

Grizzly *Industrial, Inc.*®

MODEL H3140 1" x 30" BELT SANDER OWNER'S MANUAL (FOR MACHINES MANUFACTURED AFTER 6/02)



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**
#JB11475 PRINTED IN CHINA

 **WARNING!**

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

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

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

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

 **WARNING!**

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

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

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

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INTRODUCTION

Manual Accuracy

We are proud to offer this manual with your new machine! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the machine we used when writing this manual. However, sometimes errors do happen and we apologize for them.

Also, owing to our policy of continuous improvement, **your machine may not exactly match the manual**. If you find this to be the case, and the difference between the manual and machine leaves you in doubt, check our website for the latest manual update or call technical support for help.

Before calling, find the manufacture date of your machine by looking at the date stamped into the machine ID label (see below). This will help us determine if the manual version you received matches the manufacture date of your machine.

		MODEL GXXXX MACHINE NAME	
SPECIFICATIONS		▲ WARNING!	
Motor:		Manufacture Date of Your Machine	
Specification:			
Specification:			
Specification:			
Weight:			
	Date	ing this machine: operation. is and respirator. sted/setup and suit before starting.	
	Serial Number	4. make sure the motor has stopped and disconnect power before adjustments, maintenance, or service. 5. DO NOT expose to rain or dampness. 6. DO NOT modify this machine in any way. 7. DO NOT remove safety guards. 8. Never leave machine running unattended. 9. DO NOT operate under the influence of drugs or alcohol. 10. Maintain machine carefully to prevent accidents.	
Manufactured for Grizzly in Taiwan			

For your convenience, we post all available manuals and manual updates for free on our website at www.grizzly.com. Any updates to your model of machine will be reflected in these documents as soon as they are complete.

Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, 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

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

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Machine Description

The Model H3140 1" x 30" Belt Sander provides a moving abrasive surface that can be used to shape and contour small workpieces. By tilting the adjustable table, sanding operations can be performed on miter-cut, or other angled workpieces.

The belt is easily changed, allowing for the use of sanding belts of different grits.



Identification

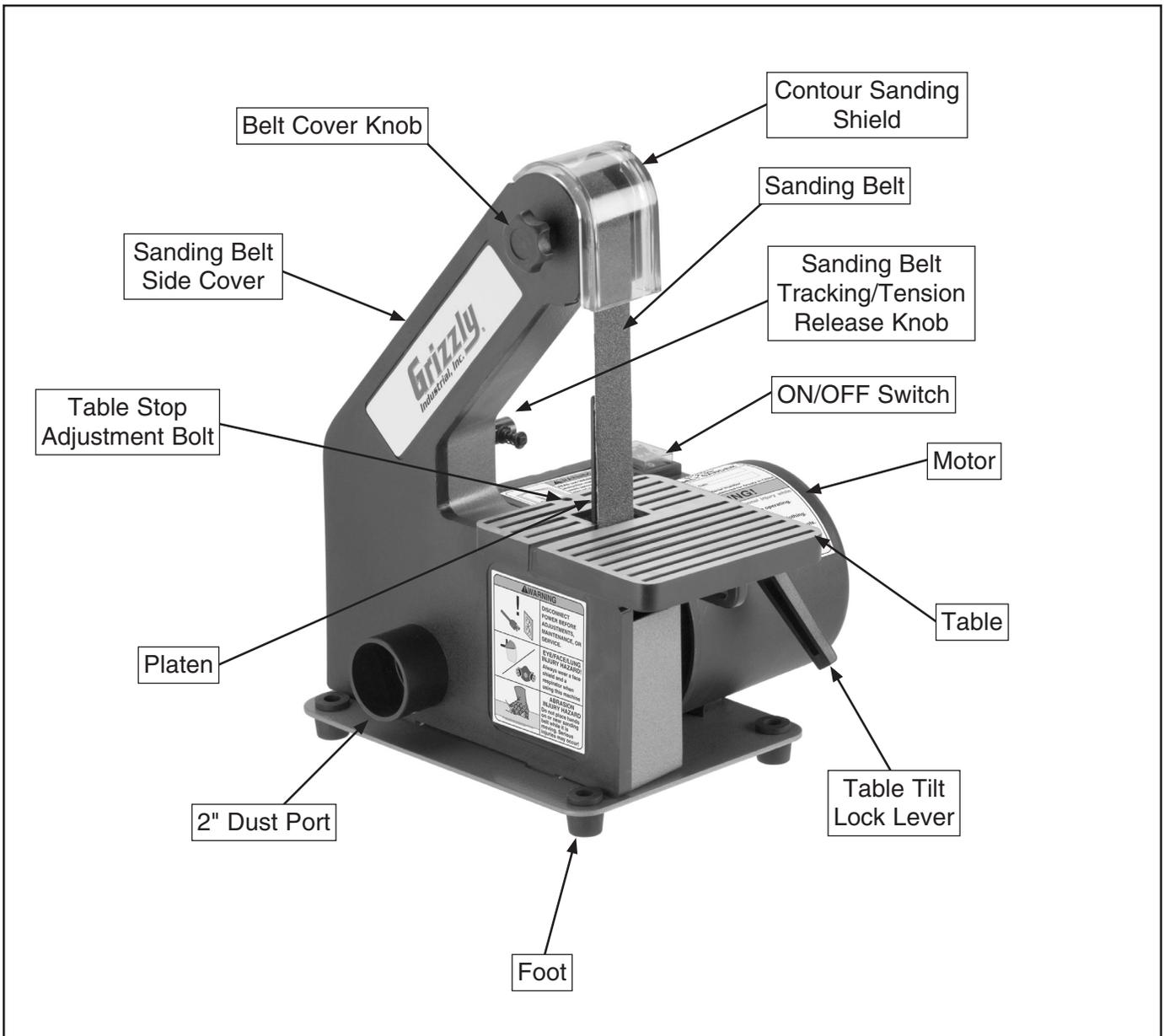


Figure 1. Identification.

! WARNING
To reduce the risk of serious injury when using this machine, read and understand this entire manual before beginning any operations.





MACHINE DATA SHEET

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

MODEL H3140 BELT SANDER 1" X 30"

Product Dimensions:

Weight..... 10 lbs.
 Length/Width/Height..... 11 x 9 x 13 in.
 Foot Print (Length/Width)..... 9 x 6 in.

Shipping Dimensions:

Type..... Cardboard
 Content..... Machine
 Weight..... 15.15 lbs.
 Length/Width/Height..... 10 x 15 x 10 in.

Electrical:

Switch..... Rocker Type
 Switch Voltage..... 110V
 Cord Length..... 6 ft.
 Cord Gauge..... 18 gauge
 Minimum Circuit Size..... 15 amp
 Plug Included..... Yes

Motors:

Main

Type..... TEFC Capacitor Start Induction
 Horsepower..... 1/4 HP
 Voltage..... 110V
 Prewired..... 110V
 Phase..... Single
 Amps..... 2A
 Speed..... 3450 RPM
 Cycle..... 60 Hz
 Number Of Speeds..... 1
 Power Transfer Direct Drive
 Bearings..... Sealed and Permanently Lubricated

Main Specifications:

Table Info

Table Tilt..... 45 deg.
 Belt Table Length..... 5 in.
 Belt Table Width..... 5 in.
 Belt Table Thickness..... 1/2 in.



Belt Info

Sanding Belt Width..... 1 in.
 Sanding Belt Length..... 30 in.
 Sanding Belt Speed..... 3300 FPM
 Drive Roller Type..... Plastic
 Drive Roller Length..... 1 in.
 Drive Wheel Diameter..... 3-3/4 in.
 Idler Roller Type..... Plastic
 Idler Roller Length..... 1 in.
 Idler Roller Diameter..... 3-3/4 in.

Platen Info

Platen Type..... Steel
 Platen Length..... 2 in.
 Platen Width..... 1 in.

Construction

Base Construction..... Steel
 Table Construction..... Aluminum
 Frame Construction..... Cast Iron
 Paint..... Epoxy

Other

No. Of Dust Ports..... 1
 Dust Port Size..... 1-1/2 in.

Other Specifications:

Country Of Origin China
 Warranty 1 Year
 Serial Number Location Left Side
 Assembly Time 5 minutes

Features:

Edge Sands Tight Corners and Curved Surfaces with Ease
 Table Tilts to 45 deg.
 An Excellent Sharpening Tool for your Chisels and Turning Tools
 Tracking Adjustment
 Direct Drive



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 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 machine.

WARNING

Safety Instructions for Machinery

- 1. READ 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 A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry that can catch 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 CHILDPROOF.** 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 LIGHTED.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Undersized cords create excessive heat. Always replace damaged extension cords.
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 or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. Improper accessories increase 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.** Maintain stability and balance at all times.
23. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.



WARNING

Additional Safety for Belt Sanders

- 1. RESPIRATOR AND SAFETY GLASSES.** Always wear a respirator and safety glasses while operating the machine. Dust and chips are created when sanding. Some debris will be ejected, becoming hazards to the eyes and lungs.
- 2. CLOTHING.** DO NOT wear loose clothing while operating this machine. Loose clothing presents an entanglement hazard and could lead to personal injury. Roll up or button sleeves at the cuff.
- 3. HAND PROTECTION.** DO NOT place hands near, or in contact with, sanding belt during operation. DO NOT allow fingers to get pinched between the workpiece and the table. This may pull the operator's hand into the machine and cause serious injury!
- 4. FEEDING STOCK.** Firmly grasp the workpiece in both hands and ease it into the machine against the direction of rotation using light pressure. DO NOT jam the workpiece into the machine during operation. Never sand more than one piece of stock at a time.
- 5. INSPECTING WORKPIECES.** Always inspect workpiece for nails, staples, knots, and other imperfections that could be dislodged and thrown from the machine during sanding operations. Do not use workpieces that show any of these conditions.
- 6. REPLACING SANDING BELT.** Replace sanding belt when it becomes worn. A worn sanding belt can break apart during use, causing personal injury or damage to the machine or workpiece. DO NOT operate the sander with a damaged or badly worn sanding belt.
- 7. MAINTENANCE AND ADJUSTMENTS.** Perform machine inspections and maintenance service promptly when called for. A poorly maintained machine can fall apart during use and eject components, causing personal injury. Disconnect power before performing maintenance or adjustments on the sander to avoid electrocution hazards.
- 8. EXPERIENCING DIFFICULTIES.** Any problem must be investigated and corrected with the power disconnected, and after all moving parts have come to a complete stop.

WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk 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 power before completing the setup process. **DO NOT** connect the machine to the power until instructed later in this manual.



⚠️ WARNING

Electrocution or fire could result if machine is not grounded and installed in compliance with electrical codes. Compliance **MUST** be verified by a qualified electrician!

Full Load Amperage Draw

This machine draws the following amps under maximum load:

Amp Draw.....2 Amps

Power Supply Circuit Requirements

The power supply circuit for your machine **MUST** be grounded and rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Minimum Circuit Size..... 15 Amps

Power Connection Device

The Model H3140 comes with a 5-15 plug, similar to **Figure 2**, to connect the machine to power.

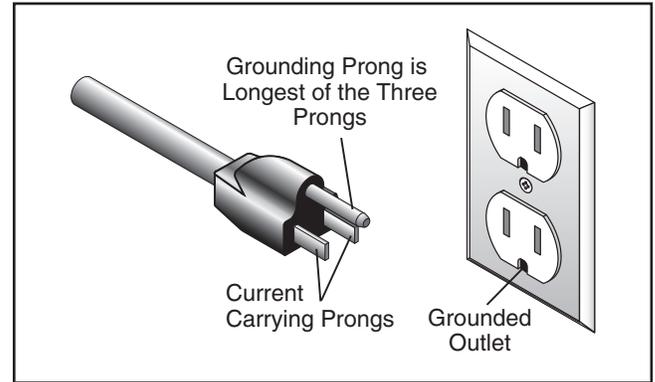
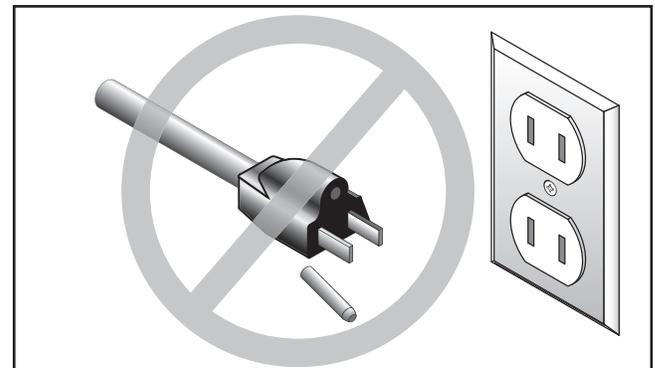


Figure 2. Typical 5-15 plug and receptacle.



⚠️ 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.

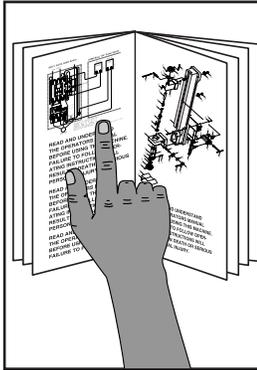
Extension Cords

We do not recommend using extension cords, but if you find it absolutely necessary:

- Use at least a 16 gauge cord that does not exceed 50 feet in length!
- The extension cord must have a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.



SECTION 3: SETUP



!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

Wear safety glasses during the entire setup process!

Needed for Setup

Description	Qty
• Safety Glasses	1 Pair Per Person
• 2" Dust Hose and Clamp.....	1 Ea.
• Dust Collection System	1

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *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, inventory the contents.



Inventory

The following is a description of the main components shipped with your machine. Lay the components out to inventory them.

Note: *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.*

Box 1: (Figure 3)	Qty
A. Machine	1
B. Work Table	3
C. Table Lock Lever Assembly	1
—Lever	1
—External Tooth Washer 8mm	1
—Hex Bolt M8-1.25 x 25	1

If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

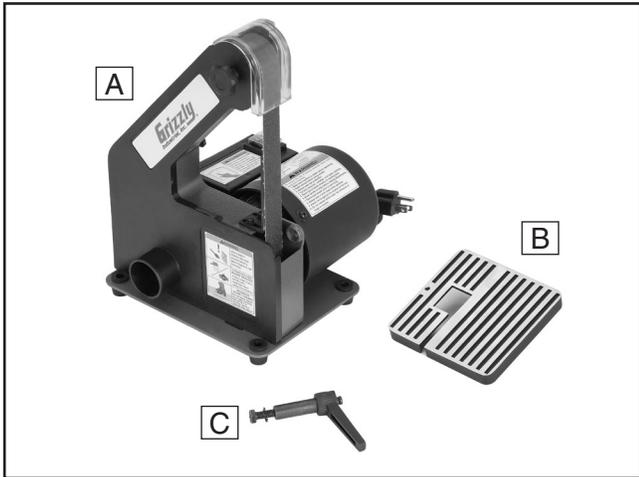


Figure 3. Inventory.

Site Considerations

Placement Location

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 new machine. See **Figure 4** for the minimum working clearances.

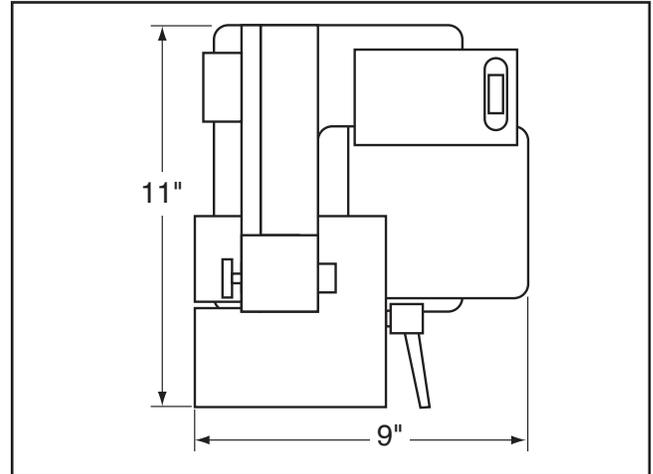


Figure 4. Minimum working clearances.

	<p>⚠ CAUTION</p> <p>Children and visitors may be seriously injured if unsupervised around this machine. Lock entrances to the shop or disable start switch or power connection to prevent unsupervised use.</p>
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	<p>⚠ WARNING</p> <p>SUFFOCATION HAZARD! Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.</p>
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Assembly

To assemble your machine:

1. Slide the table over the sanding belt, then attach it to the machine base with the M8-1.25 x 25 hex bolt, 8mm external tooth washer, and the table lock lever, as shown in (Figure 5).

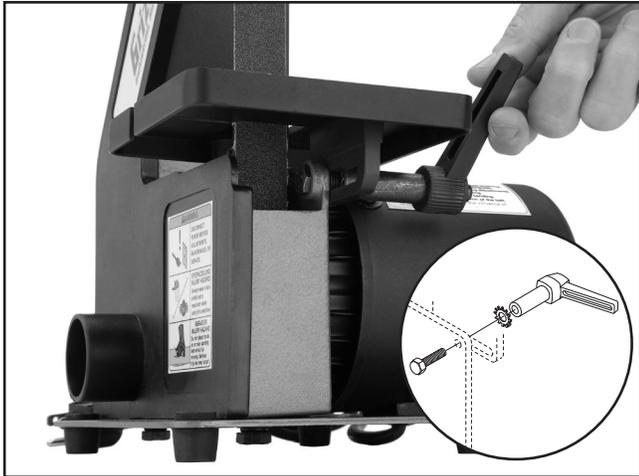
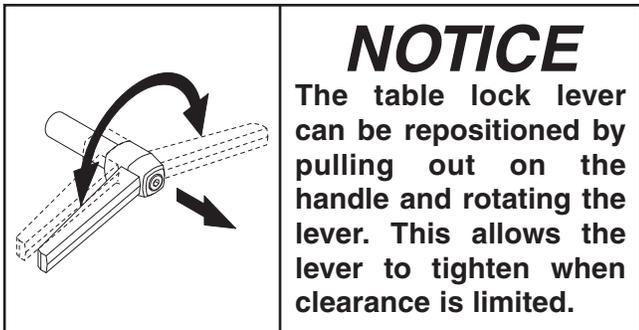


Figure 5. Attaching work table.



NOTICE

The table lock lever can be repositioned by pulling out on the handle and rotating the lever. This allows the lever to tighten when clearance is limited.

2. Adjust the table so that the gap between the sanding belt and the table is less than $\frac{1}{16}$ ", and the table is perpendicular to the sanding belt, then tighten the table lock lever.

WARNING

A large gap between the belt and table presents a pinch point that could cause your fingers to be pulled into the machine. Make sure the gap between the sanding belt and the table is less than $\frac{1}{16}$ " to reduce the risk of personal injury.

Dust Collection

CAUTION

This sander creates wood dust while operating. We recommend using the Model H3140 with an adequate dust collection system. Failure to use a dust collection system can result in short and long-term respiratory illness.

Required CFM at 2" Dust Port: 100 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

To connect a dust collection hose:

1. Fit the 2" dust hose over the dust port, as shown in Figure 6, and secure in place with a hose clamp.
2. Tug the hose to make sure it does not come off. **Note:** A tight fit is necessary for proper performance.



Figure 6. Dust hose attached.



Test Run

Once the assembly is complete, test run your machine to make sure it runs properly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review the **Troubleshooting** on **Page 22**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

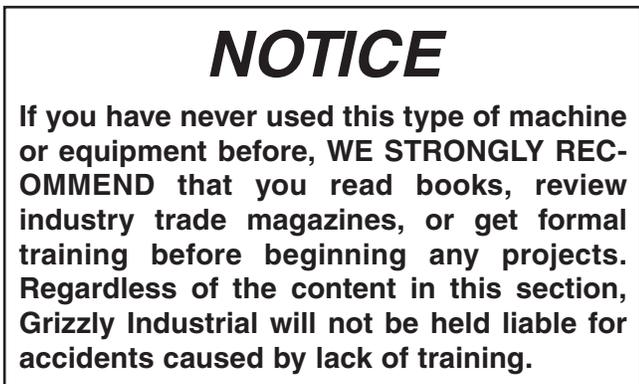
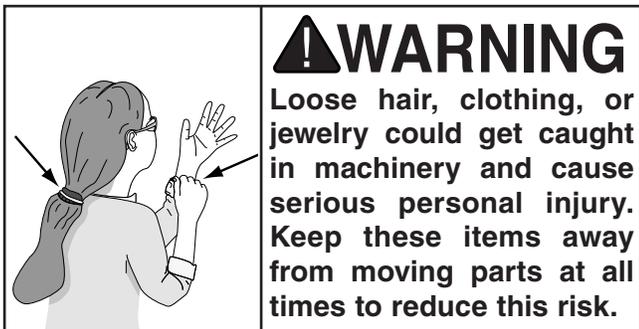
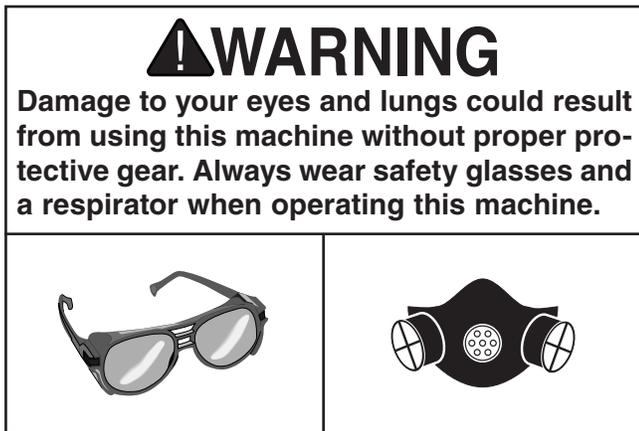
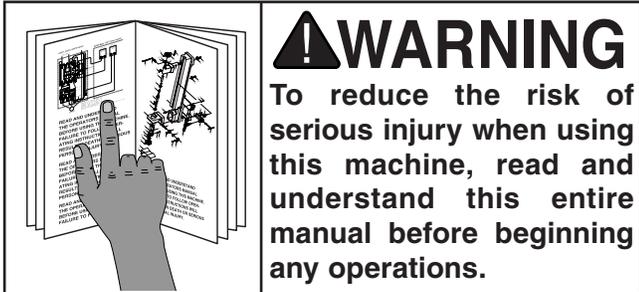
1. Perform **Sanding Belt Tracking** on **Page 17**.

2. Make sure you have read the safety instructions at the beginning of the manual and that the machine is set up properly.
3. Make sure all tools and objects used during setup are cleared away from the machine.
4. Turn the machine **ON**.
5. Listen and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises.

—Strange or unusual noises should be investigated and corrected before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
6. Turn the machine **OFF**.



SECTION 4: OPERATIONS



Basic Controls

Use **Figure 7** and the descriptions below to become familiar with the basic controls of your machine.

Sanding Belt Tracking/Tension Release Knob: Turning the knob adjusts the belt tracking left and right. Pushing the knob inward releases tension from the sanding belt for easier belt removal.

ON/OFF Switch: Supplies power to the motor, moving the sanding belt.

Table Lock Lever: Tightens to secure the table and loosens to allow for repositioning of the table for angle sanding.

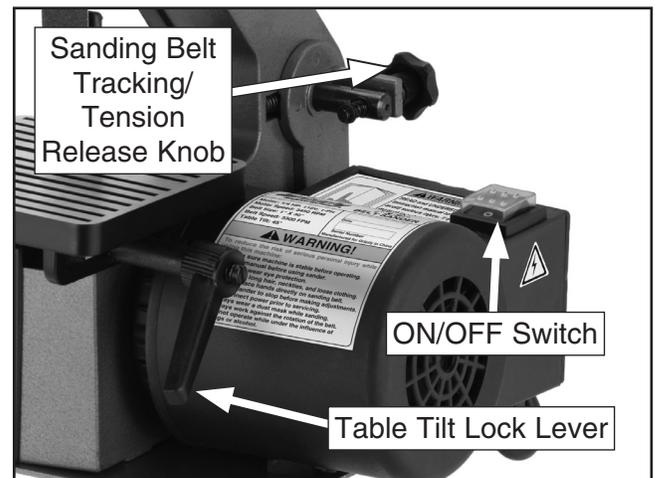


Figure 7. Basic controls.



Operation Overview

A basic operation with this machine is as follows:

The operator adjusts the table as needed for the sanding operation, then turns the sander and dust collector **ON** and makes sure the belt is tracking properly.

The workpiece is placed flat on the table and pressed in to the moving sanding belt. The platen behind the sanding belt provides a flat surface to ensure that the sanded portion of the workpiece is also flat. The table can be tilted and locked in place to sand a variety of angles on the workpiece.

Various additional techniques can be used for sanding curves or shapes, but in all operations, the workpiece must be firmly supported against the table when it is in contact with the workpiece.



Figure 8. Example of belt sanding.

⚠ CAUTION

To avoid the risk of kickback and personal injury, always keep the workpiece firmly on the table.

Stock Inspection

Follow these rules when choosing stock:

- **DO NOT sand stock that contains large or loose knots.** Injury to the operator or damage to the workpiece can occur if a knot becomes dislodged during the sanding operation.
- **Remove foreign objects from the workpiece.** Make sure that any stock you process with the sander is clean and free of dirt, nails, staples, tiny rocks or any other foreign objects that could damage the sanding belt or eject from the workpiece during sanding.
- **Scrape all glue off the workpiece before sanding.** Glue deposits on the workpiece, hard or soft, can gum up the sanding belt and produce poor results.

Sanding Tips

- Use the correct sandpaper and grit for the job to ensure good sanding results.
- Replace the sandpaper with a higher grit to achieve a finer finish.
- Extend the life of the sandpaper by regularly using a PRO-STICK® sanding pad (**Accessories** on **Page 19**).
- When bevel sanding, make any necessary guide lines on the longer side of the board so they will be visible during sanding.
- Always turn the sander **ON** and allow it to reach full speed before engaging the workpiece with the sandpaper.
- Keep your workpiece moving across the width of the sanding belt to prevent grooves or ruts in the workpiece surface or excessive wear to the sanding belt.



Table Tilt

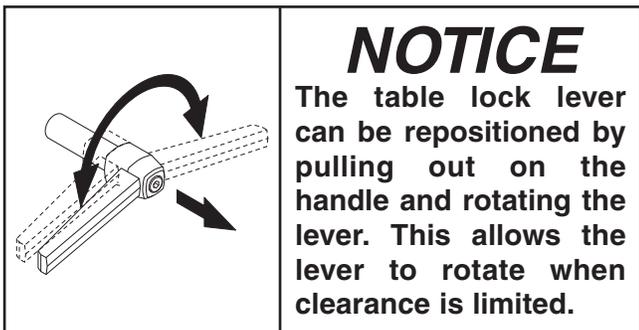
The table on the Model H3140 can tilt to allow for sanding of miter cut and other angled workpieces.

To tilt the table:

1. DISCONNECT SANDER FROM POWER!
2. Loosen the table lock lever to release the table position (**Figure 9**).



Figure 9. Table lock lever.



NOTICE

The table lock lever can be repositioned by pulling out on the handle and rotating the lever. This allows the lever to rotate when clearance is limited.

! WARNING

A large gap between the belt and table presents a pinch point that could cause your fingers to be pulled into the machine. Make sure the gap between the sanding belt and the table is less than $\frac{1}{16}$ " to reduce the risk of personal injury.

3. Tilt the table to the desired angle, then slide it so that there is less than $\frac{1}{16}$ " between the table and the sanding belt (**Figure 10**). Recheck the angle, then tighten the table lock lever.

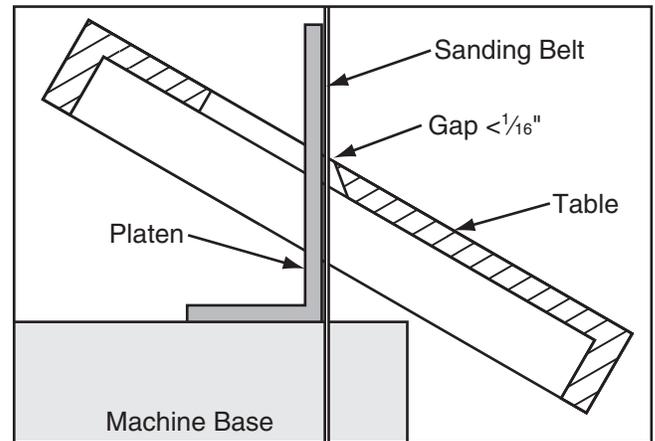


Figure 10. Table gap.

0° Stop Adjustment

The table on the Model H3140 has a 0° stop for quick horizontal positioning (perpendicular to the sanding belt).

To adjust the 0° Stop:

1. DISCONNECT SANDER FROM POWER!
2. Use a machinist's square to set the table square to the sanding belt (**Figure 11**).

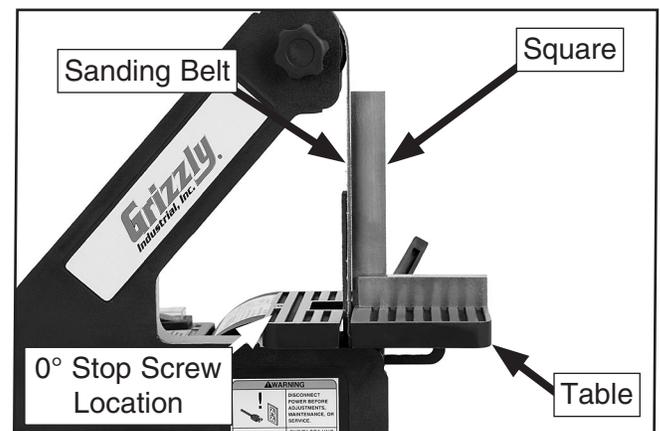


Figure 11. Adjusting 0° stop.

3. Adjust the 0° stop screw until it just touches the machine base. Recheck for square, and adjust as needed.



Sanding Belt Tracking

The sanding belt must track in the center of the top pulley to avoid damaging itself and the machine during use.

To adjust the sanding belt tracking:

1. DISCONNECT SANDER FROM POWER!
2. Remove the sanding belt side cover and rotate the wheels by hand to make an initial check of the belt tracking.
3. Slowly adjust the tracking adjustment knob as necessary and repeat **Step 2** until the sanding belt tracks in the center of the top pulley, then replace the belt side cover.
4. Connect the sander to power, turn it **ON** and be ready to turn it off immediately if the belt begins to move off the wheel.
5. Observe the sanding belt as it moves over the top pulley (see **Figure 12**).

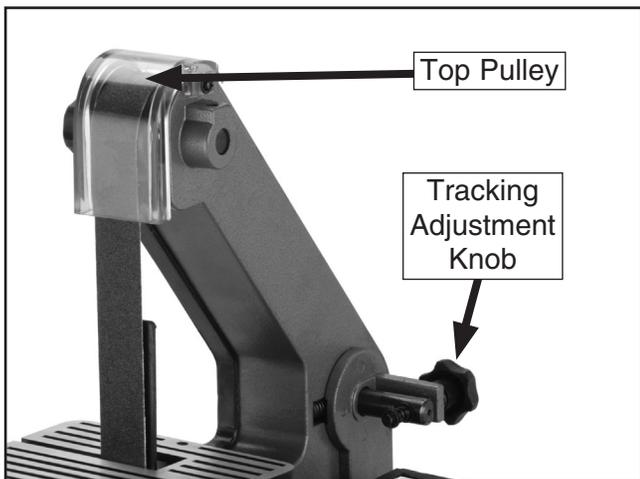


Figure 12. Sanding belt tracking adjustment.

6. Slowly adjust the tracking adjustment knob as necessary until the sanding belt tracks in the center of the top pulley.

Note: Only minor adjustments are necessary to fine-tune the sanding belt tracking.

Sanding Belt Selection

Belt Size 1" x 30"

There are many types of sanding belts to choose from. We recommend Aluminum Oxide for general workshop environments. Below is a chart that groups abrasive types into different classes, and shows which grits fall into each class.

Grit	Type
60	Coarse
80-100	Medium
120-180	Fine
220	Very Fine

The general rule of thumb is to sand a workpiece with progressively higher grit numbers, with no one grit increase of more than 50.



Sanding Belt Replacement

Some sanding belts are designed to sand in only one direction and will have directional arrows on the back of the belt. The Model H3140 is designed so that the sanding belt travels downward at the sanding table.

To change the sanding belt:

1. DISCONNECT SANDER FROM POWER!
2. Unscrew the knob from the sanding belt cover (**Figure 13**) and remove the cover from the sander.

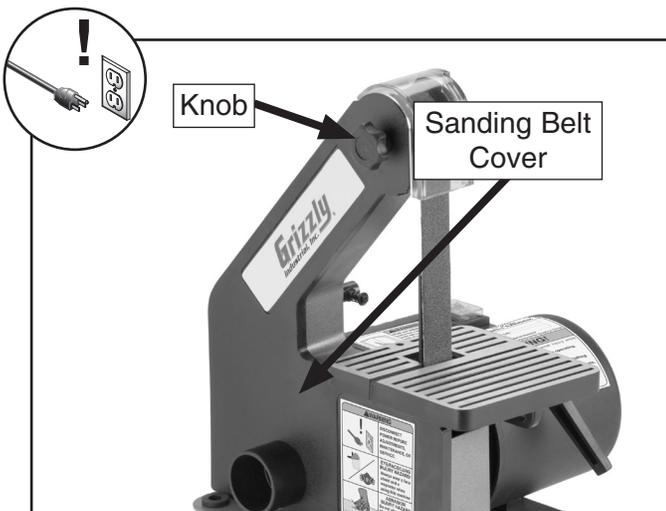


Figure 13. Sanding belt cover.

3. Press firmly against the tracking adjustment knob to remove the tension from the sanding belt.
4. Roll the old sanding belt off the three pulleys, and roll the new belt back on, making sure the directional arrows on the back of the belt point downward at the table (**Figure 14**).

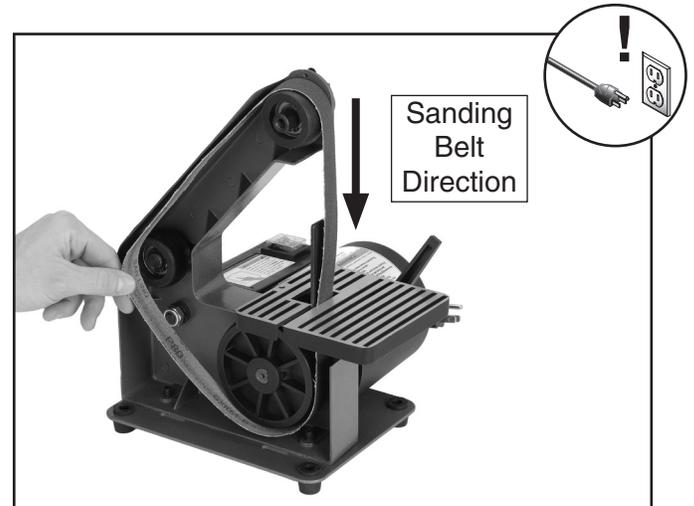


Figure 14. Replacing sanding belt.

5. Make sure the sanding belt is positioned in the center of all three pulleys.
6. Replace and secure the sanding belt cover.
7. Check and the adjust the sanding belt tracking, as instructed on **Page 17**.



SECTION 5: ACCESSORIES

- T20501—Face Shield Crown Protector 4"
- T20502—Face Shield Crown Protector 7"
- T20503—Face Shield Window
- T20448—Economy Clear Safety Glasses
- T20452—"Kirova" Anti-Reflective Glasses
- T20456—"Dakura" Clear Safety Glasses
- H0736—Shop Fox® Safety Glasses

These glasses meet ANSI Z87.1-2003 specifications. Buy extras for visitors or employees. You can't be too careful with shop safety!



Figure 15. Our most popular eye protection.

1" x 30" Aluminum Oxide Sanding Belts

Our silicon carbide sanding belts are available in grits from 80–220, and packs of 2 or 10.

<u>Grit</u>	<u>Model</u>
60 Grit, 10 pack.....	H4857
80 Grit, 10 pack.....	H4858
100 Grit, 10 pack.....	H4859

Call 1-800-523-4777 To Order

- H2499—Small Half-Mask Respirator
- H3631—Medium Half-Mask Respirator
- H3632—Large Half-Mask Respirator
- H3635—Disposable Cartridge Filter Pair P100

Wood dust is now considered a known carcinogen and has been linked to nasal cancer and severe respiratory illnesses. If you work around dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!



Figure 16. Half-mask respirator and disposable cartridge filters.

PRO-STICK® Abrasive Surface Cleaners

Extend the life of your sanding discs and belts! Choose the Pro-Stick® with a handle for greater control or without a handle for more usable area.

<u>Size</u>	<u>Model</u>
1½" X 1½" X 8½"	G1511
2" X 2" X 12".....	G1512
1½" X 1½" X 9" with Handle.....	G2519
2" X 2" X 11" with Handle.....	G2520



Figure 17. PRO-STICK® abrasive cleaners.



G7313—700 lb Capacity SHOP FOX® Stand

A perfect stand for mounting your smaller machines on. Sturdy and rugged for everyday shop use.



Figure 18. G7313 SHOP FOX® Stand.

H2443—Universal Adapter

This seven step adapter provides a multitude of dust collection reducing options. Simply cut away unneeded steps with a hacksaw. Outside diameter step sizes include 1", 2", 2.5", 3", 4", 5", and 6". Wall thickness is 1/8".

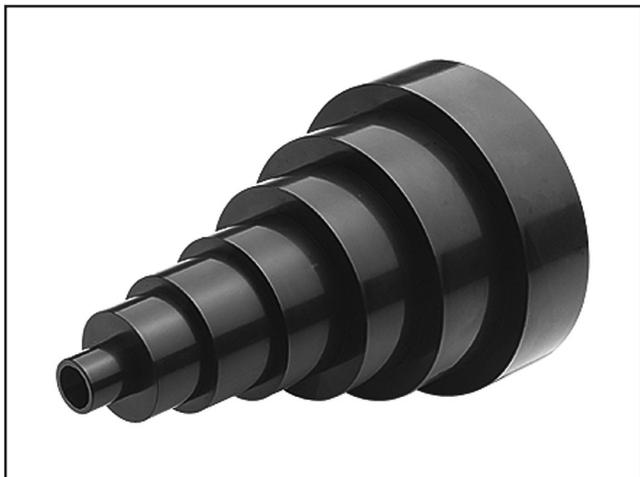


Figure 19. H2443 Universal Adapter.

G9955—Bench Top Dual Fan Dust Filter

Two separately switched fan motors can be used to draw a maximum 400 CFM of your dusty shop air through the 5 micron pleated filter. Perfect for sanding and power carving, the clear plastic hood helps to direct flow from the work area directly into the filter.



Figure 20. G9955 Dust Filter.

H3153—Pigskin Palm Gloves

H3154—Lined Pigskin Palm Gloves

Durable pigskin leather is combined with cloth backs for true comfort. One size fits many.

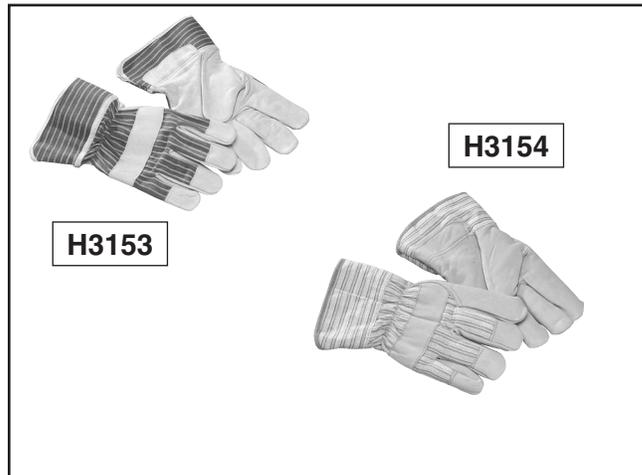


Figure 21. Work gloves.

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.

Before Each Use, Check and Correct:

- Loose mounting bolts.
- Damaged or worn sanding belt.
- Worn or damaged wires.
- Any other unsafe condition.

After Each Use:

- Clean/vacuum dust buildup on table and motor.

Cleaning

Cleaning the Model H3140 is relatively easy. Vacuum excess sawdust, and wipe off the remaining dust with a dry cloth. Wiping the table clean after every use ensures moisture from wood dust does not remain on bare metal surfaces.

If any resin has built up, use a resin dissolving cleaner to remove it. After cleaning, treat all unpainted metal surfaces with a non-staining lubricant with products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.

Lubrication

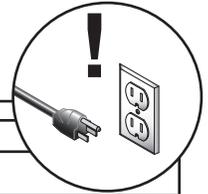
Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced.



SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Symptom	Possible Cause	Possible Solution
Motor will not start; fuses/circuit breakers trip.	<ol style="list-style-type: none"> 1. Breaker or fuse at fault. 2. Loose connection or short in line cord, plug, or motor. 3. Machine attached to incorrect power circuit. 	<ol style="list-style-type: none"> 1. If necessary, replace/reset fuse/breaker. 2. Inspect/repair cord, plug, and motor for damaged insulation, shorted wires, or loose connections. 3. Connect to correctly-sized circuit (Page 9).
Motor slows or stalls when operating.	<ol style="list-style-type: none"> 1. Workpiece pressure is too great. 2. Breaker or fuse at fault. 3. Incorrect fuses or circuit breakers in power line. 	<ol style="list-style-type: none"> 1. Reduce workpiece pressure on sanding surface. 2. Repair cause of short. Replace/reset fuse/breaker. 3. Install correct fuses or circuit breakers.
Machine vibrates excessively.	<ol style="list-style-type: none"> 1. Machine placed on uneven surface. 2. Incorrect sanding belt tracking. 3. Weak or broken sanding belt tension spring. 4. Broken/damaged sanding belt. 	<ol style="list-style-type: none"> 1. Properly place machine on level surface. 2. Adjust sanding belt tracking (Page 17). 3. Replace spring. 4. Replace sanding belt.
Sanded surface not square.	<ol style="list-style-type: none"> 1. Table not square to sanding belt. 	<ol style="list-style-type: none"> 1. Square table relative to sanding belt (Page 16).
Deep sanding grooves or scars in workpiece.	<ol style="list-style-type: none"> 1. Sandpaper damaged or clogged. 2. Sandpaper too coarse for desired finish. 3. Workpiece sanded across grain. 4. Too much sanding force on workpiece. 5. Workpiece held still against the belt. 	<ol style="list-style-type: none"> 1. Clean/replace sanding surface. 2. Use a finer grit sanding surface. 3. Sand with the grain. 4. Reduce pressure on workpiece while sanding. 5. Keep workpiece moving across sanding surface.
Sanding grains easily rub off sanding surface.	<ol style="list-style-type: none"> 1. Sanding belt has been stored incorrectly. 2. Sanding surface has been damaged. 	<ol style="list-style-type: none"> 1. Store sanding materials away from heat or damp conditions; store flat, not folded or bent. 2. Replace sanding material.
Sanding surface clogs quickly or burns.	<ol style="list-style-type: none"> 1. Too much pressure against belt. 2. Sanding softwood or has paint/varnish. 	<ol style="list-style-type: none"> 1. Reduce pressure on workpiece while sanding. 2. Use different stock; change/clean sanding material often.
Burn marks on workpiece.	<ol style="list-style-type: none"> 1. Using too fine of sanding grit. 2. Using too much pressure. 3. Work held still for too long. 	<ol style="list-style-type: none"> 1. Use a coarser grit sanding belt. 2. Reduce pressure on workpiece while sanding. 3. Do not keep workpiece in one place for too long.
Glazed sanding surfaces.	<ol style="list-style-type: none"> 1. Sanding wet stock. 2. Sanding stock with high residue. 	<ol style="list-style-type: none"> 1. Dry stock proper before sanding. 2. Use different stock; change/clean sanding material often.



Operation Safety



View this page in color at www.grizzly.com.

NOTICE

The motor wiring shown here is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.

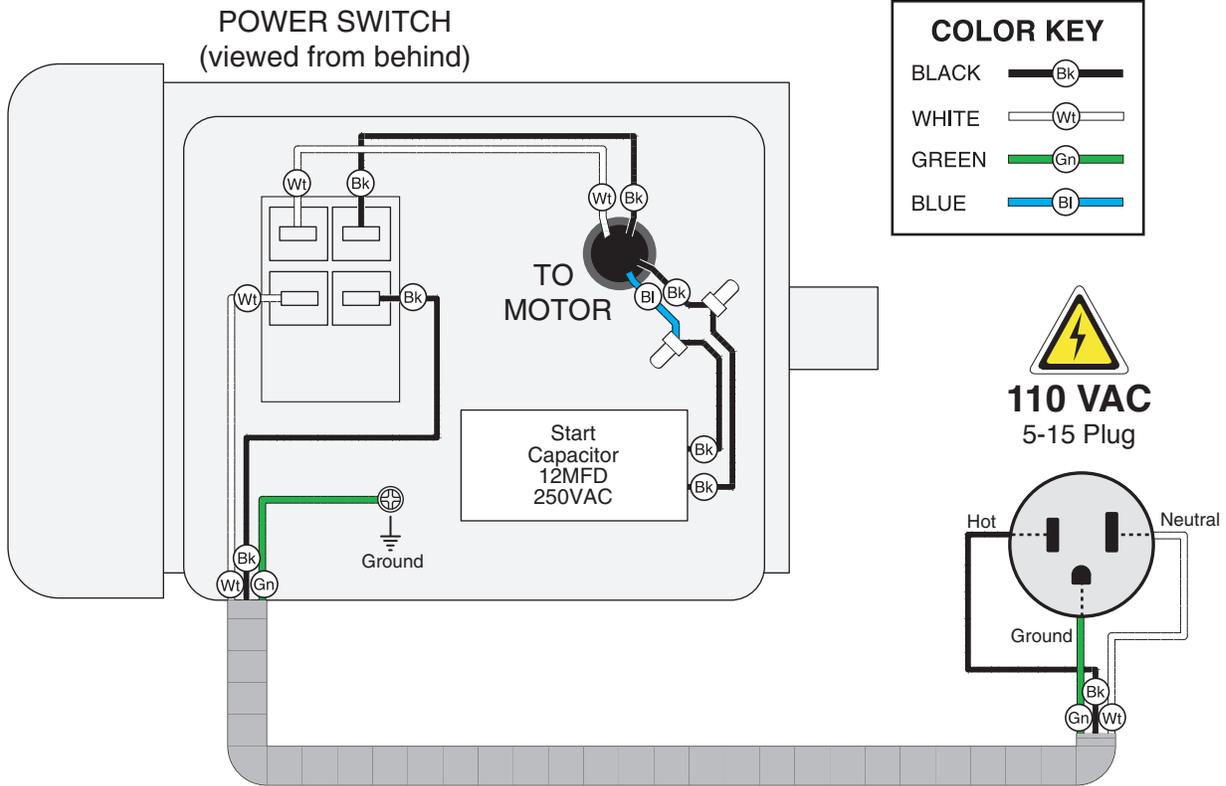
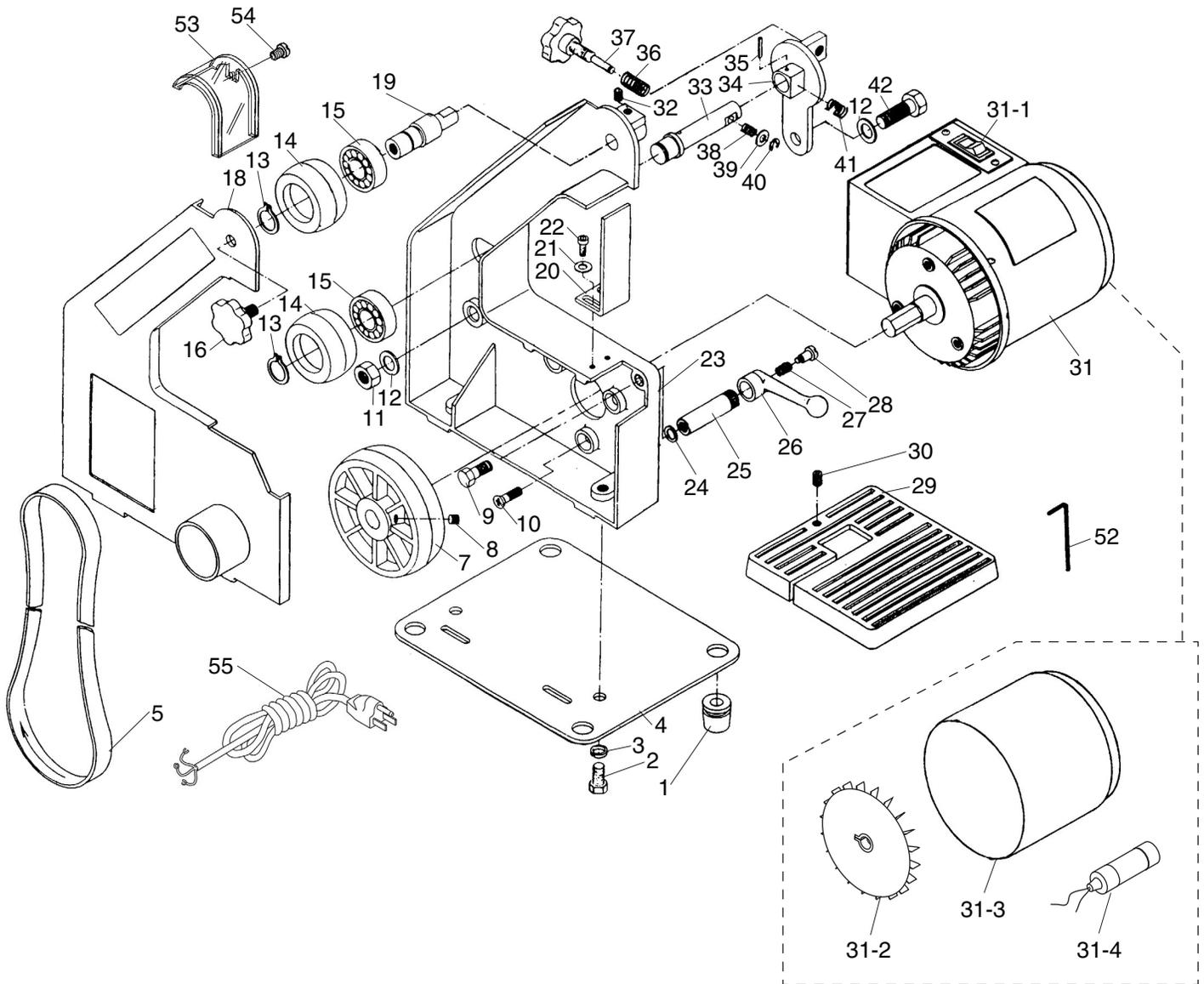


Figure 22. H3140 wiring.



SECTION 8: PARTS

Parts Breakdown



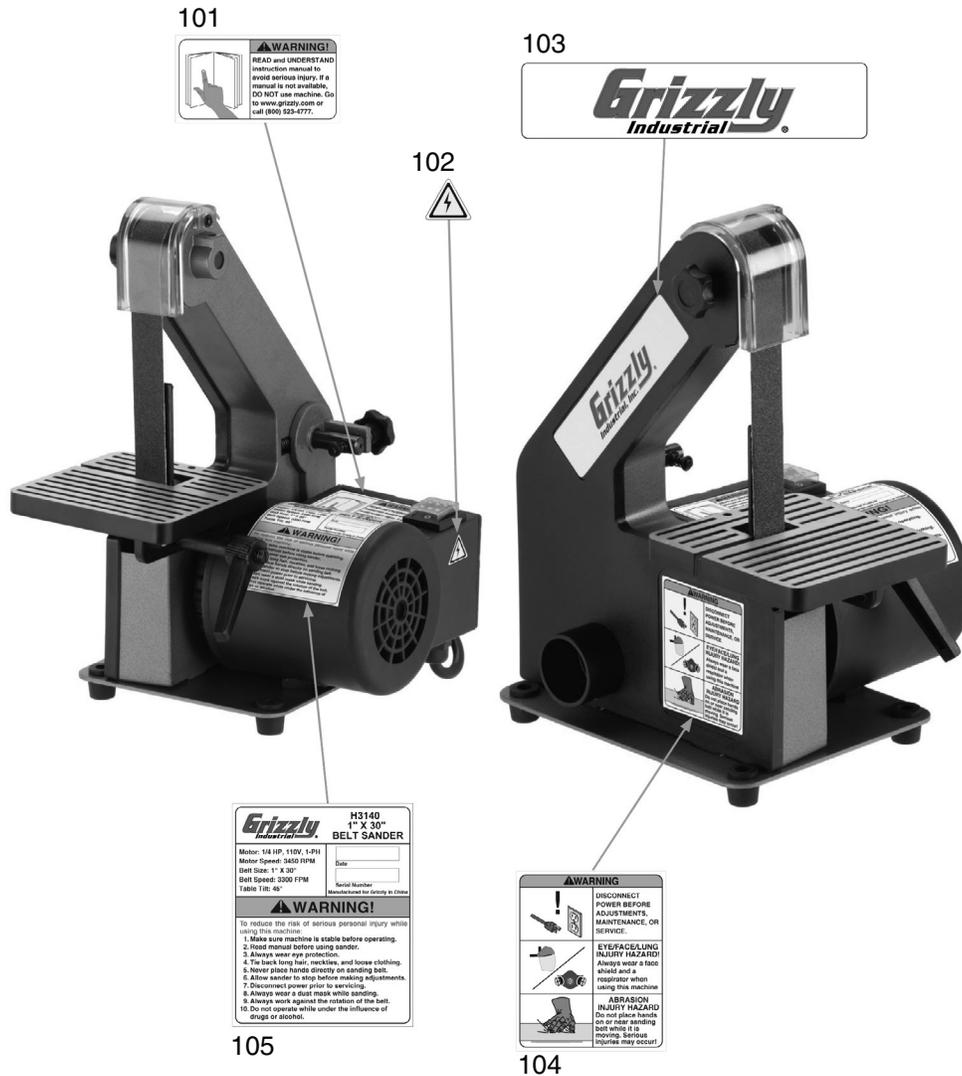
Parts List

REF	PART #	DESCRIPTION
1	PH3140001	SUPPORTING FOOT
2	PB03M	HEX BOLT M8-1.25 X 16
3	PLW04M	LOCK WASHER 8MM
4	PH3140004	BASE
5	PH3140005	SANDING BELT 1" X 30"
7	PH3140007	MOTOR PULLEY
8	PSS01M	SET SCREW M6-1 X 10
9	PB19M	HEX BOLT M8-1.25 X 24
10	PFH02M	FLAT HD SCR M6-1 X 12
11	PN02M	HEX NUT M10-1.5
12	PW04M	FLAT WASHER 10MM
13	PR05M	EXT RETAINING RING 15MM
14	PH3140014	IDLER PULLEY
15	P6202ZZ	BALL BEARING 6202ZZ
16	PH3140016	KNOB
18	PH3140018	SIDE COVER
19	PH3140019	PULLEY AXLE
20	PH3140020	PLATEN
21	PW05M	FLAT WASHER 4MM
22	PSB17M	CAP SCREW M4-.7 X 10
23	PH3140023	BODY
24	PH3140024	SPECIAL WASHER 8MM
25	PH3140025	LOCKING STUD
26	PH3140026	LOCKING HANDLE

REF	PART #	DESCRIPTION
27	PH3140027	COMPRESSION SPRING 6MM
28	PH3140028	SHOULDER SCREW M4-.7 X 14
29	PH3140029	TABLE
30	PSS11M	SET SCREW M6-1 X 16
31	PH3140031	MOTOR ASSY
31-1	PH3140031-1	ROCKER SWITCH
31-2	PH3140031-2	MOTOR FAN
31-3	PH3140031-3	MOTOR COVER
31-4	PC012B	S CAPACITOR 12M 250V 1-3/8 X 2-5/8
32	PSS03M	SET SCREW M6-1 X 8
33	PH3140033	TENSION AXLE
34	PH3140034	AXLE SEAT
35	PRP69M	ROLL PIN 3 X 35
36	PH3140036	COMPRESSION SPRING 9.6MM
37	PH3140037	TENSION HANDLE
38	PH3140038	COMPRESSION SPRING 6MM
39	PW02M	FLAT WASHER 5MM
40	PEC02M	E-CLIP 4MM
41	PH3140041	COMPRESSION SPRING 9.6MM
42	PB01M	HEX BOLT M10-1.5 X 30
52	PAW03M	HEX WRENCH 3MM
53	PH3140053	PLASTIC SHIELD FOR UPPER WHEEL
54	PS38M	PHLP HD SCR M4-.7 X 10
55	PH3140055	POWER CORD



Labels Breakdown & List



REF	PART #	DESCRIPTION
101	PH3140101	READ MANUAL LABEL
102	PLABEL-14	ELECTRICITY LABEL
103	PH3140103	GRIZZLY LOGO LABEL

REF	PART #	DESCRIPTION
104	PH3140104	WARNINGS LABEL
105	PH3140105	MACHINE ID LABEL

⚠ WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.





WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

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

1. How did you learn about us?

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

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

- | | | |
|---|--|---|
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| <input type="checkbox"/> Family Handyman | <input type="checkbox"/> Popular Science | <input type="checkbox"/> Wood |
| <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 |
| <input type="checkbox"/> Journal of Light Cont. | <input type="checkbox"/> Projects in Metal | <input type="checkbox"/> Woodwork |
| <input type="checkbox"/> Live Steam | <input type="checkbox"/> RC Modeler | <input type="checkbox"/> Woodworker West |
| <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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P.O. BOX 2069
BELLINGHAM, WA 98227-2069



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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.

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