

Grizzly *Industrial, Inc.*®

PIPE THREADING MACHINE MODEL G0579 INSTRUCTION MANUAL



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WARNING

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

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

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

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INTRODUCTION

Foreword

We are proud to offer the Model G0579 Pipe Threading Machine. This machine is part of a growing Grizzly family of fine machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G0579. It was written to guide you through assembly, safety considerations, and general operating procedures.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0579 as supplied when the manual was prepared. For your convenience, we always keep current Grizzly manuals available on our website at www.grizzly.com. Any updates to your machine will be reflected in these manuals as soon as they are complete.



Contact Info

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

Grizzly Industrial, Inc.
c/o Technical Documentation
P.O. Box 2069
Bellingham, WA 98227-2069

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

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



Grizzly
Industrial, Inc.

MACHINE DATA SHEET

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

MODEL G0579 PIPE THREADING MACHINE

Dimensions

Footprint..... 40" W x 28" D
Machine Weight 150 lbs.
Shipping Weight..... 185 lbs.

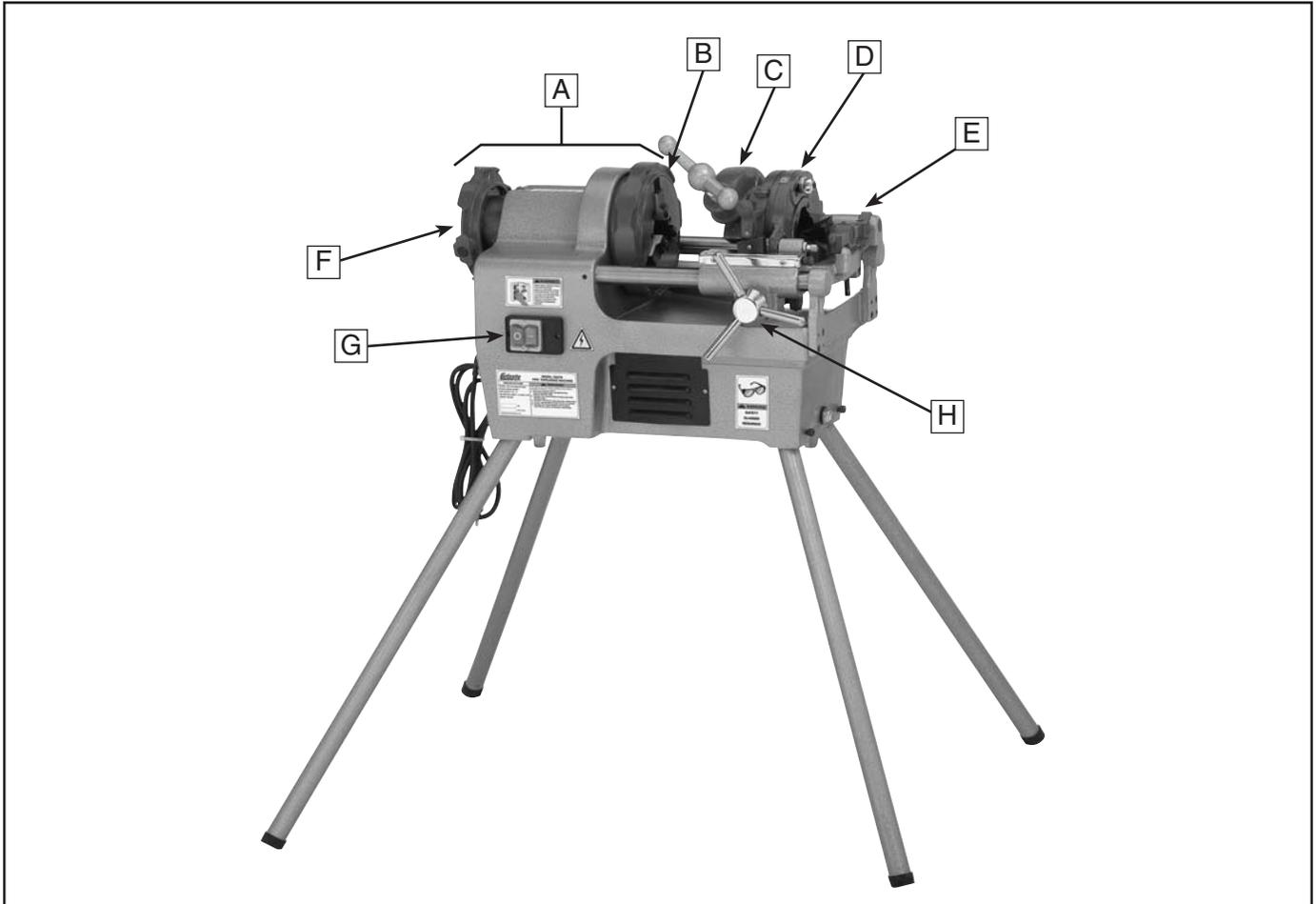
Operations

Pipe Threading/Cutting/Reaming Capabilities..... 1/2"-2"
Included Die Sizes 11 1/2 and 14 TPI
Spindle Speed 28 RPM

Electrical

Motor..... 1 HP, 110V, 60 Hz, 8 Amps

Identification



- A. Headstock
- B. Hammer Chuck
- C. Cutting Tool
- D. Threading Tool
- E. Reaming Tool
- F. Support Chuck
- G. ON/OFF Switch
- H. Carriage Handwheel



SECTION 1: SAFETY

WARNING

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 which are 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.

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

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

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

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

WARNING

Safety Instructions for Machinery

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

WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power OFF and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery ON.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR IF AN OPERATION HAS BEEN PERFORMED OR SET UP INCORRECTLY.** Know and avoid conditions that cause the workpiece to "kick-back."
24. **ALWAYS LOCK MOBILE BASES BEFORE OPERATING MACHINERY.**

WARNING

Additional Safety Instructions for Pipe Threaders

- 1. SAFETY GLASSES.** Cutting and reaming pipe produces a lot of metal shavings and chips, some of which may become airborne and cause eye injury or blindness. When squaring the end of a pipe, the cut-off piece may snap off from the pressure of the cutter and be ejected from the machine. Protect your eyes from these hazards by always wearing safety glasses when using this machine.
- 2. LOOSE CLOTHING AND LONG HAIR.** The rotating components of this machine can easily grab loose clothing, jewelry, gloves, or long hair and the resulting entanglement can cause serious personal injury or death. Avoid these hazards by securing or removing loose clothing, tying back long hair, and removing gloves and jewelry.
- 3. ATTACHING FITTINGS TO A SPINNING PIPE.** Attempting to attach fittings while the pipe is spinning in the machine greatly increases your chances of a laceration or entanglement hazard. NEVER try this when the pipe is spinning in the machine.
- 4. CLEANING CHIPS AND SHAVINGS.** Metal chips and shavings are very sharp and can quickly cause cuts or slivers when cleaning them from the machine. Protect yourself by wearing gloves, using a thick or folded rag, and wiping them up slowly.

WARNING

Like all machines there is danger associated with the Model G0579. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

CAUTION

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

SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

!WARNING

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

Amperage Draw

The 1 HP motor on the Model G0579 will draw the following amps:

Motor Load 8 Amps

Circuit Breaker Requirements

Install your machine on a dedicated circuit. If the circuit breaker frequently trips, have the circuit inspected by a qualified electrician. Never use a larger circuit breaker than stated below, or you will increase the risk of fire.

Circuit Breaker..... 10 Amp

Plug Type

The Model G0579 is supplied with a 5-15 plug, similar to **Figure 1**.

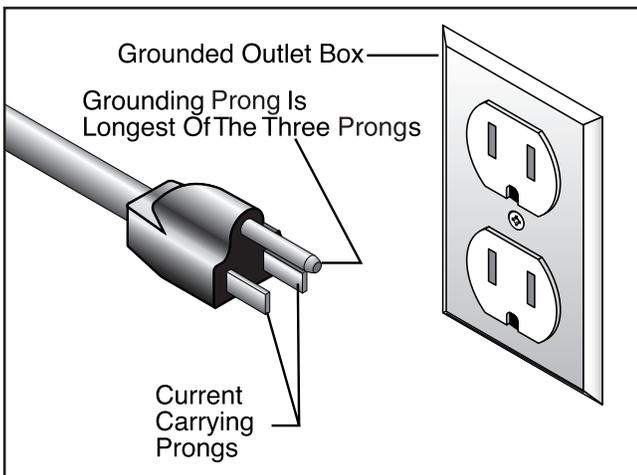
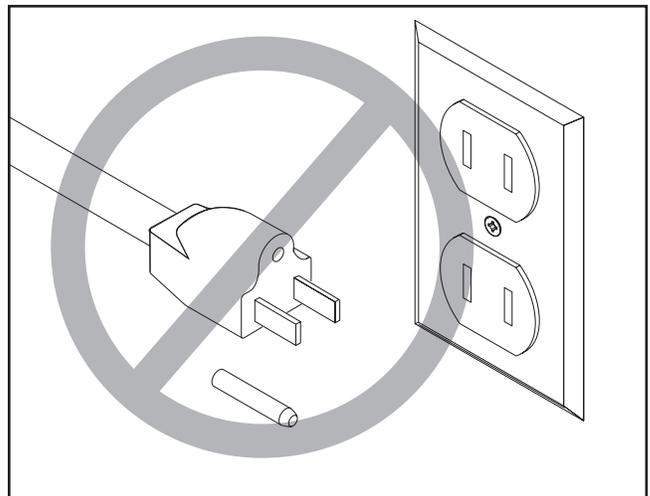


Figure 1. Typical type 5-15 plug and receptacle.



!WARNING

Electrocution or fire could result if this machine is not grounded correctly or if your electrical configuration does not comply with local and state codes. Ensure compliance by checking with a qualified electrician!



!CAUTION

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

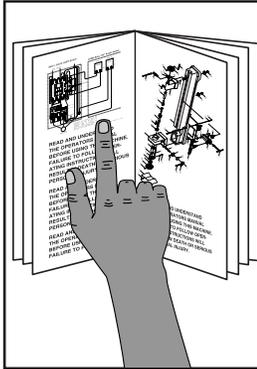
Extension Cords

- Make sure the cord is rated Standard Service (grade S) or better.
- The extension cord must contain a ground wire and plug pin.
- Use at least a 16 gauge cord. Use a 14 gauge cord if the cord is between 51-100 feet.



SECTION 3: SET UP

Set Up Safety



!WARNING

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



!WARNING

The Model G0579 is a heavy machine (185 lbs. shipping weight). DO NOT over-exert yourself while unpacking or moving your machine—get assistance.



Unpacking

The Model G0579 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, please immediately call Customer Service at (570) 546-9663 for advice.

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

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



Inventory

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

Inventory:	QTY
A. Machine Body	1
B. Legs.....	4
C. Hardware Bag	1
—Die Set 1/2"–3/4" (includes 4 dies)	1
—Die Set 1"–2" (includes 4 dies).....	1
—Cap Screws M8-1.25 x 25	4
D. Tool Bag	1
—Hex Wrench 3mm.....	1
—Hex Wrench 4mm.....	1
—Hex Wrench 5mm.....	1
—Hex Wrench 6mm.....	1
—Screwdriver.....	1
E. Oil Gun	1
F. Cutting Fluid	2.5 L

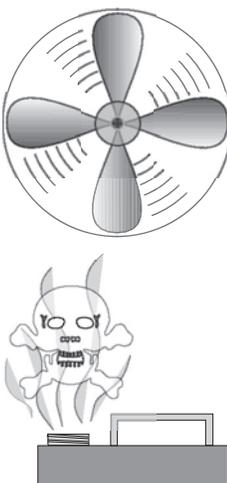
In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.



Clean Up

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

	<p>⚠ WARNING Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.</p>
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	<p>⚠ CAUTION Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.</p>
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Site Considerations

Floor Load

The Model G0579 weighs 150 lbs. and has a base footprint of 40" W x 28" D. Most floors are suitable for your machine. However, some wood floors may require additional reinforcement to support both the machine and operator.

Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your saw. See **Figure 2** for the working clearances of the Model G0579.

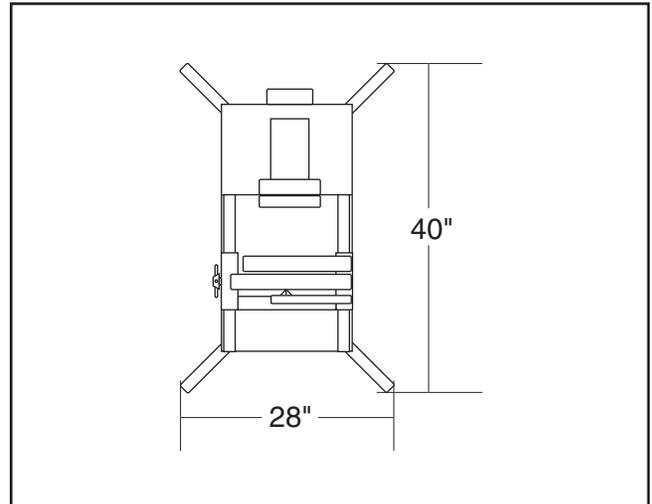
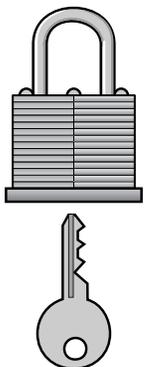


Figure 2. Working clearances.

	<p>⚠ CAUTION Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and DO NOT allow unsupervised children or visitors in your shop at any time!</p>
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Legs

Components and Hardware Needed:		Qty
Machine Body.....		1
Legs.....		4

Tools Needed:		Qty
Hex Wrench 6mm.....		1

To install the legs:

1. Install each leg as shown in **Figure 3**, using the cap screws already mounted to the main body.

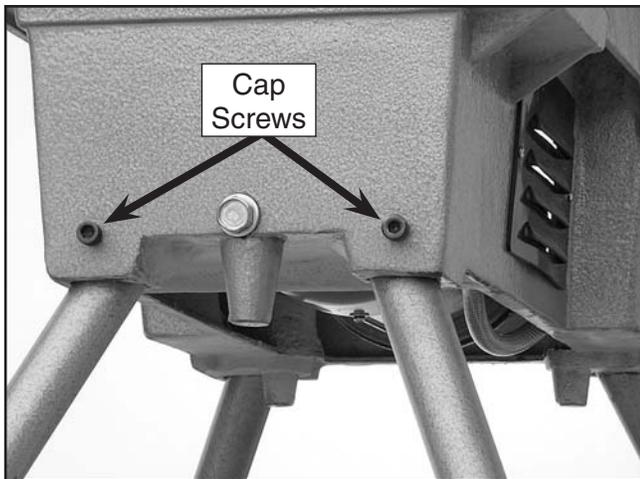


Figure 3. Legs installed into the bottom of the machine.

2. Tighten each leg in place with the provided cap screws.



Add Cutting Fluid

Pour the included cutting fluid or approximately 1/2 gallon of Grizzly® Cutting & Tapping Fluid (see **page 16**) directly on the drip tray shown in **Figure 4**. The fluid will drain through the screens and fill the reservoir.

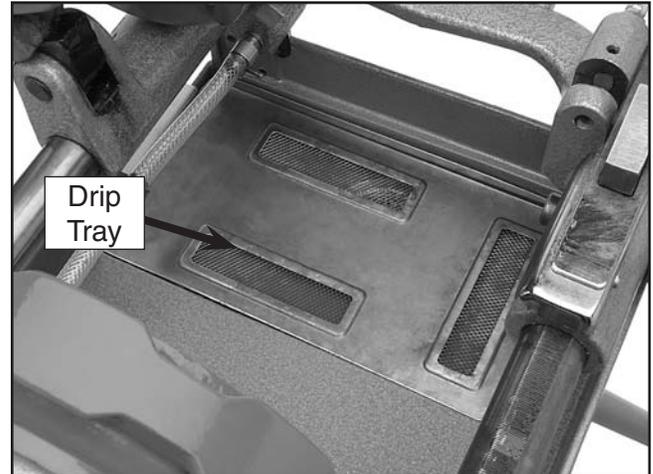


Figure 4. Location of drip tray for adding cutting fluid.



Test Run

Test run the machine to make sure it works properly before proceeding with operations.

To test run the pipe threader:

1. Connect the machine to power.
2. Make sure the area around the headstock is clear.
3. Turn the pipe threader ON. It should startup and run smoothly.
 - If the pipe threader does not start or will not run smoothly, call our service department at (570) 546-9663 for troubleshooting help.

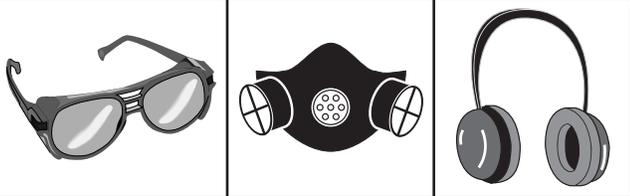


SECTION 4: OPERATIONS

Operation Safety

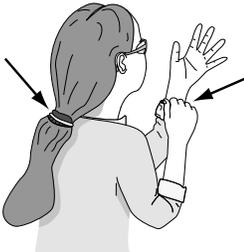
!WARNING

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



!WARNING

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



NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.



Installing/Changing Dies

Components and Hardware Needed: Qty
Die Set (size depends on anticipated pipe) 1

To install the dies:

1. Unlock the threading tool and pivot it back.
2. Loosen the lock handle and move it all the way down in the adjustment slot, as shown in **Figure 5**. This will allow the dies to be moved in/out of the threading tool.

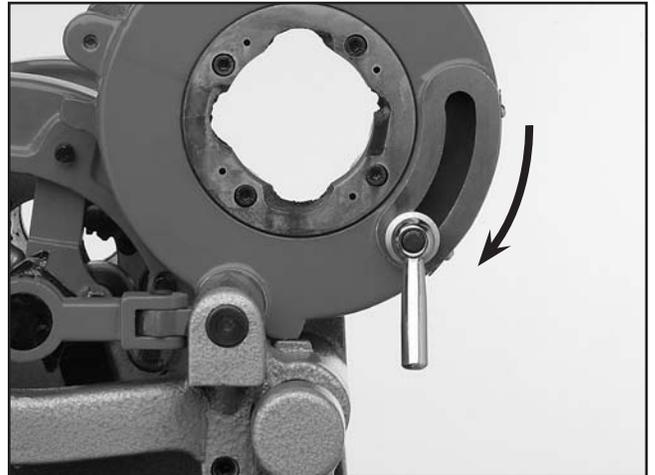


Figure 5. Lock handle positioned to allow dies to be inserted into the threading tool.

3. Insert the #1 die (number stamped into side of die) into the #1 slot on the threading tool with the tapered end of the die toward the headstock, as shown in **Figure 6**. The die should "click" into place when inserted approximately $\frac{3}{4}$ of the way.

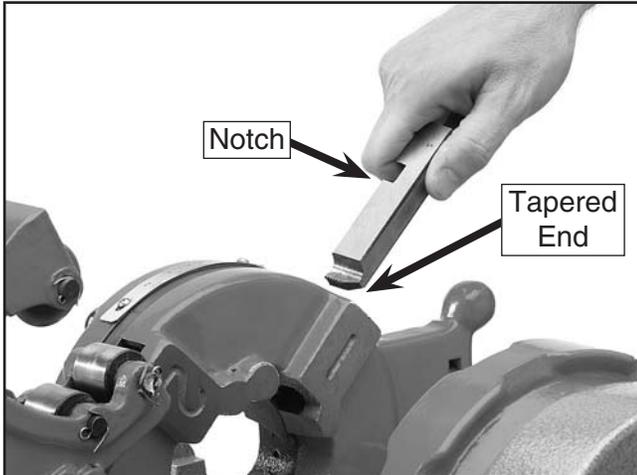


Figure 6. Inserting #1 die in #1 slot.

4. Repeat **step 3** with the remaining 3 dies, making sure to match the number of the dies to the number of the slot.
5. Using the lock handle, adjust the marker on the threading tool to match your pipe size shown on the scale in **Figure 7**, then lock the handle in place.

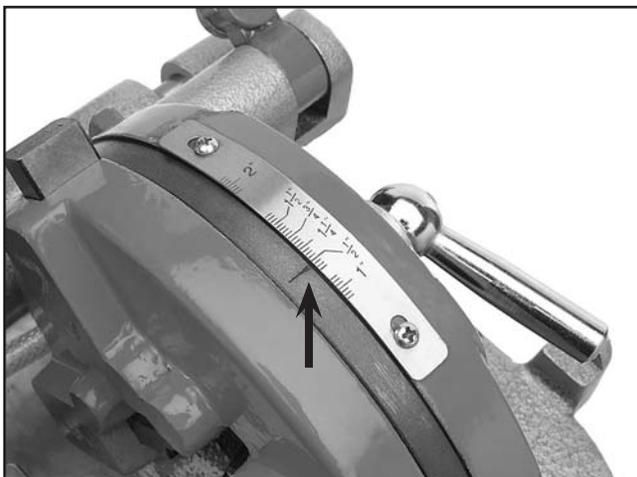


Figure 7. Close up of scale and marker used for setting pipe sizes.



Locking/Unlocking Pipe in Headstock

To lock a piece of pipe in the headstock:

1. Open both chucks on the headstock by rotating them, and insert the pipe through the support chuck.
2. Center the pipe in the support chuck and close it.
3. Close the hammer chuck until it grips the pipe evenly with all jaws, then open it about a $\frac{1}{4}$ - $\frac{1}{2}$ turn, and slam it closed, as shown in **Figure 8**, to lock the chuck on the pipe.

Note—When threading a short pipe that does not reach the support chuck, hold and center the pipe by hand until the hammer chuck is tightened.

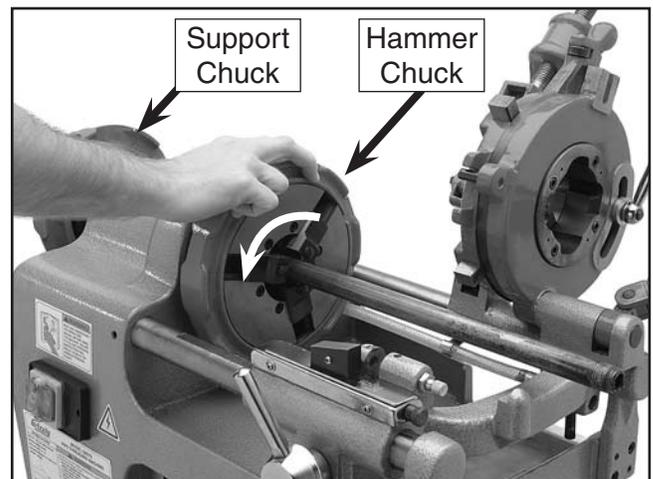


Figure 8. Slamming hammer chuck to lock it on the pipe.

To unlock a piece of pipe:

1. Slam the hammer chuck toward the rear of the machine to open the chuck.
2. Hold the pipe in one hand and open the support chuck with the other.
3. Remove the pipe.



Cutting/Squaring Pipe

The cutting attachment provides a quick and easy way of cutting pipe to length or squaring off the end of a pipe before cutting threads.

To cut/square a piece of pipe:

1. Move the cutter, threading tool, and reaming tool out of the way of the work area.
2. Insert the pipe in the headstock, pull it under the cutter, and lock it in the headstock.
3. Lower the cutter over the pipe, position the cutter with the carriage handle, and tighten the blade down lightly on the pipe.
4. Turn the pipe threader ON.
5. Slowly increase cutting pressure with the cutting handle until the cut is complete and the end of the pipe falls off. **Figure 9** shows an example of a cutting operation.

⚠️ WARNING

Because of the cutting pressure, pipe ends may pop into the air when cut off. Wear safety glasses and avoid standing to the right of the machine when cutting.

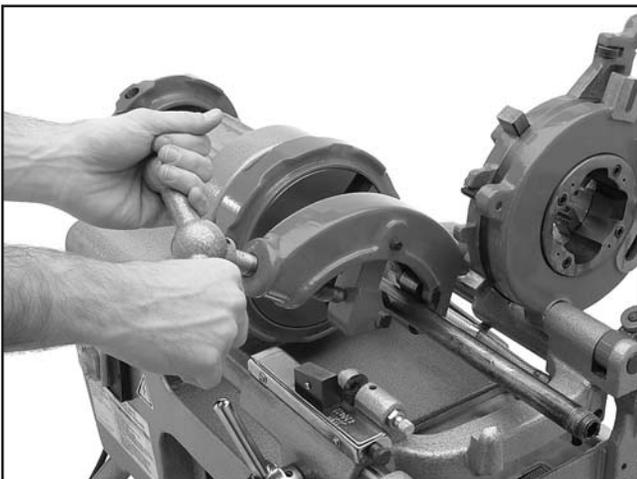


Figure 9. Cutting/squaring the end of the pipe.



Cutting Pipe Threads

To cut pipe threads:

1. Install the proper dies to match your pipe size.
2. Set the taper settings, as shown in **Figure 10**, to match your pipe size.

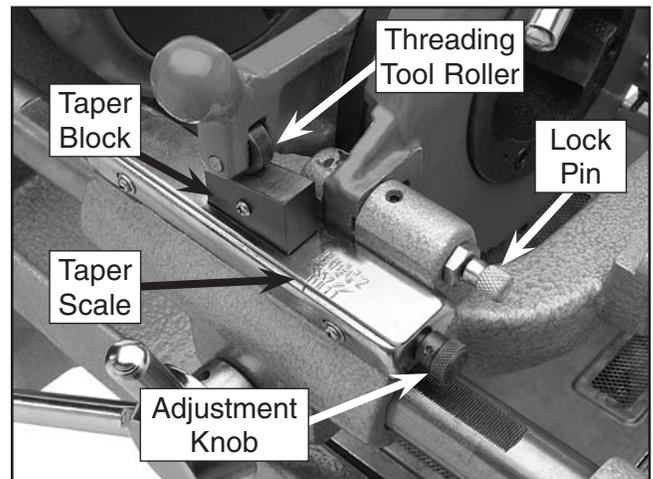


Figure 10. Taper setting scale.

3. Raise the cutter and reaming tool out of the way.
4. Lower the threading tool into position and lock it in place.
5. Turn the pipe threader ON.

Continued on next page →

6. Turn the carriage handle clockwise to advance the threading tool toward the pipe, as shown in **Figure 11**, and make sure that cutting fluid is flowing freely out of the threading tool.
 - If cutting fluid is not flowing freely, **DO NOT** continue with thread cutting operations. Stop and troubleshoot the machine.

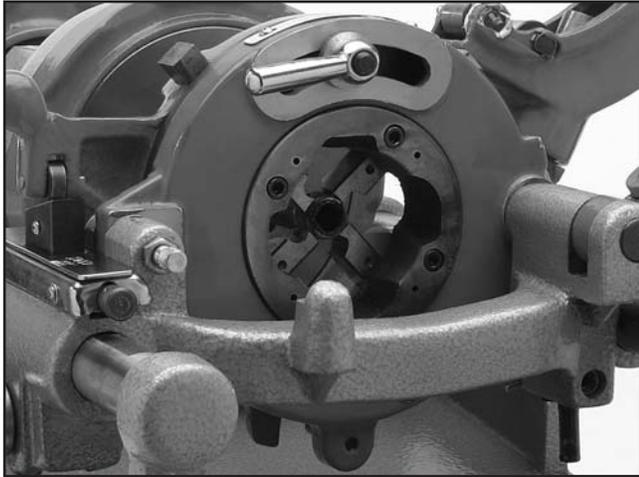


Figure 11. Threading the end of the pipe with the threading tool.

7. Apply enough pressure on the carriage handwheel for the dies to engage the pipe for about three to four threads, then release the carriage handle. A standard taper thread will continue to cut until finished.
8. When the threading tool roller drops down over the end of the taper block, the dies will open and the threading is complete.
9. Turn the pipe threader OFF and retract the carriage until the threading tool clears the threaded pipe.
10. Pull the lock pin out and raise the threading tool.
11. Ream the end of the pipe, as described on this page.



Reaming

Rough pipe ends must be reamed after they are cut or threaded to avoid sharp ends that cause lacerations when handling. Reaming is usually performed when the pipe is still locked in the headstock after cutting or threading.

To ream the pipe end:

1. Make sure the pipe is locked in the headstock.
2. Turn the pipe threading machine ON.
3. Move the reaming tool down and lock it into position.
4. Turn the carriage handwheel to slowly move the reaming tool into the pipe and cut off the sharp edge. **Figure 12** shows an example of a reaming operation.



Figure 12. Typical reaming operation.

5. Turn the pipe threader OFF.
6. Using the carriage handwheel, move the reaming tool back and then lift it out of the way.
7. Make sure the pipe has come to a complete stop, then remove it from the headstock.



SECTION 5: ACCESSORIES

- H1412—4 oz. Cutting & Tapping Fluid
- H1413—16 oz. Cutting & Tapping Fluid
- H1414—1 Gallon Cutting & Tapping Fluid

This cutting and tapping fluid is non-ozone depleting and is safe for ferrous and non-ferrous metals with an engineered formula that clings to the cutting tool and provides phenomenal lubrication during cutting and tapping.

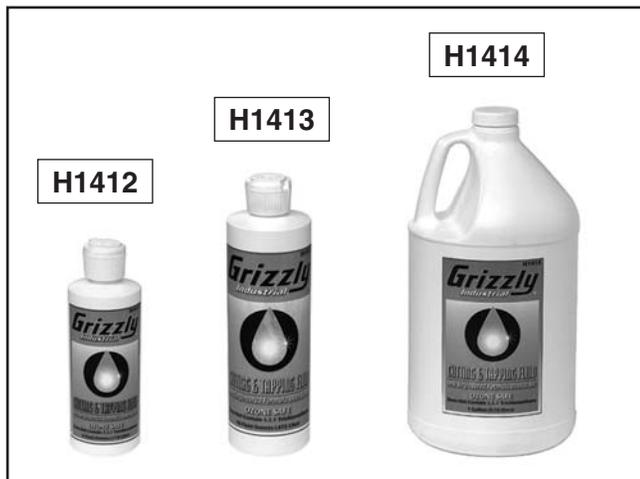


Figure 13. Grizzly® Cutting & Tapping Fluid.

H3394—Pipe Vise

This cast iron 2" diameter pipe vise features a quick release mechanism that secures pipe in no time. Simple bolt-on installation for workbenches and work stands.

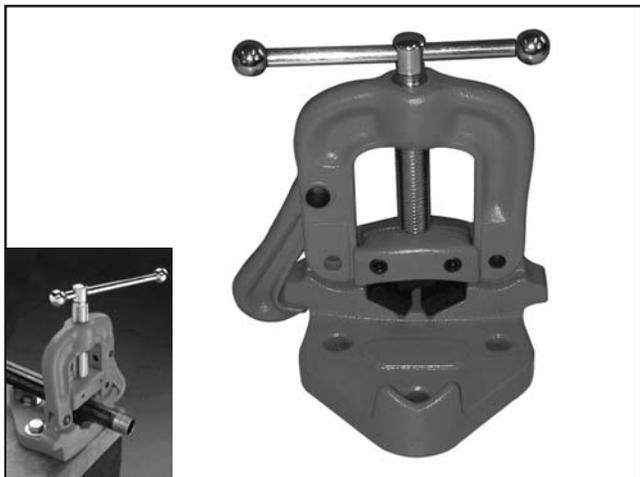


Figure 14. Model H3394 Pipe Vise.

- G7984—Face Shield
- H1298—Dust Sealed Safety Glasses
- H1300—UV Blocking, Clear Safety Glasses
- H2347—Uvex® Spitfire Safety Glasses
- H0736—Shop Fox® Safety Glasses

Safety Glasses are essential to every shop. If you already have a pair, buy extras for visitors or employees. You can't be too careful when it comes to shop safety!



Figure 15. Our most popular safety glasses.

Call 1-800-523-4777 To Order



SECTION 6: MAINTENANCE



Schedule

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

Daily

- Clean drip tray and bed.
- Make sure that cutting fluid flows freely, by testing the flow with the threading tool in both up/down positions.

Weekly

- Clean the fluid screens and grime pot.
- Evaluate the condition of the fluid; change if necessary.
- Make sure fluid tank is $\frac{3}{4}$ full by removing the drip tray and plastic liner and visually inspecting.
- Lubricate the spindle bearings through the two ports on the headstock.

Monthly

- Clean/lubricate the cutting tool rollers and blade.
- Lubricate the carriage shaft.



Cleaning

Drip Tray & Bed

The drip tray is the removable metallic tray that the fluid flows onto and the bed is the body of the machine that surrounds the drip tray and also collects some metal particles and fluid.

To clean the drip tray and bed:

1. Raise all the tools for easy access.
2. Wipe down the bed with a dry rag, brushing any chips/shavings into the drip tray.
3. Remove the tray (**Figure 16**), properly dispose of chips/shavings, and clean the tray.

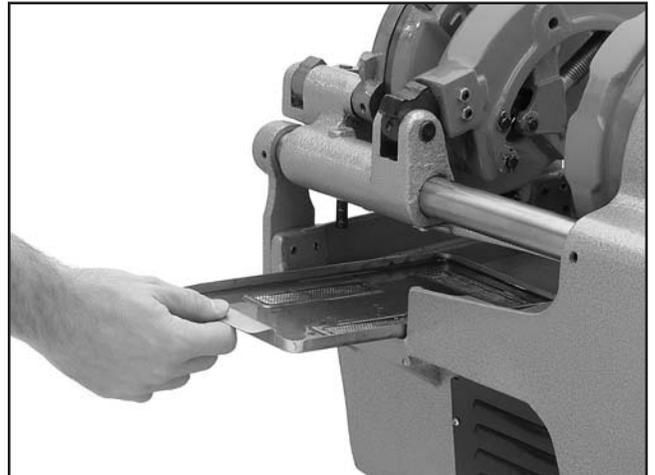


Figure 16. Removing drip tray.

Fluid Screen & Grime Pot

There are fluid screens located in the drip tray and directly above the grime pot. The grime pot is located directly under the drip tray in a plastic liner. Clean the screens and grime pot with a dry rag (or use a solvent tank if available, then wipe dry).

To clean the fluid screen and grime pot:

1. Clean the drip tray and bed, but do not replace the drip tray when you are done.

2. Clean any metal shavings from the edges of the plastic liner so they do not fall into the reservoir when the liner is removed.
3. Lift the plastic liner (**Figure 17**) out of the fluid reservoir.

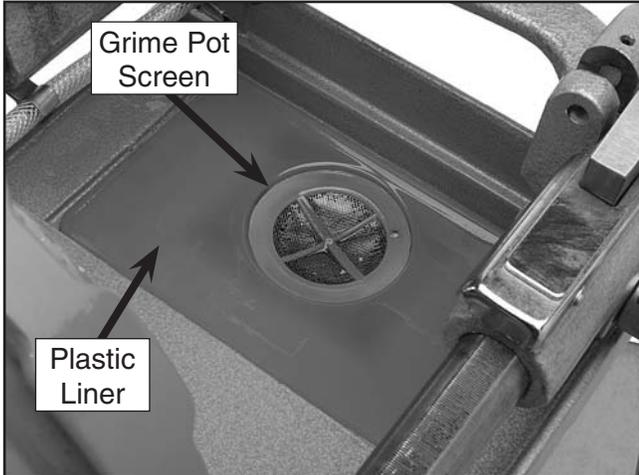


Figure 17. Location of plastic liner with grime pot and screen.

4. Remove the screen from the plastic liner by rotating it to align the screen tab with the liner slot as viewed from the underside in **Figure 18**.

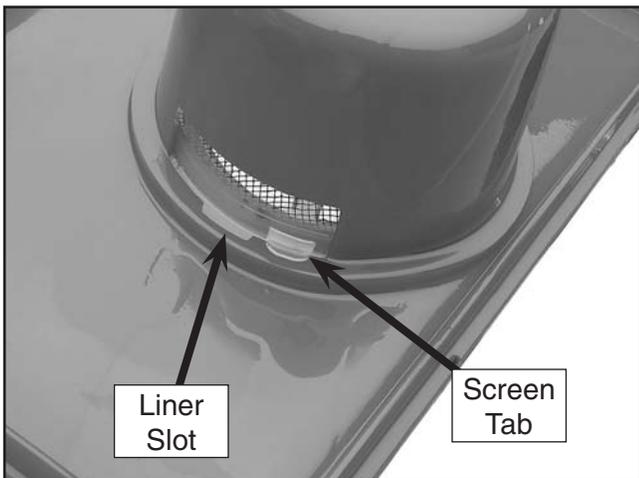


Figure 18. Screen tab and liner slot to align when removing the screen.

5. Clean the screen and the grime pot (**Figure 19**).

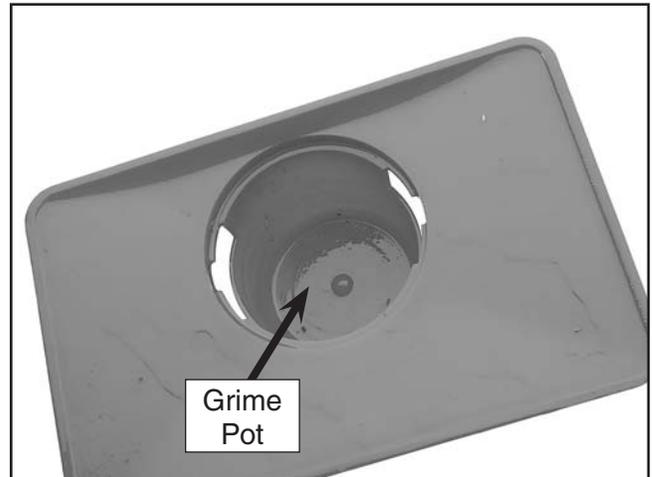


Figure 19. Grime pot.

6. Clean any remaining metal shavings from the edges of where the plastic liner was mounted in the reservoir.
7. Install the screen in the plastic liner and replace the plastic liner and drip tray above the fluid reservoir, as shown in **Figure 20**.

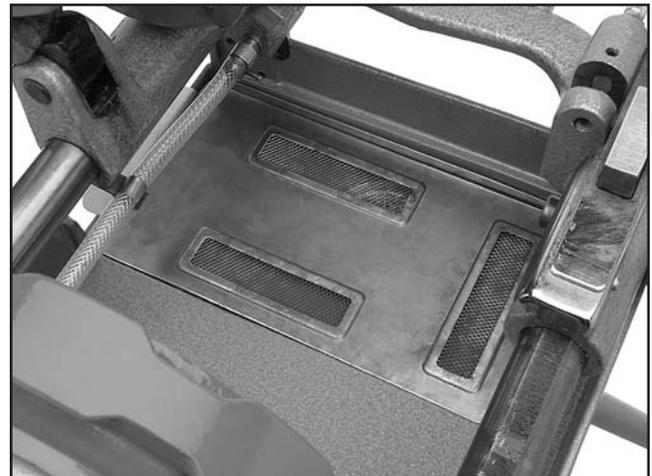


Figure 20. Clean drip tray and screens reinstalled.



Cutting Tool Rollers & Blade

To clean and lubricate the cutting tool rollers and blade:

1. Raise the cutting tool.
2. Remove the cotter pins from the end of the roller shafts and pull the roller shaft out of the housing (see **Figure 21** for parts identification).

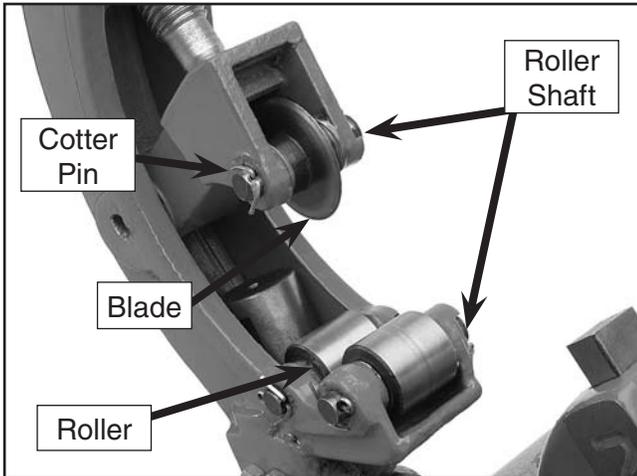


Figure 21. Cutting tool components.

3. Clean the roller shafts, rollers, blade, and housing.
4. Coat the roller shafts with high-temp grease and insert them into the rollers and blade, as shown in **Figure 22**, to spread the grease.

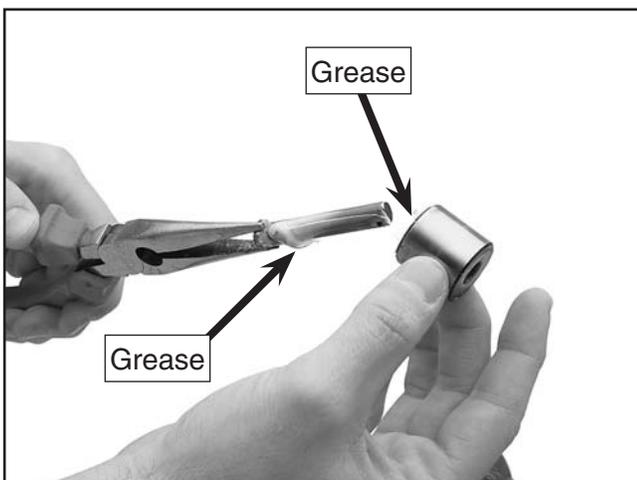


Figure 22. Greasing roller shafts and rollers.

5. Finish the job by replacing all the cutter components removed in **step 2**.

Carriage Shafts

To lubricate the carriage shafts:

1. Pour a liberal amount of cutting/tapping fluid on the front carriage shaft, and move the carriage back and forth several times.
2. Wipe up excess fluid with a dry rag, and use the fluid on that rag to coat the rear carriage shaft, adding more if necessary for a thin coat of coverage.



Checking Fluid Flow

If the fluid flow gets restricted or blocked, troubleshoot and fix it before performing any thread cutting operations or the dies will be quickly ruined.

To check the fluid flow:

1. Move the threading tool up and start the motor. Fluid should flow freely in the location shown in **Figure 23**.

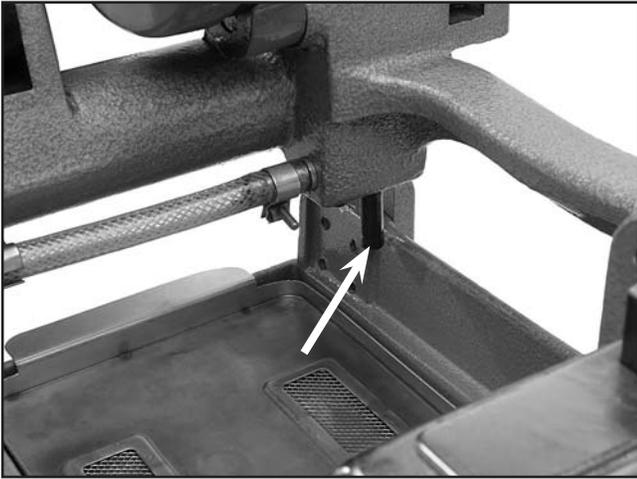


Figure 23. Fluid flow location with threading tool up.

2. Move the threading tool down and start the motor. Fluid should flow freely where shown in **Figure 24**.



Figure 24. Fluid flow location with threading tool down.



Evaluating Fluid

Very small metal particles will accumulate in the tank and could eventually clog the pump if the fluid is not changed on a regular basis. When fluid becomes discolored or contaminated with small metal particles, clean the tank thoroughly and refill it with clean cutting fluid. Checking the fluid is a simple procedure that requires a sheet of clean white paper.

To evaluate the condition of your fluid:

1. Turn the motor ON so fluid circulates for at least 30 seconds.
2. Place the end of the paper under stream of fluid and quickly remove it without letting too much fluid run off the page (see **Figure 25**).



Figure 25. Evaluating fluid with white paper.

3. Inspect the fluid on the paper for small metal particles.
 - If there are a lot of small metal particles in the fluid, then the fluid must be changed.
 - If the fluid is dark brown or black, then it must be changed.
 - If the fluid is golden or light brown with little to no visible metal particles, then the fluid does not need to be changed yet.



Changing Fluid

Items Needed:	Qty
Wrench 17mm and Screwdriver	1 each
Drain Pan (at least 1 gallon capacity)	1
Dry Shop Rags.....	Varies
Grizzly Cutting Fluid (page 16)	1/2 Gallon

To change the cutting fluid:

1. Clean the drip tray, fluid screens, and grime pot as described in **Cleaning on page 17**.
2. Place the fluid pan under the reservoir and remove the drain plug shown in **Figure 26**.



Figure 26. Location of drain plug.

3. After the reservoir has drained, clean the intake screen (access by removing screw and pivoting screen up) and the bottom of the reservoir, as shown in **Figure 27**.

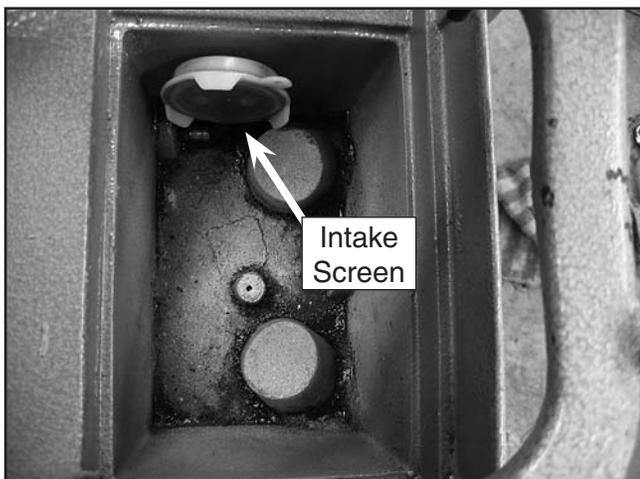


Figure 27. Intake screen lifted for cleaning.

4. Pivot the intake screen back down and fasten it to the bottom of the reservoir with the screw.
5. Replace the drain plug and pour in approximately 1/2 gallon of Grizzly® Cutting and Tapping Fluid.
6. Replace the plastic liner, the liner screen, and the drip tray.



Lubricating Spindle Bearings

Items Needed:	Qty
Oil Can (w/30 Wt. non-detergent oil)	1

To lubricate the spindle bearings:

1. Remove the plastic caps, shown in **Figure 28**, to expose the oil ports in the headstock casting.

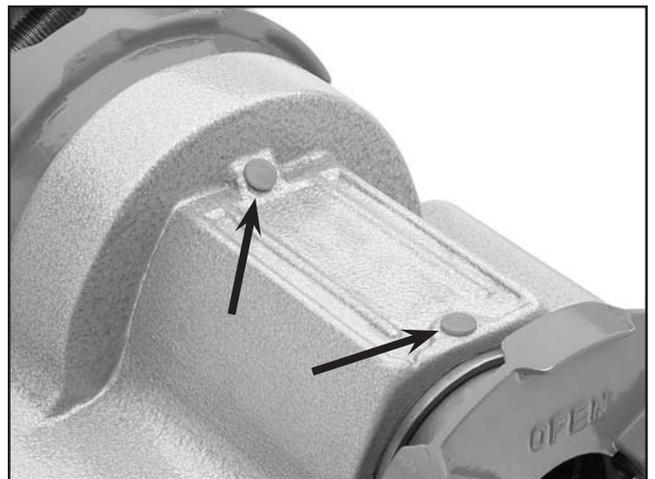
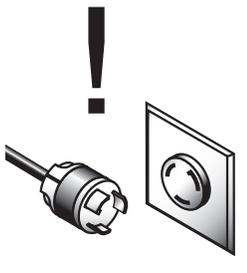


Figure 28. Location of headstock oil ports.

2. Place five drops of oil in the fluid ports.
3. Turn the motor ON and allow it to run for approximately 30 seconds to disperse the fluid.



SECTION 7: SERVICE

	<p>⚠ WARNING Always disconnect power to the machine before performing service adjustments. Failure to do this may result in serious personal injury.</p>
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About Service

This section is designed to help the operator with adjustments that were made at the factory and that might also need to be made during the life of the machine.

This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If any adjustments arise that are not described in this manual, then feel free to call the Grizzly Service Department at (570) 546-9663.

Similarly, if you are unsure of how to perform any procedure in this section, the Grizzly Service Department will be happy to guide you through the procedures or help in any other way.



Repairing Clogged Pump

Items Needed:	Qty
Phillips Screwdriver #2.....	1
Hex Wrench 10mm.....	1
Pliers.....	1
Dry Shop Rag.....	1
Solvent or Similar Degreaser	Varies

Very small metal particles will accumulate in the tank and could eventually clog the pump if the fluid is not changed on a regular basis. If the pump stops working and you have verified that there are no other obstructions in the fluid lines, then the pump may need to be repaired.

Repairing the pump is an easy job that takes approximately 10 minutes, and should only be done after the fluid has been changed.

To repair a clogged fluid pump:

1. Remove the motor access cover (held in place by two screws) to expose the fluid pump, as shown in **Figure 29**.

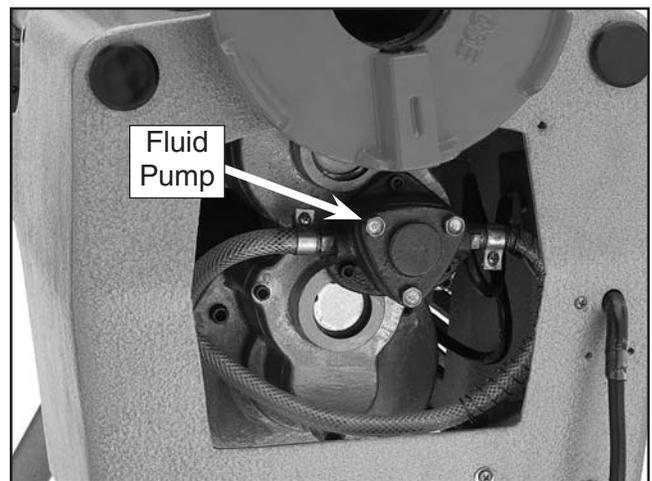


Figure 29. Location of fluid pump.

2. Unbolt the three hex bolts on the pump cover and carefully pull the cover off.
3. Using the pliers, pull the pump shaft out of the pump, as shown in **Figure 30**.

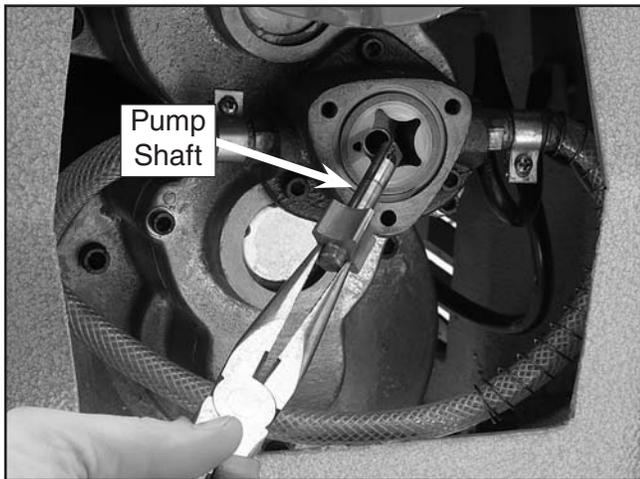


Figure 30. Pump shaft removed from pump for cleaning.

4. Using the rag and solvent/degreaser, clean the pump shaft and the inside of the pump to remove any built-up grime or metal chips.
5. Inspect the O-ring that was between the pump and the pump cover.
 - If the O-ring is hard, cracked, or otherwise in poor condition, replace it (for quick turnaround, new O-rings can often be found in hardware or automotive stores).
 - If the O-ring is soft, pliable, and in otherwise good condition, reuse it.
6. Lubricate the pump, pump shaft, and O-ring with clean cutting fluid.
7. Insert the pump shaft in the same manner as you removed it, and replace the pump cover and access cover to complete the job.



G0579

REF	PART #	DESCRIPTION
1	P0579001	MACHINE BODY
2	P0579002	DRAIN PLUG DN15
3	PSS16M	SET SCREW M8-1.25 X 10
4	P0579004	FRONT CARRIAGE SHAFT
5	P0579005	REAR CARRIAGE SHAFT
6	P0579006	CARRIAGE
7	PSS02M	SET SCREW M6-1 X 6
8	P0579008	SHAFT BRACKET
9	PRP39M	ROLL PIN 4 X 20
10	PSB02M	CAP SCREW M6-1 X 20
11	PSS03M	SET SCREW M6-1 X 8
12	P0579012	CLOSING PIECE
13	P0579013	HELICAL SPRING
14	P0579014	TURNBUCKLE
15	P0579015	LOCK PIN
16	P0579016	CARRIAGE HANDWHEEL
17	PRP08M	ROLL PIN 6 X 30
18	P0579018	HANDWHEEL SHAFT
19	PK07M	KEY 6 X 6 X 20
20	P0579020	CUTTING FEED GEAR
21	PR08M	EXT RETAINING RING 19MM
22	P0579022	SUSPENSION SPRING
23	P0579023	ADJUSTMENT KNOB
24	PRP11M	ROLL PIN 2.5 X 16
25	P0579025	STOP BLOCK
26	P0579026	TAPER BOX
27	P0579027	TAPER SCALE PLATE
28	P0579028	TAPER BLOCK
29	PS07M	PHLP HD SCR M4-.7 X 8
30	PW05M	FLAT WASHER 4MM
31	PS07M	PHLP HD SCR M4-.7 X 8
32	PSN03M	SQUARE NUT M8-1.25
33	P0579033	HELICAL SPRING
34	P0579034	VARIABLE PITCH SCREW
35	PSS30M	SET SCREW M10-1.5 X 10
36	P0579036	HELICAL SPRING
37	P0579037	STEEL PEARL 7MM
38	P0579038	THROTTLE SHAFT
39	P0579039	DRAIN PIPE
40	PSS16M	SET SCREW M8-1.25 X 10
41	PS09M	PHLP HD SCR M5-.8 X 10
42	PSN01M	SQUARE NUT M5-.8
43	P0579043	HOSE CLAMP
44	P0579044	FLUID HOSE BRACKET
45	PS03M	PHLP HD SCR M6-1 X 8
46	P0579046	REAMER BRACKET
47	PSS30M	SET SCREW M10-1.5 X 10
48	P0579048	REAMER CARRIAGE
49	P0579049	LARGE BRACKET PIN
50	P0579050	SMALL BRACKET PIN

REF	PART #	DESCRIPTION
51	P0579051	FIVE-EDGE REAMER
52	P0579052	CUTTING HANDLE
53	P0579053	CUTTING TOOL BRACKET
54	P0579054	TORSION SPRING
55	P0579055	BLADE BRACKET
56	P0579056	BLADE WHEEL
57	P0579057	ROLLER SHAFT
58	P0579058	COTTER PIN 1.8 X 20
59	P0579059	ROLLER SHAFT
60	P0579060	ROLLER
61	P0579058	COTTER PIN 1.8 X 20
62	P0579062	CUTTING TOOL APRON
63	P0579063	CUTTING TOOL APRON PIN
64	PSS24M	SET SCREW M5-.8 X 25
65	PN06M	HEX NUT M5-.8
66	P0579066	BLADE BRACKET PIN
67	P0579067	DRIP TRAY
68	P0579068	PLASTIC LINER W/FILTER
69	PS38M	PHLP HD SCR M4-.7 X 10
70	P0579070	INTAKE SCREEN
71	P0579071	INTAKE FLUID HOSE
72	P0579072	HOSE COUPLER
73	P0579073	HOSE CLAMP
74	PS09M	PHLP HD SCR M5-.8 X 10
75	PSN01M	SQUARE NUT M5-.8
76	PSB83M	CAP SCREW M6-1 X 55
77	P0579077	HAMMER CHUCK PLATE
78	P0579078	HAMMER CHUCK BODY
79	P0579079	HAMMER CHUCK PRONG
80	PSB68M	CAP SCREW M6-1 X 8
81	P0579081	VORTEX SPRING
82	P0579082	SHORE
83	P0579083	HAMMER CHUCK JAW
84	P0579084	SCREW PLATE
85	P0579085	INDEX PIN 8 X 20
86	PB09M	HEX BOLT M8-1.25 X 20
87	P0579087	COG PLATE
88	P0579088	SPINDLE SHAFT
89	PRP39M	ROLL PIN 4 X 20
90	P0579090	FRONT SPINDLE BEARING
91	P0579091	REAR SPINDLE BEARING
92	PRP39M	ROLL PIN 4 X 20
93	PRP52M	ROLL PIN 6 X 16
94	P0579094	SUPPORT CHUCK PLATE
95	P0579095	APERTUR DEMP SPRING 120
96	P0579096	SUPPORT CHUCK JAW
97	P0579097	SUPPORT CHUCK
98	P0579098	OIL PORT PLASTIC CAP
99	P0579099	BULKHEAD
100	P0579100	MOTOR ACCESS COVER

G0579

REF	PART #	DESCRIPTION
101	PS09M	PHLP HD SCR M5-.8 X 10
102	PSN01M	SQUARE NUT M5-.8
103	PS45M	PHLP HD SCR M5-.8 X 5
104	PWRCRD110L	POWER CORD 110V W/PLUG
105	P0579105	PROTECTIVE TUBE
106	PS07M	PHLP HD SCR M4-.7 X 8
107	P0579107	CORD CLAMP
108	P0579108	GROUNDING SIGN
109	PS07M	PHLP HD SCR M4-.7 X 8
110	P0579110	SWITCH BOX
111	P0579111	BUTTON SWITCH
112	PS38M	PHLP HD SCR M4-.7 X 10
113	PS38M	PHLP HD SCR M4-.7 X 10
114	P0579114	VENT
115	P0579115	MOTOR CORD
116	P0579116	COVER CASING
117	P0579117	MOTOR
117-1	P0579117-1	MOTOR FAN COVER
117-2	P0579117-2	MOTOR FAN
117-3	P0579117-3	CAPACITOR COVER
117-4	P0579117-4	CAPACITOR
118	PK30M	KEY 4 X 4 X 25
119	P0579119	MOTOR GEAR
120	P0579120	OIL RING 35 X 56 X 12
121	P0579121	GEARBOX
122	PSB114M	CAP SCREW M6-1 X 22
123	P0579123	HIGH SPEED SHAFT
124	PK10M	KEY 5 X 12
125	PK10M	KEY 5 X 12
126	P0579126	HIGH SPEED GEAR
127	P6102	BALL BEARING 6102
128	P6102	BALL BEARING 6102
129	P0579129	GEAR FRONT COVER
130	PSB15M	CAP SCREW M5-.8 X 20
131	P0579131	BEARING CAP
132	PS05M	PHLP HD SCR M5-.8 X 8
133	P0579133	BEARING CAP
134	P0579134	SLIDING BEARING
135	P0579135	OIL RING 8 X 22 X 8
136	PS09M	PHLP HD SCR M5-.8 X 10
137	P0579137	INTAKE FLUID HOSE
138	P0579138	SPRING
139	PSN01M	SQUARE NUT M5-.8
140	P0579140	HOSE CLAMP
141	P0579141	FLUID PORT
142	P0579142	PUMP
143	P0579143	INTERNAL ROTOR
144	P0579144	EXTERNAL ROTOR
145	P0579145	O-RING 38 X 2.4
146	PLW01M	LOCK WASHER 5MM

REF	PART #	DESCRIPTION
147	PB95M	HEX BOLT M5-.8 X 16
148	P0579148	PUMP COVER
149	PSB15M	CAP SCREW M5-.8 X 20
150	PLW01M	LOCK WASHER 5MM
151	PSN01M	SQUARE NUT M5-.8
152	P0579152	HOSE CLAMP
153	P0579153	OUTPUT HOSE
154	PS09M	PHLP HD SCR M5-.8 X 10
155	P0579155	BEARING CAP
156	P6202	BALL BEARING 6202
157	P0579157	EXPORT SHAFT GEAR
158	P0579158	LOW SPEED GEAR SHAFT
159	P0579159	LOW SPEED GEAR
160	PSB14M	CAP SCREW M8-1.25 X 20
161	PLW04M	LOCK WASHER 8MM
162	P6204	BALL BEARING 6204
163	P0579163	BEARING CAP
164	PS08M	PHLP HD SCR M5-.8 X 12
165	PK10M	KEY 5 X 5 X 12
166	P6102	BALL BEARING 6102
167	P6102	BALL BEARING 6102
168	P0579168	EXPORT GEAR SHAFT
169	P0579169	FRONT PLATE
170	P0579170	THREADING TOOL ROLLER
171	PRP46M	ROLL PIN 6 X 28
172	P0579172	DIE SET 1/2"-3/4" 14 TPI
172A	P0579172A	DIE SET 1"-2" 11-1/2 TPI
173	P0579173	SLIDE PLATE
174	PN02M	HEX NUT M10-1.5
175	P0579175	FULCRUM
176	P0579176	LOCK SHAFT
177	P0579177	LOCK BAR
178	P0579178	LOCK HANDLE
179	P0579179	DRAIN PIPE 6 X 29
180	P0579180	INT COMPRESSION RING
181	P0579181	PEARL KNOCKER
182	PSS64M	SET SCREW M6-1 X 15
183	P0579183	LARGE FACE PLATE
184	PSB29M	CAP SCREW M6-1 X 40
185	PSS20M	SET SCREW M8-1.25 X 8
186	P0579186	FULCRUM
187	PSS20M	SET SCREW M8-1.25 X 8
188	P0579188	REAR PLATE
189	P0579189	THREADING TOOL SCALE
190	PS07M	PHLP HD SCR M4-.7 X 8
191	P0579191	MACHINE ID LABEL
192	P0579192	READ MANUAL LABEL HORZ
193	PLABEL-11	SAFETY GLASSES LABEL
194	PLABEL-14	ELECTRICITY LABEL

WARRANTY AND RETURNS

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

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

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

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

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

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



WARRANTY CARD

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Model # _____ Order # _____ Serial # _____

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- Catalog
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| <input type="checkbox"/> Hand Loader | <input type="checkbox"/> Popular Woodworking | <input type="checkbox"/> Wooden Boat |
| <input type="checkbox"/> Handy | <input type="checkbox"/> Practical Homeowner | <input type="checkbox"/> Woodshop News |
| <input type="checkbox"/> Home Shop Machinist | <input type="checkbox"/> Precision Shooter | <input type="checkbox"/> Woodsmith |
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| <input type="checkbox"/> Model Airplane News | <input type="checkbox"/> Rifle | <input type="checkbox"/> Woodworker's Journal |
| <input type="checkbox"/> Modeltec | <input type="checkbox"/> Shop Notes | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Old House Journal | <input type="checkbox"/> Shotgun News | |

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

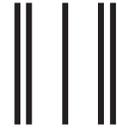
8. Would you recommend Grizzly Industrial to a friend? Yes No

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: _____

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