106	P0758106	COMBO GEAR 60/70T
107	P0758107	ANGULAR CONTACT BEARING 7007-2RS
108	P0758108	EXT RETAINING RING 15MM
109	P0758109	GEAR 37T
110	P0758110	EXT RETAINING RING 32MM
111	P0758111	BALL BEARING 6002ZZ
112	P0758112	COMBO GEAR 42/62T
113	P0758113	SHAFT
114	P0758114	KEY 5 X 5 X 50
115	P0758115	KEY 5 X 5 X 12
116	P0758116	FORK
117	P0758117	FORK ARM
118	P0758118	CAP SCREW M5-.8 X 8
119	P0758119	DRAWBAR CAP
120	P0758120	MOTOR COVER
121	P0758121	MOTOR 600W 110VDC
122	P0758122	FLAT WASHER 4MM
123	P0758123	CAP SCREW M4-.7 X 8
124	P0758124	CAP SCREW M6-1 X 14
125	P0758125	L-BRACKET
126	P0758126	SPEED SENSOR
127	P0758127	MOTOR MOUNT
128	P0758128	CAP SCREW M5-.8 X 12
129	P0758129	MOTOR GEAR RING
130	P0758130	GEAR 25T
131	P0758131	KEY 4 X 4 X 6
132	P0758132	HEADSTOCK FRONT PANEL PLATE
133	P0758133	HEX BOLT M3-.5 X 6
134	P0758134	Z-AXIS DRO ASSEMBLY
135	P0758135	DRO SLIDE MOUNT
136	P0758136	ADJUSTABLE HANDLE M6-1 X 16
137	P0758137	LOCK PLUNGER, BRASS
138	P0758138	HEADSTOCK CASTING
139	P0758139	HEADSTOCK REAR COVER
140	P0758140	CAP SCREW M4-.7 X 8
141	P0758141	FINE DOWNFEED KNOB
142	P0758142	SET SCREW M5-.8 X 6
143	P0758143	SPRING PIECE
144	P0758144	FINE DOWNFEED GRADUATED DIAL
145	P0758145	WORM SHAFT
146	P0758146	SPINDLE R8
147	P0758147	QUILL SEAL, RUBBER (LOWER)
148	P0758148	TAPERED ROLLER BEARING 32007
149	P0758149	QUILL
150	P0758150	QUILL SEAL, RUBBER (UPPER)
151	P0758151	PRELOAD ADJUSTER NUT
152	P0758152	DOWEL PIN 4 X 20, BRASS
153	P0758153	SET SCREW M5-.8 X 12

REF	PART #	DESCRIPTION
154	P0758154	DOWEL PIN 6 X 30
155	P0758155	COARSE DOWNFEED LEVER M10-1.5 X 14
156	P0758156	KNOB BOLT M8-1.25 X 30
157	P0758157	COARSE DOWNFEED HUB
158	P0758158	COURSE DOWNFEED GRADUATED DIAL
159	P0758159	COMPRESSION SPRING 1.2 X 12 X 2.5
160	P0758160	CAP SCREW M4-.7 X 40
161	P0758161	FLANGE
162	P0758162	BUSHING
163	P0758163	WORM GEAR
164	P0758164	KEY 4 X 4 X 12
165	P0758165	GEAR SHAFT 16T
166	P0758166	RIVET 2 X 5MM NAMEPLATE, STEEL
167	P0758167	HI/LO INDICATOR PLATE
168	P0758168	SET SCREW M8-1.25 X 8
169	P0758169	COMPRESSION SPRING 0.8 X 5 X 25
170	P0758170	STEEL BALL 6.5MM
171	P0758171	HI/LO HANDWHEEL
172	P0758172	SET SCREW M5-.8 X 16
173	P0758173	SPEED KNOB PLATE
174	P0758174	FORK SHAFT FLANGE
175	P0758175	FORK SHAFT
176	P0758176	CAP SCREW M3-.5 X 6
177	P0758177	SPINDLE RING 16MM
178	P0758178	CAP SCREW M3-.5 X 6
179	P0758179	HEX BOLT M3-.5 X 12
180	P0758180	SPEED SENSOR CORD
181	P0758181	HEX BOLT M3-.5 X 6
182	P0758182	DRILL CHUCK ARBOR R8 X B16
183	P0758183	CAP SCREW M3-.5 X 6
184	P0758184	GEAR GUARD
185	P0758185	DRAWBAR 7/16-20 X 9-7/8
187	P0758187	DRILL CHUCK B16 3-16MM
188	P0758188	DRILL CHUCK KEY 1/4" STD 11T SD-3/4"
189	P0758189	DRAWBAR RETAINER CAP
190	P0758190	HEX WRENCH 6MM
191	P0758191	HEX WRENCH 5MM
192	P0758192	HEX WRENCH 4MM
193	P0758193	HEX WRENCH 3MM
194	P0758194	HEX WRENCH 2.5MM
195	P0758195	SPINDLE PIN
196	P0758196	WRENCH 17 X 19MM OPEN-ENDS
197	P0758197	SCREWDRIVER FLAT #2
198	P0758198	SCREWDRIVER PHILLIPS #2
199	P0758199	BOTTLE FOR OIL
200	P0758200	TOOLBOX
201	P0758201	PRELOAD ADJUSTER SCREW M5-.8 X 10
202	P0758202	MOTOR CARBON BRUSH 2-PC SET
203	P0758203	MOTOR CARBON BRUSH CAP 1-PC
204	P0758204	TAPERED ROLLER BEARING 32005
205	P0758205	WRENCH 12 X 14MM OPEN-ENDS
206	P0758206	WRENCH 8 X 10MM OPEN-ENDS



Chip Guard

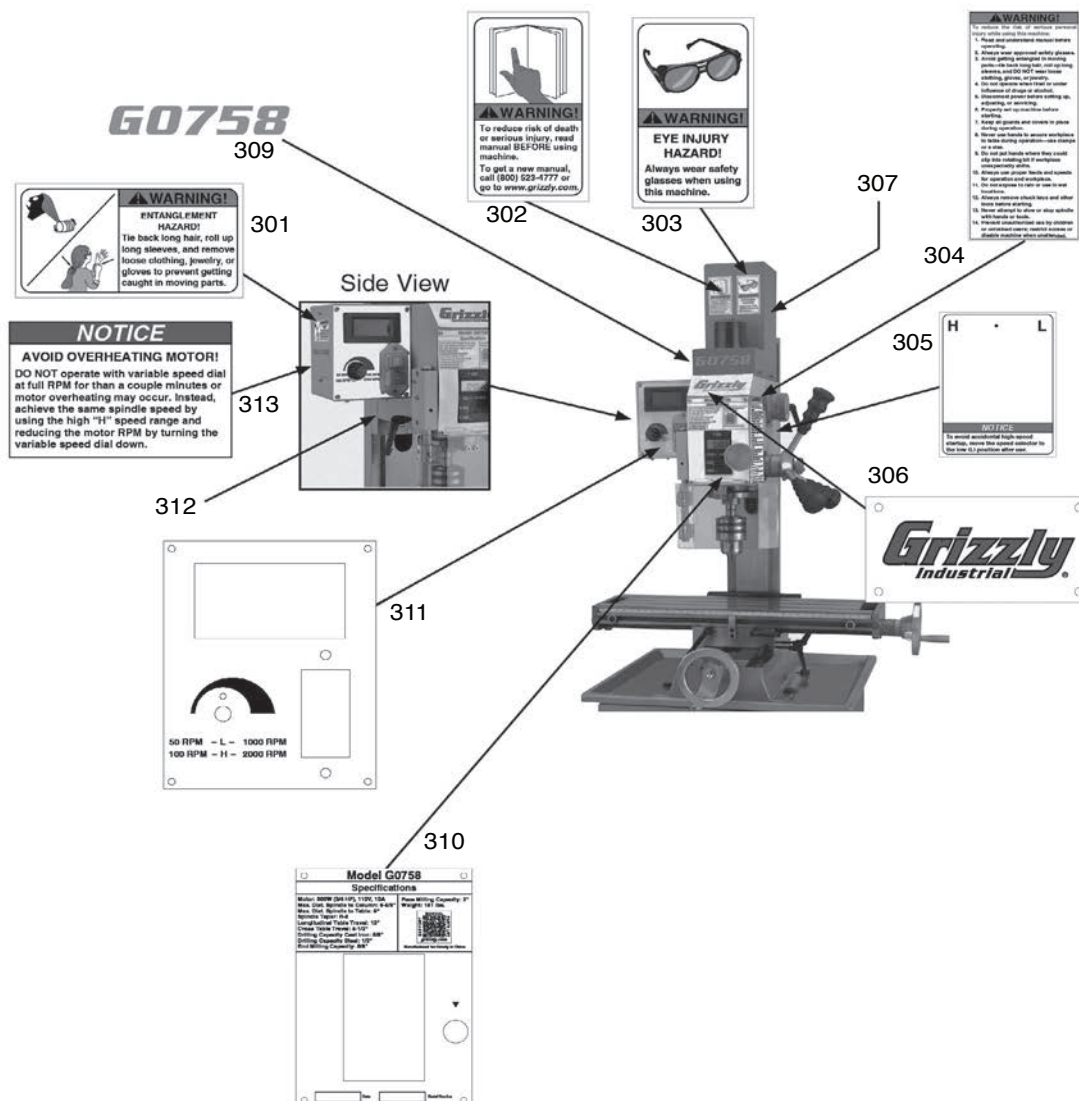


REF	PART #	DESCRIPTION
251	P0758251	CAP SCREW M3-.5 X 16
252	P0758252	FLAT WASHER 3MM
253	P0758253	HEX NUT M3-.5
254	P0758254	CAP SCREW M5-.8 X 15
255	P0758255	EXT RETAINING RING 12MM
256	P0758256	WAVY WASHER 20MM
257	P0758257	GUARD MOUNTING BLOCK

REF	PART #	DESCRIPTION
258	P0758258	LIMIT SWITCH L-BRACKET, COPPER
259	P0758259	LIMIT SWITCH DATER KW1-103
260	P0758260	PROTECTIVE PAPER
261	P0758261	SET SCREW M5-.8 X 10
262	P0758262	CHIP GUARD POST
263	P0758263	CHIP GUARD
264	P0758264	PHLP HD SCR M4-.7 X 10



Labels & Cosmetics



REF	PART #	DESCRIPTION
301	P0758301	ENTANGLEMENT HAZARD LABEL
302	P0758302	READ MANUAL LABEL
303	P0758303	EYE INJURY WARNING LABEL
304	P0758304	GENERAL WARNINGS LABEL
305	P0758305	HI/LO SPEED RANGE LABEL
306	P0758306	GRIZZLY INDUSTRIAL LABEL

REF	PART #	DESCRIPTION
307	P0758307	GRIZZLY GREEN TOUCH-UP PAINT
309	P0758309	MODEL NUMBER LABEL P-7535C
310	P0758310	MACHINE ID LABEL
311	P0758311	CONTROL PANEL LABEL
312	P0758312	GRIZZLY PUTTY TOUCH-UP PAINT
313	P0758313	AVOID OVERHEATING MOTOR LABEL

WARNING

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





WARRANTY CARD

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

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

_____ Advertisement _____ Friend _____ Catalog
_____ Card Deck _____ Website _____ Other:

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

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

3. What is your annual household income?

_____ \$20,000-\$29,000 _____ \$30,000-\$39,000 _____ \$40,000-\$49,000
_____ \$50,000-\$59,000 _____ \$60,000-\$69,000 _____ \$70,000+

4. What is your age group?

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

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

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

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

_____ 0-2 _____ 3-5 _____ 6-9 _____ 10+

7. Do you think your machine represents a good value?

_____ Yes _____ No

8. Would you recommend Grizzly Industrial to a friend?

_____ Yes _____ No

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

Note: We never use names more than 3 times.

_____ Yes _____ No

10. Comments: _____

FOLD ALONG DOTTED LINE



Place
Stamp
Here



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



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Send a Grizzly Catalog to a friend:

Name_____

Street_____

City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY & RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

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

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

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

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



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