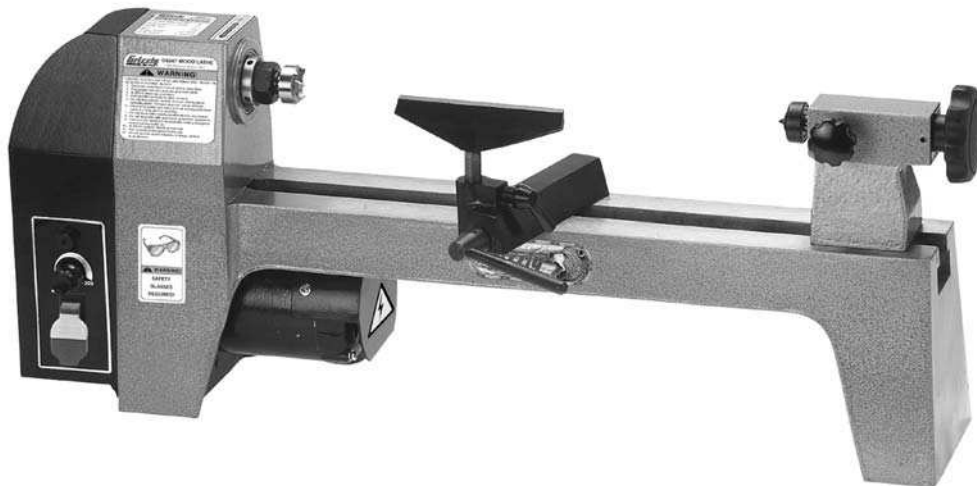


# *Grizzly* **Industrial, Inc.** ®

## **MINI WOOD LATHE MODEL G9247 INSTRUCTION MANUAL**



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1821 VALENCIA ST., BELLINGHAM, WA 98227

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

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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 chemical 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.**

# GENERAL SAFETY RULES

## WARNING

### For Your Own Safety Read Instruction Manual Before Operating This Equipment

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.



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 equipment.

## WARNING

### Safety Instructions For Power Tools

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.
5. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
6. **MAKE WORK SHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

# WARNING

## Safety Instructions For Power Tools

**9. USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

AMP RATING	LENGTH		
	25ft	50ft	100ft
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No

**10. WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

**11. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

**12. SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.

**13. DON'T OVERREACH.** Keep proper footing and balance at all times.

**14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

**15. DISCONNECT TOOLS** before servicing and changing accessories, such as blades, bits, cutters, and the like.

**16. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.

**17. USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.

**18. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

**19. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

## **WARNING**

# Additional Safety Instructions For Lathes

1. **MAKE SURE ALL GUARDS** are in place and that the Lathe sits on a flat, stable surface.
2. **ALWAYS WEAR EYE PROTECTION** or a face shield when operating the Lathe. Use a respirator to avoid inhaling dust. All safety equipment should be ANSI approved.
3. **BEFORE STARTING THE MACHINE** be certain the workpiece has been properly imbedded on the headstock and tailstock centers and that there is adequate clearance for the full rotation.
4. **ADJUST TOOL REST** to provide proper support for the turning tool you will be using. Test tool rest clearance by rotating workpiece by hand before turning lathe on.
5. **SELECT THE TURNING SPEED** which is appropriate for the type of work. Allow the lathe to gain its full speed before beginning turning.
6. **ALWAYS OBSERVE THE CONDITION** of the materials you are turning. Pay particular attention to knots, splits and other potentially dangerous conditions.
7. **WHEN FACE PLATE TURNING**, use lathe chisels on the downward spinning side of the workpiece only.
8. **NEVER OPERATE THE LATHE WITH DAMAGED OR WORN PARTS.** Maintain your lathe in proper working condition. Perform routine inspections and maintenance promptly when called for. Put away adjustment tools after use.
9. **MAKE SURE YOUR WOOD LATHE IS TURNED OFF**, disconnected from its power source and all moving parts have come to a complete stop before starting any inspection, adjustment, or maintenance procedure.
10. **DO NOT LEAVE LATHE RUNNING UNATTENDED** for any reason.
11. **DO NOT STOP LATHE USING YOUR HAND** against the workpiece.
12. **KEEP LOOSE CLOTHING ARTICLES** such as sleeves, belts or jewelry items away from the lathe spindle.
13. **REMOVE THE TOOL REST** when performing sanding or polishing operations on the rotating spindle.
14. **KEEP LATHE TOOLS PROPERLY SHARPENED** and hold firmly in the proper position when turning.

## **WARNING**

Operating this equipment has the potential to propel debris into the air which can cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

## **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.

## CAUTION

To operate this, or any power tool, safely and efficiently, it is essential to become as familiar with its characteristics as possible. The time you invest before you begin to use your Model G9247 will be time well spent. **DO NOT** operate this machine until you are completely familiar with the contents of this manual. Make sure you read and understand all of the safety procedures. If you do not understand something, **DO NOT** operate the machine.

### OPERATING TIPS

1. Make sure cutting tools are sharp and clean for best tool performance and safe operation.
2. To avoid accidental starts, make sure the Speed Control knob is set at “0” before plugging in the electrical power cord.
3. If any part of the Mini Wood Lathe becomes damaged during use, turn off the power immediately. Do not proceed with using the lathe until the problem area has been investigated and corrected.
4. Never leave the working area until the lathe has been turned off and the spindle has come to a complete stop.
5. Once a workpiece has been clamped onto the lathe, always rotate the workpiece by hand and check for proper tool rest clearance before turning on the electrical power.
6. When turning a workpiece, always rough the wood to round form at a low speed to reduce the risk of workpiece kickback.
7. Always position the Tool Rest above the centerline of the workpiece when shaping a piece of stock.
8. Note the Directional Arrow label (#25). Do not operate the Mini Wood Lathe if the Spindle is rotating in the wrong direction.
9. Remove all loose knots in the stock before it is mounted on to the lathe.
10. Always keep a firm hold on and maintain control of the cutting tool.
11. If you are uncertain about the optimal speed, it is better to start with the slowest RPM and increase your speed as your comfort with the tool and the work piece increases.
12. Never force the tool or attachment to do the work of a larger industrial tool. It is designed to do the job better and more safely at the rate for which it was intended.

### REMOVING THE SPUR AND CUP CENTERS

1. Insert a pin into the Spindle (#28) hole and turn the hex nut counterclockwise with a wrench until the Spur Center (#30) is ejected.
2. Turn the Hand Wheel (#63) counterclockwise until the Cup Center (#46) can be removed.

## CONTROL PANEL OPERATION

The Control Panel consists of ON/OFF buttons, fuse access, and a Variable Speed Knob (#20). To turn the lathe on, push up on the Red button. To turn the lathe off, Press down the Red button. The Variable Speed Knob can be adjusted from 0 to 4500 RPM. To access the fuse, use a Phillips head screwdriver to remove the fuse cover.

## TURNING BETWEEN CENTERS

1. It is suggested that you start with a small work piece for practicing wood lathe operation. Select a 2" x 2" piece of wood (8" long). Draw diagonal lines on each end to locate the center. Place the center point of one end of the wood on the Cup Center (#46). Place a piece of wood on the end of the Cup Center for protection, and using a wooden mallet, drive the Cup Center into the wood. Remove the Cup Center and drive the Spur Center (#30) into the other end of the workpiece. Remove the Spur Center.
2. Insert the Spur Center into the Headstock Casting (#26), and the Cup Center into the Tailstock Casting (#59), and tap them lightly with a piece of wood. Place your workpiece between the Spur Center and the Cup Center, and lock the Tailstock.
3. Move the Cup Center into the workpiece by turning the Head Wheel (#63). Make sure that the Spur Center and the Cup Center are holding the workpiece in the end center points marked above.
4. Adjust the Tool Rest (#40) so that the top of the Tool Rest is  $\frac{1}{8}$ " away from the corners of the workpiece and  $\frac{1}{8}$ " above the centerline of the workpiece. Rotate the workpiece by hand to make sure no portion of the workpiece touches the Tool Rest.
5. Before turning on the Mini Wood Lathe, put the Speed Control Knob in position "0". Turn the Red button to start the lathe and slowly rotate the Speed Control Knob clockwise to increase the Spindle speed. If you are uncertain about the optimal spindle speed, it is better to start with the slowest RPM and increase the speed as your comfort with the lathe and the workpiece increases.
6. Positioning the Tool Rest for cutting:  
When cutting, the object is to pierce the outer skin of the workpiece to a certain designed depth, then hold the cutting tool steady with the beveled edge parallel to the work circumference. In this manner, the cutting tool will shove the workpiece at the desired depth. The best way to hold the cutting tool steady is to rest it on the Tool Rest. The Tool Rest will act as a fulcrum point to support the cutting tool against the downward force of the revolving workpiece.

### **WARNING**

**Operation of this equipment has the potential to propel debris into the air which can cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).**

A Tool Rest which is placed too low will result in the cutting edge continuing to dig deeper into the workpiece, result in a “bite” so deep that the cutting tool will begin to bounce and chatter and become very difficult to hold safely.

If the Tool Rest is placed too high and the cutting tool hits the workpiece near to top (where the direction of force exerted by the workpiece is nearly horizontal), a strong and dangerous kickback will occur.

If the Tool Rest is placed too far away from the workpiece, the cutting tool will again hit too high on the workpiece. Leverage will be reduced and it will be very difficult to safely hold the cutting tool. As a general rule, with small diameter workpiece the Tool Rest should be positioned very close to the workpiece ( $\frac{1}{8}$ ").

## **FACEPLATE TURNING**

Faceplate turning is primarily used in the making of bowls and in working with other bowl shaped or similar items. Initially, make certain that you have removed as much waste material from the inside and the outside of the work piece by using hand tools. The workpiece is to be held to the Faceplate (#31) with wood screws (sold separately). Use screws that will drive about half-way through the bottom of the workpiece.

Position the Tool Rest so that you can shape the outside of the workpiece as desired. Once outside work has been completed, the Tool Rest can be moved and adjusted (make certain the lathe is OFF and unplugged), so that it is opposite the face of the workpiece. From this position, the inside of the workpiece can be hollowed out.

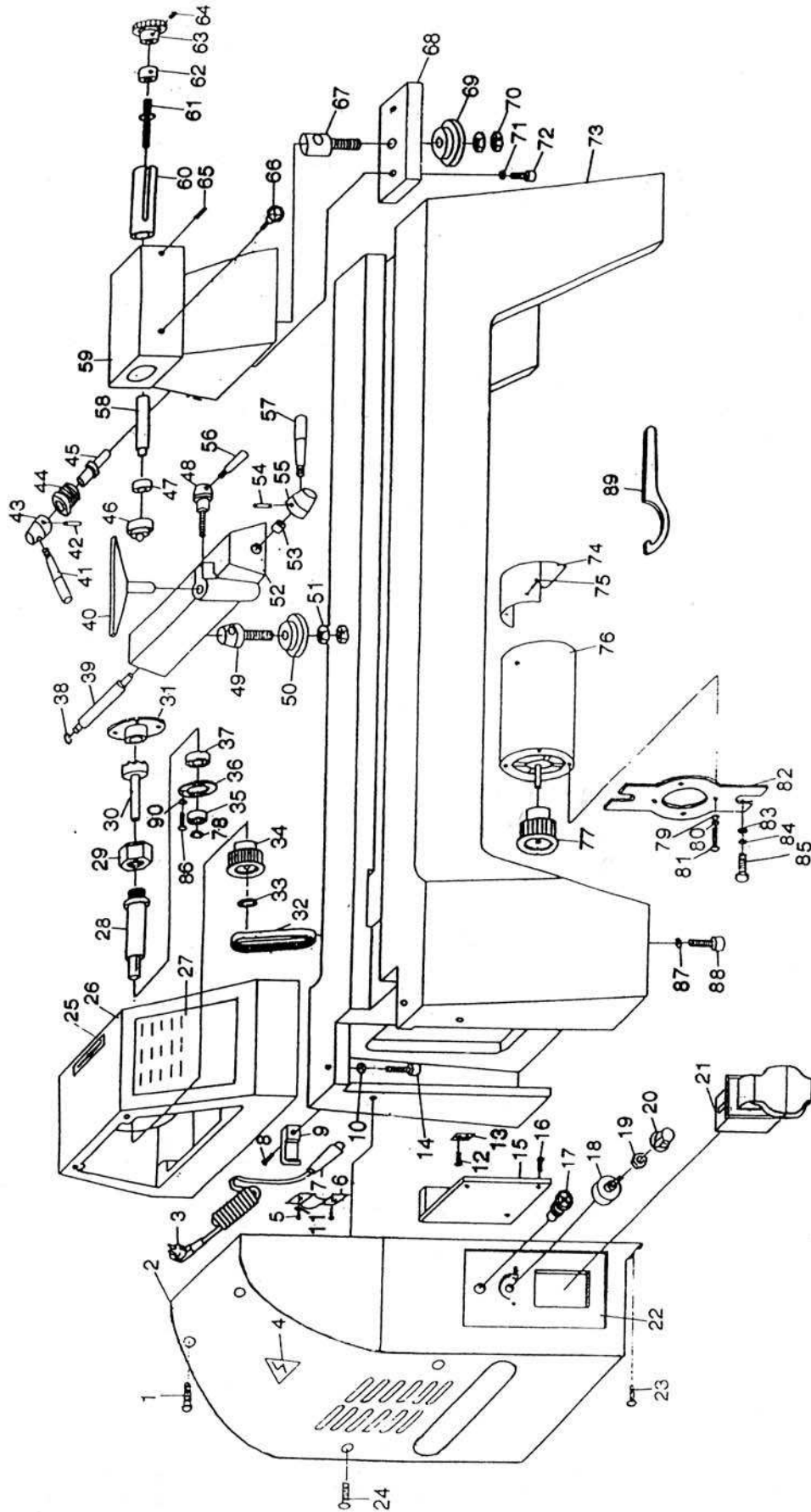
**WARNING:** Before performing any lathe operation, make sure that the workpiece is tightly secured between the Spur Center/Faceplate and Cup Center. Always check and tighten Handle Rods and the Hand Wheel for safe operation.

## **MAINTENANCE**

After each use the Mini Wood Lathe should be thoroughly cleaned. Keep the lathe dry at all times.

Occasionally, moving parts should be lubricated with a good quality machine oil.





## LIST OF PARTS

No	Name/Specification	Quantity	No	Name/Specification	Quantity
1	Screw M5*20	2	26	Headstock Casting	1
2	Cover	1	27	Name Plate	1
3	Power Cord	1	28	Spindle	1
4	Electrical Mark	1	29	Hexagon Nut 3/4"-16	1
5	Screw M5*10	2	30	Spur Center	1
6	Press Plate	1	31	Faceplate 2"	1
7	Rubber Sheath	1	32	Timing Belt	1
8	Screw M5*12	1	33	External Retaining Ring 12	1
9	Cable Clamp	1	34	Spindle Pulley	1
10	Spring Lock Washer 6	2	35	Ball Bearing 80202	1
11	Spring Lock Washer 5	2	36	Bearing Cover	1
12	Screw M5*12	1	37	Ball Bearing 80204	1
13	Grounding Mark	1	38	External Retaining Ring 8	1
14	Hexagon Head Screw M6*20	2	39	Eccentric Shift	1
15	Electronic Circuit	1	40	Tool Rest	1
16	Drillself Screw M3*10	3	41	Handle	1
17	Fuse	1	42	Pin 4	1
18	Potential Device	1	43	Handle Base	1
19	Nut	1	44	Cam Retaining Nut	1
20	Turning Knob	1	45	Cam Shift	1
21	Power Switch	1	46	Cup Center	1
22	Control Label	1	47	Ball Bearing 80028	1
23	Screw M5*12	2	48	Tool Rest Screw	1
24	Screw M5*20	2	49	Screw	1
25	Direction Label	1	50	Washer	1

## LIST OF PARTS

No	Name/Specification	Quantity	No	Name/Specification	Quantity
51	Nut M8	2	76	Motor	1
52	Tool Rest Holder	1	77	Motor Pulley	1
53	Bush	1	78	External Retaining Ring 15	1
54	Pin 4	1	79	Washer 4	4
55	Handle Base	1	80	Spring Lock Washer 4	4
56	Handle	1	81	Screw M4*35	4
57	Handle	1	82	Fixing Plate	1
58	Taper Shift	1	83	Washer 6	2
59	Tailstock Casting	1	84	Spring Lock Washer 6	2
60	Taper Case	1	85	Hexagon Head Screw M6*12	2
61	Guide Screw	1	86	Screw M6*25	3
62	Cicle	1	87	Spring Lock Washer 6	2
63	Hand Wheel	1	88	Hexagon Head Screw M6*45	1
64	Socket Set Screw M6*8	1	89	Special Wrench	1
65	Socket Set Screw M6*8	1	90	Spring Lock Washer 6	3
66	Star Knob	1			
67	Cam Follower	1			
68	Guide Plate	1			
69	Washer	1			
70	Nut M8	2			
71	Spring Lock Washer 6	2			
72	Hexagon Head Screw M6*16	2			
73	Bed Casting	1			
74	Motor Cover	1			
75	Screw M5*8	2			

# WARRANTY AND RETURNS

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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

Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone Number \_\_\_\_\_ E-Mail \_\_\_\_\_ FAX \_\_\_\_\_  
MODEL # G9247 Mini Wood Lathe Order # \_\_\_\_\_

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  
 World Wide Web  
 Other \_\_\_\_\_

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

American Woodworker  Practical Homeowner  
 Cabinetmaker  Shop Notes  
 Family Handyman  Today's Homeowner  
 Fine Homebuilding  WOOD  
 Fine Woodworking  Wooden Boat  
 Home Handyman  Woodshop News  
 Journal of Light Construction  Woodsmith  
 Old House Journal  Woodwork  
 Popular Mechanics  Woodworker  
 Popular Science  Woodworker's Journal  
 Popular Woodworking  Workbench  
 Other \_\_\_\_\_

3. Which of the following woodworking/remodeling shows do you watch?

Backyard America  The New Yankee Workshop  
 Home Time  This Old House  
 The American Woodworker  Woodwright's Shop  
 Other \_\_\_\_\_

4. What is your annual household income?

\$20,000-\$29,999  \$60,000-\$69,999  
 \$30,000-\$39,999  \$70,000-\$79,999  
 \$40,000-\$49,999  \$80,000-\$89,999  
 \$50,000-\$59,999  \$90,000 +

5. What is your age group?

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

6. How long have you been a woodworker?

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

7. How would you rank your woodworking skills?

Simple  Advanced  
 Intermediate  Master Craftsman

8. What stationary woodworking tools do you own? Check all that apply.

Air Compressor  Panel Saw  
 Band Saw  Planer  
 Drill Press  Power Feeder  
 Drum Sander  Radial Arm Saw  
 Dust Collector  Shaper  
 Horizontal Boring Machine  Spindle Sander  
 Jointer  Table Saw  
 Lathe  Vacuum Veneer Press  
 Mortiser  Wide Belt Sander  
 Other \_\_\_\_\_

9. How many of your woodworking machines are Grizzly? \_\_\_\_\_

10. Which benchtop tools do you own? Check all that apply.

1" x 42" Belt Sander  6" - 8" Grinder  
 5" - 8" Drill Press  Mini Lathe  
 8" Table Saw  10" - 12" Thickness Planer  
 8" - 10" Bandsaw  Scroll Saw  
 Disc/Belt Sander  Spindle/Belt Sander  
 Mini Jointer  
 Other \_\_\_\_\_

11. How many of the machines checked above are Grizzly? \_\_\_\_\_

12. Which portable/hand held power tools do you own? Check all that apply.

Belt Sander  Orbital Sander  
 Biscuit Joiner  Palm Sander  
 Circular Saw  Portable Planer  
 Detail Sander  Saber Saw  
 Drill/Driver  Reciprocating Saw  
 Miter Saw  Router  
 Other \_\_\_\_\_

13. What machines/supplies would you like Grizzly Industrial to carry?

12" Table Saw  Radial Arm Saw  
 12" Jointer  Panel Saw  
 Combination Planer/Jointer  Brass Hardware  
 Paint & Finishing Supplies  Lumber  
 Contractor's Supplies  
 Other \_\_\_\_\_

14. What new accessories would you like Grizzly Industrial to carry?

Builders Hardware  Hand Tools  
 Fasteners  Wood Components  
 Other \_\_\_\_\_

15. What other companies do you purchase your tools and supplies from?  
\_\_\_\_\_  
\_\_\_\_\_

16. Do you think your purchase represents good value?

Yes  No

17. Would you recommend Grizzly Imports to a friend?

Yes  No

18. Would you allow us to use your name as a reference for Grizzly customers in your area? **Note: We never use names more than three times.**

Yes  No

19. Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Place  
Stamp  
Here



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



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name _____
Street _____
City _____ State _____ Zip _____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE