MODEL H3140
1" X 30" BELT SANDER
OWNER'S MANUAL
(For models manufactured since 06/02)

#JB11475 PRINTED IN CHINA
V1.12.20

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

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

The owner of this machine/tool 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, cutting/sanding/grinding tool 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.

Table of Contents

INTRODUCTION

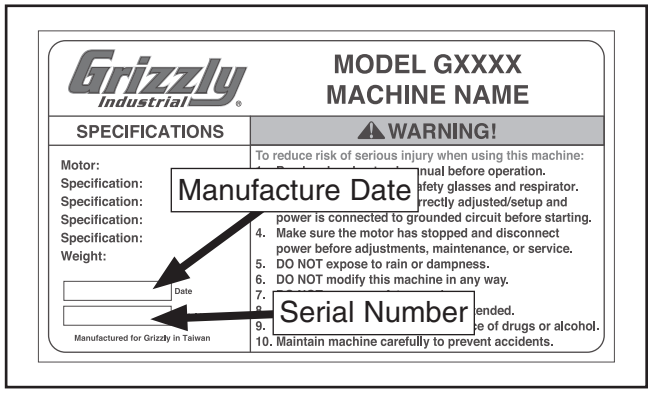
Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual**.

If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **Manufacture Date** and **Serial Number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.



Contact Info

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the **serial number** and **manufacture date** from the machine ID label. This will help us help you faster.

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
Phone: (570) 546-9663
Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly 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

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.

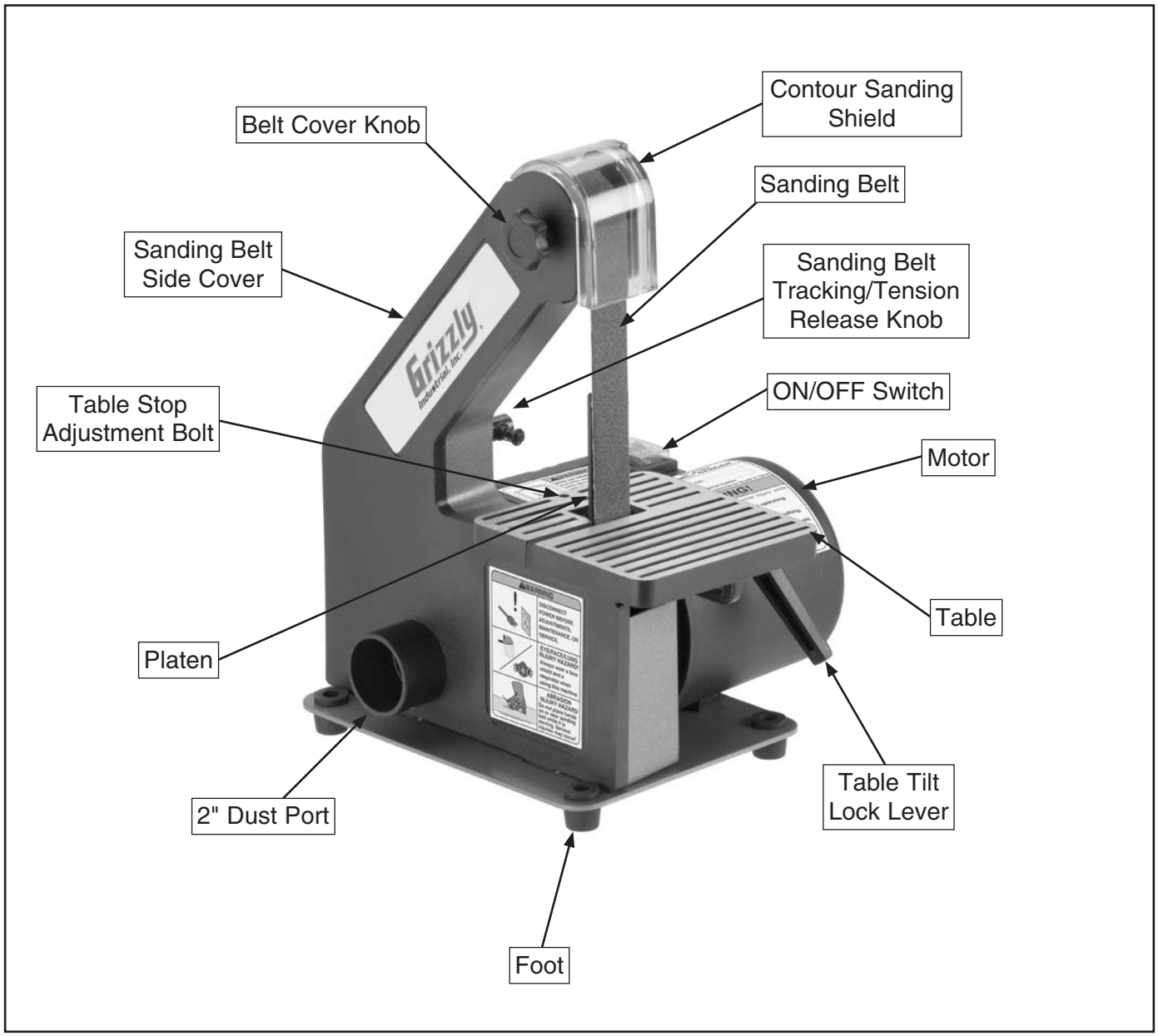
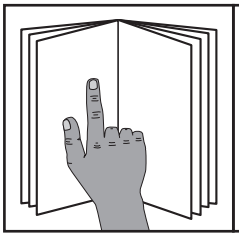


Figure 1. Identification.



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

MACHINE DATA SHEET

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

MODEL H3140 1" X 30" BELT SANDER

Product Dimensions:

Weight..... 10 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 11 x 9 x 13 in.
Footprint (Length x Width)..... 9 x 6 in.

Shipping Dimensions:

Type..... Cardboard Box
Content..... Machine
Weight..... 16 lbs.
Length x Width x Height..... 11 x 15 x 11 in.

Electrical:

Power Requirement..... 110V, Single-Phase, 60 Hz
Prewired Voltage..... 110V
Full-Load Current Rating..... 2A
Minimum Circuit Size..... 15A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 18 AWG
Plug Included..... Yes
Included Plug Type..... 5-15
Switch Type..... Rocker Switch

Motors:

Main

Horsepower..... 1/4 HP
Phase..... Single-Phase
Amps..... 2A
Speed..... 3450 RPM
Type..... TEFC Capacitor-Start Induction
Power Transfer ..... Direct Drive
Bearings..... Sealed & Permanently Lubricated
Centrifugal Switch/Contacts Type..... N/A

Main Specifications:

Belt Sander Info

Sanding Belt Width..... 1 in.
Sanding Belt Length..... 30 in.
Sanding Belt Speed..... 3300 FPM
Table Length..... 5 in.
Table Width..... 5 in.
Table Thickness..... 1/2 in.
Table Tilt..... Left 0, Right 45 deg.
Table-to-Floor Height..... 6 in.
Platen Type..... Steel
Platen Length..... 2 in.

Construction Materials

Base	Steel
Table	Aluminum
Frame	Aluminum
Paint Type/Finish	Epoxy

Other Related Info

Number of Dust Ports	1
Dust Port Size	1-1/2 in.

Other Specifications:

Country of Origin	China
Warranty	1 Year
Approximate Assembly & Setup Time	15 Minutes
Serial Number Location	ID Label
ISO 9001 Factory	No
Certified by a Nationally Recognized Testing Laboratory (NRTL)	No

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

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. Always use common sense and good judgment.

⚠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 **Alerts the user to useful information about proper operation of the machine to avoid machine damage.**

Safety Instructions for Machinery

⚠WARNING

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are NOT approved safety glasses.

⚠WARNING

WEARING PROPER APPAREL. Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly BEFORE operating machine.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine ***OFF*** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

DAMAGED PARTS. Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Belt Sanders

⚠WARNING

Serious injury or death can occur from fingers, clothing, jewelry, or hair getting pinched/entangled in belt or other moving components. Abrasion injuries can occur from touching moving sandpaper with bare skin. Workpieces thrown by sanding surface can strike operator or bystanders with moderate force, causing impact injuries. Long-term respiratory damage can occur from using sander without proper use of a respirator. To reduce the risk of these hazards, operator or bystanders MUST completely heed the hazards and warnings below.

SANDPAPER DIRECTION. Feeding workpiece incorrectly can cause it to be thrown from machine, striking operator or bystanders, or causing your hands to slip into the moving sandpaper. To reduce these risks, only sand against direction of sandpaper travel, ensure workpiece is properly supported, and avoid introducing sharp edges into moving sandpaper on the leading side of the workpiece.

IN-RUNNING NIP POINTS. The gap between moving sandpaper and fixed table/support creates a pinch point for fingers or workpieces; the larger this gap is, the greater the risk of fingers or workpieces getting caught in it. Minimize this risk by adjusting table/support to no more than 1/16" away from sandpaper.

HAND PLACEMENT. Rotating sandpaper can remove skin quickly. Always keep hands away from moving sandpaper during operation. Stop machine to clean table of sawdust and chips.

MINIMUM STOCK DIMENSION. Small workpieces can be aggressively pulled from your hands, causing contact with sanding surface. Always use a jig or other holding device when sanding small workpieces, and keep hands and fingers at least 2" away from sanding surface.

FEEDING WORKPIECE. Forcefully jamming workpiece into sanding surface could cause it to be grabbed aggressively, pulling hands into sanding surface. Firmly grasp workpiece in both hands and ease it into sandpaper using light pressure.

AVOIDING ENTANGLEMENT. Becoming entangled in moving parts can cause pinching and crushing injuries. To avoid these hazards, keep all guards in place and closed. DO NOT wear loose clothing, gloves, or jewelry, and tie back long hair.

WORKPIECE SUPPORT. Workpiece kickback can occur with violent force if workpiece is not properly supported during operation. Always sand with workpiece firmly against table or another support device.

SANDING DUST. Sanding creates large amounts of dust that can lead to eye injury or respiratory illness. Reduce your risk by always wearing approved eye and respiratory protection when using sander. Never operate without adequate dust collection system in place and running. However, dust collection is not a substitute for using a respirator.

WORKPIECE INSPECTION. Nails, staples, knots, or other imperfections in workpiece can be dislodged and thrown from sander at a high rate of speed at people, or cause damage to sandpaper or sander. Never sand stock that has embedded foreign objects or questionable imperfections.

SANDPAPER CONDITION. Worn or damaged sandpaper can fly apart and throw debris at operator, or aggressively grab workpiece, resulting in subsequent injuries from operator loss of workpiece control. Always inspect sandpaper before operation and replace if worn or damaged.

WORKPIECE INTEGRITY. Sanding fragile workpieces can result in loss of control, resulting in abrasion injuries, impact injuries, or damage to sandpaper. Only sand solid workpieces that can withstand power sanding forces. Make sure workpiece shape is properly supported; avoid sanding workpieces without flat bottom surfaces unless some type of jig is used to maintain support and control when sanding force is applied.

SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.

⚠WARNING

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 110V..... 2 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

⚠WARNING

Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.

110V Circuit Requirements

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 110V, 115V, 120V
Cycle ..... 60 Hz
Phase ..... Single-Phase
Power Supply Circuit ..... 15 Amps

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

⚠CAUTION

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.

Note: *Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.*

Grounding & Plug Requirements

This machine MUST be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug. Only insert plug into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances. DO NOT modify the provided plug!

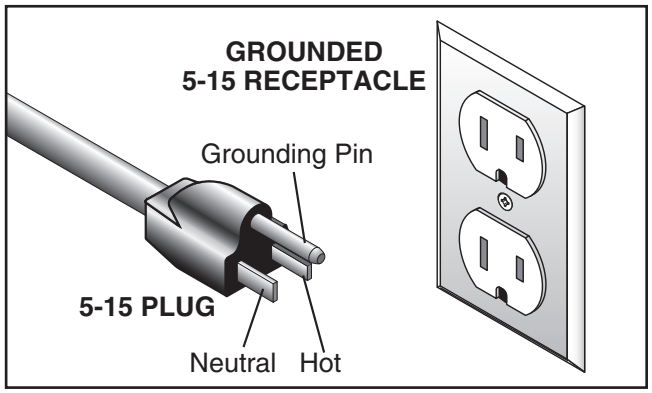
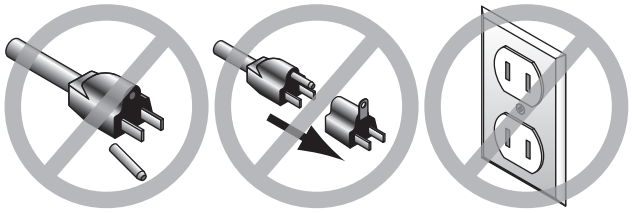


Figure 2. Typical 5-15 plug and receptacle.

⚠CAUTION



SHOCK HAZARD!

Two-prong outlets do not meet the grounding requirements for this machine. Do not modify or use an adapter on the plug provided—if it will not fit the outlet, have a qualified electrician install the proper outlet with a verified ground.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

Extension Cords

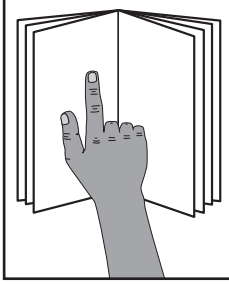
We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which can damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

Minimum Gauge Size .....14 AWG
Maximum Length (Shorter is Better).....50 ft.

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

The following items are needed, but not included, for the setup/assembly of this machine.

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

Unpacking

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

IMPORTANT: Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. *You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.*

Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

If any non-proprietary 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.

NOTICE

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

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

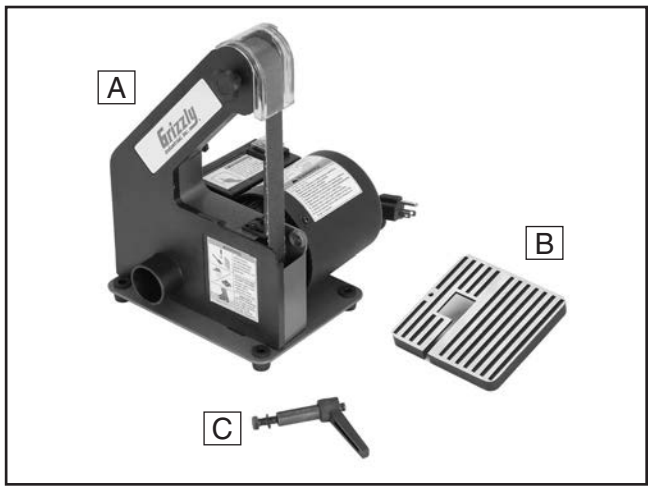


Figure 3. Inventory.

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.

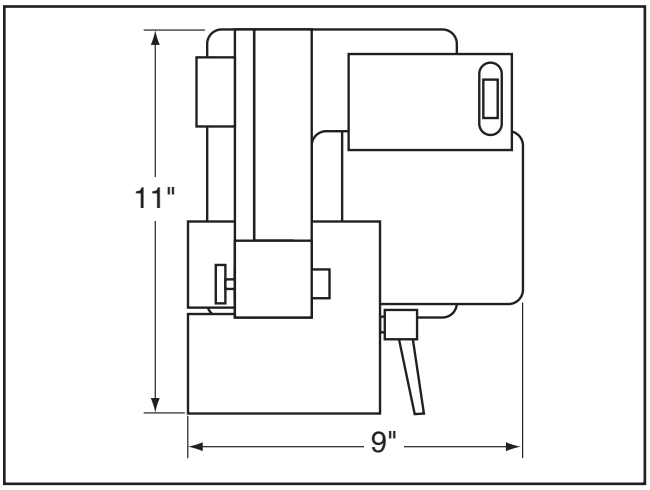
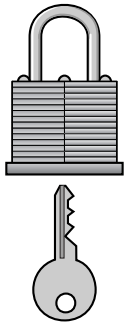


Figure 4. Minimum working clearances.



⚠CAUTION

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.

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**).

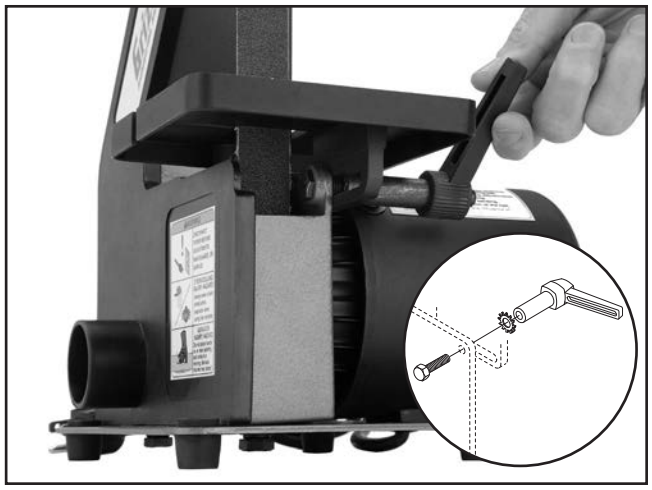
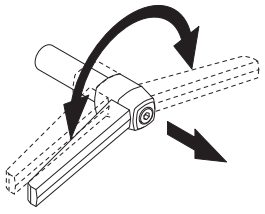


Figure 5. Attaching work table.



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 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 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 assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning correctly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly.

⚠WARNING

Serious injury or death can result from using this machine BEFORE understanding its controls and related safety information. DO NOT operate, or allow others to operate, machine until the information is understood.

⚠WARNING

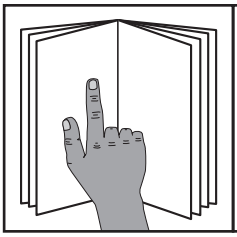
DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

To test run machine:

1. Perform **Sanding Belt Tracking** on **Page 18.**
2. Clear all setup tools away from machine.
3. Connect machine to power supply.
4. Turn machine ***ON***, verify motor operation, and then turn machine ***OFF***.

   The motor should run smoothly and without unusual problems or noises.

SECTION 4: OPERATIONS

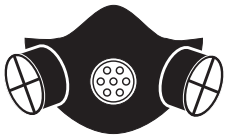


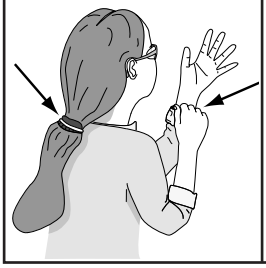
⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

⚠WARNING

To reduce risk of eye injury from flying chips or lung damage from breathing dust, always wear safety glasses and a respirator when operating this machine.





⚠WARNING

Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.

NOTICE

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

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.

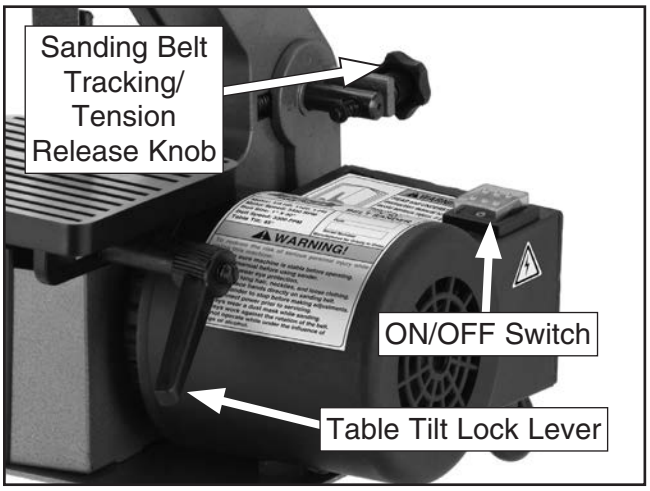


Figure 7. Basic controls.

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 20**).
- 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

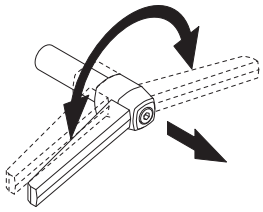
The table on the Model H3140 can tilt to allow for sanding of miter cut and other angled workpieces.

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 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 1/16" between the table and the sanding belt (**Figure 10**). Recheck the angle, then tighten the table lock lever.

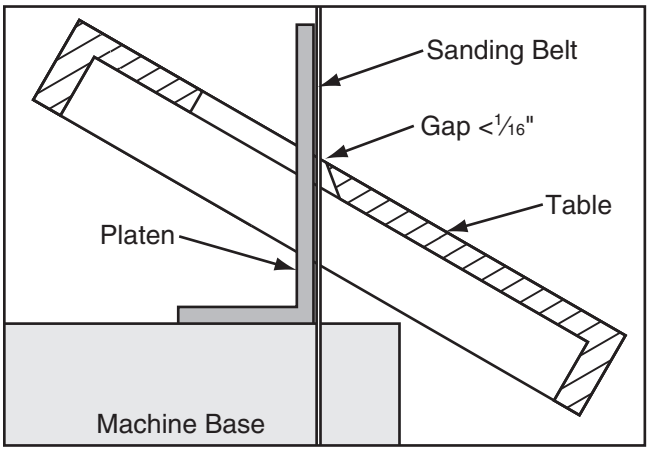


Figure 10. Table gap.

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**).

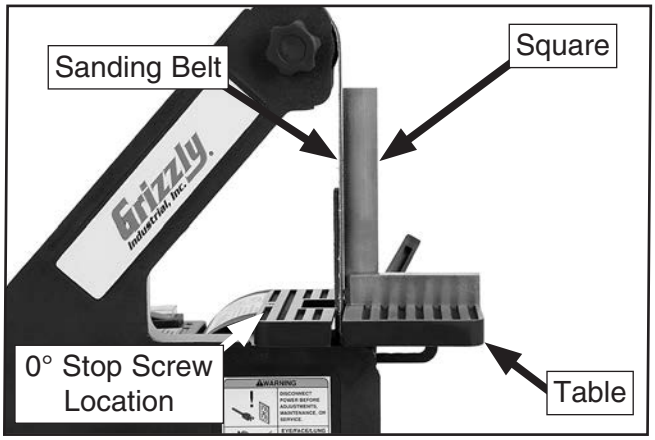


Figure 11. Adjusting 0° stop.

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**).

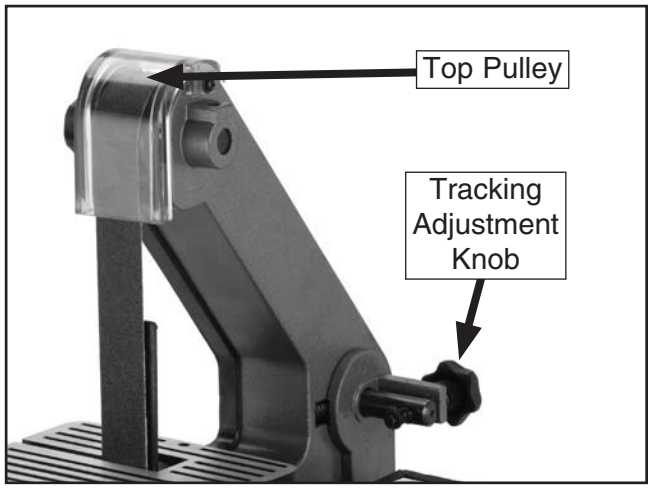


Figure 12. Sanding belt tracking adjustment.

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.

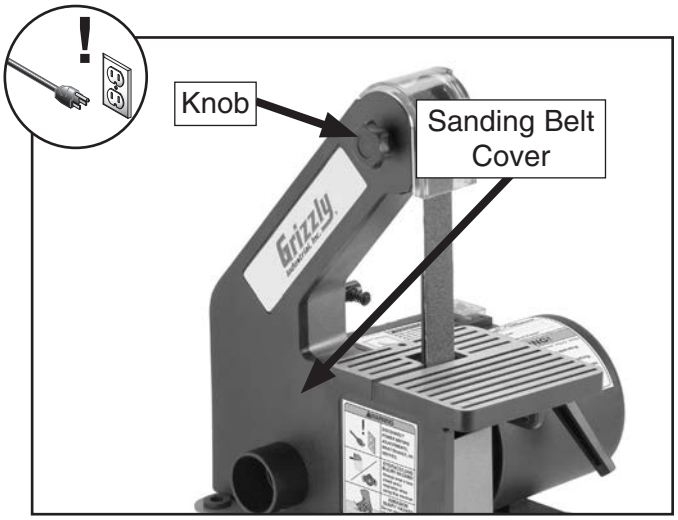


Figure 13. Sanding belt cover.

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**).

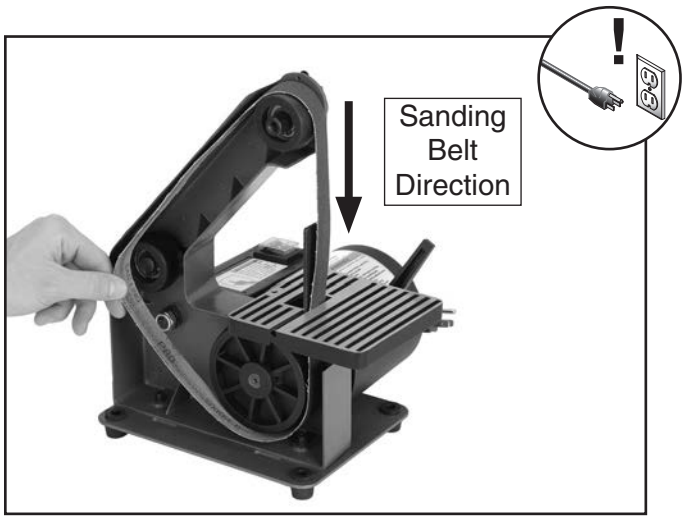


Figure 14. Replacing sanding belt.

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 18**.

SECTION 5: ACCESSORIES

⚠WARNING

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

NOTICE

Refer to our website or latest catalog for additional recommended accessories.

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.

Grit	Model
60 Grit, 10 pack	H4857
80 Grit, 10 pack	H4858
100 Grit, 10 pack	H4859

Basic Eye Protection
T20501—Face Shield Crown Protector 4"
T20502—Face Shield Crown Protector 7"
T20503—Face Shield Window
T20451—"Kirova" Clear Safety Glasses
T20452—"Kirova" Anti-Reflective S. Glasses
T20456—DAKURA Safety Glasses, Black/Clear

Figure 15. Assortment of basic eye protection.

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.

Size	Model
1½" X 1½" X 8½"	W1306
2" X 2" X 12"	W1307
1½" X 1½" X 9" with Handle	W1308
2" X 2" X 11" with Handle	W1309

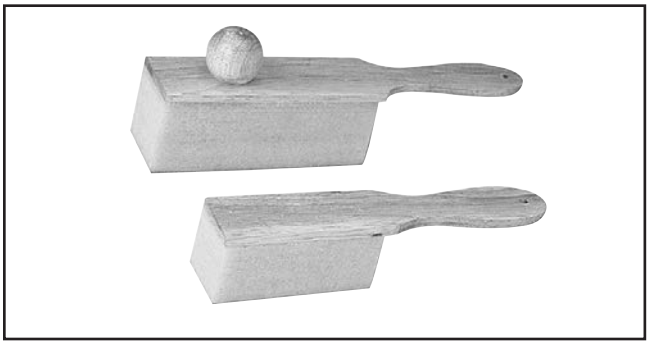


Figure 17. PRO-STICK® abrasive cleaners.

D2056—700 lb Capacity SHOP FOX® Stand
A perfect stand for mounting your smaller machines on. Sturdy and rugged for everyday shop use.

Figure 18. D2056 SHOP FOX® Stand.

W1039—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 ⅛".

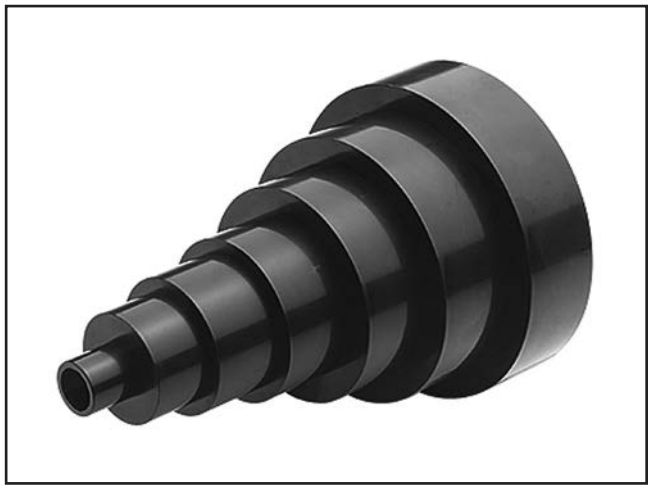


Figure 19. W1039 Universal Adapter.

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.

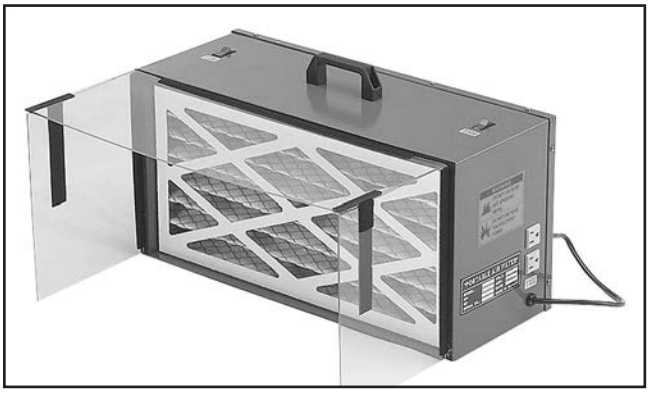
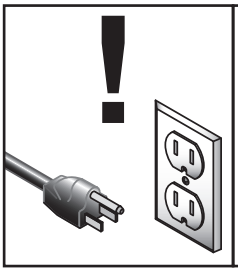


Figure 20. G9955 Dust Filter.

G5562—SLIPIT® 1 Qt. Gel
G5563—SLIPIT® 12 Oz. Spray
G2871—Boeshield® T-9 12 Oz. Spray
G2870—Boeshield® T-9 4 Oz. Spray
H3788—G96® Gun Treatment 12 Oz. Spray
H3789—G96® Gun Treatment 4.5 Oz. Spray

Figure 21. Recommended products for protecting unpainted cast iron/steel part on machinery.

SECTION 6: MAINTENANCE



⚠WARNING

To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

Schedule

For optimum performance from this machine, this maintenance schedule must be strictly followed.

Ongoing
To maintain a low risk of injury and proper machine operation, if you ever observe any of the items below, shut down the machine immediately and fix the problem before continuing operations:

- 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.

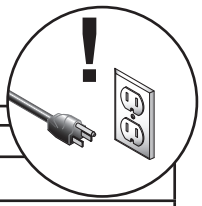
Lubrication

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

SECTION 7: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting



Symptom	Possible Cause	Possible Solution
Motor will not start; fuses/circuit breakers trip.	1. Breaker or fuse at fault. 2. Loose connection or short in line cord, plug, or motor. 3. Machine attached to incorrect power circuit.	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.	1. Workpiece pressure is too great. 2. Breaker or fuse at fault. 3. Incorrect fuses or circuit breakers in power line.	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.	1. Machine placed on uneven surface. 2. Incorrect sanding belt tracking. 3. Weak or broken sanding belt tension spring. 4. Broken/damaged sanding belt.	1. Properly place machine on level surface. 2. Adjust sanding belt tracking (**Page 18**). 3. Replace spring. 4. Replace sanding belt.
Sanded surface not square.	1. Table not square to sanding belt.	1. Square table relative to sanding belt (**Page 17**).
Deep sanding grooves or scars in workpiece.	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.	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.	1. Sanding belt has been stored incorrectly. 2. Sanding surface has been damaged.	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.	1. Too much pressure against belt. 2. Sanding softwood or has paint/varnish.	1. Reduce pressure on workpiece while sanding. 2. Use different stock; change/clean sanding material often.
Burn marks on workpiece.	1. Using too fine of sanding grit. 2. Using too much pressure. 3. Work held still for too long.	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.	1. Sanding wet stock. 2. Sanding stock with high residue.	1. Dry stock proper before sanding. 2. Use different stock; change/clean sanding material often.

SECTION 8: WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.*

⚠WARNING
Wiring Safety Instructions

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

MODIFICATIONS. Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved aftermarket parts.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

CIRCUIT REQUIREMENTS. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

COLOR KEY

BLACK	Bk	BLUE	Bl	YELLOW	Yl	LIGHT BLUE	Lb
WHITE	Wt	BROWN	Br	YELLOW GREEN	Yg	BLUE WHITE	Bw
GREEN	Gn	GRAY	Gy	PURPLE	Pu	TURQUOISE	Tu
RED	Rd	ORANGE	Or	PINK	Pk		

Wiring Diagram

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.

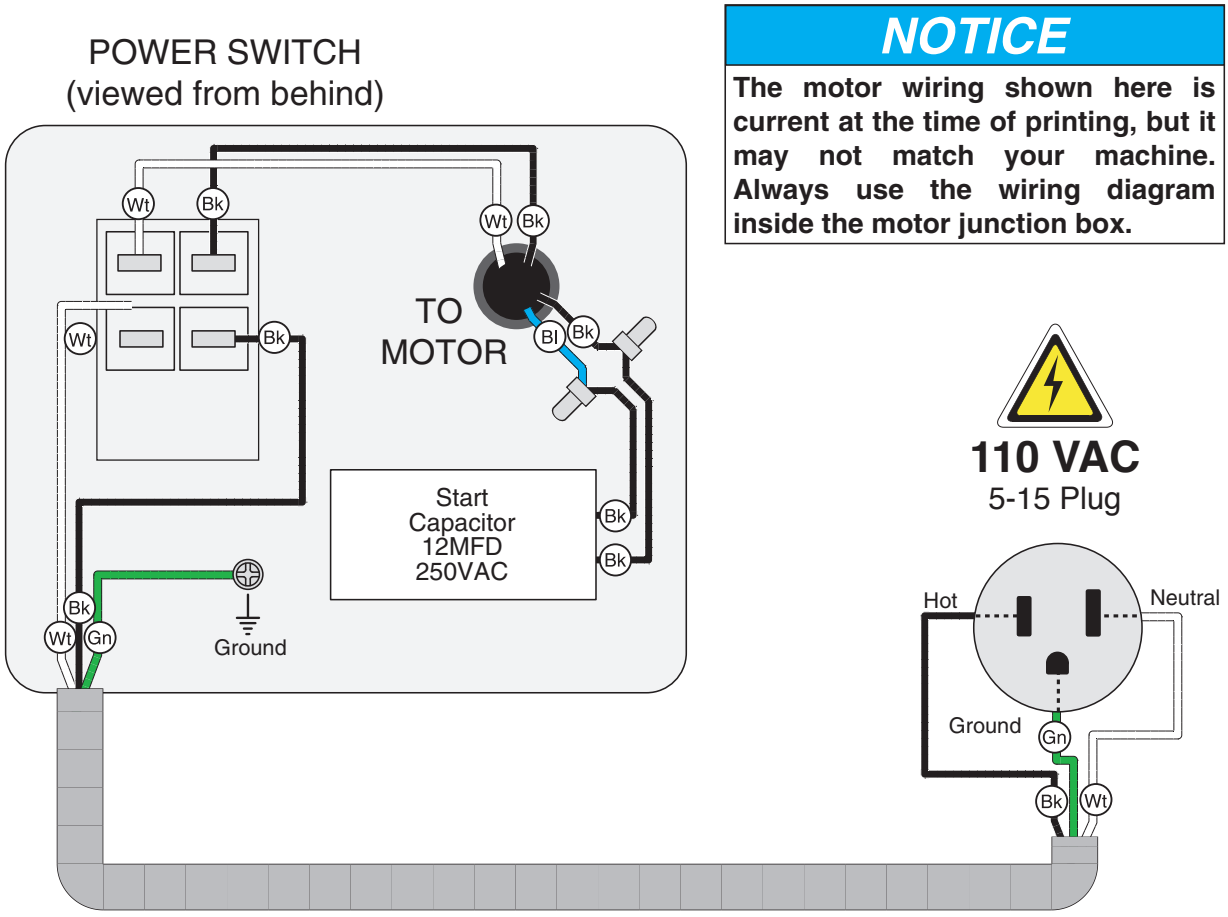
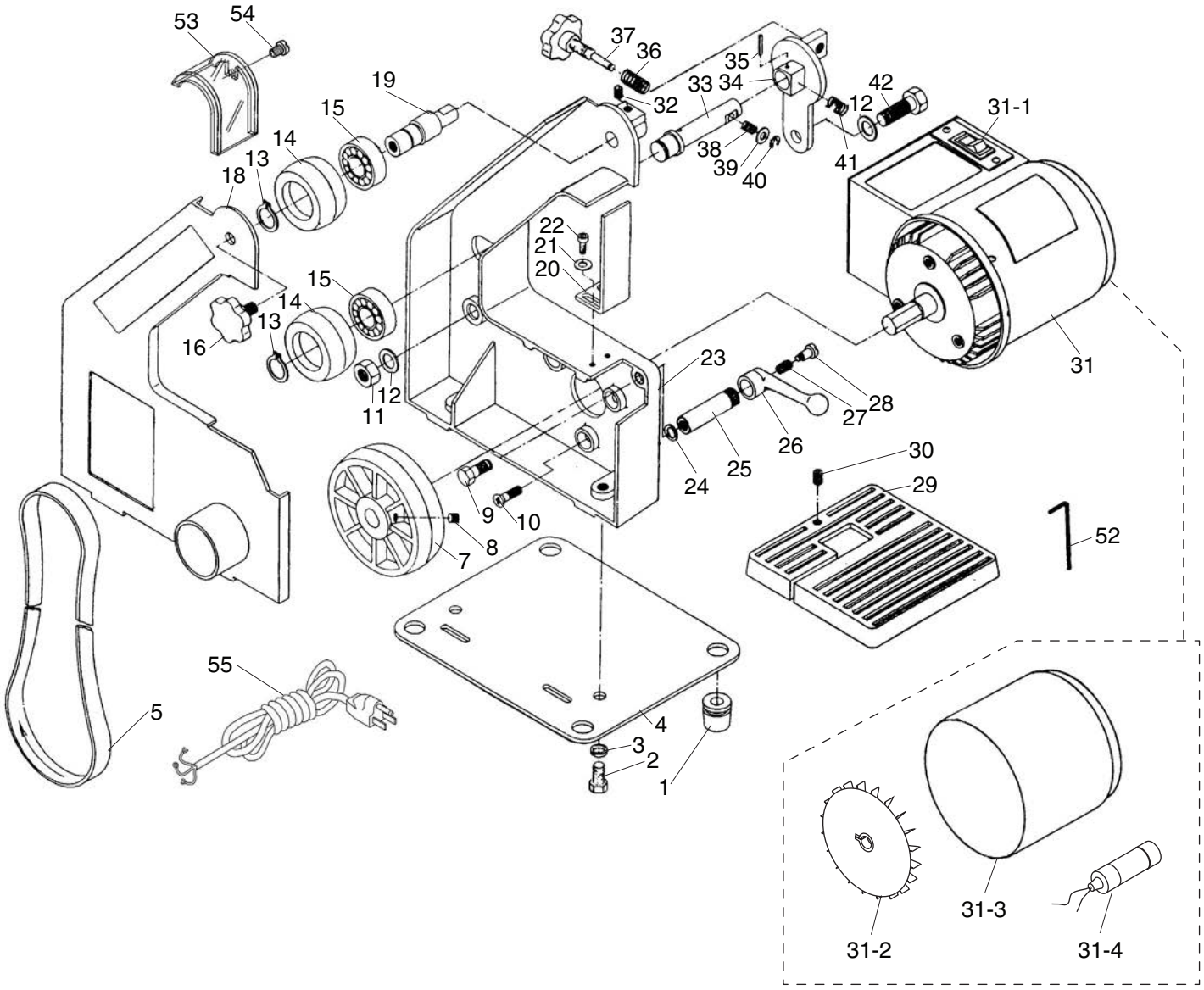


Figure 22. H3140 wiring.

SECTION 9: PARTS

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call **(800) 523-4777** or visit **www.grizzly.com/parts** to check for availability.

Main

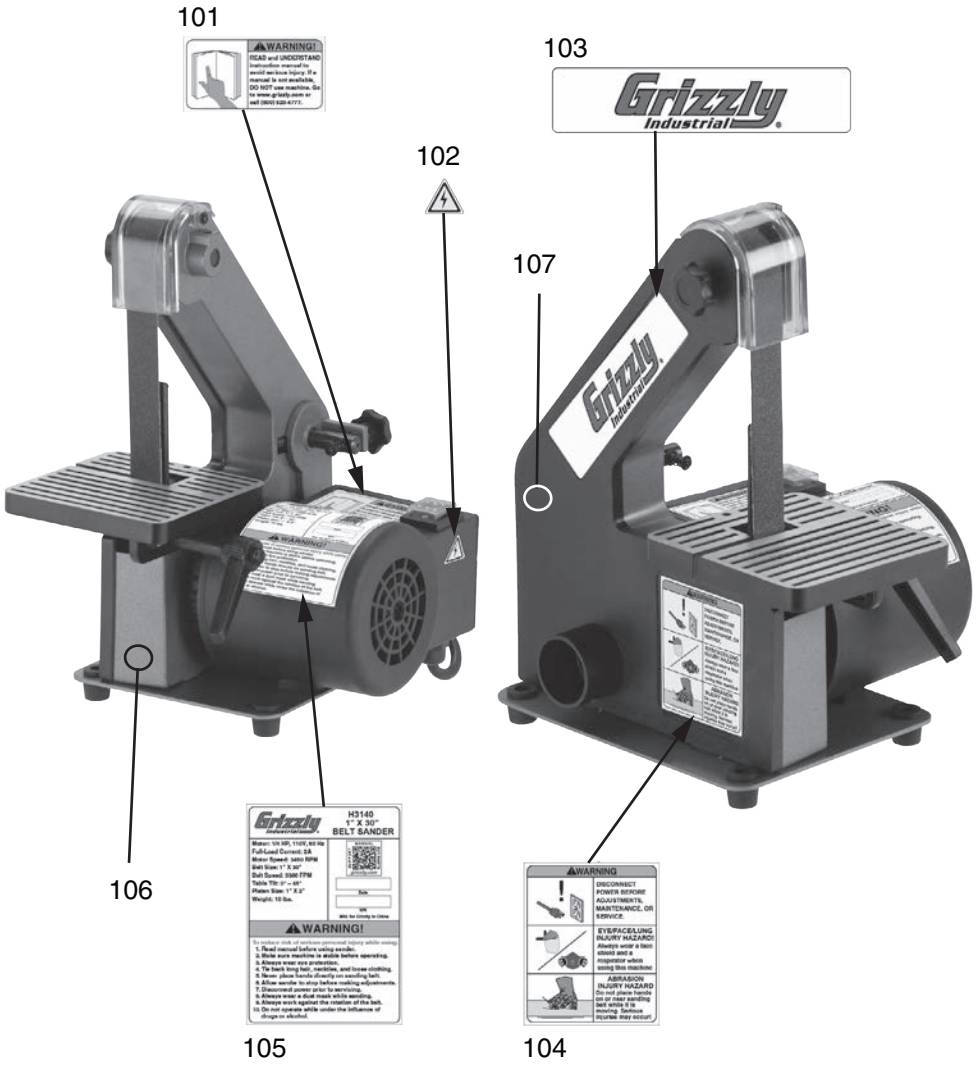


Main Parts List

REF	PART #	DESCRIPTION
1	PH3140001	SUPPORTING FOOT
2	PH3140002	HEX BOLT M8-1.25 X 16
3	PH3140003	LOCK WASHER 8MM
4	PH3140004	BASE
5	PH3140005	SANDING BELT 1" X 30"
7	PH3140007	MOTOR PULLEY
8	PH3140008	SET SCREW M6-1 X 10
9	PH3140009	HEX BOLT M8-1.25 X 24
10	PH3140010	FLAT HD SCR M6-1 X 12
11	PH3140011	HEX NUT M10-1.5
12	PH3140012	FLAT WASHER 10MM
13	PH3140013	EXT RETAINING RING 15MM
14	PH3140014	IDLER PULLEY
15	PH3140015	BALL BEARING 6202ZZ
16	PH3140016	KNOB
18	PH3140018	SIDE COVER
19	PH3140019	PULLEY AXLE
20	PH3140020	PLATEN
21	PH3140021	FLAT WASHER 4MM
22	PH3140022	CAP SCREW M4-.7 X 10
23	PH3140023	BODY
24	PH3140024	EXT TOOTH 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	PH3140030	SET SCREW M6-1 X 16
31	PH3140031	MOTOR ASSY
31-1	PH3140031-1	ROCKER SWITCH V1.03.05
31-2	PH3140031-2	MOTOR FAN
31-3	PH3140031-3	MOTOR COVER
31-4	PH3140031-4	S CAPACITOR 12M 250V 1-3/8 X 2-5/8
32	PH3140032	SET SCREW M6-1 X 8
33	PH3140033	TENSION AXLE
34	PH3140034	AXLE SEAT
35	PH3140035	ROLL PIN 3 X 35
36	PH3140036	COMPRESSION SPRING 9.6MM
37	PH3140037	TENSION HANDLE
38	PH3140038	COMPRESSION SPRING 6MM
39	PH3140039	FLAT WASHER 5MM
40	PH3140040	E-CLIP 4MM
41	PH3140041	COMPRESSION SPRING 9.6MM
42	PH3140042	HEX BOLT M10-1.5 X 30
52	PH3140052	HEX WRENCH 3MM
53	PH3140053	PLASTIC SHIELD FOR UPPER WHEEL
54	PH3140054	PHLP HD SCR M4-.7 X 10
55	PH3140055	POWER CORD

Labels & Cosmetics



REF	PART #	DESCRIPTION
101	PH3140101	READ MANUAL LABEL
102	PH3140102	ELECTRICITY LABEL
103	PH3140103	GRIZZLY LOGO LABEL
104	PH3140104	WARNINGS LABEL

REF	PART #	DESCRIPTION
105	PH3140105	MACHINE ID LABEL
106	PH3140106	TOUCH-UP PAINT, GRIZZLY GREEN
107	PH3140107	TOUCH-UP PAINT, BLACK

⚠WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine MUST replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.

WARRANTY & 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.

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.

In the event you need to use 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.

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.

To take advantage of this warranty, you must register it at **https://www.grizzly.com/forms/warranty**, or you can scan the QR code below to be automatically directed to our warranty registration page. Enter all applicable information for the product.