



MINI GRINDER

MODEL H3117

INSTRUCTION MANUAL



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1821 VALENCIA ST., BELLINGHAM, WA 98227

**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**

PRINTED IN CHINA

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.


SAFETY


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.

 **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 equipment.

WARNING **Safety Instructions**

- KEEP ALL SAFETY DEVICES IN PLACE** and in working order.
- REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from winch before operation.
- KEEP CHILDREN AWAY.** All children should be kept at a safe distance from winch.
- DO NOT USE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.**
- NEVER ALLOW UNTRAINED USERS TO RUN THIS TOOL WHILE UNSUPERVISED.**
- 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.
- 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.
- IF YOU ARE UNSURE OF THE INTENDED OPERATION, STOP USING THE TOOL.**

WARNING

Safety Instructions For Power Tools

- 9. USE PROPER EXTENSION CORD** for the tool. 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.
- 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.

Minimum Gauge for Extension Cords

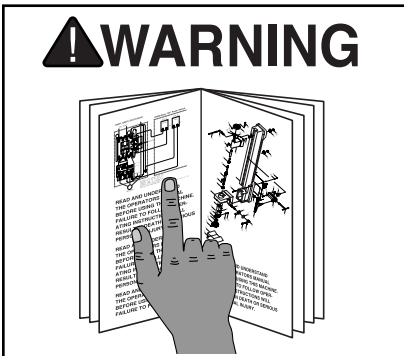
AMP RATING	LENGTH		
	25ft	50ft	100ft
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No

WARNING

No list of safety guidelines can be complete. Operating this tool may require additional safety precautions specific to your working environment. Failure to use reasonable caution while operating this tool could result in serious personal injury.

INTRODUCTION

Commentary



Lack of familiarity with this manual could cause serious personal injury. Spend a sufficient amount of time becoming familiar the contents of this manual, including all the safety warnings.

We are proud to offer the Grizzly Model H3117 Mini Grinder. This model is part of a growing Grizzly family of fine tools. 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 H3117 features a 1/8" collet, a collet lock, a collet wrench, removable electric motor brushes, a variable speed dial, and a wide assortment of bits.

We are pleased to provide this manual with the Model H3117. It was written to encourage safety considerations and guide you through general operating procedures and maintenance. This manual represents our effort to produce the best documentation possible.

The specifications, details, and photographs in this manual represent the Model H3117 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. 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

Most importantly, we stand behind our tools. 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>

OPERATION

About Your New Grinder

The Grizzly Model H3117 is a variable speed, rotary-style tool capable of speeds from 0-30,000 RPM. It is capable of a wide range of grinding, cutting, polishing, drilling, engraving, and cut-off operations.

Please take the time to become familiar with this instruction manual. The information contained will allow you to get the maximum enjoyment and use from your new tool.

Installing Bits

The Model H3117 can use most bits and cutters that have a $\frac{1}{8}$ " diameter shaft. See the Grizzly catalog or website for a complete listing of available bits and accessories.

WARNING

DO NOT use bits or cutters with a cutting surface larger than 1" in diameter. The bit could break apart under the stresses of high speed use causing serious personal injury.

To install a bit:

1. **Unplug the tool from the power source!**
2. Depress the Collet Lock. The Collet Lock is a small black button near the ip of the Grinder. *Initially the Collet Lock may not depress when pushed; however, continue to apply and hold pressure on the Collet Lock.*
3. While applying pressure to the Collet Lock, use your other hand to rotate the Collet Nut and loosen it. At some point through the rotation the Collet Lock will engage, preventing further rotation of the Collet Nut.
4. With the Collet Lock engaged, the Collet Nut should easily loosen and unthread by hand. *DO NOT completely remove the Collet Nut from the shaft.*
5. Insert the end of a bit into the Collet. At least $\frac{1}{2}$ " of the bit shaft should be mounted into the end of the Collet.
6. While depressing the Collet Lock, rotate the Collet Nut to secure the bit. *Only hand tighten the bit. Excessive tightening with the Collet Wrench is not necessary.*

Before Start Up

1. Be sure the bit and the Collet Nut are secure on the grinder shaft.
2. Wear safety glasses and a dust mask when operating the grinder.
3. Turn the Power Switch to the OFF "—" position.
4. Plug the grinder into the power source.

Using The Grinder

WARNING

Failure to wear safety glasses while operating the grinder could cause serious personal eye injury.

The Model H3117 is best suited for high RPM, low torque applications. Most operations performed with the grinder will perform best at the higher RPM settings; however, slower RPM settings are ideal when working with plastics that melt easily.

Always test the bit and RPM combination on a scrap piece of material similar to the workpiece. Trial and error is the best way to determine the ideal setup.

To use the grinder:

1. Grasp the grinder with a secure grip.
2. Turn the Power Switch to the ON "O" position.
3. Adjust the Speed Dial to change the RPM. "1" is the lowest RPM and "Max" is the highest RPM. *The best speed for each job can vary.*

High RPM Uses

Higher RPM settings are best for general carving, cutting, routing, and grinding. The grinder will perform more work at faster RPM settings.

Low RPM Uses

Lower RPM settings are best for grinding and cutting materials that have low melting points. Plastics in particular will often melt from the extreme heat generated by high speed bits.

WARNING

Use low RPM settings when working with plastics or other materials with low melting points. Melted plastics can liquefy, be thrown into the air, and stick to the operator, causing serious personal injury.

Low RPM settings are also ideal for polishing and buffing with the felt accessories included.

MAINTENANCE

Unplug the grinder from the power source before performing any maintenance!

Carbon Brushes

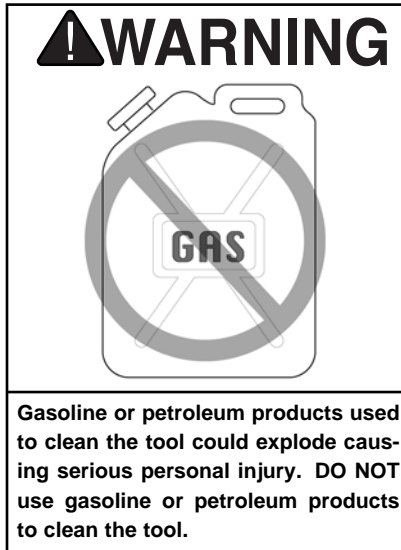
The Model H3117 has a brush-type electric motor. Periodically remove and inspect the 2 carbon brushes under the Brush Covers. New brushes have a grey-copper color. If the brushes are pitted, cracked, or are black colored, replace them.

Cleaning The Grinder

While wearing safety glasses, periodically clean the grinder with compressed air. DO NOT use flammable products to clean the grinder.

Repairs

The Model H3117 is an insulated and UL® listed tool which should only be repaired by a qualified technician. DO NOT attempt to open the tool housing or perform any electrical repair. Contact our Customer Service Department if the tool stops working or malfunctions.



PARTS



REF	PART #	DESCRIPTION
01	PH3117001	GRINDER ASSEMBLY
02	PH3117002	COLLET NUT
03	PH3117003	COLLET
04	PH3117004	MOTOR BRUSH (2)
05	PH3117005	BRUSH COVER (2)
06	PH3117006	NOSE
07	PH3117007	COLLET WRENCH
08	PH3117008	BIT ACCESSORY KIT
09	PH3117009	CARRYING CASE

NOTES

NOTES

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 Authorization 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.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
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E-Mail:
techsupport@grizzly.com

Web Site: <http://www.grizzly.com>

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 # _____ Serial # _____

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

1. How did you learn about us?
 Advertisement Friend
 Catalog Card Deck
 World Wide Web
 Other _____
2. 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 +
3. What is your age group?
 20-29 50-59
 30-39 60-69
 40-49 70 +
4. How long have you been a woodworker?
 0 - 2 Years 8 - 20 Years
 2 - 8 Years 20+ Years
5. How would you rank your woodworking skills?
 Simple Advanced
 Intermediate Master Craftsman
6. 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
 Spindle Sander Jointer
 Table Saw Lathe
 Mortiser Wide Belt Sander
 Horiz.Boring Machine
 Vacuum Veneer Press
 Other _____
7. How many of your woodworking machines are Grizzly? _____
8. Which benchtop tools do you own? Check all that apply.
 1"x42" Belt Sander 6" - 8" Grinder
 5" - 8" Drill Press Mini Lathe
 8" Table Saw 8" - 10" Bandsaw
 Scroll Saw Disc/Belt Sander
 Spindle/Belt Sander Mini Jointer
 10"-12"Thickness Planer
 Other _____
9. How many of the machines checked above are Grizzly? _____
10. 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 _____
11. What machines/supplies would you like Grizzly Industrial to carry?

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

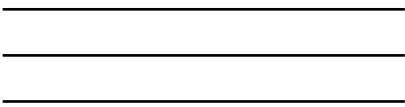
13. What other companies do you purchase your tools and supplies from?

14. Do you think your purchase represents good value?
 Yes No
15. Would you recommend Grizzly to a friend?
 Yes No
16. 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
17. Comments: _____

Send a Grizzly Catalog to a friend:

Name _____
Street _____
City _____ State _____ Zip _____

FOLD ALONG DOTTED LINE



Place
Stamp
Here



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



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