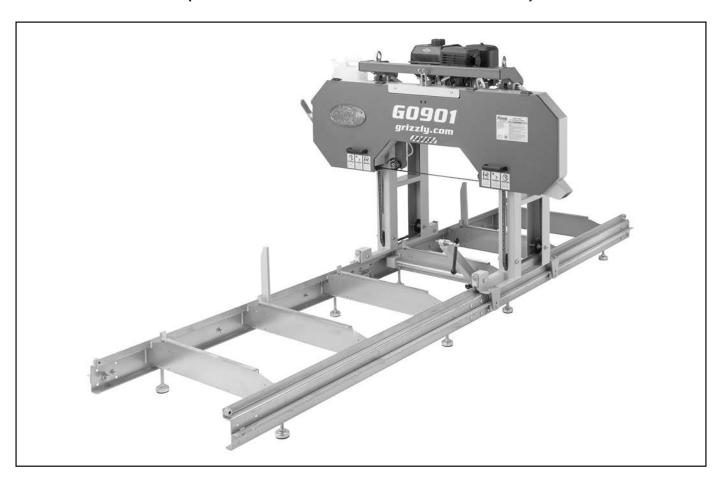


# MODEL G0901 28" PORTABLE SAWMILL

#### **OWNER'S MANUAL**

(For models manufactured since 11/22)



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#AI20609 PRINTED IN TAIWAN



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.



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

#### **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

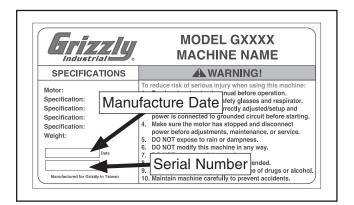
### **Manual Accuracy**

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.

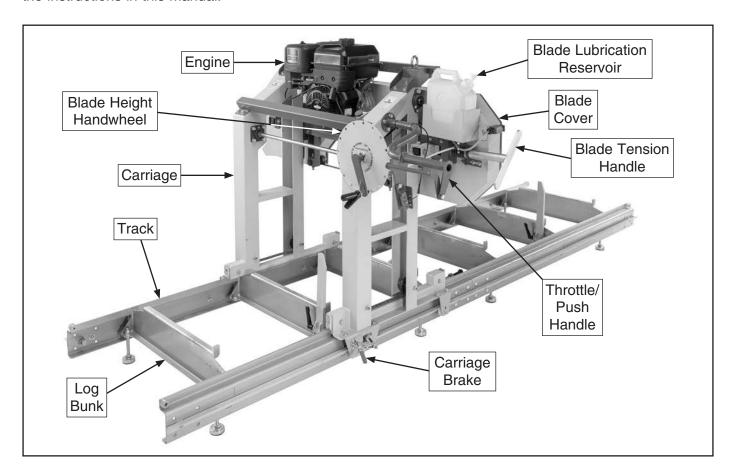
Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation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

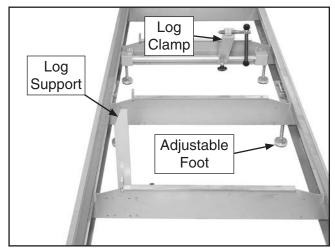


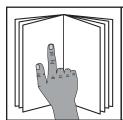


### Identification

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



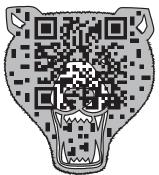




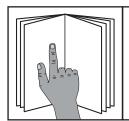
#### **AWARNING**

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

Scan this code to see a video summary of the G0901, including features, controls, and operations!



# Controls & Components



#### **AWARNING**

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

Refer to the following figures and descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and minimize your risk of injury when operating this machine.

#### **Engine**



Figure 1. Engine controls.

- A. Engine Speed Lever: Regulates amount of air entering engine, controlling engine speed. Move halfway between SLOW (turtle) and FAST (rabbit) when starting engine. Adjust lever as needed for operation.
- B. Engine Choke Lever: Controls choke valve and air-to-fuel ratio in engine. Move lever to CLOSED ([►]) position when starting engine cold. Move lever to OPEN ([►]) position after engine starts. Use OPEN ([-]) position if starting engine warm.
- C. Starter Rope: Pull several times to start engine. Slowly retract starter once engine starts.

#### **Operator Station & Carriage**

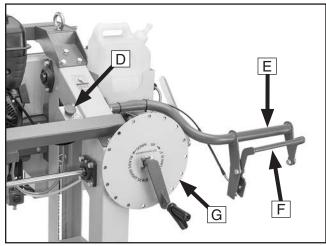


Figure 2. Operator controls.

- **D.** Emergency Stop Button: Shuts off engine when pressed. Twist stop button to reset before restarting engine.
- **E.** Push Handle: Moves carriage along track.
- F. Throttle Handle: Increases engine speed when squeezed. Fully engage throttle when starting motor and to start blade.
- **G. Blade Height Handwheel:** Raises/lowers saw blade. One full revolution moves blade approximately 1", with stops at 1/16" increments.

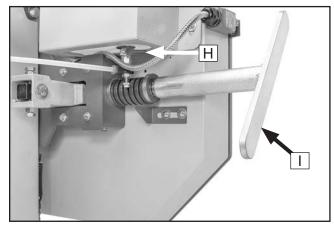


Figure 3. Behind blade cover.

- H. Blade Lubricant Shutoff Valve: Starts/stops flow of lubricant onto blade.
- Blade Tension Handle: Increases/decreases blade tension (refer to Page 23 for more information).



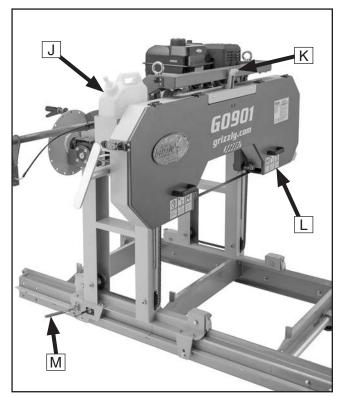


Figure 4. Saw carriage.

- J. Blade Lubricant Reservoir: Holds water or water/soap solution to keep blade cool and keep sap/resin from clogging blade during operation.
- K. Blade Cover Latch: Secures blade cover in open position for blade changes and belt tension.
- L. Blade Cover: Protects blade and wheels from elements, and guards operator from entanglement and injury. Features a built-in limit switch that keeps saw from operating when cover is open.
- M. Carriage Brake: Secures carriage during service and maintenance.

#### **Track Components**

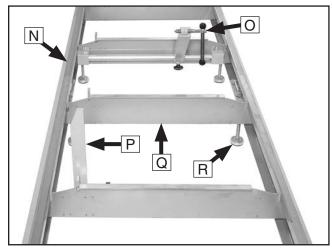


Figure 5. Track components.

- N. Rail: Supports carriage.
- O. Log Clamp: Secures log against log support.
- P. Log Support: Secures and levels log to ensure flat cuts.

**IMPORTANT:** Log support and log clamp must be angled to stay below saw blade height during operation.

- **Q.** Log Bunk: Supports log during operation.
- R. Adjustable Foot: Keeps track level and stable.

### **Glossary Of Terms**

The following is a list of common definitions, terms and phrases used throughout this manual as they relate to this sawmill and milling in general. Become familiar with these terms for assembling, adjusting or operating this machine. Your safety is **VERY** important to us at Grizzly!

**Board Foot:** Unit of measurement for volume of lumber cut from a log. Used to measure productivity and cost. A board foot is typically measured as a piece of wood 1' x 1' x 1", or 144 cubic inches.

**Burl:** A tough outgrowth on a log with deformed grains that make elaborate patterns. Burls are difficult to cut, but often have unique patterns desirable to woodworkers.

Cant: Partially cut log with one to four flat sides.

A cant might be cut on a sawmill and moved to another machine, finished on the sawmill, or sold as-is.

**Carriage:** Structure that supports the engine and saw blade and moves along the track.

**Flatsawn:** Lumber sawn nearly parallel to the wood grain. Most efficient lumber to mill, but most susceptible to warping and cupping. Also called plainsawn lumber.

**Flitch:** Piece of wood with two flat surfaces and one or two natural edges. Flitches can be edged to produce finished lumber.

**Grade Sawing:** Process of rotating log or cant multiple times throughout milling in order to produce lumber of the highest possible grade.

**Kerf:** The resulting cut or gap in the workpiece after the saw blade passes through during a cutting operation.

Live Sawing: Process of cutting parallel through log or cant from top to bottom. Most efficient method of milling that produces flatsawn, quartersawn, and riftsawn lumber.

**Parallel:** Being an equal distance apart at every point along two given lines or planes; i.e., the rip fence face is parallel to the face of the saw blade.

**Perpendicular:** Lines or planes that intersect and form right angles; i.e., the blade is perpendicular to the table surface.

**Pith:** The central rings in a log or tree. The pith is the oldest wood, created when the tree was young. It is prone to cracking as wood dries and shrinks.

Plainsawn: See "Flatsawn".

**Quartersawn:** Lumber sawn so the grain is perfectly perpendicular to the flat surface of the board. Quartersawn lumber is resistent to warping and cupping, but is time consuming and produces the most waste wood.

**Riftsawn:** Lumber sawn so that the grain is close to perpendicular to the flat surface of the board. Riftsawn lumber is resistant to warping and cupping, but is time consuming to mill.

**Slab:** Piece of wood with one flat surface and the rest is natural wood. As a by product of milling lumber, slabs are often sectioned and used as firewood.

**Sticker:** Pieces of narrow wood (approximately 1"x1") used to separate lumber that is stacked for air drying. Usually made of light wood that will not stain the drying lumber.

**Stickering:** Process of stacking wood using stickers.

Waney: Edge of a board that is tapered or unfinished.





**Product Dimensions:** 

# MACHINE DATA SHEET

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

#### MODEL G0901 28" PORTABLE SAWMILL

Weight	838 lhs
Weight	
Footprint (Length x Width)	
hipping Dimensions:	
Type	Wood Slat Crate
Content	Machine and Toolbo
Weight	993 lbs
Length x Width x Height	87 x 45 x 50 ir
Must Ship Upright	Ye
ngine:	
Main	
Manufacturer	Briggs & Stratton
Horsepower	13.5 HI
Displacement	420 c
Oil Capacity	39 oz
Starter	Manua
ain Specifications:	
Cutting Capacity	
Max. Log Length (with included track sections)	9 ft. 3 in
Min. Log Length	
Max. Log Diameter	
Max. Width of Cut	22 ir
Max. Depth of Cut	7 in
Min. Height Above Bed	
Track Length	12 ft. (6 ft. Track Sections
Track Width	•
Blade Information	
Blade Speeds	4825 FPN
Blade Speeds	
Blade Speeds	144 - 145 ir
Blade Length	144 - 145 ir
Blade LengthBlade Width	
Blade Length	
Blade Length Blade Width Blade Thickness Blade Guides  Operation	
Blade Length Blade Width Blade Thickness Blade Guides  Operation  Feed System	
Blade Length Blade Width Blade Thickness Blade Guides  Operation	



#### Construction

	Track	Electroplated Steel
	Frame	Steel
	Body	Steel
	Wheels	Cast Iron
	TrackFrame Body WheelsPaint	Powder Coated & Epoxy
Ac	dditional Information	
	Wheel Size	18-3/4 in.
	Blade Lubrication (type)	Water or Water w/Soap
	Lubrication Reservoir (capacity)	1-1/4 gal.
	Track Extensions	6 ft. Sections
	Track ExtensionsTrack Leveling	4 Adjustable Feet per Section
Other Sp	pecifications:	
Co	ountry of Origin	Taiwan
Wa	arranty	1 Year
So	ound Rating	90 - 92 dB
Ap	proximate Assembly & Setup Time	1 Hr.
Se	erial Number Location	ID Label

#### Features:

13.5 HP Briggs & Stratton Engine
Included 145" x 1" x 0.035" 2 TPI Blade
Manual Lift System Raises 1" per Revolution with 1/16 in. Stop Increments
Easy-Set Blade Tensioning
Low-to-the-Ground Bed
Adjustable Log Supports and Log Clamp
Blade Lubrication System
Easy Shipping and Assembly



## **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.



Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

**AWARNING** 

Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

**A**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**

#### **AWARNING**

**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.



# **AWARNING**

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 Sawmills**

### **AWARNING**

Serious cuts, amputation, or death can occur from contact with the moving saw blade during operation or if blade breakage occurs. Death or sickness can occur from carbon monoxide poisoning if operating in an enclosed space. To reduce these risks, anyone operating this machine MUST completely heed the hazards and warnings below.

**OPERATING POSITION.** Keep hands and feet away from all moving parts and do not reach over or across sawmill during operation. Never support lumber by hand during operation. Use non-skid safety shoes and hardhat as needed.

**AMPUTATION/ENTANGLEMENT.** Do not operate this sawmill without blade cover in place and properly functioning limit switch. Loose clothing, jewelry, long hair and work gloves can be drawn into working parts.

ADEQUATE VENTILATION. The sawmill engine produces carbon monoxide, which is a poisonous gas. Make sure work area is adequately ventilated. Never operate this machine in an enclosed area such as a shed, garage, or basement. Do not operate machine near windows or doors where carbon monoxide can be drawn into an occupied space.

**HOT ENGINE.** Engine and other parts of machine get hot during operation. Contact with hot components can cause severe burns. Allow engine to cool before placing hands near engine, adding fuel, or performing any service or maintenance.

**MAINTENANCE/SERVICE.** Always shut down engine and wait for parts to come to a stop before making adjustments, changing blade, or servicing machine. Consult engine manual for proper shut down procedure to prevent injury from accidental startup.

**BLADE CONDITION.** Do not operate with dull, cracked, or badly worn blade. Inspect blades for cracks and missing teeth before each use. When replacing blades, always shut off engine, wear gloves to protect hands and safety glasses to protect eyes, and ensure blade is installed with teeth oriented in correct direction.

correct use. Do not mill lumber that exceeds machine capacity or attempt to saw any material other than lumber. Distribute load evenly using approved supports and clamps to prevent machine from tipping or lumber from rolling off track. Excess or improper material increases the risk of injury.

**OPERATING AREA.** Only operate sawmill on a reasonably flat and level surface with space to work around the machine. Be aware of potential hazards in the work area such as other machinery, lumber, and power lines above or below the ground. Operating in a confined space increases risk of injury.

**FIRE HAZARD.** Clean sawdust buildup around engine and exhaust areas after each use. Do not operate near flammable liquids, gasses, or dust. Sparks can ignite dust or fumes. Do not operate machine near open flame and never smoke during operation.

### **AWARNING**

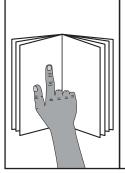
Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

# **ACAUTION**

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: 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!



# **AWARNING**

Wear safety glasses during the entire setup process!



### **AWARNING**

**HEAVY LIFT!** 

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

### **Needed for Setup**

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

Des	scription	Qty
•	An Assistant	1
•	Safety Glasses (for each person)1	Pair
•	Gloves (for each person)1	Pair
•	Level	1
•	Lifting Straps	
	(rated for at least 1000 lbs.)	2
•	A hoist or forklift	
	(rated for at least 1000 lbs.)	1
•	Open-Ended Wrenches 17, 24mm1	Ea.
•	Wrench or Socket 10mm	1
•	Boards or Plywood	
	(length of track) As Nee	ded
•	Engine Fuel/Oil As Nee	ded

# **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.

Cra	te Inventory Qty
Α.	Lift Bar1
В.	Carriage1
C.	Guide Rails2
D.	Track Section, Rear1
E.	Track Section, Front 1
F.	Caster Bracket w/Brake1
G.	Caster Brackets3
Н.	Wool Pads 4
l.	Track Brackets2
J.	Adjustable Feet8
K.	Blade 145" x 1" x 0.035" 2 TPI (Not Shown) 1
L.	Toolbox (Not Shown) 1
	—T-Handle Socket Wrench 17mm 1
	—Open-End Wrenches 19/17,
	13/11, 10/8mm1 Ea.
	—Flat Head Screwdriver 1/4" 1
	—Phillips Head Screwdriver #2 1
	—Hex Wrench 7-Pc. Set (2.5-10mm) 1
Loc	ose Hardware (Not Shown) Qty
М.	,
	—Hex Nuts M16-28
N.	Track Hardware
	—Hex Bolts M10-1.5 x 1802
	—Flat Washers 10mm 8
	—Lock Washers 10mm4
	—Hex Nuts M10-1.5 6
	—Carriage Bolts M10-1.5 x 25 16
	—Flat Washers 10mm 16
	— lat washers formiti
	—Lock Nuts M10-1.5

Ο.	Guide Rail Hardware	
	—Carriage Bolts M10-1.5 x 20	12
	—Flat Washers 10mm	12
	—Lock Nuts M10-1.5	12
P.	Caster Bracket Hardware	
	—Hex Bolts M8-1.25 x 16	8
	—Flat Washers 8mm	8
	—Lock Washers 8mm	8
Q.	Wool Pad Hardware	
	—Hex Bolts M6-1 x 16	4
	—Flat Washers 6 x 23 x 1.65mm	4
	—Lock Nuts M6-1	
	—Lock Washers 6mm	

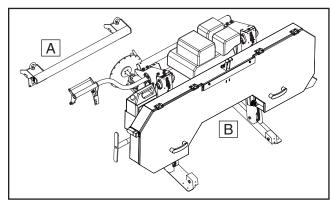


Figure 6. Carriage parts.

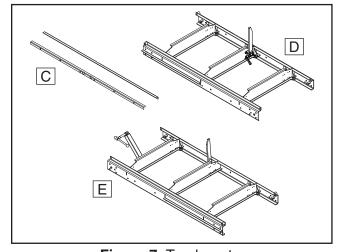


Figure 7. Track parts.

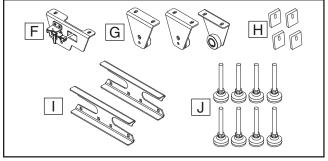
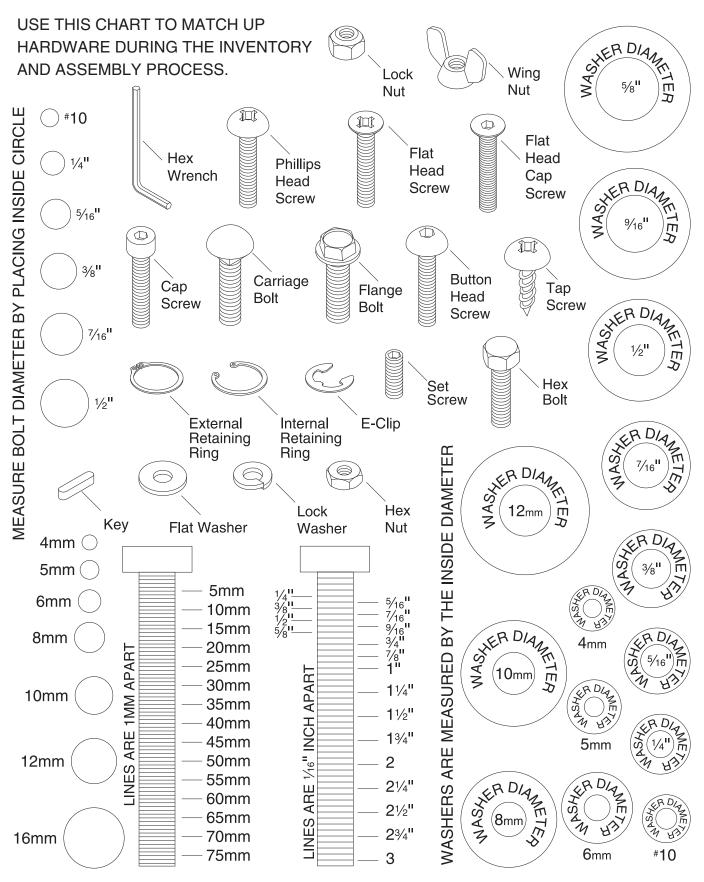


Figure 8. Small parts.



### **Hardware Recognition Chart**



#### **Site Considerations**

#### **Physical Environment**

The physical environment where the machine is operated is important for safe operation and longevity of components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range is outside 41°–104°F; the relative humidity range is outside 20–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

#### **Space Allocation**

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. See below for required space allocation.

#### Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest work-piece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

#### Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.



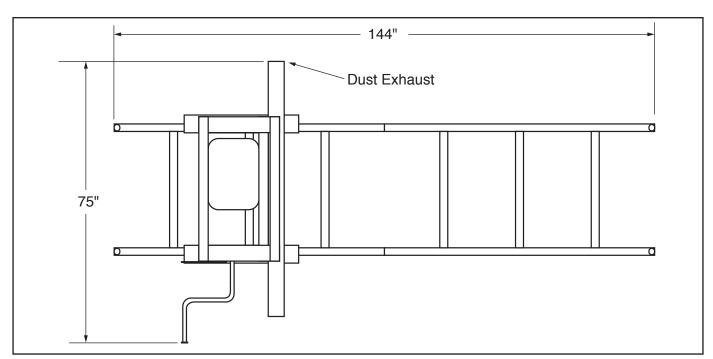


Figure 9. Working clearances.

#### **Assembly**

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).



### **AWARNING**

HEAVY LIFT!
Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people

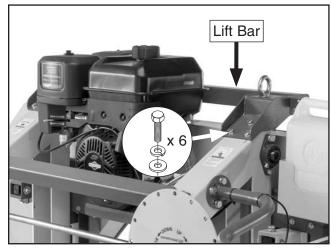
get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

#### To assemble sawmill:

- 1. Remove top and sides from crate.
- 2. Unbolt carriage from crate pallet.
- 3. Remove (6) M10-1.5 x 20 hex bolts, (6) 10mm lock washers, (6) 10mm flat washers, (8) M8-1.25 x 16 hex bolts, (8) 8mm flat washers, and (8) lock washers from carriage, then attach lift bar to carriage with removed hardware (see **Figures 10–11**).



Figure 10. Lift bar installed on carriage (front).



**Figure 11.** Lift bar installed on carriage (rear).

- Use forklift or hoist to lift carriage from pallet and move it out of the way during track assembly.
- If workspace is uneven or on soft ground, place boards down to support adjustable feet and distribute weight of machine.
- **6.** With the help of an assistant, remove both track sections and place them in assembly location, oriented as shown in **Figure 12**.

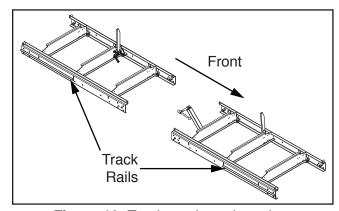


Figure 12. Track section orientation.



7. Attach (4) adjustable feet to each track section. Level track sections by eye and loosely attach M16-2 hex nut to each foot (see Figure 13).

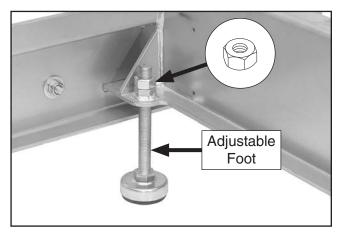


Figure 13. Adjustable foot.

**Note:** Tops of adjustable feet must be below the surface of the track. Feet that rise above track will interfere with carriage movement.

- **8.** Loosely attach track bracket on each side of track with (8) M10-1.5 x 25 carriage bolts, 10mm flat washers, and M10-1.5 lock nuts, as shown in **Figure 14**.
- Insert M10-1.5 x 180 hex bolt between track sections on each side of track with (4) 10mm flat washers, (2) 10mm lock washers, and (3) M10-1.5 hex nuts, as shown in Figure 14.

**Note:** Pay attention to the order hardware is added to the hex bolt as it is inserted through track sections.

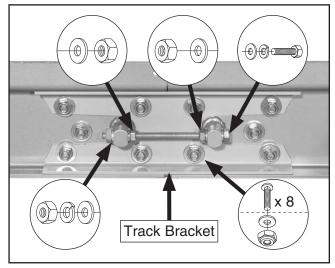


Figure 14. Properly assembled track bracket.

- **10.** Verify top edge of track sections are flush with each other.
  - If track sections are not flush with each other, level track sections by adjusting height of adjustable feet.
- **11.** Tighten external M10-1.5 hex nut to pull track sections together (see **Figure 15**).
- **12.** Tighten (2) internal M10-1.5 hex nuts to secure hex bolt (see **Figure 15**).

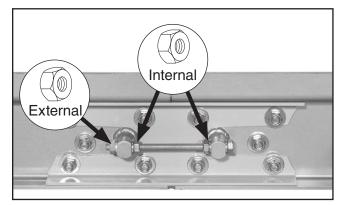


Figure 15. Track section securing hex bolt.

- **13.** Tighten all track bracket carriage bolts and lock nuts.
- **14.** Check that track is level front-to-back and side-to-side and adjust feet if needed.
- Attach guide rail to each side of track with (6) M10-1.25 x 20 carriage bolts, 10mm flat washers, and M10-1.5 lock nuts (see Figures 16-17).

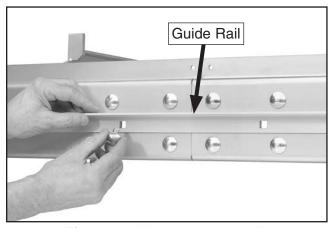


Figure 16. Attaching guide rail.



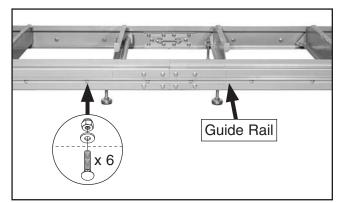


Figure 17. Guide rail installed.

**16.** Use forklift or hoist to lift carriage and place it on track.

**Note:** Carriage must face forward for log supports and log clamp to function. Log clamp is attached to front rail section.

- 17. Attach caster bracket with brake to left-rear corner of carriage with (2) M8-1.25 x 16 hex bolts, 8mm lock washers, and 8mm flat washers (see Figure 18).
- **18.** Attach each remaining caster bracket to remaining corners of carriage with (2) M8-1.25 x 16 hex bolts, 8mm lock washers, and 8mm flat washers (see **Figure 18**).

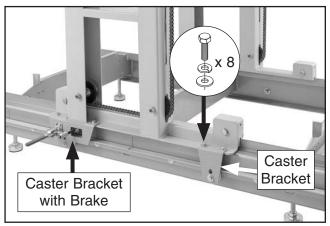


Figure 18. Caster brackets installed on carriage.

19. Attach (1) wool pad to each corner of carriage with (1) M6-1 x 16 hex bolt, 6 x 23 x 1.65mm flat washer, M6-1 lock nut, and 6mm lock washer (see Figure 19).

**Note:** Pads will wipe sawdust from track to prevent particles from interfering with rollers.

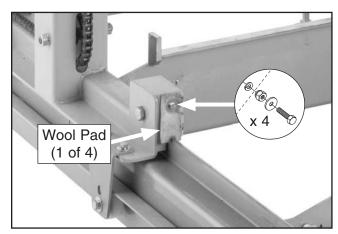


Figure 19. Pad installed at carriage corner.

- **20.** Move carriage to end of track and secure in place with carriage brake.
- **21.** At opposite end of track from carriage, use level and adjust feet so track is level front-to-back and side-to-side.
- **22.** Move carriage to other end of track and secure in place with carriage brake.
- **23.** At opposite end of track from carriage, use level and adjust front feet so track is level front-to-back and side-to-side.
- **24.** Repeat **Steps 20–23** until track remains level when carriage is moved from one end to the other.
- **25.** Tighten M16-2 hex nut on each adjustable foot.
- 26. Install blade (see Installing Blade on Page 23).



#### **Test Run**

Once assembly is complete, test run machine to ensure engine 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 engine starts and runs correctly, and 2) the Emergency Stop button and limit switch function properly.

#### 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.

### **AWARNING**

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 sawmill:

- 1. Clear all setup tools away from machine.
- Read and understand Briggs & Stratton engine manual that accompanied this sawmill and follow all safety precautions. Read and understand entire Grizzly manual and follow all safety precautions.

- **3.** Fill engine to required fuel and oil levels.
  - **IMPORTANT:** Engine is not filled prior to shipping. Running engine without proper oil and fuel can result in irreparable damage.
- **4.** Ensure blade cover is completely closed.
- Twist Emergency Stop button clockwise until it springs out (see Figures 20–21). This resets switch so machine can start.

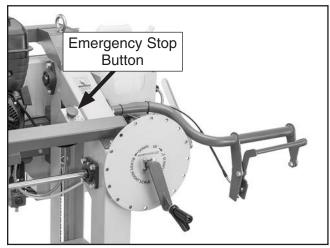


Figure 20. Location of Emergency Stop button.

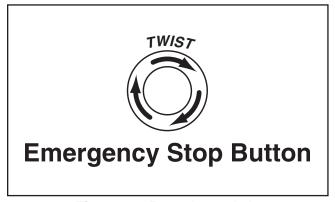


Figure 21. Resetting switch.

6. Close choke ( ) (see Figure 22).

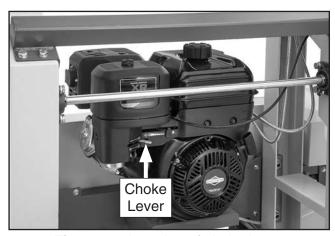


Figure 22. Location of choke lever.

#### WARNING

Pulling starter cord without resistance in following step can cause it to jerk and injure pulling arm or hand.

7. Squeeze throttle handle, pull starter rope slowly until you feel resistance, then pull starter rope rapidly to start engine (see Figure 23). Verify engine starts and runs smoothly without any unusual problems, leaks, or noises.

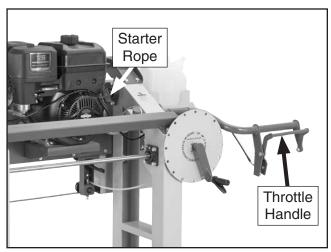


Figure 23. Engine starting controls.

- **8.** Press Emergency Stop button to turn machine *OFF*.
- **9.** WITHOUT resetting Emergency Stop button, try to start machine by pulling starter. Machine should not start.
  - If machine does not start, safety feature of Emergency Stop button is working correctly.
  - If machine does start with Emergency stop button pushed in, immediately turn it OFF. Safety feature of Emergency Stop button is NOT working properly and must be replaced before further using machine.
- 10. Reset Emergency Stop button, then open blade cover and secure it with blade cover latch. Try to start machine by pulling starter. Machine should not start.
  - If machine does not start, safety feature of limit switch is working correctly.
     Congratulations! Test Run is complete.
  - If machine does start with blade cover open, immediately turn it OFF. Limit switch is NOT working properly and must be replaced before further using machine.

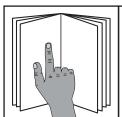


# **SECTION 3: OPERATIONS**

### **Operation Overview**

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.



### **AWARNING**

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

#### WARNING

Eye injuries, respiratory problems, or hearing loss can occur while operating this tool. Wear personal protective equipment to reduce your risk from these hazards.







#### **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.



#### **A**CAUTION

Raw lumber can be heavy, slippery, sharp, or contain sharp objects. Wear gloves when handling to reduce risk of injury.

# To complete a typical operation, the operator does the following:

- 1. Examines the workpiece to make sure it is suitable for cutting.
- Secures log to track with log supports and log clamp and ensures supports and clamp are positioned to be clear of the cut.
- **3.** Fills blade lubricant reservoir with water.
- **4.** Checks workspace around machine to ensure sufficient operating room.
- 5. Checks blade tension and sets roller guide width.
- **6.** Adjust blade height to desired thickness.
- **7.** Puts on safety glasses, hearing protection, and respirator.
- 8. Starts engine.
- **9.** Holds down throttle handle and allows blade to reach maximum speed, then pushes carriage slowly until blade passes through entire length of log.
- **10.** Releases throttle handle and allows blade to slow to a stop.
- **11.** Removes sawn lumber from log and moves lumber out of sawmill work area.
- **12.** Raises blade enough to pull carriage back to start position without hitting workpiece.
- 13. Lowers blade for next cut or shuts down engine.



# Workpiece Inspection

Some workpieces are not safe to cut or may require modification before they are safe to cut. Before cutting, inspect all workpieces for the following:

- Material Type: This machine is intended for cutting natural wood logs only. The maximum diameter of log that can be sawn is 28". This machine is NOT designed to cut metal, glass, stone, tile, etc.; cutting these materials with a sawmill may lead to injury and machine/blade damage.
- Debarking: Bark can trap and hide foreign objects, such as tramp metal or hidden nails, and can cause excessive blade wear. Consider debarking your logs for increased safety and longer blade life.
- Branches and Uneven Logs: Use a chainsaw or other saw to remove any branches that prevent the log from lying evenly against the track and log supports. Similarly, uneven burls protruding from the log may need to be removed before the log can be sawn.

### **Changing Blade**

Blade changes entail removing the existing blade, installing the new blade, then properly adjusting the blade tension, tracking, and guides.



#### **AWARNING**

Disconnect spark plug wire before performing adjustments or maintenance to reduce risk of accidental start-up injury.

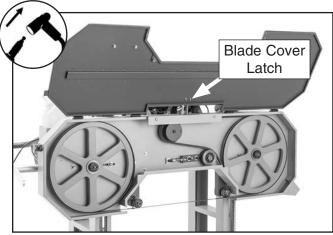


#### **A**CAUTION

Saw blades are sharp and may cause lacerations. To reduce the risk of injury, wear leather gloves when handling saw blades.

#### **Removing Blade**

- 1. DISCONNECT SPARK PLUG WIRE!
- 2. Release blade tension by turning blade tension handle counterclockwise until handle slackens, then push handle toward machine.
- Open blade cover and support it on blade cover latch (see Figure 24).



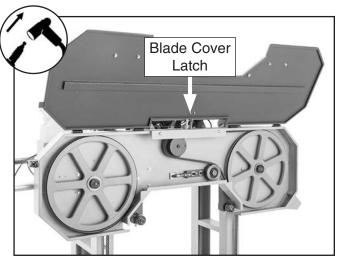
**Figure 24.** Blade cover supported by blade cover latch.

**4.** Slide blade off top of wheels, then remove blade from bottom of wheels.



#### **Installing Blade**

- 1. DISCONNECT SPARK PLUG WIRE!
- Open blade cover and support it on blade cover latch (see Figure 25).



**Figure 25.** Blade cover supported by blade cover latch.

- **3.** Hold blade from each side and position it in front of wheels so blade teeth are facing front of machine and pointing toward dust port.
- Slide blade through slots in bottom of blade housing and under guide rollers (see Figure 26), then slide blade over each wheel.

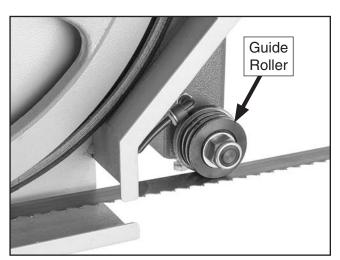


Figure 26. Proper blade routing.

- Close blade cover.
- Adjust blade tension, then adjust guide rollers (see Tensioning Blade on this page and Adjusting Guide Rollers on Page 24).

### **Tensioning Blade**

A properly tensioned blade is essential for making accurate cuts, maximizing blade life, and making other bandsaw adjustments. However, a properly tensioned blade will not compensate for cutting problems caused by excessive feed rate, hardness variations between workpieces, and improper blade selection.

An over-tensioned blade increases the chance of the blade breaking or wheel misalignment. Undertensioned blades wander excessively while cutting and will not track properly during operation.

Use a blade tensioning gauge to determine how much to tighten the blade tension handle (see Page 34).

**IMPORTANT:** Always release blade tension when storing machine. Storing the blade with high blade tension for extended time period can deform blade and weaken tensioning spring, reducing the durability and accuracy of the machine.

Items Needed	Qty
Blade Tensioning Gauge	1

#### To tension blade:

- 1. DISCONNECT SPARK PLUG WIRE!
- **2.** Open blade cover and support it on blade cover latch (see **Figure 27**).

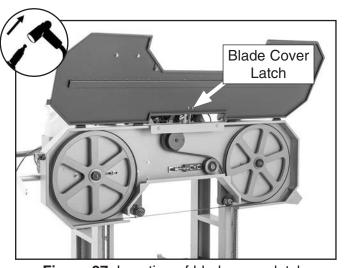


Figure 27. Location of blade cover latch.



3. Push blade tension handle away from machine, then watch blade as you turn handle clockwise until desired tension is achieved. If blade shifts or does not sit squarely on blade wheels during step, release tension, reposition blade, then re-tension.

**Note:** Refer to blade manufacturer for recommended tension. 15,000–20,000 PSI is common for most types of steel blades.

**Tip:** Once you tension blade, loosen screws shown in **Figure 28**, move indicator bracket even with spring head, then tighten screws. You can use this indicator as a quick tensioning guide until you change blades.

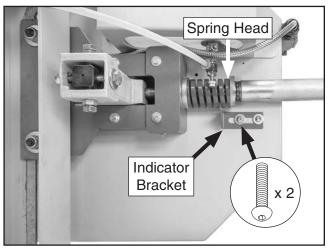


Figure 28. Blade tension indicator.

Close blade cover.

# Adjusting Guide Rollers

Guide rollers firmly support blade position along the cutting section of the blade (see **Figure 29**). After changing the blade, or if milling operations produce inconsistent cuts, adjust the guide rollers to the back of the blade, then adjust the tilt and height.

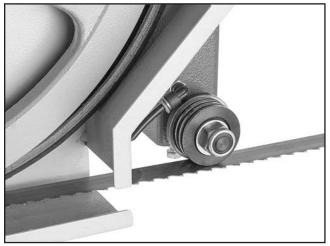
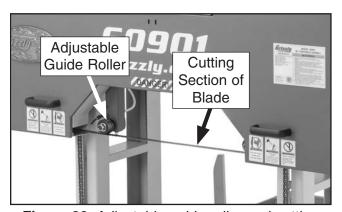


Figure 29. Guide roller supporting blade.

The left guide roller can be adjusted to change the cutting width, or the distance between the rollers, from 12"–24". During operations, keep the cutting portion of the blade between the rollers as narrow as possible.

#### **Adjusting Cutting Width**

Before making any adjustments to the guide rollers, adjust the cutting width for your intended operation so adjustments will be accurate.



**Figure 30.** Adjustable guide roller and cutting section of blade.



#### To adjust cutting width:

- 1. DISCONNECT SPARK PLUG WIRE!
- 2. Push lock lever inward to loosen it (see Figure 31).
- 3. Push guide roller in or out until the cutting section of the blade is the correct width, then push lock lever out to secure roller guide (see Figure 31).

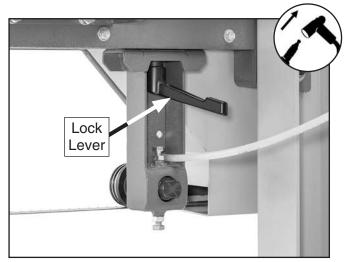


Figure 31. Left guide roller lock lever.

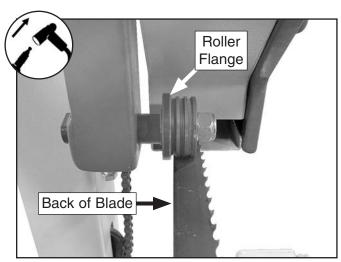
# Adjusting Guide Rollers to Back of Blade

When properly adjusted, there is about  $\frac{1}{32}$ "- $\frac{1}{16}$ " between the flange of the roller guides and the back of the blade.

Items Needed	Qty
Caliper	1
Wrench or Socket 13mm	

#### To adjust guide rollers to back of blade:

- DISCONNECT SPARK PLUG WIRE!
- 2. Measure distance between back of blade and flange of roller (see **Figure 32**).



**Figure 32.** Distance from back of blade to roller flange.

- If distance *is* between ½2"-½6", no adjustment is necessary. Proceed to **Step 5**.
- If distance *is not* between ½2"-½6", proceed to **Step 3**.
- Loosen lower hex bolt on guide roller enough so guide roller rod can be moved toward or away from blade (see Figure 33).

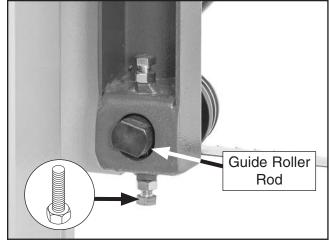


Figure 33. Guide roller adjustment components.

- 4. Adjust guide roller rod until there is about \( \frac{1}{32}\text{"}-\frac{1}{16}\text{"}\) between roller flange and back of blade, then tighten hex bolt.
- **5.** Repeat measurement and any required adjustments for second guide roller.
- 6. Proceed to Adjusting Guide Roller Tilt.



#### **Adjusting Guide Roller Tilt**

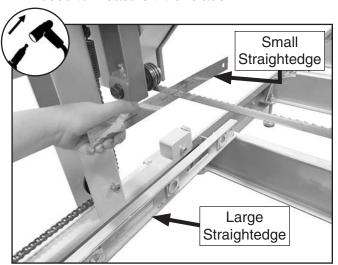
Check the tilt of the roller guides to ensure the blade stays straight while cutting.

Items Needed	Qty
Straightedge 24+"	
Straightedge 12+"	1
Measuring Tape	1
Open-End Wrenches 13mm	

#### To adjust guide roller tilt:

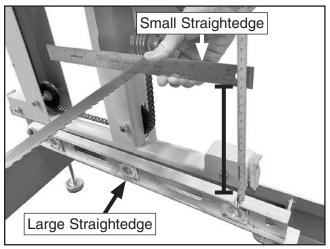
- 1. DISCONNECT SPARK PLUG WIRE!
- 2. Adjust blade height so it is about 10" above log bunks.
- **3.** Move carriage along track until blade is between (2) log bunks.
- 4. Under right guide roller, place large straightedge across log bunks, parallel with track (see **Figure 34**).
- Place small straightedge across blade near right guide roller, perpendicular to log bunks (see Figure 34).

**Note:** Straightedge should rest on flat of blade, not kerf or weld. Straightedge will be used to measure tilt of blade.



**Figure 34.** Straightedges positioned for measuring guide roller tilt.

Measure and record distance between front of small straightedge and top of large straightedge (see Figure 35).



**Figure 35.** Distance between front of small straightedge and large straightedge.

- Measure and record distance between rear of small straightedge and top of large straightedge.
  - If distances from Step 6 and Step 7 are equal, no adjustment is necessary.
     Proceed to Step 10.
  - If distances from Step 6 and Step 7 are not equal, proceed to Step 8.
- **8.** Loosen (2) hex bolts and jam nuts shown in **Figure 36** enough so guide roller rod can be adjusted.

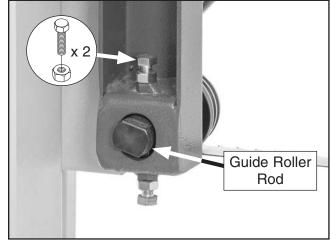


Figure 36. Guide roller adjustment components.



- Adjust hex bolts until distances are equal, then tighten jam nuts against guide mount, without moving hex bolts, to secure tilt setting.
- 10. Repeat Steps 4–9 for left guide roller.

#### **Adjusting Guide Roller Height**

The guide rollers should press the blade about  $\frac{3}{16}$ " down from where it sits on the blade wheels when correctly tensioned.

Items Needed	Qty
Wrench or Socket 13mm	1
Measuring Tape or Ruler	1

#### To adjust guide roller height:

- 1. DISCONNECT SPARK PLUG WIRE!
- 2. Move carriage until blade is directly above log bunk.
- Loosen lower hex bolt on guide roller just enough so guide roller rod can be turned (see Figure 37).

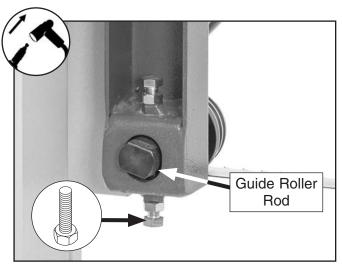
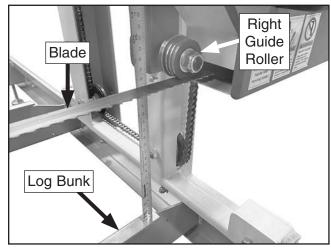


Figure 37. Guide roller adjustment components.

- **4.** Turn guide roller rod until roller does not touch blade.
- 5. Repeat Steps 2–3 on second guide roller.

**Note:** This will release any guide roller tension on blade so you can add correct amount.

Measure distance from blade just inside right guide roller to top of log bunk (see Figure 38).



**Figure 38.** Distance between blade and log bunk just inside right blade guide.

- 7. Turn right guide roller rod until roller moves blade down about 3/16" (distance between blade and log bunk should decrease by 3/16").
- **8.** Repeat **Steps 6–7** for blade just inside left guide roller.
- **9.** Tighten lower hex bolts on guide rollers to secure settings.

# **Types of Lumber**

The orientation of the woodgrain on a piece of wood has a large impact on the attributes of the lumber. Whether it is for structural, aesthetic, or economic reasons, it is important for a sawyer to know the output of their labors.

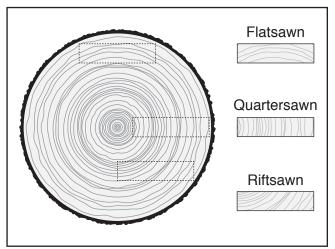


Figure 39. Types of lumber taken from a log.

#### Flatsawn Lumber (Plainsawn)

Flatsawn lumber is characterized by woodgrain that is less than 45° to the face of the lumber, called "tangential grain."

This often results in unique cathedral patterns on the face of the lumber. However, the tangential grain contributes to more cupping and twisting during drying. Because flatsawn lumber is fastest and most plentiful to produce, it is the most affordable lumber on the market. The majority of construction quality lumber is flatsawn.

#### **Quartersawn Lumber**

Quartersawn lumber is characterized by woodgrain nearly perpendicular to the board. By some definitions, quartersawn lumber has grain more than 45° to the face of the lumber. In this manual, quartersawn refers to lumber with grain between 75°–90° to the face.

Quartersawn lumber is less likely to cup or twist when dried. However, producing perfectly quarter sawn lumber is typically time consuming and wastes a large volume of wood.

Some types of wood, such as white oak, show ray flecks on the surface of the board when quarter-sawn, which is highly sought after by woodworkers. Taking the time to produce more quarter sawn lumber can pay off, but it is important to know what you are sawing and how the lumber will be used before putting in the extra work.

#### Riftsawn Lumber

Sometimes classified as a type of quartersawn lumber, riftsawn lumber is characterized by woodgrain between 45°-70° to the face of the lumber. It will never have perfectly perpendicular woodgrain or show ray flecks.

Riftsawn lumber is often the by-product of quarter sawing methods. Many sawyers consider riftsawn lumber to be a happy medium between structural integrity and milling time.

#### **Cants**

Cants are sawn logs with at least one finished side. Cants with four finished sides are often used in construction or resawn into smaller pieces of dimensional lumber.



**Figure 40.** Example of live sawing a cant into dimensional lumber.

### **Drying Lumber**

Before cutting your first log, have a plan for drying your lumber. Depending on the species of wood, a green log might have anywhere from 60%–180% moisture content, and needs to be dried to approximately 6%–11% before it can be finished and used.

With the moisture loss, lumber will shrink and warp. Depending on the drying conditions and species of wood, air-drying can take anywhere from several weeks to many months.

The most common method is air-drying, in which freshly cut lumber is stacked outdoors with stickers and weights and the ends are sealed with latex paint. Weighing down the stack and sealing the board ends help to minimize warping as the wood shrinks. When the lumber reaches approximately 20% moisture content, the stack is moved indoors until drying is complete.

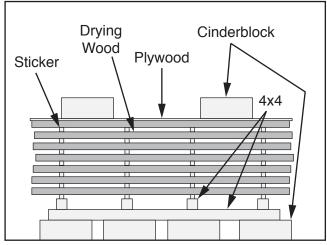


Figure 41. Side view of an air-drying stack.

Tracking moisture content can be done by regularly weighing and recording several of the drying boards. When the rate of weight loss slow or stops, the wood has stopped drying. Moisture meters (see **Page 36**) provide a fast and accurate alternative to weight tracking.

Due to the many variables involved in drying lumber, it is important to research and plan for your specific needs. Understand the drying environment and type of wood in order to ensure the end product meets your needs.

#### **Cant Sawing**

Sawing a log into a square cant is a fundamental sawing operation for any sawyer. When sawing a cant, slabs are removed from four sides of the log, leaving a square beam.

#### To saw a cant:

- 1. Inspect log and determine size of cant to be produced. Mark planned cuts on end of log.
- Load log on track bed and secure with log supports and log clamp.
- 3. Cut slab from top of log and remove it (see Figure 42).

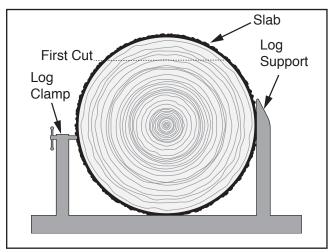


Figure 42. First cut to saw a cant.

**4.** Rotate cant 90° and secure using log supports to ensure cant is square to track (see **Figure 43**).

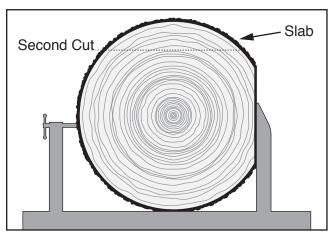


Figure 43. Cant rotated for second cut.



**Note:** It is essential that cut face of cant is secured perpendicular to track on first rotation. When first (2) cuts are perpendicular, remaining sides will be easy to square to log supports.

- 5. Repeat Steps 3-4 for each side of cant.
- If square cant was goal of operation, congratulations, you are finished! To cut cant into dimensional labor, proceed to Live Sawing.

### **Live Sawing**

Live sawing is a method of sawing logs that is fast and produces very little wasted wood. In a live sawing procedure, the log is cut from top to bottom and is rarely rotated more than once.

Lumber produced when live sawing will range from flatsawn (cuts made near the top and bottom) to quartersawn (cuts made near the middle of the log). Because no specific type of lumber is prioritized, live sawing maximizes the amount of board feet produced per log.

#### To live-saw a log:

- Inspect log and outline a sawing plan. Consider orientation of log on track and where to start cutting to produce the best lumber. Mark planned cuts on end of log.
- **2.** Load log on track bed and secure with log supports and log clamp.
- Make first cut, then remove slab from log (see Figure 44).
- **4.** Lower blade the desired thickness of lumber and cut first flitch (see **Figure 44**).

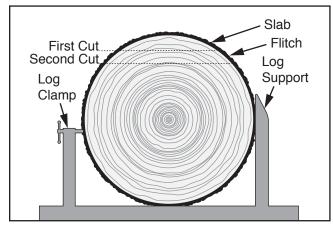


Figure 44. First cuts to live saw a log.

**5.** Rotate log 180° and secure with log supports and log clamp (see **Figure 45**).

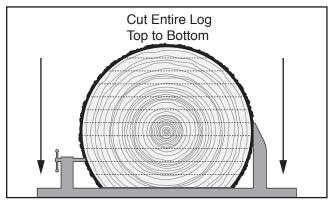


Figure 45. Log rotated 180° for live sawing.

**Note:** Logs can be live sawn from top to bottom without being rotated, but rotating once provides stable base to saw rest of log.

- 6. Continue to cut flitches from top to bottom until log is fully used. Adjust log supports and log clamp throughout process to keep log secured and supports below blade.
- 7. Edge flitches as needed.
  - If available, an edger can be used to quickly and easily edge lumber.
  - Without an edger, sawmill can be used.
     Refer to Edging on Page 31.

**Note:** Live-sawing square cant will produce lumber that does not need to be edged. However, it typically produces more waste than live-sawing log and edging it..

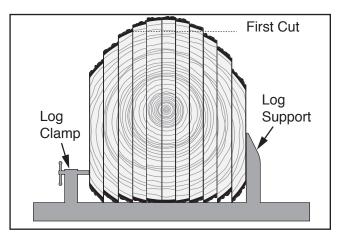


# **Edging**

Edging a flitch involves removing the natural or waney edges, turning it into lumber with four finished sides. Using an edger is the quickest and simplest way of edging, but edging can also be done with a sawmill. For many sawyers running singe-mill operations, using a mill for edging is the default.

#### To edge flitches using a sawmill:

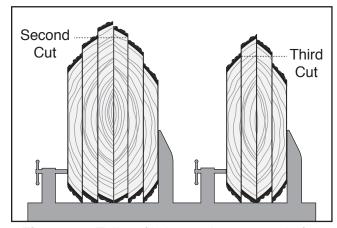
- Clamp multiple flitches to track bed, using log supports to ensure flitches are perpendicular to track (see Figure 46). Take care that log clamp holds flitches tight against supports.
- 2. Cut to remove bark from the tallest flitches. Cut as many flitches as possible without wasting excessive lumber (see **Figure 46**).



**Figure 46.** Flitches secured to track bed for edging.

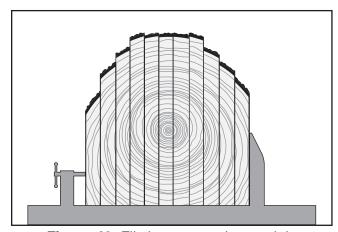
**3.** Remove edged flitches, then secure the rest (see **Figure 47**).

4. Repeat **Steps 2–3** until all flitches have been edged once (see **Figure 47**).



**Figure 47.** Tallest flitches to be removed after each cut.

5. Clamp single-edged flitches to track bed, using flat edges and log supports to ensure flitches are perpendicular to track (see Figure 48).



**Figure 48.** Flitches secured to track in preparation for second edging.

**6.** Repeat **Steps 2–3** until all flitches have been edged on both sides.



### **Quarter Sawing**

Quarter sawing is any method of milling a log that produces primarily quartersawn lumber. In general, this produces a mixture of quartersawn and riftsawn lumber. Producing only quartersawn lumber can be time-consuming and leaves a lot of scrap.

The method below is relatively simple and produces quartersawn and riftsawn lumber. Many other methods exist—all with unique benefits and downsides. A sawyer should choose a method based on the log used, lumber needed, and personal preference.

#### To quarter-saw a log:

- Inspect log and outline a sawing plan. Consider orientation of log on track and where to start cutting to produce the best lumber. Mark planned cuts on end of log.
- **2.** Load log to track bed and secure with log supports and log clamp.
- 3. Cut a thick slab and remove it from log (see Figure 49). Set slab aside for now.
- 4. Rotate log 180° and secure it. Cut a slab about the same size as the first one (see Figure 49). To reduce waste, make sure the distance between cuts—the height of the resulting cant—is divisible by the thickness of lumber to be produced. Set slab aside for now.

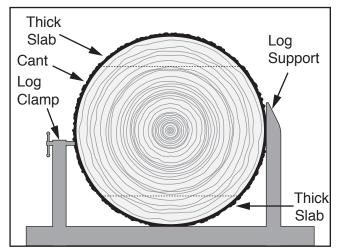


Figure 49. Thick slabs to be removed from log.

- 5. Rotate cant 90° and clamp to track bed, using log supports to ensure cant is perpendicular to track (see Figure 50). Take care that log clamp holds cant tight against supports.
- **6.** Cut a thin slab and remove it from cant (see **Figure 50**). Discard slab.

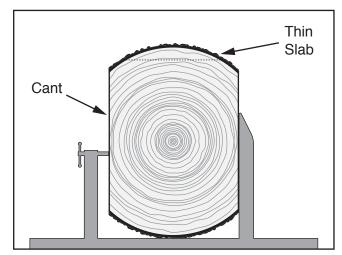
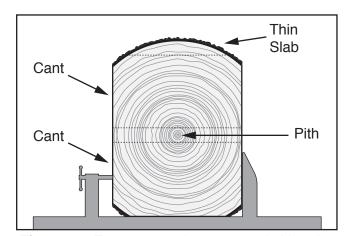


Figure 50. Thin slab to be removed from cant.

- 7. Rotate cant 180° and secure it.
- **8.** Cut a thin slab and remove it from cant (see **Figure 51**). Discard slab.
- Cut above pith, then remove top cant from the cant secured to the track (see Figure 51). Set top cant aside for now.
- 10. Cut below pith. To reduce waste, cut a board that is a usable thickness when cutting below pith. Remove board with pith from cant (see Figure 51). Set board aside for now.



**Figure 51.** Two rectangular cants and pith to be removed.



- 11. Rotate cant 90° and secure it.
- **12.** Cut from top to bottom until cant is fully used (see **Figure 52**). Adjust log supports and log clamp throughout process to keep cant secured and supports below blade.

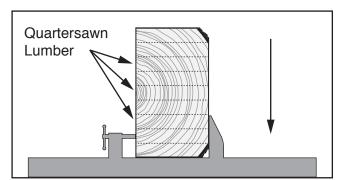


Figure 52. Quartersawn lumber to be cut from cant.

- **13.** Load second cant to track bed, and secure with log supports and log clamp.
- 14. Repeat Step 12 with second cant.
- **15.** Clamp board with pith to track bed, using log supports to ensure board is perpendicular to track (see **Figure 53**).
- **16.** Cut just above pith, then remove resulting quartersawn board from board secured to track (see **Figure 53**).
- **17.** Cut just below pith. Remove and discard pith (see **Figure 53**).

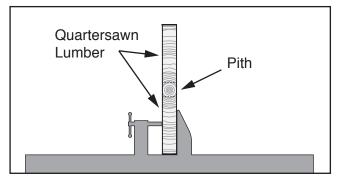
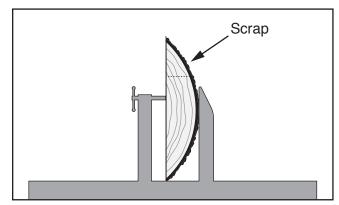


Figure 53. Pith to be removed from board.

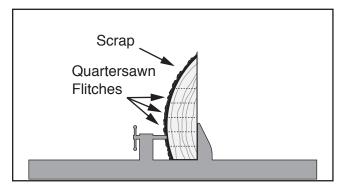
18. Load slab from **Step 3** or **4** to track bed, using log supports to ensure slab is perpendicular to track (see **Figure 54**). Take care that log clamp is holding slab tight against supports.

19. Inspect end of slab and determine which portion is suitable for quartersawn lumber. Evaluate the width of the resulting lumber, as well as the angle of the grain. Cut slab where quartersawn quality wood begins (see Figure 54).



**Figure 54.** Scrap wood to be cut from slab.

- 20. Rotate slab 180° and secure it.
- 21. Cut slab where quartersawn quality wood begins, then continue to cut flitches from top to bottom until slab is fully used (see Figure 55).



**Figure 55.** Quartersawn flitches to be cut from slabs.

- 22. Repeat Steps 18–21 on remaining slab.
- 23. Edge all flitches and waney boards.
  - If available, an edger can be used to quickly and easily edge lumber.
  - Without an edger, the sawmill can be used. See **Edging** on **Page 31**.

# **SECTION 4: ACCESSORIES**

#### **AWARNING**

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.

#### H5408—Blade Tensioning Gauge

The Blade Tensioning Gauge ensures long blade life, reduced blade breakage, and straight cutting by indicating correct tension. A precision dial indicator provides you with a direct readout in PSI.

The Blade Tensioning Gauge is made of lightweight, cast aluminum for optimum accuracy. Bright color coding makes it easy to use and easy to read. The Blade Tensioning Gauge comes in a handy metal box with instructions on the lid.



Figure 56. H5408 Blade Tensioning Gauge.

#### T33345—145" x 1" x .035" x 1.3 TPI Hook Blade

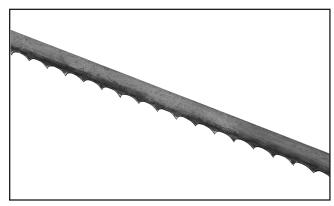


Figure 57. Replacement blade for the G0901.

#### T31677—6' Bed Extension Rails

These modular track extensions can be quickly connected to your existing track to increase your sawing capacity in 6' increments, allowing for practically any length lumber that you need to mill. Constructed from heavy 6-gauge, electroplated steel for long-lasting durability in the field.

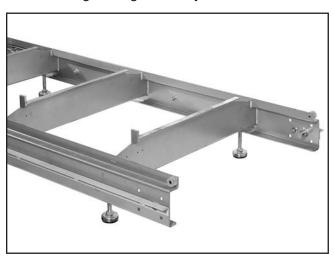


Figure 58. T31677 6' Bed Extension Rails.

#### **Basic Eye Protection**

T32323—Woodturners Face Shield

T32401—EDGE Brazeau Safety Glasses, Clear

T32402—EDGE Khor G2 Safety Glasses, Tint

T32404—EDGE Mazeno Safety Glasses, Clear



Figure 59. Assortment of basic eye protection.

#### T27630—Lumber Rack 6-Shelf System T31725—Lumber Rack 3-Shelf System

Keep materials organized and accessible with these lumber shelf systems. Easy to install into a sturdy wall and each shelf can hold up to 100 lbs.

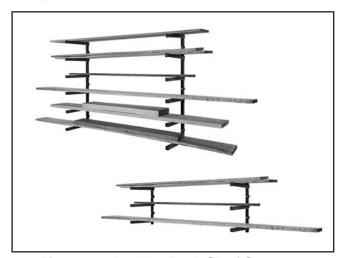


Figure 60. Lumber Rack Shelf Systems.

#### T29242—Compact Cordless 12" Chainsaw

Gas-free operation on this 20V max DeWalt chainsaw eliminates the cold starts, fumes, carburetor issues, and maintenance involved with gas-powered chainsaws. This battery-powered chainsaw is built to work hard. Use it for tough construction and outdoor jobs like cutting beams, demolition work, and managing tree limbs. The lightweight design maximizes user control. Brushless motor technology delivers extreme runtime and long motor life. Battery and charger not included.



Figure 61. T29242 20V Max Compact Cordless 12" Chainsaw.

#### T26419—Syn-O-Gen Synthetic Grease

Formulated with 100% pure synthesized hydrocarbon basestocks that are compounded with special thickeners and additives to make Syn-O-Gen non-melt, tacky, and water resistant. Extremely low pour point, extremely high temperature oxidation, and thermal stability produce a grease that is unmatched in performance.



Figure 62. T26419 Syn-O-Gen Synthetic Grease.

### T30855—AccuMASTER XT Moisture Meter T30904—AccuMASTER Duo Pro Moisture Meter

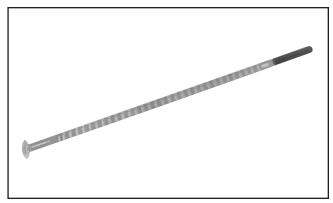
These easy-to-use moisture meters are ideal for measuring moisture content in logs and lumber. The XT and Duo Pro also work with brick, concrete, drywall, plaster, and carpet so you can find moisture before it becomes a costly problem.



**Figure 63.** T30904 AccuMASTER Duo Pro Pin & Pinless Moisture Meter.

#### T32598—International Log Scale w/Handle

This log scale from Logrite has an anodized blue finish that highlights the laser etched numbers on the scale. The finish also allows pitch to be easily removed with solvents without damaging the printing.



**Figure 64.** T32598 International Log Scale with Handle.

T32595—30" Cant Hook T32592—48" Cant Hook

T32593—60" Cant Hook

T32594—48" Peavey

T32596—Two Man Log Carrier

T32597—36" Hookaroon

These log handling tools have blue aluminum handles that are easy to spot around the shop.

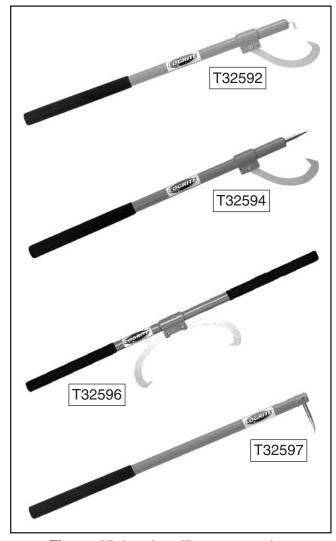


Figure 65. Log handling accessories.

### **SECTION 5: MAINTENANCE**

### **Schedule**

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

#### **Ongoing**

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

- Loose mounting bolts.
- Dull or damaged saw blade.
- Wood chip and sawdust buildup.
- Low fuel and lubrication levels.
- Damaged or worn guides rollers.

#### **Monthly Check**

V-belt tension, damage, or wear.

### Cleaning

Cleaning the Model G0901 is relatively easy and should be done whenever the machine operation is finished for the day. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

### Lubrication

Most bearings on this machine, except for those with grease fittings, are sealed and permanently lubricated. Leave these bearings alone until they need to be replaced. Do not lubricate them.

Apply light machine oil to the lift chain every 40 hours of use, prior to storage, or as needed. Clean machine thoroughly before applying oil. The goal is to achieve adequate lubrication. Too much lubrication will attract dirt and sawdust.

#### **Grease Fittings**

Wipe clean and lubricate all grease fittings with two pumps of high-temp bearing grease (see **Figure 62** on **Page 35**). Grease fittings should be lubricated after approximately 160 hours of use.

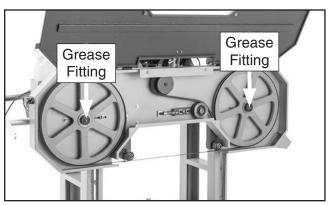


Figure 66. Wheel axle grease fittings.

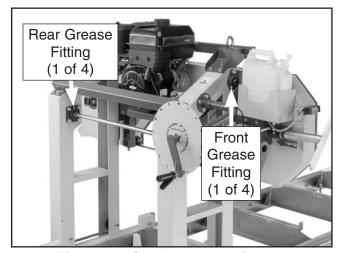


Figure 67. Carriage grease fittings.

### **Engine**

Follow Briggs & Stratton engine manual for engine maintenance schedule. Refer to **Operations** in the engine manual for fuel and oil requirements. Do not overfill fuel or oil.

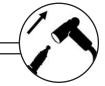


### **SECTION 6: SERVICE**

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.* 

Note: Refer to the Briggs & Stratton engine manual for engine-related troubleshooting.

### **Troubleshooting**



#### **Operating Machine**

Symptom	Possible Cause	Possible Solution	
Finished workpieces are wavy, crooked or uneven.	<ol> <li>Blade is not properly tensioned.</li> <li>Track is not level.</li> <li>Log not parallel to track or cant not square to log supports.</li> <li>Blade cutting section too wide.</li> <li>Blade tracking is incorrect.</li> <li>Dull or damaged blade, or blade installed backwards.</li> <li>Excessive feed rate/pressure.</li> </ol>	<ol> <li>Adjust blade tension (Page 23).</li> <li>Tighten track brackets; adjust track feet until track is level (Page 18).</li> <li>Secure log against supports; remove branches or lumps that prevent even positioning.</li> <li>Adjust blade cutting section width (Page 24).</li> <li>Adjust blade tracking (Page 42).</li> <li>Replace blade (Page 23).</li> <li>Reduce feed rate/pressure.</li> </ol>	
Finished workpieces have rough surface.	Excessive feed rate/pressure.     Wrong blade type or TPI for cut type.	Reduce feed rate/pressure.     Use correct blade for cutting type.	
Blade dulls prematurely.	<ol> <li>Lubrication system at fault.</li> <li>Excessive feed rate/pressure.</li> <li>Wrong blade type or TPI for cut type.</li> <li>Hard spots in material.</li> <li>Blade installed inside-out.</li> <li>Blade is twisted or damaged.</li> <li>Blade is not properly tensioned.</li> <li>Foreign objects or tramp metal in log.</li> </ol>	<ol> <li>Check lubricant level. Check for leaks.</li> <li>Reduce feed rate/pressure.</li> <li>Use correct blade for cutting type.</li> <li>Reduce speed, increase feed pressure.</li> <li>Re-install blade (Page 23).</li> <li>Replace blade (Page 23).</li> <li>Adjust blade tension (Page 23).</li> <li>Check log for foreign objects or tramp metal. Use different log if necessary.</li> </ol>	
Blade tracks incorrectly or comes off wheels.	<ol> <li>Blade tracking is incorrect.</li> <li>Blade is not properly tensioned.</li> <li>Belts are worn.</li> <li>Dull or damaged blade.</li> <li>Wrong blade type or TPI.</li> <li>Excessive feed rate/pressure.</li> <li>Blade wheels are not coplanar.</li> </ol>	<ol> <li>Adjust blade tracking (Page 42).</li> <li>Adjust blade tension (Page 23).</li> <li>Replace belts (Page 41).</li> <li>Replace blade (Page 23).</li> <li>Use correct blade.</li> <li>Reduce feed rate/pressure.</li> <li>Adjust wheels to be coplanar (Page 43).</li> </ol>	

### **Operating Machine (Cont.)**

Symptom	Possible Cause	Possible Solution
Blade or teeth break during	Foreign objects or tramp metal in log.	Check log for foreign objects or tramp metal. Use different log if necessary.
operation.	2. Blade is not properly tensioned.	2. Adjust blade tension (Page 23).
	3. Blade tracking is incorrect.	3. Adjust blade tracking (Page 42).
	4. Dull or damaged blade.	4. Replace blade (Page 23).
	5. Excessive feed rate/pressure.	5. Reduce feed rate/pressure.
	6. Log is loose.	6. Secure log against supports; remove branches or lumps that prevent even positioning.
	7. Wrong blade type or TPI.	7. Use correct blade.
	8. Lubrication system at fault.	8. Check lubricant level. Check for leaks.
	9. Blade teeth clogged.	9. Clean blade.
Blade slows	Blade is not properly tensioned.	Adjust blade tension (Page 23).
when cutting.	2. Lubrication system at fault.	2. Check lubricant level. Check for leaks.
	3. Drive belt is loose or slipping.	3. Tension drive belt (Page 40).
	4. Belts are worn.	4. Replace belts (Page 41).
	5. Dull or damaged blade.	5. Replace blade (Page 23).
	6. Excessive feed rate/pressure.	6. Reduce feed rate/pressure.
Blade does not	Dull or damaged blade.	1. Replace blade (Page 23).
cut.	Blade installed backwards.	2. Re-install blade (Page 23).
Machine has	Excessive sawdust buildup inside blade	Vacuum excess chips and sawdust.
excessive vibration or	compartment.	
noisy operation.	2. Engine is loose.	2. Tighten fasteners; replace damaged fasteners.
noisy operation.	3. Log is loose.	3. Secure log against supports; remove branches or
		lumps that prevent even positioning.
	4. Belts are worn.	4. Replace belts (Page 41).
	5. Wheel bearings at fault.	5. Replace wheel bearings.
Blade is	Excessive feed pressure.	Reduce feed pressure.
twisting during	Blade is not properly tensioned.	2. Adjust blade tension (Page 23).
cut.	3. Blade cutting section too wide.	3. Adjust blade cutting section width (Page 24).
	4. Dull or damaged blade.	4. Replace blade (Page 23).
Throttle is	Throttle lever too tight.	Adjust throttle lever nut on engine until throttle lever
sluggish or engine does not slow to an idle when throttle handle is released.	Throttle cable damaged, corroded, or has excessive buildup inside housing.	returns freely to stopped position.  2. Remove cable from housing. Clean/replace cable.

Note: Refer to the Briggs & Stratton engine manual for engine-related troubleshooting.



### Tensioning/ Replacing V-Belts

The G0901 uses V-belts as tires on the blade wheels. The drive belt transfers power from the engine to the wheels. The blade and drive belt must be tensioned properly to ensure proper operation. It is essential that both drive belt and follower belt are free of cracks, fraying, and wear. V-belt condition and tension should be checked at least every 3 months—more often if the sawmill is used daily.

To replace the V-belts, you must remove the blade. After installation, you must re-tension the drive belt.

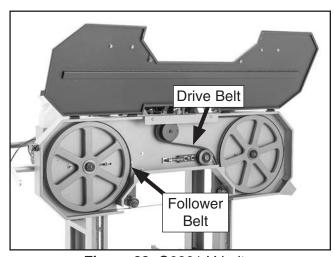


Figure 68. G0901 V-belts.

#### **Checking/Adjusting Drive Belt Tension**

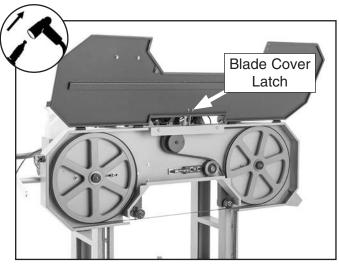
To ensure optimum power transmission from the engine to the blade, the drive belt must be properly tensioned.

Tool Needed	Qty
Open-End Wrench 19mm	1

#### To check/adjust drive belt tension:

1. DISCONNECT SPARK PLUG WIRE!

2. Open blade cover and secure to blade cover latch (see **Figure 69**).



**Figure 69.** Blade cover supported by blade cover latch.

- **3.** Inspect drive belt; if it is cracked, frayed, or glazed, replace it (refer to **Page 41**).
- 4. Check drive belt tension by applying moderate pressure between pulleys (see **Figure 70**).
  - If deflection is approximately ¼", belt is correctly tensioned and no adjustment is necessary.
  - If deflection is *not* approximately ½", belt is not correctly tensioned. Proceed to **Step 5**.

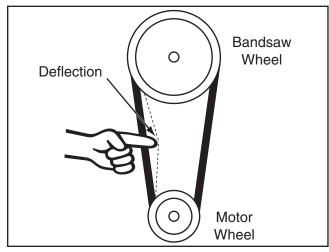


Figure 70. V-belt deflection.



**5.** Loosen (2) tensioner arm cap screws and locking hex nut shown in **Figure 71**.

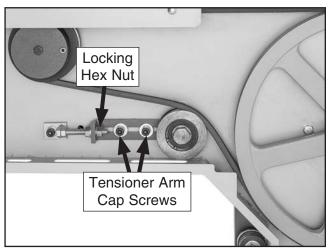


Figure 71. Tension securing fasteners.

**6.** Tighten/loosen belt tension hex nut to adjust tension pulley until drive belt is correctly tensioned (see **Figure 72**).

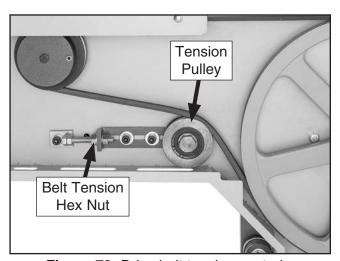


Figure 72. Drive belt tension controls.

Tighten cap screws and hex nut from Step 5 to secure.

#### **Replacing Follower Belt**

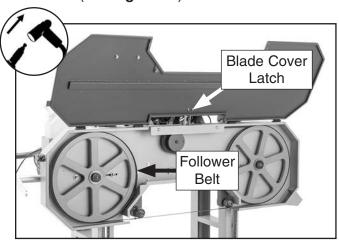
A follower belt of the correct size hangs loosely on the left blade wheel.

Items Needed	Qty
Protective Gloves1	Pair
Replacement Belt (#P0901408V2)	1

#### To replace follower belt:

1. DISCONNECT SPARK PLUG WIRE!

2. Open blade cover and secure to blade cover latch (see **Figure 73**).



**Figure 73.** Blade cover supported by blade cover latch and location of follower belt.

- 3. Remove blade. Refer to **Changing Blade** on **Page 23**.
- **4.** Lift follower belt off left wheel (see **Figure 73**), and install new belt in its place.
- **5.** Re-install blade and close blade cover.

#### **Replacing Drive Belt**

Items Needed	Qty
Protective Gloves1	Pair
Open-End Wrench 19mm	1
Replacement Belt (#P0901329V3)	1

#### To replace drive belt:

- 1. DISCONNECT SPARK PLUG WIRE!
- 2. Open blade cover and secure to blade cover latch (see **Figure 73**).
- 3. Remove blade. Refer to **Changing Blade** on **Page 23**.
- De-tension drive belt. Refer to Checking/ Adjusting Drive Belt Tension on Page 40.
- **5.** Slip old drive belt off pulleys and wheel, then install new belt in its place.
- Tension drive belt. Refer to Checking/ Adjusting Drive Belt Tension on Page 40.
- 7. Re-install blade and close blade cover.



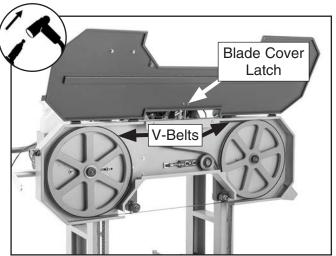
# Adjusting Blade Tracking

#### **Checking Blade Tracking**

"Tracking" refers to how the blade rides on the sawmill wheels. Proper tracking is important for achieving correct blade tension and cutting accurately. Improper tracking reduces cutting accuracy, causes excess vibration, and places stress on the blade and other components. The orientation of the wheels in relation to each other determines how the blade tracks.

#### To check blade tracking:

- DISCONNECT SPARK PLUG WIRE!
- 2. Open blade cover and secure to blade cover latch (see **Figure 74**).
- Rotate wheels by hand and observe blade position. Blade should track on wheels so rear of blade is aligned with rear edge of V-belts (see Figure 74)



**Figure 74.** Blade cover supported by blade cover latch and location of V-belts.

Rear of blade should also track about  $\frac{1}{32}$ "- $\frac{1}{16}$ " in front of roller flanges on blade guides (see **Figure 75**).

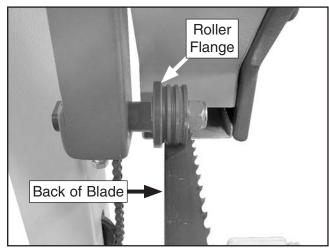


Figure 75. Proper blade tracking.

- If blade does remain aligned with V-belts, and back of blade is 1/32"-1/16" from roller flanges, no adjustment is necessary.
- If blade does not remain aligned with V-belts, or back of blade is not 1/32"-1/16" from roller flanges, proceed to Adjusting Wheel Shaft Position.

#### **Adjusting Wheel Shaft Position**

If blade tracking is out of alignment, the wheel shafts can be adjusted to change the angle of the wheels. Properly adjusted wheels should be parallel when the blade is tensioned.

If blade tracking appears to be out of alignment, we recommend first replacing the blade before adjusting blade shaft position. A worn belt can become "bell mouthed" and throw off wheel coplanarity just enough to cause problems. Guide rollers out of adjustment can make the blade wobble or wander. Before adjusting wheel shaft position, check all of these. The blade wheels were carefully factory set to be coplanar and parallel before your saw was shipped so adjusting wheel shaft position should be done as a last resort.

There are two adjustment bolts that adjust the vertical wheel tilt and a through bolt with lock nut that adjusts the horizontal wheel tilt (see **Figure 76**).

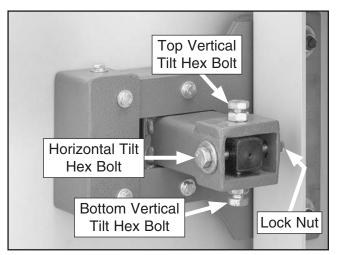


Figure 76. Wheel adjustment hub.

#### To adjust wheel shaft position:

- 1. DISCONNECT SPARK PLUG WIRE!
- 2. Check blade tracking (see Page 42) and determine which wheel needs to be adjusted, and in which direction (see Figure 77).

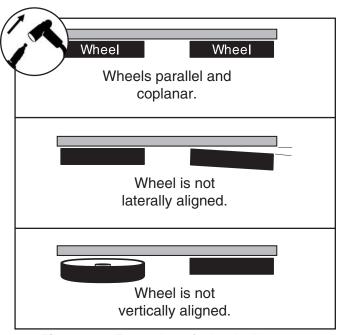


Figure 77. Examples of wheel alignment.

**3.** Release blade tension by turning blade tension handle counterclockwise.

4. Loosen hex nuts on wheel adjustment hub (see Figure 78).

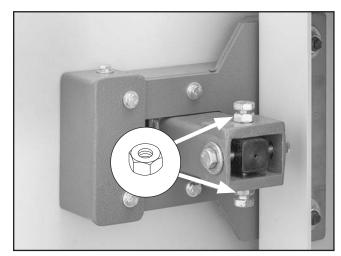


Figure 78. Location of hex nuts.

### NOTICE

Small adjustments of tilt bolts make large changes at edge of wheels. Adjust bolts incrementally, ½ turn or less at a time.

- 5. Adjust vertical tilt hex bolts (see Figure 79) so that wheel is perpendicular to ground. When making adjustments, loosen one bolt then tighten opposite bolt equally. Make adjustments in small increments.
  - To tilt top of wheel forward, loosen top hex bolt and tighten bottom hex bolt.
  - To tilt top of wheel backward, loosen bottom hex bolt and tighten top hex bolt.

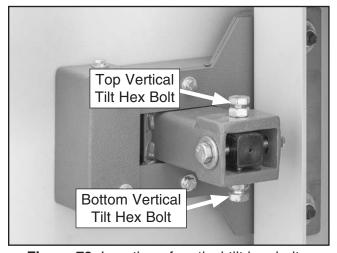


Figure 79. Location of vertical tilt hex bolts.



- **6.** Adjust horizontal tilt hex bolt (see **Figure 80**) so that blade tracks evenly.
  - To tilt outside of wheel forward, turn hex bolt clockwise.
  - To tilt outside of wheel backward, turn hex bolt counterclockwise.

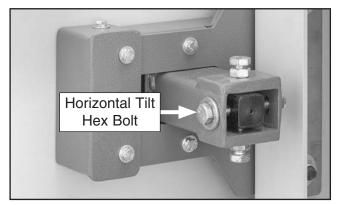


Figure 80. Location of horizontal tilt hex bolt.

- 7. Tension blade (see Page 23) and inspect blade tracking (see Page 42).
  - If tracking is still out of alignment, release blade tension and repeat Steps 5-7.
  - If blade tracks evenly, proceed to **Step 8**.
- 8. Tighten hex nuts on wheel adjustment hub.

#### **Adjusting Coplanarity**

Coplanarity of the blade wheels is determined by the width of the shims behind the wheels. Over the life of your machine it is unlikely that the coplanarity of the wheels will ever need to be adjusted.

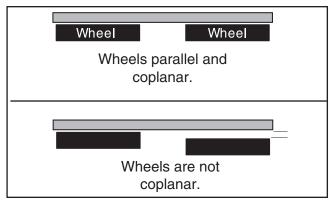
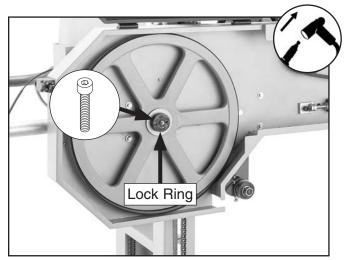


Figure 81. Examples of coplanarity.

Items Needed	Qty
Protective Gloves	1 Pair
Hex Wrench 5mm	
Cleaner/Degreaser	As Needed
Disposable Rags	As Needed
Shims	As Needed

#### To adjust wheel coplanarity:

- DISCONNECT SPARK PLUG WIRE!
- Remove blade (see Page 22).
- **3.** Remove one or both blade wheels from blade cover.
  - To remove blade wheel, loosen cap screw shown in Figure 82, then remove lock ring, flat washer, and blade wheel.



**Figure 82.** Location of blade wheel lock ring cap screw.

- 4. Clean wheel shaft and replace shims so shims are equal thickness on each wheel shaft, then install wheels.
- Install blade (see Page 23), check blade tracking (see Page 42), then adjust wheel shaft position (see Page 43) as needed.



### **SECTION 7: 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.

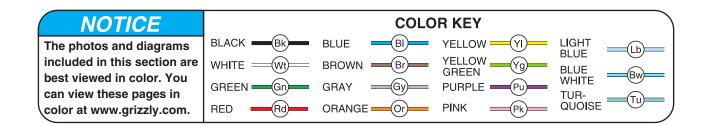
**CIRCUIT REQUIREMENTS**. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

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.

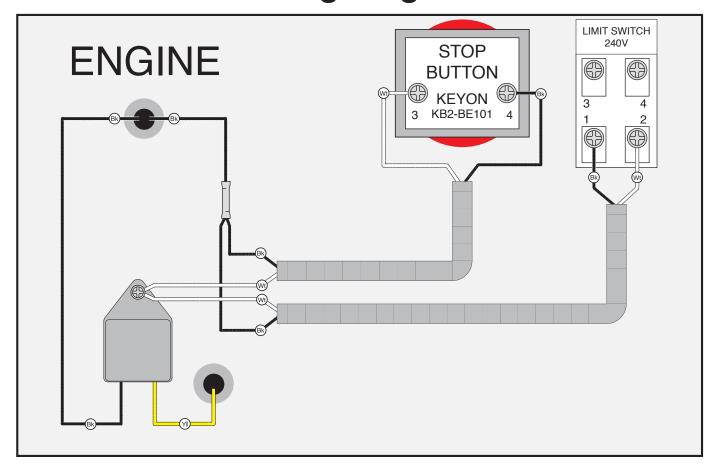
**CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

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





# **Wiring Diagram**



# **Wiring Photos**



Figure 83. E-stop switch box.

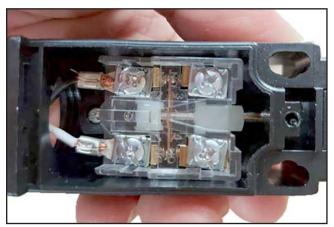
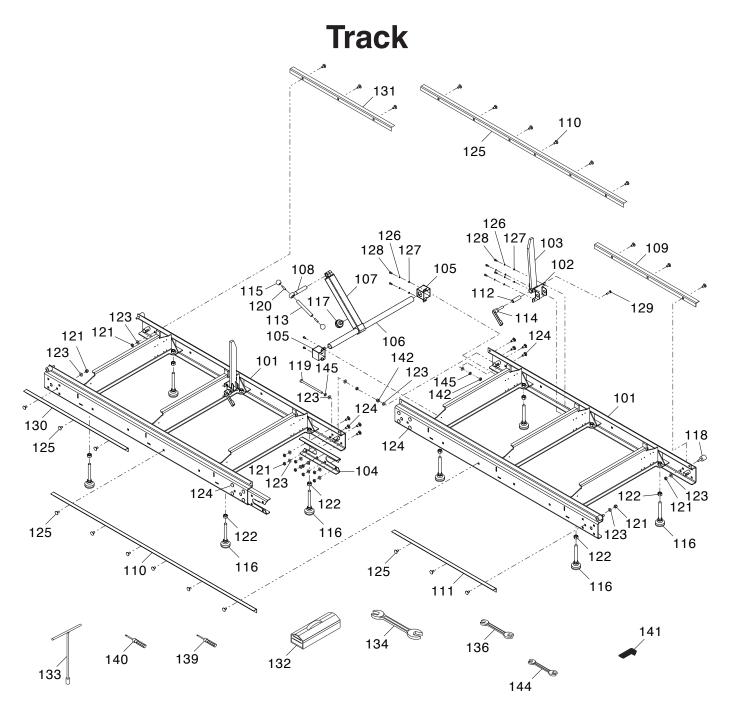


Figure 84. Blade cover limit switch.

## **SECTION 8: 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.



### **Track Parts List**

#### PART # DESCRIPTION

	PARI#	DESCRIPTION
101	P0901101	TRACK SECTION
102	P0901102	LOG SUPPORT BRACKET
103	P0901103	LOG SUPPORT ARM
104	P0901104	TRACK BRACKET
105	P0901105	LOG CLAMP BRACKET
106	P0901106	LOG CLAMP ROD
107	P0901107	LOG CLAMP ARM
108	P0901108	LOG CLAMP BOLT
109	P0901109	GUIDE RAIL (FR, LH)
110	P0901110	GUIDE RAIL (CENTER)
111	P0901111	GUIDE RAIL (FR, RH)
112	P0901112	LOG SUPPORT SHAFT
113	P0901113	LOG CLAMP HANDLE SHAFT
114	P0901114	ADJUSTABLE HANDLE M12-1.75 X 24, 95L
115	P0901115	KNOB M10-1.5, D25, BALL
116	P0901116	ADJUSTABLE FOOT M16-2 X 150
117	P0901117	KNOB BOLT M10-1.5, 6-LOBE, D45
118	P0901118	CARRIAGE STOP
119	P0901119	HEX BOLT M10-1.5 X 180
120	P0901120	SET SCREW M8-1.25 X 30
121	P0901121	LOCK NUT M10-1.5

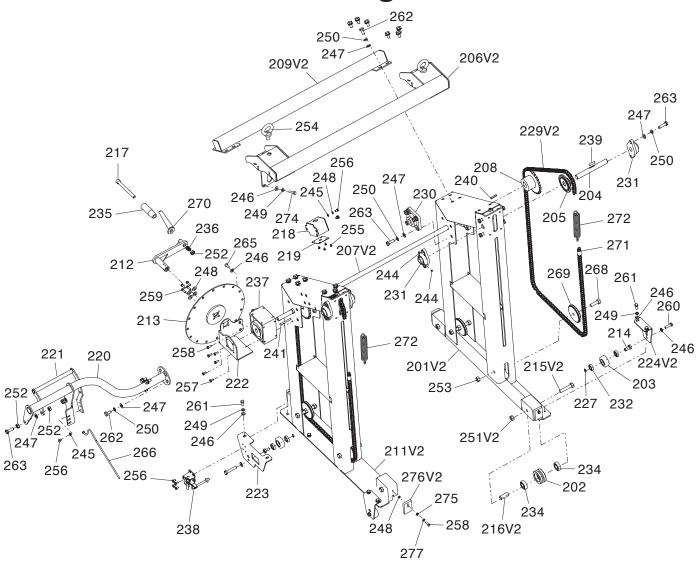
#### REF PART # DESCRIPTION

122	P0901122	HEX NUT M16-2
123	P0901123	FLAT WASHER 10MM
124	P0901124	CARRIAGE BOLT M10-1.5 X 25
125	P0901125	CARRIAGE BOLT M10-1.5 X 20
126	P0901126	LOCK WASHER 6MM
127	P0901127	FLAT WASHER 6MM
128	P0901128	HEX BOLT M6-1 X 12
129	P0901129	HEX BOLT M8-1.25 X 30
130	P0901130	GUIDE RAIL (RR, RH)
131	P0901131	GUIDE RAIL (RR, LH)
132	P0901132	TOOL BOX (EMPTY)
133	P0901133	T-HANDLE SOCKET WRENCH 17MM
134	P0901134	WRENCH 17 X 19MM OPEN-ENDS
136	P0901136	WRENCH 11 X 13MM OPEN-ENDS
139	P0901139	FLAT SCREWDRIVER
140	P0901140	PHILLIPS SCREWDRIVER
141	P0901141	HEX WRENCH SET 2.5-10MM 7-PC
142	P0901142	HEX NUT M10-1.5
144	P0901144	WRENCH 8 X 10MM OPEN-ENDS
145	P0901145	LOCK WASHER 10MM





## Carriage



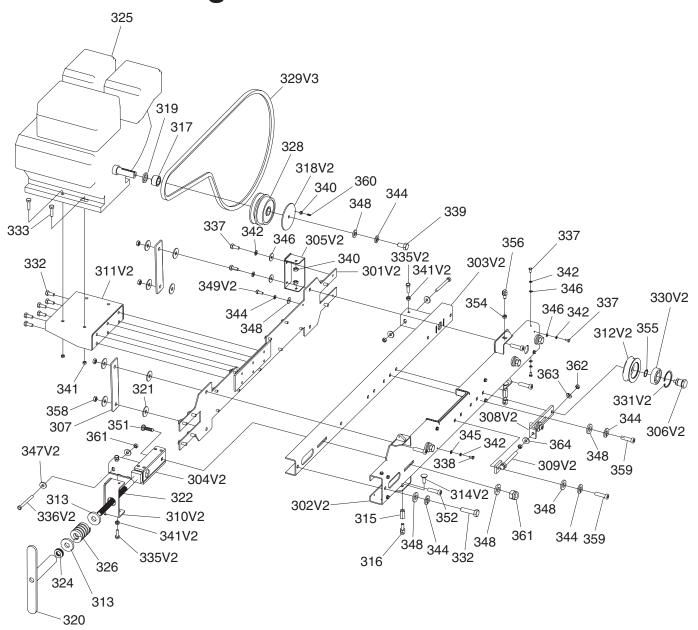
# **Carriage Parts List**

REF	PART #	DESCRIPTION
201V2	P0901201V2	CARRIAGE RAIL (RIGHT) V2.10.21
202	P0901202	TRACK ROLLER (UPPER)
203	P0901203	TRACK ROLLER (LOWER)
204	P0901204	GUIDE ROD
205	P0901205	CHAIN GUIDE
206V2	P0901206V2	LIFT BAR V2.10.21
207V2	P0901207V2	DRIVE ROD V2.10.21
208	P0901208	DRIVE SPROCKET
209V2	P0901209V2	CROSS BEAM V2.10.21
211V2	P0901211V2	CARRIAGE RAIL (LEFT) V2.10.21
212	P0901212	LIFT CRANK LEVER
213	P0901213	LIFT DIAL
214	P0901214	HEX HEAD PIN 12 X 30MM
215V2	P0901215V2	HEX BOLT M12-1.75 X 60 V2.10.21
216V2	P0901216V2	SPACER 12 X 17 X 39.5 V2.10.21
217	P0901217	HANDLE LOCK PIN
218	P0901218	SWITCH BOX
219	P0901219	STOP SWITCH MOUNTING PLATE
220	P0901220	PUSH HANDLE
221	P0901221	CLUTCH HANDLE
222	P0901222	GEARBOX BASE
223	P0901223	CASTER BRACKET (LARGE)
224V2	P0901224V2	CASTER BRACKET (SMALL) V2.10.21
227	P0901227	EXT RETAINING RING 12MM
229V2	P0901229V2	LIFT CHAIN RS40 V2.10.21
230	P0901230	PILLOW BEARING UCF204
231	P0901231	PILLOW BEARING UCFL204
232	P0901232	BALL BEARING 6001-2RS
234	P0901234	BALL BEARING 6203-2RS
235	P0901235	HOLLOW HANDLE 26 X 85, 16
236	P0901236	COMPRESSION SPRING 1.4 X 16 X 28
237	P0901237	GEAR BOX NRV 040-15
000	1 0001207	
238	P0901238	CARRIAGE BRAKE

REF	PART#	DESCRIPTION
240	P0901240	KEY 6 X 6 X 35
241	P0901241	KEY 6 X 6 X 60
244	P0901244	SET SCREW M6-1 X 6
245	P0901245	FLAT WASHER 6MM
246	P0901246	FLAT WASHER 8MM
247	P0901247	FLAT WASHER 10MM
248	P0901248	LOCK WASHER 6MM
249	P0901249	LOCK WASHER 8MM
250	P0901250	LOCK WASHER 10MM
251V2	P0901251V2	LOCK NUT M12-1.75 V2.10.21
252	P0901252	HEX NUT M10-1.5
253	P0901253	HEX NUT M12-1.75
254	P0901254	EYE BOLT 35MM, M16-2 X 30
255	P0901255	HEX BOLT M47 X 10
256	P0901256	HEX BOLT M6-1 X 10
257	P0901257	HEX BOLT M6-1 X 12
258	P0901258	HEX BOLT M6-1 X 16
259	P0901259	HEX BOLT M6-1 X 20
260	P0901260	HEX BOLT M8-1.25 X 30
261	P0901261	HEX BOLT M8-1.25 X 16
262	P0901262	HEX BOLT M10-1.5 X 20
263	P0901263	HEX BOLT M10-1.5 X 30
265	P0901265	CAP SCREW M8-1 X 16
266	P0901266	STEEL CABLE 1800MM
268	P0901268	HEX BOLT M12-1.75 X 120
269	P0901269	CHAIN GUIDE (LOWER)
270	P0901270	HANDLE GRIP
271	P0901271	SPRING CHAIN LINK
272	P0901272	EXTENSION SPRING 4 X 23 X 92
274	P0901274	HEX BOLT M8-1.25 X 16
275	P0901275	LOCK NUT M6-1
276V2	P0901276V2	WOOL PAD V2.10.21
277	P0901277	FLAT WASHER 6 X 23 X 1.65MM



### **Engine & Wheel Mounts**



# **Engine & Wheel Mounts Parts List**

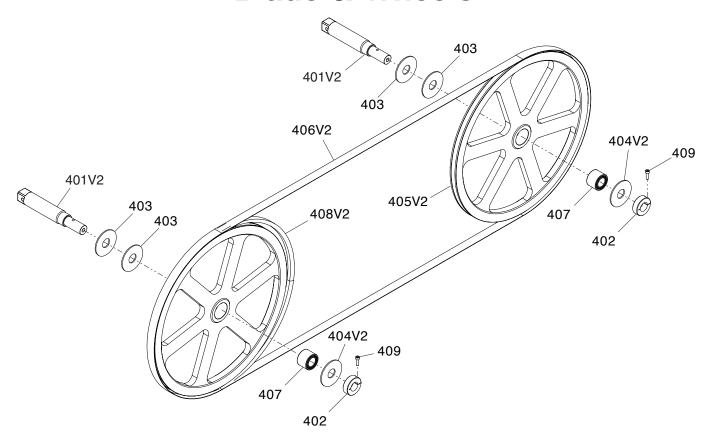
REF	PART #	DESCRIPTION
301V2	P0901301V2	SAW WHEEL MOUNT (REAR) V2.10.21
302V2	P0901302V2	SAW WHEEL MOUNT (FRONT) V2.10.21
303V2	P0901303V2	SUPPORT BEAM V2.10.21
304V2	P0901304V2	WHEEL TENSIONER V2.10.21
305V2	P0901305V2	MOUNT BRACKET V2.10.21
306V2	P0901306V2	SHLD BOLT M10-1.5 X 10, 25 X 25 V2.10.21
307	P0901307	MOUNTING PLATE
308V2	P0901308V2	TENSIONER ARM V2.10.21
309V2	P0901309V2	TENSIONER MOUNT V2.10.21
310V2	P0901310V2	BLADE TENSION GUIDE BRACKET V2.10.21
311V2	P0901311V2	ENGINE MOUNT V2.10.21
312V2	P0901312V2	TENSIONER WHEEL V2.10.21
313	P0901313	SPACER 20 X 52 X 8
314V2	P0901314V2	CARRIAGE BOLT M10-1.5 X 30 V2.10.21
315	P0901315	STANDOFF-HEX FF M10-1.5 X 32
316	P0901316	CHAIN TENSION SCREW M10-1.5 X 25 LH
317	P0901317	SPACER 25.5 X 38 X 22.2
318V2	P0901318V2	CLUTCH COVER V2.10.21
319	P0901319	SPACER 26 X 38 X 5MM
320	P0901320	BLADE TENSION HANDLE
321	P0901321	FENDER WASHER 13MM
322	P0901322	BLADE TENSION ROD
324	P0901324	THRUST BEARING 51104
325	P0901325	ENGINE B&S XR PROFESSIONAL 13.5HP
326	P0901326	COMPRESSION SPRING TH50-075
328	P0901328	CENTRIFUGAL CLUTCH 120MM
329V3	P0901329V3	V-BELT B89 V3.10.21
330V2	P0901330V2	BALL BEARING 6305-2RS V2.10.21
331V2	P0901331V2	INT RETAINING RING 62MM V2.10.21

REF	PART #	DESCRIPTION
332	P0901332	HEX BOLT M10-1.5 X 25
333	P0901333	HEX BOLT M10-1.5 X 40
335V2	P0901335V2	HEX BOLT M10-1.5 X 25 V2.10.21
336V2	P0901336V2	HEX BOLT M10-1.5 X 80 V2.10.21
337	P0901337	HEX BOLT M6-1 X 16
338	P0901338	HEX BOLT M68 X 12
339	P0901339	HEX BOLT 7/16-20 X 1-3/8
340	P0901340	HEX NUT M6-1
341	P0901341	HEX NUT M8-1.25 V1
341V2	P0901341V2	HEX NUT M10-1.5 V2.10.21
342	P0901342	LOCK WASHER 6MM
344	P0901344	LOCK WASHER 10MM
345	P0901345	FLAT WASHER 6MM
346	P0901346	FLAT WASHER 6MM
347V2	P0901347V2	FLAT WASHER 10MM V2.10.21
348	P0901348	FLAT WASHER 10MM
349V2	P0901349V2	HEX BOLT M6-1 X 16 V2.10.21
351	P0901351	CARRIAGE BOLT M10-1.5 X 30
352	P0901352	CAP SCREW M12-1.75 X 16
354	P0901354	HEX NUT M10-1.5
355	P0901355	EXT RETAINING RING 25MM
356	P0901356	CHAIN TENSION SCREW M10-1.5 X 20
358	P0901358	LOCK NUT M12-1.75
359	P0901359	CAP SCREW M10-1.5 X 30
360	P0901360	SET SCREW M6-1 X 10
361	P0901361	LOCK NUT M10-1.5
362	P0901362	HEX NUT M12-1.75
363	P0901363	LOCK WASHER 12MM
364	P0901364	FLAT WASHER 12MM





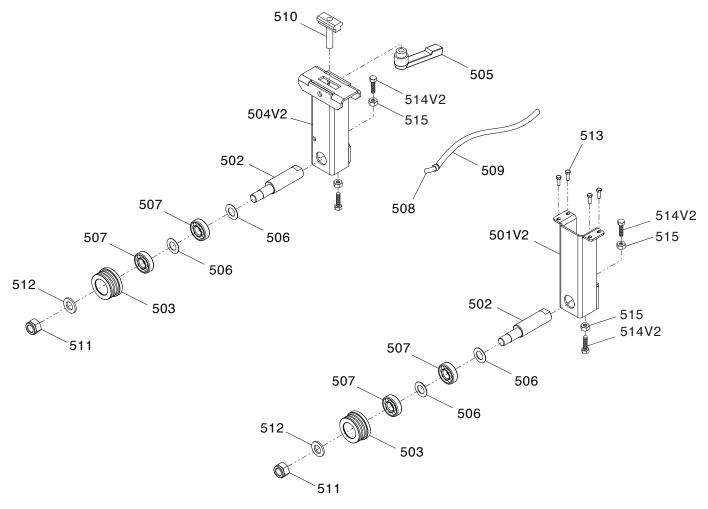
### **Blade & Wheels**



KEF	PARI#	DESCRIPTION
401V2	P0901401V2	WHEEL SHAFT V2.10.21
402	P0901402	LOCK RING
403	P0901403	FENDER WASHER 24MM
404V2	P0901404V2	FLAT WASHER 25.4 X 73 X 3MM V2.10.21
405V2	P0901405V2	SAW WHEEL 18-3/4" CAST-IRON V2.10.21

KEF	PARI#	DESCRIPTION
406V2	P0901406V2	BLADE 145 X 1 X .035" X 1.3 TPI V2.10.21
407	P0901407	NEEDLE BEARING HJ-2028200+IR162020
408V2	P0901408V2	V-BELT B59LP ARESTBUSH V2.10.21
409	P0901409	CAP SCREW M6-1 X 20

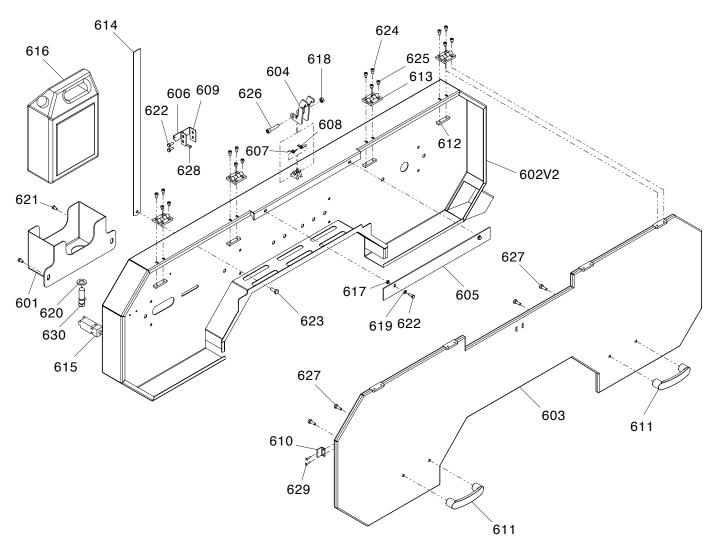
### **Guide Rollers**



REF	PART#	DESCRIPTION
501V2	P0901501V2	GUIDE MOUNT (RIGHT) V2.10.21
502	P0901502	ECCENTRIC ROD M16-2 X 19, 122L
503	P0901503	ROLLER GUIDE
504V2	P0901504V2	GUIDE MOUNT (LEFT) V2.10.21
505	P0901505	ADJUSTABLE HANDLE M12-1.75, 105L
506	P0901506	GASKET
507	P0901507	BALL BEARING 6203-2RS
508	P0901508	DRIP TUBE FITTING

REF	PART#	DESCRIPTION
509	P0901509	DRIP TUBE 6 X 8 X 1000MM
510	P0901510	T-SLOT BOLT 9/16", M12-1.75 X 44
511	P0901511	LOCK NUT M16-2
512	P0901512	FLAT WASHER 16MM
513	P0901513	HEX BOLT M6-1 X 16
514V2	P0901514V2	HEX BOLT M8-1.25 X 30 V2.10.21
515	P0901515	HEX NUT M8-1.25

### **Blade Cover**



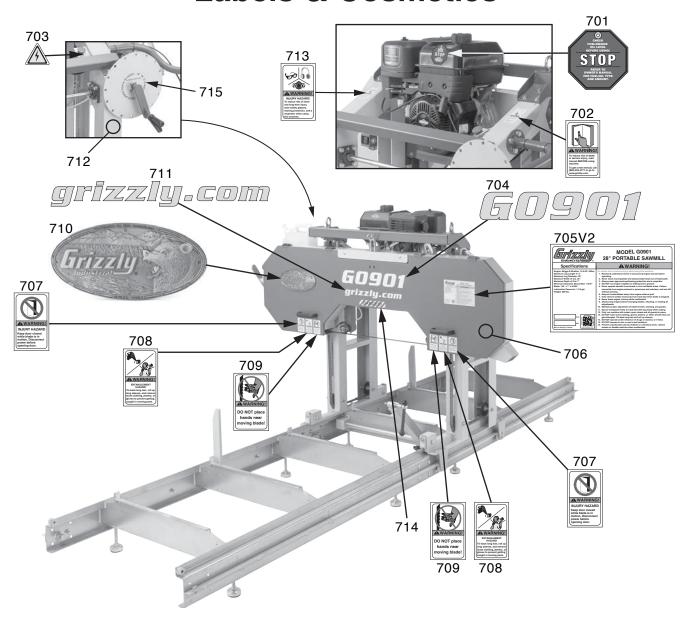
REF P	ART#	DESCRIPTION

	"	DECOMM MON
601	P0901601	WATER TANK HOLDER
602V2	P0901602V2	SAW WHEEL HOUSING V2.10.21
603	P0901603	SAW WHEEL COVER
604	P0901604	BLADE COVER LATCH
605	P0901605	COVER
606	P0901606	BLADE HEIGHT INDICATOR BRACKET
607	P0901607	TORSION SPRING (RIGHT)
608	P0901608	TORSION SPRING (LEFT)
609	P0901609	BLADE HEIGHT INDICATOR
610	P0901610	LIMIT SWITCH TRIGGER PLATE
611	P0901611	COVER HANDLE M8-1.25
612	P0901612	HINGE MOUNTING BRACKET
613	P0901613	HINGE
614	P0901614	BLADE HEIGHT SCALE 24"
615	P0901615	LIMIT SWITCH 240V

#### REF PART # DESCRIPTION

616	P0901616	WATER TANK 5L
617	P0901617	HEX NUT M6-1
618	P0901618	HEX NUT M8-1.25
619	P0901619	FLAT WASHER 6MM
620	P0901620	FLAT WASHER 16MM
621	P0901621	HEX BOLT M6-1 X 12
622	P0901622	HEX BOLT M6-1 X 16
623	P0901623	HEX BOLT M8-1.25 X 20
624	P0901624	CAP SCREW M6-1 X 20
625	P0901625	CAP SCREW M6-1 X 10
626	P0901626	CAP SCREW M8-1.25 X 40
627	P0901627	CAP SCREW M8-1.25 X 20
628	P0901628	BUTTON HD CAP SCR M58 X 8
629	P0901629	BUTTON HD CAP SCR M47 X 16
630	P0901630	BALL VALVE

### **Labels & Cosmetics**



	. ,	DECOIM NON
701	P0901701	OIL FILL HANGING TAG
702	P0901702	READ MANUAL LABEL
703	P0901703	ELECTRICITY LABEL
704	P0901704	MODEL NUMBER LABEL
705V2	P0901705V2	MACHINE ID LABEL V2.10.21
706	P0901706	TOUCH-UP PAINT, GRIZZLY GREEN
707	P0901707	DO NOT OPEN LABEL
708	P0901708	ENTANGI EMENT LABEL

Scan QR code to visit our Parts Store.

#### **REF PART# DESCRIPTION**

709	P0901709	BANDSAW BLADE LABEL
710	P0901710	GRIZZLY NAMEPLATE—LARGE
711	P0901711	GRIZZLY.COM LABEL
712	P0901712	TOUCH-UP PAINT, GRIZZLY BEIGE
713	P0901713	EYE/EAR/LUNG LABEL
714	P0901714	DANGER LABEL
715	P0901715	HANDWHEEL LABEL

### **AWARNING**

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.





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