

Grizzly ***Industrial, Inc.*** ®

SLOW-SPEED GRINDER **MODEL G1036** **INSTRUCTION MANUAL**



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I. INTRODUCTION

We are proud to offer the Model G1036 Slow-Speed Grinder. The Model G1036 is part of a growing Grizzly family of fine woodworking machinery.

When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The Model G1036 is intended for use in a home workshop or small professional shop. The 4 $\frac{1}{2}$ " wheel is excellent for general grinding and the large, 10" water immersed wheel rotates slowly for sharpening and honing precise edges. The $\frac{3}{4}$ HP heavy-duty motor will provide plenty of power to sharpen most any tool in your shop or home.

We are also pleased to provide this instructional manual with the Model G1036 Slow-Speed Grinder. This manual was written to guide you through assembly, review safety considerations and cover general operating procedures.

If you have any criticisms that you feel we should address in our next printing, please write to us at the Bellingham, WA address at the end of this section.

Most important, we stand behind our machines. We have excellent regional service departments at your disposal should the need arise. If you have any service questions or parts requests, please call or write to us at the location listed below.

Grizzly Industrial, Inc.
2406 Reach Road
Williamsport, PA 17707
Phone: (570) 326-3806
Fax: (800) 438-5901
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Web Site: <http://www.grizzly.com>

To comment on this manual write to:

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

To operate this or any power tool safely and efficiently, it is essential to become as familiar with it as possible. The time you invest before you begin to use your Model G1036 will be time well spent.

WARNING

DO NOT operate this machine until you are completely familiar with the contents of this manual. Serious personal injury may occur if used without proper training.



II. SAFETY RULES FOR ALL TOOLS

1. **KNOW YOUR POWER TOOL.** Read the owner's manual carefully. Learn the tool's applications and limitations, as well as its particular hazards.
2. **KEEP ALL GUARDS IN PLACE** and in working order.
3. **GROUND ALL TOOLS.** If an adapter is used to accommodate a two-prong receptacle, the adapter plug must be attached to a known ground. Never remove the grounding prong.
4. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make it a habit to check that keys and wrenches are removed from the machine before turning it on.
5. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
6. **AVOID DANGEROUS ENVIRONMENTS.** Do not use power tools in damp or wet locations or expose them to rain. Keep your work area well lighted.
7. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance away from your work area.
8. **MAKE WORKSHOP CHILD-PROOF** with padlocks, master switches, or by removable starter keys.
9. **DO NOT FORCE TOOL.** Tools work better and safer when they are allowed to perform at their own speed.
10. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, or jewelry that can get caught in moving parts. Non-slip footwear must be worn. Long hair should be tied back or wear a hat.
11. **NEVER STAND ON, OR LEAN ON THE TOOL.** Doing so could cause injury.
12. **USE SAFETY GLASSES AND EAR PROTECTION.** Also use a **DUST MASK** if the operation is dusty.
13. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
14. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. **DISCONNECT TOOLS FROM POWER** before servicing and when changing accessories.
16. **AVOID ACCIDENTAL STARTING.** Make sure the switch is in the "OFF" position before plugging in the cord.
17. **CHECK DAMAGED PARTS.** Do not operate the machine until you are certain it is in perfect running condition.
18. **NEVER LEAVE THE TOOL RUNNING UNATTENDED - TURN POWER OFF.** Do not leave the tool until it comes to a full stop.
19. **DO NOT OPERATE THE TOOL IF USING DRUGS, ALCOHOL, OR MEDICATION.**
20. **DO NOT WORK IN HASTE** or operate machine if you are fatigued.
21. **IF THERE IS SOMETHING YOU DO NOT KNOW OR UNDERSTAND ABOUT THIS TOOL, DO NOT OPERATE IT!** Ask for help first. Confusion can lead to disaster.
22. **BAD HABITS ARE DANGEROUS.** Review all safety procedures often.

WARNING

These safety rules cannot cover every situation in a woodshop. Consider your conditions when setting up or operating your slow-speed grinder. Always think of safety first when operating this or any machinery.

III. UNPACKING

The Model G1036 Slow-Speed Grinder is shipped from the manufacturer in a carefully packed carton. If you discover the machine is damaged after you've signed for delivery, *please call Customer Service immediately 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.*

CAUTION

The shipping weight of the Model G1036 Slow-Speed Grinder is about 35 pounds. **DO NOT over-exert yourself while unpacking or moving the grinder. Use proper lifting techniques or injury could occur.**

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



IV. PIECE INVENTORY

After all the parts have been removed from the carton, you should have:

- Slow-Speed Grinder
- Eye Shield
- Eye Shield Bracket
- Phillips® Head Screws 6-32 x 3/8" (2)
- Hex Nuts 6-32 (2)
- Tool Rest For 4½" Grinding Wheel
- Knob
- Hex Nut 5/16"-18
- Tool Rest Assembly For 10" Wheel
- Hex Bolts 5/16"-18 x 1" (2)
- Flat Washers 5/16" (2)

NOTE

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



—V. SITE CONSIDERATIONS

1. **Working Clearances:** Consider existing and anticipated needs, size of material to be processed through the machine, and space for work tables or other machinery when establishing a location for your slow-speed grinder.

WARNING

This machine should be mounted to a stand or benchtop with the appropriate fasteners before using. Grinding can generate forces which might topple the machine if it is not securely affixed. Serious personal injury may occur.

CAUTION

Although the larger 10" wheel is designed specifically for slow rotation, there is still the possibility that blades and tools being sharpened on either wheel could be dislodged from your grasp. Be sure that satisfactory space is allocated between the Slow-Speed Grinder and areas where others are working. ALWAYS wear safety goggles and keep the Eye Guard and tool rests in proper position when grinding or sharpening.

2. **Lighting and Outlets:** Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle amperage requirements. Outlets should be located near each machine so power or extension cords are clear of high-traffic areas. Observe local electrical codes for proper installation of new lighting, outlets, or circuits.



— VI. ELECTRICAL ISSUES

The Model G1036 is wired for 110V, single phase operation; it cannot be operated on 220V. The $\frac{3}{4}$ H.P., 1720 R.P.M. motor draws 4.2 amps. This is not a large load. However, if you operate the grinder on a circuit that is already close to capacity, it could overload that circuit. If an unusual load does not exist and a power failure still occurs, have the circuit inspected by a qualified electrician.

This equipment must be grounded. Please ensure that the slow-speed grinder is continuously grounded from the motor to the machine frame and then to a known ground. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. If it is not, it will be necessary to run a separate 12 A.W.G. copper grounding wire from the outlet to a known ground. Under no circumstances should the grounding pin from any three-pronged plug be removed.

Extension Cords: If used, extension cords must be rated Hard Service (grade S) or better. Conductor size must be 14 A.W.G. for cords up to 50 feet in length. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

WARNING

Never operate this machine without proper grounding. Failure to do so could result in serious personal injury. DO NOT remove the grinder's grounding plug. If a grounded circuit is not available, run a 12 A.W.G. copper wire from the machine's motor and frame to a known ground.

Be sure that your particular electrical configuration complies with local and state codes. The best way to ensure compliance is to check with your local municipality or licensed electrician. If you are unsure of the quality or condition of the circuit you intend to use, DO NOT attempt to use the grinder until the circuit has been serviced.



VII. ASSEMBLY

A. EYE SHIELD

Attach the plastic eye shield to its mounting bracket using the 2 Phillips® Head screws and nuts provided, then attach the eye shield assembly to the outside wheel guard just above the cut-away. A knurled knob holds the eye shield in place. **Figure 1.**

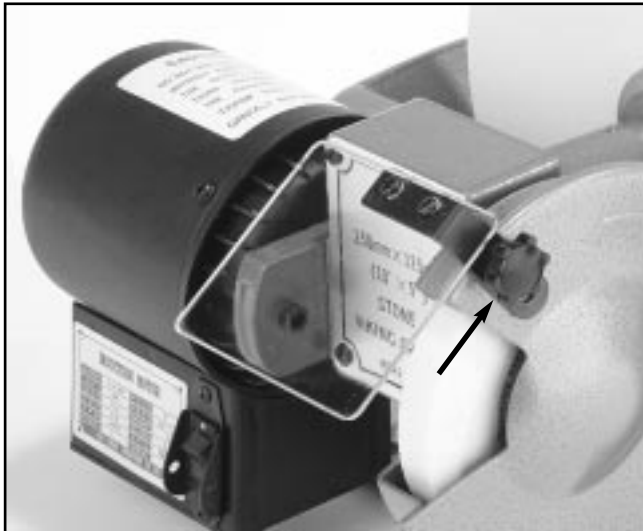


Figure 1. Knob to adjust eye shield.

B. TOOL RESTS

Attach the tool rest for the 4½" grinding stone to the inside wheel guard of the G1036, using the knob and Hex Nut supplied. **Figure 2.** The Hex Nut is placed between the knob and tool rest and acts as a jam nut, preventing the knob from vibrating loose.



Figure 2. Knob to adjust tool rest.

⚠ WARNING

The Model G1036 Slow-Speed Grinder's Eye Shield is included for your protection. Failure to attach the Eye Shield could result in serious personal injury to the operator or others in the work area.



The tool rest for the 10" stone is attached to the right end of the water reservoir. Bolt the tool rest in place using the 2 Hex Bolts, Nuts and Washers provided. **Figure 3.** The two lever-type handles are used to adjust the tool rest for the proper positioning relative to the wheel.

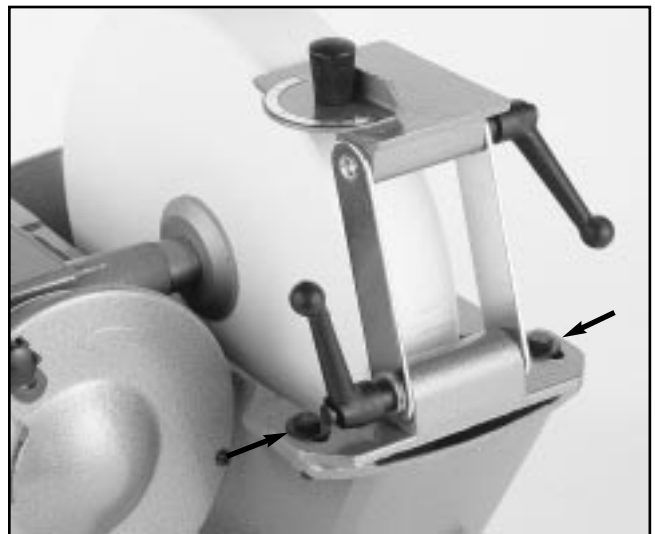


Figure 3. Bolts to mount tool rest.



VIII. OPERATIONS

A. SAFETY RULES

WARNING

This Slow-Speed Grinder was designed and built for professional-quality applications. Using this machine without proper respect and caution could result in serious injury. Before you begin using your Slow-Speed Grinder, please read and follow these safety precautions.

1. While operating this machine, do not wear jewelry, loose clothing, necklaces or neckties. Long sleeves on shirts should be rolled up or securely buttoned at the cuff.
2. Persons with beards and/or long hair should consider the use of a hat, hair net or similar protective equipment.
3. Always use face/eye protection when operating the slow-speed grinder. A full face shield will afford the best protection followed by safety glasses with side shields.
4. All adjustments or maintenance should be done with the power off and the slow-speed grinder unplugged.
5. Thoroughly clean the machine and surrounding area after use.
6. If you have questions about your slow-speed grinder, ask a professional or an experienced user.
7. The workpiece must be held securely in place.
8. Perform routine maintenance inspection and service.

Remember that every shop has its own specific hazards. Be sure, above all else, to use good common sense and reasonable caution each time you start this grinder, or any machinery. Develop a habit of safety.



B. TEST RUN

Once the assembly is complete you are ready to test the machine.

Press the START button. **Make sure that your finger is poised on the STOP button, just in case there's a problem.** The slow-speed grinder should run smoothly, with little or no vibration or rubbing noises. Strange or unnatural noises should be investigated and corrected before operating the machine further.

If noises occur that cannot be found by visual inspection, feel free to contact our service department for help.

WARNING

DO NOT attempt to investigate or adjust the machine while it is running. Wait until the machine is turned off, unplugged and all working parts have come to a rest before you do anything! Failure to do so could result in serious operator injury!

WARNING

Always wear ANSI-approved safety glasses or goggles when operating equipment — particularly when testing new tools or machinery. Do not allow visitors into your workshop when testing or operating equipment. Serious injury could occur if safety guidelines are not followed.



VIII. OPERATIONS (Continued)

C. GRINDING

The 4½" aluminum oxide wheel offers a 100-grit surface for general grinding operations. The 4½" wheel turns at 3450 RPM, making it possible to remove relatively large amounts of material.

⚠ CAUTION

The smaller wheel is capable of generating enough heat to ruin the temper of metal and make it brittle. Care should be taken to grind in short, light strokes. Prolonged contact between the wheel and your workpiece should be avoided. Dip the workpiece in water frequently to keep it cool as you grind it.

The 4½" wheel is best used to shape the cutting edges of your tools. Use the 4½" wheel to remove nicks and square edges before fine honing on the larger stone.



Figure 4. Proper grinding positioning.



D. SHARPENING

The 10" 220-grit aluminum oxide wheel is used for creating a finished edge on your tool's cutting surface. The wheel turns at 70 RPM, allowing you to hone fine edges on your tools without overheating. The wheel sits in a water bath, which cools, cleans and lubricates as the wheel turns.

Fill the tank reservoir up to approximately 80% full when wet grinding. Do not leave the 10" wheel immersed in water for long periods of time if the grinder is not in use. See Water Reservoir section under the Maintenance heading.

The large stone features a fully adjustable tool table which allows you to customize your grinding angle to fit your specific needs. Loosen the lock handles and position the table to match the bevel of the tool you are sharpening. **Figure 5.**

An adjustable angle gauge on the tool table allows you to match the cutting of compound bevels, such as those on skew chisels, with the 10" stone. Loosen the knob and turn the angle gauge to match your compound bevel. Once the gauge matches the desired angle, tighten the knob.



Figure 5. Proper sharpening position.



⚠ WARNING

Do not make adjustments while the machine is running. Turn off the machine and allow all moving parts to come to a complete stop before attempting to make adjustments to the eye shield or either of the tool rests. Serious personal injury could occur.

IX. MAINTENANCE

A. GENERAL

Make a habit of inspecting your Slow-Speed Grinder each time you use it. Check for the following conditions and repair or replace when necessary.

1. Loose bolts.
2. Worn switch.
3. Worn or damaged cords and plugs.
4. Any other condition that could hamper the safe operation of this machine.

⚠ CAUTION

To ensure the safest and most satisfactory work results, it is important that you develop a habit of inspecting your Model G1036 Slow-Speed Grinder each time you use it.

Regular inspection of wheel bearing condition, wheel condition, electrical cords, switches, bolt tightness, and other essential components of fitness will provide your grinder with the longest possible working life.

Failure to maintain a regular maintenance routine could result in machine failure, poor grinding and sharpening results and possible operator injury.



B. OIL FEEDER

Apply a light machine oil to the oil feeder after every six hours of operation. **Figure 6.**

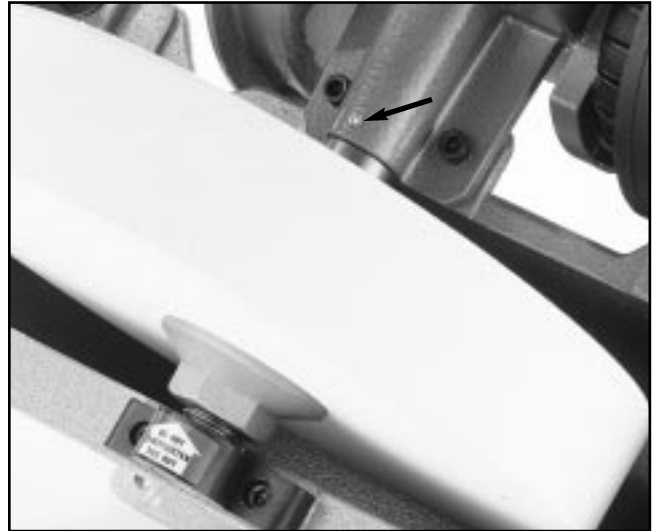


Figure 6. Oil Feeder check ball.

⚠ WARNING

DO NOT make inspections or adjustments while the Slow-Speed Grinder is running. Ensure that the switch is off, power is disconnected and moving parts have stopped before making adjustments. Failure to do so could result in serious injury.



IX. MAINTENANCE (Continued)

C. GEAR BOX

The gear box contains the worm-and-pinion gear that transmits power to both the 4½" and 10" wheels. The gears should be lubricated with a light gear grease after every 300 hours of use. Inspect the gears for wear or damage during each lubrication. To lubricate:

1. Remove gearbox cover. **Figure 7.**
2. Apply a light coating of grease to the gears.
3. Re-attach cover.

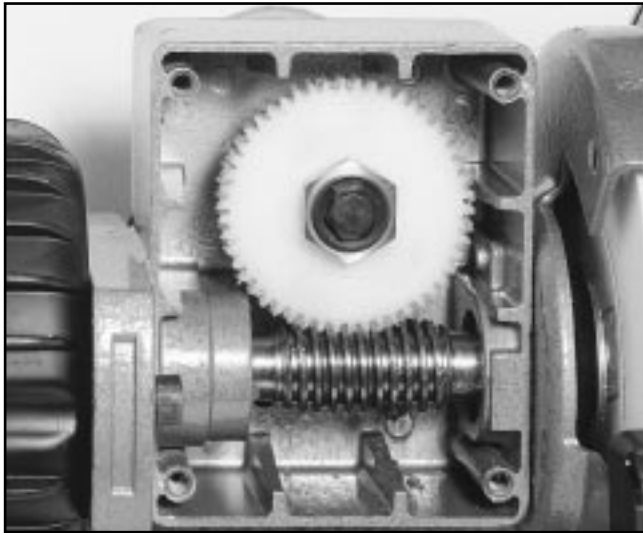


Figure 7. Gear Box cover removed.

⚠ CAUTION

The motor of the Slow-Speed Grinder operates at high speeds. **DO NOT** attempt to inspect or lubricate the gears while the machine is running. Turn off the machine and disconnect it from its power source before servicing. Failure to do so could result in serious personal injury.



D. WATER RESERVOIR

A constant supply of water is essential for optimum 10" wheel performance. Change the water

in the reservoir once a week to avoid clogging the aluminum oxide wheel. A drain plug at the bottom of the reservoir can be removed to flush out the reservoir and remove sediment. **Figure 8.**

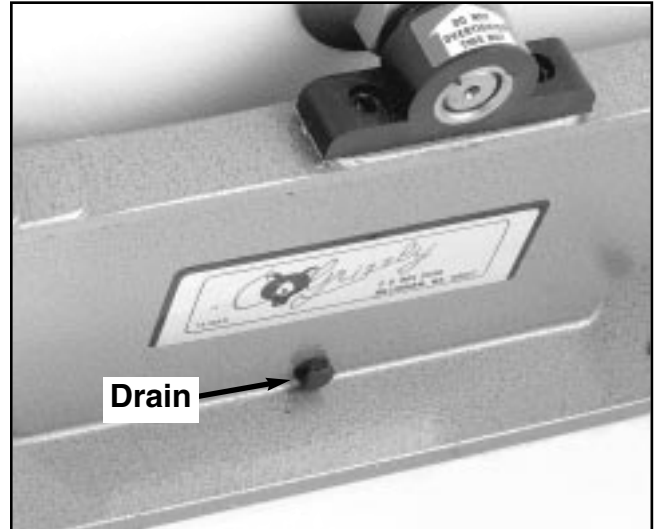


Figure 8. Drain plug on reservoir.

⚠ CAUTION

DO NOT attempt to use the 10" grinding wheel without filling the reservoir with water. Overheating caused by lack of lubrication could damage the grinding wheel, as well as the tool or blade you are grinding. Ensure that the reservoir is filled with clean water. Sediment-filled water can clog the wheel and lessen the grinder's ability to work effectively.

⚠ WARNING

DO NOT allow the grinding wheel to stay immersed in water for long periods of time without running. The water can cause the wheel to become waterlogged and unbalanced and may cause sections of the wheel to break off when the wheel is started. Always drain the reservoir when the grinder will not be used. Serious personal injury may occur.



IX. MAINTENANCE (Continued)

E. CHANGING STONES

The 4½" and 10" stones can both be removed for re-surfacing or replacement. To change the 4½" stone:

1. Remove the eye shield and the outside wheel guard.
2. Turn the shaft nut counterclockwise while holding the stone. **Figure 9.**
3. Remove the nut, washer and stone.
4. To install a new stone, reverse the above procedure.



Figure 9. Changing the small wheel.

!WARNING

DO NOT make inspections or adjustments while the Slow-Speed Grinder is running. Ensure that the switch is off, power is disconnected and moving parts have stopped before making adjustments. Failure to do so could result in serious injury.

To change the 10" stone:

1. Remove the four cap screws which secure the shaft to the reservoir. **Figure 10.**
2. Slide the outer bearing off the shaft.
3. Loosen the nut and turn it counterclockwise to remove it.
4. Slide the stone off the shaft.
5. Reverse the procedure to install a new stone.

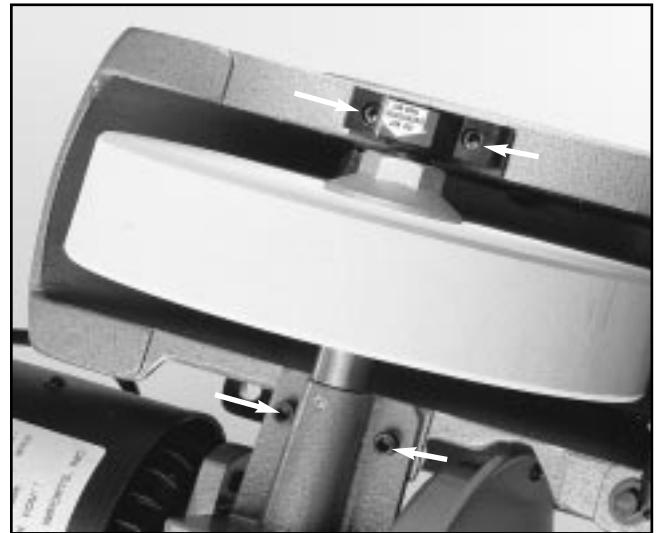


Figure 10. Changing the large wheel.

!CAUTION

The 10" grinding stone is quite heavy. Use care when removing it from the grinder.



X. CLOSURE

The following pages contain general machine data, parts diagram, parts list and Warranty/Return information for your Model G1036 Slow-Speed Grinder.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call the appropriate regional Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to our Bellingham, Washington location using the address in the Introduction. The specifications, drawings, and photographs illustrated in this manual represent the Model G1036 as supplied when the manual was prepared. However, due to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, Grizzly reminds you that each workshop is different and safety rules should be considered *as they apply to your specific situation*.

NOTE

Do not modify and/or use this SLOW-SPEED GRINDER for any other purpose other than those for which it was designed. Modifications or improper use of this tool could result in serious personal injury and property damage and will void the warranty.

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the appropriate regional Service Department listed in the introduction.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines, and your local library are good places to start.

WARNING

As with all power tools, there is danger associated with the Model G1036 Slow-Speed Grinder. Use the tool with respect and caution to lessen the possibility of operator injury or mechanical damage. If normal safety precautions are overlooked or ignored, serious personal injury is possible.

WARNING

The Model G1036 was specifically designed for grinding/sharpening operations. If you are confused about any aspect of this machine, DO NOT use it until you have answered all your questions.



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. We hope to serve you again soon.

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