

# MODEL G0513 SERIES HEAVY-DUTY 17" BANDSAW

### OWNER'S MANUAL (MODELS G0513, G0513ANV & EXTREME MODELS G0513X2, G0513X2B, G0513X2BF & G0513X2F)



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# WARNING!

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

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

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

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



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

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

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

### **Table of Contents**

INTRODUCTION	
Manual Accuracy	
Contact Info	
G0513 Series Combination Manual	
Basic Controls	
Control Panel	
Front Controls	
Motor Brake	
Rear Controls	
G0513 Series Combination Data Sheet	6
SECTION 1: SAFETY	8
Safety Instructions for Machinery	8
Additional Safety for Bandsaws	
SECTION 2: POWER SUPPLY	11
Availability	
Full-Load Current Rating	
Circuit Information	
Circuit Requirements	
Grounding Requirements	
Extension Cords	14
Voltage Conversion	14
-	
SECTION 3: SETUP	
Unpacking	
Needed for Setup	
Hardware Recognition Chart	
Inventory G0513 & G0513ANV	17
G0513X2	
G0513X2	
G0513X2B & G0513X2BF	
Cleanup	
Site Considerations	
Floor Load	
Placement Location	
Moving & Placing Bandsaw	
Using Eye Bolt	
Using Wood Blocks	23
Mounting	
Bolting to Concrete Floors	
Assembly	
Installing Guide Post Handwheel, Positive	
Stop Bolt, & Table	24
Installing Fence (G0513, G0513ANV,	
G0513X2 & G0513X2F)	25
Installing Fence (G0513X2B &	
G0513X2BF)	26
Installing Resaw Fence (G0513X2,	
G0513X2B, G0513X2BF & G0513X2F)	
Initial Blade Tracking	
Adjusting Positive Stop	29

Dust Collection	
Power Cord Connection (G0513X2BF &	
G0513X2F)	
Test Run	
Tensioning Blade	33
Flutter Method	
Deflection Method	
Adjusting Blade Support Bearings	
Adjusting Blade Guides	36
Adjusting Blade Guides (G0513 &	07
G0513ANV)	37
Adjusting Blade Guide Bearings (G0513X2, G0513X2B, G0513X2B, G0513X2BF, &	
G0513X2F)	20
Aligning Table	
Aligning Fence	
Aligning Fence (G0513, G0513ANV,	
G0513X2 & G0513X2F)	
Aligning Fence (G0513X2B &	
G0513X2BF)	
Calibrating Miter Gauge	
SECTION 4: OPERATIONS	40
Operation Overview	
Disabling & Locking Switch (G0513,	42
G0513ANV, G0513X2)	43
Disabling & Locking Switch (G0513X2B,	
G0513X2BF, G0513X2F)	43
General Overview	
Straight Cuts	
Irregular Cuts	44
Basic Cutting Tips	44
Workpiece Inspection	
Table Tilt	
Models G0513 & G0513ANV	45
Models G0513X2, G0513X2B,	
G0513X2BF & G0513X2F	
Guide Post	
Fine Tune Tracking	
Blade Selection	
Blade Length Blade Width	
Blade Material	
Tooth Set	
Tooth Type	
Blade Selection Chart	49
Blade Breakage	
Blade Care & Break-In	
Blade Changes	
Removing Blade	
Installing Blade	
Blade Speed	

Crosscutting Resawing Cutting Curves Stacked Cuts	53 54
SECTION 5: ACCESSORIES Basic Eye Protection	
SECTION 6: MAINTENANCE Schedule Wheel Brush Cleaning & Protecting Lubrication Blade Post Rack Tension Adjustment Assembly Trunnions	58 58 58 58 58 58 59
SECTION 7: SERVICE Troubleshooting V-Belt Service Checking V-Belt Replacing V-Belt Blade Lead Adjusting Wheel Brush Adjusting Tension Lever Adjusting Guide Post Travel Checking/Adjusting Guide Post Parallel with Blade Side-to-Side Checking/Adjusting Guide Post Parallel with Blade Front-to-Back Aligning Wheels Checking Coplanarity Shimming Upper Wheel Adjusting Lower Wheel Magnetic Brake Adjustment (G0513X2B,	60 63 63 63 64 65 65 65 66 66 66 66 68 68 68
G0513X2BF)	70

SECTION 8: WIRING	.71
Wiring Safety Instructions	
G0513, G0513ANV & G0513X2 Wiring	
Diagram	
G0513X2B Wiring Diagram	
G0513X2BF Wiring Diagram	
G0513X2F 220V Wiring Diagram	
G0513X2F 110V Wiring Diagram	
SECTION 9: PARTS	
G0513 & G0513ANV Main	
G0513 & G0513ANV Table, Trunnion &	70
Lower Blade Guides	
G0513 & G0513ANV Fence	. 80
G0513 & G0513ANV Upper Blade Guides	01
& Miter Gauge	
G0513 Labels	
G0513ANV Labels	
G0513X2 Main	
G0513X2 Labels	
G0513X2B Main	
G0513X2B Labels	
G0513X2BF Main	
G0513X2BF Labels	
G0513X2F Main	
G0513X2F Labels G0513X2, G0513X2B, G0513X2BF &	
G0513X2F Guides & Trunnions	
G0513X2 & G0513X2F Fence Assembly &	
	. 99
G0513X2B & G0513X2BF Fence Assembly & Table	100
G0513X2BF & G0513X2F Foot Brake	101
WARRANTY & RETURNS	105

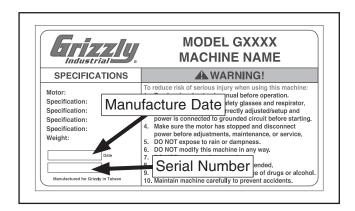
### **Manual Accuracy**

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

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

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

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



### **Contact Info**

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

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

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

> Grizzly Documentation Manager P.O. Box 2069 Bellingham, WA 98227-2069 Email: manuals@grizzly.com

### G0513 Series Combination Manual

The G0513 Series Bandsaws share many similarities. Thus, this combination manual includes information for all seven models of the G0513 Series Bandsaws.

Unless otherwise specified, information applies to all models. Headers are used to identify information that only applies to specific models.



## **Basic Controls**

Refer to Figures 1-4 and the following descriptions to become familiar with the basic controls and components of your bandsaw. Knowledge of these controls and terminology will help you better understand this manual.

### **Control Panel**

The 2-button power switch on Models G0513, G0513ANV, and G0513X2 is located on the column for easy access (see Figure 1). The power button can be disabled with a padlock to prevent unauthorized startup of the bandsaw (refer to Page 43 for additional details).



Figure 1. 2-Button power switch.

The Models G0513X2B, G0513X2BF, and G0513X2F feature a power switch that can be disabled with a key to prevent unauthorized starting of the machine (see Figure 2). To disable the switch, turn the key to "0" and remove it. To enable the switch, insert the key and turn it to "1."

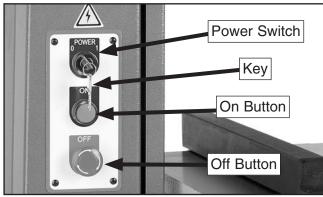


Figure 2. Control panel with a switch disabling lock.

### Front Controls

- A. Blade Tension Scale: Allows for easy monitoring of blade tension in arbitrary numbers 1-8
- B. Blade Tension Handwheel: Tensions blade in gradual increments.
- C. Blade Tracking Window: Allows you to monitor blade tracking on the wheel without opening the wheel cover.
- D. Fence and Miter Gauge: Supports workpiece for controlled straight or angled cuts.

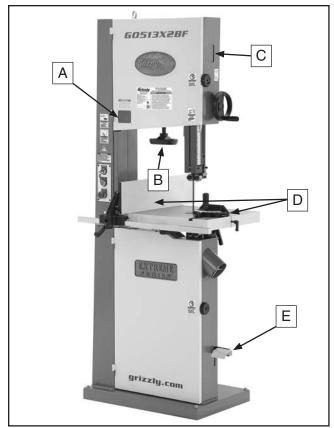


Figure 3. Front controls (G0513X2BF shown).

Foot Brake (Models G0513X2BF & E. G0513X2F): Quickly stops bandsaw blade and motor.

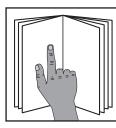
### Motor Brake

The Models G0513X2B and G0513X2BF have a motor brake that activates and quickly stops the blade when the OFF button is used, or the foot pedal is pressed on the Model G0513X2BF.



### **Rear Controls**

- F. Wheel Cover Lock Knobs: Secure the wheel covers.
- **G.** Quick-Release Blade Tension Lever: Adjusts blade tension for quick blade changes.
- H. Blade Tracking Knob and Lock Lever: Moves and locks upper wheel tilt for blade tracking.
- I. **Table Tilt Controls:** Adjusts table tilt and locks the table in place.
- J. Magnetic Switch: Provides thermal overload protection for the motor.
- K. Lower Wheel Adjustment Hub: Used when adjusting coplanarity of the wheels.
- L. Guide Post Handwheel and Lock Knob: Quickly moves the upper guide post to the desired height; locks setting.



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

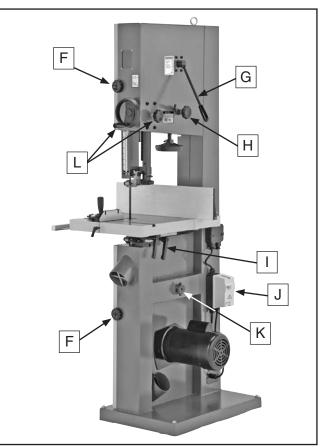


Figure 4. Rear controls (G0513X2B shown).





# MACHINE DATA SHEET

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

### **MODEL G0513 SERIES 17" BANDSAWS**

Model Number	G0513/ G0513ANV	G0513X2	G0513X2B	G0513X2BF	G0513X2F	
Product Dimensions			° · · · ·			
Weight	266 lbs.	325 lbs.	352 lbs.	357 lbs.	335 lbs.	
Width (side-to-side) x Depth			32" x 32" x 73"			
(front-to-back) x Height			32 x 32 x 73			
Footprint (Length x Width)			27" x 17¾"			
Shipping Dimensions						
Туре			Wood Slat Crate			
Weight	342 lbs.	418 lbs.	446 lbs.	460 lbs.	434 lbs.	
Length x Width x Height	20" x 30" x 81"	31" x 21" x 81"	31" x 20	)" x 81"	31" x 21" x 81	
Electrical						
					110V/220V,	
Power Requirement	110V/220V, Sing	le-Phase, 60 Hz	220V, Single-	Phase, 60 Hz	Single-Phase	
					60 Hz	
Full Load Current	20A at 110V,	19A at 110V,	8.7	7A	19A at 110V,	
	10A at 220V	9.5A at 220V			9.5A at 220V	
Minimum Circuit Size	30A at 110V,	15A at 220V	15	δA	30A at 110V, 15A at 220V	
Prewired	1		220V	15A at 220V		
Switch	2-Button Power Switch Magnetic w/Thermal Overload Protection					
Switch Voltage	1	/220V	220V			
Cord Included		Yes			No	
Plug Included	N	lo	Yes, NEMA 6-15	No		
Motor	1					
Туре		TEFC	Capacitor Start Ind	uction		
Horsepower			2 HP			
Voltage	110V/	110V/220V		OV	110V/220V	
Phase			Single-Phase		•	
A	20A at 110V,	19A at 110V,		7.0	19A at 110V,	
Amperage	10A at 220V	9.5A at 220V	8.7	/A	9.5A at 220V	
Speed			1720 RPM			
Cycle			60 Hz			
Power Transfer	Belt Drive					
Bearings		Shielded	and Permanently L	ubricated		
Operation						
Blade Speeds			1700, 3500 FPM			
Table Tilt	Left 10°, Right 45°		Left 5°, F	Right 45°		



Model Number	G0513/ G0513ANV	G0513X2	G0513X2B	G0513X2BF	G0513X2F
Cutting Capacities	· · ·				
Maximum Cutting Height	12 <sup>1</sup> /8"		1	2"	
Maximum Capacity Left of			16 <sup>1</sup> /4"		
Blade			1074		
Blade Information					
Standard Blade Length			1311/2"	-	
Blade Width Range			1/8"-1"	-	
Blade Guides	Roller Disc, Ball Bearings		Ball Bo	earings	
Guide Post Size		1	.18" (30mm) Squar	e	
Guide Post Type		Square Tu	bing, 0.075" in Wall	Thickness	
Table Dimensions					
Length x Width x Thickness	17" x 17" x 1½"		23 <sup>5</sup> /8" x 1	7 <sup>1</sup> /4" x 1 <sup>1</sup> /2"	
Floor to Table Height			<b>37</b> <sup>1</sup> / <sub>2</sub> "		
Fence Information					
Locks in Front			Yes		
Locks in Rear			No		
Adjustable for Blade Lead			Yes		
Resaw Fence Included	No		Y	es	
Construction					
Table		Pred	sision-Ground Cast	Iron	
Fence	Deluxe Extruded Aluminum Cast Iron Fence w/ Extruded Aluminum Resaw Fence				
Body	· · ·	Re-Inforced Steel			
Wheels	Computer- Balanced Cast Aluminum	Balanced Cast Computer-Balanced Cast Iron			
Wheel Tire	1		Polyurethane		
Wheel Covers			Pre-Formed Steel		
Paint			Powder Coated		
Other Related Information			·		
Foot Brake		No		Ye	es
Motor Brake	No		Y	es	No
Wheel Diameter			16 <sup>3</sup> ⁄4"		
Wheel Width			<b>1</b> <sup>1</sup> /4"		
Dust Ports			2 at 4"		
Mobile Base Model			D2057A		
Other Specifications	·				
Country of Origin			Taiwan		
Warranty			1 Year		
ISO Factory			Yes		
Serial Number Location		ID Lat		l Cover	
Assembly Time		ID Label on Upper Wheel Cover 1 Hour			
CSA Certified	G0513 Only			es	



# **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.

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

Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

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

## **Safety Instructions for Machinery**

# WARNING

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

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

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

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

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

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

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



# 

**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 Bandsaws**

## **A**WARNING

Serious cuts, amputation, or death can occur from contact with the moving saw blade during operation or if blade breakage occurs. To reduce this risk, anyone operating this machine MUST completely heed the hazards and warnings below.

HAND PLACEMENT. Placing hands or fingers in line with blade during operation may result in serious injury if hands slip or workpiece moves unexpectedly. Do not position fingers or hands in line with blade, and never reach under table while blade is moving.

**SMALL/NARROW WORKPIECES.** If hands slip during a cut while holding small workpieces with fingers, serious personal injury could occur. Always support/feed small or narrow workpieces with push sticks, push blocks, jig, vise, or some type of clamping fixture.

**BLADE SPEED.** Cutting workpiece before blade is at full speed could cause blade to grab workpiece and pull hands into blade. Allow blade to reach full speed before starting cut. DO NOT start machine with workpiece contacting blade.

**FEED RATE.** To avoid risk of workpiece slipping and causing operator injury, always feed stock evenly and smoothly.

**BLADE CONDITION.** Dull blades require more effort to perform cut, increasing risk of accidents. Do not operate with dirty, dull, cracked or badly worn blades. Inspect blades for cracks and missing teeth before each use. Always maintain proper blade tension and tracking while operating.

**CLEARING JAMS AND CUTOFFS.** Always stop bandsaw and disconnect power before clearing scrap pieces that get stuck between blade and table insert. Use brush or push stick, not hands, to clean chips/cutoff scraps from table.

**BLADE CONTROL.** To avoid risk of injury due to blade contact, always allow blade to stop on its own. DO NOT try to stop or slow blade with your hand or the workpiece.

**GUARDS/COVERS.** Blade guards and covers protect operator from the moving bandsaw blade. The wheel covers protect operator from getting entangled with rotating wheels or other moving parts. ONLY operate this bandsaw with blade guard in proper position and wheel covers completely closed.

**BLADE REPLACEMENT.** To avoid mishaps that could result in operator injury, make sure blade teeth face down toward table and blade is properly tensioned and tracked before operating.

**UPPER BLADE GUIDE SUPPORT.** To reduce exposure of operator to blade and provide maximum blade support while cutting, keep upper blade guides adjusted to just clear workpiece.

**CUTTING TECHNIQUES.** To avoid blade getting pulled off wheels or accidentally breaking and striking operator, always turn bandsaw *OFF* and wait for blade to come to a complete stop before backing workpiece out of blade. DO NOT back workpiece away from blade while bandsaw is running. DO NOT force or twist blade while cutting, especially when sawing small curves. This could result in blade damage or breakage.

**WORKPIECE SUPPORT.** To maintain maximum control and reduce risk of blade contact/breakage, always ensure adequate support of long/ large workpieces. Always keep workpiece flat and firm against table/fence when cutting to avoid loss of control. If necessary, use a jig or other workholding device.

**WORKPIECE MATERIAL.** This machine is intended for cutting natural and man-made wood products, and laminate covered wood products. This machine is NOT designed to cut metal, glass, stone, tile, etc.



# **SECTION 2: POWER SUPPLY**

### Availability

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



AWARNING

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

### **Full-Load Current Rating**

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

G0513 & G0513ANV Full-Lo At 110V	
At 220V	
G0513X2 & G0513X2F Full-I At 110V At 220V	19 Amps
G0513X2B & G0513X2BF	Full-Load Current
Rating At 220V	8.7A

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

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

### **Circuit Information**

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

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



### **Circuit Requirements**

These machines are prewired to operate on a 220V power supply circuit that has a verified ground and meet the 220V operation requirements listed below.

Models G0513, G0513ANV, G0513X2, and G0513X2F can be converted to operate on a 110V power supply (refer to **Voltage Conversion** instructions beginning on **Page 14**) that has a verified ground and meets the 220V operation requirements listed below.

Model Number	G0513, G0513ANV, G0513X2, G0513X2F	G0513X2B & G0513X2BF	
<b>Circuit Requirements Fo</b>	r 220V Operation:		
Nominal Voltage	220V/240V		
Cycle	60 Hz		
Phase	Single-Phas	e	
Power Supply Circuit	15 Amps		
Plug/Receptacle	NEMA 6-15		
Power Cord	"S"-Type, 3-Wire, 14 AWG, 300 VAC		
<b>Circuit Requirements Fo</b>	r 110V Operation:		
Nominal Voltage	110V/120V		
Cycle	60 Hz		
Phase	Single-Phase	- N/A	
Power Supply Circuit	30 Amps		
Plug/Receptacle	NEMA L5-30		
Power Cord	"S"-Type, 3-Wire, 12 AWG, 300 VAC		

### **Grounding Requirements**

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

**Grounding Requirements for 220V:** The plug specified under "Circuit Requirements for 220V Operation" on this page has a grounding pin that must be attached to the equipment-grounding wire inside the specified power cord. The plug must only be inserted into a matching receptacle (see Figure 5) that is properly installed and grounded in accordance with all local codes and ordinances.

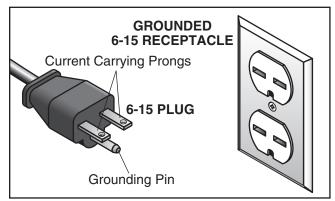
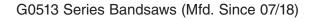


Figure 5. Typical 6-15 plug and receptacle.







No adapter should be used with plug. If plug does not fit available receptacle, or if machine must be reconnected for use on a different type of circuit, reconnection must be performed by an electrician or qualified service personnel, and it must comply with all local codes and ordinances.

**Grounding Requirements for 110V:** The plug specified under "Circuit Requirements for 110V Operation" on the previous page has a grounding prong that must be attached to the equipment-grounding wire inside the specified power cord. The plug must only be inserted into a matching receptacle (see **Figure 6**) that is properly installed and grounded in accordance with all local codes and ordinances.

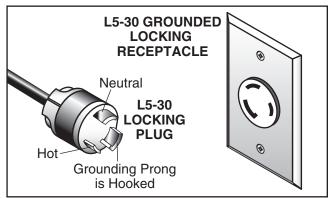


Figure 6. Typical L5-30 plug and receptacle.

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

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

# **WARNING**

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

# 

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



### **Extension Cords**

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

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

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

### **Voltage Conversion**

The voltage conversion MUST be performed by an electrician or a qualified service personnel.

#### Models G0513, G0513ANV, & G0513X2

To perform the voltage conversion, install the correct plug and rewire the motor to the new voltage, according to the wiring diagram provided on **Page 71**.

#### Model G0513X2F

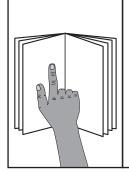
To perform the voltage conversion, replace the magnetic switch with the 110V version (Part No. P0513X2F244), install the correct power cord and plug, and rewire the motor to the new voltage, according to the wiring diagram provided on **Page 75**.

### NOTICE

If the diagram included on the motor conflicts with the one in this manual, the motor may have changed since the manual was printed. Use the diagram provided on the motor.



# **SECTION 3: SETUP**



# WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



### 

Wear safety glasses during the entire setup process!



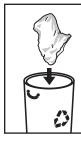
### WARNING

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.

# 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.



### 

SUFFOCATION HAZARD! Keep children and pets away from plastic bags or packing materials shipped with this machine.

# **Needed for Setup**

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

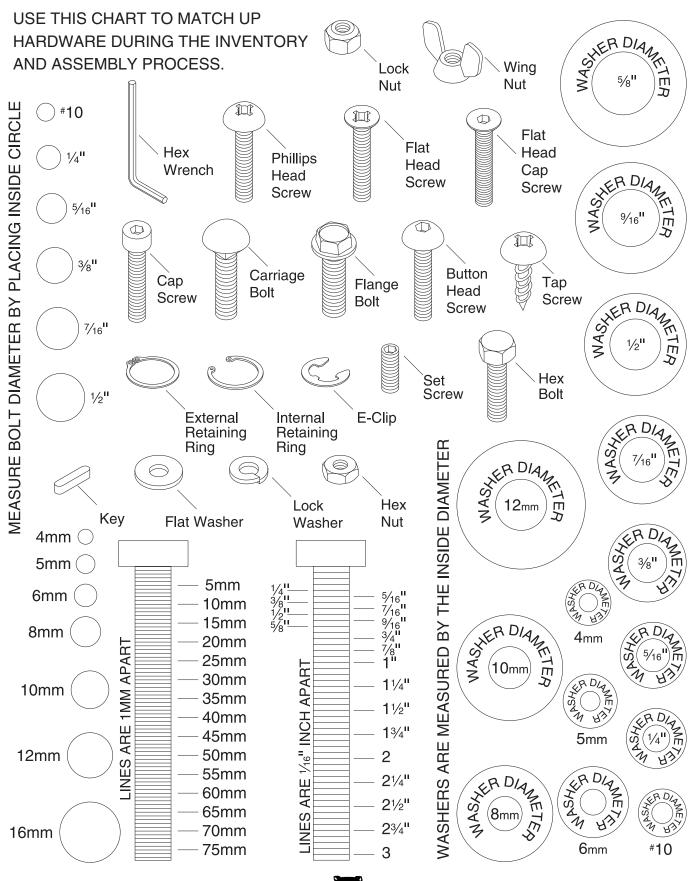
#### Description

•	Additional People 1
•	Safety Glasses1 per Person
•	Cleaner/Degreaser As Needed
•	Disposable Shop Rags As Needed
•	Forklift/Strap or Chain w/Lifting Hook
	(Each component rated for at least 1000 lbs)
	1 Each
•	1x4 & 2x4 Shims (Optional)1 Each
•	Feeler Gauges 0.004", 0.016"1 Each
•	Straightedge 1
•	Fine Ruler1
•	Machinist's Square1
•	Phillips Screwdriver #21
•	Hex Wrench 6mm1
•	Dust Collection System 1
•	Dust Hose 4" 2
•	Hose Clamps 4"2



Qtv

# **Hardware Recognition Chart**





## 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.

### G0513 & G0513ANV

Shi A. B. C. D. E. F. G.	pping Inventory (Figures 7–8)Bandsaw (not shown)TableMiter GaugeMiter GaugeFear RailFront RailFence AssemblyGuide Post Handwheel	1 1 1 1
Har • • • • •	rdware & Tools (Not Shown) Flat Washers 8mm (Table) Lock Washers 8mm (Table) Hex Bolts M8-1.25 x 16 (Table) Hex Bolt M8-1.25 x 90 (Positive Stop) Hex Nuts M8-1.25 (Positive Stop, Fence Cap Screws M6-1 x 16 (Fence) Hex Bolts M6-1 x 20 (Fence) Lock Washers 6mm (Fence) Flat Washers 6mm (Fence) Hex Nut M6-1 (Fence) Table Pin Table Insert	4 1 2 2 2 2 2 2 1 1
•	Fence Handle M8-1.25 x 22 (Fence) Rail Pad M6-1 x 18 (Fence) Hex Wrench 5mm, 8mm	1 1 Each



### **AWARNING** SUFFOCATION HAZARD!

Keep children and pets away from plastic bags or packing materials shipped with this machine.

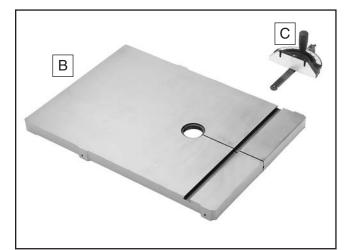


Figure 7. Table and miter gauge.

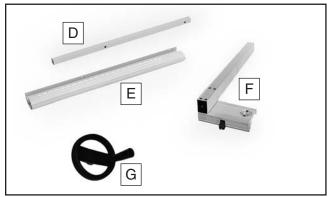


Figure 8. Other bandsaw components.

## 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.



### G0513X2

Shi	pping Inventory (Figures 9–10)	Qty
Α.	Bandsaw (not shown)	1
В.	Table	1
С.	Miter Gauge	1
D.	Rear Rail	1
Ε.	Resaw Fence	1
F.	Front Rail	1
G.	Fence Assembly	1
	Guide Post Handwheel	

#### Hardware & Tools (Not Shown) Qty

•	Flat Washers 8mm (Table, Fence, Rail)	5
•	Lock Washers 8mm (Table, Rail)	4
•	Hex Bolts M8-1.25 x 25 (Table)	4
•	Hex Bolt M8-1.25 x 90 (Positive Stop)	1
•	Hex Nuts M8-1.25 (Positive Stop, Fence).	2
•	Cap Screws M6-1 x 16 (Rear Rail)	2
•	Hex Bolt M6-1 x 20 (Front Rail)	2
•	Lock Washers 6mm (Rail)	2
•	Flat Washers 6mm (Rail)	2
•	Table Pin	
•	Table Insert	1
•	Locking Handle M8-1.25 x 44 (Fence)	1
•	Fence Handle M8-1.25 x 22 (Fence)	1
•	Moving Plate (Fence)	1
•	Hex Wrench 5mm, 8mm1 Ea	ch
•	Open-End Wrench 10 x 13mm	1

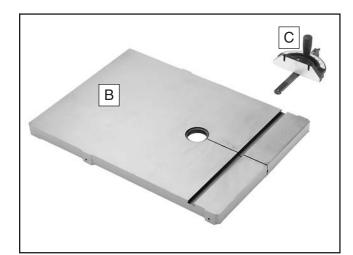


Figure 9. Table and miter gauge.

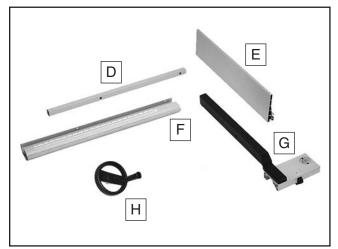


Figure 10. Other bandsaw components.



### G0513X2F

Shipping Inventory (Figures 11–12)		Qty
Α.	Bandsaw (not shown)	1
В.	Table	1
С.	Miter Gauge	1
	Rear Rail	
Ε.	Resaw Fence	1
F.	Front Rail	1
G.	Fence Assembly	1
	Guide Post Handwheel	

#### Hardware & Tools (Not Shown) Qty

•	Flat Washers 8mm (Table, Fence, Rail)	5
•	Lock Washers 8mm (Table, Rail)	4
•	Hex Bolts M8-1.25 x 25 (Table)	4
•	Hex Bolt M8-1.25 x 90 (Positive Stop)	1
•	Hex Nuts M8-1.25 (Positive Stop, Fence).	2
•	Cap Screws M6-1 x 16 (Rear Rail)	2
•	Hex Bolt M6-1 x 20 (Front Rail)	2
•	Lock Washers 6mm (Rail)	2
•	Flat Washers 6mm (Rail)	2
•	Table Pin	1
•	Table Inserts	2
•	Locking Handle M8-1.25 x 44 (Fence)	1
•	Fence Handle M8-1.25 x 22 (Fence)	1
•	Moving Plate (Fence)	1
•	Hex Wrench 5mm, 8mm1 Ea	ach
•	Open-End Wrench 10 x 13mm	1

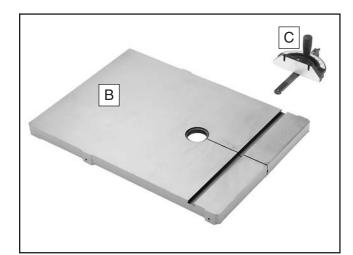


Figure 11. Table and miter gauge.

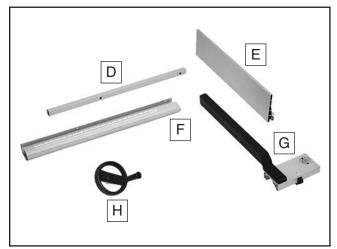


Figure 12. Other bandsaw components.



### G0513X2B & G0513X2BF

Shipping Inventory (Figures 13–14)		Qty
Α.	Bandsaw (not shown)	1
В.	Table	1
С.	Miter Gauge	1
D.	Resaw Fence	1
Ε.	Front Rail	1
F.	Fence Assembly	1
G.	Guide Post Handwheel	1

#### Hardware & Tools (Not Shown) Qty

iiai		Gity
•	Flat Washers 8mm (Table, Fence, Rail).	8
•	Lock Washers 8mm (Table, Rail)	5
•	Hex Bolts M8-1.25 x 25 (Table)	4
•	Hex Bolt M8-1.25 x 90 (Positive Stop)	1
•	Hex Nut M8-1.25 (Positive Stop)	1
•	Cap Screws M6-1 x 20 (Rail)	3
•	Cap Screw M8-1.25 x 20 (Rail)	1
•	Lock Washers 6mm (Rail)	3
•	Flat Washers 6mm (Rail)	3
•	Table Pin	1
•	Table Inserts	2
•	Locking Handle M8-1.25 x 44 (Fence)	1
•	Moving Plate (Fence)	1
•	Knobs M8-1.25 x 20	2
•	Rail Plates	3
•	Hex Wrench 5mm, 8mm1 E	Each
•	Open End Wrench 10 x 13mm	1

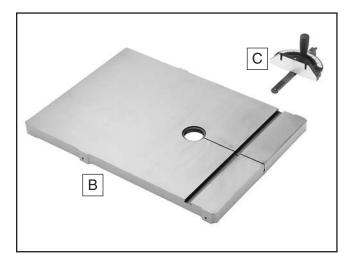


Figure 13. Table and miter gauge.

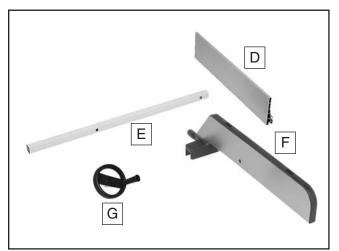


Figure 14. Other bandsaw components.



### Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

#### Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

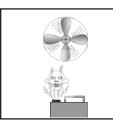
#### Basic steps for removing rust preventative:

- 1. Put on safety glasses.
- 2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.
- **3.** Wipe off the surfaces. If your cleaner/ degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
- 4. Repeat Steps 2–3 as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.



### 

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.



### 

Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.

NOTICE

Avoid harsh solvents like acetone or brake parts cleaner that may damage painted surfaces. Always test on a small, inconspicuous location first.

#### T23692—Orange Power Degreaser

A great product for removing the waxy shipping grease from the **non-painted** parts of the machine during clean up.



Figure 15. T23692 Orange Power Degreaser.



# **Site Considerations**

### Floor Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

### **Placement Location**

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 16** for the minimum working clearances.

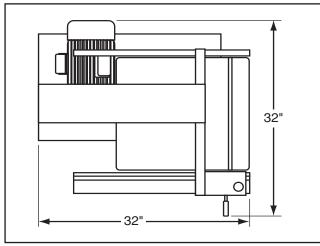
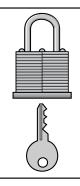


Figure 16. Minimum working clearances.



### 

Children and visitors may be seriously injured if unsupervised around this machine. Lock entrances to the shop or disable start switch or power connection to prevent unsupervised use.

### Moving & Placing Bandsaw



# WARNING

This bandsaw is a heavy machine. Serious personal injury may occur if safe moving methods are not used. Get assistance and use power equipment to move the shipping crate and remove the machine from the shipping pallet.

Special care should be taken when moving this bandsaw. Only use one of the following methods to lift or move this bandsaw.

### **Using Eye Bolt**

- 1. Move the crate to the prepared location, then remove the crate from the shipping pallet.
- 2. Unbolt the bandsaw from the pallet.
- **3.** Place the lifting hook through the eye bolt at the top of the machine (see **Figure 17**), and lift the bandsaw slowly with a forklift.

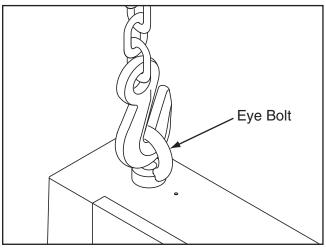


Figure 17. Lifting the bandsaw.

4. Remove the pallet and slowly set the bandsaw into position.



### **Using Wood Blocks**

- 1. Move the crate to the prepared location, then remove the crate from the shipping pallet.
- 2. Unbolt the bandsaw from the pallet.
- **3.** Carefully place the forklift forks under the head and insert a 1x4 block between the head and the left fork and a 2x4 block between the head and right fork so the bandsaw is level, as shown in **Figure 18**.

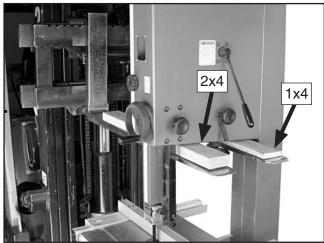


Figure 18. Example photo of lifting bandsaw with forklift using wood shims.

**4.** Lift the bandsaw off of the pallet, remove the pallet, then slowly set the bandsaw into position.

**Note:** If you are concerned about your forklift forks hitting the tension handwheel, remove the handwheel before positioning the forks, then reinstall it after placing.

## WARNING

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

# Mounting

We recommend mounting your new machine to the floor. Because floor materials may vary, floor mounting hardware is not included. You may also mount your machine to a mobile base that has wheel locking or wheel retracting capabilities that keeps the mobile base from rolling when not in use.

### **Bolting to Concrete Floors**

Lag shield anchors with lag bolts (see **Figure 19**) and anchor studs (see **Figure 20**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

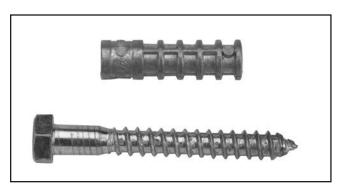


Figure 19. Typical lag shield anchor and bolt.

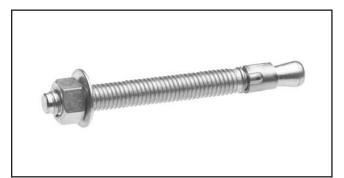


Figure 20. Typical anchor stud.

### NOTICE

Anchor studs are stronger and more permanent alternatives to lag shield anchors; however, they will stick out of the floor, which may cause a tripping hazard if you decide to move your machine.



# Assembly

### Installing Guide Post Handwheel, Positive Stop Bolt, & Table

1. Secure the guide post handwheel onto the handwheel shaft flat with the included set screw (see Figure 21).

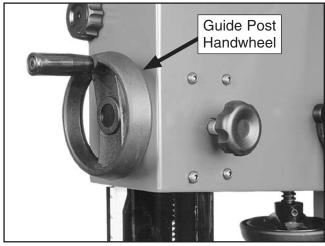


Figure 21. Guide post handwheel installed.

- 2. Thread the M8-1.25 hex nut halfway onto the M8-1.25 x 90 hex bolt (this is the positive stop bolt).
- **3.** Thread the positive stop bolt into the threaded hole on bandsaw body (see **Figure 22**).

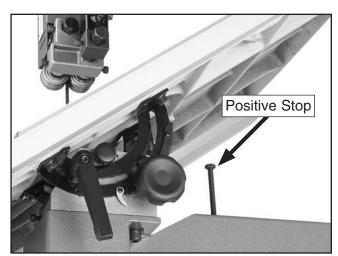


Figure 22. Positive stop bolt installed.

4. Loosen blade tension by rotating the quickrelease tension lever clockwise, as shown in Figure 23.

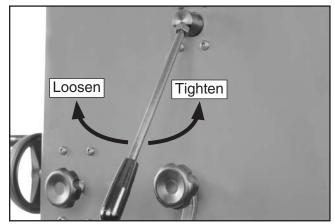


Figure 23. Quick-release tension lever.

 Adjust the upper and lower blade guides away from the blade. Refer to Adjusting Blade Guides beginning on Page 36 for more details.



All saw blades are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling saw blades.

- 6. Remove the saw blade (refer to **Blade Changes** on **Page 51** for detailed instructions).
- **7.** With the help of another person, lift the table onto the trunnions.



### NOTICE

The table is heavy and requires two people to lift it onto the trunnions. Remove the saw blade to make table installation easier.

8. Models G0513 and G0513ANV: Secure the table to the trunnions, as shown in Figure 24 with the (4) M8-1.25 x 16 hex bolts, 8mm lock washers, and 8mm flat washers.

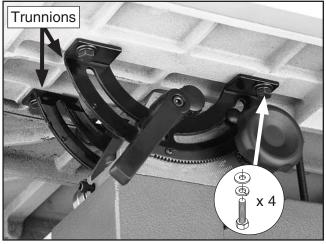


Figure 24. Mounting the table.

Models G0513X2, G0513X2B, G0513X2BF, and G0513X2F: Secure the table to the trunnions with the (4) M8-1.25 x 25 hex bolts, 8mm lock washers, and 8mm flat washers.

9. Replace the saw blade.

# Installing Fence (G0513, G0513ANV, G0513X2 & G0513X2F)

- Attach the rear rail to the table with the (2) M6-1 x 16 cap screws, as shown in Figure 25.
- 2. Attach the front rail with the (2) M6-1 x 20 hex bolts, 6mm lock washers, and 6mm flat washers, as shown in **Figure 25**.

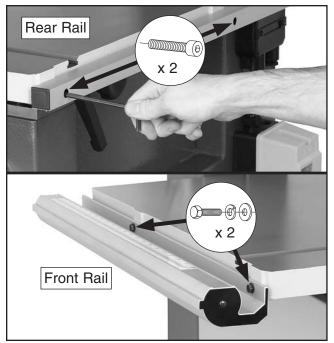


Figure 25. Rail installation.

3. Install an M8-1.25 hex nut on the fence handle, then thread the handle into the fence assembly, as shown in **Figure 26**. Tighten the hex nut against the fence pivot block to secure the handle.

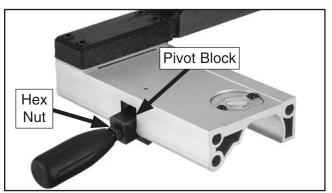


Figure 26. Example of handle installed on fence assembly.



 Pull the fence handle up and place the fence assembly on the front rail (see Figures 27–28).

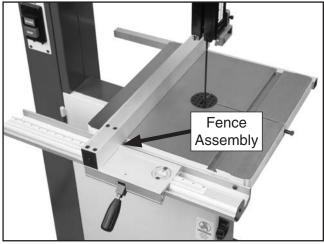


Figure 27. Fence assembly installed on G0513 and G0513ANV.

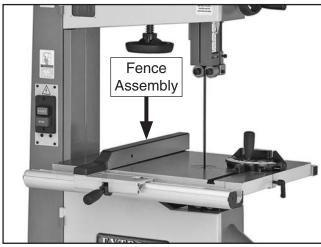


Figure 28. Fence assembly installed on G0513X2 and G0513X2F.

- 5. Push the fence handle down to lock the fence assembly in place.
- 6. Adjust the rear rail pad until there is an even gap between the bottom of the fence and the table, then tighten the rail pad hex nut against the fence.

# Installing Fence (G0513X2B & G0513X2BF)

 Attach the rail plates to the front rail with the (3) M6-1 x 20 cap screws, 6mm lock washers, and 6mm flat washers (see Figure 29).

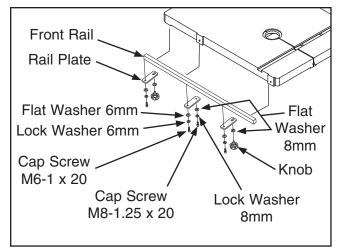


Figure 29. Installing front rail onto table.

- 2. Attach the outer two rail plates with the round and elongated mounting holes to the outer part of the table bottom with (2) M8-1.25 x 20 knobs and 8mm flat washers.
- **3.** Attach the remaining rail plate with the round mounting holes using (1) M8-1.25 x 20 cap screw, 8mm lock washer, and 8mm flat washer (see **Figure 29**).
- 4. Thread the fence handle into the fence, then tighten the hex nut against the fence pivot block (see **Figure 30**).

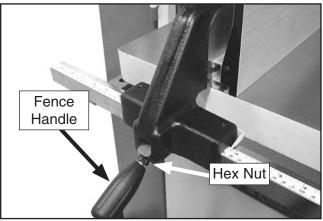


Figure 30. Fence handle components.



- 5. Install the fence on the left-hand side of the blade.
- 6. Place the fence flush against the bandsaw blade (see Figure 31).

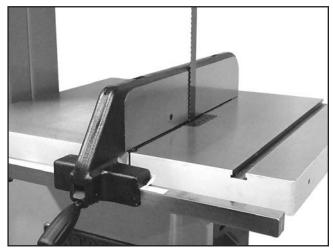


Figure 31. Fence flush with blade.

 Loosen the pointer adjustment nut (see Figure 32) and set the pointer in line with "0" on the measurement scale on the rail.

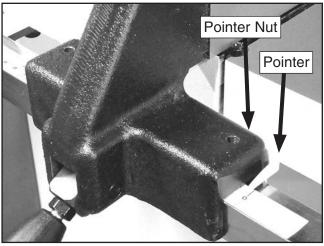


Figure 32. Calibrating fence pointer (adjustment nut out of view).

8. Re-tighten the pointer adjustment nut.

# Installing Resaw Fence (G0513X2, G0513X2B, G0513X2BF & G0513X2F)

- 1. Place the 8mm flat washer on the locking handle (see **Figure 33**), slide it through the hole in the fence, then thread the moving plate onto the end of the locking handle threads.
- 2. Slide the resaw fence over the moving plate, as shown in **Figure 33**, so the moving plate fits inside the channel of the resaw fence, then tighten the locking handle.

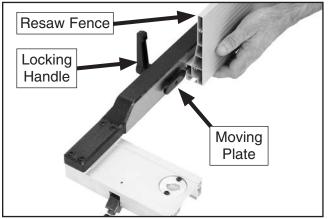


Figure 33. Attaching resaw fence.

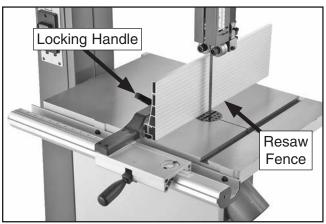


Figure 34. Resaw fence properly installed.



# **Initial Blade Tracking**

### 

Serious personal injury can occur if the machine starts while your hand is touching the bandsaw wheel during tracking adjustments. Disconnect power from the bandsaw before performing blade tracking adjustments.

Blade tracking is primarily affected by the tilt of the upper wheel, known as "center tracking." However, the alignment of both wheels plays an important part as well (see the **Aligning Wheels** instructions on **Page 68** for more details).

The wheels on this bandsaw were aligned at the factory, so center tracking is the only adjustment that needs to be performed when the saw is new.

#### To center track the blade:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the upper and lower blade guides are adjusted away from the blade.
- **3.** Open the upper wheel cover.
- 4. Engage the quick tension lever, then turn the blade tension handwheel until the tension scale (see **Figure 35**) is between 4 and 6.

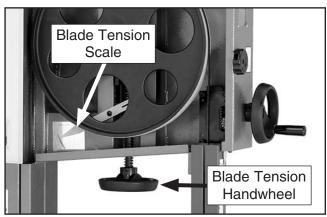


Figure 35. Blade tensioning controls.

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The wheels may have sharp edges and the blade teeth may extend beyond the edge, creating a laceration hazard. Be careful when turning the wheels by hand.

- 5. Spin the upper wheel by hand at least three times and watch how the blade rides on the crown of the wheel. Refer to **Figure 36** for an illustration of this concept.
  - -If the blade rides in the center of the upper wheel and is centered on the peak of the wheel crown, then the bandsaw is already tracking properly and no further adjustments are needed at this time.
  - -If the blade does not ride in the center of the upper wheel and is not centered on the peak of the wheel crown, then continue with the following steps.

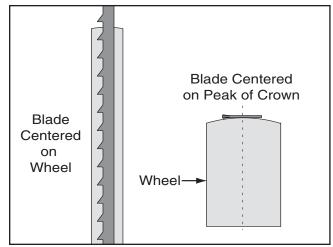


Figure 36. Center tracking profiles.





6. Loosen the lock lever on the back of the bandsaw (see Figure 37) so that the blade tracking knob can rotate.

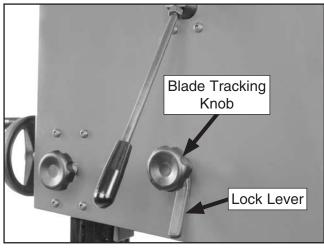


Figure 37. Blade tracking controls.

- 7. Spin the upper wheel with one hand and rotate the tracking control knob in small amounts with the other hand until the blade consistently rides in the center of the bandsaw wheel tire.
- **8.** Tighten the tracking control lock knob and close the upper wheel cover.

**Note:** For the best performance from your saw, regularly maintain proper tracking of the blade.

Fine tune tracking must be done with the bandsaw turned **ON**. This will be explained later in the **Operations** section.

### Adjusting Positive Stop

The positive stop allows the table to be quickly and accurately returned to the horizontal (0°) position after being adjusted to a different angle.

#### To position the positive stop:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Adjust the blade tension until the mark on the blade tension scale is between 4 and 6.
- **3.** Loosen the hex nut that locks the positive stop bolt in place.
- 4. Raise the guide post and place a machinist's square on the table next to the side of the blade, as illustrated in **Figure 38**. Adjust the table square with the blade, then secure it with the table tilt lock lever.

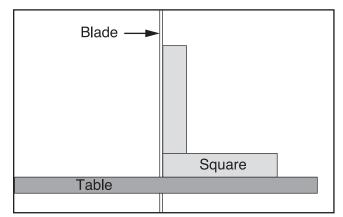


Figure 38. Squaring table to blade.

- 5. Adjust the positive stop bolt against the bottom of the table and secure it by tightening the hex nut against the trunnion bracket.
- 6. Check the adjustment for accuracy once you have tightened the hex nut.
- 7. Loosen the screw on the pointer, but do not remove it.
- **8.** Align the tip of the pointer with the 0° mark on the table tilt scale, then re-tighten the screw to secure the setting.



## **Dust Collection**

# 

DO NOT operate this bandsaw without an adequate dust collection system. This saw creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and longterm respiratory illness.

**Recommended CFM at Dust Port: 400 CFM** Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

#### To connect a dust collection hose:

- 1. Fit a 4" dust hose over each dust port and secure them in place with a hose clamp (see **Figure 39**).
- 2. Tug the hoses to make sure they do not come off.

**Note:** A tight fit is necessary for proper performance.



Figure 39. Dust hose attached to bottom dust port.



### Power Cord Connection (G0513X2BF & G0513X2F)

## **A**WARNING

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

The power cord connection MUST be performed by an electrician or qualified service personnel.

Items Needed	Qty
Cord "S"-Type, 3-Wire, 14 AWG, 300 VAC,	
at least 6 ft. long	1
Phillips Screwdriver #2	1
Wire Nuts for (2) 14 AWG Wires	3
Electrical Tape As Nee	eded

#### To connect the power cord to the machine:

- Attach the required plug to the cord per the plug manufacturer's instructions (refer to Power Supply beginning on Page 11 for specifications and the NEMA plug wiring on Pages 74–75).
- Remove the power supply junction box cover from the right rear of the bandsaw (see Figure 40). It is secured by two screws.

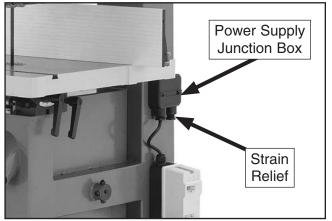
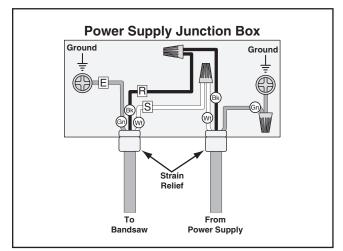
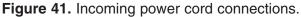


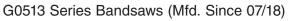
Figure 40. Power supply junction box on rear of bandsaw.

- **3.** Loosen the right strain relief on the junction box, then feed the cord into the box with enough slack in the wires to make the connections.
- 4. Re-tighten the strain relief around the cord. Tug on it to make sure the wires inside the box will not move.
- 5. Connect the incoming ground wire to the ground post, as shown in **Figure 41**.





- 6. Secure the two incoming hot wires to the black and white wires from the bandsaw with wire nuts, then wrap the nuts and wires with electrical tape to make sure they will not come loose.
- 7. Re-attach the junction box cover.





## Test Run

Once the assembly is complete, test run your machine to make sure it runs properly and is ready for regular operation.

The test run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the safety disabling mechanism works correctly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 60**.

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

#### To test run the machine:

- 1. Make sure that you have successfully completed the **Initial Blade Tracking** procedure on **Page 28** before continuing.
- 2. Make sure you have read the safety instructions at the beginning of the manual and that the machine is setup properly.
- **3.** Make sure all tools and objects used during setup are cleared away from the machine.
- 4. Connect the machine to the power source.
- **5.** Test the operation of the machine to verify that it starts and operates correctly.

#### G0513, G0513ANV & G0513X2 Only

- **a.** Verify that the machine is operating correctly by pressing the power button.
  - When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.
  - Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.

#### G0513X2B, G0513X2F, & G0513X2BF Only

a. Insert the key into the power switch (see Figure 42), then turn it to the "1".

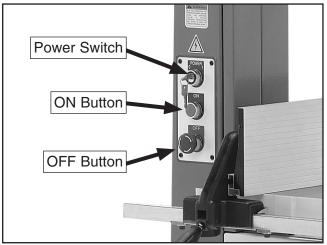


Figure 42. G0513X2B and G0513X2BF control panel.

- **b.** Verify that the machine is operating correctly by pressing the ON button.
  - When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.
  - Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
- **c.** Press the OFF button to stop the bandsaw.
- **d.** WITHOUT resetting the OFF button, press the ON button. The machine should not start.
  - If the machine does start (with the OFF button pushed in), immediately disconnect the machine from power. The OFF button safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

e. Push the OFF button in, then twist it clockwise so it pops out. When the OFF button pops out, the switch is reset and ready for operation (see **Figure 43**).

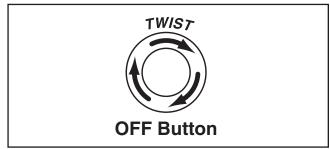


Figure 43. Resetting the OFF button.

- f. Turn the key in the power switch to "0".
- **g.** Try to turn the machine *ON*. The bandsaw should not start.
  - If the bandsaw starts, immediately disconnect the machine from power. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.
- 6. Test the operation of the foot brake:

#### G0513X2BF & G0513X2F Only

- **a.** Start the bandsaw, then press the foot brake. The motor should shut off and the blade should come to a rapid stop.
  - If the motor does not stop or the blade does not come to a rapid stop, immediately disconnect the machine from power. The foot brake feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

Congratulations! The test run is complete and you are ready to proceed with the following adjustments before putting the bandsaw into full operation.

# **Tensioning Blade**

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

# **CAUTION**

Improper blade tension is unsafe, produces inaccurate and inconsistent results, and introduces unnecessary wear on bandsaw components. Over-tensioning the blade increases the chance of the blade breaking or wheel misalignment. Under-tensioned blades wander excessively while cutting and will not track properly during operation.

## NOTICE

Tensioning the blade according to the blade tension scale before the Test Run section gave an approximate tension for completing the bandsaw setup. The following procedures tension the blade for operation.

Blade tensioning method is a matter of preference. The flutter method and the deflection method are described below. Either method safely tensions the blade. Experience and personal preference will help you decide which method your prefer. Optimal cutting results for any workpiece results from a combination of correct blade selection, proper blade tension, and a light and even feed rate.

### **Flutter Method**

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the blade is properly center tracking as instructed in the **Initial Blade Tracking** on **Page 28**.
- **3.** Raise the guide post all the way, and move the upper and lower blade guides away from the blade.



4. Engage the blade tension quick-release lever to apply tension to the blade (see **Figure 44**).

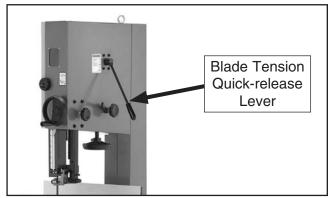


Figure 44. Blade tension quick-release lever (G0513X2 shown).

- 5. Connect the bandsaw to power, and turn the bandsaw *ON*.
- Using the blade tension handwheel (Figure 45), slowly decrease blade tension until the blade starts to flutter.

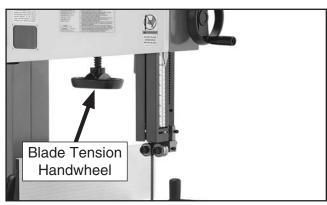


Figure 45. Blade tension handwheel.

- 7. Slowly increase the tension until the blade stops fluttering, then turn the blade tension adjustment knob an additional  $\frac{1}{8}$  to  $\frac{1}{4}$  of a turn.
- 8. Turn the bandsaw *OFF* and disconnect it from power.
- **9.** Note what the tension gauge reads. Use that as a guide for tensioning that specific blade in the future.
- Re-adjust blade guides as described in Adjusting Blade Guides beginning on Page 36 for your model bandsaw.

### **Deflection Method**

The deflection method is more subjective than the flutter method. Each blade deflects differently and every user must determine what "moderate pressure" means. The following are general guidelines for tensioning the blade with the deflection method.

#### To tension the bandsaw blade:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the blade is properly tracking as instructed in the Initial Blade Tracking section on Page 28.
- **3.** Raise the guide post all the way, and move the upper and lower blade guides away from the blade.
- **4.** Engage the blade tension quick-release lever to apply tension to the blade.
- 5. Using moderate pressure, push the center of the blade sideways.
  - —If the blade deflects approximately ¼", it is properly tensioned. Proceed to Step 6.
  - -If the blade deflects less than <sup>1</sup>/<sub>4</sub>" it is over-tensioned. Turn the blade tensioning handwheel counterclockwise two full turns and repeat this step.
  - If the blade deflects more than 1/4", the blade is under-tensioned. Apply tension to the blade a small amount and repeat this step until the blade is properly tensioned.
- Re-adjust the blade guides as described in Adjusting Blade Guides beginning on Page 36 for your model bandsaw.

## NOTICE

Whenever changing a blade or adjusting tension and tracking, the upper and lower blade support bearings and blade guides must be properly adjusted before performing cutting operations.



### Adjusting Blade Support Bearings

Support bearings stop excessive backward deflection of the blade from the advancing workpiece. The proper adjustment of the support bearings is an important part of making accurate cuts and prevents damage to the blade teeth from contact with the blade guides.

It is important that the distance of the support bearing behind the blade is the same as the distance of the blade guides behind the teeth gullets, which is typically about 0.016" (see **Figure 46**).

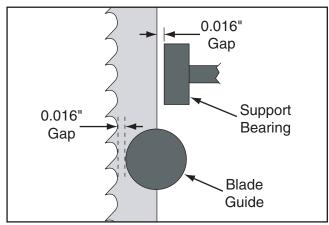


Figure 46. Distance settings of upper support bearings and blade guides.

### NOTICE

Before adjusting the blade support bearings, make sure the blade is tracking properly (*Page 28*) and that it is correctly tensioned (*Page 33*).

Tools Needed	Qty
Hex Wrench 5mm	1
Feeler Gauge 0.016"1	Each
Crisp Dollar Bill (Optional)	1

**Tip:** You can use a crisp dollar bill in place of the feeler gauge for the following procedures. The thickness of the bill when folded in half twice is approximately 0.016".

Refer to **Figures 47–48** and the following descriptions to become familiar with the controls to adjust the support bearings. Then, adjust the surface of the support bearings approximately 0.016" behind the blade.

**Note:** The support bearing controls are similar for all models.

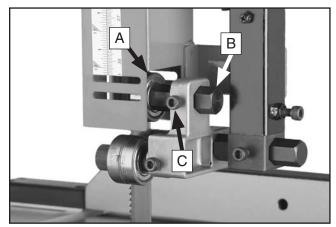


Figure 47. Upper support bearing controls.

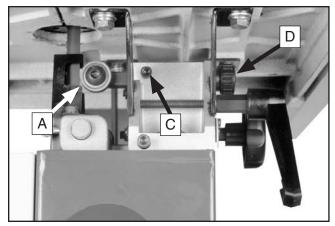


Figure 48. Lower support bearing controls.



A. Support Bearing. Stops excessive backward blade deflection from the pressure of the advancing workpiece.

**Note:** The flat surface of the upper support bearing faces the blade. The round edge of the lower support bearing faces the blade.

- **B.** Upper Support Bearing Shaft. Mounts the support bearing behind the blade. When the support bearing shaft cap screw is loose, move this shaft by hand to adjust the upper support bearing approximately 0.016" behind the blade, then re-tighten the shaft cap screw to secure the setting.
- C. Support Bearing Shaft Cap Screw. When loose, allows distance adjustment of the support bearing behind the blade.
- **D.** Lower Support Bearing Adjustment Knob. When the support bearing shaft cap screw is loose, moves the support bearing toward or away from the blade. Use this knob to adjust the lower support bearing approximately 0.016" behind the blade, then re-tighten the shaft cap screw to secure the setting.

### Adjusting Blade Guides

The blade guides provide side-to-side support to keep the blade straight while cutting. These guides are adjustable in two ways—forward-andback and side-to-side.

To keep the blade straight while cutting, the blade guides must be as close to the sides of the blade without exerting any clamping pressure. This distance is typically about 0.004".

To prevent damage to the blade teeth as the blade deflects back while cutting, the guides must be behind the teeth gullets the same amount as the support bearing is behind the blade, which is typically about 0.016" (see **Figure 46** on the previous page for an illustration of this relationship).

**Note:** Models G0513 and G0513ANV use carbide discs as guides, while the remaining models use ball bearings.

### NOTICE

Before adjusting the blade guides, make sure the blade is tracking properly (*Page 28*) and that it is correctly tensioned (*Page 33*).

**IMPORTANT:** Although the function and the distance adjustment of the blade guides is the same for all the G0513 Series Models, the guide controls are not all the same. Use the set of instructions on the following pages that is correct for your model of bandsaw.



# Adjusting Blade Guides (G0513 & G0513ANV)

Tools Needed	Qty
Hex Wrench 5mm	1
Feeler Gauge 0.004"	1 Each
Crisp Dollar Bill (Optional)	1
Fine Ruler	

**Tip:** You can use a crisp dollar bill in place of the feeler gauge. The thickness of the bill is approximately 0.004".

#### To adjust the upper blade guides:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the thumb screws shown in Figure 49.

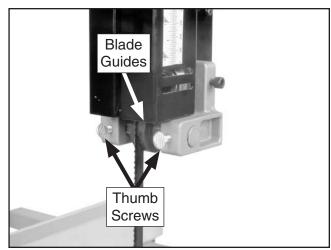


Figure 49. Upper blade guides side-to-side controls.

**3.** By hand, adjust the distance of the guides approximately 0.004" from the sides of the blades (see **Figure 50**), then re-tighten the thumb screws to secure the setting.

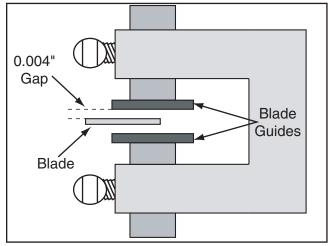


Figure 50. Correct gap between guide guides and blade.

4. Loosen the guide block cap screw shown in Figure 51.

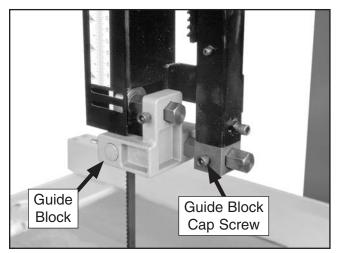


Figure 51. Back of upper blade guides.



 By hand, slide the guide block to position the blade guides approximately 0.016" behind the teeth gullets (see Figure 52), then retighten the guide block cap screw to secure the setting.

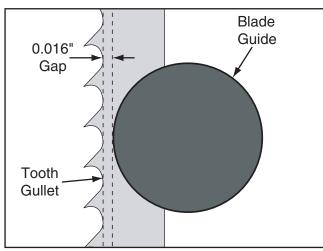


Figure 52. Correct guide alignment behind the teeth gullets.

### NOTICE

Make sure that the blade teeth will not contact the guides when the blade is against the rear support bearing during the cut or the blade teeth will be damaged.

The lower blade guides are adjusted in the same manner as the upper blade guides. However, some controls are different. Refer to **Figure 53** to become familiar with these controls.

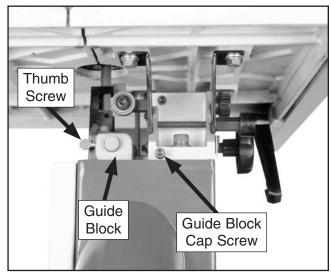


Figure 53. Lower blade guide controls.

### Adjusting Blade Guide Bearings (G0513X2, G0513X2B, G0513X2BF, & G0513X2F)

Tools Needed	Qty
Hex Wrench 5mm	1
Feeler Gauge 0.004", 0.016"	1 Each
Crisp Dollar Bill (Optional)	1

**Tip:** You can use a crisp dollar bill in place of the feeler gauge. The thickness of the bill is approximately 0.004", and when folded in half twice is approximately 0.016".

**Note:** The upper and lower guide bearings are adjusted in the same manner.

To adjust the upper and lower blade guide bearings:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Familiarize yourself with the blade guide controls shown in **Figure 54**.

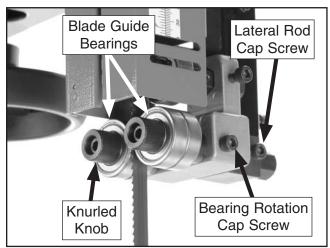


Figure 54. Blade guide controls.

NOTICE

Make sure that the blade teeth will not contact the guide bearings when the blade is against the rear support bearing during the cut or the blade teeth will be damaged.



**3.** Loosen the lateral rod cap screw and slide the guide block to position the blade guides approximately 0.016" behind the blade gullets, as illustrated in **Figure 55**.

**Note:** The 0.016" spacing is ideal, although with larger blades it may not be possible. In such cases, adjust the guide bearings as far forward as possible to the blade gullets, and still maintain the proper support bearing spacing adjustment.

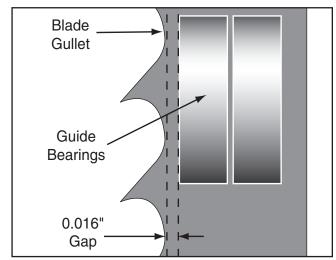


Figure 55. Lateral adjustment of blade guides.

- **4.** Tighten the lateral rod cap screw to secure the setting.
- 5. Loosen both bearing rotation cap screws.
- 6. Rotate the knurled knob to position the bearings approximately 0.004" away from the blade.
- **7.** Re-tighten the cap screws to lock the blade guide bearings in position.

# **Aligning Table**

To ensure cutting accuracy when the table is first installed, the table should be aligned so that the miter slot is parallel to the bandsaw blade. This procedure works best with a wide (3/4") blade installed.

Tools Needed	Qty
Straightedge	1
Fine Ruler	1
Square	1
Wrench or Socket 13mm	1

To align the table so the miter slot is parallel to the bandsaw blade:

- 1. Make sure that the blade is tracking properly and that it is correctly tensioned.
- 2. DISCONNECT BANDSAW FROM POWER!
- **3.** Loosen the trunnion bolts that secure the table.
- **4.** Place an accurate straightedge along the blade. The straightedge should lightly touch both the front and back of the blade.

**Note:** *Make sure the straightedge does not go across a tooth.* 

5. Use a fine ruler to gauge the distance between the straightedge and the miter slot. The distance you measure should be the same at the front and the back of the table (see Figure 56).

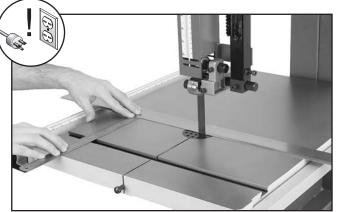


Figure 56. Measuring for miter slot to be parallel with blade.



- -If the distance is not the same at the front and back of the table, adjust the table until it is.
- 6. Place a square on the table and against the back of the blade, as shown in **Figure 57**. The table should be perpendicular to the back of the blade.
  - -If the table is not perpendicular to the back of the blade, shim the table in the desired direction by placing washers between the table and the two trunnions.
- **7.** Re-tighten the trunnion bolts to secure the settings.

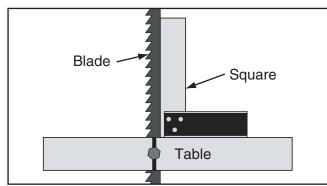


Figure 57. Squaring back of blade and table.

# **Aligning Fence**

To ensure cutting accuracy when the fence is first installed, the fence should be aligned with the miter slot.

Tool Needed	Qty
Hex Wrench 5mm	1

# Aligning Fence (G0513, G0513ANV, G0513X2 & G0513X2F)

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the table is aligned with the blade (see Aligning Table on the previous page for detailed instructions).
- 3. Install the fence next to the miter slot.

4. Loosen the four cap screws located on the top face of the fence (see Figures 58–59).



Figure 58. G0513 & G0513ANV fence caps screws.



Figure 59. Four fence cap screws.

- 5. Adjust the fence face parallel with the edge of the miter slot.
- 6. Tighten the four cap screws, being careful not to move the fence.



# Aligning Fence (G0513X2B & G0513X2BF)

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the table is aligned with the blade (see Aligning Table on Page 39 for detailed instructions).
- **3.** Install the fence and lock it in place next to the miter slot.
- 4. Loosen the end knobs and the center cap screw that secure the front rail to the table (see Figure 60).

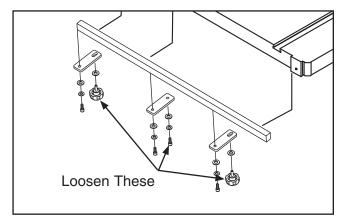


Figure 60. Loosen these knobs and cap screw.

5. Adjust the fence face parallel with the edge of the miter slot, as shown in **Figure 61**.



Figure 61. Example of fence parallel with miter slot.

6. Tighten the knobs and cap screw that secure the rail to the table, being careful not to move the fence.

### Calibrating Miter Gauge

The miter gauge needs to be calibrated to the blade when it is first mounted in the miter slot.

Tool Needed		Qty
Phillips Screwdriver	#2	1

#### To calibrate the miter gauge:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Use a square with one edge against the face of the miter gauge and the other against the blade side, as shown in **Figure 62**.

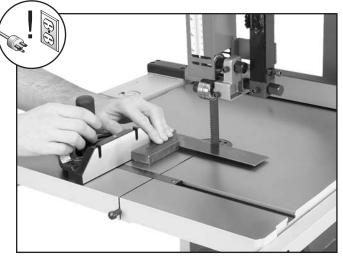


Figure 62. Squaring miter gauge to blade.

- **3.** Loosen the lock knob on the miter gauge and adjust the face flush with the edge of the square.
- 4. Tighten the lock knob, and verify the setting.

**Note:** Sometimes the tightening procedure can affect the adjustment.

- 5. Loosen the screw that secures the angle pointer, and adjust the pointer to the 0° mark on the scale.
- 6. Re-tighten the screw to secure the setting.

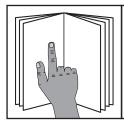


# **SECTION 4: OPERATIONS**

# **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.

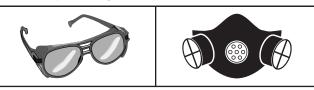
Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books,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



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

# **A**WARNING

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



## 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.

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

- 1. Examines the workpiece to make sure it is suitable for cutting.
- 2. Adjusts the fence away from the blade the same width of the desired cut or out of the way for curve cutting and then locks it in place.
- **3.** Adjusts the table tilt, if necessary, to the correct angle of the desired cut.
- **4.** Adjusts the blade guide height to not more than 1" from the top of the workpiece.
- 5. Checks to make sure the workpiece can safely pass all the way through the blade without interference from other objects.
- 6. Puts on safety glasses.
- 7. Starts the dust collector and bandsaw.
- 8. Holds the workpiece firmly and flatly against both the table and fence, and then pushes the workpiece into the blade at a steady and controlled rate until the workpiece moves completely beyond the blade.

The operator is very careful to keep fingers away from the blade and uses a push stick to feed narrow workpieces.

9. Stops the bandsaw.



### Disabling & Locking Switch (G0513, G0513ANV, G0513X2)

The switch can be disabled and locked by inserting a padlock through the power button, as shown in **Figure 63**. Locking the switch in this manner can prevent unauthorized operation of the machine, which is especially important if the machine is not stored inside an access-restricted building.

**IMPORTANT:** Locking the switch with a padlock only restricts its function. It is not a substitute for disconnecting power from the machine when adjusting or servicing.

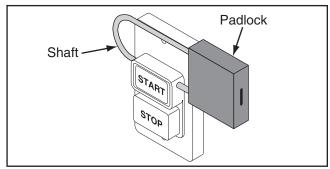


Figure 63. Switch disabled by a padlock.

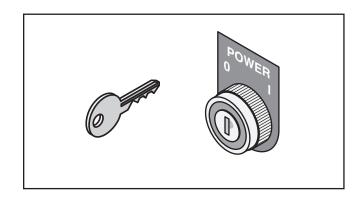
### NOTICE

The padlock shaft diameter is important to the disabling function of the switch. With any padlock used to lock the switch, test the switch after installation to ensure that it is properly disabled.

### Disabling & Locking Switch (G0513X2B, G0513X2BF, G0513X2F)

The power switch can be disabled and locked by removing the key, as shown. Locking the switch in this manner can prevent unauthorized operation of the machine, which is especially important if the machine is not stored inside an accessrestricted building.

**IMPORTANT:** Locking the power switch with a key only restricts its function. It is not a substitute for disconnecting power from the machine when adjusting or servicing.



### 

Children or untrained people can be killed or seriously injured by this machine. This risk increases with unsupervised operation. To help prevent unsupervised operation, remove the key from the switch before leaving machine unattended! Place key in a well-hidden or secure location.



# **General Overview**

The bandsaw is one of the most versatile wood cutting tools in the shop. It is capable of performing many different cutting functions including:

### **Straight Cuts**

- Miters
- Angles
- Compound Angles
- Resawing
- Ripping
- Crosscutting

### **Irregular Cuts**

- Simple and Complex Curves
- Duplicate Parts
- Circles
- Beveled Curves

A properly adjusted and tuned bandsaw can be safer to operate than most other saws and performs many functions with ease and accuracy.

### **Basic Cutting Tips**

#### Here are some basic tips to follow when operating the bandsaw:

- Replace, sharpen, and clean blades as necessary and make adjustments periodically to keep the saw always running in top condition.
- Use a light and even feed rate while cutting. Light contact with the blade will permit easier line following and prevent undue friction.
- Avoid trying to turn tight corners because this will twist the blade. Remember, you must saw around corners.
- Misuse of the saw or using incorrect techniques is unsafe and results in frustration and poor cuts. Remember—the blade does the cutting with the operator's guidance.

### Workpiece Inspection

Some wood workpieces are not safe to cut or may require modification before they are safe to cut.

## Before cutting wood, get in the habit of inspecting all workpieces for the following:

- **Material Type:** This machine is intended for cutting natural and man-made wood products, and laminate covered wood products. Cutting drywall or cementitious backer board creates extremely fine dust, which may reduce the life of the bearings. This machine is NOT designed to cut metal, glass, stone, tile, etc.
- Foreign Objects: Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While cutting, these objects can become dislodged and hit the operator or break the blade, which might then fly apart. Always visually inspect your workpiece for these items. If they can't be removed, do NOT cut the workpiece.
- Large/Loose Knots: Loose knots can become dislodged during the cutting operation. Large knots can cause blade damage. Choose workpieces that do not have large/ loose knots or plan ahead to avoid cutting through them.
- Wet or "Green" Stock: Cutting wood with a moisture content over 20% causes unnecessary wear on the blade and yields poor results.
- **Excessive Warping:** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and can move unpredictably when being cut. DO NOT cut excessively warped wood.
- *Minor Warping:* Workpieces with slight cupping can be safely supported if the cupped side faces the table or fence. On the contrary, a workpiece supported on the bowed side will rock during a cut, leading to loss of control.



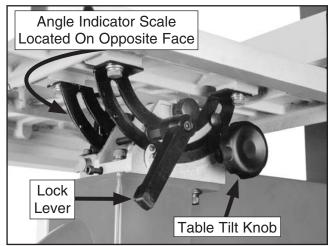
# **Table Tilt**

Model	Tilt Specifications
G0513, G0513ANV	10° left, 45° right
G0513X2	5° left, 45° right
G0513X2B	5° left, 45° right
G0513X2BF	5° left, 45° right
G0513X2F	5° left, 45° right

Remove the positive stop bolt to tilt the table to the left (as viewed from the front).

Refer to **Figures 64–65** to familiarize yourself with the table tilt controls for your model bandsaw.

### Models G0513 & G0513ANV



**Figure 64.** Table tilt controls (G0513 and G0513ANV rear view).

# Models G0513X2, G0513X2B, G0513X2BF & G0513X2F

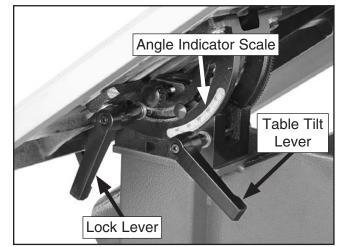


Figure 65. Table tilt controls (G0513X2, G0513X2B, G0513X2BF, and G0513X2F rear view).

#### To tilt the table:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the lock lever to enable table movement.
- **3.** Use the table tilt knob/lever to adjust the angle of the table as displayed on the angle indicator scale.
- **4.** Secure the table with the lock lever before continuing operation.



# **Guide Post**

The guide post connects the upper blade guide assembly to the bandsaw. The guide post allows the blade guide assembly to move up or down so that it is as close to the workpiece as possible for safety and blade support.

In order to cut accurately and safely, the bottom of the blade guide assembly must be no more than 1" above the workpiece at all times—this positioning provides the greatest blade support and minimizes the amount of moving blade exposed to the operator.

### To adjust the blade guide assembly on the guide post:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure that the blade tension, blade tracking, support bearings, and blade guides are adjusted correctly, as previously described in the **SETUP** section.
- 3. Loosen the guide post lock knob shown in Figure 66.

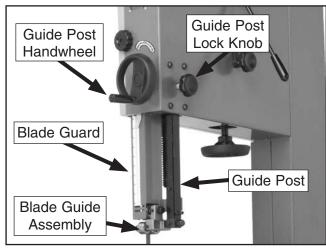


Figure 66. Guide post controls.

- 4. Turn the guide post handwheel to adjust the upper blade guide assembly to within 1" from the top of the workpiece.
- 5. Lock the guide post in place with the lock knob.

# **Fine Tune Tracking**

During setup, the blade was tracked without the machine connected to power. In this procedure, the bandsaw is turned **ON** to perform fine tuning of the tracking. Make small changes with the blade tracking knob as you monitor the effect on the blade tracking.

#### To fine tune the tracking:

- 1. Close the wheel covers and turn the bandsaw *ON*.
- 2. Observe the blade tracking path through the clear window on the right edge of the bandsaw, as shown in **Figure 67**.

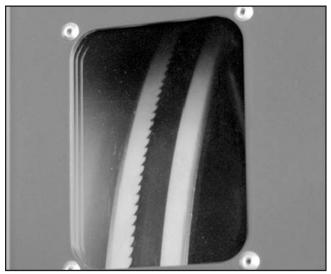


Figure 67. Blade tracking window.

- **3.** Using the tracking controls, adjust the blade so it tracks on the center of the wheel.
- 4. Tighten the tracking lock to secure the setting.



## **Blade Selection**

Selecting the right blade for the cutting task requires knowledge about blade characteristics and cutting priorities (i.e. speed, finish, etc.).

### Blade Terminology

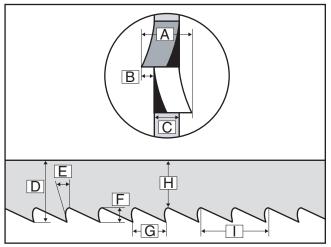


Figure 68. Bandsaw blade components.

- A. Kerf: The amount of material removed by the blade during cutting.
- **B.** Tooth Set: The amount each tooth is bent left or right along the blade.
- **C. Gauge:** The thickness of the blade.
- **D. Blade Width:** The widest point of the blade measured from the tip of the tooth to the back edge of the blade.
- E. Tooth Rake: The angle of the tooth face from a line perpendicular to the length of the blade.
- **F. Gullet Depth:** The distance from the tooth tip to the bottom of the curved area (gullet).
- **G.** Tooth Pitch: The distance between tooth tips.
- **H.** Blade Back: The distance between the bottom of the gullet and the back edge of the blade.
- I. **TPI:** The number of teeth per inch measured from gullet to gullet.

### Blade Length

Measured by the blade circumference, blade lengths are specific to each bandsaw. They are determined by the wheel diameter and distance between the wheels.

### **Blade Width**

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width determines the largest and smallest curve that can be cut, and contributes to the accuracy of cutting straight—generally the wider the blade, the straighter it will cut.

### **Blade Material**

Bandsaw blades must meet two requirements: flexibility and hardness. The flexibility of a blade allows it to travel on the wheel as a band, while hardness allows the teeth to cut and hold an edge. Modern materials technology has allowed bandsaw blades to meet these requirements in various ways.

**Carbon Steel:** These blades are differentially heat treated to provide hard teeth that will hold an edge, and yet be flexible in the back.

**Carbide Tooth:** Extremely hard carbide is either welded onto or impregnated into the carbon steel blades, providing superior edge-holding characteristics (see **Figure 69**).

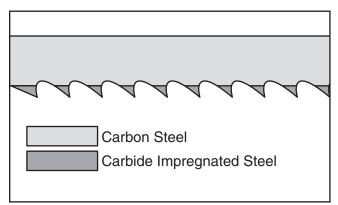


Figure 69. Carbide-tooth blade composition.



**Bimetal Blade:** A strip of high-speed tool steel is precision welded to a flexible carbon blade, then teeth are ground into the blade to provide good edge-holding qualities for blades taking a lot of abuse (see **Figure 70**).

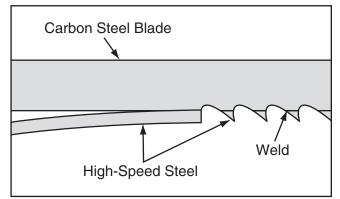


Figure 70. Bimetal blade composition.

### **Tooth Set**

Two common tooth sets for wood bandsaw blades are alternate and raker. Each different type of tooth set removes material in a different manner, leaving cuts with different characteristics (see **Figure 71**).

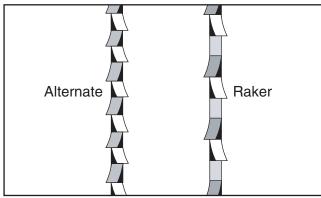


Figure 71. Common woodcutting bandsaw blade tooth sets.

Alternate: An all-purpose arrangement where the teeth are bent evenly left and right of the blade.

**Raker:** Three teeth in a recurring group—one bent left, one bent right, and then one that is not bent. The raker set is ideal for most contour cuts.

### **Tooth Type**

The most common tooth types for wood blades are shown and described below (see **Figure 72**).

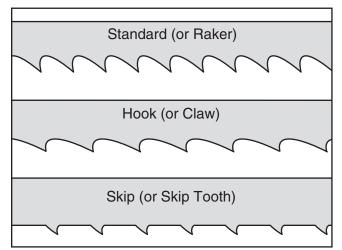


Figure 72. Typical tooth types.



Use the blade selection chart below as a general guide when selecting a blade for your operation.

Cutting Operation		Blade Width	
	Narrow (1/8"-1/4")	Medium ( <sup>3</sup> /16"-1/2")	Wide (1/2"-3/4")
Resawing			HC
Ripping Thin Stock			HM
Ripping Thick Stock			2H C
Ripping Round Stock		ZRM	ZR M
Crosscutting Thin Stock			RF
Crosscutting Thick Stock			RM
Crosscutting Round Stock		RFM	RFM
Mitre Cut			RFM
Tenons		RM	RM
Sharp Curves	RF		
Gradual Curves		SFM	

Кеу					
Tooth Type Tooth Pitch (Teeth per Inch or TPI)			h or TPI)		
ZH	ZR	S	F	Μ	С
Hook	Raker	Skip	Fine (14-32 TPI)	Medium (4-12 TPI)	Coarse (2-4 TPI)



# Blade Breakage

Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable in some cases, since it is the natural result of the peculiar stresses that bandsaw blades must endure.

Blade breakage is also due to avoidable circumstances. Avoidable blade breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

### The most common causes of blade breakage are:

- Faulty alignment or adjustment of the blade guides.
- Forcing or twisting a wide blade around a short radius.
- Feeding the workpiece too fast.
- Dull or damaged teeth.
- Over-tensioned blade.
- Top blade guide assembly set too high above the workpiece. Adjust the top blade guide assembly so that there is approximately 1/8"-1/4" between the bottom of the assembly and the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.
- Leaving the blade tensioned when not in use.
- Using the wrong pitch (TPI) for the workpiece thickness. The general rule of thumb is to have not less than two teeth in contact with the workpiece at all times during cutting.

### Blade Care & Break-In

#### Blade Care

A bandsaw blade is a thin piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, set, type, and pitch for each application. Using the wrong blade will produce unnecessary heat and shorten the life of the blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

### **Blade Break-In**

The sharp teeth tips and edges of a new blade are extremely sharp, and cutting at too fast of a feed rate fractures the beveled edges of the teeth and causes premature blade wear.

#### To properly break-in a new blade:

- 1. Choose the correct speed for the blade and material of the operation.
- Reduce the feed pressure by half for the first 50–100 in<sup>2</sup> of material cut.
- **3.** To avoid twisting the blade when cutting, adjust the feed pressure when the total width of the blade is in the cut.



# **Blade Changes**

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

### **Removing Blade**

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Release the blade tension by turning the blade tension quick-release lever to the left (see Figure 73).

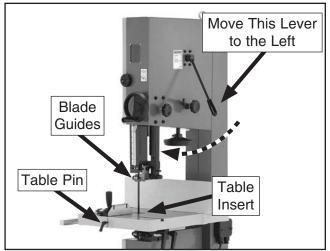


Figure 73. Blade changing controls (G0513X2 shown).



- **3.** Remove the table insert and the table pin. Adjust the upper and lower guide bearings as far away as possible from the blade.
- 4. Open the upper and lower wheel covers, and with gloved hands, slide the blade off of both wheels.
- 5. Rotate the blade 90° and slide it through the slot in the table to remove it.

### **Installing Blade**

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Slide the blade through the table slot, ensuring that the teeth are pointing down toward the table.

**Note:** If the teeth will not point downward in any orientation, the blade is inside-out. Remove the blade, and twist it right side-out.

**3.** Slip the blade through the blade guides, and mount it on the upper and lower wheels (see **Figure 74**).

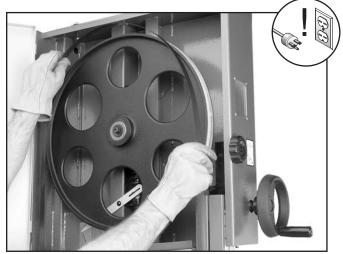
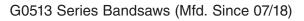


Figure 74. Placing blade on the wheels.

- 4. Tighten the blade tension lever.
- Adjust the blade tension (refer to Page 33) and blade tracking (refer to Page 46).
- 6. Adjust the upper/lower guide bearings and the support bearings (refer to instructions beginning on **Page 35**).
- 7. Close the wheel covers.
- 8. Replace the table insert and table pin.





# **Blade Speed**

The blade speed can be adjusted to 1700 or 3500 FPM. Speed adjustments are made by moving the V-belt position on the motor and wheel pulleys.

Most woodcutting can be performed successfully at the higher blade speeds. Slower blade speeds generally produce better results when cutting hardwoods, intricate curves, or when an exceptionally smooth cut is desired.

### Use the chart below as a general guide to blade speed:

Type of Cutting Operation	Blade Speed (FPM)	
Most Species of Wood	3500	
Super Dense Hardwood	1700	
Fast/Average Feed Rate	3500	
Requires Slow Feed Rate	1700	
Rough Edges Acceptable	3500	
Requires Smooth Edges	1700	
Quick, Production Cuts	3500	
Detailed, Intricate Cuts	1700	

#### To adjust the blade speed:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the motor mount cap screws shown in **Figure 75**, and rotate the motor to loosen the V-belt.



Figure 75. Motor mount cap screws.

**3.** Refer to **Figure 76** to locate the correct V-belt position for the desired blade speed and move the V-belt to the indicated pulleys.

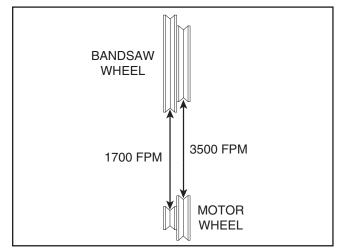


Figure 76. V-belt speeds.

- **4.** Rotate the motor to tension the V-belt, then tighten the motor mount cap screws.
- Check the V-belt tension by applying moderate pressure between the pulleys (see Figure 77). If deflection is not approximately <sup>3</sup>/<sub>4</sub>", re-tension the V-belt until it is.

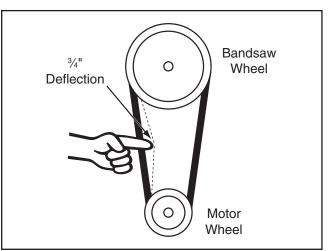


Figure 77. V-belt deflection.



# Crosscutting

Resawing

Crosscutting is the process of cutting across the grain of wood. For plywood and other processed wood, crosscutting simply means cutting across the width of the material.

#### To make a 90° crosscut:

- 1. Mark the workpiece on the edge where you want to begin the cut.
- Adjust the blade guide assembly to no more than 1" above the workpiece and the miter gauge to 90°.
- **3.** Move the fence out of the way. Place the workpiece evenly against the miter gauge.
- 4. Hold the workpiece against the miter gauge and line up the mark with the blade.
- 5. After all safety precautions have been met, turn the bandsaw *ON*. Slowly feed the workpiece into the blade and continue the cut until the blade is all the way through the workpiece. **Figure 78** shows a typical crosscutting operation.

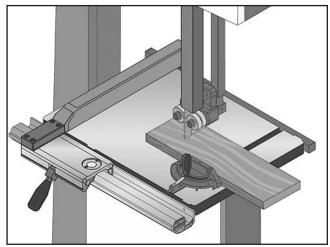


Figure 78. Example of crosscutting.

Resawing (see **Figure 79** for an example) is the process of cutting a board into two or more thinner boards. The maximum board width that can be resawn is limited by the maximum cutting height of the bandsaw.

Blade selection is one of the most important considerations when resawing. Generally, the wider blade, the better. In most applications, a hook or a skip tooth style blade with fewer teeth-per-inch (from 2 to 4) is desirable because they offer larger gullet capacities for clearing sawdust, decrease blade heat, and reduce strain on the motor.

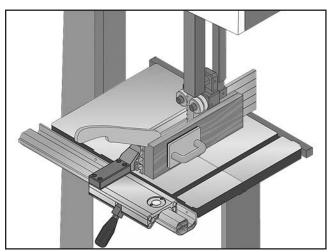


Figure 79. Example of resawing.

## WARNING

When resawing thin pieces, a wandering blade (blade lead) can tear through the surface of the workpiece, exposing your hands to the blade teeth. Always use push blocks when resawing and keep your hands clear of the blade.



#### To resaw a workpiece:

- 1. Verify that the bandsaw is setup properly and that the table is perpendicular to the blade.
- 2. Use the widest blade your bandsaw will accept.

**Note:** The blade must also be sharp and clean.

**3.** Install the resaw fence, set it to the desired width of cut, and lock it in place.

**Note:** When resawing thin workpieces, set up the resaw fence in the alternate position, as shown in **Figure 80**, and make sure to use a push stick.



Figure 80. Resaw fence installed in the alternate position.

### NOTICE

The fence scale will NOT be accurate when using the resaw fence.

- 4. Support the ends of the board if necessary.
- 5. Turn the bandsaw ON.
- 6. Using push paddles and a push stick, keep pressure against the fence and table, and slowly feed the workpiece into the moving blade until the blade is completely through the workpiece.

# **Cutting Curves**

When cutting curves, simultaneously feed and turn the stock carefully so that the blade follows the layout line without twisting. If a curve is so abrupt that it is necessary to repeatedly back up and cut a new kerf, use either a narrower blade or a blade with more TPI (teeth per inch), or make more relief cuts.

Always make short cuts first, then proceed to the longer cuts. Relief cuts will also reduce the chance that the blade will be pinched or twisted. Relief cuts are cuts made through the waste portion of the workpiece and are stopped at the layout line. As you cut along the layout line, waste wood is released from the workpiece, alleviating any pressure on the back of the blade. Relief cuts also make backing the workpiece out easier, if needed.



The list below displays blade widths and the corresponding minimum radii for those blade widths.

Width	Radius
<sup>1</sup> ⁄8"	<sup>1</sup> /8"
<sup>3</sup> ⁄16"	<sup>3</sup> ⁄8"
1⁄4''	<sup>5</sup> ⁄8''
<sup>3</sup> /8 <sup>11</sup>	<b>1</b> ¼"
<sup>1</sup> /2''	<b>2</b> ½''
<sup>5</sup> /8''	<b>3</b> ¾''
3⁄4''	<b>5</b> ½''



# **Stacked Cuts**

One of the benefits of a bandsaw is its ability to cut multiple copies of a particular shape by stacking a number of workpieces together. Before making stacked cuts, ensure that both the table and the blade are properly adjusted to 90°. Otherwise, any error will be compounded.

#### To complete a stacked cut:

- 1. Align your pieces from top to bottom to ensure that each piece has adequate scrap to provide a clean, unhampered cut.
- 2. Secure all the pieces together in a manner that will not interfere with the cutting. Hot glue on the edges works well, as do brad nails through the waste portion. (Be careful not to cut into the brads or you may break the blade!)
- **3.** On the face of the top piece, lay out the shape you intend to cut.

- 4. Make relief cuts perpendicular to the outline of your intended shape in areas where changes in blade direction could strain the woodgrain or cause the blade kerf to bind.
- 5. Cut the stack of pieces as though you were cutting a single piece. Follow your layout line with the blade kerf on the waste side of your line, as shown in **Figure 81**.

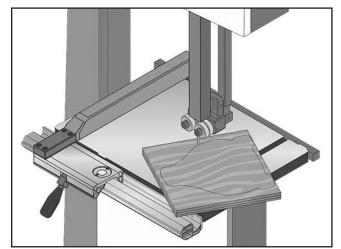


Figure 81. Example of stack cutting.



# **SECTION 5: ACCESSORIES**

# 

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.

Model	Width	TPI	Туре	Gauge
H4803	1⁄8"	14	Raker	0.025
H4804	1⁄4"	6	Hook	0.025
H4805	1⁄4"	18	Raker	0.025
H4806	<sup>3</sup> ⁄8"	10	Raker	0.025
H4807	1/2"	6	Hook	0.025
H4808	1/2"	10	Raker	0.025
H4809	3⁄4"	3	Hook	0.032
H4810	1"	6	Hook	0.035
H4811	1"	2	Hook	0.035

<b>131</b> <sup>1</sup> / <sub>2</sub> "	Carbon	Steel	Replacement	Blades
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#### 131<sup>1</sup>/<sub>2</sub>" Timber Wolf Carbon Steel Blades

Model	Width	TPI	Туре	Gauge
H8591	<sup>1</sup> ⁄8"	14	HP	0.025
H8592	1⁄4"	4	Pos. Claw	0.025
H8593	1⁄4"	10	Raker	0.025
H8594	<sup>3</sup> ⁄8"	4	Pos. Claw	0.025
H8595	<sup>3</sup> ⁄8"	10	Raker	0.025
H8596	1/2"	3	Pos. Claw	0.025
H8597	1/2"	10	Raker	0.025
H8598	3⁄4"	3	Thin	0.025
H8599	1"	3	Pos. Claw	0.035

#### D2057A—Heavy-Duty SHOP FOX® Mobile Base

This patented base is the most stable on the market with outrigger type supports. Adjusts from 20" x  $20\frac{1}{2}$ " to  $29\frac{1}{2}$ " x  $29\frac{1}{2}$ ". 700 lb. capacity. Weighs 47 lbs.

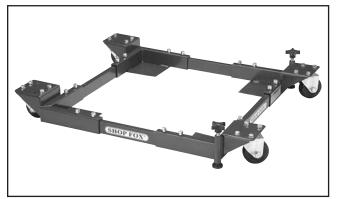


Figure 82. D2057A SHOP FOX® Mobile Base.

#### T26544—LED Light w/Mag Base & Flex Arm

This high intensity LED flashlight is ultra-bright and zoomable, allowing you to focus or disperse the light. Has three modes: high beam, low beam, and an emergency flash. Fish eye lens is 1x2000 zoom. Also features a powerful 30 lb. magnetic base, so you can attach this wherever you need light. Base has a 9" flexible clamp arm for additional mobility. Includes the LED light, base, plate, and 3 AAA batteries.



Figure 83. T26544 LED Light with Base and Flexible Arm.

order online at www.grizzly.com or call 1-800-523-4777



T26403—The Missing Shop Manual: Bandsaw

Dedicated to providing integral information about woodworking tools and techniques that other manuals overlook, the books in this series contain safety facts, explanations about basic project set up, and tips for maximizing tool performance. In Bandsaw, you will find out how to best utilize this essential workshop tool, and how to get the most for your money by getting the most from your equipment. Filled with clear diagrams and instructions, this pocket sized durable manual is ideal for quick reference in the workshop. 112 pages, soft cover.

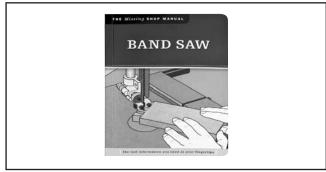


Figure 84. The Missing Shop Manual: Bandsaw.

### **Recommended Metal Protectants**

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



Figure 85. Recommended products for protecting unpainted cast iron/steel part on machinery.

### **Basic Eye Protection**

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



Figure 86. Assortment of basic eye protection.

#### D2272—Tilting Roller Stand

Adjusts from 26" to 44", 0°-45°. 150 lb. capacity. **D2273—Single Roller Stand** 

Adjusts from 26 <sup>5</sup>/<sub>8</sub>" to 45". 250 lb. capacity.

#### D2274—5 Roller Stand

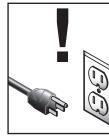
Adjusts from 26" to 44<sup>5</sup>/<sub>8</sub>". 250 lb. capacity. These super heavy-duty roller stands feature convenient hand knobs for fast height adjustment.



Figure 87. SHOP FOX® Roller Stands.

order online at www.grizzly.com or call 1-800-523-4777

# **SECTION 6: MAINTENANCE**



### 

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

# Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

#### Daily Check:

- Loose mounting bolts.
- Worn or damaged saw blade.
- Worn or damaged wires.
- Check/clean wheel brush.
- Clean/protect table surface.
- Check lubrication points.
- Any other unsafe condition.

#### Monthly Check:

- V-belt tension, damage, or wear.
- Clean/vacuum dust build-up from inside cabinet and off motor.

# Wheel Brush

The bandsaw is equipped with a lower wheel brush to keep saw dust from building up on the tire. The brush should be checked daily and cleaned when it becomes dirty.

There is an adjustment bracket that allows the brush to be adjusted for bristle wear (refer to **Adjusting Wheel Brush** on **Page 65** for detailed instructions).

# Cleaning & Protecting

Cleaning the bandsaw is relatively easy. 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.

Protect the unpainted cast iron surfaces on the table by wiping it clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep the table rust-free with regular applications of products like G96<sup>®</sup> Gun Treatment, SLIPIT<sup>®</sup>, or Boeshield<sup>®</sup> T-9 (see **Page 57** for more details).

## Lubrication

An essential part of lubrication is cleaning the components before lubricating them. This step is critical because dust and chips build up on lubricated components, which makes them hard to move. Simply adding more grease to builtup grime will not result in smooth moving parts. Clean the components in this section with an oil/ grease solvent cleaner or mineral spirits before applying lubrication.

All bearings are sealed and permanently lubricated. Leave them alone until they need to be replaced.

### **Blade Post Rack**

Lubrication Type	GL2 Grease or Equivalent
Amount	Thin Coat
Frequency	As Needed

#### To lubricate the blade post rack and pinion:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Lower blade guides until they reach the table.



**3.** Using a rag and mineral spirits, wipe off any existing grease and sawdust build-up on the rack (see **Figure 88**).

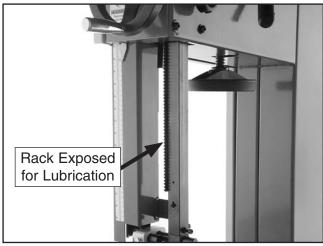


Figure 88. Example of rack lubrication location.

- 4. Apply a thin coat of lubricant to the rack.
- 5. Move the blade post up and down several times to distribute the lubricant, then remove any excess grease to help reduce potential sawdust build-up.

### **Tension Adjustment Assembly**

Lubrication Type	GL2 Grease or Equivalent
Amount	Thin Coat
Frequency	As Needed

### To lubricate the tension adjustment assembly:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the top wheel cover and look through the top of the wheel.
- **3.** Using a rag and mineral spirits, wipe off any existing grease and sawdust build-up on the blade tension adjustment assembly and tension lever cam.

 Apply a thin coat of lubricant to the tension adjustment assembly and tension lever cam (see Figure 89).

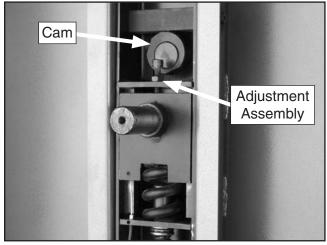


Figure 89. Example of tension adjustment assembly locations (top wheel removed for clarity).

### Trunnions

Models G0513 and G0513ANV have steel trunnions that can be cleaned and lubricated with GL2 grease or equivalent along the sliding surfaces (see **Figure 90**) when necessary.

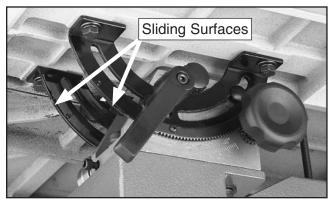


Figure 90. Trunnion lubrication location (G0513 & G0513ANV only).

Models G0513X2, G0513X2B, G0513X2BF, and G0513X2F have cast iron trunnions that produce a fine graphite powder over time that acts as a lubricant. We recommend not adding lubricant to the trunnions which could make a sticky substance that would prevent smooth movement.



# **SECTION 7: SERVICE**

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

## Troubleshooting



Symptom	Possible Cause	Possible Solution
Machine does not	1. Stop button engaged/at fault.	1. Reset/replace button.
start or a breaker	2. Switch disabling key removed.	2. Re-install switch disabling key.
trips.	3. Overload relay in magnetic switch tripped.	3. Allow relay to cool. If necessary, reset.
	4. Wiring break or short; loose connections.	4. Replace broken wires; fix shorts or loose connections.
	5. Plug or receptacle is corroded or miswired.	5. Correct the wiring.
	6. Power supply off/incorrect voltage.	6. Switch power supply on/verify voltage.
	7. Motor connection wired incorrectly.	7. Wire motor correctly. Refer to diagram inside junction box or the wiring diagrams beginning on <b>Page 71</b> .
	8. Contactor has poor contacts or is at fault.	8. Fix contacts or replace.
	9. Blown fuse/tripped circuit breaker.	9. Replace fuse or reset circuit breaker. If problem is
		not due to circuit overload, find/repair short.
	10. Power switch at fault.	10. Replace switch.
	11. Start capacitor has blown.	11. Test/replace if at fault.
	12. Centrifugal switch at fault.	12. Adjust/replace centrifugal switch.
	13. Motor at fault.	13. Repair or replace.
Machine has	1. V-belt tension incorrect.	1. Re-tension V-belt (Page 63).
excessive vibration	2. Bent or dull blade.	2. Replace blade (Page 51).
or noise.	3. Loose blade.	3. Re-tension blade (Page 33).
	4. Blade weld contacting support bearing or blade guides.	4. File/stone the blade weld smooth or round back of blade.
	5. Loose machine component.	5. Tighten loose component.
	6. Machine incorrectly mounted on floor.	6. Level/shim base; tighten/adjust mounting hardware.
	7. Motor fan rubbing on fan cover.	7. Adjust/replace fan cover; replace fan if loose or damaged.
	8. V-belt worn or damaged.	8. Replace V-belt (Page 63).
	9. Wheels not coplanar.	9. Adjust wheels coplanar (Page 68).
	10. V-belt has a high spot.	10. Replace/adjust the V-belt (Page 63).
	11. Pulleys loose or not aligned; shaft bent.	11. Tighten or re-align pulleys; replace bent shaft.
	12. Worn wheel bearing.	12. Check/replace wheel bearing.
	13. Wheel tires worn.	13. Replace tires.
	14. Wheels out of balance.	14. Replace wheels.
	15. Motor at fault.	15. Repair/replace motor.



Symptom	Possible Cause	Possible Solution
Machine stalls	1. Too much pressure against workpiece.	1. Decrease the feed rate or workpiece pressure.
or slows when	2. Workpiece too moist or unsuitable.	2. Only cut wood and ensure moisture is below 20%.
operating.	3. Workpiece is warped.	3. Straighten workpiece or use a different one.
	4. Fence incorrectly adjusted.	4. Adjust/calibrate fence (Page 40).
	5. V-belt slipping.	5. Tension/replace V-belt ( <b>Page 63</b> ); ensure pulleys are aligned.
	6. Run capacitor at fault.	6. Test/repair/replace.
	7. Motor connection wired incorrectly.	<ol> <li>Wire motor correctly. Refer to diagram inside junction box or the wiring diagrams beginning on Page 71.</li> </ol>
	8. Motor overheated.	8. Let cool, clean motor, and reduce workload.
	<ol> <li>9. Contactor has poor contacts or is at fault.</li> </ol>	<ol> <li>9. Test all legs for power, test field coil, and fix contacts or replace if at fault.</li> </ol>
	10. Centrifugal switch at fault.	10. Adjust/replace centrifugal switch if available.
	11. Motor at fault.	<ol> <li>Test for shorted windings, bad bearings and repair or replace.</li> </ol>
Miter bar binds in miter slot.	1. Miter slot dirty or gummed up.	1. Carefully clean miter slot.
Table does not tilt	1. Pointer or scale calibrated incorrectly.	1. Calibrate pointer/scale at true 0 degrees.
to 0 degrees.	2. Positive stop bolt not set correctly.	2. Adjust positive stop bolt ( <b>Page 29</b> ).
Table does not tilt	1. Pointer or scale calibrated incorrectly.	1. Calibrate pointer/scale at true 45 degrees.
to 45 degrees.	2. Machine component blocking path.	2. Remove component blocking table.
Table hard to tilt.	<ol> <li>Sawdust or pitch trapped between trunnion and base.</li> </ol>	1. Clean/lubricate sliding surfaces of trunnions (Page 59).
	2. Metal burrs on trunnion.	2. Remove burrs.
Cuts are rough or	1. Blade is overloaded and twists.	1. Decrease the feed rate or workpiece pressure.
show scoring.	2. Blade TPI is too coarse or speed incorrect.	2. Use correct blade for application (Page 47).
	3. Blade is loose and slipping on wheels.	3. Re-tension blade (Page 33).
	4. Blade tracking is incorrect.	4. Adjust blade tracking (Page 28) or adjust wheels coplaner (Page 68).
	5. Blade has missing or bent teeth.	5. Replace the blade ( <b>Page 51</b> ).
	6. Blade has a faulty weld.	<ol> <li>Replace the blade (Page 51).</li> </ol>
Blade or teeth	1. Blade tension too high.	1. Decrease blade tension (Page 33).
break.	2. Incorrect blade for application.	2. Use correct blade for application (Page 47).
	3. Feed rate or blade speed is too fast.	3. Reduce feed rate or increase blade speed.
	4. Operator is cutting corners too sharply.	4. Use a wider arc on outside cuts, or use relief cuts to make tight inside cuts.
	5. Blade is dull.	5. Replace blade ( <b>Page 51</b> ).
	6. Blade tracking is wrong.	6. Adjust blade tracking ( <b>Page 46</b> ).
	7. Blade guides adjusted incorrectly.	7. Re-adjust blade guides ( <b>Page 36</b> ).
	8. Inadequate blade support near cutting area.	8. Adjust upper blade guide closer to workpiece (Page 36).
	9. Blade weld at fault.	9. Replace blade ( <b>Page 51</b> ).
	10. Wheel tires worn or damaged.	10. Replace tires.



Symptom	Possible Cause	Possible Solution
Blade wears on one side, slows, smokes or shows signs of overheating.	<ol> <li>Blade contacting table insert.</li> <li>Blade guides are mis-adjusted or worn.</li> </ol>	<ol> <li>Re-adjust blade guides (Page 36) to eliminate side pressure. Adjust table for correct blade clearance and miter slot alignment (Page 39).</li> <li>Adjust/replace blade guides.</li> </ol>
	<ol> <li>Blade has insufficient support near cutting area.</li> </ol>	<ol> <li>Adjust replace blade guides.</li> <li>Adjust upper blade guide closer to workpiece (Page 36).</li> </ol>
	<ol> <li>Blade installed backwards.</li> <li>Too much side pressure when feeding wardmines</li> </ol>	<ol> <li>Properly install blade with teeth pointing down.</li> <li>Feed workpiece straight into the blade.</li> </ol>
	<ul><li>workpiece.</li><li>6. Wheels are out of alignment.</li><li>7. Dull or incorrect blade for workpiece.</li><li>8. Blade is bell-mouthed.</li><li>9. Fence not parallel with blade (pressure at</li></ul>	<ol> <li>Adjust wheels so they are coplanar (Page 68).</li> <li>Replace blade (Page 51).</li> <li>Install new blade.</li> <li>Adjust fence parallel with blade (Page 40).</li> </ol>
	blade backside). 10. Table top is not square with blade.	10. Adjust/shim table/trunnion position until blade and table are parallel and square ( <b>Page 39</b> ).
Sawdust build-up inside cabinet.	<ol> <li>Clogged dust port(s).</li> <li>Low CFM (airflow) from dust collection system.</li> </ol>	<ol> <li>Clean out dust port(s).</li> <li>Repair ducting for leaks or clogs, move dust collector closer to machine, install a stronger dust collector.</li> </ol>
Blade tracks incorrectly, or comes off wheels.	<ol> <li>Tracking is not adjusted properly.</li> <li>Wheels are not coplanar.</li> <li>Blade tension is too loose.</li> <li>Blade guides not adjusted correctly.</li> <li>Feed rate too fast.</li> <li>Incorrect blade for bandsaw.</li> <li>Blade is bell-mouthed, worn or dull.</li> <li>Rubber tire on wheel is damaged or worn.</li> </ol>	<ol> <li>Adjust tracking (Page 46).</li> <li>Adjust wheel coplanarity (Page 68).</li> <li>Increase blade tension (Page 33).</li> <li>Adjust blade guides (Page 36).</li> <li>Decrease feed rate.</li> <li>Install correct blade for machine.</li> <li>Install new blade/de-tension blade when not in use.</li> <li>Replace rubber tires.</li> </ol>
Cut is crooked, or the blade wanders (blade lead).	<ol> <li>Feed rate is too fast or blade speed is incorrect.</li> <li>Blade tension is low.</li> <li>Blade is dull or damaged.</li> <li>Inadequate blade support.</li> <li>Incorrect blade for application.</li> </ol>	<ol> <li>Adjust feed rate and cutting speed as required.</li> <li>Increase the blade tension (Page 33).</li> <li>Replace blade (Page 51).</li> <li>Adjust upper blade guide closer to workpiece (Page 36).</li> <li>Use wider blade.</li> <li>Adjust upper blade.</li> </ol>
	<ol> <li>Blade is tracking incorrectly.</li> <li>Table is loose.</li> <li>Fence/miter slot out of alignment.</li> <li>Blade guides mis-adjusted.</li> </ol>	<ol> <li>6. Adjust blade tracking (Page 28) (Page 46).</li> <li>7. Tighten table mounting bolts or tilt lock lever.</li> <li>8. Align table miter slot and fence with blade (Page 39).</li> <li>9. Adjust blade guides (Page 36).</li> </ol>



# **V-Belt Service**

### **Checking V-Belt**

To ensure optimum power transmission from the motor to the blade, the V-belt must be in good condition and properly tensioned. The belt should be free of cracks, fraying, and wear. Belt tension and condition should be checked at least every 3 months—more often if the bandsaw is used daily.

#### To check V-belt tension:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the lower wheel cover.
- **3.** Check the condition of the V-belt. If the V-belt is cracked, frayed, or glazed, replace it.
- 4. Check the V-belt tension by applying moderate pressure between the pulleys (see Figure 91). If deflection is not approximately <sup>3</sup>/<sub>4</sub>", re-tension the V-belt following the same steps you normally use when changing blade speeds (refer to Blade Speed on Page 52 if necessary).

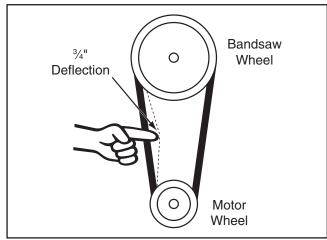


Figure 91. V-belt deflection.

### **Replacing V-Belt**

To replace the V-belt, you must remove the blade and the lower wheel. After re-installation, you must properly re-tension the V-belt.

Qtv

Tools Needed:
---------------

Hex Wrench 6mm	1
Hex Wrench 8mm	1
G0513 Series Bandsaws (Mfd. Since 07/18)	

#### To replace the V-belt:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open both wheel covers, and remove the blade (refer to Blade Changes on Page 51).
- 3. Unthread the lower wheel mount bolt shown in **Figure 92**, and slide the lower wheel off the bearing shaft.

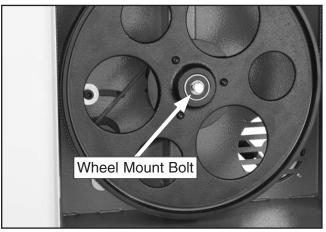


Figure 92. Example of wheel mount bolt.

4. Loosen the motor mount cap screws shown in **Figure 93**.



Figure 93. Motor mount cap screws.

- 5. Slip the old V-belt off of the wheel pulley and install the new V-belt in its place.
- 6. Properly tension the V-belt and re-tighten the motor mount cap screws.
- 7. Re-install the lower wheel back and secure it with the wheel mount bolt.
- 8. Re-install the blade and close the wheel covers.

# Blade Lead

"Blade Lead" means that the blade does not cut straight when using the fence or miter gauge (see **Figure 94**). This is a common condition with all bandsaws. Worn or damaged blades may cause lead and replacing them will fix the problem. Still, if your bandsaw is setup correctly and lead occurs, compensate for it by skewing the fence.

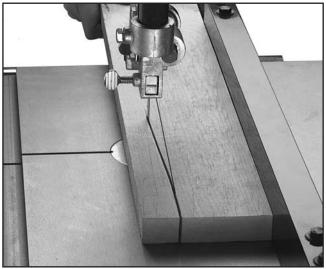


Figure 94. Example of blade leading away from line of cut.

To correct blade lead, do the following steps and make a test cut before skewing the fence:

- 1. Ensure that you have proper blade tension (refer to **Page 33**).
- 2. Ensure that the blade guides are adjusted correctly (refer to **Pages 36–39**).
- 3. Ensure that the fence (refer to **Page 40**) and miter gauge (refer to **Page 41**) is parallel to the blade.

#### To skew your fence:

 Cut a piece of scrap wood approximately <sup>3</sup>/<sub>4</sub>" thick x 3" wide x 17" long. On a wide face of the board, draw a straight line parallel to the long edge.

- Slide the fence out of the way and cut freehand along the line. Stop at the halfway point. Turn the bandsaw *OFF* and wait for the blade to come to a complete stop.
- 3. Clamp the board to the bandsaw table without moving it. Now slide the fence over to the board so it barely touches one end of the board.
- **4.** Loosen the four cap screws on top of the fence.
- 5. Skew the fence as needed until it is parallel to the edge of the scrap piece. You may need to re-adjust the fence locking mechanisms to gain maximum adjustment.
- 6. While maintaining the skew, re-tighten the fence cap screws.

#### To compensate for lead when making straight crosscuts with the miter gauge, you will need to shift the table:

- 1. Set the miter gauge to 90°.
- 2. On a scrap piece of wood, mark a line that is perpendicular to the front edge. Starting where the line begins, cut the board by pushing it through the blade with the miter gauge.
- **3.** Loosen the table mounting bolts, and shift the table to compensate for the blade lead.
- 4. Repeat **Steps 1–3** until the blade cuts straight when wood is pushed through with the miter gauge.

### NOTICE

If the table is shifted, the fence will be affected since it is attached.

### NOTICE

Lead adjustments will change when new blades are mounted on the saw.



### Adjusting Wheel Brush

The lower wheel has a brush, as shown in **Figure 95**, that is designed to sweep sawdust off the wheel tire as the wheel rotates. In order to work properly, the brush must make firm contact with the wheel.

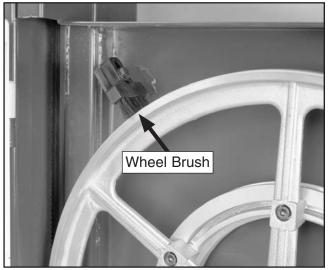


Figure 95. A wheel brush.

Tools Needed:	Qty
Wrench/Socket 10mm	2

#### To adjust the brush:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the lower wheel cover.
- **3.** Loosen the bolt and nut that secures the brush in place.
- 4. Adjust the brush so it makes firm, even contact with the wheel—without bending the bristles.
- 5. Tighten the bolt and nut to secure the brush in place.

### Adjusting Tension Lever

The quick-release tension lever was setup at the factory for use with the pre-installed  $131\frac{1}{2}$ " blade. However, if you install a different length blade, you will need to adjust the quick-release adjust-ment screw so that the quick-release lever works correctly.

Keep in mind that actual blade lengths may vary slightly by manufacture.

Tools Needed:	Qty
Hex Wrench 5mm	1
Wrench 10mm	1

#### To adjust the quick-release lever:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the wheel covers and install a new blade.
- **3.** Loosen the jam nut on the tension adjustment screw 7-10 turns (see **Figure 96**).

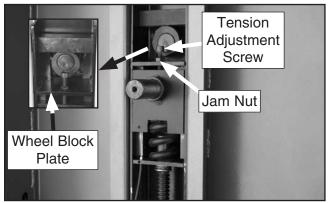


Figure 96. Example of quick-release tension lever adjustment screw.

- 4. Engage the quick-release lever, then turn the blade tension handwheel until the blade tension matches the mark on the blade tension scale for the appropriate blade width.
- Thread the tension adjustment screw (see Figure 96) down until it contacts the wheel block plate, then back it off 1-2 turns.
- 6. Re-tighten the jam nut.



### Adjusting Guide Post Travel

The guide post assembly should remain parallel with the blade front-to-back and side-to-side along its length of travel. If it does not, follow these instructions to adjust it.

**Important:** Make sure the table is aligned with the blade from side-to-side and front-to-back before beginning these procedures (refer to **Aligning Table** on **Page 39** for detailed instructions).

#### **Tools Needed:**

Machinist's Square1
Small Ruler1
Hex Wrench 4mm1
Hex Wrench 5mm1
Metal Shims(As Needed)

### Checking/Adjusting Guide Post Parallel with Blade Side-to-Side

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the guide post lock knob, lower the guide post to within 1" of the table top, then tighten the knob.
- **3.** Place a machinist's square on the table next to the right hand side of the guide post, as shown in **Figure 97**.

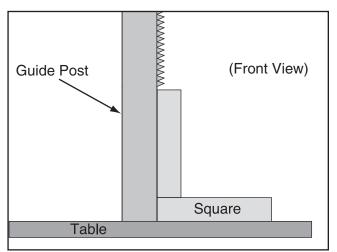


Figure 97. Example of checking guide post squareness.

- -If there is no gap between the square and the guide post along its full length, no adjustments need to be made. Proceed to the next procedure.
- —If there is a gap between the square and the guide post, the guide post is not parallel to the blade. Go to **Step 4**.
- 4. Loosen each of the four screws shown in Figure 98 <sup>1</sup>/<sub>4</sub> turn.

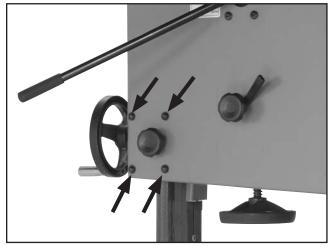


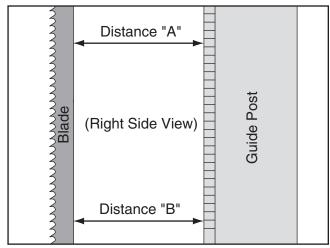
Figure 98. Guide post adjustment screws.

- 5. Gently tap the lower part of the guide post in the appropriate direction until there is no gap between the square and the guide post.
- 6. Tighten the screws shown in Figure 98.



### Checking/Adjusting Guide Post Parallel with Blade Front-to-Back

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the guide post lock knob, lower the blade guide assembly to within 1" of the table top, then tighten the lock knob.
- **3.** Remove the screws that secure the guide post guard and move it up and out of the way.
- 4. Measure the distance "A" between the upper front face of the guide post rack and the back of the blade (see **Figure 99**).



**Figure 99.** Example of measuring distance between rack and blade at top of guide post.

- 5. Measure the distance "B" between the bottom front face of the guide post rack and the back of the blade (see **Figure 99**).
  - —If the measurements taken in Steps 4–5 are equal, no adjustments need to be made. Go to Step 9.
  - —If the measurements taken in **Steps 4–5** are not equal, go to **Step 6**.

- 6. Place the guide post guard on top of the guide post assembly so you can access the guide post bracket.
- 7. Loosen the four screws shown in **Figure 98** on the previous page enough to fit metal shims between the frame and the guide post bracket (see **Figure 100**).
  - ---If the guide post to blade distance is greater at the bottom than at the top, place a shim between the bottom of the bracket and the frame (Shim "A"). This will tilt the bottom of the guide post toward the blade.
  - --If the guide post to blade distance is less at the bottom than at the top, place a shim between the top of the bracket and the frame (Shim "B"). This will tilt the bottom of the guide post away from the blade.

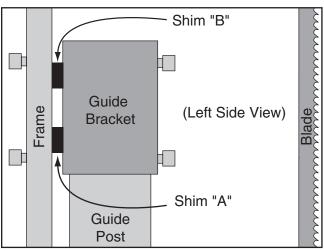


Figure 100. Location for placing shims.

- Tighten the four screws shown in Figure 98 on the previous page, then repeat Steps 4–5.
  - -If the measurements are equal, go to Step 9.
  - -If the measurements are not equal, continue adding shims as needed until guide post rack to blade distance is the same at the top and bottom.
- **9.** Re-install the guide post guard with the screws removed in **Step 3**.



# **Aligning Wheels**

Components and Hardware Needed:	Qty
56" Long 2x4	1

#### **Tools Needed:**

Hex Wrenches 4 & 6 mm	1 Ea
Wrench 13mm	1
Tape Measure	1
Coplanarity Gauge (see Figure 101)	1
Straightedge	
Fine Ruler	

Wheel alignment is one of the most critical factors for optimal performance from your bandsaw.

Heat, vibration, wandering, blade wear, tire wear and overall bandsaw wear are considerably decreased when the wheels are properly aligned or "coplanar."

Coplanar wheels automatically track the blade by balancing it on the crown of the wheel. This is known as coplanar tracking.

### **Checking Coplanarity**

1. Make the "Coplanarity Gauge" shown in Figure 101.

**Note:** For best results, straighten the 2x4 with a jointer before cutting.

- 2. DISCONNECT BANDSAW FROM POWER!
- **3.** Remove the fence and open both wheel covers.
- 4. Adjust the blade guides away from the blade, loosen blade tension, remove the table insert and pin, then remove the blade.
- 5. Remove the table.
- 6. Reinstall the blade, making sure the guide bearings and support bearings are away from the blade, then tighten your blade to the tension that it will be used during operation.
- 7. Place your coplanarity gauge up against both wheels in the positions shown in **Figure 102**.

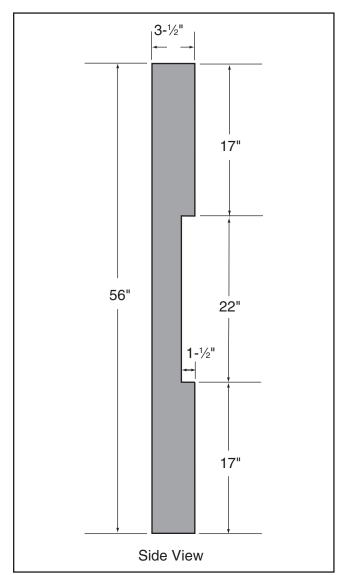


Figure 101. Dimensions of coplanarity gauge.

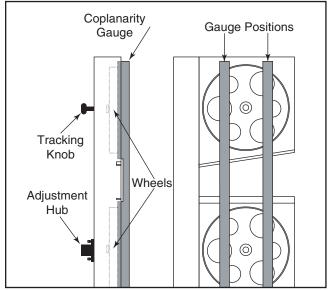


Figure 102. Checking for coplanarity.



- —If the wheels are coplanar (**Figure 104**, **A**), the straightedge will evenly touch the top and bottom of both wheels.
- —If the wheels are not coplanar (Figure 104, B), place the straightedge on the lower wheel first (ensuring that it touches both the top and bottom rim), then adjust the upper wheel tracking knob to make the upper wheel coplanar and parallel with the lower wheel.
- —If the straightedge does not touch both wheels evenly, the upper wheel needs to be shimmed (Figure 104, D) or the lower wheel needs to be adjusted (Figure 104, C).

### Shimming Upper Wheel

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the top wheel is adjusted parallel with the bottom wheel.
- **3.** With a straightedge touching both points of the wheel that does not need to be adjusted, measure the distance away from the wheel that is out of adjustment (see **Figure 103**).

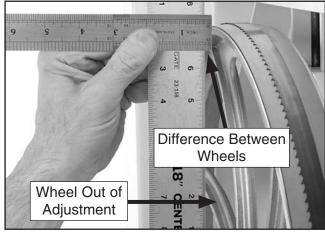


Figure 103 Determining distance needed to shim upper wheel.

- 4. Remove the blade from the saw, then remove the wheel that needs to be shimmed.
- Determine how many shim washers you need to compensate for the distance measured in Step 3 and place them on the wheel shaft.

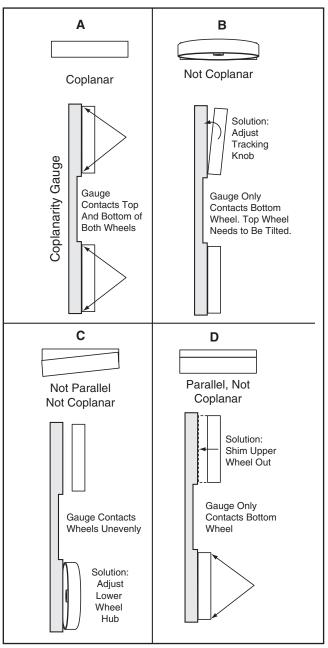


Figure 104. Coplanar diagram.

- 6. Replace the wheel, the original washers, the securing screw, and the blade.
- 7. Tighten the blade, then check the wheels with the coplanarity gauge. (Wheel coplanarity changes as the blade is tightened, so it is best to check the wheel alignment when the blade is tensioned as it would be for normal operations.)



8. When the wheels are coplanar, place a mark on each wheel where you held the straightedge. This assures repeated accuracy every time you adjust your wheels.

**Note:** When wheels are properly coplanar, the blade may not be centered on the crown of the wheel, but it will be balanced.

### **Adjusting Lower Wheel**

Only do this procedure if you cannot make the wheels coplanar with the tracking knob or by shimming the upper wheel. Make sure the upper wheel is adjusted as close as possible to being coplanar with the lower wheel before beginning. Do this procedure with the blade fully tensioned.

#### To adjust the lower wheel:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the jam nuts on the lower wheel adjustment hub (see Figure 105).

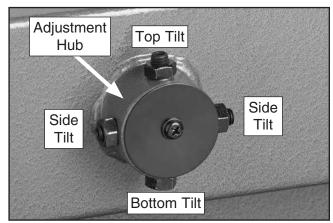


Figure 105. Lower wheel adjustment control.

- **3.** Loosen one tilt adjustment set screw, then tighten the opposing set screw approximately an equal amount.
- 4. Check the wheels with the coplanarity gauge, then adjust the lower wheel at the hub as needed until it is parallel and coplanar with the top wheel.
- 5. Tighten the jam nuts to lock the tilt adjustment set screws in position.

### Magnetic Brake Adjustment (G0513X2B, G0513X2BF)

The space between the magnetic motor brake and brake shoe is preset by the factory at 0.008" (0.2mm). To compensate for this wear, you should adjust this space every two to three years, or if the brake takes over five seconds for to stop the motor.

#### **Tools Needed**

Phillips Head Screwdriver1
Feeler Gauge 0.008"
Dollar Bill, Folded Once (Optional)1
Hex Wrench 3mm1
Hex Wrench 4mm1

#### To adjust the magnetic brake:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Remove the motor fan cover, then loosen the cap screws securing the motor fan and brake shoe (see Figure 106).

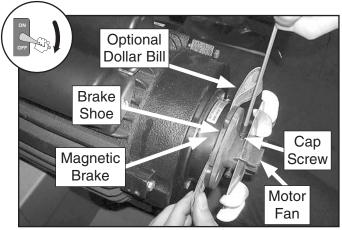
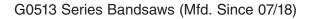


Figure 106. Adjusting distance between magnetic brake and brake shoe.

- **3.** Place the feeler gauge (or dollar bill folded once) between the brake shoe and magnetic brake on either side.
- **4.** Tighten the cap screws on the brake shoe and motor fan, remove the feeler gauge, then reinstall the motor fan cover.



### **SECTION 8: WIRING**

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

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

### AWARNING Wiring Safety Instructions

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

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

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

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

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

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

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

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

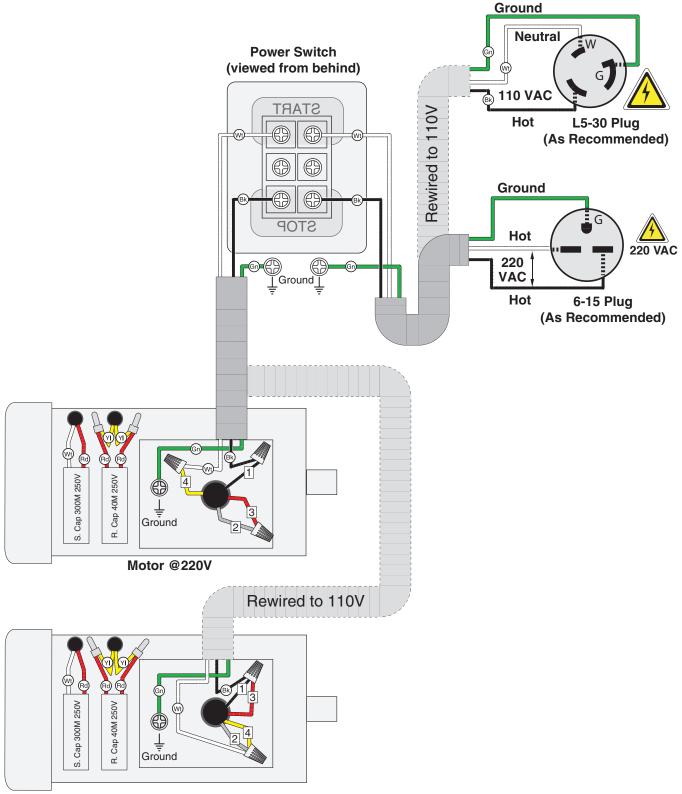
#### NOTICE

BLACK I (Bk) BLUE (BI) YELLOW LIGHT The photos and diagrams BLUE included in this section are YELLOW WHITE = (Wt) BROWN (Br) Yg BLUE GREEN best viewed in color. You WHITE GREEN (Gn) GRAY (Gy) PURPLE (Pu can view these pages in TUR-(Tu) QUOISE color at www.grizzly.com. RED (Rd) ORANGE Or PINK (Pk

**COLOR KEY** 



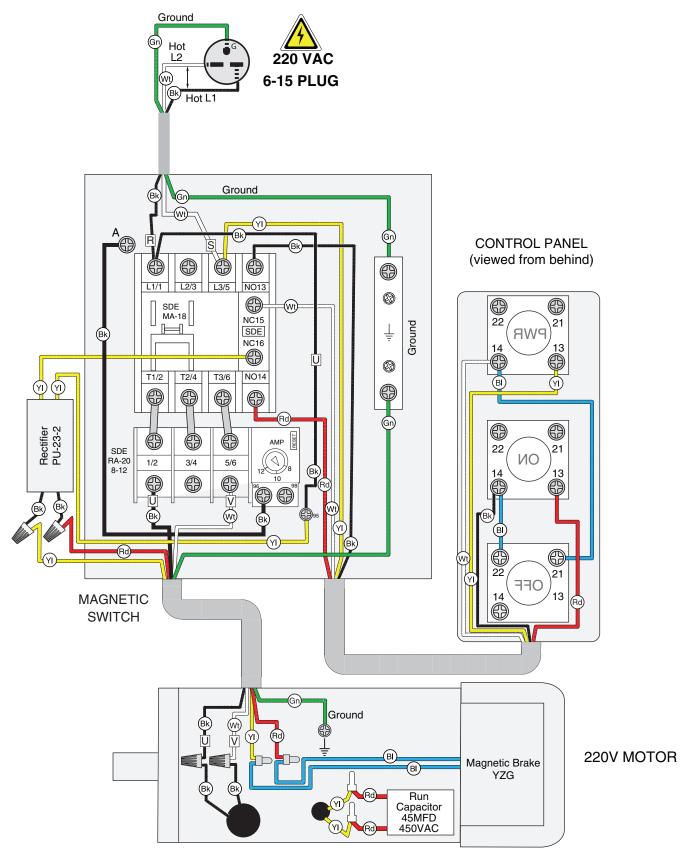
#### G0513, G0513ANV & G0513X2 Wiring Diagram



Motor @110V

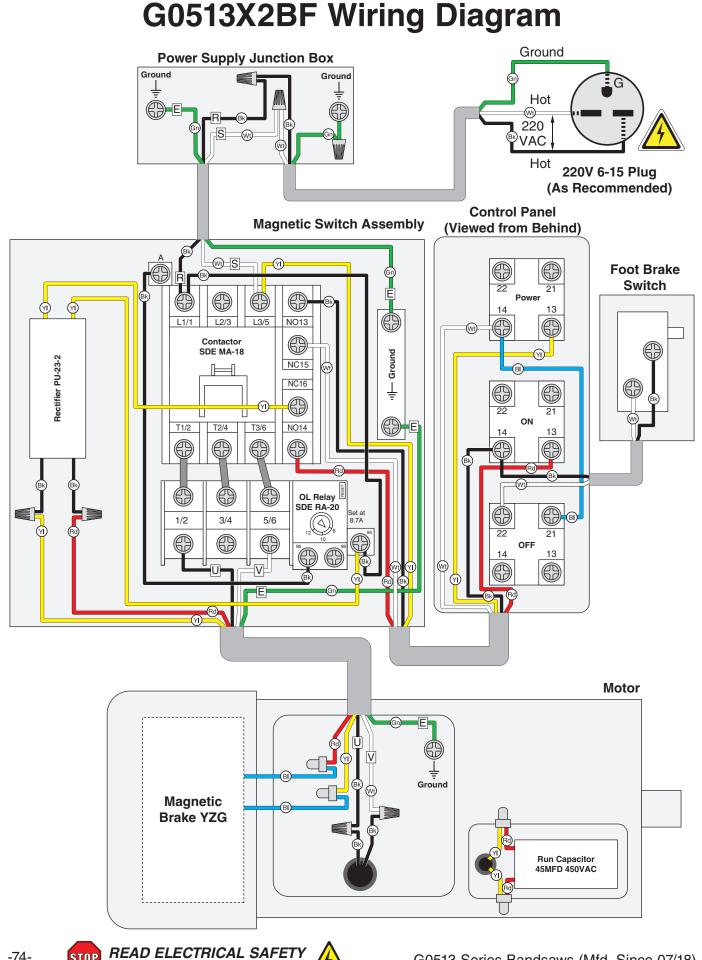


#### G0513X2B Wiring Diagram





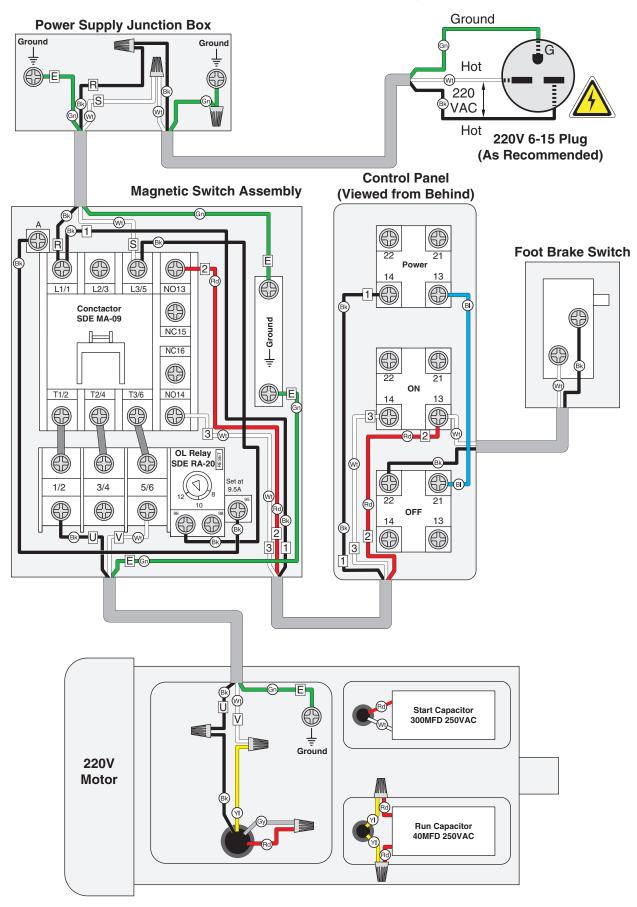




STOP

ON PAGE 71!

#### G0513X2F 220V Wiring Diagram

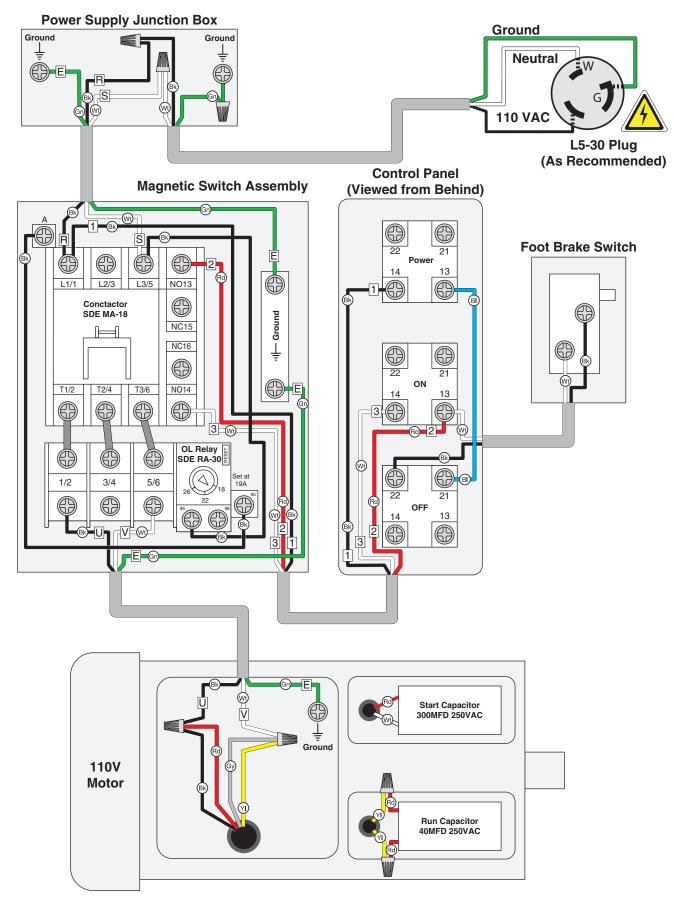


STOP

READ ELECTRICAL SAFETY

ON PAGE 71!

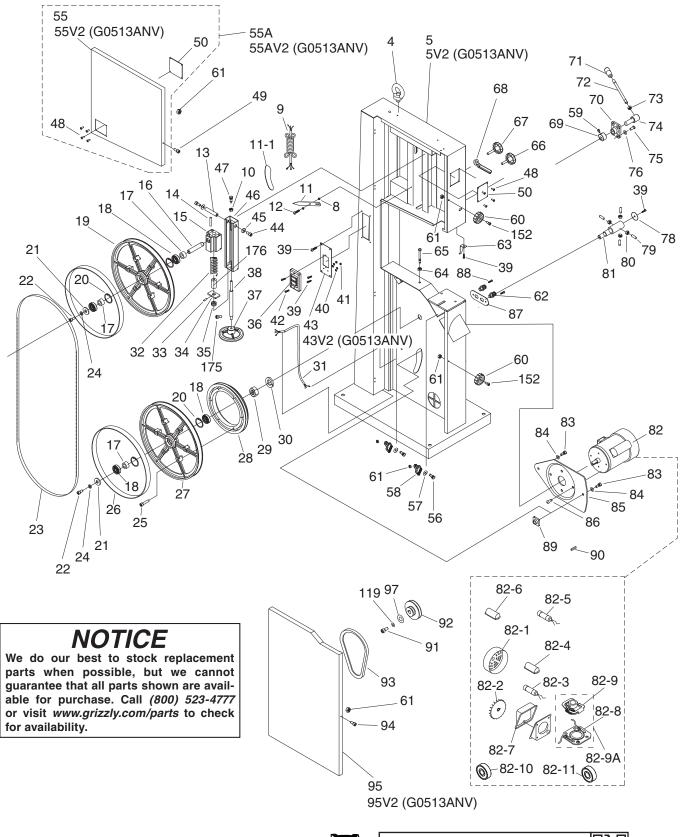
#### G0513X2F 110V Wiring Diagram



STOP

## **SECTION 9: PARTS**

G0513 & G0513ANV Main



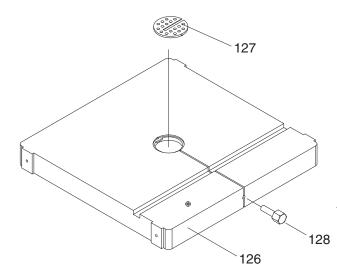


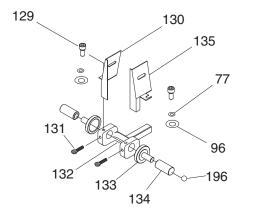
#### G0513 & G0513ANV Main Parts List

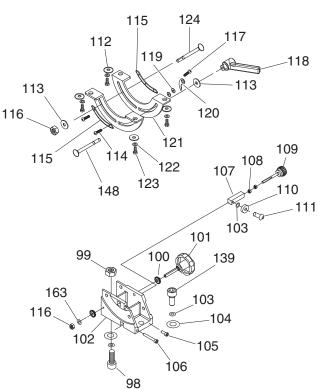
REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
4	P0513004	LIFTING EYE BOLT M10-1.5	59	P0513059	HEX BOLT M6-1 X 25
5	P0513005	MACHINE BODY (G0513)	60	P0513060	STAR KNOB
5V2	P0513ANV005V2	MACHINE BODY V2.04.17 (G0513ANV)	61	P0513061	LOCK NUT M6-1
8	P0513008	FLAT WASHER 6MM	62	P0513062	STRAIN RELIEF 16MM STRAIGHT LT
9	P0513009	POWER CORD 14G 3W 72"	63	P0513063	HEIGHT POINTER
10	P0513010	HEX NUT M6-1	64	P0513064	HEX NUT M8-1.25
11	P0513011	POINTER	65	P0513065	HEX BOLT M8-1.25 X 100
12	P0513012	STEP SCREW M47 X 5	66	P0513066	STAR KNOB BOLT M10-1.5 X 20
13	P0513013	HINGE SHAFT	67	P0513067	STAR KNOB BOLT M10-1.5 X 55
14	P0513014	ROLL PIN 5 X 36	68	P0513068	THREADED HANDLE M10-1.5
15	P0513015	UPPER WHEEL SHAFT HINGE	69	P0513069	САМ
16	P0513016	UPPER WHEEL SHAFT	70	P0513070	PILLOW BLOCK
17	P0513017	BUSHING	71	P0513071	HANDLE M12-1.75
18	P0513018	BALL BEARING 6204-2RS	72	P0513072	LEVER
19	P0513019	UPPER WHEEL 17"	73	P0513073	HEX NUT M12-1.75
20	P0513020	INT RETAINING RING 47MM	74	P0513074	LEVER HUB
21	P0513021	WHEEL FLAT WASHER 8MM	75	P0513075	CAP SCREW M8-1.25 X 20
22	P0513022	HEX BOLT M8-1.25 X 30	76	P0513076	LOCK WASHER 8MM
23	P0513023	SAW BLADE 131.5" X 1/2" 6TPI HOOK	78	P0513078	SHAFT COVER
24	P0513024	LOCK WASHER 8MM	79	P0513079	SET SCREW M8-1.25 X 20
25	P0513025	HEX BOLT M6-1 X 30	80	P0513080	HEX NUT M8-1.25
26	P0513026	URETHANE TIRE 17" 1-PAIR	81	P0513081	LOWER WHEEL SHAFT
27	P0513027	LOWER WHEEL 17"	82	P0513082	MOTOR 2HP 110V/220V 1-PH
28	P0513028	LOWER WHEEL PULLEY	82-1	P0513082-1	MOTOR FAN COVER
29	P0513029	HEX NUT 1-14	82-2	P0513082-2	MOTOR FAN
30	P0513030	LOCK WASHER 1"	82-3	P0513082-3	S CAPACITOR 300M 250V 1-1/2 X 2-3/8
31	P0513031	MOTOR CORD 14G 3W	82-4	P0513082-4	S CAPACITOR COVER
32	P0513032	COMPRESSION SPRING 7 X 8 X 90	82-5	P0513082-5	R CAPACITOR 40M 250V 1-1/2 X 2-3/4
33	P0513033	ROLL PIN 3 X 16	82-6	P0513082-6	R CAPACITOR COVER
34	P0513034	ALIGNMENT PLATE	82-7	P0513082-7	MOTOR JUNCTION BOX
35	P0513035	THRUST BEARING 51201	82-8	P0513082-8	CONTACT PLATE
36	P0513036	2-BUTTON POWER SWITCH	82-9	P0513082-9	CENTRIFUGAL SWITCH 5/8-1725
37	P0513037	TENSION HANDWHEEL	82-9A	P0513082-9A	CENTRIFUGAL SWITCH W/CONT PLATE
38	P0513038	TENSION ADJUSTING ROD	82-10	P0513082-10	BALL BEARING 6203ZZ
39	P0513039	FLANGE SCREW M58 X 10	82-11	P0513082-11	BALL BEARING 6205ZZ
40	P0513040	EXT TOOTH WASHER 5MM	83	P0513083	HEX BOLT M58 X 16
41	P0513041	HEX NUT M58	84	P0513084	LOCK WASHER 5MM
42	P0513042	FLANGE SCREW M58 X 16	85	P0513085	MOTOR MOUNT BRACKET
43	P0513043	SWITCH BACK PLATE	86	P0513086	CAP SCREW M8-1.25 X 20
43V2	P0513043V2	SWITCH BACK PLATE V2.04.17 (G0513ANV)	87	P0513087	STRAIN RELIEF PLATE 2-HOLE
44	P0513044	HEX BOLT M8-1.25 X 16	88	P0513088	FLANGE SCREW M58 X 10
45	P0513045	FLAT WASHER 8MM	89	P0513089	PILLOW BLOCK
46	P0513046	UPPER WHEEL SLIDING BRACKET	90	P0513090	KEY 5 X 5 X 35
47	P0513047	HEX BOLT M6-1 X 25	91	P0513091	HEX BOLT M8-1.25 X 20 LH
48	P0513048	STEEL BLIND RIVET 3 X 13MM	92	P0513092	MOTOR PULLEY TYPE-A 3.5"
49	P0513049	HEX BOLT M6-1 X 10	93	P0513093	V-BELT A42
50	P0513050	CLEAR WINDOW	94	P0513094	HEX BOLT M6-1 X 10
55	P0513055	UPPER WHEEL COVER (G0513)	95	P0513095	LOWER WHEEL COVER (G0513)
55V2	P0513ANV055V2	UPPER WHEEL COVER V2.04.17 (G0513ANV)	95V2	P0513ANV095V2	LOWER WHEEL COVER V2.04.17 (G0513ANV)
55A	P0513X2055A	UPPER WHEEL COVER ASSY (G0513)	97	P0513097	FLAT WASHER 8MM
55AV2		UPPER WHEEL COVER ASSY V2.04.17 (G0513ANV)	119	P0513119	FLAT WASHER 8MM
56	P0513056	HEX BOLT M6-1 X 10	152	P0513152	HEX BOLT M6-1 X 20
57	P0513057	FLAT WASHER 6MM	175	P0513175	HEX BOLT M6-1 X 20
58	P0513058	WHEEL BRUSH	176	P0513176	BUSHING



#### G0513 & G0513ANV Table, Trunnion & Lower Blade Guides







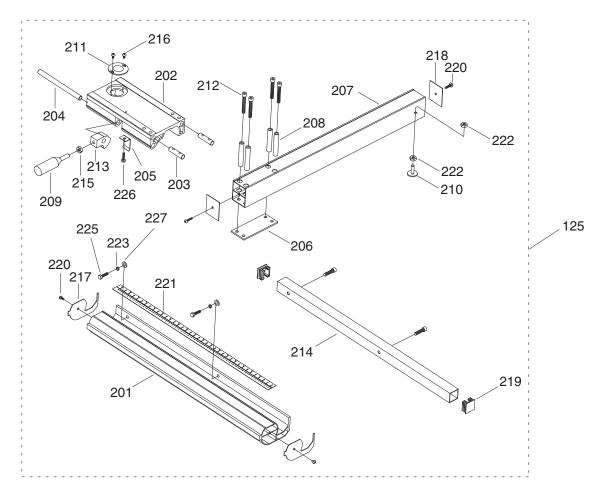
REF	PART #	DESCRIPTION
77	P0513077	LOCK WASHER 8MM
96	P0513096	FLAT WASHER 8MM
98	P0513098	CAP SCREW M10-1.5 X 35
99	P0513099	HEX NUT M10-1.5
100	P0513100	TRUNNION GEAR
101	P0513101	STAR KNOB BOLT
102	P0513102	TRUNNION SUPPORT BRACKET
103	P0513103	LOCK WASHER 10MM
104	P0513104	FLAT WASHER 10MM
105	P0513105	CAP SCREW M6-1 X 15
106	P0513106	CAP SCREW M6-1 X 50
107	P0513107	ALIGNMENT ROD
108	P0513108	HEX NUT M6-1
109	P0513109	ADJUSTMENT KNOB BOLT M6-1
110	P0513110	BALL BEARING 6000ZZ
111	P0513111	BUTTON HD CAP SCR M10-1.5 X 20
112	P0513112	FLAT WASHER 8MM
113	P0513113	FLAT WASHER 8MM
114	P0513114	PHLP HD SCR M47 X 6
115	P0513115	GEAR PLATE
116	P0513116	LOCK NUT M8-1.25
117	P0513117	PHLP HD SCR M47 x 6

REF	PART #	DESCRIPTION
118	P0513118	LOCK HANDLE M8-1.25
119	P0513119	FLAT WASHER 8MM
120	P0513120	POINTER
121	P0513121	TRUNNION PLATE
122	P0513122	LOCK WASHER 8MM
123	P0513123	CAP SCREW M8-1.25 X 16
124	P0513124	CARRIAGE BOLT M8-1.25 X 80
126	P0513126	TABLE 17" X 17"
126	P0513ANV126	TABLE 17" X 17" (G0513ANV)
127	P0513127	TABLE INSERT
128	P0513128	TABLE PIN
129	P0513129	HEX BOLT M8-1.25 X 20 LH
130	P0513130	LEFT GUARD
131	P0513131	THUMB SCREW M6-1 X 16
132	P0513132	LOWER BLADE GUIDE SUPPORT
133	P0513133	BLADE GUIDE
134	P0513134	GUIDE ADJUSTMENT SHAFT
135	P0513135	RIGHT GUARD
139	P0513139	CAP SCREW M10-1.5 X 30
148	P0513148	CARRIAGE BOLT M8-1.25 X 85
163	P0513163	LOCK WASHER 8MM
196	P0513196	STEEL BALL 5MM



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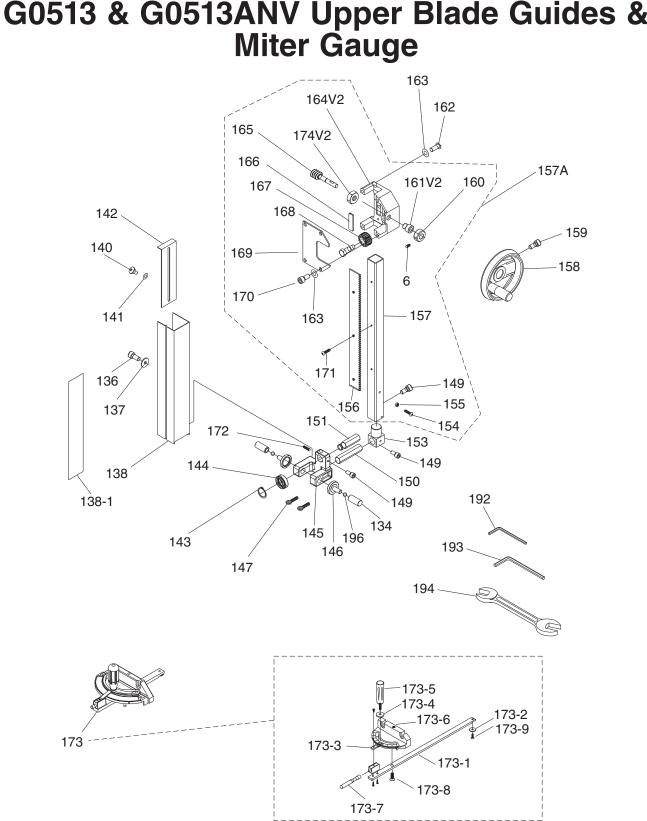
#### G0513 & G0513ANV Fence



REF	PART #	DESCRIPTION
125	P0513125	FENCE ASSEMBLY W/RAILS
201	P0513201	FRONT FENCE RAIL
202	P0513202	FENCE BASE
203	P0513203	ALIGNMENT SHAFT
204	P0513204	LOCK BLOCK SHAFT
205	P0513205	SPRING PLATE
206	P0513206	SPACER PLATE
207	P0513207	FENCE
208	P0513208	SLEEVE
209	P0513209	FENCE LOCK HANDLE
210	P0513210	RAIL PAD
211	P0513211	CONVEX WINDOW
212	P0513212	CAP SCREW M6-1 X 55
213	P0513213	LOCK CAM

REF	PART #	DESCRIPTION	
214	P0513214	REAR FENCE RAIL	
215	P0513215	HEX NUT M6-1	
216	P0513216	FLANGE SCREW M47 X 6	
217	P0513217	FRONT RAIL END CAP	
218	P0513218	FENCE END CAP	
219	P0513219	REAR RAIL END CAP	
220	P0513220	TAP SCREW M3.5 X 8	
221	P0513221	FENCE SCALE	
222	P0513222	HEX NUT M6-1	
223	P0513223	LOCK WASHER 6MM	
225	P0513225	HEX BOLT M6-1 X 20	
226	P0513226	FLANGE SCREW M47 X 10	
227	P0513227	FLAT WASHER 6MM	





## G0513 & G0513ANV Upper Blade Guides &



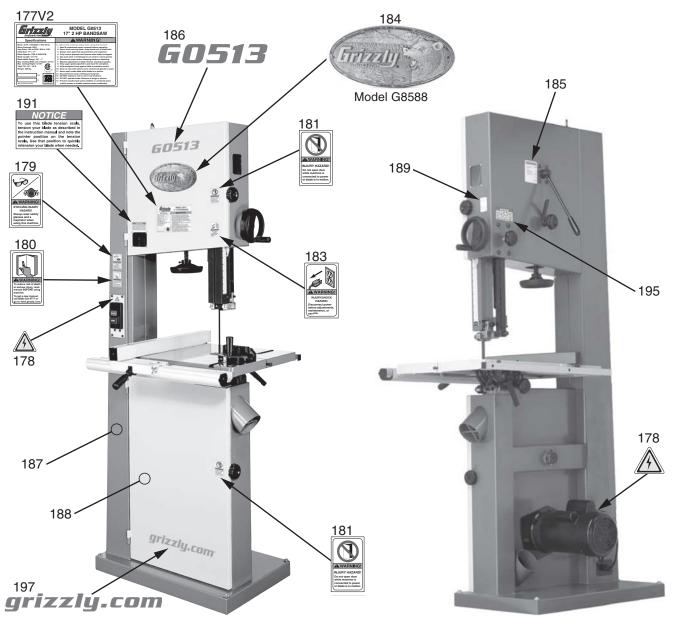
#### G0513 & G0513ANV Upper Blade Guides & Miter Gauge Parts List

REF	PART #	DESCRIPTION	
6	P0513006	SET SCREW M58 X 5	
134	P0513134	GUIDE ADJUSTMENT SHAFT	
136	P0513136	CAP SCREW M8-1.25 X 80	
137	P0513137	FLAT WASHER 8MM	
138	P0513138	UPPER BLADE GUARD (G0513/G0513P)	
138	P0513ANV138	UPPER BLADE GUARD (G0513ANV)	
138-1	P0513138-1	BLADE GUARD SCALE	
140	P0513140	STEP SCREW M47 X 5	
141	P0513141	FIBER WASHER 5MM	
142	P0513142	SLIDING PLATE (G0513/G0513P)	
142	P0513ANV142	SLIDING PLATE (G0513ANV)	
143	P0513143	EXT RETAINING RING 15MM	
144	P0513144	BALL BEARING 6202ZZ	
145	P0513145	UPPER BLADE GUIDE SUPPORT	
146	P0513146	BLADE GUIDE	
147	P0513147	THUMB SCREW M6-1 X 16	
149	P0513149	CAP SCREW M6-1 X 15	
150	P0513150	ADJUSTMENT SHAFT	
151	P0513151	UPPER SPACING SLEEVE	
153	P0513153	UPPER GUIDE SUPPORT BLOCK	
154	P0513154	PHLP HD SCR M47 X 10	
155	P0513155	HEX NUT M47	
156	P0513156	RACK	
157A	P0513157A	GUIDE POST ASSEMBLY	
157	P0513157	GUIDE POST	
158	P0513158	ELEVATION HANDWHEEL	
159	P0513159	HEX BOLT M6-1 X 20	
160	P0513160	PINION GEAR STEP BOLT	

REF	PART #	DESCRIPTION	
161V2	P0513161V2	THREADED BUSHING V2.06.09	
162	P0513162	CAP SCREW M8-1.25 X 20	
163	P0513163	LOCK WASHER 8MM	
164V2	P0513164V2	THREADED GUIDE BRACKET 14MM V2.06.09	
165	P0513165	WORM CYLINDER	
166	P0513166	FIXED PLATE	
167	P0513167	PINION GEAR 15T	
168	P0513168	PINION GEAR STEP BOLT	
169	P0513169	BRACKET COVER	
170	P0513170	CAP SCREW M8-1.25 X 16	
171	P0513171	PHLP HD SCR M47 X 8	
172	P0513172	SET SCREW M6-1 X 16	
173	P0513173	MITER GAUGE ASSY	
173-1	P0513173-1	GUIDE BAR	
173-2	P0513173-2	T-SLOT WASHER 5MM	
173-3	P0513173-3	INDICATOR	
173-4	P0513173-4	NYLON WASHER 1/4"	
173-5	P0513173-5	MITER GAUGE HANDLE 1/4"-20	
173-6	P0513173-6	MITER GAUGE BODY	
173-7	P0513173-7	INDEXING PIN	
173-8	P0513173-8	PHLP HD SCR M6-1 X 6	
173-9	P0513173-9	FLANGE SCREW M58 X 8	
174V2	P0513174V2	HEX NUT M16-1.5 THIN	
192	P0513192	HEX WRENCH 5MM	
193	P0513193	HEX WRENCH 8MM	
194	P0513194	WRENCH 10 X 13MM OPEN-END	
196	P0513196	STEEL BALL 5MM	



#### G0513 Labels



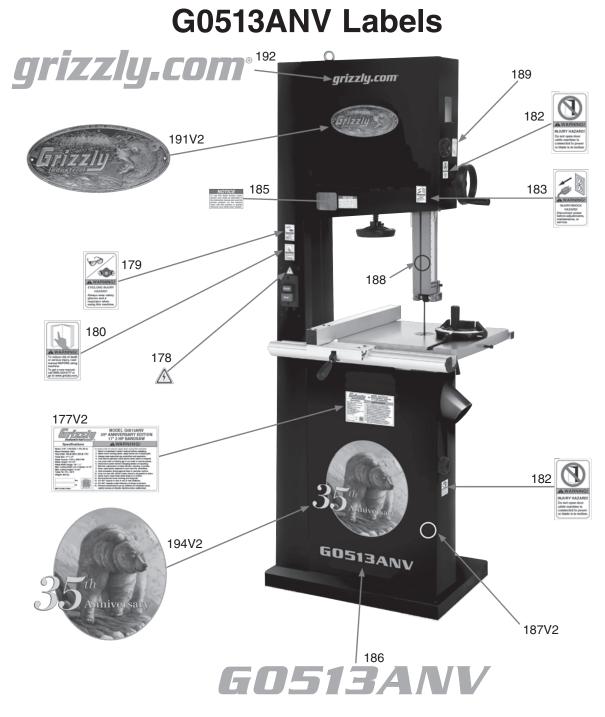
REF	PART #	DESCRIPTION
177V2	P0513177V2	MACHINE ID LABEL V2.07.18
178	P0513178	ELECTRICITY LABEL
179	P0513179	GLASSES/RESPIRATOR LABEL
180	P0513180	READ MANUAL LABEL
181	P0513181	DOOR WARNING LABEL
183	P0513183	DISCONNECT POWER LABEL
184	P0513184	GRIZZLY NAMEPLATE-SMALL
185	P0513185	SAW TENSION LABEL

REF	PART #	DESCRIPTION
186	P0513186	MODEL NUMBER LABEL
187	7 P0513187 TOUCH-UP PAINT, GRIZZLY GREE	
188	P0513188	TOUCH-UP PAINT, LIGHT GRAY
189	P0513189	GUIDE POST ADJUST LABEL
191	P0513191	BLADE TENSION SCALE LABEL
195	P0513195	GUIDE POST LOCK LABEL
197	P0513197	GRIZZLY.COM LABEL

#### **A**WARNING

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



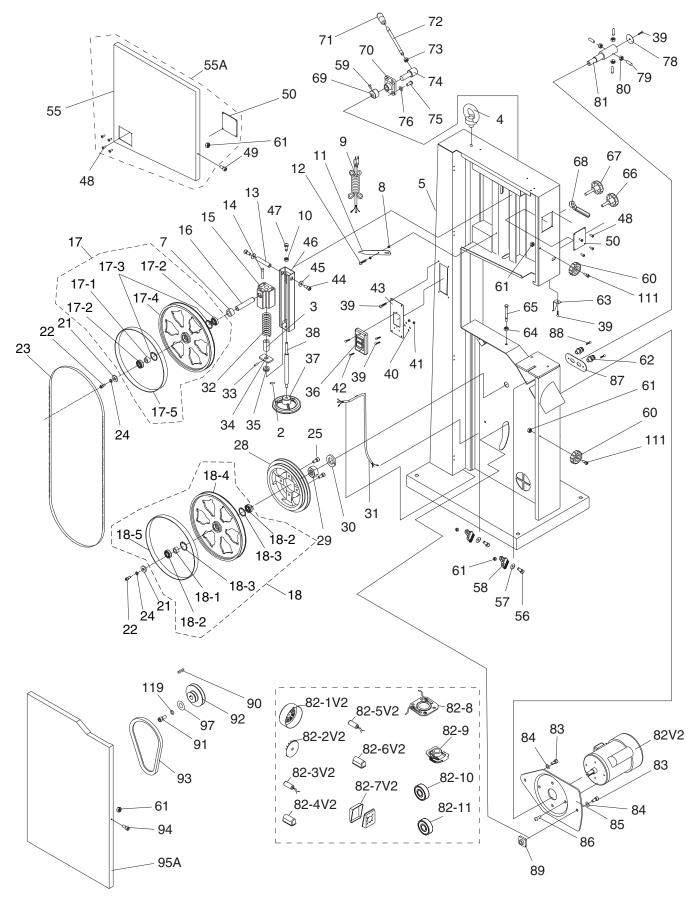


REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
177V2	P0513ANV177V2	MACHINE ID LABEL V2.04.17	186	P0513ANV186	MODEL NUMBER LABEL
178	P0513ANV178	ELECTRICITY LABEL	187V2	P0513ANV187V2	TOUCH-UP PAINT, 35TH ANV ED. V2.04.17
179	P0513ANV179	SAFETY GLASSES/RESPIRATOR LABEL	188	P0513ANV188	ORANGE TOUCH-UP PAINT, PANTONE 151C
180	P0513ANV180	READ MANUAL LABEL	189	P0513ANV189	GUIDE POST ADJUST LABEL
182	P0513ANV182	DONT OPEN LABEL	191V2	P0513ANV191V2	GRIZZLY LOGO NAMEPLATE V2.04.17
183	P0513ANV183	UNPLUG BANDSAW LABEL	192	P0513ANV192	ORANGE GRIZZLY.COM LABEL
185	P0513ANV185	SAW TENSION LABEL	194V2	P0513ANV194V2	35TH ANNIVERSARY LABEL V2.04.17





#### G0513X2 Main



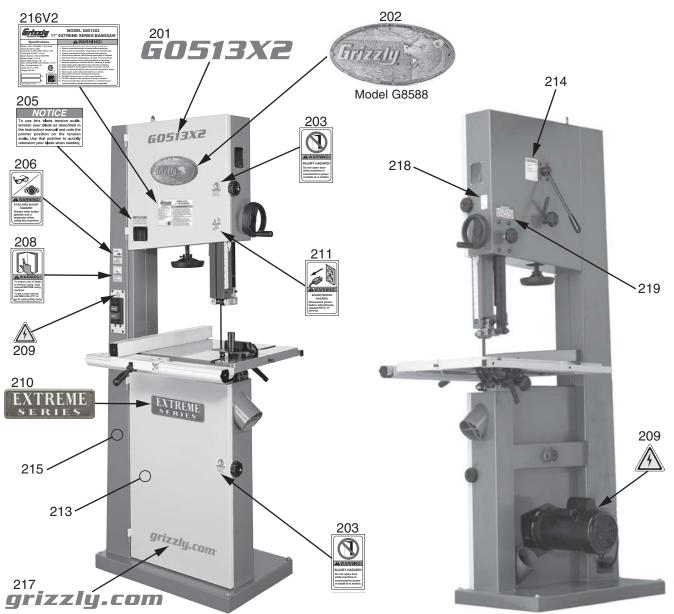


#### G0513X2 Main Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
2	P0513X2002	SET SCREW M6-1 X 10	55	P0513X2055	UPPER WHEEL COVER
3	P0513X2003	BUSHING	56	P0513X2056	HEX BOLT M6-1 X 25
4	P0513X2004	LIFTING EYE BOLT M10-1.5	57	P0513X2057	FLAT WASHER 6MM
5	P0513X2005	MACHINE BODY	58	P0513X2058	WHEEL BRUSH
7	P0513X2007	BUSHING	59	P0513X2059	CAP SCREW M6-1 X 25
8	P0513X2008	FLAT WASHER 6MM	60	P0513X2060	STAR KNOB
9	P0513X2009	POWER CORD 14G 3W 72"	61	P0513X2061	LOCK NUT M6-1
10	P0513X2010	HEX NUT M6-1	62	P0513X2062	STRAIN RELIEF 16MM STRAIGHT LT
11	P0513X2011	POINTER	63	P0513X2063	HEIGHT POINTER
12	P0513X2012	STEP SCREW M47 X 5	64	P0513X2064	HEX NUT M8-1.25
13	P0513X2013	HINGE SHAFT	65	P0513X2065	HEX BOLT M8-1.25 X 90
14	P0513X2014	ROLL PIN 5 X 36	66	P0513X2066	STAR KNOB BOLT M10-1.5 X 20
15	P0513X2015	UPPER WHEEL SHAFT HINGE	67	P0513X2067	STAR KNOB BOLT M10-1.5 X 55
16	P0513X2016	UPPER WHEEL SHAFT	68	P0513X2068	THREADED HANDLE M10-1.5
17	P0513X2017	UPPER WHEEL ASSEMBLY	69	P0513X2069	CAM
	P0513X2017-1		70	P0513X2070	PILLOW BLOCK
		BALL BEARING 6204-2RS	70	P0513X2071	HANDLE M12-1.75
		INT RETAINING RING 47MM	72	P0513X2072	LEVER
		UPPER WHEEL 17"	72	P0513X2072	HEX NUT M12-1.75
			73		
				P0513X2074	LEVER HUB BUTTON HD CAP SCR M8-1.25 X 20
18			75	P0513X2075	
18-1	P0513X2018-1		76	P0513X2076	
		BALL BEARING 6204-2RS	78	P0513X2078	SHAFT COVER
		INT RETAINING RING 47MM	79	P0513X2079	SET SCREW M8-1.25 X 20
		LOWER WHEEL 17"	80	P0513X2080	HEX NUT M8-1.25
		URETHANE TIRE 17" 1-PAIR	81	P0513X2081	
21	P0513X2021	WHEEL FLAT WASHER 8MM	82V2	P0513X2082V2	MOTOR 2HP 110V/220V 1-PH V2.01.10
22	P0513X2022	CAP SCREW M8-1.25 X 16			MOTOR FAN COVER V2.01.10
23	P0513X2023	SAW BLADE 131.5" X 1/2" 6TPI HOOK			MOTOR FAN V2.01.10
24	P0513X2024	LOCK WASHER 8MM	82-3V2	P0513X2082-3V2	S CAPACITOR 300M 250V 1-1/2 X 2-3/8 V2.01.10
25	P0513X2025	CAP SCREW M8-1.25 X 20	82-4V2	P0513X2082-4V2	S CAPACITOR COVER V2.01.10
28	P0513X2028	LOWER WHEEL PULLEY	82-5V2	P0513X2082-5V2	R CAPACITOR 40M 250V 1-3/8 X 2-5/8 V2.01.10
29	P0513X2029	HEX NUT 1-14	82-6V2	P0513X2082-6V2	R CAPACITOR COVER V2.01.10
30	P0513X2030	LOCK WASHER 1"	82-7V2	P0513X2082-7V2	MOTOR JUNCTION BOX V2.01.10
31	P0513X2031	MOTOR CORD 14G 3W	82-8	P0513X2082-8	CONTACT PLATE 5/8
32	P0513X2032	COMPRESSION SPRING 7 X 8 X 90	82-9	P0513X2082-9	CENTRIFUGAL SWITCH 5/8-1725
33	P0513X2033	ROLL PIN 3 X 16	82-10	P0513X2082-10	BALL BEARING 6203ZZ
34	P0513X2034	ALIGNMENT PLATE	82-11	P0513X2082-11	BALL BEARING 6205ZZ
35	P0513X2035	THRUST BEARING 51201	83	P0513X2083	HEX BOLT M10-1.5 X 25
36	P0513X2036	2-BUTTON START/STOP SWITCH	84	P0513X2084	LOCK WASHER 10MM
37	P0513X2037	TENSION HANDWHEEL	85	P0513X2085	MOTOR MOUNT BRACKET
38	P0513X2038	TENSION ADJUSTING ROD	86	P0513X2086	BUTTON HD CAP SCR M8-1.25 X 20
39	P0513X2039	FLANGE SCREW M58 X 10	87	P0513X2087	STRAIN RELIEF PLATE 2-HOLE
40	P0513X2040	EXT TOOTH WASHER 5MM	88	P0513X2088	FLANGE SCREW M58 X 10
41	P0513X2041	HEX NUT M58	89	P0513X2089	PILLOW BLOCK
42	P0513X2042	FLANGE SCREW M58 X 16	90	P0513X2090	KEY 5 X 5 X 35
43	P0513X2043	SWITCH BACK PLATE	91	P0513X2091	HEX BOLT M8-1.25 X 20 LH
44	P0513X2044	CAP SCREW M8-1.25 X 16	92	P0513X2092	MOTOR PULLEY TYPE-A 3.5"
45	P0513X2045	FENDER WASHER 8MM	93	P0513X2093	V-BELT A42
46	P0513X2046	UPPER WHEEL SLIDING BRACKET	94	P0513X2094	CAP SCREW M6-1 X 10
47	P0513X2047	CAP SCREW M8-1.25 X 50	95A	P0513X2095A	LOWER WHEEL COVER
48	P0513X2048	STEEL BLIND RIVET 3 X 13MM	97	P0513X2097	FENDER WASHER 8MM
49	P0513X2048	CAP SCREW M6-1 X 10	111	P0513X2111	CAP SCREW M6-1 X 20
49 50		CLEAR WINDOW		P0513X2119	LOCK WASHER 4MM
	P0513X2050		119	1 031372119	
55A	P0513X2055A	UPPER WHEEL COVER ASSY			



#### G0513X2 Labels



REF	PART #	DESCRIPTION
201	P0513X2201	MODEL NUMBER LABEL
202	P0513X2202	GRIZZLY LOGO PLATE
203	P0513X2203	OPEN DOOR LABEL
205	P0513X2205	SCALE DIRECTIONS LABEL
206	P0513X2206	SAFETY GLASSES LABEL
208	P0513X2208	READ MANUAL LABEL
209	P0513X2209	ELECTRICITY LABEL
210	P0513X2210	EXTREME SERIES PLATE

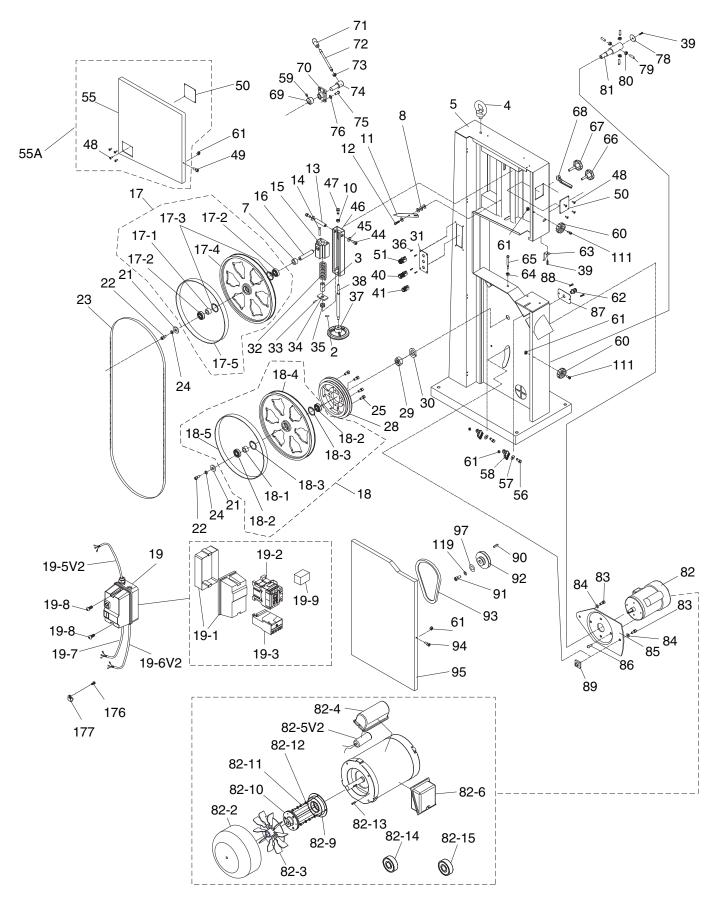
REF	PART #	DESCRIPTION
211	P0513X2211	DISCONNECT POWER LABEL
213	P0513X2213	TOUCH-UP PAINT, GRIZZLY PUTTY
214	P0513X2214	TENSION ADJ LABEL
215	P0513X2215	TOUCH-UP PAINT, GRIZZLY GREEN
216V2	P0513X2216V2	MACHINE ID LABEL V2.09.18
217	P0513X2217	GRIZZLY.COM LABEL
218	P0513X2218	GUIDE POST ADJUST LABEL
219	P0513X2219	GUIDE POST LOCK LABEL

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#### G0513X2B Main







#### G0513X2B Main Parts List

REF	PART #	DESCRIPTION
2	P0513X2B002	SET SCREW M6-1 X 10
3	P0513X2B003	BUSHING
4	P0513X2B004	LIFTING EYE BOLT M10-1.5
5	P0513X2B005	MACHINE BODY
7	P0513X2B007	BUSHING
8	P0513X2B008	FLAT WASHER 6MM
10	P0513X2B010	HEX NUT M6-1
11	P0513X2B011	POINTER
12	P0513X2B012	STEP SCREW M47 X 5
13	P0513X2B013	HINGE SHAFT
14	P0513X2B014	ROLL PIN 5 X 35
15	P0513X2B015	UPPER WHEEL SHAFT HINGE
16	P0513X2B016	UPPER WHEEL SHAFT
17	P0513X2B017	UPPER WHEEL ASSEMBLY
17-1	P0513X2B017-1	BUSHING
17-2	P0513X2B017-2	BALL BEARING 6204-2RS
17-3	P0513X2B017-3	INT RETAINING RING 47MM
17-4	P0513X2B017-4	UPPER WHEEL 17"
17-5	P0513X2B017-5	URETHANE TIRE 17" 1-PAIR
18	P0513X2B018	LOWER WHEEL ASSEMBLY
18-1	P0513X2B018-1	BUSHING
18-2	P0513X2B018-2	BALL BEARING 6204-2RS
18-3	P0513X2B018-3	INT RETAINING RING 47MM
18-4	P0513X2B018-4	LOWER WHEEL 17"
18-5	P0513X2B018-5	URETHANE TIRE, 1-PAIR
19	P0513X2B019	MAG SWITCH ASSEMBLY MPE-18
19-1	P0513X2B019-1	MAG SWITCH COVER ASSEMBLY
19-2	P0513X2B019-2	CONTACTOR SDE MA-18 220V
19-3	P0513X2B019-3	OL RELAY SDE RA-20 8-12A
		PWR CORD 14G 3W 6-15P V2.02.12
	P0513X2B019-6V2	CONTROL CORD 16G 5W V2.05.11
19-7	P0513X2B019-7	MOTOR CORD 14G 5W
19-8	P0513X2B019-8	PHLP HD SCR M58 X 10
19-9	P0513X2B019-9	RECTIFIER PU-23-2
21	P0513X2B021	WHEEL FLAT WASHER 8MM
22	P0513X2B022	CAP SCREW M8-1.25 X 16
23	P0513X2B023	SAW BLADE 131.5" X 1/2" 6TPI HOOK
24	P0513X2B024	LOCK WASHER 8MM
25	P0513X2B025	CAP SCREW M8-1.25 X 20
28	P0513X2B028	LOWER WHEEL PULLEY
29	P0513X2B029	HEX NUT 1-14
30	P0513X2B030	LOCK WASHER 1"
31	P0513X2B031	CONTROL PANEL PLATE
32	P0513X2B032	COMPRESSION SPRING 7 X 8 X 90
33	P0513X2B033	ROLL PIN 3 X 16
34	P0513X2B034	ALIGNMENT PLATE
35	P0513X2B035	THRUST BEARING 51201
36	P0513X2B036	TAP SCREW M4 X 10
37	P0513X2B037	TENSION HANDWHEEL
38	P0513X2B038	TENSION ADJUSTING ROD
39	P0513X2B039	FLANGE SCREW M58 X 10
40	P0513X2B040	STOP BUTTON
		0.0. 0011011

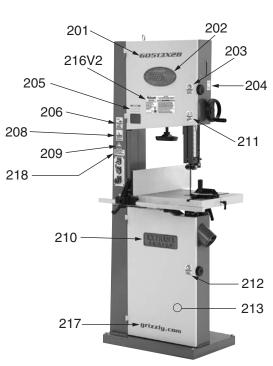
REF	PART #	DESCRIPTION
41	P0513X2B041	START BUTTON
44	P0513X2B044	CAP SCREW M8-1.25 X 16
45	P0513X2B045	FENDER WASHER 8MM
46	P0513X2B046	UPPER WHEEL SLIDING BRACKET
47	P0513X2B047	CAP SCREW M6-1 X 25
48	P0513X2B048	STEEL BLIND RIVET 3 X 13MM
49	P0513X2B049	CAP SCREW M6-1 X 10
50	P0513X2B050	CLEAR WINDOW
51	P0513X2B051	KEY SWITCH
55A	P0513X2B055A	UPPER WHEEL COVER ASSY
55	P0513X2B055	UPPER WHEEL COVER
56	P0513X2B056	HEX BOLT M6-1 X 25
57	P0513X2B057	FLAT WASHER 6MM
58	P0513X2B058	WHEEL BRUSH
59	P0513X2B059	CAP SCREW M6-1 X 25
60	P0513X2B060	STAR KNOB
61	P0513X2B061	LOCK NUT M6-1
62	P0513X2B062	STRAIN RELIEF 16MM STRT LT
63	P0513X2B063	HEIGHT POINTER
64	P0513X2B064	HEX NUT M8-1.25
65	P0513X2B065	HEX BOLT M8-1.25 X 90
66	P0513X2B066	STAR KNOB BOLT M10-1.5 X 20
67	P0513X2B067	STAR KNOB BOLT M10-1.5 X 53
68	P0513X2B068	THREADED HANDLE M10-1.5
69	P0513X2B069	CAM
09 70	P0513X2B009	PILLOW BLOCK
70	P0513X2B071	HANDLE M12-1.75
72	P0513X2B072	LEVER
72	P0513X2B072	HEX NUT M12-1.75
74	P0513X2B074	LEVER HUB
75	P0513X2B075	BUTTON HD CAP SCR M8-1.25 X 20
76	P0513X2B076	LOCK WASHER 8MM
78	P0513X2B078	SHAFT COVER
78 79	P0513X2B078	SET SCREW M8-1.25 X 20
80	P0513X2B079	HEX NUT M8-1.25
80 81	P0513X2B080	LOWER WHEEL SHAFT
82	P0513X2B081	MOTOR 2HP 220V 1-PH W/BRAKE
82-2	P0513X2B082-2	MOTOR FAN COVER
82-3	P0513X2B082-2	MOTOR FAN
82-3	P0513X2B082-3	CAPACITOR COVER
82-5V2	P0513X2B082-5V2	R CAPACITOR 45M 400V 2 X 2-1/2
82-5V2 82-6	P0513X2B082-5V2	MOTOR JUNCTION BOX
82-0 82-9	P0513X2B082-0	MAGNETIC BRAKE YZG
82-9 82-10	P0513X2B082-9	BRAKE SHOE
82-10	P0513X2B082-10	CAP SCREW M6-1 X 12
82-11	P0513X2B082-11	LOCK WASHER 6MM
82-12	P0513X2B082-12	KEY 5 X 5 X 25
82-13	P0513X2B082-13	BALL BEARING 6203ZZ
82-14 82-15	P0513X2B082-14	BALL BEARING 6205ZZ
	P0513X2B082-15	HEX BOLT M10-1.5 X 25
83 94		
84 95	P0513X2B084	LOCK WASHER 10MM
85	P0513X2B085	MOTOR MOUNT BRACKET

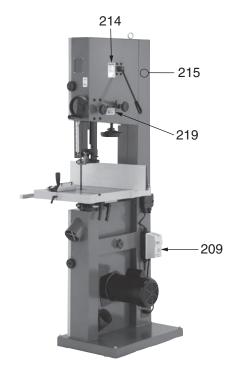


#### G0513X2B Main Parts List

REF	PART #	DESCRIPTION
86	P0513X2B086	BUTTON HD CAP SCR M8-1.25 X 20
87	P0513X2B087	STRAIN RELIEF PLATE 1-HOLE
88	P0513X2B088	FLANGE SCREW M58 X 10
89	P0513X2B089	PILLOW BLOCK
90	P0513X2B090	KEY 5 X 5 X 35
91	P0513X2B091	KEY 5 X 5 X 35
92	P0513X2B092	MOTOR PULLEY TYPE-A 3.5"
93	P0513X2B093	V-BELT A-42

REF	PART #	DESCRIPTION
94	P0513X2B094	CAP SCREW M6-1 X 10
95	P0513X2B095	LOWER WHEEL COVER
97	P0513X2B097	FENDER WASHER 8MM
111	P0513X2B111	CAP SCREW M6-1 X 20
119	P0513X2B119	LOCK WASHER 8MM
176	P0513X2B176	FLANGE SCREW M58 X 10
177	P0513X2B177	STRAIN RELIEF 5/16" ELBOW LT





REF	PART #	DESCRIPTION
201	P0513X2B201	MODEL NUMBER LABEL
202	P0513X2B202	GRIZZLY LOGO PLATE
203	P0513X2B203	OPEN DOOR LABEL
204	P0513X2B204	GUARD ADJ LABEL
205	P0513X2B205	SCALE DIRECTIONS LABEL
206	P0513X2B206	SAFETY GLASSES LABEL
208	P0513X2B208	READ MANUAL LABEL
209	P0513X2B209	ELECTRICITY LABEL
210	P0513X2B210	EXTREME SERIES PLATE

REF	PART #	DESCRIPTION
211	P0513X2B211	DISCONNECT POWER LABEL
212	P0513X2B212	OPEN DOOR LABEL
213	P0513X2B213	TOUCH-UP PAINT, GRIZZLY PUTTY
214	P0513X2B214	TENSION ADJ LABEL
215	P0513X2B215	TOUCH-UP PAINT, GRIZZLY GREEN
216V2	P0513X2B216V2	MACHINE ID LABEL V2.05.11
217	P0513X2B217	GRIZZLY.COM LABEL
218	P0513X2B218	MAGNETIC BRAKE NOTICE
219	P0513X2B219	GUIDE POST LOCK LABEL

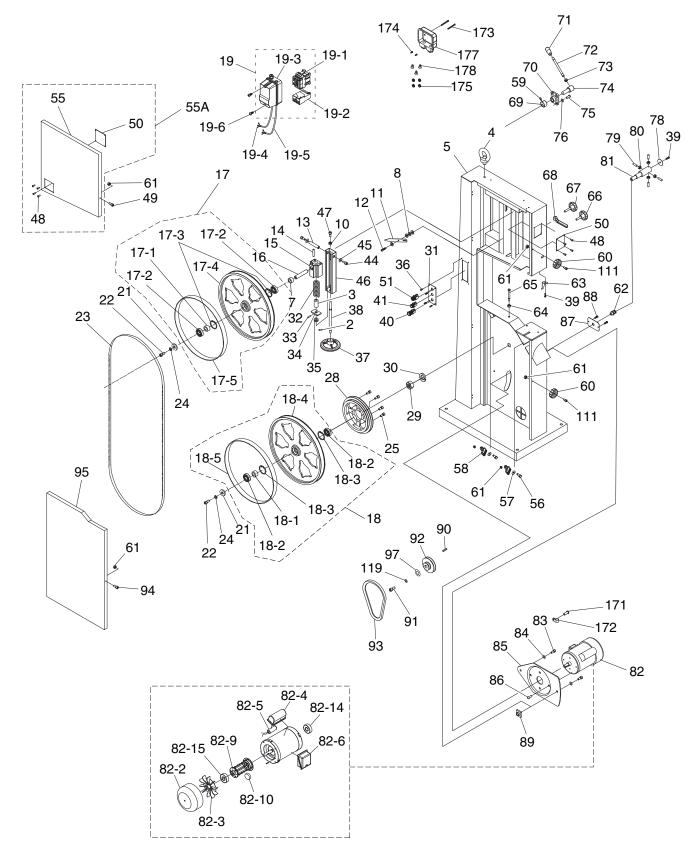
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#### G0513X2B Labels



#### G0513X2BF Main





#### G0513X2BF Main Parts List

REF	PART #	DESCRIPTION
2	P0513X2BF002	SET SCREW M6-1 X 10
3	P0513X2BF003	BUSHING
4	P0513X2BF004	LIFTING EYE BOLT M10-1.5
5	P0513X2BF005	MACHINE BODY
7	P0513X2BF007	BUSHING
8	P0513X2BF008	FLAT WASHER 6MM
10	P0513X2BF010	HEX NUT M6-1
11	P0513X2BF011	POINTER
12	P0513X2BF012	STEP SCREW M47 X 5
13	P0513X2BF013	HINGE SHAFT
14	P0513X2BF014	ROLL PIN 5 X 35
15	P0513X2BF015	UPPER WHEEL SHAFT HINGE
16	P0513X2BF016	UPPER WHEEL SHAFT
17	P0513X2BF017	UPPER WHEEL ASSEMBLY
17-1	P0513X2BF017-1	BUSHING
17-2		BALL BEARING 6204-2RS
	P0513X2BF017-3	INT RETAINING RING 47MM
	P0513X2BF017-4	UPPER WHEEL 17"
17-5		URETHANE TIRE 17" 1-PAIR
18	P0513X2BF018	LOWER WHEEL ASSEMBLY
	P0513X2BF018-1	BUSHING
	P0513X2BF018-2	BALL BEARING 6204-2RS
	P0513X2BF018-3	INT RETAINING RING 47MM
	P0513X2BF018-4	LOWER WHEEL 17"
	P0513X2BF018-5	URETHANE TIRE 17" 1-PAIR
10-5	P0513X2BF019	MAG SWITCH ASSY SDE MPE-18 220V
	P0513X2BF019-1	CONTACTOR SDE MA-18 220V
	P0513X2BF019-2	OL RELAY SDE RA-20 8-12A
19-3		MAG SWITCH COVER ASSEMBLY
19-4		CONTROL CORD 16G 5W V2.05.11
	P0513X2BF019-5	MOTOR CORD 14G 5W
19-6	P0513X2BF019-6	PHLP HD SCR M58 X 10
21	P0513X2BF021	WHEEL FLAT WASHER 8MM
22	P0513X2BF022	CAP SCREW M8-1.25 X 16
23	P0513X2BF023	SAW BLADE 131.5" X 1/2" 6TPI HOOK
23 24	P0513X2BF024	LOCK WASHER 8MM
24 25	P0513X2BF024	CAP SCREW M8-1.25 X 20
25 28		WHEEL PULLEY/BRAKE DRUM
20 29	P0513X2BF028	
29 30	P0513X2BF029	HEX NUT 1-14 LOCK WASHER 1"
	P0513X2BF030	
31 32	P0513X2BF031 P0513X2BF032	CONTROL PANEL PLATE COMPRESSION SPRING 7 X 8 X 90
		ROLL PIN 3 X 16
33 34	P0513X2BF033	ALIGNMENT PLATE
	P0513X2BF034	
35	P0513X2BF035	THRUST BEARING 51201 TAP SCREW M4 X 10
36	P0513X2BF036	
37	P0513X2BF037	
38	P0513X2BF038	TENSION ADJUSTING ROD
39	P0513X2BF039	FLANGE SCREW M58 X 10
40	P0513X2BF040	STOP BUTTON
41	P0513X2BF041	
44	P0513X2BF044	CAP SCREW M8-1.25 X 16
45	P0513X2BF045	FENDER WASHER 8MM

REF	PART #	DESCRIPTION
46	P0513X2BF046	UPPER WHEEL SLIDING BRACKET
47	P0513X2BF047	CAP SCREW M6-1 X 25
48	P0513X2BF048	STEEL BLIND RIVET 3 X 13MM
49	P0513X2BF049	CAP SCREW M6-1 X 10
50	P0513X2BF050	CLEAR WINDOW
51	P0513X2BF051	KEY SWITCH
55A	P0513X2BF055A	UPPER WHEEL COVER ASSY
55	P0513X2BF055	UPPER WHEEL COVER
56	P0513X2BF056	HEX BOLT M6-1 X 25
57	P0513X2BF057	FLAT WASHER 6MM
58	P0513X2BF058	WHEEL BRUSH
59	P0513X2BF059	CAP SCREW M6-1 X 25
60	P0513X2BF060	STAR KNOB
61	P0513X2BF061	LOCK NUT M6-1
62	P0513X2BF062	STRAIN RELIEF 16MM STRAIGHT LT
63	P0513X2BF063	HEIGHT POINTER
64	P0513X2BF064	HEX NUT M8-1.25
65	P0513X2BF065	HEX BOLT M8-1.25 X 90
66	P0513X2BF066	STAR KNOB BOLT M10-1.5 X 20
67	P0513X2BF067	STAR KNOB BOLT M10-1.5 X 53
68	P0513X2BF068	THREADED HANDLE M10-1.5
69	P0513X2BF069	CAM
70	P0513X2BF070	PILLOW BLOCK
70	P0513X2BF070	HANDLE M12-1.75
71	P0513X2BF071	LEVER
72	P0513X2BF072	
73		HEX NUT M12-1.75
	P0513X2BF074	
75	P0513X2BF075	BUTTON HD CAP SCR M8-1.25 X 20
76	P0513X2BF076	LOCK WASHER 8MM
78	P0513X2BF078	
79	P0513X2BF079	SET SCREW M8-1.25 X 20
80	P0513X2BF080	HEX NUT M8-1.25
81	P0513X2BF081	
82	P0513X2BF082	MOTOR 2HP 220V 1-PH W/BRAKE
82-2	P0513X2BF082-2	MOTOR FAN COVER
82-3	P0513X2BF082-3	
82-4	P0513X2BF082-4	
82-5	P0513X2BF082-5	R CAPACITOR 45M 450V 2 X 2-1/2
82-6	P0513X2BF082-6	
82-9	P0513X2BF082-9	MAGNETIC BRAKE YZG
82-14		
82-15	P0513X2BF082-15	BALL BEARING 6203ZZ
83	P0513X2BF083	HEX BOLT M10-1.5 X 25
84	P0513X2BF084	LOCK WASHER 10MM
85	P0513X2BF085	MOTOR MOUNT BRACKET
86	P0513X2BF086	BUTTON HD CAP SCR M8-1.25 X 20
87	P0513X2BF087	STRAIN RELIEF PLATE 1-HOLE
88	P0513X2BF088	TAP SCREW M4 X 10
89	P0513X2BF089	PILLOW BLOCK
90	P0513X2BF090	KEY 5 X 5 X 35
91	P0513X2BF091	HEX BOLT M8-1.25 X 20 LH
92	P0513X2BF092	MOTOR PULLEY TYPE-A 3.5"

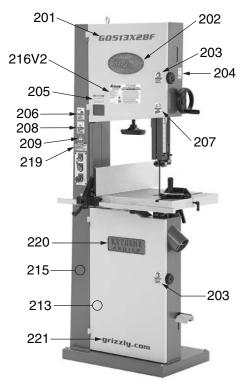


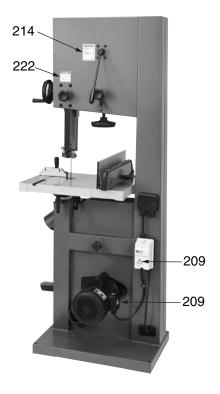
#### G0513X2BF Main Parts List

REF	PART #	DESCRIPTION
93	P0513X2BF093	V-BELT A42
94	P0513X2BF094	CAP SCREW M6-1 X 10
95	P0513X2BF095	LOWER WHEEL COVER
97	P0513X2BF097	FENDER WASHER 8MM
111	P0513X2BF111	CAP SCREW M6-1 X 20
119	P0513X2BF119	LOCK WASHER 8MM
171	P0513X2BF171	FLANGE SCREW M58 X 10

REF	PART #	DESCRIPTION
172	P0513X2BF172	CORD CLIP 5/16"
173	P0513X2BF173	FLANGE SCREW M58 X 50
174	P0513X2BF174	PHLP HD SCR M47 X 10
175	P0513X2BF175	EXT TOOTH WASHER 5MM
177	P0513X2BF177	JUNCTION BOX
178	P0513X2BF178	WIRE NUT 14-22G

G0513X2BF Labels





REF	PART #	DESCRIPTION
201	P0513X2BF201	MODEL NUMBER LABEL
202	P0513X2BF202	NAMEPLATE-LARGE
203	P0513X2BF203	DON'T OPEN DOOR LABEL
204	P0513X2BF204	GUARD ADJUSTMENT LABEL
205	P0513X2BF205	SCALE DIRECTIONS LABEL
206	P0513X2BF206	GLASSES/RESPIRATOR LABEL
207	P0513X2BF207	DISCONNECT POWER LABEL
208	P0513X2BF208	READ MANUAL LABEL
209	P0513X2BF209	ELECTRICITY LABEL

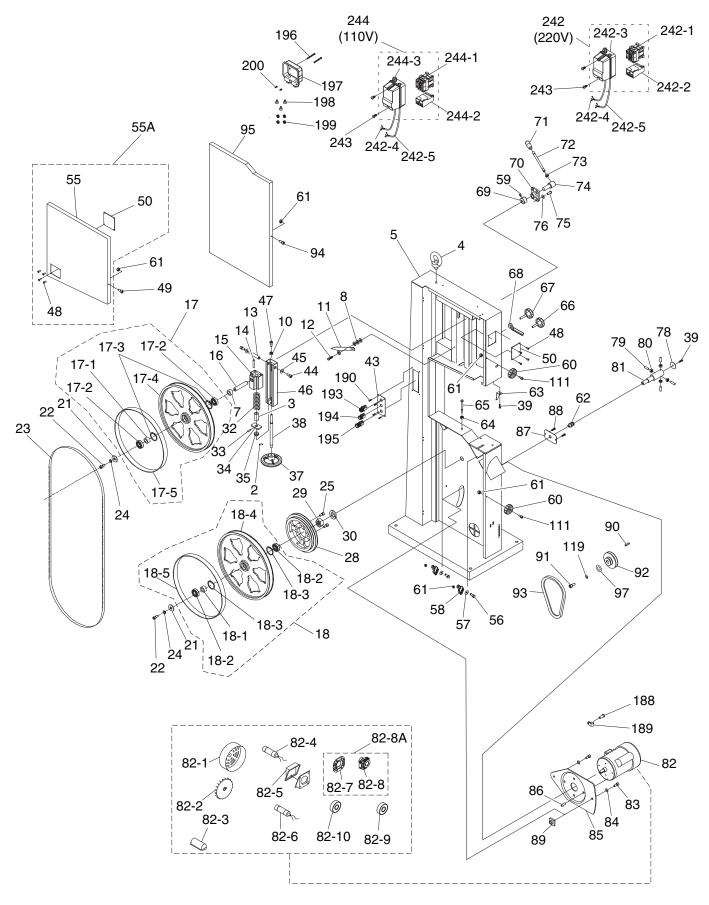
REF	PART # DESCRIPTION	
213	P0513X2BF213	TOUCH-UP PAINT, GRIZZLY PUTTY
214	P0513X2BF214	TENSION ADJ LABEL
215	P0513X2BF215	TOUCH-UP PAINT, GRIZZLY GREEN
216V2	P0513X2BF216V2	MACHINE ID LABEL V2.10.18
219	P0513X2BF219	MAGNETIC BRAKE LABEL
220	P0513X2BF220	EXTREME SERIES PLATE
221	P0513X2BF221	GRIZZLY.COM LABEL
222	P0513X2BF222	GUIDE POST LOCK LABEL

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#### G0513X2F Main





#### G0513X2F Main Parts List

REF	PART #	DESCRIPTION	
2	P0513X2F002	SET SCREW M6-1 X 10	
3	P0513X2F003	BUSHING	
4	P0513X2F004	LIFTING EYE BOLT M10-1.5	
5	P0513X2F005	MACHINE BODY	
7	P0513X2F007	BUSHING	
8	P0513X2F008	FLAT WASHER 6MM	
10	P0513X2F010	HEX NUT M6-1	
11	P0513X2F011	POINTER	
12	P0513X2F012	STEP SCREW M47 X 5	
13	P0513X2F013	HINGE SHAFT	
14	P0513X2F014	ROLL PIN 5 X 36	
15	P0513X2F015	UPPER WHEEL SHAFT HINGE	
16	P0513X2F016	UPPER WHEEL SHAFT	
17	P0513X2F017	UPPER WHEEL ASSEMBLY	
17-1	P0513X2F017-1	BUSHING	
17-2	P0513X2F017-2	BALL BEARING 6204-2RS	
17-3	P0513X2F017-3	INT RETAINING RING 47MM	
17-4	P0513X2F017-4	UPPER WHEEL 17"	
17-5	P0513X2F017-5	URETHANE TIRE 17" 1-PAIR	
18	P0513X2F018	LOWER WHEEL ASSEMBLY	
18-1	P0513X2F018-1	BUSHING	
18-2	P0513X2F018-2	BALL BEARING 6204-2RS	
18-3		INT RETAINING RING 47MM	
18-4	P0513X2F018-4	LOWER WHEEL 17"	
18-5	P0513X2F018-5	URETHANE TIRE, 1-PAIR	
21	P0513X2F021	WHEEL FLAT WASHER 8MM	
22	P0513X2F022	CAP SCREW M8-1.25 X 16	
23	P0513X2F023	SAW BLADE 131.5" X 1/2" 6TPI HOO	
24	P0513X2F024	LOCK WASHER 8MM	
25	P0513X2F025	CAP SCREW M8-1.25 X 20	
28	P0513X2F028	WHEEL PULLEY/BRAKE DRUM	
29	P0513X2F029	HEX NUT 1-14	
30	P0513X2F030	LOCK WASHER 1"	
32	P0513X2F032	COMPRESSION SPRING 7 X 8 X 90	
33	P0513X2F033	ROLL PIN 3 X 16	
34	P0513X2F034	ALIGNMENT PLATE	
35	P0513X2F035	THRUST BEARING 51201	
37	P0513X2F037	TENSION HANDWHEEL	
38	P0513X2F038	TENSION ADJUSTING ROD	
	P0513X2F039	FLANGE SCREW M58 X 10	
39 43	P0513X2F039	CONTROL PANEL PLATE	
43	P0513X2F043	CAP SCREW M8-1.25 X 16	
44 45	P0513X2F044	FENDER WASHER 8MM	
45 46	P0513X2F045		
40	P0513X2F046	UPPER WHEEL SLIDING BRACKET	
	P0513X2F047 P0513X2F048	CAP SCREW M8-1.25 X 50 STEEL BLIND RIVET 3 X 13MM	
48	P0513X2F048	CAP SCREW M6-1 X 10	
49 50		CLEAR WINDOW	
50 55 A	P0513X2F050		
55A	P0513X2F055A		
55	P0513X2F055		
56	P0513X2F056	HEX BOLT M6-1 X 25	
57	P0513X2F057		
58	P0513X2F058	WHEEL BRUSH	

REF	PART #	DESCRIPTION	
59	P0513X2F059	CAP SCREW M6-1 X 25	
60	P0513X2F060	STAR KNOB	
61	P0513X2F061	LOCK NUT M6-1	
62	P0513X2F062	STRAIN RELIEF 16MM STRAIGHT LT	
63	P0513X2F063	HEIGHT POINTER	
64	P0513X2F064	HEX NUT M8-1.25	
65	P0513X2F065	HEX BOLT M8-1.25 X 90	
66	P0513X2F066	STAR KNOB BOLT M10-1.5 X 20	
67	P0513X2F067	STAR KNOB BOLT M10-1.5 X 55	
68	P0513X2F068	THREADED HANDLE M10-1.5	
69	P0513X2F069	САМ	
70	P0513X2F070	PILLOW BLOCK	
71	P0513X2F071	HANDLE M12-1.75	
72	P0513X2F072	LEVER	
73	P0513X2F073	HEX NUT M12-1.75	
74	P0513X2F074	LEVER HUB	
75	P0513X2F075	BUTTON HD CAP SCR M8-125 X 20	
76	P0513X2F076	LOCK WASHER 8MM	
78	P0513X2F078	SHAFT COVER	
79	P0513X2F079	SET SCREW M8-1.25 X 20	
80	P0513X2F080	HEX NUT M8-1.25	
81	P0513X2F081	LOWER WHEEL SHAFT	
82	P0513X2F082	MOTOR 2HP 110V/220V 1-PH	
82-1	P0513X2F082-1	MOTOR FAN COVER	
82-2	P0513X2F082-2	MOTOR FAN	
82-3	P0513X2F082-3	CAPACITOR COVER	
82-4	P0513X2F082-4	R CAPACITOR 40M 250V 1-3/8 X 2-5/8	
82-5	P0513X2F082-5	MOTOR JUNCTION BOX	
82-6	P0513X2F082-6	S CAPACITOR 300M 250V 1-1/2 X 2-3/8	
82-7	P0513X2F082-7	CONTACT PLATE 5/8	
	P0513X2F082-8A		
82-8	P0513X2F082-8	CENTRIFUGAL SWITCH 5/8-1725	
82-9	P0513X2F082-9	BALL BEARING 6205ZZ	
	P0513X2F082-10	BALL BEARING 6203ZZ	
83	P0513X2F083	HEX BOLT M10-1.5 X 25	
84	P0513X2F084	LOCK WASHER 10MM	
85	P0513X2F085	MOTOR MOUNT BRACKET	
86	P0513X2F086	BUTTON HD CAP SCR M8-125 X 20	
87	P0513X2F087	STRAIN RELIEF PLATE 1-HOLE	
88	P0513X2F088	FLANGE SCREW M58 X 10	
89	P0513X2F089	PILLOW BLOCK	
90	P0513X2F090	KEY 5 X 5 X 35	
91	P0513X2F091	HEX BOLT M8-1.25 X 20 LH	
92	P0513X2F092	MOTOR PULLEY TYPE-A 3.5"	
92 93	P0513X2F092	V-BELT A42	
93 94	P0513X2F093	CAP SCREW M6-1 X 10	
94 95	P0513X2F094	LOWER WHEEL COVER	
95 97	P0513X2F095	FENDER WASHER 8MM	
97 111	P0513X2F097	CAP SCREW M6-1 X 20	
119	P0513X2F119	FLAT WASHER 4MM	
188	P0513X2F188	FLANGE SCREW M58 X 10	
189	P0513X2F189	CORD CLIP 5/16"	
190	P0513X2F190	TAP SCREW M4 X 10	

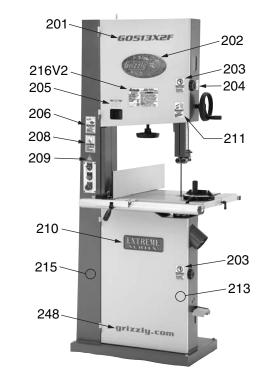


#### G0513X2F Main Parts List

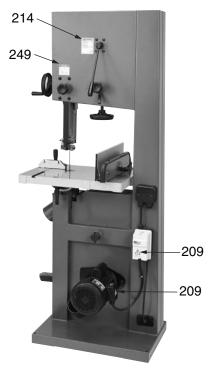
REF	PART #	DESCRIPTION
193	P0513X2F193	KEY SWITCH
194	P0513X2F194	START BUTTON
195	P0513X2F195	STOP BUTTON
196	P0513X2F196	FLANGE SCREW M58 X 50
197	P0513X2F197	JUNCTION BOX
198	P0513X2F198	WIRE NUT 14-22G
199	P0513X2F199	EXT TOOTH WASHER 5MM
200	P0513X2F200	PHLP HD SCR M47 X 10
242	P0513X2F242	MAG SWITCH ASSY 220V MPE-09
242-1	P0513X2F242-1	CONTACTOR SDE MA-09 220-240V

I.

REF	PART #	DESCRIPTION
242-2	P0513X2F242-2	OL RELAY SDE RA-20 8-12A
242-3	P0513X2F242-3	MAG SWITCH COVER ASSEMBLY
242-4	P0513X2F242-4	CONTROL CORD 16G 3W
242-5	P0513X2F242-5	MOTOR CORD 14G 3W
243	P0513X2F243	PHLP HD SCR M58 X 10
244	P0513X2F244	MAG SWITCH ASSY 110V MPE-18
244-1	P0513X2F244-1	CONTACTOR SDE MA-18 110V
244-2	P0513X2F244-2	OL RELAY SDE RA-30 18-26A
244-3	P0513X2F244-3	MAG SWITCH COVER ASSEMBLY



#### G0513X2F Labels



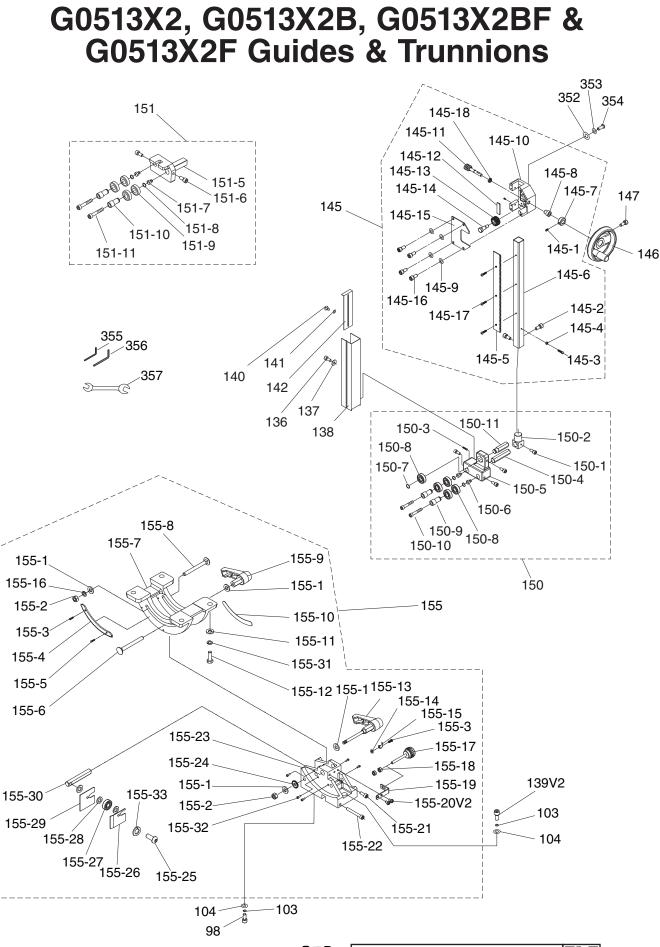
REF	PART #	DESCRIPTION
201	P0513X2F201	MODEL NUMBER LABEL
202	P0513X2F202	GRIZZLY NAMEPLATE- LARGE
203	P0513X2F203	DON'T OPEN DOOR LABEL
204	P0513X2F204	GUARD ADJUSTMENT LABEL
205	P0513X2F205	SCALE DIRECTIONS LABEL
206	P0513X2F206	GLASSES/RESPIRATOR LABEL
208	P0513X2F208	READ MANUAL LABEL
209	P0513X2F209	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
210	P0513X2F210	EXTREME SERIES NAMEPLATE
211	P0513X2F211	DISCONNECT POWER LABEL
213	P0513X2F213	TOUCH-UP PAINT, GRIZZLY PUTTY
214	P0513X2F214	TENSION ADJUSTMENT LABEL
215	P0513X2F215	TOUCH-UP PAINT, GRIZZLY GREEN
216V2	P0513X2F216V2	MACHINE ID LABEL V2.10.18
248	P0513X2F248	GRIZZLY.COM LABEL
249	P0513X2F249	GUIDEPOST LOCK LABEL

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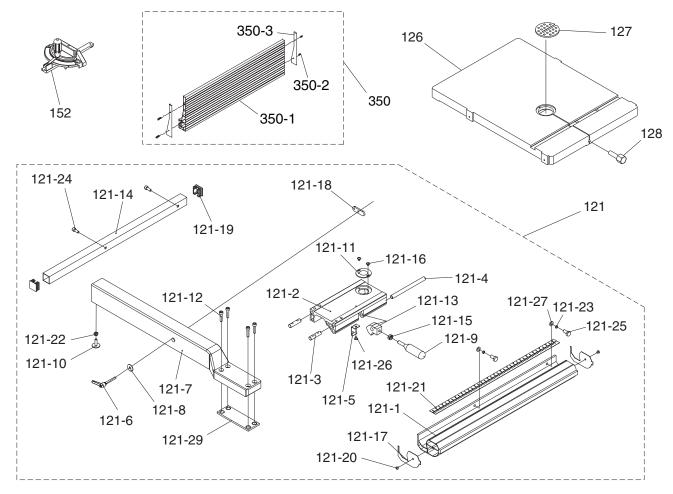


# G0513X2, G0513X2B, G0513X2BF & G0513X2F Guides & Trunnions Parts List

139V2       P0513X2139V2       CAP SCREW M10-1.5 X 35         140       P0513X2140       STEP SCREW M4-7 X 5         141       P0513X2141       FIBER WASHER 5MM         142       P0513X2142       SLIDING PLATE         1445       P0513X2145       GUIDE POST ASSEMBLY         145-1       P0513X2145-1       SET SCREW M5-1 X 16         145-2       P0513X2145-2       CAP SCREW M6-1 X 16         145-3       P0513X2145-3       PHLP HD SCR M47 X 6         145-4       P0513X2145-6       GAR PLATE         145-5       P0513X2145-7       CAST IRON TRUNNION         145-4       P0513X2145-8       PHLP HD SCR M47 X 10         145-5       P0513X2145-6       GUIDE POST         145-6       P0513X2145-7       LOCK NUT M8-1.25 X 8         145-7       P0513X2145-6       GUIDE POST         145-8       P0513X2145-6       GUIDE POST         145-9       P0513X2145-7       LOCK COLLAR         145-9       P0513X2145-8       THREADED BUSHING V2.06.09         145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-12       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-14       P0513X2145-12       INCK WASHER 8MM	REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
104         P0513X2104         FLAT WASHER 10MM           136         P0513X2137         FLAT WASHER 10MM           137         P0513X2137         FLAT WASHER 8MM           138         P0513X2137         FLAT WASHER 8MM           139V2         P0513X2137         FLAT WASHER 8MM           139V2         P0513X2140         STEP SCREW M47 X 5           140         P0513X2141         FIBER WASHER 8MM           141         P0513X2141         FIBER WASHER 8MM           142         P0513X2145.2         LOCK NUT M8-1.25           144         P0513X2145.3         GUIDE POST ASSEMBLY           145.2         P0513X2145.4         GUIDE POST ASSEMBLY           145.4         P0513X2145.5         FLAT HD SCR M47 X 6           145.2         P0513X2145.4         CAP SCREW M6-1 X 16           145.4         P0513X2145.5         RACK           145.4         P0513X2145.5         RACK HANDLE M8-1.25           145.4         P0513X2145.4         CAP SCREW M6-1.25           145.6         P0513X2145.5         RACK           145.7         P0513X2145.7         CAST IRON TRUNNION           145.7         P0513X2145.7         CAST IRON TRUNNION           145.8         P0513X2145.7	98	P0513X2098	CAP SCREW M10-1.5 X 35	151-7	P0513X2151-7	ECCENTRIC SHAFT
136         P0513X2136         CAP SCREW M58 X 10         151-10         P0513X2151-10         HANDLE BUSHING           137         P0513X2137         FLAT WASHER SMM         151-11         P0513X2151-10         CAP SCREW M-1.3 X 35           139V2         CAP SCREW M10-1.5 X 35         155-1         P0513X2155-1         FLAT WASHER 8MM           140         P0513X2141         FLBE WASHER 5MM         155-2         P0513X2155-1         FLAT WASHER 8MM           142         P0513X2142         SLIDING PLATE         155-2         P0513X2155-5         FLAT WASHER 8MM           145-1         P0513X2145-1         SET SCREW M58 X 5         155-5         P0513X2155-5         FLAT HD SCR M47 X 6           145-2         P0513X2145-3         PLP HD SCR M47 X 10         155-6         P0513X2155-6         CARRIAGE BOLT M8-1.25 X 8           145-4         P0513X2145-8         CARRIAGE BOLT M8-1.25 M         155-10         P0513X2155-10         TABLE TLT SCALE           145-6         P0513X2145-6         GLAC K ANDLE M8-1.25         155-11         P0513X2155-11         FLAT WASHER 8MM           145-7         P0513X2145-6         RACK         155-10         P0513X2155-10         TABLE TLT SCALE           145-7         P0513X2145-7         ASLE         P0513X2155-11         F	103	P0513X2103	LOCK WASHER 10MM	151-8	P0513X2151-8	EXT RETAINING RING 15MM
137         P0613X2137         FLAT WASHER SMM           138         P0613X2137         FLAT WASHER SMM           139V         P0613X2139         CAP SCREW M0-1 X 35           138         P0613X2139         CAP SCREW M0-1 X 35           140         P0613X2140         STEP SCREW M4-7 X 5           141         P0613X2142         SLIDING PLATE           142         P0613X2145         SLIDING PLATE           145-1         P0613X2145-3         FLAT WASHER SMM           145-2         P0613X2145-4         GUIDE POST ASSEMBLY           145-1         P0613X2145-5         FLAT H0 SCR M4-7 X 6           145-2         P0613X2145-4         FLAT WO STR M4-7 X 6           145-3         P0613X2145-3         PLAT HD SCR M4-7 X 10           145-4         P0613X2145-4         FLAT WO TM4-7 X 6           145-5         P0613X2145-5         RACK           145-6         P0613X2145-7         LOCK HANDLE M8-1.25 X 8           145-7         P0513X2145-8         RACK           145-7         P0513X2145-9         LOCK MANDLE M8-1.25 X 25           145-7         P0513X2145-1         LOCK COLLAR           145-7         P0513X2145-1         LOCK WASHER 8MM           145-10         P0513X2145	104	P0513X2104	FLAT WASHER 10MM	151-9	P0513X2151-9	BALL BEARING 6202ZZ
138         P0513X2133         UPPER BLADE GUARD           139V2         P0513X2143         STEP SCREW M10-1.5 X 35           140         P0513X2140         STEP SCREW M10-1.5 X 35           141         P0513X2141         FIBER WASHER 8MM           142         P0513X2142         STEP SCREW M4-7 X 5           142         P0513X2145         GUDR POST ASSEMBLY           145         P0513X2145-         GLAR PLATE           145.2         P0513X2145-1         SET SCREW M5-8 X 5           145.2         P0513X2145-3         PHLP HD SCR M4-7 X 6           145.2         P0513X2145-4         GARTIAGE BOLT M8-1.25 X 8           145.2         P0513X2145-5         ACARTIAGE BOLT M8-1.25 X 8           145.4         P0513X2145-4         HEX NUT M4-7           145.5         P0513X2145-4         HEX NUT M4-7           145.6         P0513X2145-6         CARTIAGE BOLT M8-1.25 X 8           145.7         P0513X2145-7         LOCK HANDLE M8-1.25           145.8         P0513X2145-7         LOCK MASHER 8MM           145.1         P0513X2145-1         FLAT WASHER 8MM           145.1         P0513X2145-1         TABLE TILT SCALE           145.1         P0513X2145-1         THREADED BUSHING V2.06.09      <	136	P0513X2136	CAP SCREW M58 X 10	151-10	P0513X2151-10	HANDLE BUSHING
139/2         P0613X2139V2         CAP SCREW Mi-1.5 X 35           140         P0613X2140         STEP SCREW M4.7 X 5           141         P0613X2141         FIBER WASHER SMM           142         P0613X2142         SLIDING PLATE           145         P0613X2152-2         LOCK NUT M8-1.25           145         P0613X2155-2         GEAR PLATE           145         P0613X2155-2         CAP SCREW M6-1 X 16           145-1         P0613X2155-2         CAP SCREW M6-1 X 16           145-2         P0613X2155-2         CAP SCREW M6-1 X 16           145-3         P0613X2155-7         CAST IRON TRUNNION           145-4         P0613X2145-6         RACK           145-5         P0613X2155-7         CAST IRON TRUNNION           145-6         P0613X2155-7         CAST IRON TRUNNION           145-7         P0613X2155-7         CAST IRON TRUNNION           145-8         P0613X2155-7         CAST IRON TRUNNION           145-9         P0613X2155-7         CAST IRON TRUNNION           145-12         P0613X2155-1         LOCK HANDLE M8-1.25           145-14         P0613X2155-1         LAT WASHER 8MM           145-12         P0613X2155-1         LOCK WASHER 8MM           145-12	137	P0513X2137	FLAT WASHER 5MM	151-11	P0513X2151-11	CAP SCREW M6-1 X 35
140         P0513X2140         STEP SCREW M4-7 X 5           141         P0513X2145         LOCK NUT M8-1.25           142         P0513X2145         GUIDE POST ASSEMBLY           145         P0513X2145-2         LOCK NUT M8-1.25           145.2         P0513X2145-2         GLAP LPI PD SCR M47 X 6           145.1         P0513X2145-2         CAP SCREW M5-1 X 16           145.2         P0513X2145-2         CAP SCREW M6-1 X 10           145.3         P0513X2145-3         PLIP HD SCR M47 X 6           145.4         P0513X2145-3         PLIP HD SCR M47 X 10           145.5         P0513X2145-3         CAP SCREW M6-1 X 10           145.4         P0513X2145-6         GUIDE POST           145.5         P0513X2145-6         GUIDE POST           145.6         P0513X2145-8         THREADED BUSHING V2.06.09           145.1         P0513X2145-1         FLAT WASHER 8MM           145.1         P0513X2145-11         FLAT WASHER 8MM           145.1         P0513X2145-16         PLAT WASHER 8MM	138	P0513X2138	UPPER BLADE GUARD	155	P0513X2155	CAST IRON TRUNNION ASSEMBLY
141         P0513X2141         FIBER WASHER SMM           142         P0513X2142         SLIDING PLATE           145         P0513X2145         GEAR PLATE           145         P0513X2145-1         SET SCREW M5-8 X 5           145-1         P0513X2145-2         CAP SCREW M6-1 X 16           145-3         P0513X2145-2         CAP SCREW M6-1 X 10           145-3         P0513X2145-2         CAP SCREW M6-1 X 10           145-4         P0513X2145-4         CAST IRON TRUNNION           145-5         P0513X2145-5         CAST IRON TRUNNION           145-6         P0513X2145-6         CAST IRON TRUNNION           145-7         P0513X2145-7         LOCK COLLAR           145-7         P0513X2145-7         LOCK COLLAR           145-7         P0513X2145-8         THREADED BUSHING V2.06.09           145-10         P0513X2145-10         THREADED GUIDE BRACKET 14MM V2.06.09           145-11         P0513X2145-10         FLAT WASHER 4MM           145-12         P0513X2145-10         FLAT WASHER 4MM           145-12         P0513X2145-13         FINON GEAR 15T           145-14         PINON GEAR 15T         TI55-17         P0513X2155-17         ADUSTMENT KNOB BOLT M           145-16         P0513X2145	139V2	P0513X2139V2	CAP SCREW M10-1.5 X 35	155-1	P0513X2155-1	FLAT WASHER 8MM
142         P0513X2142         SLIDING PLATE           145         P0513X2145         GUIDE POST ASSEMBLY           145-1         P0513X2145-1         SEX SCREW M5-8 X 5           145-2         P0513X2145-2         CAP SCREW M6-1 X 16           145-4         P0513X2145-3         PLICP HD SCR M47 X 10           145-5         P0513X2145-5         RACK           145-6         P0513X2145-6         GUIDE POST           145-7         P0513X2145-7         LOCK HANDLE M8-1.25 X 8           145-7         P0513X2145-6         GUIDE POST           145-8         P0513X2145-7         LOCK HANDLE M8-1.25 X 8           145-7         P0513X2145-7         LOCK HANDLE M8-1.25 X 8           145-8         P0513X2145-7         LOCK KOLLAR         155-17           145-9         P0513X2145-10         THREADED BUSHING V2.06.09         155-16           145-10         P0513X2145-10         THREADED GUIDE BRACKET 14MM V20.60.9         155-17         P0513X2155-13         LOCK MANDLE M8-1.25           145-10         P0513X2145-10         THREADED GUIDE BRACKET 14MM V20.60.9         155-16         P0513X2155-17         ADUSTMENT KNOB BOLT M           145-18         P0513X2145-10         THREADED GUIDE ASCEMELY         155-17         P0513X2155-18 <t< td=""><td>140</td><td>P0513X2140</td><td>STEP SCREW M47 X 5</td><td>155-2</td><td>P0513X2155-2</td><td>LOCK NUT M8-1.25</td></t<>	140	P0513X2140	STEP SCREW M47 X 5	155-2	P0513X2155-2	LOCK NUT M8-1.25
145         P0513X2145         GUIDE POST ASSEMBLY           145.1         P0513X2145-1         SET SCREW M5-8 X 5           145.2         P0513X2145-2         CAP SCREW M6-1 X 10           145.3         P0513X2145-3         PHLP HD SCR M4-7 X 10           145.4         P0513X2145-4         HEX NUT M4-7           145.5         P0513X2145-6         GUIDE POST           145.4         P0513X2145-6         GUIDE POST           145.5         P0513X2145-7         LOCK HANDLE M8-1.25           145.6         P0513X2145-7         LOCK VANHER           145.7         P0513X2145-7         LOCK WASHER 8MM           145.12         P0513X2145-10         THREADED BUSHING V2.06.09           145.14         P0513X2145-12         FIXAT WASHER 8MM           145.12         P0513X2145-12         FIXE POST           145.12         P0513X2145-12         FIXE POLATE           15.14         P0513X2145-13         PINION GEAR STEP BOLT           145.14         P0513X2145-14         FIXE POST           145.15         P0513X2145-15         BRACKET COVER           145.16         P0513X2145-16         CAP SCREW M8-1 X 20           155.17         P0513X2155-19         LBRACKET           145.18	141	P0513X2141	FIBER WASHER 5MM	155-3	P0513X2155-3	PHLP HD SCR M47 x 6
145-1       P0513X2145-1       SET SCREW M5-8 X 5         145-2       P0513X2145-2       CAP SCREW M6-1 X 16         145-3       P0513X2145-2       CAP SCREW M6-1 X 10         145-4       P0513X2145-4       HEX NUT M4-7         145-5       P0513X2145-5       RACK         145-6       P0513X2145-5       RACK         145-7       P0513X2145-7       LOCK HANDLE M8-1.25 X 8         145-8       P0513X2145-7       LOCK HANDLE M8-1.25 X 8         145-9       P0513X2145-8       THREADED BUSHING V2.06.09         145-10       P0513X2145-9       LOCK WASHER 8MM         145-12       P0513X2145-10       THREADED BUSHING V2.06.09         145-14       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-14       P0513X2145-10       THREADED BUSHING V2.06.09         145-14       P0513X2145-10       THREADED BUSHING V2.06.09         145-14       P0513X2145-10       THREADED BUSHING V2.06.09         145-14       P0513X2145-11       WORM CVLINDER         145-15       P0513X2145-12       FLAT WASHER 8MM         145-16       P0513X2145-14       PINION GEAR 15T         145-17       P0513X2145-15       BRACKET COVER         145-16       P0513X2145-16	142	P0513X2142	SLIDING PLATE	155-4	P0513X2155-4	GEAR PLATE
145-2       P0513X2145-2       CAP SCREW M6-1 X 16         145-3       P0513X2145-3       PHLP HD SCR M4-7 X 10         145-4       P0513X2145-4       HEX NUT M4-7         145-5       P0513X2145-5       RACK         145-6       P0513X2145-6       GUIDE POST         145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-7       LOCK COLLAR         145-9       P0513X2145-9       LOCK WASHER 8MM         145-10       P0513X2145-10       THREADED BUSHING V2.06.09         145-14       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-14       P0513X2145-12       FIXED PLATE         145-14       P0513X2145-13       PINION GEAR 15T         145-15       P0513X2145-16       LOCK WASHER 8MM         145-16       P0513X2145-16       CAP SCREW M6-1 X 16         145-17       P0513X2145-13       PINION GEAR 15T         145-16       P0513X2145-16       CAP SCREW M6-1 X 20         145-16       P0513X2145-16       CAP SCREW M6-1 X 20         145-16       P0513X2145-16       CAP SCREW M6-1 X 16         155-21       P0513X2155-20V2       PLAT HD SCR M58 X 8         145-16       P0513X2150-3       RIGH GUARD	145	P0513X2145	GUIDE POST ASSEMBLY	155-5	P0513X2155-5	FLAT HD SCR M47 X 6
145-3       P0513X2145-3       PHLP HD SCR M4-7 X 10         145-4       P0513X2145-4       HEX NUT M4-7         145-5       P0513X2145-5       RACK         145-6       P0513X2145-6       GUIDE POST         145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-7       LOCK COLLAR         145-9       P0513X2145-8       THREADED BUSHING V2.06.09         145-14       P0513X2145-8       THREADED BUSHING V2.06.09         145-14       P0513X2145-10       CCK WASHER 8MM         145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-11       P0513X2145-13       LOCK WASHER 8MM         145-12       P0513X2145-14       PUS13X2145-15       POINTER         145-14       P0513X2145-15       POINTER       155-17       P0513X2155-16       LOCK WASHER 8MM         145-14       P0513X2145-16       CAP SCREW M6-1 X 16       155-17       P0513X2155-18       LOCK WASHER 8MM         145-14       P0513X2145-16       CAP SCREW M6-1 X 20       FLAT HD SCR M4-7 X 8       155-17       P0513X2155-18       LOCK WASHER 8MM         145-14       P0513X2145-18       BUSHING       155-22       P0513X2155-23       CAP SCREW M6-1 X 16         155-17	145-1	P0513X2145-1	SET SCREW M58 X 5	155-6	P0513X2155-6	CARRIAGE BOLT M8-1.25 X 85
145-4       P0513X2145-4       HEX NUT M47         145-5       P0513X2145-5       RACK         145-6       P0513X2145-6       GUIDE POST         145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-8       THREADED BUSHING V2.06.09         145-10       P0513X2145-9       LOCK WASHER 8MM         145-10       P0513X2145-10       THREADED BUSHING V2.06.09         145-11       P0513X2145-10       THREADED BUNDE BRACKET 14MM V2.06.09         145-12       P0513X2145-10       THREADED RUDE BRACKET 14MM V2.06.09         145-14       P0513X2145-12       FLX WASHER 8MM         145-12       P0513X2145-12       FLX WASHER 8MM         145-13       P0513X2145-13       PINION GEAR STEP BOLT         145-14       P0513X2145-15       BRACKET COVER         145-15       P0513X2145-16       CAP SCREW M6-1 X 16         145-16       P0513X2145-17       FLAT HD SCR M47 X 8         145-16       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-19       P0513X2145-18       BUSHING         155-20       P0513X2155-21       CAP SCREW M6-1 X 16         155-21       P0513X2155-23       TRUNNION SUPPORT BRACH <td>145-2</td> <td>P0513X2145-2</td> <td>CAP SCREW M6-1 X 16</td> <td>155-7</td> <td>P0513X2155-7</td> <td>CAST IRON TRUNNION</td>	145-2	P0513X2145-2	CAP SCREW M6-1 X 16	155-7	P0513X2155-7	CAST IRON TRUNNION
145-5       P0513X2145-5       RACK         145-6       P0513X2145-6       GUIDE POST         145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-8       THREADED BUSHING V2.06.09         145-9       P0513X2145-9       LOCK WASHER 8MM         145-10       P0513X2145-10       THREADED BUBE BRACKET 14MM V2.06.09         145-11       P0513X2145-12       FIXED PLATE         155-12       P0513X2155-14       FLAT WASHER 8MM         145-12       P0513X2145-15       FIXED PLATE         145-12       P0513X2145-12       FIXED PLATE         145-13       P0513X2145-13       BRACKET COVER         145-14       P0513X2145-16       CAP SCREW M6-1 X 8         145-17       P0513X2145-16       CAP SCREW M6-1 X 8         145-17       P0513X2145-16       CAP SCREW M6-1 X 20         145-17       P0513X2145-16       CAP SCREW M6-1 X 20         145-17       P0513X2145-16       CAP SCREW M6-1 X 20         145-17       P0513X2145-16       BACKET COVER         145-17       P0513X2145-17       FLAT WOSCRM-X 8 8         145-17       P0513X2145-16       CAP SCREW M6-1 X 20         145-17       P0513X2150-10       CAP SCREW M6-1 X 20	145-3	P0513X2145-3	PHLP HD SCR M47 X 10	155-8	P0513X2155-8	CARRIAGE BOLT M8-1.25 X 80
145-6       P0513X2145-6       GUIDE POST         145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-8       THREADED BUSHING V2.06.09         145-9       P0513X2145-10       THREADED BUSHING V2.06.09         145-10       P0513X2145-10       THREADED BUSHING V2.06.09         145-11       P0513X2145-10       THREADED BUSHING V2.06.09         145-11       P0513X2145-10       THREADED BUSHING V2.06.09         145-12       P0513X2145-10       THREADED BUSHING V2.06.09         145-14       P0513X2145-11       PINION GEAR TST         145-15       P0513X2145-13       PINION GEAR TST         145-14       P0513X2145-16       RACKET COVER         145-15       P0513X2145-16       RACKET COVER         145-16       P0513X2145-17       FLAT HD SCR MA7 X 8         145-17       P0513X2145-17       RLAT BUSHING         145-18       P0513X2145-17       RLAT BUSHING         145-17       P0513X2145-17       RLAT BUSHING         145-18       P0513X2145-17       RLAT BUSHING         145-17       P0513X2145-17       RLAT BUSHING         145-18       P0513X2145-10       CAP SCREW M6-1 X 16         155-21       P0513X2150-20       CAP SCREW M6	145-4	P0513X2145-4	HEX NUT M47	155-9	P0513X2155-9	LOCK HANDLE M8-1.25
145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-8       THREADED BUSHING V2.06.09         145-9       P0513X2145-9       LOCK WASHER 8MM         145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-11       P0513X2145-11       WORM CYLINDER         145-12       P0513X2145-12       FIXED PLATE         145-14       P0513X2145-12       FIXED PLATE         145-15       P0513X2145-15       BRACKET COVER         145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-19       P0513X2145-18       BUSHING         145-19       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         146       P0513X2145-18       BUDE GUIDE ASSEMBLY         150-2       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT	145-5	P0513X2145-5	RACK	155-10	P0513X2155-10	TABLE TILT SCALE
145-7       P0513X2145-7       LOCK COLLAR         145-8       P0513X2145-8       THREADED BUSHING V2.06.09         145-9       P0513X2145-9       LOCK WASHER 8MM         145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-11       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-12       P0513X2145-12       FIXED PLATE         145-12       P0513X2145-12       FIXED PLATE         145-13       P0513X2145-13       PINION GEAR 15T         145-14       P0513X2145-15       BRACKET COVER         145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         146       P0513X2145-18       BUSHING         150-1       P0513X2145-17       FLAT HD SCR M47 X 8         147       P0513X2145-18       BUDE GUIDE ASSEMBLY         150-2       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4 <td< td=""><td>145-6</td><td>P0513X2145-6</td><td>GUIDE POST</td><td>155-11</td><td>P0513X2155-11</td><td>FLAT WASHER 8MM</td></td<>	145-6	P0513X2145-6	GUIDE POST	155-11	P0513X2155-11	FLAT WASHER 8MM
145-9       P0513X2145-9       LOCK WASHER 8MM         145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-11       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-12       P0513X2145-11       WORM CYLINDER         145-12       P0513X2145-12       FIXED PLATE         145-14       P0513X2145-13       PINION GEAR 1ST         145-15       P0513X2145-14       PINION GEAR STEP BOLT         145-16       P0513X2145-15       BRACKET COVER         145-17       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M47 X 8         145-17       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         146       P0513X2147       CAP SCREW M6-1 X 20         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-3       SET SCREW M6-1 X 10         150-3       P0513X2150-4       ADJUSTMENT BAR         150-4       P0513X2150-5       BALL BEARING 6202Z	145-7	P0513X2145-7	LOCK COLLAR		P0513X2155-12	HEX BOLT M8-1.25 X 25
145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-11       P0513X2145-11       WORM CYLINDER         145-12       P0513X2145-12       FIXED PLATE         145-13       P0513X2145-12       FIXED PLATE         145-14       P0513X2145-13       PINION GEAR STEP BOLT         145-15       P0513X2145-14       PINION GEAR STEP BOLT         145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         146       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-4       P0513X2150-3       ADJUSTMENT ROD         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT BLOCK         150-6       P0513X2150-5       UPPE	145-8	P0513X2145-8	THREADED BUSHING V2.06.09	155-13	P0513X2155-13	LOCK HANDLE M8-1.25
145-10       P0513X2145-10       THREADED GUIDE BRACKET 14MM V2.06.09         145-11       P0513X2145-11       WORM CYLINDER         145-12       P0513X2145-12       FIXED PLATE         145-13       P0513X2145-12       FIXED PLATE         145-14       P0513X2145-13       PINION GEAR 15T         145-14       P0513X2145-14       PINION GEAR STEP BOLT         145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         145-17       P0513X2155-24       CAP SCREW M6-1 X 50         145-18       P0513X2150-10       CAP SCREW M6-1 X 20         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-2       UPPER BLADE GUIDE ASSEMBLY         150-4       P0513X2150-3       BET GUIDE SUPPORT BLOCK         150-5       P0513X2150-4       ADJUSTMENT ROD         150-6       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-7       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-8       P05		P0513X2145-9				
145-11       P0513X2145-11       WORM CYLINDER         145-12       P0513X2145-12       FIXED PLATE         145-13       P0513X2145-12       FIXED PLATE         145-14       P0513X2145-13       PINION GEAR 15T         145-14       P0513X2145-14       PINION GEAR STEP BOLT         145-15       P0513X2145-15       BRACKET COVER         145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-16       CAP SCREW M6-1 X 16         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-14       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         146       P0513X2145       GUIDE POST HANDWHEEL         150       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-5       UPPER BLADE GUIDE SUPPORT BLOCK         150-3 <td< td=""><td>145-10</td><td></td><td></td><td></td><td></td><td>POINTER</td></td<>	145-10					POINTER
145-12       P0513X2145-12       FIXED PLATE         145-13       P0513X2145-13       PINION GEAR 15T         145-14       P0513X2145-14       PINION GEAR STEP BOLT         145-15       P0513X2145-15       BRACKET COVER         145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M4-7 X 8         145-18       P0513X2145-18       BUSHING         145-19       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-17       FLAT HD SCR M4-7 X 8         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         146       P0513X2146       GUIDE POST HANDWHEEL       155-22         150-1       P0513X2150-1       CAP SCREW M6-1 X 20       155-25         150-2       P0513X2150-2       UPPER BLADE GUIDE ASSEMBLY       155-26         150-2       P0513X2150-3       SET SCREW M6-1 X 16       155-27         150-2       P0513X2150-3       SET SCREW M6-1 X 10       155-29         150-4       P0513X2150-4       ADJUSTMENT BAR       155-30         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
145-13       P0513X2145-13       PINION GEAR 15T         145-14       P0513X2145-14       PINION GEAR STEP BOLT         145-15       P0513X2145-14       PINION GEAR STEP BOLT         145-16       P0513X2145-15       BRACKET COVER         145-17       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-18       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         145-17       P0513X2146       GUIDE POST HANDWHEEL         146       P0513X2146       GUIDE POST HANDWHEEL         150       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-3       P0513X2150-4       ADJUSTMENT BAR         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-6       ECCENTRIC SHAFT         150-8       P0513X2150-7       EXT RETAINING RING 15MM         150-9       P0513X2150-70       EXT RETAINING RING						ADJUSTMENT KNOB BOLT M6-1
145-14       P0513X2145-14       PINION GEAR STEP BOLT         145-14       P0513X2145-15       BRACKET COVER         145-15       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         145-17       P0513X2145-18       BUSHING         145-18       P0513X2145-18       BUSHING         146       P0513X2145-18       BUSHING         147       P0513X2150-1       CAP SCREW M6-1 X 20         150       P0513X2150-1       CAP SCREW M6-1 X 10         150-1       P0513X2150-1       CAP SCREW M6-1 X 16         150-2       P0513X2150-1       CAP SCREW M6-1 X 16         150-1       P0513X2150-2       UPPER BLADE GUIDE ASSEMBLY         150-2       P0513X2150-1       CAP SCREW M6-1 X 10         150-3       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-4       P0513X2150-3       SET SCREW M6-1 X 10         150-5       P0513X2150-4       ADJUSTMENT BAR         150-7       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-8       P0513X2150-7       EXT RETAINING RING 15MM         150-9       P0513X2150-7       EXT RETAINING RING 15MM						
145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M4-7 X 8         145-18       P0513X2145-17       FLAT HD SCR M4-7 X 8         146       P0513X2145-18       BUSHING         147       P0513X2146       GUIDE POST HANDWHEEL         147       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-2       UPPER BLADE GUIDE ASSEMBLY         150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT BLOCK         150-6       P0513X2150-4       ADJUSTMENT BAR         150-7       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-6       ECCENTRIC SHAFT         150-8       P0513X2150-7       EXT RETAINING RING 15MM         150-9       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-7       EXT RETAINING 6202ZZ         150-10       P0513X2150-10       CAP SCREW M6-1 X 35         150-10       P0513X2150-10						
145-16       P0513X2145-16       CAP SCREW M8-1.25 X 16         145-17       P0513X2145-17       FLAT HD SCR M4-7 X 8         145-18       P0513X2145-17       FLAT HD SCR M4-7 X 8         146       P0513X2145-18       BUSHING         147       P0513X2146       GUIDE POST HANDWHEEL         147       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-2       UPPER BLADE GUIDE ASSEMBLY         150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT BLOCK         150-6       P0513X2150-4       ADJUSTMENT BAR         150-7       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-6       ECCENTRIC SHAFT         150-8       P0513X2150-7       EXT RETAINING RING 15MM         150-9       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-7       EXT RETAINING 6202ZZ         150-10       P0513X2150-10       CAP SCREW M6-1 X 35         150-10       P0513X2150-10				155-20V2		
145-17       P0513X2145-17       FLAT HD SCR M47 X 8         145-18       P0513X2145-18       BUSHING         146       P0513X2145-18       BUSHING         147       P0513X2146       GUIDE POST HANDWHEEL         150       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 10         150-2       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-7       EXT RETAINING RING 15MM         150-9       P0513X2150-7       EXT RETAINING RING 6202ZZ         150-9       P0513X2150-9       HANDLE BUSHING         150-10       P0F13X2150-11       UPPER SPACING SHAFT         150-11       P0513X2150-11       LOWER BLADE GUIDE ASSEMBLY						
145-18         P0513X2145-18         BUSHING           146         P0513X2146         GUIDE POST HANDWHEEL           147         P0513X2147         CAP SCREW M6-1 X 20           150         P0513X2150         UPPER BLADE GUIDE ASSEMBLY           150-1         P0513X2150-1         CAP SCREW M6-1 X 16           150-2         P0513X2150-2         UPPER GUIDE SUPPORT BLOCK           150-3         P0513X2150-3         SET SCREW M6-1 X 10           150-4         P0513X2150-4         ADJUSTMENT BAR           150-5         P0513X2150-5         UPPER BLADE GUIDE SUPPORT           150-6         P0513X2150-6         ECCENTRIC SHAFT           150-7         P0513X2150-7         EXT RETAINING RING 15MM           150-8         P0513X2150-8         BALL BEARING 6202ZZ           150-9         P0513X2150-9         HANDLE BUSHING           150-10         P0513X2150-10         CAP SCREW M6-1 X 35           150-11         P0513X2150-11         UPPER BLADE GUIDE SUPPORT           150-12         P0513X2150-11         LOCK WASHER 8MM           150-12         P0513X2150-7         EXT RETAINING RING 15MM           150-10         P0513X2150-9         HANDLE BUSHING           150-11         P0513X2150-10         CAP SCREW	145-17	P0513X2145-17	FLAT HD SCR M47 X 8	155-22	P0513X2155-22	CAP SCREW M6-1 X 50
146         P0513X2146         GUIDE POST HANDWHEEL           147         P0513X2147         CAP SCREW M6-1 X 20           150         P0513X2150         UPPER BLADE GUIDE ASSEMBLY           150-1         P0513X2150-1         CAP SCREW M6-1 X 16           150-2         P0513X2150-2         UPPER GUIDE SUPPORT BLOCK           150-3         P0513X2150-3         SET SCREW M6-1 X 10           150-4         P0513X2150-4         ADJUSTMENT BAR           150-5         P0513X2150-5         UPPER BLADE GUIDE SUPPORT           150-6         P0513X2150-6         ECCENTRIC SHAFT           150-7         P0513X2150-7         EXT RETAINING RING 15MM           150-8         P0513X2150-9         HANDLE BUSHING           150-9         P0513X2150-9         HANDLE BUSHING           150-9         P0513X2150-9         HANDLE BUSHING           150-10         P0513X2150-10         CAP SCREW M6-1 X 35           150-11         P0513X2150-11         UPPER SPACING SHAFT           151         P0513X2150-11         LOWER BLADE GUIDE ASSEMBLY						TRUNNION SUPPORT BRACKET
147       P0513X2147       CAP SCREW M6-1 X 20         150       P0513X2150       UPPER BLADE GUIDE ASSEMBLY         150-1       P0513X2150-1       CAP SCREW M6-1 X 16         150-2       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-8       BALL BEARING 6202ZZ         150-9       P0513X2150-10       CAP SCREW M6-1 X 35         150-10       P0513X2150-10       CAP SCREW M6-1 X 35         150-11       P0513X2150-11       UPPER BLADE GUIDE SUPPORT         150-12       P0513X2150-10       CAP SCREW M6-1 X 35         150-11       P0513X2150-10       CAP SCREW M6-1 X 35         150-11       P0513X2150-11       UPPER SPACING SHAFT         151       P0513X2151       LOWER BLADE GUIDE ASSEMBLY						
150         P0513X2150         UPPER BLADE GUIDE ASSEMBLY           150-1         P0513X2150-1         CAP SCREW M6-1 X 16           150-2         P0513X2150-2         UPPER GUIDE SUPPORT BLOCK           150-3         P0513X2150-3         SET SCREW M6-1 X 10           150-4         P0513X2150-4         ADJUSTMENT BAR           150-5         P0513X2150-5         UPPER BLADE GUIDE SUPPORT           150-6         P0513X2150-6         ECCENTRIC SHAFT           150-7         P0513X2150-7         EXT RETAINING RING 15MM           150-8         P0513X2150-8         BALL BEARING 6202ZZ           150-9         P0513X2150-9         HANDLE BUSHING           150-10         P0513X2150-10         CAP SCREW M6-1 X 35           150-11         P0513X2150-11         UPPER SPACING SHAFT           150-11         P0513X2150-11         LOWER BLADE GUIDE ASSEMBLY						BUTTON HD CAP SCR M10-1.5 X 30
150-1       P0513X2150-1       CAP SCREW M6-1 X 16         150-2       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-8       BALL BEARING 6202ZZ         150-9       P0513X2150-9       HANDLE BUSHING         150-10       P0513X2150-10       CAP SCREW M6-1 X 35         150-11       P0513X2150-11       UPPER SPACING SHAFT         150-11       P0513X2150-11       UPPER SPACING SHAFT         151       P0513X2151       LOWER BLADE GUIDE ASSEMBLY	150	P0513X2150	UPPER BLADE GUIDE ASSEMBLY	155-26	P0513X2155-26	RIGHT GUARD
150-2       P0513X2150-2       UPPER GUIDE SUPPORT BLOCK         150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-8       BALL BEARING 6202ZZ         150-9       P0513X2150-9       HANDLE BUSHING         150-10       P0513X2150-10       CAP SCREW M6-1 X 35         150-11       P0513X2150-11       UPPER SPACING SHAFT         151       P0513X2151       LOWER BLADE GUIDE ASSEMBLY						
150-3       P0513X2150-3       SET SCREW M6-1 X 10         150-4       P0513X2150-4       ADJUSTMENT BAR         150-5       P0513X2150-5       UPPER BLADE GUIDE SUPPORT         150-6       P0513X2150-6       ECCENTRIC SHAFT         150-7       P0513X2150-7       EXT RETAINING RING 15MM         150-8       P0513X2150-8       BALL BEARING 6202ZZ         150-9       P0513X2150-9       HANDLE BUSHING         150-10       P0513X2150-10       CAP SCREW M6-1 X 35         150-11       P0513X2150-11       UPPER SPACING SHAFT         151       P0513X2151       LOWER BLADE GUIDE ASSEMBLY						
150-4         P0513X2150-4         ADJUSTMENT BAR           150-5         P0513X2150-5         UPPER BLADE GUIDE SUPPORT           150-6         P0513X2150-6         ECCENTRIC SHAFT           150-7         P0513X2150-7         EXT RETAINING RING 15MM           150-8         P0513X2150-8         BALL BEARING 6202ZZ           150-9         P0513X2150-9         HANDLE BUSHING           150-10         P0513X2150-10         CAP SCREW M6-1 X 35           150-11         P0513X2150-11         UPPER SPACING SHAFT           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY						
150-5         P0513X2150-5         UPPER BLADE GUIDE SUPPORT         155-31         P0513X2155-31         LOCK WASHER 8MM           150-6         P0513X2150-6         ECCENTRIC SHAFT         155-32         P0513X2155-32         CAP SCREW M58 X 6           150-7         P0513X2150-7         EXT RETAINING RING 15MM         155-33         P0513X2155-33         LOCK WASHER 8MM           150-8         P0513X2150-8         BALL BEARING 6202ZZ         352         P0513X2352         FLAT WASHER 8MM           150-10         P0513X2150-10         CAP SCREW M6-1 X 35         353         P0513X2353         LOCK WASHER 8MM           150-11         P0513X2150-11         UPPER SPACING SHAFT         354         P0513X2355         HEX WRENCH 5MM           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM						
150-6         P0513X2150-6         ECCENTRIC SHAFT           150-7         P0513X2150-7         EXT RETAINING RING 15MM           150-8         P0513X2150-8         BALL BEARING 6202ZZ           150-9         P0513X2150-9         HANDLE BUSHING           150-10         P0513X2150-10         CAP SCREW M6-1 X 35           150-11         P0513X2150-11         UPPER SPACING SHAFT           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY						
150-7         P0513X2150-7         EXT RETAINING RING 15MM         155-33         P0513X2155-33         LOCK WASHER 10MM           150-8         P0513X2150-8         BALL BEARING 6202ZZ         352         P0513X2352         FLAT WASHER 8MM           150-9         P0513X2150-9         HANDLE BUSHING         353         P0513X2353         LOCK WASHER 8MM           150-10         P0513X2150-10         CAP SCREW M6-1 X 35         354         P0513X2354         BUTTON HD CAP SCR M8-1.2           150-11         P0513X2150-11         UPPER SPACING SHAFT         355         P0513X2355         HEX WRENCH 5MM           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM						
150-8         P0513X2150-8         BALL BEARING 6202ZZ         352         P0513X2352         FLAT WASHER 8MM           150-9         P0513X2150-9         HANDLE BUSHING         353         P0513X2353         LOCK WASHER 8MM           150-10         P0513X2150-10         CAP SCREW M6-1 X 35         354         P0513X2354         BUTTON HD CAP SCR M8-1.2           150-11         P0513X2150-11         UPPER SPACING SHAFT         355         P0513X2355         HEX WRENCH 5MM           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM					1	
150-9         P0513X2150-9         HANDLE BUSHING         353         P0513X2353         LOCK WASHER 8MM           150-10         P0513X2150-10         CAP SCREW M6-1 X 35         354         P0513X2354         BUTTON HD CAP SCR M8-1.2           150-11         P0513X2150-11         UPPER SPACING SHAFT         355         P0513X2355         HEX WRENCH 5MM           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM						
150-10         P0513X2150-10         CAP SCREW M6-1 X 35         354         P0513X2354         BUTTON HD CAP SCR M8-1.2           150-11         P0513X2150-11         UPPER SPACING SHAFT         355         P0513X2355         HEX WRENCH 5MM           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM					1	
150-11         P0513X2150-11         UPPER SPACING SHAFT         355         P0513X2355         HEX WRENCH 5MM           151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM						
151         P0513X2151         LOWER BLADE GUIDE ASSEMBLY         356         P0513X2356         HEX WRENCH 8MM						
151-6 P0513X2151-6 CAP SCREW M6-1 X 16	-			007	1 0010/2007	



#### G0513X2 & G0513X2F Fence Assembly & Table

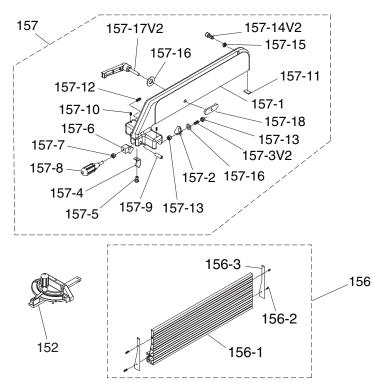


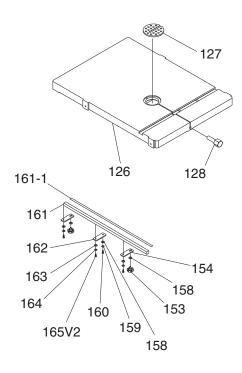
REF	PART #	DESCRIPTION
121	P0513X2121	FENCE ASSEMBLY
121-1	P0513X2121-1	FRONT RAIL 640MM
121-2	P0513X2121-2	ADJUST BASE
121-3	P0513X2121-3	FIXED SHAFT
121-4	P0513X2121-4	SHAFT
121-5	P0513X2121-5	SPRING PIECE
121-6	P0513X2121-6	LOCKING HANDLE M8-1.25 X 44
121-7	P0513X2121-7	CAST IRON FENCE 590MM
121-8	P0513X2121-8	FLAT WASHER 8MM
121-9	P0513X2121-9	FENCE HANDLE M8-1.25 X 22
121-10	P0513X2121-10	RAIL PAD
121-11	P0513X2121-11	CONVEX WINDOW
121-12	P0513X2121-12	CAP SCREW M6-1 X 24
121-13	P0513X2121-13	LOCK BLOCK
121-14	P0513X2121-14	REAR RAIL 640MM
121-15	P0513X2121-15	HEX NUT M8-1.25
121-16	P0513X2121-16	FLANGE SCREW M47 X 6
121-17	P0513X2121-17	GUARD PIECE
121-18	P0513X2121-18	MOVING PLATE

REF	PART #	DESCRIPTION	
121-19	P0513X2121-19	PLUG	
121-20	P0513X2121-20	TAP SCREW M3.5 X 8	
121-21	P0513X2121-21	FENCE SCALE 18-1/2"	
121-22	P0513X2121-22	HEX NUT M6-1	
121-23	P0513X2121-23	LOCK WASHER 6MM	
121-24	P0513X2121-24	CAP SCREW M6-1 X 16	
121-25	P0513X2121-25	HEX BOLT M6-1 X 20	
121-26	P0513X2121-26	FLANGE BOLT M47 X 8	
121-27	P0513X2121-27	FLAT WASHER 6MM	
121-29	P0513X2121-29	SPACER PLATE	
126	P0513X2126	TABLE 17" X 24"	
127	P0513X2127	TABLE INSERT	
128	P0513X2128	TABLE PIN	
152	P0513X2152	MITER GAUGE ASSY	
350	P0513X2350	RESAW FENCE ASSEMBLY	
350-1	P0513X2350-1	ALUMINUM RESAW FENCE 590MM	
350-2	P0513X2350-2	TAP SCREW 3.5 X 8	
350-3	P0513X2350-3	FENCE END PLATE 148 X 22 X 1	



#### G0513X2B & G0513X2BF Fence Assembly & Table



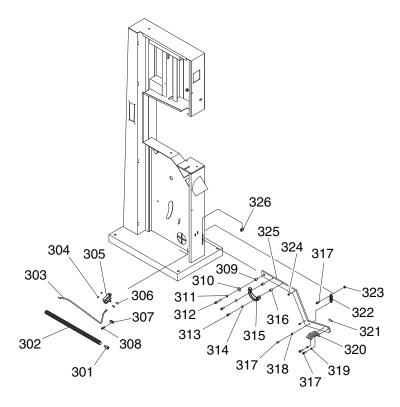


REF	PART #	DESCRIPTION
126	P0513X2B126	TABLE 17" X 24"
127	P0513X2B127	TABLE INSERT
128	P0513X2B128	TABLE PIN
152	P0513X2B152	MITER GAUGE ASSY
153	P0513X2B153	KNOB SCREW M8-1.25 X 20
154	P0513X2B154	OUTER RAIL PLATE
156	P0513X2B156	RESAW FENCE ASSEMBLY
156-1	P0513X2B156-1	ALUMINUM RESAW FENCE 590MM
156-2	P0513X2B156-2	TAP SCREW 3.5 X 8
156-3	P0513X2B156-3	FENCE END PLATE 148 X 22 X 1
157	P0513X2B157	FENCE ASSEMBLY
157-1	P0513X2B157-1	FENCE
157-2	P0513X2B157-2	POINTER
157-3V2	P0513X2B157-3V2	SET SCREW M8-1.25 X 25
157-4	P0513X2B157-4	SPRING PIECE
157-5	P0513X2B157-5	FLANGE SCREW M47 X 8
157-6	P0513X2B157-6	PIVOT BLOCK
157-7	P0513X2B157-7	HEX NUT M8-1.25
157-8	P0513X2B157-8	FENCE LOCK HANDLE

REF	PART #	DESCRIPTION
157-9	P0513X2B157-9	SHAFT
157-10	P0513X2B157-10	PLASTIC SET SCREW M7-1 X 10
157-11	P0513X2B157-11	NYLON PAD
157-12	P0513X2B157-12	SET SCREW M8-1.25 X 12
157-13	P0513X2B157-13	HEX NUT M8-1.25
157-14V2	P0513X2B157-14V2	HEX BOLT M8-1.25 X 20
157-15	P0513X2B157-15	HEX NUT M8-1.25
157-16	P0513X2B157-16	FLAT WASHER 8MM
157-17V2	P0513X2B157-17V2	LOCK HANDLE M8-1.25 X 45 V2.05.11
157-18	P0513X2B157-18	MOVING PLATE
158	P0513X2B158	FLAT WASHER 8MM
159	P0513X2B159	LOCK WASHER 8MM
160	P0513X2B160	CAP SCREW M8-1.25 X 20
161	P0513X2B161	FRONT RAIL
161-1	P0513X2B161-1	FENCE SCALE
162	P0513X2B162	INNER RAIL PLATE
163	P0513X2B163	FLAT WASHER 6MM
164	P0513X2B164	LOCK WASHER 6MM
165V2	P0513X2B165V2	CAP SCREW M6-1 X 20



#### G0513X2BF & G0513X2F Foot Brake



REF	PART #	DESCRIPTION
301	P0513X2F301	CONDUIT GROMMET
302	P0513X2F302	FLEXIBLE CONDUIT 1/2" X 42"
303	P0513X2F303	SWITCH CORD 16G 2W
304	P0513X2F304	HEX NUT 4MM
305	P0513X2F305	BRAKE SWITCH SHINOZAKI AZ7141
306	P0513X2F306	PHLP HD SCR M47 X 30
307	P0513X2F307	CORD CLIP 5/8"
308	P0513X2F308	TAP SCREW M4 X 8
309	P0513X2F309	BUSHING
310	P0513X2F310	FLAT WASHER 8MM
311	P0513X2F311	LOCK WASHER 8MM
312	P0513X2F312	CAP SCREW M8-1.25 X 25
313	P0513X2F313	CAP SCREW M6-1 X 25

REF	PART #	DESCRIPTION
314	P0513X2F314	LOCK WASHER 6MM
315	P0513X2F315	BRAKE SHOE
316	P0513X2F316	BUSHING
317	P0513X2F317	CAP SCREW M6-1 X 16
318	P0513X2F318	HEX NUT M6-1
319	P0513X2F319	LOCK WASHER 6MM
320	P0513X2F320	BRAKE PEDDLE
321	P0513X2F321	NYLON PAD
322	P0513X2F322	BRAKE EXTENSION SPRING
323	P0513X2F323	HEX NUT M6-1
324	P0513X2F324	STEP BOLT M7-1 X 10 W/BUSHING
325	P0513X2F325	BRAKE LEVER
326	P0513X2F326	RUBBER CLIP









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Model #		_ Order #	_ Serial #
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2.	Which of the following magaz	zines do you subscribe to?	
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3.	What is your annual househo \$20,000-\$29,000 \$50,000-\$59,000	old income? \$30,000-\$39,000 \$60,000-\$69,000	\$40,000-\$49,000 \$70,000+
4.	What is your age group? 20-29 50-59	30-39 60-69	40-49 70+
5.	How long have you been a w 0-2 Years	oodworker/metalworker? 2-8 Years8-20 Year	rs20+ Years
6.	How many of your machines	or tools are Grizzly? 3-56-9	10+
7.	Do you think your machine re	epresents a good value?Y	/esNo
8.	Would you recommend Grizz	ly Industrial to a friend?	/esNo
9.	Would you allow us to use yo Note: We never use names it	our name as a reference for Grizzly c more than 3 times.	-
10	Comments:		

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## **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.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.



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